The process and cost of developing a community advisory board focused on opioid overdose deaths

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ABSTRACT

Background: We describe the Community Advisory Board (CAB) development and costing processes employed by The Helping to End Addiction Long-term (HEALing) Communities Study, Massachusetts (HCS-MA). The actual process and costs associated with establishing a CAB representative of people who use drugs have not been published.

Methods: A participatory process was used to identify and recruit CAB members. Health economics costing strategies were used to develop an understanding of the economic costs associated with developing the CAB.

Results: A statewide CAB composed of 23 persons was created. The six-month total costs, including personnel costs (both study staff and CAB members) and administrative costs (e.g., meeting costs) were $49,615.

Conclusion: Results indicate intentional outreach can leverage existing community ties to develop CABs that are representative of communities but necessitate a focus on equitable resource allocation.

KEYWORDS: community advisory board; substance use disorder; community-engaged research, costs, health economics, cost analysis

Background

Community-engaged research (CEnR) offers an important framework for conducting research that can improve lives and reduce health inequities.[1-7] Within CEnR, community advisory boards (CABs) are often intended to inform the research focus through the creation of a structured mechanism for community members to contribute to research activities and priorities. The literature has found that CABs can aid in ensuring that academic health care is aligned with communities[7-13], make visible the power dynamics that exist in research and communities. [14]Particularly within substance use research, CABs serve as a strategy to address racial equity and stigma[15]. CABs represent an important mechanism for community members interested in leadership opportunities to become formally engaged in intervention research.[1-20.]

Objectives

Drug use remains highly stigmatized and criminalized in many communities.[21-23] Prioritizing the involvement of people most impacted in the research process, including people who use drugs (PWUD), can inform the development of meaningful programs and policies that reduce stigma and offer perspectives that meaningfully inform the research.[21-25] Despite the documented benefits of CABs, literature on the costs associated with the establishment of CABs is absent. Understanding costs associated with CAB development can facilitate CAB planning and the inclusion of the expertise of PWUD, which is often underappreciated and underfunded in policies, programs, and interventions that directly impact this population.[21,24]

This paper was co-written by study team members and founding CAB members. It adds to the literature by describing the CAB development process and costs associated with the establishment of the HEALing Communities Study, Massachusetts (HCS-MA) CAB. Specifically, this paper includes an overview of the six-month process (July 25, 2019 through

January 9, 2020) of developing the HCS-MA's 23-person CAB. We discuss the start-up costs of the CAB development which was a required aspect of the study. The recruitment and selection efforts outlined in the paper served as the basis for a multi-year HCS-MA CAB.

Methods

The HEALing Communities Study (HCS) was a four-year, multi-site study that aimed to test a set of evidence-based interventions and approaches for reducing overdose deaths in 67 urban and rural communities in New York, Massachusetts, Ohio, and Kentucky.[26-28] Each of the states were required to convene a CAB comprised of stakeholders who could provide guidance and recommendations related to study design and execution.[27,28] The four HCS Sites were each required to recruit 15 to 30 CAB members from diverse sectors of community life, including PWUD and members of their familial and social networks, representatives from government, behavioral health, justice, law enforcement, and faith-based organizations.[27,28] A key underlying assumption embedded in the HCS approach is that people are experts in their own lived experiences.[29]

Initial Engagement and Pre-Award Planning in MA

During the proposal writing phase, the HCS-MA study team engaged eight community leaders from across the state to serve as founding CAB members. The study team sought to have founding CAB members (later referred to as "at-large CAB members") who could provide statewide perspectives and guidance. The study team did not engage other leaders beyond these eight people as these initial CAB members aligned with the grant expectations by including PWUD and members of their familial and social networks, representatives from government, behavioral health, justice, law enforcement, and faith-based organizations [27,28]

During the grant application process, the eight at-large CAB members participated in one-on-one and team planning meetings where they served as consultants to the study team. Their initial guidance was incorporated in the proposal and when funding decisions were being considered, they participated in a pre-award site visit with the National Institute on Drug Abuse (NIDA) and the Substance Abuse Mental Health and Services Administration (SAMHSA).

Establishing a Statewide CAB

Approximately six months after the notice of award, the eight at-large CAB members were re-convened. To achieve study expectations, which included the formation of a 15 to 30-person statewide CAB, the study team and at-large CAB members established four interrelated goals to drive the process: (1) the selection of 16 new CAB members representative of communities in Massachusetts in addition to at-large members; (2) the inclusion of people who use opioids; (3) cross-sector stakeholder representation (e.g., law enforcement, recovery coaches, medical professionals, etc.); and (4) diversity concerning race/ethnicity, gender, sexual orientation, housing status and other identities and experiences.

