



# Factors impacting implementation of a community coalition-driven evidence-based intervention: results from a cluster randomized controlled trial



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## Abstract

**BACKGROUND:** For the past two decades there has been increased emphasis on implementing community coalition-driven, evidence-based interventions. However, little information is available to determine which elements of coalition infrastructure and partnerships are most supportive of successful intervention implementation. The Educational Program to Increase Colorectal Cancer Screening (EPICS) is a cluster randomized controlled trial (cRCT) currently underway in 20 communities located in 12 US states. The objective of this paper is to describe the role of three elements important in EPICS implementation by community coalitions: organizational infrastructure, facilitator selection and partnership formation. We hypothesized that more experienced community coalitions with larger, formal structures will train more facilitators and establish more partnerships when compared to smaller, less formal coalitions. **METHODS:** National Black Leadership Initiative on Cancer (NBLIC) community coalitions were charged with recruiting facilitators and community partners for EPICS delivery. The role of the facilitators was to deliver the educational intervention to small groups of participants. Facilitators selected were either community health educators (CHEs) – persons with a health professions degree - or community health workers (CHWs). Partnerships were formed with churches, clinics and other community sites to serve as settings and to assist in participant recruitment. Data were collected using a mixed method approach: two self-administered surveys (Organizational Assessment and Facilitator Baseline Knowledge, Attitudes and Confidence Survey) and telephone key informant interviews. Descriptive analyses of the three groups of study participants (e.g., community coalitions, facilitators and partners) and correlational analysis was also performed within each community coalition to test for differences in facilitator and partnership type. **RESULTS:** A total of 20 community coalitions, 204 facilitators and 61 community institutions formed partnerships for EPICS implementation. *Organizational Structure:* All but one community coalition targets primarily African American populations (95.24%). *Facilitator Selection:* CHEs and CHWs were demographically similar (e.g., gender, race, age, language of preference, marital status, religious preference, and insurance coverage). While the association between community coalition size and the number of CHEs was not significant, there was a significant difference between community coalition size and the number of CHWs. Smaller and medium-sized coalitions engaged more CHWs as facilitators ( $p=0.0071$ ). *Partnership Formation:* Community coalition size did not correlate with partnership type or number. Community coalitions indicating partnerships with clinics were more likely to select CHEs than CHWs ( $p=0.0338$ ). **CONCLUSIONS:** We examined multiple organizational characteristics to determine their relationship to facilitators and partners implementing EPICS. Although demographically similar, CHWs were selected more often by smaller and medium-sized community coalitions to train as EPICS facilitators. This finding suggests that smaller community coalitions, with a less formal structure were more likely to engage individuals with limited health backgrounds to facilitate the intervention. As a community-driven intervention, EPICS facilitation does not require a health professional for delivery. Interestingly, for community coalitions planning to implement EPICS in clinical settings, CHEs were selected over CHWs as facilitators. **KEY WORDS:** Community coalition; Evidence-based intervention; Cluster randomized-controlled trial.

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## Introduction

Structured collaborations between community coalitions and key-stakeholders (e.g., community members and healthcare professionals) and partnerships with community institutions (e.g., faith-based, health-care and recreational), present an excellent model for conducting community-based research. While community coalition-driven interventions are on the rise, little information is available to determine which elements of coalition infrastructure and partnerships are most supportive of successful intervention implementation. The purpose of this paper was to describe the relationship between three indicators of successful implementation: organizational infrastructure (including leadership, membership and governance), facilitator selection (including training) and partnership formation.

The approach to EPICS implementation was guided by:

