



Minnesota Research to Action Network

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Local Health Department Factors Associated with Performance in the Successful Implementation of Community-Based Strategies

A Report from the Minnesota Research to Action Network

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Executive Summary

Studies have examined the role of local health department (LHD) organizational, financial and structural characteristics and how those factors may affect the delivery of public health services in the community. Yet these studies have had mixed results and much remains to be learned about how to measure the capacity of LHDs and how capacity matters to improving population health.

This study assessed local public health (LPH) performance during the initial two years of Minnesota's Statewide Health Improvement Program (SHIP), which funds policy, systems and environmental (PSE) change strategies at the local level, to examine what factors at the LHD level contribute to success in implementing these community-based interventions.

This study employed a retrospective, mixed-methods design under the guidance of a public health practice-based research network to evaluate SHIP (2009-2011). Quantitative capacity data was obtained for 91 cities and counties in Minnesota; in addition, 15 key informant interviews were conducted to examine in more depth the factors that facilitated, and those that acted as barriers, to LHD performance.

Organizational quality improvement (QI) maturity and thematic differences in the areas of organizational culture, workforce, governance and decision-making and system boundaries and size were associated with higher performance. Organizations with "high" QI maturity, effective leadership, efficient decision-making and successful regional or cross-jurisdictional partnerships were more likely to be rated as "exceeding expectations." Lessons learned from the first round of SHIP have been used to improve the SHIP program, as well as support the concept of organizational QI maturity.

The emergence of practice-based research networks (PBRNs) that focus on public health systems and services research (PHSSR) has heightened commitment to timely dissemination and translation of research findings. Academic journals track readership levels and the number of times articles are cited within other published manuscripts, though reliance on academic papers and presentations is inadequate to reach important target audiences, particularly state and local stakeholders positioned to act on findings.

As a step toward understanding whether and how research findings ultimately contribute to changes in policy and practice, the Minnesota PBRN steering committee has adopted parallel approaches to monitor network engagement, dissemination and translation. This report will report on study findings and their implications, and describe and critically examine multiple approaches used by the Minnesota PBRN to translate and disseminate findings. Specifically, it will describe initial steps taken to monitor fidelity to planned dissemination and translation activities, ongoing communication within Minnesota's PBRN, link network communications to translation activities, and describe lessons learned.



Introduction

Public health services and systems research (PHSSR) focuses on system-level factors and their association with public health delivery systems and population health.¹ Studies have examined the role of different organizational, financial and structural characteristics of local health departments (LHDs) and how those factors may affect the delivery of public health services in the community.²⁻⁵ Yet these studies have had mixed results and much remains to be learned about how to measure the capacity of LHDs and how such capacity matters to improving population health. Two more recent studies demonstrated a connection between local public health expenditures and population health outcomes,⁶⁻⁷ suggesting that it is possible to identify these relationships.

Development of a research agenda for PHSSR is guiding the rapidly growing field.¹ This study reports on work related to the priority area *Performance Management and Quality Improvement* of the agenda, and represents a major and crucial step forward in research to link quality improvement (QI), evidence-based practice and statewide implementation of local, population-based health initiatives.

This study also contributes to research priorities related to accreditation,⁸ particularly the impact of QI on LHD performance. Beitsch and Riley emphasize that standards and QI are not new concepts in public health and that the variation seen across health departments has been well-documented, providing the basis for the accreditation movement.⁹ The voluntary accreditation program and new national standards have motivated improvement initiatives in Minnesota LHDs. However, while all improvement requires change, not all change results in improvement. The literature suggests that to realize the full potential of improvement initiatives, QI should be implemented in a supportive organizational climate.¹⁰ Riley and Moran emphasize that the quality of QI matters and propose a continuum of QI for public health departments.¹¹

The Minnesota Statewide Health Improvement Program (SHIP)—an integral component of Minnesota’s 2008 Health Reform legislation—seeks to improve population health and reduce demands on the health care system by decreasing the percentage of Minnesotans who are obese or overweight as well as decreasing the percentage who use or are exposed to tobacco. The SHIP initiative is driven by an array of evidence-based policy, systems and environmental strategies within a matrix of settings that have demonstrated success in promoting healthy nutrition, increasing opportunities for physical activity, reducing tobacco use and promoting healthy behaviors in the workplace.¹² In the 2009-2011 budget years, SHIP distributed \$47 million in grant awards to LHDs covering all 87 counties and 9 of 11 tribal governments. This study examines the first biennium of SHIP (SHIP 1.0).

