Indicators of Partnership Success Among MICHIANA Coordinated School Health Teams

Priscilla A. Barnes, David Lohrmann, Meagan Shipley, and Jim O'Neill

Abstract

Coordinated school health (CSH) is an increasingly popular approach used by school and community stakeholders for implementing policy and programmatic changes. Because funding is limited, examination of factors that maximize the potential for schools to build sustainable partnerships is crucially important. This study assessed the extent to which school systems met expectations for building CSH partnership capacity. Data were collected through a survey and structured interviews of fourteen teams participating in a leadership institute. Twenty four survey questions served as proxy measures for partnership capacity. Interviews were transcribed and analyzed for deeper contextual meaning using open coding and thematic analysis. Findings indicated that all fourteen MICHIANA teams met or exceeded expectations for 15 of 24 indicators. Overall, school personnel recruited individuals to participate, in most cases, without a designated full-time coordinator and delegated responsibilities to at least one member, especially when funding was limited. Informal communication and operational processes were the preferred structural components and teams were most likely to use assessment and planning tools that led to quick results to identify strengths and areas of improvement. Results support the importance of partnerships in building organizational capacity to leverage resources within and outside the school environment.

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Background

Coordinated school health (CSH) is an increasingly popular approach for addressing emerging and complex health concerns and, thereby, reducing health-risk behaviors such as physical inactivity, poor nutrition, smoking, unprotected sex, substance abuse, and violence (Murray, Low, Hollis, Cross, Davis, 2007; Greenberg, Weissberg, O'Brien, Zins, Fredericks, et al, 2003; Dewey, 1999). Due to confirmed improvements in academic and health outcomes (Murray, et. al., 2007), numerous school leaders are building infrastructure to support CSH; a process that is often initiated by use of tools such as the Healthy School Report Card, through which school and community partners identify strengths and challenges across multiple CSH organizational structures and components that can influence health behaviors of both students and school staff (Lohrmann, 2010a). Building sustainable CSH infrastructure requires schools to consider intra- and inter-organizational factors that can maximize effectiveness in administering policies and programs to reduce absenteeism, improve classroom participation and performance, and boost staff morale (Centers for Disease and Control and Prevention, [n.d.]; Minnesota Department of Health, [n.d.]; Michigan Department of Education, [n.d.]).

Implementing CSH goes beyond the job duties of one person responsible for managing school health activities. In fact, school systems should recognize that CSH is rooted in strategic partnerships within the school environment along with engaging a diverse array of stakeholders from the community such as parents, health and human service organizations, and students (Lohrmann, 2010). The formation of these relationships are critical in leveraging resources to achieve a common goal, increasing resource sharing and visibility, and providing opportunities to establish a long-term, organizational commitment to community concerns (Deschesnes, Martin, and Hill, 2003). However, understanding the fundamental elements essential for building partnerships, especially for school systems that are new or having challenges sustaining CSH, remain sparse.

Partnerships are defined as two or more individuals coming together to address a common goal and range from informal networking to formal collaboration (Himmelman, 2001). Commonly, individuals work within collective units such as coalitions that are instrumental in catalyzing behavioral, social, and environmental changes by pooling resources to address common goals (Roussos and Fawcett, 2001; Himmelman, 2001). Collaborations at this level progress through a series of organizational formation phases combined with implementation of sustainable activities that build community capacity to improve health outcomes (Butterfoss, 2007). Similarly, schools using a CSH approach join with community organizations to expand access to health resources while eliminating duplication of services (Marx &

Wooley, 1998; Lohrmann, 2010b). Such collaborations require careful examination of elements required to successfully form and sustain CSH infrastructure.

To gain a macro-level context of elements necessary to building partnership capacity, a conceptual framework for CSH was developed based on the Butterfoss' (2007) Community Coalition Action Theory (Figure 1). This framework highlights four important partnership constructs--membership, leadership, operations and processes, and structure--essential to forming CSH infrastructure. Based on these constructs, school leaders convene a team of professionals who are responsible for planning and coordinating activities across multiple school health components. Subsequently, team members recruit administrators, teachers, staff, students, parents, and community stakeholders to serve as members of a district health advisory council charged with guiding the direction of CSH.

