Frontiers in Public Health Services and Systems Research

Volume 3 | Number 3 Article 1

August 2014

Measures of Highly Functioning Health Coalitions: Corollaries for an Effective Public Health System

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Recommended Citation

Barnes PA, Erwin PC, Moonesinghe R. Measures of Highly Functioning Health Coalitions: Corollaries for an Effective Public Health System. Front Public Health Serv Syst Res 2014; 3(3).
DOI: 10.13023/FPHSSR.0303.01

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ABSTRACT

In Tennessee, health coalitions provide guidance in conducting community assessments, health improvement plans and policies and delivering of health and human services, which are considered core functions of public health. In fact, it has been postulated that these coalitions may serve as the *organizational embodiment* of the local public health system (LPHS). This study identifies functional characteristics of 63 Tennessee County Health Councils (CHCs), advisory councils to local and regional governmental public health agencies on broad issues of health, that contribute to its ability to operate as the primary advising entity of the LPHS. Exploratory factor analysis was conducted on 20 questions serving as proxy measures of functional characteristics. Eight functional characteristics related to structure, operations and leadership were identified. These characteristics are essential in further developing and tracking capacity and performance of health coalitions serving as an advisory and possibly decision making entity of the LPHS. This study also lays the groundwork to explore how to link coalition function with performance in order to determine characteristics that are most strongly associated with optimal performance and population health.

Keywords
health coalitions, local public health systems, functional characteristics

Cover Page Footnote
Disclaimers: The findings and conclusions in this paper are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

This Article is available in Frontiers in Public Health Services and Systems Research: https://uknowledge.uky.edu/frontiersinphssr/vol3/iss3/1

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Introduction

A community health coalition is a specific form of partnership that develops when organizations, groups, and individuals join together in a strategic alliance that is focused on health. Its purpose is to bring benefit to all stakeholders, and ultimately to the entire community. [1] Membership, operations and processes, leadership, structure, active member engagement, human, physical, and financial resources are necessary ingredients for health coalitions to create synergy-- a complementary pooling of knowledge, skills, and resources that occurs among people working towards a common goal.[2,3] Coalitions that have these elements in place are more capable of effectively implementing activities related to their strategic priorities that may improve population health. However, to our knowledge, no one has examined if these are the same characteristics needed for a health coalition that is responsible for providing oversight or coordinating the delivery of the 10 Essential Public Health Services. In other words, is it possible for a health coalition – as a distinct organizational entity - to represent the local public health system (LPHS) and have specific characteristics needed to impact systems performance? The National Public Health Performance Standards Program was designed to assess performance of public health governing bodies and systems; however, this assessment tool does not measure characteristics necessary for health coalitions to effectively improve system capacity and performance.

The purpose of this study was to identify structural, leadership, and operational characteristics (also known as functional characteristics) of 63 Tennessee County Health Councils (CHCs). CHCs are county-based advisory councils to local and regional governmental public health agencies on broad issues of health and healthcare that contribute to the effective delivery of Essential Public Health Services. Frequently serving as organizational representatives, CHC members include local health department employees, school administrators, locally elected officials, managers of human services and social support organizations, agriculture extension agents, health professionals, persons representing faith communities, and grassroots representatives - organizations and individuals that essentially comprise the LPHS. A survey of CHCs conducted in 2010 provided data on characteristics related to organization, membership, resources, and processes that were deemed critical to building CHCs' capacity to influence community health. Exploratory factor analysis was carried out on 20 functional measures in order to identify latent constructs or themes that may be important for health coalitions that function as organizational representatives of the LPHS. This study serves as a springboard for further research that has important implications in linking the delivery of the essential public health services to coalition development.

Methods

A web-based survey was used to collect demographic information as well as procedural and functional capacity of CHCs in 2010, with usable data returned from 63 of 94 existing CHCs. The development of the survey has been previously described[4]; in brief, the survey development was based on a review of the literature on effective coalitions, as well as key informant interviews to identify characteristics of highly functioning health coalitions.[4] County Health Council leaders provided responses to 20 measures of functional capacity (Table 1).

Table 1: Measures, and survey questions - County Health Councils (CHCs), 2010

Measures	Survey questions
1. Presence/absence of funds	Does your council currently have any financial resources?
2. Opportunities for training	In the last 12 months, have council members had opportunities for training or other technical assistance to enhance their effectiveness as council members?
3. Sectoral representation	Please indicate all groups and/or people currently represented on your council.
4. Number of meetings	In the last 12 months, approximately how many meetings did your council hold?
5. Good communication among members	There is good communication among council members.
6. Methods of communication among members	Please indicate which of the following your council uses to communicate with its members.
7. Internal conflict among members	Our council successfully address internal conflict among members
8. Presence of a steering/executive committee	Currently our council has the following leadership position
9. Decision making among council members	Decisions our council makes are decided upon by all members.
10. Task-focused council	Our council is task-focused.
11. Written bylaws	The council currently has written bylaws.
12. Written priorities and/or goals	The council currently has written priorities and/or goals.
13. Written vision	Our council has a written vision and/or mission statement.
14. Written strategic plan	Our council has a written strategic plan or action plan.
15. Members participate in subcommittees	Members actively participate in council committees, subcommittees or task forces.
16. Members committed to council	Most members are committed to the efforts of the council.
17. Council is a well-recognized entity	Our council is a well-recognized entity within our community.
18. Key community leaders are aware of initiatives	Key community leaders are aware of our initiatives.
19. Communication about council presence and events to the community	Please indicate which of the following your council uses to communicate its presence and events to the community.
20. Council actively involved with other organizations	Our council is actively involved with other organizations which are not represented on the council.