A collaborative recruitment and decision-making process was designed by the at-large CAB members and study team members to identify 16 additional community representatives, which would lead to the formation of a 23-member CAB.[10,30] The process included an open application, interviews with all applicants, and two selection meetings with the at-large CAB members. It is important to note, that following the notice of award, one of the eight at-large CAB members was hired as a study team member. This resulted in there only being seven at-large CAB members at the start of the broader recruitment efforts.

Application Development Process

Study team members conducted a scoping review of scholarly literature to identify best practices for CAB applications and recruitment approaches.[10, 14-16, 31, 32] An application was drafted that included four sections: (1) how they learned about the HCS-MA CAB, (2) which of the16 HCS-MA communities they would like to represent, (3) organizational and professional affiliation, and (4) demographics. The application asked questions about their professional affiliation (e.g., medical professional, first responder, recovery coach, etc.), lived experience with opioid use disorder (OUD; their own experience and/or their relationship to other people who have lived experience with OUD), questions about why they were interested in serving on the CAB, and demographics. The final application was reviewed and approved by at-large CAB members and members of the study team.

Recruitment and Selection Process

The application was shared via the 16 community listservs, at in-person community coalition meetings in each of the 16 communities, with the Massachusetts Department of Public Health, and through the at-large CAB members. These outreach efforts yielded 35 applications.

An ad hoc selection committee was formed, composed of three at-large CAB members and four HCS-MA study team members. The ad hoc committee was responsible for interviewing the 35 applicants using an interview guide (see Table 1) developed by the at-large CAB members and the study team. Each applicant was interviewed by one member of the selection committee. Interviewers took notes during the interview and described the goals of the study, and the selection process, and answered applicant questions.

[Table 1]

Following the interviews, the study team members provided the seven at-large CAB members with the applications and interview notes for each applicant. The at-large CAB

members were asked to rank order each candidate on a scale of 0-5, with 0 being not an appropriate fit for the CAB and 5 representing that they represented sector (e.g., peer recovery coaches), population groups (e.g., PWUD), and other identities (e.g., race/ethnicity, language skills) that were important to the study. During two virtual meetings, the at-large CAB members reviewed the following: (1) the candidate's application and interview notes, (2) ranking scores (0-5), (3) feedback from the interviewer, and (4) feedback from HCS-MA community facing study staff and at-large CAB members if they knew applicant.[28] Over the course of two, two-hour meetings, the at-large CAB members used a consensus process to select the 16 community CAB members.

CAB Costing Methods

The HCS-MA Health Economics Core (HE) estimated the invisible costs associated with the first six months of the CAB. This included the costs associated with six planning meetings (in-person and virtual) held with the at-large CAB members from July 25, 2019, to January 9, 2020 and the work associated with recruiting and selecting the additional sixteen CAB members.

Cost Estimation Procedure

The HCS-MA Health Economics Core developed and implemented a data collection tool to estimate invisible costs incurred by at-large CAB members (e.g., travel, childcare), the administrative costs of research study staff, and the cost of hosting meetings (e.g., food, room rental, technology; see Supplemental Appendix A-C). While other cost data collection tools exist,[33, 34] to the best of our knowledge none have been developed with the intent of costing the resources associated with establishing a CAB using microcosting, a method that allows for a more precise assessment of the economic costs of an intervention.[35] The personnel components include both research staff costs and at-large CAB member costs.

Research Staff Costs

The study team collected data for time spent on the six planning meetings, conducting CAB member applicant interviews, the two, two-hour review and selection meetings, as well as time spent preparing for meetings. These costs were not inclusive of the time spent reviewing the literature on CAB recruitment or developing the final CAB application. The staff cost was calculated by multiplying the staff time in hours by the 2019 national mean wage rates, plus fringe benefits, from the Bureau of Labor Statistics (BLS) that most closely matched the person's stated occupation.[36]

CAB Member Costs

The study team collected data by interviewing at-large CAB members about five resource categories in the data collection form: (1) time spent at a given meeting; (2) time spent traveling for the meeting; (3) other costs incurred to attend the meeting (e.g., lodging, transportation); (4) distance (in miles) traveled from the member's relevant address (i.e., work, home, etc.) to the meeting location; and (5) time spent on CAB-related activities outside of meetings, both by the member as well as others in their organization. As noted above, the cost of everyone's time was calculated by multiplying their CAB-related hours by the relevant 2019 national mean wage and fringe benefit rates for their job classification ascertained from the BLS. Travel costs incurred by at-large CAB members were calculated by multiplying the distance traveled by the Federal Mileage Reimbursement rate.[36, 37]

Administrative CAB Meeting Costs

The study team collected data regarding the costs associated with convening CAB planning meetings (both in-person and virtual meetings). Three of the meetings were held virtually. All meetings (virtual and in-person) were held prior to the U.S. COVID-19 pandemic.

