Case Management Analysis and Training for the

Missouri Balance of State Continuum of Care Report

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Executive Summary

Homelessness is a critical social issue in the United States that needs to be addressed. Recent efforts in promoting rapid and stable homelessness exit (e.g., permanent supportive housing, rapid re-housing, family reunification, and supported self-resolution) call for comprehensive assessment (e.g., vulnerability assessment and needs assessment) and efficient and fair resource allocation (e.g., supportive services and housing sources). Case management programming is critical to such efforts and has been incorporated into agencies across the homeless service spectrum (e.g., outreach, shelters, and housing programs). Evidence-Based Case Management Models (EB-CM) designed specifically for people and families experiencing homelessness (PFEH) are available and have been proven to be efficacious in addressing PFEH's complicated needs and stabilizing their housing status. However, EB-CM's application in rural communities, such as communities covered in the Balance of State Continuum of Care (BOS COC), remains unclear.

Covering 101 counties, the BOS COC is geographically the largest COC in the State of Missouri. Compared to other COCs in Missouri, communities in BOS COC are likely to cover rural areas, thus may face very different challenges when implementing case management programs. Funded by the Missouri Housing Development Commission (MHDC), this project used a mixed method approach, involving online surveys and stakeholder interviews, to explore the current practice of case management, the challenges of delivering case management to PFEH, and the implementation of EB-CMs in BOS COC.

Findings from this project suggests that current case management services among providers in BOS COC share a similar philosophy (i.e., client-driven and harm reduction approach) and elements (e.g., client identification, comprehensive bio-psycho-social assessment, resource connection, action and goal planning, client advocacy, and constant progress monitoring). Providers, especially those who serve largely rural areas, faced challenges at different levels (i.e., individual, organizational, community, and system levels) to prevent them from implementing effective case management services. Nonetheless, providers are able to develop innovative strategies (e.g., community networking) to overcome barriers to deliver case management services to their clients. Finally, awareness and implementation of EB-CMs was not consistent across providers in BOS COC; however, the shared client-driven approach and consensus on elements that are critical to effective case management programming among providers suggest that dissemination of EB-CM with careful consideration of target population, organizational capacity, and community context may be promising in delivering efficacious case management services in BOS COC.

Homelessness in Balance of State Continuum of Care, Missouri

Homelessness is an imperative social issue in the United States that needs to be addressed. People and families experiencing homelessness (PFEH) are vulnerable to multiple, oftentimes co-occurring adverse outcomes such as chronic diseases, mental illness, substance misuse, victimization, and low quality of life.[1] It is estimated that the lifetime and 1-year prevalence of homelessness in the U.S. is 4.2% and 1.5%,[2] respectively. A recently published study[3] suggested that approximately 3.5 million young adults experienced homelessness in the past year. Furthermore, a recent increase of homelessness in the U.S. was observed for the first time after a decade of decrease in 2018.[4]

Homelessness in Missouri slightly decreased in 2018. The latest point-in-time count suggested that just under 6,000 individuals experienced homelessness in any given night in Missouri in 2018, as compared to 6,037 in 2017.[5] Compared to national statistics, a higher proportion of PFEH in Missouri is likely to be connected with shelter services (80% vs. 68%). The state of Missouri involves eight Continuum of Cares (COC). Among the eight COCs, seven are located in mostly urban communities. The eighth COC, the Balance of State COC (BOS COC) is geographically the largest COC, serving 101 Missouri counties, which are predominantly rural communities.[5] Similar to other states, homelessness in Missouri is concentrated in the seven metropolitan COCs. Therefore, fewer services that counter homelessness are available in BOS COC. Furthermore, because of the vast rural area covered in the BOS COC, these services are scattered across a wide service area, covering multiple counties. Although the BOS COC faces great challenges, such as lack of transportation services for PFEH to access services and lack of affordable housing, a decrease of homelessness in the BOS COC has been observed since 2012[5] and is attributed to the devotion and collaboration among providers within this area.

Homelessness in Rural Communities

While homelessness is a national issue, PFEH in rural areas are more scattered and hidden compared to PFEH in urban communities,[6] adding complexity to an already complicated issue. Providers in rural communities usually have to cover larger geographical areas with limited service options and housing resources. Therefore, PFEH in rural areas are likely to experience longer periods of homelessness before they exit homelessness, whether through housing programs (e.g., permanent supportive housing or rapid-rehousing), family reunification, or self-resolution. In fact, one recent study[7] analyzing homeless management information system (HMIS) data collected in 16 communities across the U.S. suggests that individuals in rural communities may experience prolonged wait times to exit homelessness via housing as compared to their counterparts in urban and suburban areas.

Prolonged experiences of homelessness may exacerbate the aforementioned adverse outcomes among PFEH, which likely further reduces their chance of exiting homelessness. Increased instances of chronic homelessness in communities may escalate public costs (e.g., emergency room visits). Indeed, it is estimated that an individual experiencing chronic homelessness on the street for one year will cost taxpayers $30,000 to $50,000, while only costing $12,000 per year[8] if connected with housing and supportive services. Therefore, the current strategy to address homelessness adopts the housing first approach (i.e., low threshold housing allocation with housing resources prioritized based on PFEH's vulnerability).[9] To address the complex needs of PFEH in rural communities where resources are lacking, the use of case management is critical. Case management is a tool that can aid in assessing PFEH's

vulnerability and connecting rural PFEH with appropriate housing and services in a timely manner with the goal to end homelessness.

Homeless Case Management

Case management is widely incorporated as a cornerstone of routine services in the homeless service spectrum (e.g., drop-in centers, emergency shelters, transitional living programs, and permanent supportive housing) to address PFEH's complicated needs with the overarching goal to sustain their housing status. Case management services that target vulnerable populations, including PFEH, are likely to share some similar components (e.g., outreach, assessment, planning, linkage, monitoring, and advocacy), through which, ideally, the complicated and co-occurring needs of PFEH can be addressed. Evidence-based case management (EB-CM) models geared specifically towards PFEH, such as assertive community treatment (ACT), intensive case management (ICM), and critical time intervention (CTI), have also been developed, rigorously tested, and disseminated across communities in the U.S. with promising results in addressing homelessness.[11] Indeed, one study[12] focusing on implementation of the housing first model in rural Vermont suggests that integrating technology (e.g., telehealth) and adapted EB-CM (i.e., adapted ICM and ACT) may be promising in addressing rural homelessness.

However, except for the one study previously mentioned, current knowledge regarding case management practices targeting PFEH mostly focuses on urban areas, with less understanding about practices in rural communities such as communities covered in the BOS COC. It is unclear how case management services are currently provided in the BOS COC, and it is unknown whether EB-CMs are adopted or adapted within the BOS COC area. Therefore, this project examines the variation of case management models, shared case management components across providers, challenges faced under current practice, and perceived ideal case management models that meet clients' needs and are reflective of agencies' capacity and community context.

Current Project

Funded by the Missouri Housing Development Commission (MHDC), the case management analysis and training for the Missouri Balance of State Continuum of Care project aims to explore and document current case management practices (e.g., case management models, delivery strategies, elements that works well with PFEH, perceived case management implementation challenges, provider awareness and understanding of EB-CM, and perceived pros and cons of EB-CMs) in the BOS COC.

Method

This project adopted a mixed method approach to collect both qualitative data and quantitative data from homeless services providers in the BOS COC. Specifically, quantitative data were collected using online anonymous surveys, while qualitative data were collected via individual in-person and online interviews that utilized both audio and video.