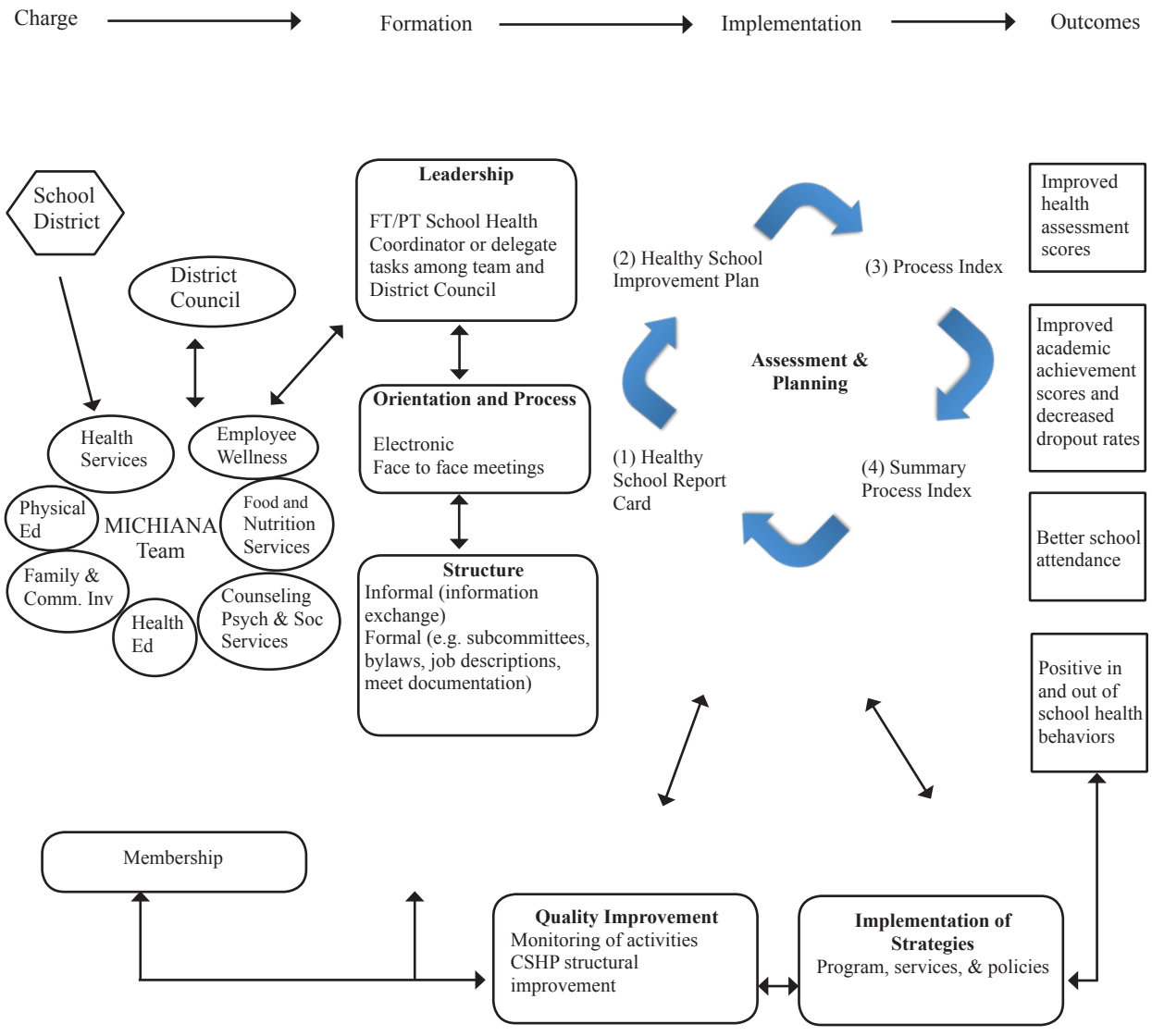

Figure 1. **Conceptual Framework for Building School-based and Community Partnerships in Coordinated School Health (CSH) Programs**

As school teams and councils mobilize, leadership, operations and process, and structural elements begin to form. Depending on availability of resources, school systems select one or more internal leaders to facilitate the day-to-day operation of CSH. If funding is available, a part- or full-time coordinator is appointed. If not available, essential tasks are delegated among team and district council members. Operations and processes, particularly open and frequent communication (e.g., electronic, face to face meetings), ensure that stakeholders progress toward addressing priorities as well as promoting CSH successes. Both informal and formal structures are essential to establishing continuity.

Human, financial, and material resources are obtained and shared as team and council members actively participate in essential assessment and planning activities. Multiple tools are used to identify priorities (The Healthy School Report Card), prioritize goals and activities (Healthy School Improvement Plan), and assess elements and progress indicators to determine the extent to which program goals are attained (Process Index and Summary Process Index) (Lohrmann, 2010). Completion of these steps provides direction for implementation of strategies that improve assessment scores and health behaviors as well as school attendance and academic performance. In addition, continuous quality improvement enhances the development and implementation of school-based and community partnerships by identifying leadership, operations, and structural strengths and weaknesses as well as by igniting ongoing recruitment of internal and external stakeholders. All of these elements are critical to building an infrastructure that sustains CSH through effective partnerships.

To build local CSH infrastructure capacity, a formal partnership between the American Cancer Society, the Departments of Education in Indiana and Michigan, Michigan Department of Community Health and Indiana State Department of Health, recruited school district teams to participate in the second MICHIANA Coordinated School Health Leadership Institute (hereafter referred to as MICHIANA), a five-year didactic, hands-on training initiative (Michigan Department of Education, [n.d.]). Since its inception in 2003, two Institutes involving over 30 school systems generated increased physical activity programs, health education offerings, healthier meal options, student healthcare, and grant funding (Dewitt, Lohrmann, O'Neill, Clark, 2011; Shipley, Lohrmann, Barnes, and O'Neill, 2013). The MICHIANA curriculum emphasized school and community partnerships as a primary approach to developing CSH infrastructure.