The relevant resources included building/room rental space, food, other supply purchases (e.g., paper, pens), and technology (e.g., virtual meeting software licenses). It was assumed that there was no depreciation in these items given the short study period.

Total Economic Cost of Establishing the CAB

The total six-month economic cost of establishing the CAB was estimated by summing the values for the personnel and meeting components across all meetings. The average per-meeting cost was calculated by dividing the total cost by the total number of meetings. The average annual per CAB member cost was calculated by dividing the total costs of CAB member's involvement by the total number of CAB members. For sensitivity analyses, we used 2019 Massachusetts-specific mean wage rates from BLS and the Massachusetts Mileage Reimbursement rates.[36, 37]

In addition to the total cost, CAB members received an honorarium of $100 per hour for attending CAB meetings, which for some CAB members was greater than their hourly wage. Each meeting averaged two hours. Moreover, at-large CAB members who participated in CAB planning and recruitment and/or publications received additional compensation for their contributions. However, not all CAB members were able to accept honoraria as the result of workplace policies; as such honoraria are not calculated in the total costs.

Results

The collaborative efforts of the study team and the at-large CAB members resulted in a 23-member CAB that was not only representative of key stakeholders (e.g., peer workers, public health experts, lawyers) with recruited CAB members actively working within re-entry services, mental health care, and as recovery coaches. The new CAB members were also representative of varied lived experiences (e.g., race, gender identity and expression, and socioeconomic status,

people who use drugs). 93.7% of the selected CAB members had current or past lived experience with OUD (this included having friends or family members with OUD); 37.5% of the recruited CAB had interactions with the criminal legal system; and 25% identified as a Person of Color. The selection of the additional 16 CAB members was not merely a benefit for HCS-MA, but for communities in MA that may not have had the opportunity to be involved in research.

CAB Costing Method Results

Total Cost of Establishing a CAB

The total economic cost for the first 6 months of the MA statewide CAB was estimated to be $46,001, which consisted of $45,489 in personnel-related costs and $512 in meeting costs (see Table 2). The average 6-month cost per at-large CAB member was $2,246, and the average administrative cost per meeting was $85. Finally, the average per-member, per-meeting cost was $182 (excluding meeting costs). The components of the CAB personnel and meeting costs are described below. In the sensitivity analysis, using Massachusetts-specific Bureau Labor Statistics (BLS) wages, the total 6-month economic cost was $49,615 ($49,102 in personnel costs and $512 in meeting costs).

[Table 2]

CAB Member Costs

The average 6-month cost of at-large CAB member involvement was $17,970 (Table 3). The economic cost associated with meeting attendance was $6,468, the majority of which was attributable to time spent in meetings ($4,496). Other attendance-related costs included travel time ($1,101) and mileage reimbursement ($871). The average 6-month costs associated with between-meeting activities (i.e., time spent by at-large CAB members on CAB activities outside the meetings) was $11,502. In the sensitivity analysis, using the Massachusetts-specific mean

wage, the cost of at-large CAB member's involvement was $18,246 ($6,649 attributable to time spent for meetings and $11,597 attributable to time spent outside of meetings).

Research Staff Costs

Research staff costs were collected as these individuals helped to establish recruiting and member selection protocols, schedule meetings, and trainings for members of the study team and at-large CAB members. The total 6-month cost of research staff was $27,519.

Non-Personnel-Related Meeting Costs

The average 6-month cost for hosting meetings (in-person and virtual) was $512, which is the cost incurred to set up and run the six-monthly CAB meetings.

[Table 3]

Discussion

This paper focused on a six-month period during which at-large CAB members and study team members developed a 23-person CAB. The first full CAB meeting was held in person in February 2020 before the COVID-19 pandemic. The HCS-MA CAB continued for three years with some of the at-large CAB members and the 16 selected CAB members leaving to pursue other opportunities or passing away. Over the three years, HCS-MA CAB members served as members of the community coalitions, members of study workgroups and committees, and in advisory capacities for SAMHSA.[4] Towards the end of the study, the HCS-MA CAB sought funding to continue their statewide work. In other publications about the HCS-MA CAB[4,38], members of the CAB have noted that CAB meetings were a space that afforded honesty and openness and that the CAB offered members expanded personal and professional networks.[4,,38]

While existent CAB literature has focused on how CABs develop, there is a dearth of literature on the start-up costs associated with the development of a CAB. Our findings make

clear the need for study teams to consider invisible costs, calculated based on personnel and meeting costs. Our estimated costs deviate from some of the existing literature on CABs that suggests that CABs are *not* costly to maintain.[14]

Often, CAB literature suggests that the costliest efforts of developing and maintaining a CAB development are related to transportation and facilitator costs, even though it is noted that CAB members are compensated.[11,14] While travel and facilitation costs are important for researchers to consider, these cost interpretations do not consider the human costs (labor) of this work. For example, human costs include relationship development and peer learning that occur in between meetings, as well as the important ambassadorial role the CAB members play outside of meetings. Moreover, the literature does not always consider the risk that CAB members carry; by partnering with academic researchers, CAB members put their reputations at stake. The actions of researchers may be a reflection of them.