Participant Recruitment and Data Collection Procedures

A purposive sampling strategy was utilized to recruit participants. The eligibility criteria for both surveys and interviews are providers in the BOS COC area who have direct (e.g., case managers) or indirect (e.g., case manager supervisors or administrators) experiences providing

case management services. Providers qualified for this project were identified and referred by MHDC. Specifically, for the online anonymous survey, email invitations explaining the purpose of this project with survey links were sent to eligible providers via provider listserv maintained by MHDC. To increase participation, reminder emails coupled with the survey link were also sent to providers through the same listserv. After clicking the survey link, providers were directed to the consent form where they could provide their consent to participate in the project. Information collected through the survey included provider demographic information, case management elements, case management delivery method, and specific case management models adopted. Overall, 122 providers responded and agreed to participate in the survey, and 111 completed the survey.

For the in-person and online qualitative interviews, eligible providers were first referred by MHDC. The study team then followed up with referred providers to schedule interviews, and 15 providers were interviewed. Some interviews were conducted in person while others were conducted online via Zoom instead of conventional interviews to overcome the geographical barriers and to reduce participant burdens. Informed consent was collected at the beginning of the interviews. All interviews were audio recorded and lasted no longer than 90 minutes.

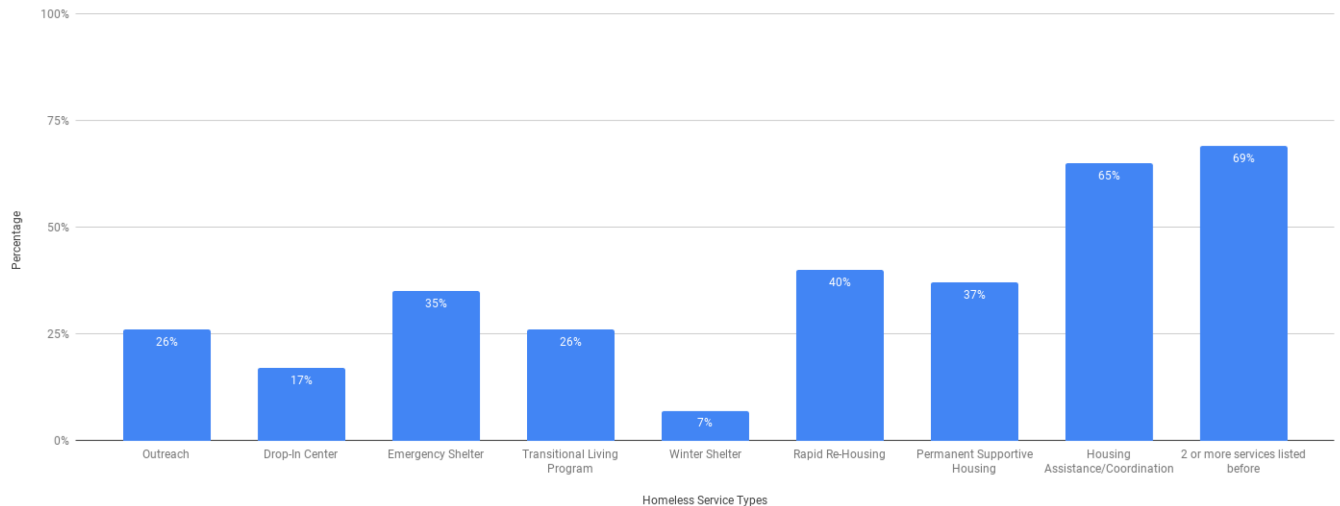
The online interviews covered topics such as current case management practices and delivery, perceived critical elements of case management models, perceived challenges in implementing case management, awareness of EB-CM and perceived relevance, and feasibility and sustainability of EB-CMs. To identify potential relevance, feasibility, and sustainability of EB-CMs regarding the BOS COC providers' target population, the interviewers introduced three EB-CMs by giving a brief description of each. Assertive community treatment (ACT), intensive case management (ICM), and critical time intervention (CTI) were described one at a time and were assessed by the interviewee based on their target population, organization capacity, and community context. The pros and cons of each EB-CM were discussed in the interviews. Finally, the interviewer asked the interviewee to rank the EB-CMs based on relevance, feasibility, and sustainability for their target population at their organizational setting and in their community. This procedure aimed to formulate a consensus on a potential EB-CM that may be promising for future adaptation in the BOS COC. This project was approved by the IRB at the University of Missouri.

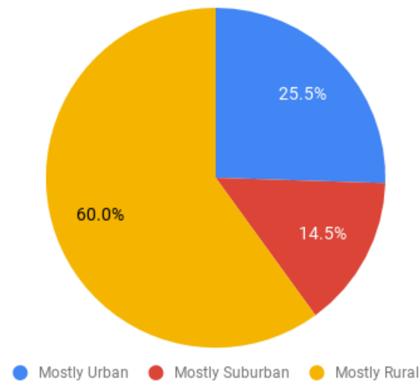
Analysis

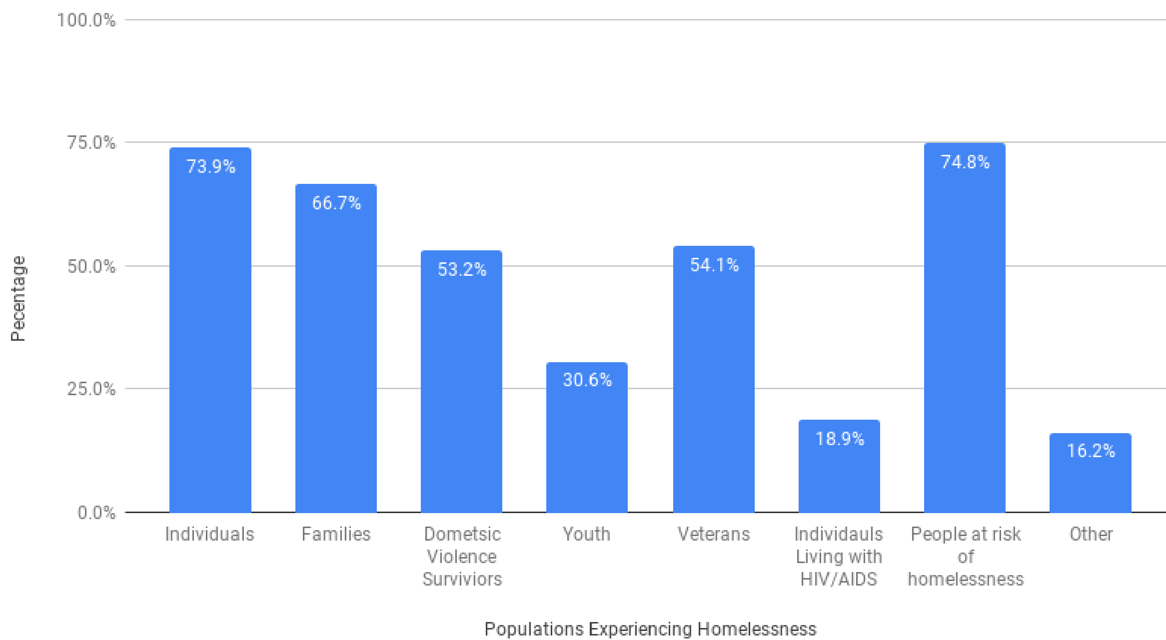
Descriptive statistical analysis was conducted with the quantitative survey data to identify common case management elements and variation of case management models adopted among providers in the BOS COC. Likewise, the information gathered from the qualitative interviews was entered into a case summary matrix, and cross-case analysis[13] was conducted to examine between and within cases using template coding that followed the qualitative interview questions. Domains examined included the current case management methods utilized and how case management can address homelessness, practices that work well and challenges faced in implementing case management with persons experiencing homelessness, ideal case management practices, and the pros and cons of the three EB-CMs introduced to interviewees. Once the matrix was generated, three members of the team separately examined between and within cases to develop consensus-based findings.