Because funding to support and sustain CSH is limited, determination of factors that position schools to maximize their potential for improving student health outcomes is crucial; however, few existing studies have focused on identifying elements for implementing CSH via school and community partnerships (Lohrmann, 2010b; Shipley, Lohrmann, Barnes, & O'Neill, 2013). Therefore, the purpose of this study was to assess the extent to which MICHIANA teams accrued partnership capacity to develop and implement CSH. The research question was:

> Based on indicators from the Community Coalition Action Theory, to what extent did MICHIANA teams meet expectations for building partnership capacity needed to sustain CSH over time?

This study focused solely on structural outputs from resource inputs (i.e., financial and material resources, training and technical assistance) and local school district activities and actions and was not intended to measure student and/or staff health outcomes. Ascertaining performance levels in five areas of partnership capacity will provide additional insights into the methods teams used to enhance school and community engagement for building CSH infrastructure.

Methods

Participants

The Indiana Department of Education (IDE) and the Michigan Department of Education (MDE) solicited grant applications to participate in MICHIANA from all school systems in their states. A request for application was sent to Indiana school corporations and Michigan school districts. Receipt of a grant award was based on school systems commitment to:

- Create a corporation/district level CSH council with at least three members: a CSH coordinator, a school administrator, and a corporation/district staff or non-school corporation/district community member;
- Participate in an introductory conference call and attend seven MICHIANA sessions (four 3-day sessions in Indiana and five 5-day sessions in Michigan);
- Create a corporation/district five-year school health programming vision and mission statement;
- Complete the Healthy School Report Card assessment;
- Create and implement a Healthy School Improvement Plan that included a defined strategy to employ a full time CSH coordinator and goals for increasing CSH programming;
- Assess Healthy School Improvement Plan progress every six months by completing the process and summary indices;
- Develop a CSH council portfolio documenting evidence of team progress and success;
- Complete homework as assigned between each MICHIANA Institute (American Cancer Society Michigan/Indiana, 2007).

From this list, fourteen systems (6 from Indiana and 8 from Michigan) were invited to participate in the second MICHIANA Institute that began in April 2008. District leaders were asked to appoint team members who would make a three year commitment to attend MICHIANA sessions every six months and create a CSH infrastructure (Michigan Department of Community Health, Michiana, [n.d.]).

Instruments

A two-part 67 item survey was developed by the MICHIANA core team that included professional staff members employed by the sponsoring organizations and other

Table 1. *Partnership constructs and indicators of success: Institute expectations*

Partnership constructs	Indicators	Did not meet expectations	Partially met expectations	Met expectations	Exceeded expectations
Membership	(1)At least three members on MICHIANA teams	0-1 members	2 members	3 members	> 3 members
	(2)At least eight core members on the District Council	0-1 members	2-7 members	8 members	> 8 members
	(3)Recruitment for District Council Members continuously occurs	Reported as "no" in evaluation	*	Reported as "yes" in evaluation	*
	(4)New orientation recruitment is offered	Reported as "no" in evaluation	*	Reported as "yes" in evaluation	*
Leadership	(5)Update portfolio (6) Monitor implementation of Healthy School Improvement Plan (7)Facilitate District Council meetings (8)Complete the Process Index (9)Determine success stories (10)Submit stories for internal/external distribution	No one is listed as being responsible for a task	Group is listed as being responsible for a task; a specific person is not identified	A specific individual is listed as being responsible for a task	Two or more individuals are listed as being responsible for a task
Operations and Processes	(11)District Council meets regularly	Does not meet	Meets 1-2/yr	Meets quarterly	Meets monthly or bimonthly
	(12)MICHANA team provides presentation to school board and school and community groups about progress	Does not present to school or community groups	Present only to school groups	Present to at least one school and community group	Present to at least two school and community groups
	(13)Portfolio shared with internal and external stakeholders	Does not share with any group	Share with only school group(s)	Share with at least one school and community group	Share with at least two school and community groups
	(14)Healthy School Improvement Plan shared with internal and external stakeholders	Does not share with any group	Share with only school group(s)	Share with at least one school and community group	Share with at least two school and community groups
	(15)Results from Process Index and Summary Process Index are shared	Results not shared	Results from one index are shared	Results from both indices are shared	*
	(16)Success stories are shared	Does not share with any group	Share with only school group	Share with at least one school and community group	Share with at least two school and community groups
Structure	(17)Meeting agenda and minutes are present in portfolio	Not included	Only agenda or minutes included	Agenda and minutes included	*
	(18)Team membership list and meeting calendar in portfolio	Not included	Only one document included	Both documents are included	*
	(19)Council membership list and meeting calendar are present in portfolio	Not included	Only one document included	Both documents are included	*
	(20)Formalized standing procedures for organizing, electing, officers, and forming committees, conducting business	Reported as "no" in evaluation	*	Reported as "yes" in evaluation	*
	(21) Health coordinator job description	Not included	*	Included in portfolio	*
Assessment and Planning	(22)Healthy School Report Card are completed	Not completed	Partially completed	Completed in full	*
	(23)Healthy School Improvement Plan are completed	Not completed	Partially completed	Completed in full	*
	(24)Process Index/Summary Process Index are completed	Not completed	Only one index is completed	Completed in full	*

* Denotes no criteria for this indicator

school health experts. The survey was previously used to measure numerous programmatic and organizational aspects of CSH as implemented by teams participating in MICHIANA Institutes (Dewitt, Lohrmann, O'Neill, & Clark, 2011; Shipley, Lohrmann, Barnes, & O'Neill, 2013) Face and content validity of survey questions were established through an earlier study (Dewitt, Lohrmann, O'Neill, & Clark, 2011). Response options were a combination of open ended and categorical (e.g. yes, no) with opportunity to comment. For the purposes of this study, the process indicators related to CSH coordination were explored. MICHIANA teams were encouraged, not required, to expand or improve any or all of the remaining CSH components depending on their priorities.