Minnesota statute provides local jurisdictions with considerable discretion in their governance and organizational structures for delivering local public health services. All jurisdictions provide public health through the oversight of a community health board (CHB); however there are a variety of approaches that differ in terms of governance or organizational structure, including: (1) the CHB functions within a broader human services board (HSB); (2) local public health is organized as a stand-alone department vs. as part of a larger department; and (3) some CHBs are comprised of two or more counties, while others represent a single county or city. In addition to this variation in structure, Minnesota LHDs vary widely in terms of their size and expenditures.¹³ For example, the median population size served is approximately 33,000 (range: 4,122-1,157,400) while the median per capita expenditure for public health was \$52 in 2009, with a range from \$13-\$214.¹⁴

There is very little research that ties PHSSR to the success of a statewide roll-out of evidence-based strategies by LHDs and their partners. In their development of a conceptual model for PHSSR, Meyer et al. emphasize the importance of examining performance relative to capacity.¹⁵ This study used local public health (LPH) performance during the initial two years of SHIP to examine what factors at the LHD level contribute to success in implementing community-based interventions. Of particular interest was the role of organizational QI maturity and how it contributes to the performance of LHDs. However, as noted by Meyer et al. defining capacity is difficult and other factors may have also influenced SHIP performance.¹⁵ Understanding the context in which the public health system operates, and how that context affects performance, is critical to finding ways for improving population health metrics.¹⁶ This study was conducted within the structure of the Minnesota public health practice-based research network (PBRN), the Research to Action Network (RAN).

Methods

This study employed a retrospective, mixed methods design, with quantitative and qualitative components. The MDH Office of Performance Improvement (OPI), which is the fiscal home of the RAN, partnered with MDH SHIP staff to design and implement this study. There are 87 counties and four city health departments in Minnesota. The community health board, or CHB, is the legally recognized governing body (per Minn. Stat. § 145A) for local public health in Minnesota. Locally-governed CHBs oversee local health departments (LHDs) that work cooperatively with the Minnesota Department of Health (MDH). There are single- and multi-county CHBs and LHDs that provide local public health services to 91 counties/cities within the system. Data for the variables of interest were available at various levels: LHD (n=75), CHB (n=52) and SHIP grantee level (n=38). In some instances, CHB or LHD composition varied over the time of data collection, thus for the purposes of analysis, variable values from multi-county LHD, CHB or SHIP grantee level were assigned at the county/city level, for a total sample size of 91. For example, the grantee status for one multi-CHB or multi-county SHIP entity would be applied to all counties within the grantee organization.

Quantitative Data Collection and Analysis

A team of SHIP staff and external evaluators systematically reviewed administrative records to categorize grantees as either "Exceeds Expectations," "Meets Expectations," or "Approaching Expectations." Reviewers used a scoring sheet to guide independent reviews of the annual and final reports submitted by each grantee. The following five topics were equally weighted to calculate an overall score (maximum 50 points) for each grantee: engagement of community leadership teams; coverage of at risk/high risk populations; communications; progress implementing each evidence-based intervention; and implementation and findings from a local evaluation. As a final step before collaboratively categorizing grantee performance, reviewers met together to discuss their respective scores and consider additional indicators of grantee compliance (e.g., timeliness of annual and financial reporting, attendance at mandatory trainings). Although this document review and performance categorization was initiated by SHIP evaluation staff for purposes of grants administration and accountability, the study team capitalized on this analysis for practice-based research. The overall SHIP categorization ranking for each grantee (which could be comprised of multiple LHDs), was applied to all counties represented by that grantee. For purposes of logistic regression, this variable was dichotomized into "Exceeds Expectations" vs. "Meets/Approaching Expectations."

Organizational QI questions were identified from the *QI Maturity Tool*,¹⁷ administered in Minnesota and other participating states in 2011 as part of the Multi-State Learning Collaborative (MLC-3), and were used to calculate a QI Maturity Score.¹⁸ Please see Gearin et al. for a more detailed description of the methods used to create the QI maturity score. The continuous QI maturity score was categorized into three levels of QI maturity (low, medium, high). Since the preliminary scores were based exclusively on self-reported data, the study team asked MDH regional public health nurse consultants and MDH QI consultants to review the preliminary QI maturity scores. These consultants were chosen for their long history and close ties to the LHDs they serve. Based on their expert reviews, the study team reclassified three LHDs, who were believed to have assessed themselves as having inappropriately high or low QI maturity. Additionally, for the 18 LHDs that did not participate in the 2011 MLC-3 survey (20%) and therefore did not have a preliminary score, these MDH experts were asked to assign them to one of the three categories of QI maturity. This adjusted QI level was used for analysis.¹⁹

Other variables of interest were obtained from existing data sources, including MLC-3 (readiness for accreditation), administrative records (participation in a SHIP QI collaborative, organizational structure and governance), annual reporting from LHDs to MDH (per capita expenditures data that included funds designated for SHIP), and previous practice-based research in Minnesota.²⁰ Descriptive statistics and multivariate logistic regression was used for analysis. Analysis was performed using SAS 9.2.