Lastly, the costs described within this paper do not account for the time spent in reviewing the literature on CABs or developing the application. While the HCS-MA CAB was well-resourced in terms of personnel and honorariums, the study team's ability to launch the CAB in a timely, yet responsive manner was dependent on the team leveraging existing resources (e.g., existing CAB applications), toolkits and scholarly materials focused on CAB development. As study teams continue to develop resources for CAB development, future CABs may have lower labor costs as study team members will not need to collate existing literature in the same manner. While we only provide costs for six months, future papers will discuss long-term costs associated with the HCS-MA CAB development and implementation.

Conclusion

This paper provides practical considerations related to CAB start-up costs for substance use disorder or other researchers interested in establishing a diverse multi-sector CAB. By discussing the process of developing a CAB in conjunction with the costs associated with the work, we can provide estimated costs for establishing a CAB. While these costs are not generalizable, this paper highlights lessons learned about the economic labor costs associated with establishing a CAB that may be helpful within different community contexts. Importantly, our results suggest that the maintenance of CABs cannot be neatly understood in meeting and travel costs alone. As noted, recruitment efforts largely took place outside of CAB meetings, so to only analyze meeting costs would not highlight the entirety of the work of both CAB members and study team members. The relationship building that occurred with the seven at-large CAB members and the 16 recruited CAB members is what has allowed for the creation of a diverse CAB which comes with a financial cost for studies; that is, for CABs to inform research decision-making, for peer learning to occur, and for research staff to deepen their understanding of nuanced community-level issues. Future public health study teams must invest time and resources into not only the CAB members but also the work associated with CAB development.

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Table 1. Applicant Interview Questions

1. So, to start could you briefly talk about why you are interested in serving on the CAB?
2. Can you please talk a little about your experience working as part of a task-oriented group, perhaps another CAB, a community coalition, or in a civic organization?
3. For the HCS study, the harm reduction framework is a critical way to think about reducing opioid overdose, however harm reduction makes some people uncomfortable. How would you highlight the importance of harm reduction for someone who did not understand it? Or to someone who opposes it?
4. Describe your approach to building consensus? Problem solving?
5. We are engaging multiple sectors in this work: Mental health, health care delivery, criminal justice, faith-based organizations, pharmacies, government agencies, families. Describe a sector that is hard for you to work with, and next, why this sector is a challenge for you? How will it impact your work as an advisory board member?
6. In what ways do you represent the [NAME OF COMMUNITY- this can be the 1st choice community identified on your application]?
7. Who in your community is being "reached"? What are the populations or identity groups that are not being reached? Why? What needs to change? What would you do to reach out to people who are not being reached by the study?

Table 2. Cost estimates for Massachusetts CAB meetings from July 25, 2019 - January 9, 2020*

Cost components	National Estimates*	Massachusetts Estimates
Personnel		
Total cost of community advisory board member involvement (during meeting + between meeting)	$17,969.68	$18,246.23
Research staff costs	$27,519.36	$30,856.57
Total Personnel costs	**$45,489.04**	**$49,102.80**
Meeting		
Total cost of meetings (e.g., food) (n=6)	**$512.05**	**$512.05**
Total		
Total cost of CAB (personnel + meeting)	**$46,001.09**	**$49,614.85**
Average Costs of CAB		
Average cost per CAB member between meeting (n = 8)	$1,437.74	$1,449.67
Average cost per CAB member per meeting (CAB related staff + meeting costs) (n = 8)	$246.31	$249.71

*Estimates were based on 2019 mean wage rates from BLS. National estimates use national average wages whereas Massachusetts estimates use Massachusetts specific average wages.