An exploratory factor analysis was performed to examine underlying dimensions of functional characteristics of the CHCs based on these 20 measures. We tested both varimax (orthogonal) and promax (oblique) rotation methods to compute factor loadings. We selected promax rotation because it allows the latent factors to be correlated with each other and yielded more interpretable factor patterns. The meanings of the rotated factors were inferred from the measures significantly loaded on their factors. Factor loadings greater than 0.4 in absolute value were considered to be significant.

RESULTS

Based on a plot of eigenvalues against the corresponding factor numbers, eight factors explained 74% of the total variance in the measures. All the measures had at least one significant loading (>0.40) on one of the 8 factors, with 16 of these measures showing high loadings of at least 0.6. Only two measures, "communication about council presence and events to the community" and

"good communication among members" had moderately high loadings in more than one factor indicating the involvement in more than one underlying dimension of functional characteristics.

Eight latent factors were identified as characteristics contributing to CHC function: commitment and visibility; positive climate for decision making; human and social capital; visionary leadership; strategic thinking; membership diversity; capable communications; and formal structures and membership development (Table 2).

Table 2: Principal Component Factor Loadings for County Health Council Measures

	Factor Loading (loading >0.4 as denoted by shaded box)							
Measures	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Presence/absence of funds	0.20875	-0.10926	0.73619	-0.03195	-0.19624	-0.38294	-0.06542	0.1076
Opportunities for training	0.16437	-0.14585	-0.04298	-0.01073	-0.0814	0.16017	0.0965	0.74587
Sectoral representation	0.1044	0.14146	-0.05003	0.19369	-0.06893	0.89625	0.05667	0.02211
Number of meetings	-0.21359	0.12473	0.7692	0.18959	-0.00396	0.33539	-0.16288	-0.10661
Good communication among members	0.54862	0.54292	-0.07329	-0.09496	-0.03257	0.01565	0.07561	0.0035
Methods of communication among members	-0.02032	-0.00255	-0.13923	0.09763	0.02213	0.07437	0.90985	0.02284
Internal conflict among members	-0.04031	0.9273	0.01943	-0.16791	0.14012	0.17884	-0.15566	0.01019
Presence of a steering/executive committee	0.18423	-0.06439	-0.0243	0.72937	-0.11992	0.25775	-0.00086	0.10597
Decision making among council members	0.20867	0.7248	0.04407	-0.10138	-0.27277	0.02664	0.21756	-0.02545
Task-focused council	0.48027	0.25733	0.11844	0.23438	0.20093	-0.0129	-0.01206	0.11857
Written bylaws	-0.14468	0.27423	0.01508	0.30399	0.06444	-0.27236	-0.07211	0.70673
Written priorities and/or goals	0.01884	0.08994	-0.17758	0.02571	0.86342	-0.09626	0.09668	-0.04291
Written vision	-0.01149	-0.25937	0.15954	0.83074	0.03372	0.06858	0.09205	-0.00586
Written strategic plan	0.34741	-0.21898	0.1154	-0.1172	0.6398	0.03527	-0.04183	-0.01072
Members participate in subcommittees	0.82152	0.03447	-0.06563	0.16332	0.10906	0.00901	0.01376	-0.04935
Members committed to council	0.85463	0.02837	-0.19192	0.16014	0.00982	-0.10376	-0.09686	-0.09072
Council is a well-recognized entity	0.60392	0.03497	0.2254	-0.12815	0.09371	0.24108	0.0338	0.09543
Key community leaders are aware of initiatives	0.72642	-0.02573	0.06729	-0.12803	0.00889	0.18302	-0.07237	0.23009
Communication about council presence and events to the community	-0.16663	0.02193	0.56577	-0.06083	0.16672	-0.02602	0.57411	0.07333
Council actively involved with other organizations	0.3224	0.24397	0.41124	0.17313	0.00453	-0.17286	0.07384	-0.27842
Latent functional characteristics	Commitment and Visibility	Positive Climate for Decision-Making	Human and social capital	Visionary Leadership	Strategic Thinking	Membership Diversity	Capable Communications	Formal Structures and Membership Development

IMPLICATIONS

This study identified functional characteristics that may be considered as essential constructs among health coalitions which function as the organizational representation of an LPHS. These eight functional characteristics are deemed to be essential in further developing and tracking capacity and performance of health coalitions serving as advisory and possibly decision-making entities. This study also lays the groundwork to explore how to link coalition function with system performance. Previously, Barnes *et al* assessed partnership performance by focusing on measures in the local tool of the National Public Health Performance Standards program.[5] Barnes assessed 18 measures of partnership performance and identified four latent themes in a factor analysis – resources and activities contributing to relationship building; evaluating community leadership efforts; research; and state and local linkages to support public health activities. Together with the present study, these two studies provide the springboard for connecting coalition function (or inputs) with performance (or outputs), particularly in determining characteristics that are most strongly associated with optimal performance and population health. Although this study only provides one state's perspective about health coalitions, it adds to the growing area of research emphasizing system capacity and performance improvement. Preliminary findings will be used to create a follow up survey that attempts to connect functional characteristics to indicators of performance as described in the National Public Health Performance Standards Program.

SUMMARY BOX:

What is Already Known about This Topic? Community health coalitions can create the necessary synergy to improve health at the community level.

What is Added by this Report? This report identifies eight functional characteristics of health coalitions that may be critical for improving systems capacity and performance.

What are the Implications for Public Health Practice, Policy, and Research? This study provides a springboard for connecting community health coalitions' inputs to performance, which ultimately may link to improved delivery and impact of the essential public health services.

DOI: 10.13023/FPHSSR.0303.01

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