Qualitative Data Collection and Analysis

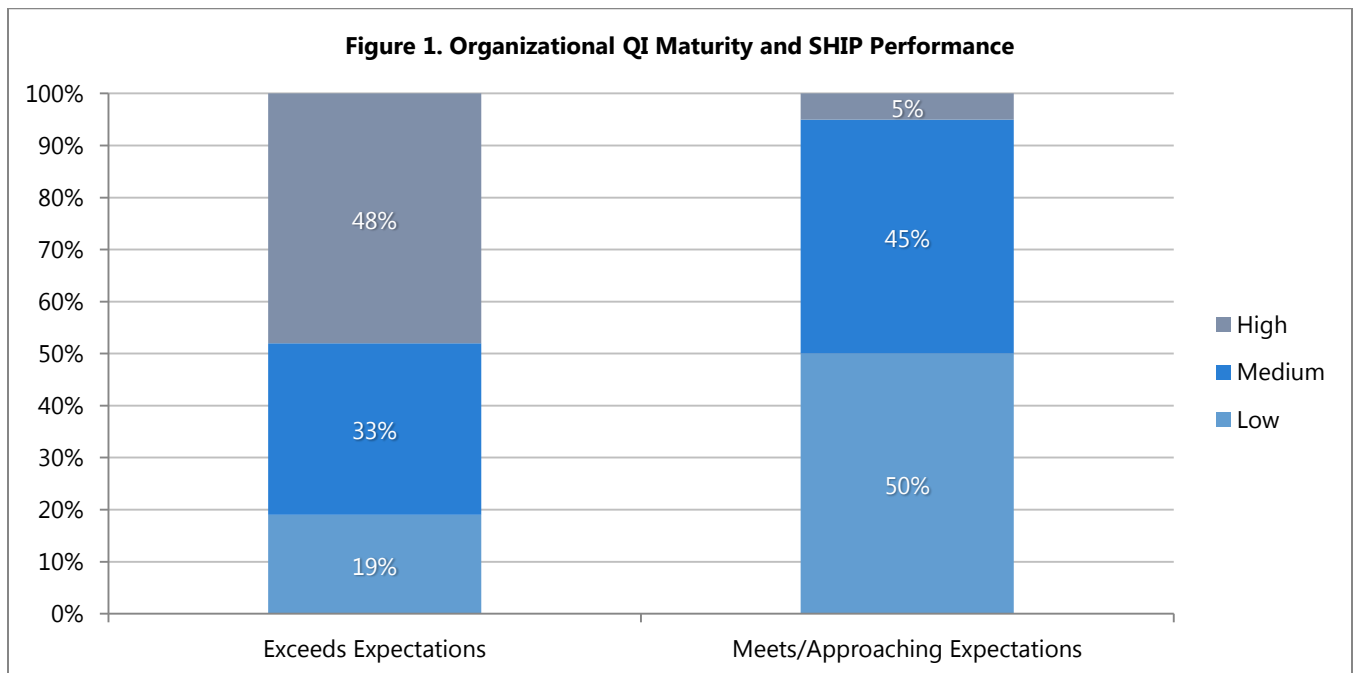
Fifteen grantee organizations were identified to participate in key informant interviews, spanning all three SHIP grantee levels and representing a variety of different characteristics (e.g. metro vs. greater Minnesota, single vs. multi-CHB grantee). All fifteen (100%) organizations agreed to participate. Respondents included SHIP Coordinators, LHD directors and administrators.

Respondents participated in structured telephone interviews that averaged approximately 40 minutes. All interviews were digitally recorded. Interviews were transcribed verbatim by an external vendor certified as a court reporter. Interview transcripts were independently reviewed without knowledge of grantee performance by two researchers and examined for overall themes.²¹ A second review of the transcripts was done through the perspective of grantee performance to see if patterns emerged. Study investigators then met to verify and refine comprehensive themes from the data. In a follow up analysis, investigators re-read transcripts with knowledge of grantee performance. This second review enabled investigators to identify patterns within each level of performance, and then compare performance across categories. In particular, researchers looked for thematic differences that may have emerged with regard to whether a grantee was in the “exceeds” or “met” expectations group, compared to those in the “approaching” expectations group.

Results

Quantitative Component

In the final sample of 91 counties/cities, 87 had complete data for multivariate analysis. The distribution of grantee performance was: exceeds expectations (29.7%), meets expectations (55.0%) and approaching expectations (15.3%). For the purposes of regression, grantees that met or approached expectations were combined as the referent group. QI maturity scores were categorized as low (40.6%), medium (41.8%) and high (17.6%) (Figure 1). Per capita expenditures ranged from \$6.27-\$68.54. Organizational QI maturity was strongly, positively associated with grantee performance comparing the “exceeds expectations” to those who “met or approached expectations” (OR=4.29, 95 % CI: 1.90-9.73, p=0.0005). Other variables of interest were not associated with SHIP performance. LPH expenditures to promote healthy behaviors and communities (which includes but aren’t limited to SHIP expenditures) was positively associated with SHIP performance, however the association was not statistically significant (p=0.07).



Qualitative Themes

Key informant interviews provided additional insights into those factors that contributed to SHIP implementation. Key themes emerged related to community relationships, leadership, staffing and the regional approach taken by some of the grantees.

Community Relationships

Respondents discussed the benefits of established relationships between grantees and community organizations. The ability of grantees to distribute mini-grants, and thereby engage community partners, was viewed as quite beneficial.