Participant Characteristics

Among the 111 survey participants, the mean age was 46.45 (SD=12.2), with an average of 9.7 years of experience (SD=8.2) in working with PFEH. Most of the participants self-identified as female (81.8%), white (83.6%), and heterosexual (90.6%). Close to 90 percent of the participants have at least a bachelor degree or above. For participants who hold a master's degree (n=43), the majority of them (45.3%) are from the field of social work. In terms of their position within the agencies, 53.6 percent identified as case managers, 25.4 percent were supervisors, and 20 percent were administrators. Participants reported that their affiliated agency provided comprehensive programing across the homeless service spectrum. Most agencies (93.6%) provided more than one major homeless service (e.g., shelter and housing). Figure 1 provides the specific breakdown of homeless programing that the participants' agencies covered. As for the service area, close to 60 percent of the participants were affiliated with agencies whose service areas are mostly rural (Figure 2). Finally, as for population served, similar to homeless service programing, participants in this project were from agencies providing services to diverse populations experiencing homelessness, with individuals, families, and veterans being the top three target populations served. Figure 3 illustrates the detailed breakdown of populations served by participants' affiliated agencies. It should be noted that for this figure, each affiliated agency may serve more than one populations. In terms of online interview participants (*n*=15), the average age is 48.11 (SD=10.5), with an average of 9.2 years of experience (SD=10.2) working with PFEH. All but one participant identified as female. All of the interview participants had at least a bachelor degree or some college.







Case Management Elements

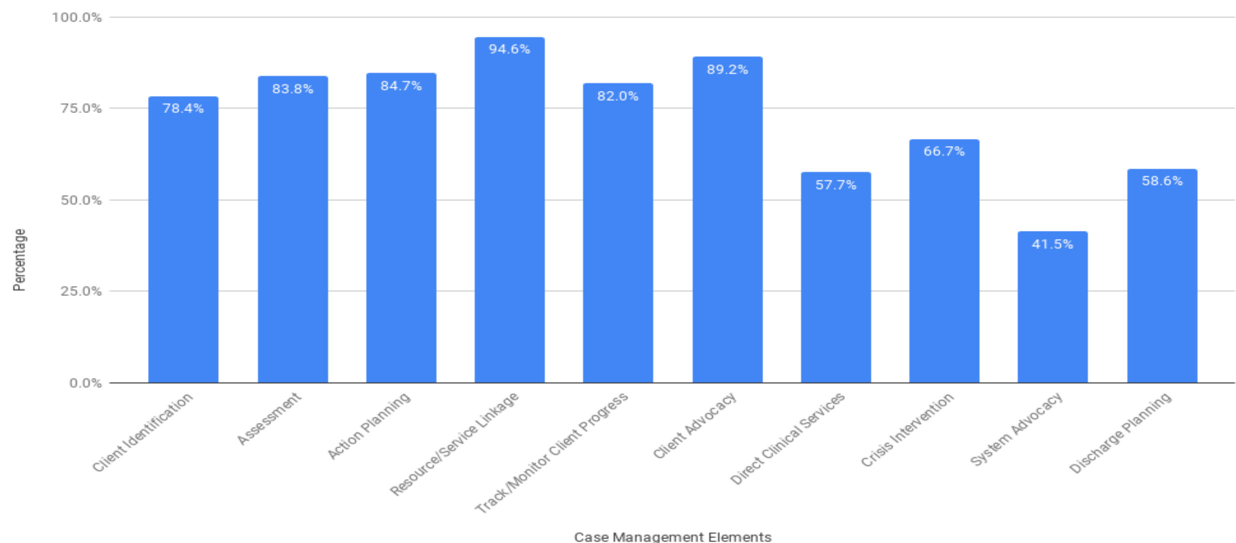
All participants in the qualitative interviews highlighted the crucial role case management services play in ending homelessness by addressing clients' multifaceted needs critical to transitioning to and maintain housing. Specifically, participants suggested that, through case management services, case managers are able to develop the needed rapport with PFEH that allows them to identify the PFEH's needs, connect them with needed resources, and provide the continuous support and follow-ups necessary to achieve their goals. Ideally, through case management, case managers can work with PFEH to navigate their past experiences, current needs, and future goals.

> *"Homelessness is not a simple issue. It does not have to do with just housing. So case management services are an inclusive and cost-effective way of dealing with all of the*

issues that a person experiences relating to homelessness, and relating to um there is disability, and otherwise."

"Case management has a critical role when people are struggling with their health and crisis…you being able to have case management and clinical skills to help people to apply solutions to their problems, their barriers. [Our case management], which really focusing on getting people in housing, and then once they are in housing helping them stay housed…to me, case management is just like helping clients work through those tasks. Our role in case management is kind of help the clients, empower them to work through [barriers]…to have better quality of life, better housing outcomes, better health outcomes."

Consistent with literature,[10, 11] both quantitative and qualitative data collected in the project highlighted that agencies in the BOS COC, albeit targeting different subpopulations experiencing homelessness (e.g., veterans, families, and youth), incorporate many similar elements in their case management practices. As illustrated in Figure 4, such elements include client identification, comprehensive bio-psycho-social assessment, resource connection, action and goal planning, client advocacy, and constant progress monitoring.

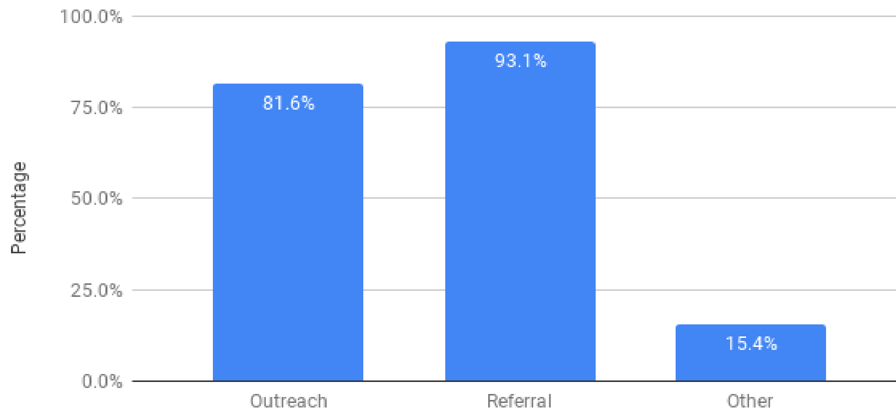


For client identification, the majority of the participants' agencies identified clients both though active outreach and referral from other agencies (please refer to Figure 4-1). As for bio-psycho-social assessment, topics such as immediate subsistence needs (e.g., food and clothing), social service needs and eligibility (e.g., SNAP, GR, and SSI), financial condition and needs, housing history, job readiness, general health status, and behavioral and mental health history and status are widely included in case management practices in the BOS COC (please refer to Figure 4-2). However, assessment regarding victimization and trauma history, legal needs, and childcare needs are less likely to be incorporated in the case management practices.