Table 3: Costs per CAB member per meeting including between meeting costs*

Cost of individual CAB members	Meeting 1+	Meeting 2^	Meeting 3+	Meeting 4^	Meeting 5+	Meeting 6**	Per CAB membercosts for meetings attended	Average CAB member cost per meeting***	Per CAB member between meeting costs	Per CAB member cost
1	$63.11	$31.55	$264.96	$296.51	$366.37	-	$1,022.50	$204.50	$2,324.78	$3,347.28
2	-	$31.55	$110.90	$63.11	$167.02	$126.22	$498.81	$99.76	$196.96	$695.76
3	$183.58	$183.58	$364.19	$183.58	$367.16	$367.16	$1,649.25	$274.88	$1,602.43	$3,251.68
4	$280.59	$46.05	$289.19	$92.11	$429.67	$92.11	$1,229.72	$204.95	$1,573.79	$2,803.51
5	$188.28	$38.22	$76.46	-	-	-	$302.96	$100.99	$1,181.27	$1,484.23
6	$75.69	$83.64	$83.64	$94.62	$165.54	$170.31	$673.44	$112.24	$616.64	$1,290.08
7	$187.55	$81.60	$82.25	$114.90	$159.03	$130.57	$755.90	$125.98	$4,006.08	$4,761.98
8	-	-	-	-	-	$335.15	$335.15	$335.15	$0.00	$335.15
							$6,467.73	**$182.31**	**$11,501.95**	**$17,969.68**
Average cost to the community advisory board member (CAB)										**$2,246.21**

*Estimates were based on 2019 mean wage rates from national BLS
+ In-person meeting
^ Hybrid meeting (Zoom and in-person options)
** Virtual meeting (Zoom only)
***Excluded cost of CAB meetings (e.g., technology, food)

Supplemental Appendix

Appendix A. Healing Communities Study (HCS MA) Massachusetts Community Advisory Board Application

Healing Communities Study (HCS MA) Community Advisory Board Application

Background: The HEALing Communities Study (HCS) is a research study funded by the National Institutes of Health (NIH), National Institute of Drug Abuse (NIDA), and the Substance Abuse and Mental Health Services Administration (SAMHSA). The objective of the HCS is to reduce opioid overdose deaths by 40% over three years using a community engaged intervention.

A research protocol will be implemented by teams in Massachusetts (Boston Medical Center), New York (Columbia University), Ohio (Ohio State University), and Kentucky (University of Kentucky). Community advisory boards (CABs) will be convened for each of the 4 HEALing Communities (HCS) research sites. The CABs will serve in an advisory capacity, ensuring research activities reflect community interests and are aligned with local norms and values.

What is a CAB?
In the HCS the Community Advisory Board (CAB) serves as a leadership body for community-based participatory research (CBPR) partnerships, ensuring that research activities are reflective of community priorities. As such, the CAB's composition typically reflects the community of interest. CABs serve as a mechanism for community members to voice concerns and priorities that otherwise might not be on the researchers' agenda. We seek to recruit 16 community members to serve on the Massachusetts HCS CAB.

Who is eligible?
We hope to identify one representative from each of the HCS communities. This will include a diverse group of individuals, particularly those from underrepresented backgrounds, such as people of color. In addition, to demographic diversity we are looking for CAB members who are connected to a variety of stakeholder groups. This might include: Consumer representatives, including people who use opioids as well as family members affected by opioid use; state-level government officials from community and public health, behavioral health, and justice settings, etc; representatives of state-level advocacy organizations; local providers and service agency representatives, including members from HCS community coalitions; directors of County or Local-Level Health and/or Mental Health Boards; local law enforcement leaders; leadership from faith-based communities.
What do CAB members do? The CAB will provide guidance on overall HCS activities statewide. Provide input on ethical issues, equity among and within communities, disclosure of findings, and the allocation of resources. Provide information about emerging trends in the epidemic and potential changes in programs and policies that may influence the success of HCS or obscure evidence of HCS impact statewide. Identify existing policies or policy gaps that may impede implementation of HCS, and

participation in efforts to change those policies at state level. Facilitate access to community, state, and other data needed for the HCS. Participate in local HCS events and communication campaigns to educate the public about evidence-based practices to address the opioid epidemic, to increase the capacity building of communities, and to foster sustainability of projects/initiatives.

Time commitment:
CAB members will meet monthly with the research team. Meetings will be a combination of in-person, telephone, and video conference calls.

Is this a paid position?
CAB members will be compensated for their time participating in meetings, $250 for quarterly in-person meetings and $100 for phone meetings held in-between quarterly meetings.

To Apply: If you are interested in applying to serve on the MA HCS advisory board please complete the attached form. If you are completing this form on someone's behalf please confirm that you have their permission by checking the appropriate box below.

Application Timeline: Applications are due by January 1, 2020

Application Selection: All applications will be reviewed by CAB members as well as representatives from the research team. Telephone and/or online interviews will be conducted with finalists.

CAB Contact Information: For questions about the CAB, please contact Dr. Linda Sprague Martinez, lsmarti@bu.edu or Deborah Chassler, MSW, chassler@bu.edu.

Q7 Name (First and Last Name)

_____

Q9 Phone Number

_____

Q10 Email Address

_____

Q12 Pronouns

_____

Q13 How did you hear about the CAB?