Leadership

Strong leadership by public health directors and CHS administrators was also cited as important for creating a favorable environment for SHIP implementation. Not surprisingly, previous analysis has linked higher levels of QI culture to LHDs having health directors or CHS administrators with higher levels of authority within their jurisdictions. In the case of SHIP 1.0, effective leadership by health directors and CHS administrators was critical both within the grantee organizations, but also in interactions with their CHBs. Strong leaders made it possible for SHIP coordinators and staff to operate with greater autonomy and support, often buffering them from the political realities within their jurisdictions.

Staffing

SHIP funds enabled LHDs to hire staff with more varied backgrounds than typically found at the local level (such as planners, dieticians, grant-writers). Grantee organizations that hired staff specifically for SHIP observed that they were more able to sustain organizational expertise and capacity more readily after funding cuts than those that relied more heavily on consultants or contractors.

Regional Approach

The regional approach used in SHIP was widely praised by respondents and several suggested that a positive experience working together on SHIP has led to more collaboration and shared services across jurisdictional boundaries on other, non-SHIP activities. Grantees spoke of both formal and informal approaches to working across traditional jurisdictional boundaries. While several grantees cited benefits of their formalized (e.g., contractual) regional approaches, others praised even less formal networking and sharing across jurisdictions (i.e., coordinated trainings and work with health care systems and school districts that cross borders).

Overall Connections

We found distinct capacity differences between entities that met or exceeded expectations when compared with entities that approached expectations. Specifically, those grantees that approached expectations differed in four key areas of capacity: organizational culture, workforce and human resources, governance and decision-making, and system boundaries and size.

Interviews suggested that grantees categorized as *approaching expectations* directed a disproportionate amount of time toward getting superiors and/or organizations “on board” with SHIP. Progress was more often described as cautious or erratic, and this was often attributed to mixed signals from local organizational leadership or organizational difficulties that were not

“I thought it was really beneficial out here...to be able to use some of the SHIP money to offer mini-grants to the school districts or work sites.”

“The director and manager played a big role as well. If we didn’t have those roles involved with our work so that they could be the line between our elected officials and that kind of thing, it would have been harder.”

“When we were working on SHIP activities...we were really good about sharing ideas and resources. If there were questions or concerns we didn’t have any trouble calling our surrounding counties to see how they were handling it.”

anticipated. Grantees regarded as approaching expectations were more likely to have faced limitations in hiring. They were also more likely to have described their effort as “understaffed.” Multiple grantees regarded as *approaching expectations* on SHIP noted that they faced many steps in the process to get approvals or multiple “layers” of decision-making that complicated progress. They also seemed to more frequently note a lack of authority to make decisions and/or spend resources. There was limited or no sharing reported across jurisdictions in the interviews with grantees that *approached expectations*. In contrast, grantees that *exceeded expectations* consistently noted an especially strong regional or multi-jurisdiction orientation.

Table 1. Results by Grantee Status, QI Maturity Score, Per Capita Expenditures^a and Constructs of Organizational Capacity

	Exceeds Expectations	Meets Expectations	Approaching Expectations
QI Maturity Score			
Low	19%		50%
Medium	33%		45%
High	48%		5%
Median Per Capita Expenditures^a			
FY 2009	\$21.88		\$16.40
FY 2010	\$27.39		\$19.44
Organizational Culture	Leaders “got it” and were more fully-engaged While acknowledging high learning curve, culture more ready to embrace PSE	Some leaders perceived as too tied to individual client service delivery model, harder to embrace new PSE approach	Poor working relationship between leadership (e.g. directors, supervisors) Generally more cautious or erratic SHIP marginalized within organization
Workforce	Varied staff skills enhanced the project	Identified limitations of having directed relatively more resources out to the community than to staffing.	Faced more limitations on hiring More likely to describe themselves as “understaffed”
Governance and Decision-Making	Repeated mentions of “freedom to act” and “staff autonomy.” Able to have an efficient change of command, which accelerated their ability to move quickly and get things done		Multiple grantees noted they faced many steps in the process to get anything approved Limited authority of SHIP Coordinator to make decisions and spend money
System Boundaries and Size	Especially strong regional or multi-jurisdictional orientation	Support for sharing and coordinating across jurisdictions	Limited to no sharing reported across jurisdictions Feeling of isolation on the project

^a Per capita expenditures under an accounting area associated with SHIP that includes expenditures related to health promotion and maternal and child health. Funding source can vary and includes local, state and federal funding.

Abbreviations: QI, Quality Improvement; FY 2009, State Fiscal Year 2009; FY 2010, State Fiscal Year 2010

Implications

This is one of the first studies to examine whether increased QI organizational maturity relates directly to LHD performance. LHDs in Minnesota are developing QI within their organizations and it appears to be important to their capacity and ability to implement large-scale interventions. Higher QI maturity scores suggest that QI has moved beyond single, isolated projects and is incorporated into every level of work within an organization. Study results suggest that those organizations that have more fully integrated QI at all levels of their organization were far more likely to have exceeded grant expectations. In addition, those LHDs with higher per capita expenditures within the fiscal area associated with SHIP also were more likely to exceed expectations. This is supported by the key informant interviews, in which respondents discussed the importance of dedicated funding for this work.

