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Analysis of Local Health Department Factors that Accelerate Population-Based Intervention Implementation and Support Success

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The Minnesota (MN) Statewide Health Improvement Program (SHIP) – an integral component of MN 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 or use or are exposed to tobacco. The SHIP initiative is driven by a menu of evidence-based policy, systems and environmental strategies (i.e. interventions) that have demonstrated success in promoting healthy nutrition, increasing opportunities for physical activity, reducing tobacco use and promoting healthy behaviors in the workplace. In the 2009-2011 budget years, SHIP 1.0 distributed $47 million in grant awards to local health departments (LHDs) covering all 87 counties and 9 of 11 Tribal governments.

To our knowledge, there is very little research that ties public health systems and services research to the success of a statewide roll-out of evidence-based strategies by LHDs and their partners. This study used local public health (LPH) performance during the initial two years of SHIP 1.0 to examine what factors at the LHD level contribute to success in implementing community-based interventions. Of particular interest was the role of organizational quality improvement (QI). Research suggests that to realize the full potential of improvement initiatives, QI should be implemented in a supportive organizational climate, with ongoing executive leadership and the full engagement of a workforce skilled in QI (Duffy and Moran, 2010). Riley and Moran (2010) propose a continuum of QI for LHDs and identify characteristics of fully implemented QI in public health settings.

To delve more deeply into the factors may have supported or impeded/inhibited success on SHIP, qualitative key informant interviews were conducted with a subset of SHIP grantees. These interviews provided the opportunity to discuss the first two years of SHIP in more detail. These lessons learned provide important details about the implementation of SHIP that would not have been possible if looking at organizational factors alone.

At a Glance

SHIP 1.0 represented a major learning curve for most grantees, however those local health departments (LHDs) that were able to be flexible and embrace the approach were better able to implement the program.

Having a mix of new and established staff, with a fair amount of freedom to act, seemed the most effective approach.

Grantee organizations with a higher level of quality improvement (QI) culture were more likely to exceed expectations on SHIP 1.0. Higher QI scores indicate that QI has moved beyond single, isolated projects into all levels of the organization.

Over time, most policymakers and community members saw value in SHIP and many initiatives were sustained. Many expressed disappointment that the timeframe was too short to reap the full benefits of the program.

The statewide approach to SHIP was viewed quite positively. Several respondents voiced that having support and mutual exchanges with neighboring grantees was critical to their success.

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Methods

This study employed a mixed methods design, with quantitative and qualitative components. The Minnesota practice-based research network, the Research to Action Network (RAN), provided study input and oversight. The MDH Office of Performance Improvement (OPI), which staffs the RAN, partnered with MDH SHIP staff to design and implement this study. Grantees were evaluated by SHIP staff, which designated grantees into three levels of grantee performance: "Exceeds Expectations," "Meets Expectations" or "Approaching Expectations." The review was based on the following topics: community leadership teams; coverage of at risk/high risk populations; communications; implementation (for each intervention); and evaluation. The overall SHIP ranking for each grantee (which could be comprised of multiple local health departments), was applied to all LHDs represented by that grantee.

Quantitative Methods

For the purposes of this study, information was collected for 91 counties and cities in MN, representing single and multi-county community health boards (CHBs) and also single vs. multi-county SHIP 1.0 grantees. Most MN LHDs (80% response rate) participated in the 2011 Multi-State Learning Collaborative (MLC) quality improvement survey, the *QI Maturity Tool*. The Health Director or Community Health Services Administrator completed the survey, which was a self-assessment of QI culture, practice and spread within their organizations. A subset of questions was identified from the *QI Maturity Tool* and used to calculate a QI Maturity Score. LHDs were classified as having high, medium and low levels of QI maturity, based on their preliminary score. These levels also relate to the QI Roadmap (cite?): Low (no knowledge, not involved, starting to get involved); Medium (Ad hoc QI); and High (Borderline Formal QI, Formal QI, QI Culture). For those LHDs that did not participate in the MLC survey and therefore did not have a preliminary score, MDH nurse consultants and a QI consultant were asked to assign them to one of the three categories of QI maturity. Other variables of interest included: readiness for accreditation, organizational structure (single vs. multi-county, stand-alone health vs. within larger agency), expenditures, and authority of top health official.