As for resources connection, almost all participants are aware of resources within their own agencies or within the communities and had connected clients with such resources. This finding may explain why direct services (e.g., clinical services) provision is not widely

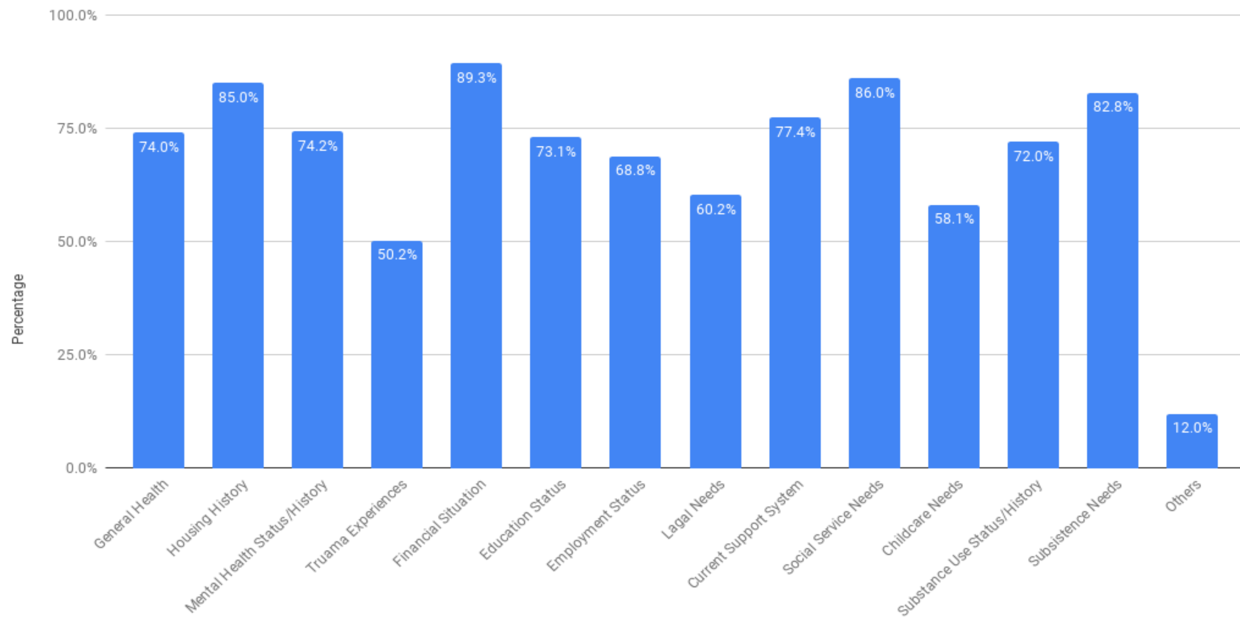
incorporated in case management practices among providers surveyed; rather, clients' clinical needs may be met by connecting them with clinical services provided externally.

Figure 4-1. Client Identification Mechanism (n=81)



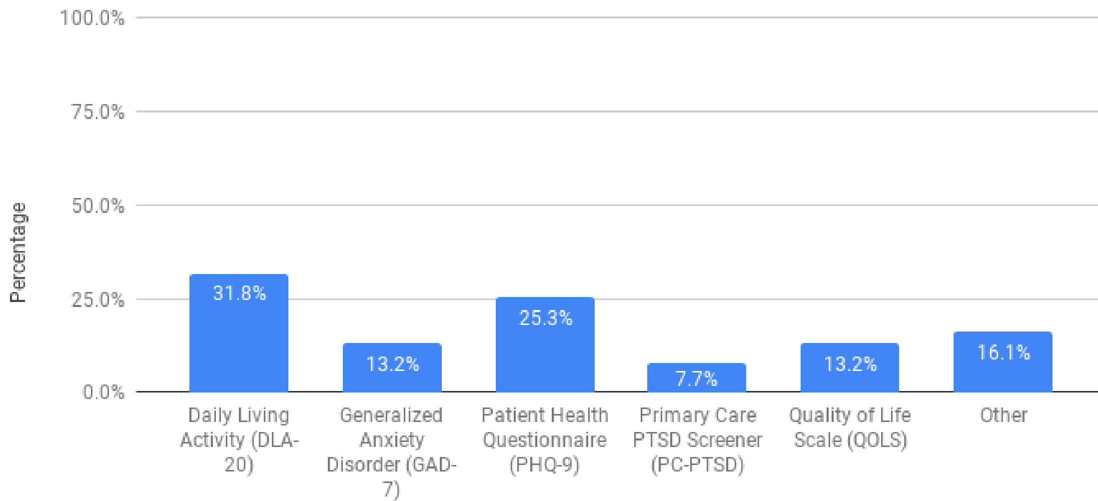
Note. Only applies to agencies that included client identification in case management services.

Figure 4-2. Topics Included in Case Management Bio-Psycho-Social Assessment (n=93)



Note. Only applies to agencies that include bio-psycho-social assessment in case management services

In terms of constant progress monitoring, the majority of participants said that their agencies rely on case notes to monitor PFEH's progress and changing needs. Some participants' agencies had also adopted the use of established measurements (e.g., quality of life scale and daily living activity scale) when monitoring client progress, although to a lesser extent as compared to case notes (42% vs. 87%). Daily living activity scale (31%) is the most widely utilized measurement (Figure 4-3) in monitoring client and program progress.



Based on the quantitative survey, advocacy at the system level has not been widely incorporated in case management services across providers in the BOS COC. Qualitative data suggest that providers in rural areas where resources are limited or homelessness are less acknowledged as an issue within the communities are likely to incorporate advocacy at the system level in their case management services. The goal is to form a network of agencies to deliver diverse resources and raise awareness of homelessness within rural communities.

> *"What we were finding working in the community is that it [homelessness] is not intuitive to people, and so a lot of the work we do is just trying to get people housed more quickly. So doing a lot of training with community partners on the local homelessness issues…"*

Although not depicted in the quantitative survey, perhaps the most common theme guiding case management practices in the BOS COC, as suggested by these qualitative data, is the client-driven philosophy (i.e., consumer choice) through which PFEH are empowered to take action and start their own "journey toward exiting homelessness."

> *"[Case management] meet them [clients] where they're at…trying to involve the community than doing all yourself, getting clients involved, getting resources in, giving [clients] information, and let them go their own way…"*

> *"The biggest thing for me that I found in my experience is always letting the clients drive the conversation and the case management approach. So for example, which is why we do our big needs assessment cause it really helps us get a starting point…but, we always say ok, now we asked you all these questions, what do you need right now that helps you feel safe, that will help you feel relaxed, to help you feel like today could be a good day…"*

A client-driven approach allows PFEH to play an active role in navigating their own needs, determining service participation, and identifying next steps and goals for themselves. Through this guiding philosophy, PFEH are empowered to make decisions for their lives and, at the same time, have accountability. The client-driven approach adopted among providers in the BOS COC is consistent with current trends in ending homelessness using the housing first model. In fact, the evidence-based housing first model developed by Pathway to Housing[14] includes client choice as one of the critical elements that allows clients to express their housing preferences and service participation.

Case Management Delivery

Both survey and interview data suggest case management delivery varied across agencies in the BOS COC. The survey results suggested that approximately 43 percent of the providers' case management services were time-limited (please refer to Figures 5 and 5-1). However, the time limitations for case management services among these providers also vary widely (mean=12 months; median=7 months; SD=11.62). Among providers who identified their case management services are time-limited, close to 60 percent of them focus on clients' "critical transitioning" phase, such as transitioning from homelessness into supportive housing (please refer to Figure 5-2 for detailed breakdown). In terms of case management delivery frequencies, close to 40 percent reported that their agency delivers case management services to clients at least once per week. However, over 30 percent of the participants said that the frequency of their agency's case management service delivery is based on client needs (please refer to Figure 6). Regarding case management service delivery locations and hours, close to 75 percent of the participants stated that their case management services are provided in a fixed schedule at a fixed location.