It was somewhat surprising that quantitative analysis did not identify associations between other organizational factors, such as structure or governance, and SHIP performance. Previous studies have demonstrated associations between several organizational factors and performance on the Essential Public Health Services, however results have been mixed (Bhandari, Ingram, Mays). It is possible that the fairly simple format of those variables in this analysis limited the ability to detect an association. Yet, local practitioners in Minnesota have observed that the movement to more combined structures, such as combining health and human services within single agencies, is unlikely to be reversed. They have suggested that instead of focusing on which is the single “best” structure, it is more important to identify best practices or factors that contribute to better LHD performance, regardless of structure. It is possible that QI maturity is one of those important factors that transcend organizational structure. Educating policymakers about the importance of QI maturity, and the other factors associated with success on SHIP, is critical. Yet LHDs and public health leaders also need to continue to support the culture shift, meaning staff training and time for QI, as well as critical top leadership, for that change. In structures where the top public health official is “buried” in another organization, which is not primarily public health-oriented, cross-pollinating those disciplines with QI concepts and gaining support for that work is also important.

SHIP represented a major learning curve for almost all grantees, however those LHDs and grantees that were more likely to have a culture of innovation and willingness to try the new approach of policy, system and environmental (PSE) change strategies, were better able to implement the program. In addition, these grantees were proactive about educating all levels of their staff in PSE, not just those assigned to SHIP. SHIP funding provided many grantees with the opportunity to hire new staff, and having a mix of new and existing staff, with a fair amount of freedom to act, was the most effective way to implement the program. Four of the 15 informants identified themselves as “understaffed” for the initiative and described substantial difficulty managing in the context of hiring freeze imposed by governing boards. These staffing challenges included not having dedicated staff, not having staff with desired skills, and not having sufficient staff—especially to invest time cultivating relationships to mobilize the community and produce change. In these situations, most of the funding went to community organizations, and local staff assumed more behind the scenes role of “grants manager.” Most notably, all four of the “understaffed” grantees were among the five grantees interviewed in the “approaching expectations” group.

Another key finding was that it was not just one factor that seemed to differentiate those grantees who met or exceeding expectations compared to those who approached expectations. Those grantees identified as approaching expectations voiced barriers or limitations in more than one key area of capacity and often cited all four issues. Thus, it doesn’t appear that any single factor either contributed to success or posed a barrier in implementing SHIP, but rather that a combination of factors worked together to enhance success or limit effectiveness.

This study had limitations. First, it required compiling data from numerous data sources that had different levels of reporting entities (e.g., LHD, CHB, city/county). Second, the QI maturity data and authority of the top official data were self-reported. The QI maturity data were reviewed for face validity and in a few instances, the QI maturity level was adjusted based on expert opinion. It is hoped that misclassification was minimized by that process. Third, key informants were interviewed retrospectively about their experience in the first round of SHIP. Some SHIP coordinators had left their positions, although in a couple instances were still willing to be interviewed. Not all SHIP grantees were funded in the second round of SHIP (2011-2013 biennium), therefore their current funding status may have influenced their perceptions of what happened initially. The vast amounts of information provided and candid nature of the interviews suggest that respondents were fairly accurate in recalling

their experiences. In addition, study results were provided back to participants, who felt validated by learning that many of their colleagues had reported similar experiences that emerged in themes.

Translation

These results informed the development of the next iteration of SHIP, termed SHIP 3 (2013-2015 biennium). SHIP 3 was funded more fully in the recent Minnesota Legislative Session, which allows the program to resume its statewide approach. The current SHIP 3 program request for proposals (RFP) highlights key findings from this study.²² Qualitative findings reported here aligned with verbal feedback MDH received when they explored changes to make to the program for the next round of SHIP. Closer attention was paid to the five topic areas on the SHIP scoring sheet for grantees (used to assign SHIP performance).

Many findings had immediate implications for SHIP (e.g., need for sufficient staff with range of skills, importance of cross jurisdictional approaches, and widely varied levels of QI maturity levels). The SHIP 3 RFP reflects these findings by requiring dedicated staffing as part of their budget and proposal, providing some encouragement for cross-jurisdictional and collaborative proposals, and outlining a tiered approach to implementation which takes into account grantee capacity at the outset.²² This concept of tiered capacity means that LHDs have the option of applying for a planning grant or an implementation grant. The planning grant is for the rest of the 2013-2014 fiscal year, with the intent that as of July 1, 2014, all SHIP 3 grantees will be in the implementation phase. Technical assistance is also being tailored to the level of need for each grantee based on their strategy selection within their implementation plan. In addition, lessons learned from the SHIP project have also been useful in other program areas within MDH.