☐ MOAPC or other coalition related to HCS. If so, which MOAPC or coalition? (1)
_____

☐ CAB member. If so, who recommended you apply? (2)
_____

☐ HCS Research Team Member. If so, who recommended you apply? (3)
_____

☐ Community Based Organization. If so, which organization? (4)
_____

☐ Other (5) _____

Q14 Tell us why you are interested in serving on the advisory board:

_____

Q15 Please select up to four communities that you would be interested in representing based on your connection to the communities.

1st choice	2nd choice	3rd choice	4th choice
_____ Barnstable County: Bourne/Sandwich (1)	_____ Barnstable County: Bourne/Sandwich (1)	_____ Barnstable County: Bourne/Sandwich (1)	_____ Barnstable County: Bourne/Sandwich (1)
_____ Bristol County: Berkley/Dighton/Freetown (2)	_____ Bristol County: Berkley/Dighton/Freetown (2)	_____ Bristol County: Berkley/Dighton/Freetown (2)	_____ Bristol County: Berkley/Dighton/Freetown (2)
_____ Brockton (3)	_____ Brockton (3)	_____ Brockton (3)	_____ Brockton (3)

_____ Franklin County: Greenfield/Montague/Athol/Orange (4)	_____ Franklin County: Greenfield/Montague/Athol/Orange (4)	_____ Franklin County: Greenfield/Montague/Athol/Orange (4)	_____ Franklin County: Greenfield/Montague/Athol/Orange (4)
_____ Gloucester (5)	_____ Gloucester (5)	_____ Gloucester (5)	_____ Gloucester (5)
_____ Hampshire County: Belchertown/Ware (6)	_____ Hampshire County: Belchertown/Ware (6)	_____ Hampshire County: Belchertown/Ware (6)	_____ Hampshire County: Belchertown/Ware (6)
_____ Holyoke (7)	_____ Holyoke (7)	_____ Holyoke (7)	_____ Holyoke (7)
_____ Lawrence (8)	_____ Lawrence (8)	_____ Lawrence (8)	_____ Lawrence (8)
_____ Lowell (9)	_____ Lowell (9)	_____ Lowell (9)	_____ Lowell (9)
_____ Middlesex County: Shirley/ Townsend (10)	_____ Middlesex County: Shirley/ Townsend (10)	_____ Middlesex County: Shirley/ Townsend (10)	_____ Middlesex County: Shirley/ Townsend (10)
_____ North Adams (11)	_____ North Adams (11)	_____ North Adams (11)	_____ North Adams (11)
_____ Pittsfield (12)	_____ Pittsfield (12)	_____ Pittsfield (12)	_____ Pittsfield (12)
_____ Plymouth (13)	_____ Plymouth (13)	_____ Plymouth (13)	_____ Plymouth (13)
_____ Salem (14)	_____ Salem (14)	_____ Salem (14)	_____ Salem (14)
_____ Springfield (15)	_____ Springfield (15)	_____ Springfield (15)	_____ Springfield (15)
_____ Weymouth (16)	_____ Weymouth (16)	_____ Weymouth (16)	_____ Weymouth (16)

Q16 Do you currently live and/or work in the community (or communities) you selected above?

- ○ Live (1)
- ○ Work (2)
- ○ Both (3)

Q17 How long have your been to the community (or communities)?

_____

Q18 Do you have current or past lived experience with opioid use disorder (lived experience can include experience with family members and other directly affected by opioid use disorder)?

- ○ Yes (1)
- ○ No (2)

Q19 Age

- ○ 18-24 years old (1)
- ○ 25-34 years old (2)
- ○ 35-44 years old (3)
- ○ 45-54 years old (4)
- ○ 55-64 years old (5)
- ○ 65 or older (6)

Q20 We are aiming to build a diverse Community Advisory Board. Please select all of the following groups you identify with:

- ☐ Person of color (1)
- ☐ Identify as a member of the LGBTQIA+ community (2)
- ☐ Differently abled/ Neurodivergent (3)
- ☐ Veteran status (4)
- ☐ Immigrant, Refugee, or Asylee (5)
- ☐ Current user of substance use disorder (SUD) services (6)
- ☐ Currently experiencing homelessness (7)
- ☐ Housed and connected to homeless services (8)
- ☐ Jail/Prison/reentry experience (9)
- ☐ Other (10) _____

Q21 Organizational Affiliation(s) (if applicable)

_____

Q22 Personal Affiliation(s) (if applicable)

- ○ Medical Provider (1)
- ○ Pharmacist/Pharmacy Technician (2)
- ○ First Responder (3)
- ○ Health Care Delivery (4)
- ○ Criminal Justice System (5)
- ○ Mental Health Services (6)
- ○ Recovery Coach/Peer Services Provider (7)
- ○ Other (8) _____

Appendix B. Costs Associated with Attending Community Advisory Board (CAB) Meetings – Meeting Level Questionnaire

[PROGRAMMER: PROGRAM THE INSTRUCTIONS FOR EACH QUESTIONNAIRE]

Instructions: Research staff will complete the following questions for each person at the CAB meeting.