Figure 5. Case Management Delivery Time Frame (n=111)

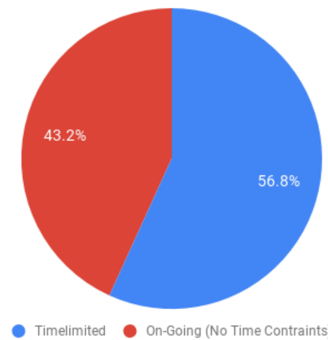
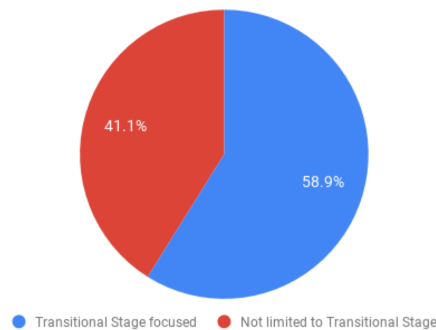
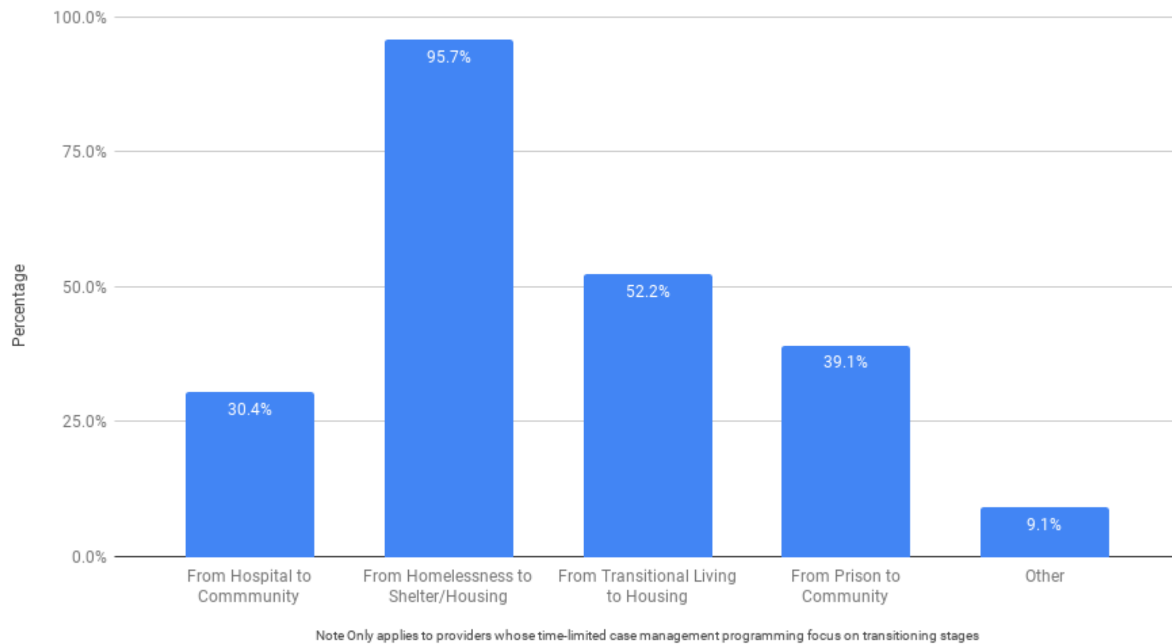
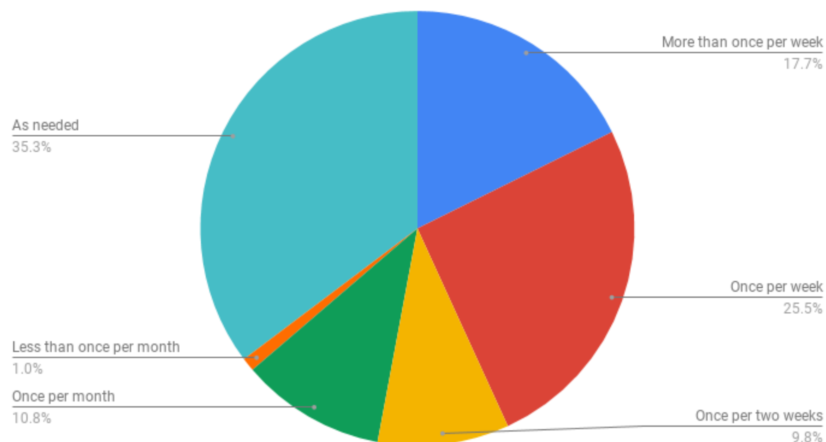


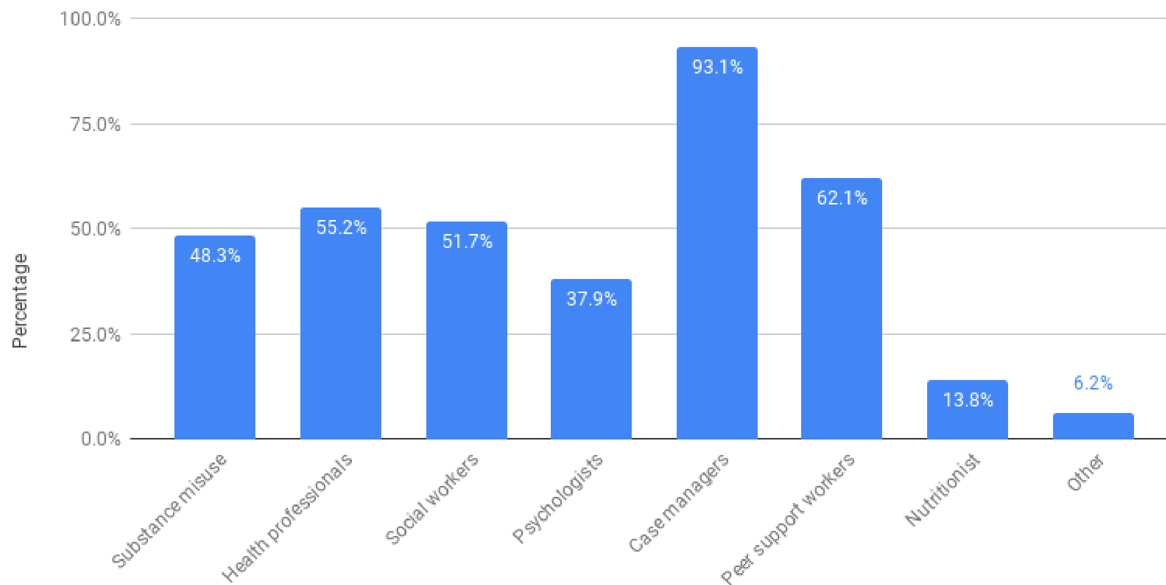
Figure 5-1. Time-Limited Case Management Programming Focus (n=48)





In terms of client care responsibility, 70 percent of participants said that case managers are responsible for the majority of client care within their agency's case management program, while 26 percent expressed that a multidisciplinary team shared the care responsibilities. A more detailed look at the composition of multidisciplinary teams among those agencies where client responsibility was reported to be shared by a team of members is available in Figure 7. Among these interdisciplinary teams, we found that team members come from diverse professions, including substance abuse treatment specialists, health professionals (e.g., physicians or nurse), and social workers. Additionally, it should also be noted that over half of these agencies included an element of peer support in their case management practices, which has been identified in literature and the Department of Housing and Urban Development as critical in addressing the needs of PFEH.[15]





The diversity of case management services may be based on what participants perceived as most convenient for their clients, while at the same time addressing the resource constraints that their communities and agencies face. For example, a closer look at the data suggests that agencies, whose service areas are mostly rural, are two times more likely to provide case management services in a fixed schedule at a fixed location, as compared to agencies in urban or suburban areas. It is possible that agencies covering a wide rural area may lack the transportation and staff resources necessary to complete the work. However, case management delivery that operates at a fixed schedule and in a fixed location may help PFEH and other collaborating organizations know where and when they can go to reach out for case management services, as suggested by one qualitative interview participant. Alternatively, some participants believe that going to clients where they are located within the community to actively deliver case management may help reduce client barriers to accessing services.

Finally, considering the current trend in using mobile technology to connect vulnerable populations in remote areas with needed resources, the project also explored the incorporation of technology in current case management practices. A small percentage (11%) of survey participants responded that their agencies' case management services currently incorporate technologies. However, even for those agencies where technology was reported to be utilized in case management services, its application was limited to searching for potential services that may meet their clients' needs. Although we did not find a high level of technology incorporation in case management practices, considering the wide geographical areas covered by homeless service providers in the BOS COC, it may be prudent to explore the potential of technology use (e.g., mobile device case management application or tele-case management) in case management practices.