Evaluation of Translation and Dissemination Activities

The emergence of PBRNs that focus on PHSSR has heightened commitment to timely dissemination and translation of research findings. As a step toward understanding whether and how its research findings ultimately contribute to changes in policy and practice, the Minnesota PBRN steering committee, the RAN, conducted a case study to critically examine its dissemination and translation activities. This section of the report describes the steps taken to monitor fidelity to the study dissemination and translation plan, link network communications to translation activities, and describe lessons learned.

Minnesota's PBRN is comprised of academic researchers, state and local public health leaders, and local elected officials through the State Community Health Services Advisory Committee (SCHSAC), the Minnesota Local Public Health Association (LPHA), the University of Minnesota, School of Public Health, and the Minnesota Department of Health (MDH). Steering committee members meet monthly and act as liaisons to each of these organizations. In this way, the full network engages research expertise, practice expertise of local health directors and administrators of all 52 community health boards, and the policy expertise of county commissioners who advise the Commissioner of Health. The network is housed within the Office of Performance Improvement (OPI) at MDH, which is also the organizational home for many state and federal initiatives that support and improve the public health system. Network composition and structure positions the steering committee to capitalize on existing infrastructure for purposes of dissemination and translation.

The PBRN steering committee, the RAN, established core guiding principles when it launched in 2009 (e.g., conduct research that is relevant and timely, communicate with and meaningfully involve those who will act on findings). These principles then prompted development of a communications plan and engagement of the full network in developing a research agenda. The RAN believed that adherence to these principles, priorities, and plans would increase the likelihood of sustained partner engagement and translation of findings to improve policy and practice. The RAN compiled meeting agendas, summaries and other written reports and presentations for the period 2010-2012, and reviewed them to assess the frequency and content of network communications, with particular attention to five key tasks of a PBRN (securing funding, nurturing the network, conducting research, disseminating findings, and translating findings).

Monitoring Communications

Frequent communication within the RAN and with the broader network was clearly evident. There were multiple mentions of study findings in meetings and reports of RAN member organizations, ranging from quarterly written updates and presentations to legislative reports. Findings suggest that study progress and findings have been disseminated and translated in many ways, yet there were notable gaps and untapped opportunities. For example, interactive polling at the state community health conference suggested that regional LPHA meetings are an ideal setting for dissemination, yet documentation suggested that communication at those meetings was sporadic. Findings led to structured regional discussions of findings, implications, and next steps, and also motivated process changes to facilitate more routine, complete communications with key audiences.

Monitoring Translation

Translation has occurred at the program, organization, and system levels. For example, findings were presented to key informants, health directors, county commissioners, an initiative advisory committee, MDH managers and staff; posted on-line and summarized on fact sheets and displays; and highlighted in a report from MDH to the Minnesota legislature. Findings influenced future iterations of that initiative, as evident in the technical assistance plan and request for proposals.

Translation has also occurred at the organizational level within individual health departments. For example, the study results presented in this report, which indicated that QI maturity was associated with grantee performance, provided important evidence to state and local public health leaders that organizational QI maturity is important. As a result, at least three LHDs and MDH are using these measures to monitor QI maturity over time within their organizations.

At the system level, SCHSAC adopted the measures of QI maturity as performance measures for Minnesota's Local Public Health Act and CHBs now report on them annually to MDH. The Performance Improvement Steering Committee, comprised of state and local leaders, uses the findings to monitor system-level progress and make recommendations.

As we connect these translation successes to dissemination strategies, it appears likely that targeted dissemination and leveraging of existing relationships, contributed greatly to translation. Timely presentations to MDH management and staff, and to a program advisory committee, seemed to reinforce and strengthen tentative new directions for the statewide initiative. Cross membership between the RAN and SCHSAC facilitated adoption of the measures developed through practice-based research.

Regional Dialogue

Through this effort to systematically monitor dissemination and translation, the RAN pursued more strategic regional dissemination as a companion strategy to more typical large group presentations or less personal written dissemination. Moreover, the RAN sought to create dialogue that went beyond a mere one-way report of findings, to include a forum to validate findings, share and learn how findings are already being used, and inform future action—including practice-based research. The RAN believed this approach would capitalize on existing meeting structures and established relationships

The RAN developed a regional discussion guide and note-taking tool. State and local partners co-facilitated each dialogue, and nurse consultants took notes to assure a record of each meeting. The discussion tool was piloted as a one-hour agenda item during an LPHA meeting in one of Minnesota's six public health regions, and then refined and replicated in four of the five remaining regions during Fall 2013. Although one session was cancelled due to a snow storm, more than 50 health directors, administrators and staff, representing 38 of 52 community health boards, participated in a regional discussion. Regional nurse consultants took notes to assure a record of each meeting. Investigators synthesized meeting summaries and presented preliminary themes to the RAN steering committee for review and refinement.