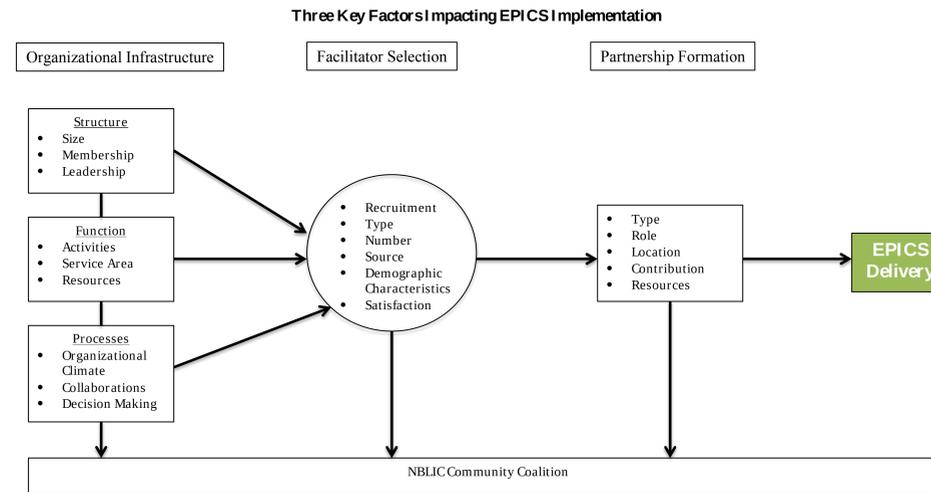
- **Community Coalition Action Theory** (CCAT) provided a method for assessing coalition efforts by identifying internal factors and processes linked to intervention implementation.
- **Community-Based Participatory Research** (CBPR) viewed the community as a partner with academic researchers in developing, implementing and evaluating scientific investigations.
- **Diffusion of Innovations Theory** (DIT) described the adoption of new interventions such as EPICS and factors impacting its spread throughout communities.
- **Reach, Effectiveness, Approach, Implementation and Maintenance** (RE-AIM) evaluation framework provided measurable process, outcome and impact assessments to assess community coalitions' role in the cRCT.

The study addressed the following questions:

1. Does community coalition organizational infrastructure impact EPICS implementation?
2. How is EPICS reach influenced by facilitator type?
3. What is the relationship between facilitator training satisfaction and EPICS adoption and implementation?

## Methods

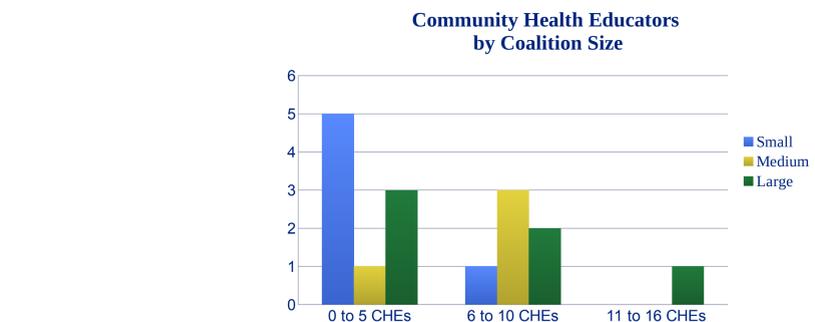
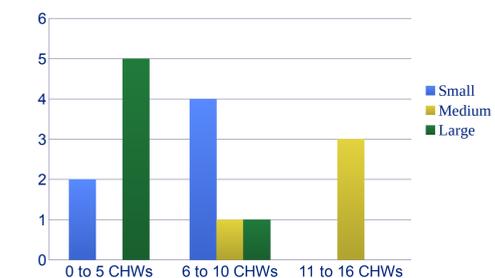
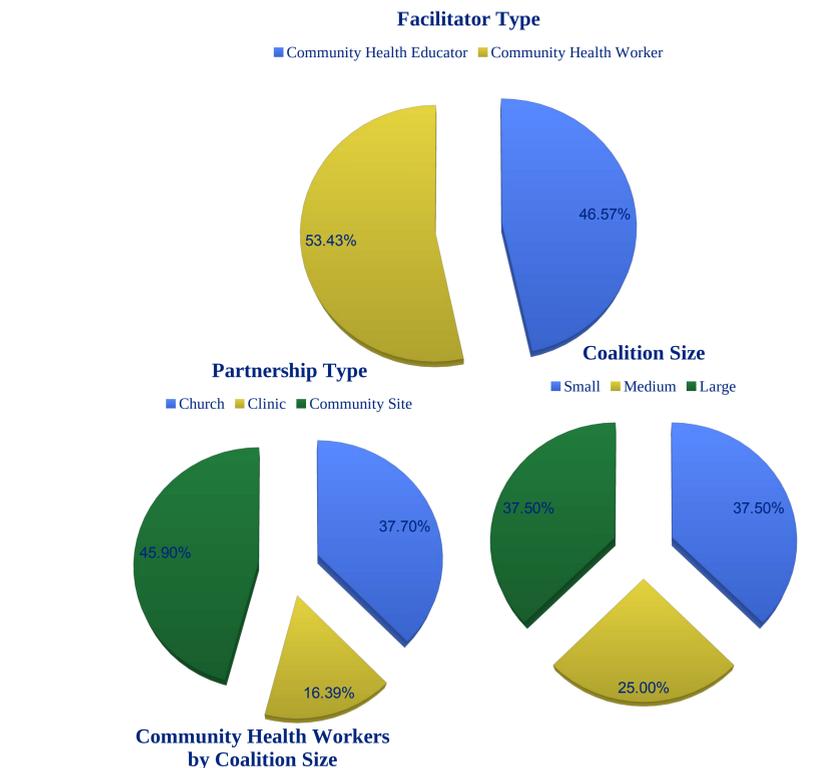
A mixed method approach (quantitative and qualitative measures) was selected for data collection. Two self-administered instruments (Organizational Assessment; Baseline Facilitator Knowledge, Attitudes and Confidence Surveys) and Telephone Key Informant Interviews (conducted in English, audio-recorded, and transcribed verbatim) were completed for each community coalition. The questionnaires and interviews explored the coalitions' organizational infrastructure (e.g., structure, function and processes), facilitator type (e.g., recruitment, training, demographics) and partnership type (e.g., type, role, contribution).