Procedures

Prior to attending the final session in April 2011, MICHIANA teams were sent the survey via email and asked to be prepared to document their progress toward achieving Institute responsibilities. They had the option to complete some or all of the survey prior to attending and were provided additional time during the Institute. To confirm and elaborate on their responses, every team participated in a follow-up group interview of approximately 60 minutes that was administered by trained staff, captured via audio recording, and converted to a written transcript. For teams not attending MICHIANA, telephone interviews were conducted. Those completing the survey and interview ranged from one individual to an entire team of up to five members.

Teams were also asked to compile a portfolio that served as additional evidence for substantiating their efforts in developing and implementing CSH. Instructions for compiling a portfolio were presented during the first leadership training session. Teams filled portfolios with documents, plans, photographs, success stories, and other visual representations.

Measures and Data Analysis

Researchers identified survey questions that served as proxy measures of building school-based and community partnerships for successful CSH development. For the purposes of this study, 23 questions were analyzed because they served as indicators of MICHIANA team responsibilities and aligned with the five constructs in the conceptual framework (Figure 1) focusing on the development and implementation phases of school and community partnerships. A four point scale was used to assess the extent to which individual teams had achieved each of the 23 indicators (Table 1).

Four questions assessed membership activities related to building a core group of school and community members involved in CSH efforts as well as continual recruitment of new members. Six questions evaluated leadership, primarily as it related to completing CSH development and implementation tasks. One of these responsibilities was compiling a portfolio that documented CSH plans, progress, and accomplishments. Teams were also required to identify people who could facilitate district council meetings; monitor implementation of a Healthy School Improvement Plan with the Process Index; and select and disseminate success stories to school systems and community partners. Six questions examined operations and processes specifically related to the approaches used by MICHIANA teams and district councils to communicate and share information. These approaches included convening regularly scheduled meetings, delivering advocacy presentations, and sharing portfolios, plans, process indices, and success stories with school and community stakeholders. Five questions assessed characteristics indicative of structure such as the presence of meeting minutes, agendas, team and council membership lists, and subcommittees. Three questions determined whether teams completed assessment and planning tools used for identifying CSH gaps and priorities. Teams were encouraged to complete the Healthy School Report Card, develop a Healthy School Improvement Plan, and track progress every six months using the process and summary process indices.

The performance of every MICHIANA team was scored for each of the 24 indicators using a four point scale: 1) did not meet expectations; 2) partially met expectations; 3) met expectations; and 4) exceeded expectations. Team scores for each of the 24 indicators were entered into a matrix (Table 2) in order to determine how many teams and how many indicators were accomplished by each of the 14 district teams.

To fully understand the partnership constructs and to substantiate information from the surveys, portfolios and interviews were analyzed for deeper contextual meaning. Initially, the presence and completion of planning and assessment documents, membership rosters, operating processes and policies found in team portfolios were noted and served as measures in the partnership matrix. Additionally, all team interviews were transcribed into text for data coding. Transcripts were reviewed several times by two members of the research team as a means of systemically coding data in appropriate thematic categories. Researchers first reviewed the transcripts independently by segmenting data into units (open coding) which were then sorted into categories or themes based on the five partnership constructs. Themes were identified through repetition, depth in contextual meaning of the data, and usual or different meanings of a phenomenon or event shared by participants. To ensure inter-rater reliability, commonalities and unique patterns in participants' responses were discussed and, where interpretations differed, resolved with greater than 85% agreement.

Results

Overall, MICHIANA teams reported varying levels (mean=8.5; median =15.5; mode= 6, 15, 16, 18; range: 6-20) of success in and achieving expectations for in building school-community partnerships (Table 2). Eleven teams (1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13) met or exceeded expectations for at least half (12) of the 24 indicators (range = 12-20), but only three teams (3, 5, 7) met or exceeded expectations for approximately 80% (18) of the indicators (range = 18-20). The majority of teams were most successful in meeting expectations for building school and community CSH membership and were least successful in operations and processes related to communication (Table 2).