CEP01. HEALing Communities Study Site state:

1. Ohio
2. Kentucky
3. Massachusetts
4. New York

CEP02. Research staff person name : _____

CEP05. What is the date of the meeting? MM:__DD:__YYYY:__

CEP05a. How long was this meeting?
_____Minutes (Range: 0-360)

CEP06.This activity was held
[PROGRAMMER: SELECT ALL
THAT APPLY]

1. In-person
2. Conference call
3. Webinar
4. Other (specify)

_____

CEP07. [IF CEP06=1] What is the name of the meeting location?

CEP08. [IF CEP06=1] What is the address of the facility? Street Address: _____
Address 2:_____ City:_____ State:_____ ZIP Code:___

CEP08a. How many people attended this meeting?

In-person_____(Range: 0-99)
Via phone or teleconference_____(Range 0-99)

Instruction: Research staff will fill in the next question on their own based on their own knowledge of the phases.
[PROGRAMMER: SHOULD BE ABLE TO SELECT MORE THAN ONE PHASE

CEP08 Which community engagement phase would you classify the activity?

1. Phase 0: Preparation (Pre-Intervention; no active engagement with local communities)
   a) Create the statewide Community Advisory Board (CAB) for each RS
   b) Establish communication strategies between CAB and government stakeholders
   c) Share information with communities regarding randomization
   d) Identify the HEALing Communities Study (HCS) local coalitions
   e) Collect information about community coalitions
   f) Conduct Landscape Analysis
   g) Training staff in community engagement
   h) Commence preliminary activities for communications campaigns
2. Phase 1: Getting Started
   a) Establish a structure for working with coalitions (charter)
   b) Recruit champions and initiate use of Data Across Sectors of Health (DASH) model
   c) Train community coalitions
   d) Planning meeting with coalitions for first communication campaign
   e) Introduce ORCCA menu and EBPs Refine the 1st communications campaign in partnership with the HCS coalitions
3. Phase 2: Getting organized phase
   a) Discuss ORCCA menu options and decision procedure for selecting EBP strategies
   b) Commence implementation and evaluation first communications campaign in partnership with the HCS coalitions
4. Phase 3: Community Profiles and Data Dashboards
   a) Creation of community profiles
   b) Data dashboards development
   c) Mapping of existing services and programs to the ORCCA
   d) Engage coalitions CAB and other key stakeholders on the content visualization and use of the community profile and data dashboard
   e) Trainings on data collection and data visualization
5. Phase 4: Community Action Planning
   a) Revision or creation of action plans specific to ORCCA
   b) Presentation of 2nd communications campaign assets and discussion of distribution strategies with coalitions
6. Phase 5: Implement and evaluate phase
   a) Implement and Monitor EBPs
   b) Implement and evaluate 2nd communications campaign in partnership with the HCS coalitions
7. **Phase 6: Sustainability planning phase** (capacity building, alignment of resources)

a) Build capacity and align resources
b) Training of coalitions through Learning Health Collaborative

A. **Cost Template – Meeting Attendee Time and Travel Questionnaire**

[For respondents already consented, research staff can fill out the information above and then email this survey to the respondent who will begin with CEP09.]

CEP09. Was this your first time attending a CAB meeting since the HEALing Communities Study began on May 1st 2019?

1. YES
2. NO

7000000 Prefer not to answer

CEP10. [IF CEP09=1] Have you or others from your organization worked with the HEALing Communities Study prior to the CAB meeting you attended?

1. YES
2. NO

CEP10a. **[IF CEP09=1]** What is your name? _____(150 characters)

CEP11. **[IF CEP09=1]** What is the best way to reach you for follow-up _____(150 characters)
Email?_____(150 characters)
Phone?_____

CEP12. **[IF CEP09=1]** What is your title or role in your organization? _____(150 characters)

CEP13. **[IF CEP09=1]** What is the name of your organization? _____(150 characters)

CEP14. [IF CEP09=1] What is your occupation? Note: Occupation may or may not be the same as your job title/role within your organization. For example, someone's job title within the HEALing Communities Study might be "Program Manager" while their occupation is "Social
Worker."
_____(150 characters)

7000000 Prefer not to answer

CEP15. **[IF CEP09=1]** What is the address of your organization?_____(150 characters)
Street Address: _____
Address 2: _____
City: _____
State: _____
ZIP Code: _____

CEP16. Did you stay for the entire meeting?

i. Yes, the entire meeting
ii. No, less than the entire meeting
iii. No, more than the entire meeting
iv. 7000000 Prefer not to answer

[IF CEP16==ii] CEP16a. How much of the meeting did you miss?