## Results

Educational Program to Increase Colorectal Cancer Screening Implementation: Coalition Size, Facilitator Selection & Partnership Type

Coalition ID	Coalition Size	CHE N (%)	CHW N (%)	INTERVENTION SETTINGS			Total N
				Church N (%)	Clinic N (%)	Community Site N (%)	
1	Medium	7 (39)	11 (61)	3 (43)	1 (14)	3 (43)	7
2	Small	4 (31)	9 (69)	1 (33)	0 (0)	2 (67)	3
3	Large	4 (50)	4 (50)	1 (50)	0 (0)	1 (50)	2
4	Small	5 (83)	1 (17)	2 (67)	1 (33)	0 (0)	3
5	Large	8 (68)	4 (33)	3 (60)	1 (20)	1 (20)	5
6	Medium	8 (33)	16 (68)	2 (33)	0 (0)	4 (67)	6
7	Large	9 (100)	0 (0)	1 (33)	1 (33)	1 (33)	3
8	Large	4 (44)	5 (56)	1 (25)	2 (50)	1 (25)	4
9	Medium	8 (35)	15 (65)	2 (25)	2 (25)	4 (50)	8
10	Large	13 (93)	1 (7)	0 (0)	0 (0)	2 (100)	2
11	Large	2 (22)	7 (78)	3 (50)	1 (17)	2 (33)	6
12	Large	8 (89)	1 (11)	1 (50)	0 (0)	1 (50)	2
13	Small	3 (30)	7 (70)	1 (25)	1 (25)	2 (50)	4
14	Small	6 (86)	7 (14)	1 (50)	0 (0)	1 (50)	2
15	Small	3 (50)	3 (50)	0 (0)	0 (0)	1 (100)	1
16	Small	1 (14)	6 (86)	1 (50)	0 (0)	1 (50)	2
17	Small	4 (50)	4 (50)	1 (33)	1 (33)	1 (33)	3
18	Medium	0 (0)	10 (100)	1 (25)	1 (25)	2 (50)	4
<b>TOTAL</b>	<b>18</b>	<b>97</b>	<b>111</b>	<b>25</b>	<b>12</b>	<b>30</b>	<b>67</b>



## Discussion/Conclusion

**DISCUSSION:** Community coalitions, even when organized for a common purpose (reducing cancer disparities), are by no means uniform in size, membership characteristics, or other features. These differences affect the ways in which the coalitions function. In this project, large community coalitions – which are likely to have more members who are educated as professionals – more often chose community health educators as facilitators. Small and medium-sized coalitions - which are likely to have a predominantly lay membership – more often chose community health workers. As another example, medium-sized coalitions had three or four community intervention sites, whereas no large coalition had more than two.

**CONCLUSION:** In evaluating and interpreting the results of a research project involving community coalitions, the characteristics of the individual coalitions must be taken into consideration.