Regarding membership, eleven of the fourteen teams met or exceeded the Institute's expectations by having three or more members on their MICHIANA team. Most

Table 2.
Partnership constructs and indicators, school systems participating in MICHIANA (n=14)

Partnership Constructs	Indicators	Participating school systems														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total
Membership	(1)At least three members on MICHIANA teams	■	■	■	■	■	■	■	■	■	■	■	■	■	*	13
	(2)At least eight core members on the District Council	■		■	■	■	■	■		■		■	■	■	■	11
	(3)Recruitment for District Council Members continuously occurs	■	■	■	■	■	■	■		■		■	■	X	■	11
	(4)New orientation recruitment is offered						■	■					■			3
Leadership	(5)Update portfolio	■	■	■	■	■		■	■	■	■	■		■		11
	(6)Monitor implementation of Healthy School Improvement Plan	■	■	■				■		■	■	■	■	■	■	10
	(7)Facilitate District Council meetings		■	■	■	■		■		■	■		■	■	■	10
	(8)Complete the Process Index		■	■	■	■		■		■	■		■	■		9
	(9)Determine success stories	■	■	■	■	■	■	■		■	■		■	■		11
	(10)Submit stories for internal/external distribution	■	■	■	■	■	■	■		■	■		X	■		10
Operations and Processes – open and frequent	(11)District Council meets regularly	■	X	■	■	■	■	■		■	X		■	X		8
	(12)MICHANA team provides presentation to school board and school and community groups about progress		■	■	X	■	■	■		■	■	■	■	■		10
	(13)Portfolio shared with internal and external stakeholders	X	X	■	■	X	■	■	X	X	X	■	X	■	X	6
	(14)Healthy School Improvement Plan shared with internal and external stakeholders		X	X		■		■				■	X	■	X	4
	(15)Results from Process Index and Summary Process Index are shared					■		X				■	X		■	3
	(16)Success stories are shared	■	X	■	X	■	■	■	*	■	■	■	■	■	■	11
Structure	(17)Meeting agenda and minutes are present in portfolio	■	X	■	■	■		■	■	■	■	■	■	■		11
	(18)Team membership list and meeting calendar are present in portfolio	■	■	■	■			■	■		■	■	■	■		10
	(19)Council membership list and meeting calendar are present in portfolio	■	■	■	■	■		■	■	■	■	■	■	■		12
	(20)Formalized standing procedures for organizing, electing, officers, and forming committees, conducting business, etc…								■			■		■		3
	(21)Health coordinator job description					■		■								2
Assessment and Planning	(22)Healthy School Report Card are completed	■	■	■	■	■		■	■	■	■	■	■	■		12
	(23)Healthy School Improvement Plan's completed	■	■	■	■	■		■				■	■	■		9
	(24)Process Index/Summary Process Index are completed		X	■		■		X		■	■	■	■	X		6
Total across all partnership constructs		13	12	18	14	18	10	20	6	15	15	16	16	17	6	

■ Did not meet X Partially met expectations ■ Met expectations ■ Exceeded expectations * Information not provided Total no. met + exceeded expectations

members were school personnel who had worked within their school system an average of 13 years (Table 3) and primarily consisted of teachers, food service managers, and support staff. Ten teams had at least one team member representing upper management such as superintendents, principals, or a regional CSH administrator. Only three teams included persons external to the school system.

Table 3.

Demographic profile of MICHIANA teams

MICHIANA Team	Reported no. schools in district	Student population *	No. on CSH team	Average [Range] Years of Experience
1	18	14,416	3	17.6 [7-30]
2	6	3,888	3	32 [20-38]
3	5	3,693	4	14.3 [9-22]
4*	3	883	4	9.7[5-19]
5	7	3,531	4	18.8 [12-33]
6	25	12,216	4	22 [12-33]
7	22	10,320	4	16 [3-30]
8	79	22,364	4	22.5[10-30]
9	8	3,404	4	15.4 [5-26]
10	3	1,606	5	24 [10-34]
11	7	2,908	6	25.5[3-37]
12	6	3,388	7	22 [7-38]
13*	3	1,674	7	19.2 [3-35]
14**	12	6,676	Unavailable	Unavailable

*One or more MICHIANA members did not report years of experience

**Demographic information not provided/reported

For the district council, the majority of teams met or exceeded expectations by having at least eight members, but councils differed in size (range 8-30). Council membership included representatives from the school level in addition to parents, community-based organizations, and employers of state and local health and education agencies. Although eleven of the fourteen teams reported continuous recruitment of district council members, only three teams offered new member orientation. For example, one team recruited members by sending an annual Email to assess interest: "We look at our strengths and weaknesses at the beginning of each school year and re-evaluate and send out an Email saying if you are a member, are you willing to continue?"

MICHIANA teams met or exceeded expectations in several indicators for building their organizational capacity in leadership, operations and processes, and structure. Many teams reported having at least one person responsible for updating their portfolio, facilitating district council meetings, monitoring the Healthy School Improvement Plan, and determining CSH success stories. Most teams did not have a school health coordinator and frequently stated that this prevented them from completing many CSH responsibilities. Since the coordinator position did not exist, teams assigned specific duties to core members, thus alleviating the amount of work and stress on any one person.

MICHIANA teams' performance in operations and process related to communication differed across indicators. Meeting interaction with MICHIANA team and district council members varied from once a month to 2-3 times a year. The majority of teams shared portfolios or Healthy School Improvement Plans with superintendents, but did not share or shared to a limited extent with external stakeholders (e.g. parents, school board members, and community groups). At least half the teams shared success stories with the media: "…Local media has been engaged in coordinated school health programming…when successes happen…our goal for next year is to have a monthly feature article…in our local newspaper." Among teams using the process indices, results were primarily shared with MICHIANA core team members.