Case Management Implementation Challenges

Mainly through qualitative interviews, this project has identified challenges at multiple levels (i.e., individual, organizational, community, and system levels) faced by homeless service providers to deliver case management services. Although such challenges are at different levels, they appear to be intertwined and, thus, create an environment that complicates the implementation of effective case management services for PFEH.

At the individual level, case managers face challenges in strategies to engage and motivate clients to take the necessary action required to address their own needs and, ultimately, to exit homelessness. According to client-driven philosophy, clients are to be engaged throughout the case management process (e.g., needs identification and action plan development and implementation, and evaluation), while case managers' role focuses on supporting clients making decisions, providing feedback, and connecting needed resources. However, because case managers and their clients are likely to come from different backgrounds and life experiences, their beliefs may differ. For example, the priority of needs to be addressed and goal setting are two areas that have been reported to be complicated by a difference in beliefs among provider and client. Often homeless service providers are evaluated by how fast they transition PFEH from streets to housing with limited resources available. Interview participants expressed a challenge in working with clients when needs and barriers are perceived one way by the client and another by the providers.

> *"The mindsets of a lot of folks, too. They file to so many services, so it gets overwhelming [to the clients]. They just want to bring down a little bit…just focus on the basics."*

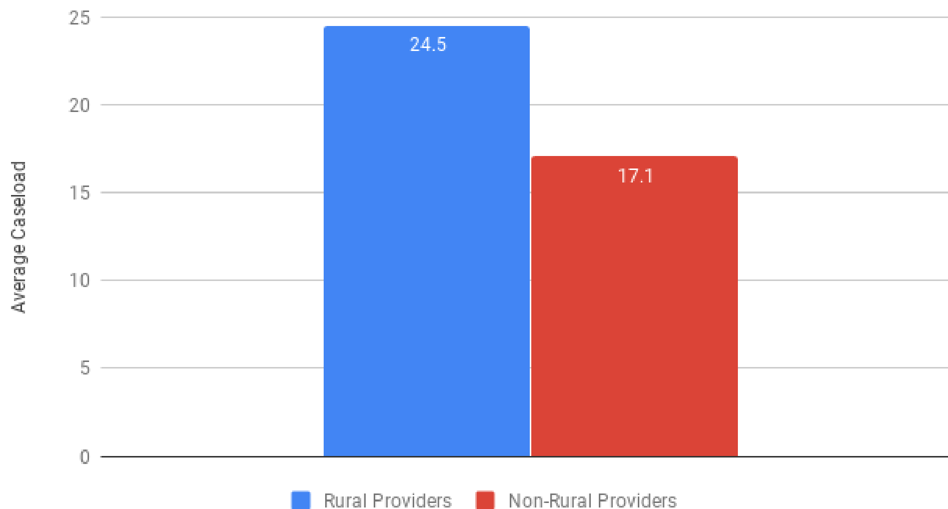
> *"I think the biggest challenge is the differences in mindset between myself as an advocate and the people experiencing homelessness…a lot of the times we think we know what the barrier [for people experiencing homelessness] is, and it might not really be the barriers."*

Transitioning from literal homelessness to housing is a significant life event, which means changes in lifestyle (e.g., sleeping in a park to sleeping in an apartment), mental status (e.g., change in perceived safety), and social ties (e.g., change in friends). Such changes within this transitional period for homeless service clients contribute to the need for case management services, as case management has proven to support in accessing and maintaining housing for PFEH.[16] However, providers highlight challenges in engaging PFEH for follow-up services once they are housed. Without proper follow-up opportunities, case managers are not able to continuously monitor PFEH's changing needs, should that be needed, and provide timely assistance.

> *"The barriers…a lot of it just, people were just…they're never there. Um, Contact their phone, you can never get a hold of it. Their phone numbers were turned off, or changed…"*

The macro-level (i.e., organizational, community, and system level) challenges in implementing case management focus on limited available resources. Limited staff resources and turnover in staffing for agencies covering wide geographical areas may lead to high caseloads and thus prevent case managers from providing quality services. The quantitative survey data

found that case manager caseloads vary widely across participants' agencies. The average client-to-case manager ratio in rural agencies is 25.6 (SD=19.1; ranging from 5 to 125). As later discussed, high caseloads may also limit agencies' ability to deliver EB-CM, as many of them require lower client-to-case manager ratios to provide intensive and timely care.



High caseloads, when combined with barriers at community and system levels, may make case management service delivery increasingly more challenging for providers in rural areas. In rural communities, the lack of health, mental health, and behavioral health services create barriers for case managers to connect clients with needed resources. Additionally, the lack of affordable housing and transportation services, scattered service sites, limited services and housing programs for individuals with criminal histories, and lengthy procedures and complicated documentation that is required for PFEH to access needed social services are identified as barriers for case management programs to be implemented effectively in rural communities. Although not the major focus of this project, high-level challenges identified in this project may warrant a more detailed exploration on macro-level challenges faced by homeless service agencies and potential strategies to address those barriers.

> *"I think the major barrier for individuals who's doing case management may be overworked, possibly understaffed and overworked. You have too many people in your case management list; you can't contact them all once a week. The ideal would be once a week…"*

> *"Not enough housing available in the community…it's frustrating… and transportation, in between cities…just horrible"*

Perceived Ideal Case Management Models

In both qualitative interviews and quantitative surveys, through open-ended questions, participants were asked what their ideal case management model would look like to help generate case management elements helpful in addressing homelessness in the BOS COC. Although participants in the project came from agencies located in different service regions and

provide services to different subpopulations experiencing homelessness, they share similar perceptions regarding the ideal elements for a successful case management model. These elements include client engagement and follow-up, individually tailored services for each client, strong community-based relationships with other service providers, and continual evaluation of client progress and the effectiveness of service provision.

Providers highlighted the importance of maintaining contacts with clients in a successful case management model. The capacity to follow-up with clients in a case management model should not just aim to address the issue of transiency when clients are still experiencing homelessness, but also support stability after they exit homelessness (e.g., received housing resources, reunified with families, or self-resolved).

Participants in qualitative interviews provided some insights on potential strategies to facilitate and maintain connections with PFEH. For example, to address transiency, case management intake assessment should collect information regarding specific places and geographical areas where clients are likely to visit and also maintain contact information not just limited to clients, but expanding to their network members (e.g., previous case manager, peers, or close relatives) who may know their whereabouts and also may feel comfortable being contacted by providers. To maintain continuous connection, it is critical for case management programs to foster positive client-case manager relationship, involving the client throughout the decision-making process, building in incentives in programing, and communicating with the client regarding their responsibility and program expectations (e.g., case management frequency).

Ideally, participants expressed that case management programs should be tailored to individual client need and situation. For example, case management services can be delivered more frequently at the beginning of service, when PFEH may experience multiple and complicated needs. More frequent case management service provision may also help case managers to develop rapport with clients. Once clients' imminent needs are addressed, case management delivery frequency can be reduced; however, the consensus based on qualitative and quantitative data collected in this project, is contact no less than once per month. Participants also stress that PFEH's needs are constantly changing, given the often chaotic experiences associated with homelessness (e.g., victimization) or other experiences after exiting homelessness (e.g., conflicts with landlords). Therefore, the intensity and frequency of case management services should have the capacity to respond to clients' needs. Such an individually tailored approach to case management requires an understanding of client need when in transition. This process reflects some of the core elements incorporated in various EB-CM practices (e.g., CTI and ICM) and suggests the potential of applying EB-CM practices in the BOS COC.

Strong community stakeholder relationships has also been identified as one of the crucial elements in ideal case management services, especially for providers in rural communities where resources are limited. With strong community stakeholder networks, such as Functional Zero Task Force in Boone County, case managers can collaborate with other agencies more efficiently in housing prioritization and connecting PFEH with needed, comprehensive resources. Such networks also allow providers to raise awareness of homelessness locally.