Qualitative Methods

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. outstate, single vs. multi-CHB grantee). All fifteen (100%) organizations agreed to participate. Respondents included SHIP Coordinators, LHD Directors and CHS administrators. Respondents participated in structured telephone interviews that averaged approximately 40 minutes. Interviews were independently reviewed by two researchers and examined for overall themes without knowledge of grantee performance. A second review of the interviews was done through the perspective of grantee performance to see if patterns emerged.

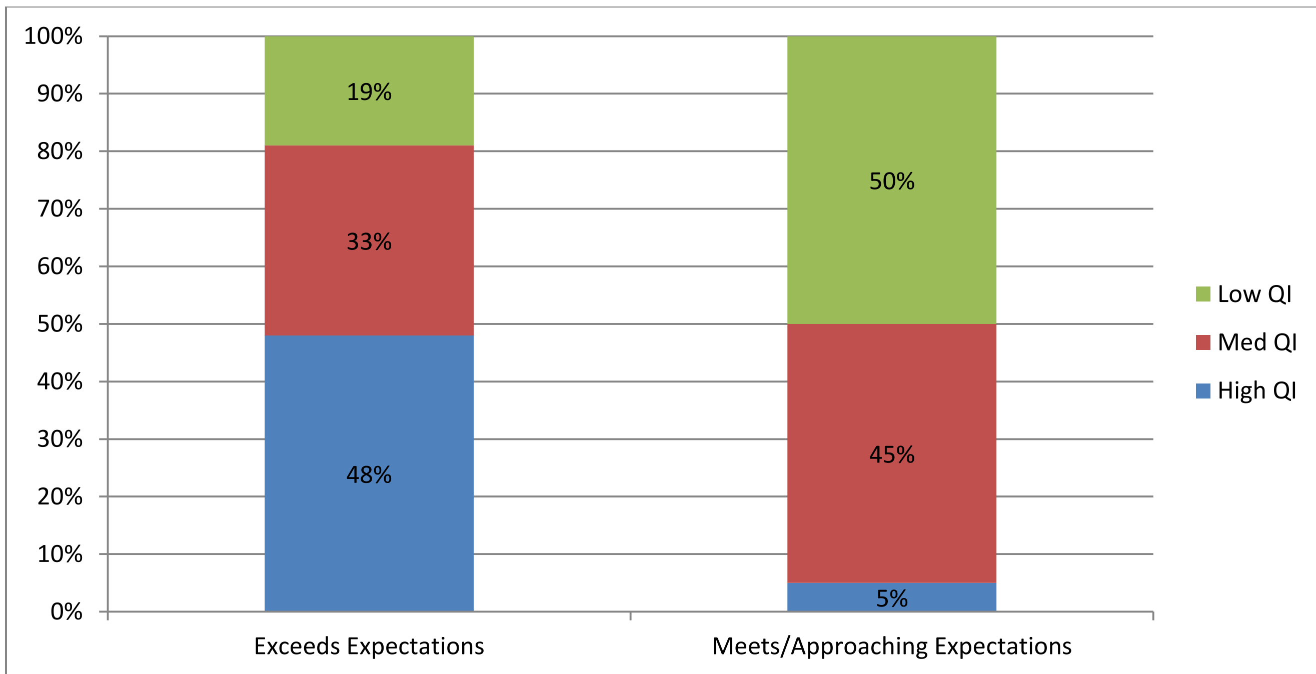
Key Findings

SHIP 1.0 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.

Factors that Facilitated Implementation of SHIP

Grantee organizations with a higher level of QI culture were more likely to exceed expectations on SHIP 1.0. Higher QI culture 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 developed a culture of QI at all levels of their organization were better positioned to implement SHIP in their communities. In addition, those LHDs with higher per capita expenditures related to healthy communities 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.

Figure 1. Organizational QI Culture by SHIP 1.0 Grantee Status



Key informant interviews provided additional insights into those factors that were important to the success of SHIP. Respondents discussed the benefits of established relationships between grantees and community organizations. The ability of grantees to give out mini-grants within their communities was viewed as quite beneficial.

"I thought it was really beneficial out here…to be able to use some of the SHIP grant money to offer mini-grants to the school districts or to work sites. It was great to be able to offer them money to move forward with their plans. That isn't always available."

Finally, strong leadership by public health directors and CHS administrators was cited as important for creating an environment within the LHD, as well as with the CHBs, which was positioned for success. 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.

"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 a lot harder."

Figure 2. Key Factors Related to Capacity

Compared to Grantees who Met or Exceeded Expectations, those who Approached Expectations differed in four key areas of capacity:

- **Organizational culture**
- **Workforce and human resources**
- **Governance and decision-making**
- **System boundaries and size**

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 listed in Figure 2. 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.

Evidence of Sustainability and Broader System Impact

SHIP funds enabled LHDs to hire staff with more varied backgrounds than is typically found at the local level. Those grantee organizations that hired staff specifically for SHIP felt that increased staff expertise and capacity was more sustainable as compared to those that used consultants or contractors. The regional approach used in SHIP was widely praised by respondents and several of them 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.

"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 and did they have a resource we could use."

Regardless of grantee status, all respondents spoke of the sustainability of SHIP initiatives within their communities. These strategies, once implemented, are typically not reversed when funding ends. For example, the many communities that enacted smoking bans on college campuses, have seen that work sustained. The educational efforts that grantees performed within their communities and with their CHBs were also sustained and often resulted in small amounts of local funding being allocated to continue to support SHIP initiatives that were underway, even when state funding was reduced or eliminated. This level of buy-in among community members and policymakers is an important success of SHIP.

Implications

This is one of the first studies to examine whether an increased culture of QI within LHDs relates directly to LHD performance. LHDs in MN are developing QI within their organizations and it appears to be important to their capacity and ability to implement large-scale interventions. These data make use of 2011 information, both in terms of QI and SHIP performance. Given the technical assistance and other opportunities that MN LHDs have had over the past two years with regard to QI, it is likely that the local public health system in MN is even better positioned than it was for the first round of SHIP to do this work. While moving QI culture forward at all levels of an organization can be a slow process, it has the potential to be very beneficial to the system overall.

These results also have implications for the development of the next iteration of SHIP. First, a return to a statewide approach seems key to improving the health of all Minnesotans. Having more limited funding, which requires a competitive grant process to determine funding eligibility, could contribute to the capacity disparities observed in this study if only high-performing grantees continue to receive funding. A statewide approach could provide additional resources to those LHDs that have shown solid performance and allow them to proceed even further, while providing tailored technical assistance to LHDs that have struggled in past funding rounds.

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Moving Forward

- Discuss results with MDH SHIP staff and local public health as they develop the next iteration of a statewide SHIP initiative (SHIP 3).
- Future OPI/MDH efforts that incorporate QI into statewide initiatives should consider how QI expectations could "phase in" and how statewide initiatives can build in expectations for QI projects, while helping LPH build mature QI organizations (e.g., LHDs that meet national standards that include convening a QI Council to develop, implement and evaluate a QI plan).
- Future MDH efforts around statewide initiatives should consider the value of a regional approach, which was highly praised and has reportedly led to more collaboration/shared services across jurisdictional boundaries on other, non-SHIP activities.

About the Research to Action Network

For more information on this issue brief or the Minnesota Public Health Research to Action Network, contact Kim Gearin at kim.gearin@state.mn.us or (651) 201-3884 or Beth Gyllstrom at beth.gyllstrom@state.mn.us or 651-201-4072.

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