As for building the structure of CSH partnership, teams included council membership lists, minutes, and agendas in portfolios; however, job descriptions (e.g. health coordinator) were seldom included. If bylaws were included, they were school board policies or policies related to nutrition and physical education. Policies related to the function of CSH, specifically subcommittee structures, were never included.

Overall, teams met expectations in two of the three assessment and planning indicators. The majority of MICHIANA teams (twelve of fourteen) completed the Healthy School Report Card, 64% (nine of fourteen) teams developed a Healthy School Improvement Plan, and 42% (six of fourteen) of teams completed the process index. Only four teams completed all three of the assessment and planning tools. The Healthy School Report Card was reported as most useful by providing data for each of the eleven characteristics that should be considered as CSH priorities. One MICHIANA team stated, "The Report Card [provided] data that was needed to identify key priorities." The Healthy School Improvement Plan was coined as a "checks and balance" tool that helped organize team's responsibilities, gave direction to MICHIANA teams with separate committees addressing the CSH components, and helped monitor progress. As for the process indices, many teams found these tools helpful in building external collaboration, "…[we] use[d] [the] process index to understand who our community collaborat[ors] are...and if we're trying to develop new programs and applying for new grants… who [were] people we can turn to…", and having specific conversations with internal stakeholders such as the food services department in changing or adjusting menu offerings.

Several teams decided which tools met their immediate needs in CSH development and community engagement. For example, the Healthy School Report Card served as a data gathering tool as well as the "Healthy School Improvement Plan" for one district. Some teams reported that the Healthy School Improvement Plan and Process Indices were overwhelming and difficult to use, stating that stakeholders wanted to spend more time "accomplishing things, rather than doing documentation."

Discussion

Overall, MICHIANA teams appeared to integrate important elements necessary for building internal and external relationships (Butterfoss, 2007) that contribute to successful CSH formation and implementation (Lohrmann, 2010a; Marx and Wooley, 1998). School personnel recruited individuals within the system and from the community, in most cases, without a formally designated full-time health coordinator. Although the organizational capacity to develop and implement CSH was limited due to funding, MICHIANA teams completed their work by delegating responsibilities to at least one member. Operations and processes around communication and team structure were practiced on an informal basis rather than through concrete procedures. Teams were most likely to selectively use assessment and planning tools that led to quick results and showed strengths and areas for improvement.

In the formation phase, building membership of school-based and community partnerships takes time, but is necessary in order for school systems to create a sense of "ownership" and maintain continuity (Butterfoss, 2007). Community readiness and buy-in from stakeholders are critical indicators of successful partnerships (Weiler, Pigg, and McDermott, 2003). In this study, school systems were successful in instituting a CSH infrastructure by selecting persons who attended MICHIANA to learn new techniques and strategies for improving student and staff health as well as recruiting the recommended number of core and district council members. Another membership aspect to consider is building a constituency that possesses a diversity of ideas, experience, and skills (Butterfoss, 2007). This study revealed that MICHIANA teams comprised a diverse array of educators and administrators with years of experience and knowledge. These team members served as "mavens" or content experts who bring knowledge about the skills, attitudes, and challenges of creating structures within their organization to accommodate CSH. They may also have ideas and opportunities for maintaining continuity because they are familiar with their system's organizational culture (Feinberg, Greenberg, and Osgood, 2004).

Having a range of individuals with varying capabilities involved in CSH is critical to partnership formation. Other types of diversity must be considered as CSH infrastructure is further developed; teams should include "connectors" and "salespersons" (Gladwell, 2002). Community organizations, state and local public health officials, and health and human service agencies play a critical role as "connectors" by developing and facilitating relationships with administrators, parents, and students as well by identifying grant opportunities to support CSH. Parents, students, and staff members are well positioned to promote the benefits and success of CSH to others as "salespersons," particularly because they are direct beneficiaries of CSH policies and programs. As school systems continue to build their infrastructure, further exploration of CSH membership composition is needed.

In the implementation phase, successful coalitions are known to acquire and pool resources to address goals and objectives during prosperous and turbulent economic times (Butterfoss, 2007). An important element of CSH partnerships is resource allocation, especially in harried school districts with increased expectations and decreasing resources. Since financial resources to support CSH at the national and state levels are limited, it is important for school districts to devise creative ways to facilitate partnership development early in the process. If not financially feasible to create a coordinator position, a shared leadership role among two members (co-chairs) may serve as an alternate approach. During the formation phase, persons identified as the core MICHIANA team played critical roles in identifying and assembling the district council along with conducting activities focused on a specific health

issues such as obesity. In the implementation phase, most effective partnerships have persons representing middle or upper management assume leadership positions in order to maintain momentum and exert influence needed to move goals and objectives forward at opportune times (Garza, 2005). Furthermore, delegating specific tasks to members reduces centralization or one person being responsible for ensuring the function of partnership activities and creates an atmosphere of ownership. In this study, most MICHIANA teams had some documentation (portfolios) and an organized structure (CSH teams and councils). However, job descriptions, memoranda of understanding, and supporting documents providing evidence of responsibilities to enhance overall function and structure (Butterfoss, 2007) were not included for 11 of the 14 teams. Partnerships using documentation and with an organized structure have been shown to exist for longer periods of time than groups who have a loose and informal operating structure (Butterfoss, 2007; Foster Fishman, Berkowitz, Lounsbury, Jacobson, and Allen, 2005).