> *"It is our responsibility as an organization in the community [to ensure people aware of our presence]. I believe to become part of the community. There are lots of opportunities in most communities…for organizations to get together and network…we are often*

invited to community assessment programs or community assessment meetings. Each of the case management staff is required to do some kind of on-going outreach program to other community organizations."

Participants also suggested that an ideal case management program should include continuous evaluation. With continuous evaluation, case managers will be able to closely monitor clients' needs and progresses. Evaluation can also allow providers to demonstrate the effectiveness of the program for future program improvement. Continuous evaluation may look different for each client, involving light touches or more hands-on support.

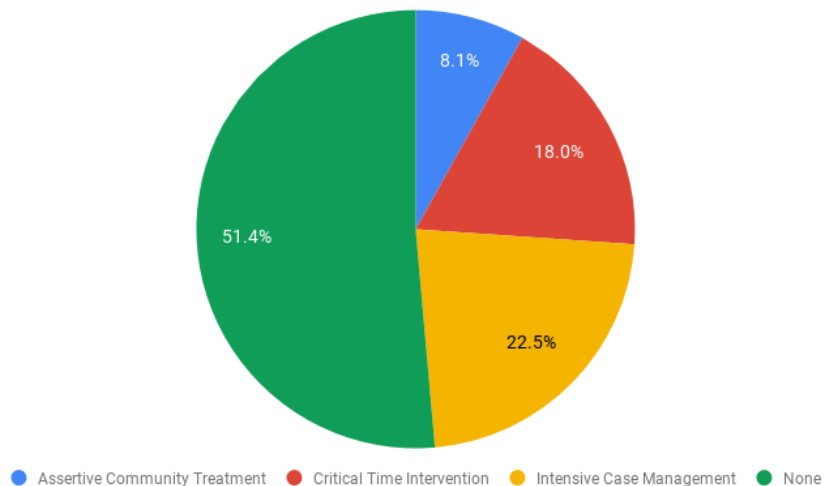
"Every program should have stated outcomes, initially. Case managers need be very aware of these stated outcomes. They should have something to do with the goals throughout the case management process. The outcomes then at the end of, sometimes periodically throughout the case management program, we need to measure outcomes, but particularly important at the end of the contact to see the outcomes that we met or not met. So if we are meeting all of these outcomes, or most of these outcomes most of the times. That tells us we are doing our job well, or it tells us our goals are too easy…"

EB-CM Implementation in BOS COC

One of the important goals of this project is to gain more understanding about the implementation of EB-CM in the BOS COC. The quantitative survey focused on exploring the implementation of the three major EB-CM practices (i.e., CTI, ICM, and ACT) within the BOS COC, while the qualitative interviews focused on exploring the potential feasibility, sustainability, and relevance of the three EB-CM in the BOS COC.

Findings from the quantitative survey suggest that 48.9 percent of the participants' agencies are currently implementing at least one of the three major EB-CM models listed above, with ICM being the one most widely implemented (22.5%) and ACT being the least (8.1%).

Figure 9. Evidence-Based Case Management Model Implementation (n=111)



This finding is somewhat inconsistent with qualitative interview findings, in which nearly all participants expressed a lack of awareness of any EB-CMs. Only 2 interviewed participants expressed with certainty that organizations in their service area provided ACT while only one

participant had received training on CTI. Therefore, we decided to do a closer investigation of the quantitative data by comparing perceived EB-CM adopted and the case management elements (e.g., case load, case management duration, delivery frequency, composition of case management team) included in practice. The results suggested that there may be gaps between the perceived EB-CM adopted and the actual case management methods practiced among providers. For example, among the 9 participants who expressed the EB-CM model adopted in their agencies was ACT, only three of those include case management services that are provided via a multidisciplinary team, a core element of ACT. In addition, 60 percent of the participants who perceived that CTI was adopted in their agencies' case management practices did not feature a time-limited element focusing on transitioning stages. The inconsistency between qualitative findings and quantitative findings may be because in the qualitative interviews interviewers were able to introduce each of the three EB-CMs in detail. Nonetheless, the preliminary findings of this project on EB-CM implementation in the BOS COC may warrant a more in-depth study in the future to identify implementation and dissemination of EB-CMs in this area. For example, future project should involve organizations implementing EB-CM to explore the fidelity of their EB-CM practices and identify modifications made in such practices. In addition, more efforts may be needed to disseminate trainings and workshops regarding EB-CMs (e.g. CTI) that has the potential to be implemented in the BOS COC to raise awareness of and interest in implementing existing EB-CMs. Currently, based on our initial qualitative data, only participants affiliated with the Department of Veterans Affairs received trainings on EB-CMs.

Although awareness and implementation of existing EB-CMs may not be prevalent among providers in the BOS COC, it should be noted that current case management practices in the BOS COC share many elements identified as critical in EB-CMs. For example, all three major EB-CMs highlight client-driven philosophy and individually tailored approaches, which as previously mentioned are fairly common in current case management practices in the BOS COC. Therefore, it is promising for providers in the BOS COC to navigate and identify one or even multiple EB-CMs, depending on their target populations and level of care needed, for future adaptation to address their clients' needs while also reflecting their agencies' characteristics and community contexts.

Participants in qualitative interviews highlighted several pros and cons regarding each of the three major EB-CMs. In general, all participants felt the EB-CMs were likely to address their clients' complicated and oftentimes co-occurring needs. The major concerns that providers had regarding the implementation of EB-CMs focused on sustainability. All three EB-CMs require low caseloads to allow case managers or multidisciplinary teams to provide tailored services to each individual client and address needs as they arise. For example, multidisciplinary ACT teams are usually available in some capacity to clients 24 hours a day, seven days a week, and case managers make frequent contact regarding needed services.[17] Regarding the ICM model, services are generally available at least 12 hours per day[18]; while the CTI model[19] requires providers to frequent clients in community settings to assist in building natural supports beyond case management. However, considering the challenges cited by interview participants regarding transportation access and other staff resources, the implementation of EB-CMs with fidelity may not be feasible for agencies in rural areas that cover wide geographic areas. Nonetheless, previous research in rural communities in Vermont suggests that with technology supports (e.g., tele-health) may help implement EB-CMs by facilitating case management team accessibility and increase consumer contact. More studies focusing on exploring the feasibility, acceptability,

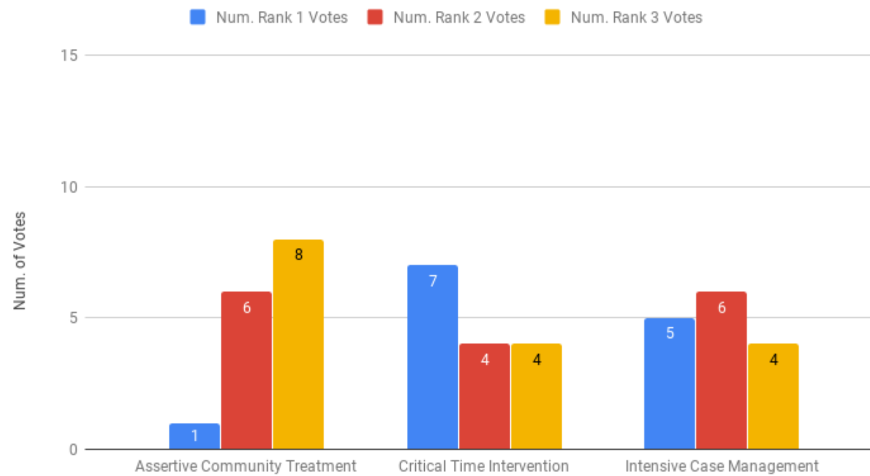
sustainability, efficacy of supplementing existing EB-CM with technology in rural communities may be needed.