Discussion across regions suggested that study findings validate practice experience. There was widespread agreement that QI maturity and regional sharing support performance. While reflecting on study findings, many stressed the importance of QI maturity and shared actions underway to boost QI maturity within their organizations. Discussion frequently addressed additional ways that statewide initiatives could reflect study findings (e.g., financial incentives). In multiple regions, three topics emerged as important avenues for future research: (1) relationship between primary care and public health (2) workforce and

succession planning, and (3) return on investment. Participants universally welcomed RAN into this existing meeting structure and encouraged annual, regional discussion of RAN research.

Conclusions

It is important for PBRNs to periodically monitor and reflect on their processes to communicate, disseminate and translate with stakeholders. Meeting records and other available documentation can be mined as an affordable approach to uncover potentially telling patterns of communication. This information is useful to recognize success and learn from missed opportunities. This ad hoc examination of one PBRN suggests that by combining targeted, personal interaction, formal system-level communications and casual regional discussion, emerging networks can conduct research immediately relevant to policy and practice that reinforces a tentative new direction, enhances an emerging or existing approach, or leads to something entirely new.

Lessons Learned and Next Steps

Findings from this multimodal study support efforts to improve QI maturity as a means to improve LHD performance. Qualitative findings also point to local organizational factors that promote or inhibit progress on statewide implementation of an evidence-based initiative to achieve policy, systems and environmental changes. These findings have national implications at a time when LHDs are increasingly focused on integrating QI across their organizations, and shifting more resources toward population health initiatives.

Moreover, this study demonstrates the potential for public health PBRNs to engage in meaningful research that is readily translated at the state and local level, while at the same time advancing the national agenda for PHSSR. Investigators believe a substantial increase in state funding for SHIP in the current biennium, along with the strong research/practice ties nurtured throughout this study, may expand future opportunities for practice-based research in Minnesota. The approach taken in this study to systematically monitor communications, dissemination and translation may be a model for others.

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Appendix A: Minnesota Research to Action Network Steering Committee Membership (2011-2013)*

Local Public Health Association of Minnesota (LPHA)

Renee Frauendienst, BSN
Director, Stearns County Public Health

Deb Jacobs,
Director, Wilkin County Public Health

Janelle Schroeder, BSN
Public Health Nursing Director, Mille Lacs County

State Community Health Services Advisory Committee (SCHSAC)

Dave Perkins
Commissioner, Olmsted County

Rosemary Schultz
Commissioner, Jackson County

Julie Myhre, RN, PHN, MS
Director, Carlton-Cook-Lake-St. Louis Community Health Board

University of Minnesota School of Public Health (SPH)

Judith Garrard, PhD
Special Assistant to the Dean

William Riley, PhD
Associate Professor and Associate Dean

Minnesota Department of Health (MDH) – Office of Performance Improvement (OPI)

Deb Burns, MA, RAN Director
Director, Office of Performance Improvement

Kim Gearin, PhD, RAN Co-Director
Research Scientist, Office of Performance Improvement

* Represents members who were on the committee at any time during the time frame. Some of those listed either left or joined the committee during the time frame.

Appendix B: Qualitative Interview Tool, May 2013

Meyer, Davis and Mays (2012) incorporated organizational capacity constructs into a longstanding conceptual model for Public Health Systems and Services Research (PHSSR). The model places organizational capacity at the local, state and federal levels within the context of macro-content, decision-support and strategic decisions (e.g. policy or program implementation). The model suggests that Organizational Capacity influences Process and Performance, which in turn influences Population Health Outcomes. Their model, which was intended to guide future research, provides the framework for this qualitative interview tool, with a focus on the sub-headings within the Organizational Capacity and Process and Performance portions of the model. In addition, some questions focus on quality improvement activities, which reflect the decision-support needed to improve the Quality domain of Process and Performance.

This tool was first used to study organizational capacity of local public health departments in relation to implementing policy, systems and environmental (PSE) change intervention strategies within local jurisdictions. While the tool was designed to assess a particular intervention program, the questions themselves are applicable to a wide variety of programs and topic areas in which it is important to identify organizational capacities, and the process and performance of public health organizations. The model enhanced by Meyer et al. was published shortly after an original version of this tool was used in Minnesota. Investigators viewed this model as a useful tool during data analysis and interpretation, so the terminology used in the model has been retroactively incorporated into the headings of this instrument. Those wanting to use or build on this instrument are encouraged to review the Meyer model, and potentially include some additional constructs that are not reflected here (e.g., Physical Infrastructure and Informational Resources). This interview guide is designed to last approximately an hour, but interview length can vary based on whether respondents participated in cross-jurisdictional work and/or formal quality improvement activities within the program.

Organizational Capacity: Fiscal and Economic Resources

1. How did additional program funds increase the overall capacity of your local health department?

Probes:

Were the additional program funds used only for increased staffing?

How much of the funding was used to actually implement the program (e.g. training, improve community relationships, fund actual activities)?

Is the increased capacity associated with this program sustainable should funding levels change?

Organizational Capacity: Workforce and Human Resources

2. How did staffing within the local health department help or hinder success?

Interpersonal staff relationships?