Communication is also critical for pooling community resources and sharing the success of the partnership work to internal and external stakeholders as well as keeping members focused on critical tasks to complete (Garza, 2005). In this respect, information sharing regarding planning and monitoring CSH activities was limited to internal stakeholders, primarily among MICHIANA team and district council members. This suggests that teams may have limited opportunities to garner community support for addressing barriers that required resources beyond the school infrastructure.

In this study, it appeared that teams preferred simple processes with a narrow focus on a few selected priorities. In addition, quality improvement tools, such as process indices, were used sparingly. This finding suggests that school systems prefer expedient implementation of activities and may not have the time, resources, or skills needed to invest in long term planning (Shipley, Lohrmann, Barnes, and O'Neill, 2013). Unfortunately, the absence of these activities deprives teams of the benefit of collecting evidence through systemic monitoring that could provide a record of goal and objective achievement or non-achievement. Assessment and planning processes can help school systems move beyond simple programmatic offerings to creating data driven long-term strategies and policies. Ongoing technical assistance may be needed to broaden the expertise of schools systems to conduct effective assessment and evaluation.

Limitations

This is the first study using an adapted theoretical framework to analyze the development and implementation of school-based and community partnerships within CSH. The intent of this study was to examine the current organizational capacity of CSH teams within the context of the Butterfoss' model as well as to identify areas of strengths and opportunities for growth in the field. A strength of the study is that small and large school districts in two Midwestern states were represented. Additionally, portfolios and interviews provided critical information about current capacity of partnership development as well as an exploration of reasons behind teams' performance. One limitation is that the results were based on self-reported information and, therefore, whether the evaluation represents the views of a small group of individuals or the entire school-based and community partnership is unknown. A second limitation is that, due to very limited funding for evaluation, the study did not include student or school staff health outcomes, a resource assessment, or gap analysis. Therefore, no data regarding resource availability or resource needs could be included in study results. Nevertheless, CDC's basic assumption about CSH is that the desired health outcomes are very unlikely to materialize in the absence of effective policies and programs that are facilitated by systemic changes (Murray, Low, Hollis, Cross, Davis, 2007; Greenberg, Weissberg, O'Brien, Zins, Fredericks, et al, 2003; Dewey, 1999). Bias may have been introduced by allowing participants to complete the survey at the Institute as opposed to submitting responses prior to attending the session; however, team responses were corroborated through analysis of the evaluation portfolios (Shipley, Lohrmann, Barnes, & O'Neill, 2013). The number of school district representatives participating in the interview varied. Responses from one individual represented a single perspective whereas responses from an entire team constituted the collective perspectives of multiple individuals. The school systems represented by one individual were more likely to have completed fewer the team responsibilities than school systems represented by larger teams (Shipley, Lohrmann, Barnes, O'Neill, 2013).

Implication for School Health and Conclusion

The Michigan Department of Education and the Indiana Department of Health spearheaded both MICHIANA I and II Institutes. To date, these organizations maintain communication with Michiana teams and continue to monitor their progress. Future Institutes are not planned at this time; however, teachers and administrators (including retired) in higher education, state health and state education department employees, and MICHIANA I alumni serve as technical advisors for assisting Michiana I teams as well as for school systems that are initiating CSH but did not participate in either Michiana I or II. For several teams, the U.S. Department of Agriculture's Wellness Policy mandate was a driving force for addressing physical inactivity and unhealthy nutritional practices at school and in the home. Such teams have become an example for other districts to follow when designing and implementing school-based physical activity and healthy eating initiatives.

Although most Michiana teams commented on the extra burden posed by completing Institute commitments in addition to their professional responsibilities, most teams also reported benefits to their participation. School systems with a clearly identified leader/coordinator were more successful in implementing team responsibilities. This result further supports the recommendation for school systems to employ a well-qualified coordinator who is responsible for managing district wide school health initiatives.

Numerous school systems are adopting CSH in order to build greater capacity for addressing complex issues that exist among students and staff (Lohrmann, 2010b). However, these school systems cannot be expected to build an effective CSH infrastructure on their own. School health leadership initiatives can serve as a catalyst for providing ongoing support, particularly in building organizational capacity and leveraging

physical and financial resources. Through Michiana, state and local partnerships were formed to develop a 'space' for teams to learn important CSH leadership principles. A similar mechanism can be created after completion of leadership initiatives whereby a school health professional can work with teams as a volunteer coach. Coaches would conduct intermittent site visits and provide feedback to teams as they continue to work toward completion of goals and outcomes in their Healthy School Improvement Plan and Process Indices. Such support would require minimal resources (e.g., expense reimbursement for coaches) for state organizations to operate and maintain.