> *"The model [ACT] would be like awesome to have a multidisciplinary team, like medical care you said, some legal advice from attorneys, that would be great helping people get housed, and keeping people housed or whatever the situation is. But I do not think it is not feasible at all in this rural community. The cost is the difficult to get businesses, the leaders in the communities to buy into it…this is a small town, there are not a lot of community providers. It is actually easier here [where the agency is located], but in other counties [where the agency also serves], there are a lot of poor counties…"*

> *"It [ICT] could somehow be incorporated in housing assistant [programs]…but here once again, here we are in rural area, people keep it to themselves a lot…they prefer lower level, that would be good for someone who need help integrating into society, but our clients may not want that intensive services. I think, once again, this is more for urban area…"*

> *"To me, this [CTI] sounds to be the best fit for our area. The only issue is that there are so few resources available for this type of case management. I get phone calls like this every day from prison when someone is being released. Now in Missouri, someone is released from prison, and they don't have a home plan, they are released into the county where they're charged against…This type of case management would work better in our community. The only con is the lack of resources available for these people. There needs to be more homeless shelters, more transitional housing, half way houses, yeah for them in this area."*

Finally, after taking client characteristics, organizational features, and community context into consideration, the interview participants ranked CTI as the EB-CM that can be integrated in their current case management practices in the BOS COC. CTI was chosen by interview participants because CTI focuses on clients' critical transitioning phases (e.g., from street to housing) and is time-limited (usually no longer than 9 months), with service intensity gradually reducing over time. These characteristics of CTI were reported by participants to fit best with what most are currently implementing or aiming to conduct in their case management practices. It should be noted that given the small sample size of interview participants, we are not able to discuss the nuances regarding which EB-CM model(s) may be most suitable for specific providers (e.g., housing providers vs. shelter providers), especially when the PFEH they serve may differ (e.g., individuals with severe mental illness vs. individual at risk of homelessness). Given that the three EB-CMs may be designed specifically for different PFEH subpopulations (e.g., ACT is geared towards individuals who experience chronic homelessness with severe mental illness, while CTI is geared towards PFEH with less severe needs), findings of this project also call for future studies on exploring specific EB-CMs that may be suitable for specific types of homeless service providers in rural areas.



Conclusion

Through use of quantitative survey data and qualitative interview data from homeless service providers, this project finds that, although diverse in PFEH populations served, geographic location, and resource availability, providers in the BOS COC share similar elements in their current case management practices (e.g., client identification, comprehensive bio-psycho-social assessment, resource connection, action and goal planning, client advocacy, and constant progress monitoring). Such elements also align with homeless service literature as being vital to client success. However, the barriers at different levels (i.e., individual, organizational, community, and system levels) make it difficult to implement successful case management due to gaps between clients' and case managers' perspectives and beliefs, difficulties in following up with clients, the lack of community awareness about homelessness, and the lack of resources in general (e.g., staff resources and transportation resources). Many of the ideal elements of case management identified in this project (e.g., client engagement and follow-up, individually tailored services, strong community relationships, and evaluation) demonstrate the effort put forth by providers to address identified barriers, with goals of facilitating and sustaining exits from homelessness.

Although awareness and implementation of EB-CMs may not be prevalent among rural homeless service providers, many critical elements (e.g., client-driven and harm reduction approaches) incorporated in exiting EB-CMs have already been integrated in current BOS COC case management practices, which may help future EB-CM adaptation and implementation in these areas. Findings of this project also suggested that EB-CMs are perceived as promising in addressing homelessness in the BOS COC, which includes many rural communities. Therefore, future efforts may be warranted to conduct additional research in order to gain a more in-depth understanding of specific EB-CMs suitable for adaptation and implementation. In addition to affordable housing, other resources, such as physical resources (e.g., transportation services), staff resources, and innovative strategies (e.g., formulating community wide networks) to overcome barriers and implement case management programs in rural areas may also be needed.

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Reference

1. Dobson, R. (2019). Complex needs in homelessness practice: A review of 'new markets of vulnerability'. *Housing Studies*, 1-27.
2. Tsai, J. (2017). Lifetime and 1-year prevalence of homelessness in the US population: Results from the National Epidemiologic Survey on Alcohol and Related Conditions-III. *Journal of Public Health*, *40*(1), 65-74.
3. Morton, M. H., Dworsky, A., Matjasko, J. L., Curry, S. R., Schlueter, D., Chávez, R., & Farrell, A. F. (2018). Prevalence and correlates of youth homelessness in the United States. *Journal of Adolescent Health*, *62*(1), 14-21.
4. National Alliance to End Homelessness (2019). State of Homelessness. Retrieved from https://endhomelessness.org/homelessness-in-america/homelessness-statistics/state-of-homelessness-report/
5. Public Policy Research Center, University of Missouri-St. Louis. (2017). Statewide Homelessness Study. Retrieved from http://www.mhdc.com/ci/documents/MSHS-2017.pdf
6. Rollinson, P. A., & Pardeck, J. A. (2018). *Homelessness in rural America: Policy and practice*. Routledge.
7. Hsu, H-T, Rice, E., Wilson, J., Semborski, S., Vayanos, P., & Morton, M. (Under review). Understanding wait times in rapid rehousing among homeless youth: A competing risk survival analysis.
8. National Alliance to End Homelessness (2015). Ending Chronic Homelessness Saves Taxpayers Money. Retrieved from https://endhomelessness.org/resource/ending-chronic-homelessness-saves-taxpayers-money/
9. Department of Housing and Urban Development. (2014). Housing First in Permanent Supportive Housing Brief. Retrieved from https://www.hudexchange.info/resource/3892/housing-first-in-permanent-supportive-housing-brief/
10. Center for Substance Abuse Treatment. (1998). Comprehensive case management for substance abuse treatment.
11. de Vet, R., van Luijtelaar, M. J., Brilleslijper-Kater, S. N., Vanderplasschen, W., Beijersbergen, M. D., & Wolf, J. R. (2013). Effectiveness of case management for homeless persons: A systematic review. *American Journal of Public Health*, *103*(10), e13-e26.
12. Stefancic, A., Henwood, B. F., Melton, H., Shin, S. M., Lawrence-Gomez, R., & Tsemberis, S. (2013). Implementing housing first in rural areas: pathways Vermont. *American Journal of Public Health*, *103*(S2), S206-S209.
13. Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, *13*(4), 544-559.
14. Tsemberis, S. (2011). Housing first: The pathways model to end homelessness for people with mental illness and addiction manual. *European Journal of Homelessness*, *5*(2).
15. Burt, M. R. (2010). *Strategies for improving homeless people's access to mainstream benefits and services*. DIANE Publishing.
16. Rhodes, H., Hsu, H. T., Rice, E., Harris, T., Hantanachaikul, W., Winetrobe, H., Henwood, B., & Wenzel, S. W. (Under Review) Social network change after moving into permanent supportive housing: Who stays and who goes?

17. Coldwell, C. M., & Bender, W. S. (2007). The effectiveness of assertive community treatment for homeless populations with severe mental illness: a meta-analysis. *American Journal of Psychiatry*, *164*(3), 393-399.
18. Stergiopoulos, V., Hwang, S. W., Gozdzik, A., Nisenbaum, R., Latimer, E., Rabouin, D., ... Katz, L. Y. (2015). Effect of scattered-site housing using rent supplements and intensive case management on housing stability among homeless adults with mental illness: A randomized trial. *Jama*, *313*(9), 905-915.
19. Herman, D., Conover, S., Felix, A., Nakagawa, A., & Mills, D. (2007). Critical Time Intervention: An empirically supported model for preventing homelessness in high risk groups. *The Journal of Primary Prevention*, *28*(3-4), 295-312.