Minutes_____
i. 7000000 Prefer not to answer

[IF CEP16==iii] CEP16b. How much longer did you stay?

Minutes_____
i. 7000000 Prefer not to answer

CEP16c. How did you attend the meeting? [PROGRAMMER: SELECT ONLY ONE]
1. In-person
2. Virtually (e.g., Conference call, Webinar/video conference) 3. 8000000. Don't know

CEP17. We are interested in knowing more about the cost of participating in this meeting. Did you incur any costs to attend this meeting? Please include things like lodging and transportation in addition to your normal commuting costs, and childcare beyond your normal job-related needs. Do not include personal car mileage.

2. Yes
0. No
8000000 Don't know

CEP17a. [If CEP09=0 AND CEP17=1] Were these costs different from the costs you reported to us previously?

1. Yes

0. No

8000000 Don't know

CEP18. [IF CEP09=1 AND CEP17=1

OR

(CEP09=2 AND CEP17=1 AND (CEP17a=1 OR CEP17a=3)])

What type of costs did you incur in order to attend this meeting? Select all that

apply. [PROGRAMMER: SELECT ALL THAT APPLY]

0. Transportation (Train ticket, rideshare, rental car, etc).
1. Lodging
2. Childcare
3. Other

CEP18other [IF CEP18=4] What other types of costs did you incur?
_____(100 characters) 7000000 Prefer not to answer

CEP19. [IF CEP18=1] In total, how much did you spend on transportation to attend this meeting?
$_____.____(Range: .01 – 9999.99) 7000000 Prefer not to answer

CEP20. [IF CEP18=2] In total, how much did you spend on lodging to attend this meeting?
$_____.____(Range: .01 – 9999.99) 7000000 Prefer not to answer

CEP21. [IF CEP18=3] In total, how much did you spend on childcare to attend this meeting?
$_____.____(Range: .01 – 9999.99) 7000000 Prefer not to answer

CEP22. [IF CEP18=4] In total, how much did you spend on other costs to attend this meeting?

$_____.____(Range: .01 – 9999.99) 7000000 Prefer not to

answer

CEP24. [IF CEP09 = 0 OR IF (CEP09 = 1 & CEP10 = 1)] We are interested in the time you spend on **Communities that Heal Community Engagement activities** beyond the CAB meeting time. These questions also ask about the time spent by non-CAB members that helped with these activities. In the time between the last two meetings you attended, how many hours did you spend in a typical week on community engagement activities? Please include time spent on

community engagement even if it is a part of your job, and please DO NOT include time spent in the CAB meeting itself.

_____hours (range 0-999) 7000000 Prefer not to answer

CEP25 [IF CEP09 = 0 OR IF (CEP09 = 1 & CEP10 = 1)] Other non-CAB members, such as staff at your organization or other community stakeholders, may have helped you work on community engagement activities. In the time between the last two meetings you attended, how many individuals worked on these activities with you?

_____(range 0-999) 7000000 Prefer not to answer

CEP26 [IF CEP09 = 0 OR IF (CEP09 = 1 & CEP10 = 1)] On average, what is the total number of hours spent per week by these individuals?

_____(range 0-999) 7000000 Prefer not to answer

CEP27. [IF CEP09 = 0 OR IF (CEP09 = 1 & CEP10 = 1)] Please think about the occupations of the individuals who spent the most time on the activities during this period. Which occupation type is associated with the most time spent?

_____(100 Characters) 7000000 Prefer not to answer

Appendix C. Miscellaneous Activity Costs Standalone Questionnaire to be completed with a key informant.

Instructions: The research assistant will work with the Community Engagement Intervention Facilitator, coalition coordinator or other key informant to collect these data. Note, these data may require follow-ups as the key informant gathers data from other sources.

MAC01. We are interested in learning more about the costs for this HCS CAB meeting. Please use approximate quantities if the costs are unknown. What items were used for this meeting? Select all that apply.
[PROGRAMMER: SELECT ALL THAT APPLY]

1. Meeting space
2. Advertising
3. Other (specify_____)
4. None of the

Above 8000000
Don't Know
7000000 Refused

MAC02. [IF MAC01=1] In total, how much did you spend on meeting space?

$_____.____(Range: .01 – 9999.99)
8000000 Don't Know
7000000 Refused

MAC03. [IF MAC01=2] In total, how much did you spend on advertising for this meeting?

$_____.____(Range: .01 – 9999.99)
8000000 Don't Know
7000000 Refused

MAC08. [IF MAC01=7] In total, how much did you spend on other meeting costs?

$_____.____(Range: .01 – 9999.99)
8000000 Don't Know
7000000 Refused

END2. Thank you for your help