Having a person serving as a facilitator of CSH activities is crucial in ensuring that goals and objectives are met; however, CSH requires several key stakeholders to ensure that responsibilities are completed in a timely and efficient manner. School systems may continue to face challenges in finding and securing financial resources to hire a school health coordinator. Therefore, administrators need to consider innovative strategies when implementing a CSH model in schools. A collaborative team-oriented approach allows student health and wellness to be framed as the mutual responsibility of an organization and community rather than the sole responsibility of one person filling a designated position. Ideally, both approaches will be employed where resources are sufficient—professional coordination along with shared, team-based responsibility for student health and wellness.

Using partnership constructs can help frame activities (from a macro perspective) to ensure that schools maintain a balanced approach when building strong internal and external networks as well as when properly aligning individual capabilities to accomplish CSH mission and goals. Schools that are in the process of forming a CSH infrastructure can use the proposed indicators to track the success of school-based and community partnerships over time. These indicators are also useful to schools that have implemented CSH for an extended period of time and need to revisit or enhance their current infrastructure. Future studies should be conducted to examine associations between partnership organizational capacity and student and staff health outcomes.

Human Subjects

This study was approved by the Indiana University Institutional Review Board.

References

American Cancer Society Michigan/Indiana. (2007). *Request for Applications: School Health Coordinator Leadership Institute Application.* Great Lakes Division, Inc. Southfield, MI.

Butterfoss, F. (2007). *Coalitions and partnerships in community health.* San Francisco. Jossey-Bass.

Centers for Disease Control and Prevention. *Healthy Youth! Coordinated School Health.* National Center for Chronic Disease Prevention and Health Promotion. Retrieved August 29, 2011 at: http://www.cdc.gov/healthyyouth/CSH/#7

Deschesnes, M., Martin, C., Hill, A.J. (2003). Comprehensive approaches to school health promotion: How to achieve broader implementation. *Health Promotion International*, *18,* 387-396.

Dewey, J.D. (1999). Reviewing the relationship between school factors and substance use for elementary, middle, and high school students. *Journal of Primary Prevention, 19,* 177–225.

Dewitt, N., Lohrmann, D., O'Neill, J., Clark, J. (2011). A qualitative analysis of success stories from MICHIANA Coordinated School Health Leadership Institute Participants. *Journal of School Health. 81*, 727-732.

Feinberg, M.E., Greenberg, M.T., Osgood, W. (2004). Readiness, functioning, and perceived effectiveness in community prevention coalitions: A study of Communities that Care. *American Journal of Community Psychology, 33*(3-4), 163-176.

Foster Fishman, P.G., Berkowitz, S.L., Lounsbury, D.W., Jacobson, S., Allen, N.A. (2005). Building collaborative capacity in community coalitions: A review and integrative framework. *American Journal of Community Psychology*, *29*, 241-261.

Garza, H. (2005). Evaluating partnerships: Seven success. *The Evaluation Exchange, 10*(1), 18-19.

Gladwell, M. (2002). *The Tipping Point: How little things can make a big difference*. Boston, MA. Little, Brown, & Co.

Himmelman, A.T. (2001). On coalitions and the transformation of power relations: Collaborative betterment and collaborative empowerment. *American Journal of Community Psychology, 29*, 277-284.

Greenberg, M.T., Weissberg, R.P., O'Brien, M.U., Zins, J.E., Fredericks, L., Resnik, H., Elias, M.J. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *American Journal of Psychology, 58*, 466-474. doi: 10.1037/0003-066X.58.6-7.466

Lohrmann, D. (2010a). *Creating a healthy school: Using the healthy school report card.* Alexandria, VA. Academy of Educational Development (AED).

Lohrmann , D. (2010b). A complementary ecological model of the coordinated school health program. *Journal of School Health*, *80*(1), 1-9.

Marx, E., Wooley, S.F. (1998). *Health is academic: A guide to coordinated school health.* New York, New York, US: Teachers College Press.

Michigan Department of Education. Coordinated School Health and Safety Programs. Retrieved September 6, 2011 at: http://www.michigan.gov/mde/0,1607,7-140-28753_38684_29823---,00.html

Michigan Department of Education. Michiana. Retrieved December 2, 2011 at: http://www.michigan.gov/mde/0,4615,7-140-43092_48774---,00.html

Minnesota Department of Health. Minnesota Coordinated School Health. Retrieved September 6, 2011 at: http://www.health.state.mn.us/schools/csh/

Murray, N.G., Low, B.J., Hollis, C., Cross, A.W., Davis, S.M. (2007). Coordinated school health programs and academic achievement: A systematic review of literature. *Journal of School Health*, *77*, 589-600.

Roussos, S.T., Fawcett, S.B. (2000). A review of collaborative partnerships as a strategy for improving community health. *Annual Review of Public Health,* 21: 369-402. doi: 10:1146/annurev.publhealth.21.1.369.

Shipley, M., Lohrmann, D., Barnes, P., O'Neill, J. (2013). "Telling their Story:" Balancing leadership responsibilities and local school health priorities. *Journal of School Health, 83*, 243-248.

Weiler, R.M., Pigg, R.M., McDermott, R.J. (2003). Evaluation of the Florida coordinated school health program pilot schools project. *Journal of School Health, 73*(1), 3-8.

Wolff, T. (2001). A practitioner's guide to successful coalitions. *American Journal of Community Psychology, 29*, 173-191.

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