Established vs. new staff?

Ability to recruit and retain staff?

Staff knowledge and expertise?

Staff experience and willingness to learn new approaches?

3. How familiar was your staff with the new program when you started to implement it?

Organizational Capacity: Inter-Organizational Relationships

4. Were there factors related to your organization's work with community partners or other agencies that helped or hindered your success?

Probes:

Ability to effectively partner within the community?

How effectively did the local health department work with other government agencies or entities prior to project implementation?

5. How much education did you need to do in the community to introduce the program and engage community partners?

Probes:

Have there been similar programs implemented previously in your community?

If yes, did that help in implementing this program?

Did the level of community knowledge influence the ability to engage community partners?

Organizational Capacity: System Boundaries and Size

6. Please describe any cross-jurisdictional work you performed in relation to this project:

If respondent reports no cross-jurisdiction work, skip to Question 11:

7. What were the benefits of working collaboratively with other local health jurisdictions?

8. What were the limitations of working collaboratively with other local health jurisdictions?

Probe:

Did the larger geographic size limit your ability to connect effectively across the participating jurisdictions?

9. How did implementation of the cross-jurisdictional project work? Did one local health department take the lead and overall responsibility? Was it more collaborative (e.g. shared leadership)?

Probes:

What did you like about the approach taken within the collaborative?

What would you improve about the approach taken?

10. How would you characterize the effectiveness of the cross-jurisdictional leadership team?

11. Did your program partner with other local health departments that weren't technically part of your intervention (e.g. other jurisdictions that weren't formally affiliated with the project)?

Probes:

For example, regional projects with neighboring local health departments that were implementing their own intervention strategies?

Shared training opportunities?

Informal support groups?

Informal information sharing?

Organizational Capacity: Governance and Decision-Making Structure

12. How did the structure of the local health department help or hinder success in implementing this program?

Probes:

Standalone agency vs. within larger organization?

Single county LHD vs. multi-county?

13. What was the decision-making process within your organization, specifically with regard to implementing this program?

Probes:

Did staff have freedom to act within agency?

How much authority did the top health official have?

How much autonomy did the project coordinator have?

Did governance matter (Board of Health vs. Human Services Board)?

14. What was the level of engagement of your county board members in relation to this program?

Probes:

Was the Board supportive? Not supportive?

Did the level of engagement/support change over the course of the project? For example, were boards highly engaged throughout, "came on board, or never really "got it."

Organizational Capacity: Organizational Culture

15. What was the leadership style for this particular program?

Probes:

Leadership team dynamics?

Leadership style (top down, shared leadership, etc.)?

16. Could you describe your organization's ability to adapt or innovate to new programs?

Probe:

How important do you think ability to innovate is to implementing programs successfully?

Decision-Support: Quality Improvement

17. Please describe any formal QI projects or activities that were performed in relation to implementing this program:

If respondent describes no QI activities, please skip to Question 21.

18. How would you characterize your program's level of participation in these activities?

Probes:

In what ways would you have been more engaged?

Were there factors of your local health department that limited your engagement in the QI activities?

19. What were some of the benefits of participating in QI activities in relation to this program?

20. What were some of the limitations of participating in QI activities in relation to this program?

Probe:

Were there any barriers to your use of QI strategies with to the program?

Please skip to Question 23.

If respondent indicates they did not use QI strategies or activities:

21. What were factors that prevented your program from incorporating QI strategies or activities into your work?

22. What types of resources might have made it easier for you to implement QI activities as part of your work on this program?

Process and Performance: Effectiveness

23. To what extent did you meet the objectives for the program?

24. Were there any factors or resources that weren't available to your program that might have helped it be more successful?

Probes:

State health department support/technical assistance?

Availability of tools?

Availability of training?

Process and Performance: Community-based and Participatory

25. Were there any community characteristics that you think might have influenced the implementation and success of the program?

Probes:

Example of community characteristics?

Highly engaged community partners?

Political climate within local jurisdiction?

Process and Performance: Evidence-Based Practice

26. To what extent did the program implementation follow evidence-based practice?

Final Wrap-Up Question

27. Is there anything else you would like to tell us with regard to implementing the program in your community or how your local health department worked or functioned to implement it?

Citation: Meyer, A-M, Davis M, Mays GP. Defining organizational capacity for public health systems and services research. *J Public Health Management Practice*, 2012, 18(6): 535-544.

Appendix C: Regional Research to Action Network Discussions

Region		Date
Start time	Stop time	Total number of local participants
CHBs represented		
Meeting format		
<input type="checkbox"/> In person		
<input type="checkbox"/> Telephone/webinar		
<input type="checkbox"/> Combination		

Please highlight discussion in each of the areas below:

What questions were raised to clarify study methods or findings?

How do you think that QI maturity is linked to performance on other initiatives?

How might these results relate to other programs?

What else would you like to know?

Our network steering committee sees time like this on your regional LPHA meetings as a good way to periodically explore research findings and questions. How did this work for you?

Other thoughts/observations/suggestions: