PUBLIC HEALTH
Practice-Based Research Networks
National Coordinating Center

Public Health PBRN
Monthly Virtual Meeting
November 15, 2012

Research-in-Progress Presentation by Minnesota PBRN
Analysis of local health department factors that accelerate population-based intervention implementation and support success

Renee Frauendienst, BSN, Kim Gearin, PhD and Beth Gyllstrom, PhD, MPH,
Minnesota Public Health Research to Action Network

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please turn off your computer speakers.
Please mute your telephone until the Q&A. If your telephone does not have a mute button, press *6 to mute and #6 to unmute

Analysis of local health department factors that accelerate population-based intervention implementation and support success

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Presentation to the National Network of Public Health PBRNs
November 15, 2012

MINNESOTA MDH DEPARTMENT OF HEALTH

Minnesota Public Health Research to Action Network

MN Public Health Research to Action Network (RAN)

Housed at the Minnesota Department of Health (MDH), Office of Performance Improvement (OPI).

Steering committee members represent:

- State Community Health Services Advisory Committee
- Minnesota Local Public Health Association
- University of Minnesota, School of Public Health

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health reform MINNESOTA

- The Minnesota Statewide Health Improvement Program (SHIP) covered all 87 counties, plus 9 of 11 Tribal governments.
- SHIP represents unprecedented statewide investment of $47 million ($3.89 per person) for the years 2009-2011.
- SHIP initiative driven by a menu of evidence-based, policy, systems and environmental (PSE) change strategies to promote nutrition, increase activity, and reduce tobacco use and exposure.

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Study Aims

Study Aim: Examine the potential relationship between local public health capacity and performance on evidence-based, intervention strategies for preventing chronic disease.

Supplementary Aim: Identify factors that facilitated the rapid roll-out of a comprehensive intervention strategy across the state and factors that may have served as barriers.

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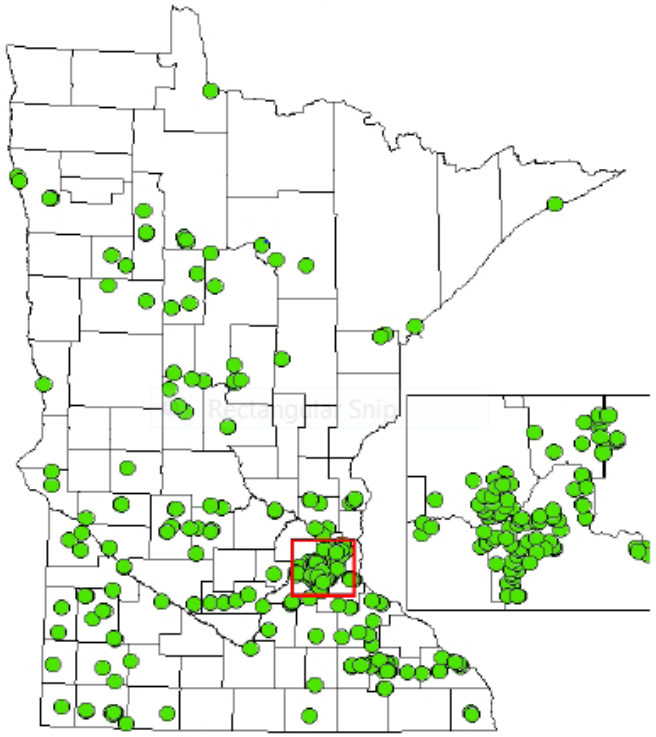
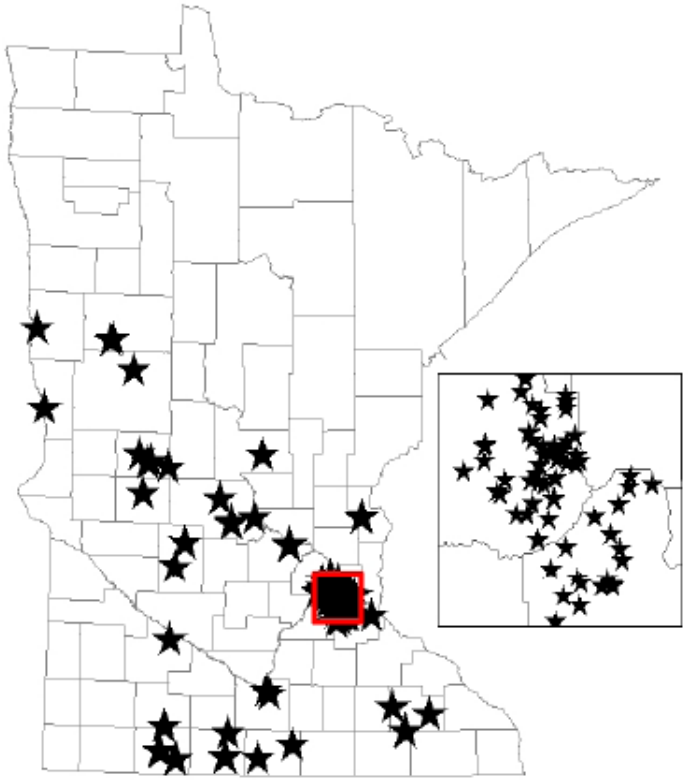
Statewide Reach of SHIP



Farm to Schools Sites



Safe Routes to School

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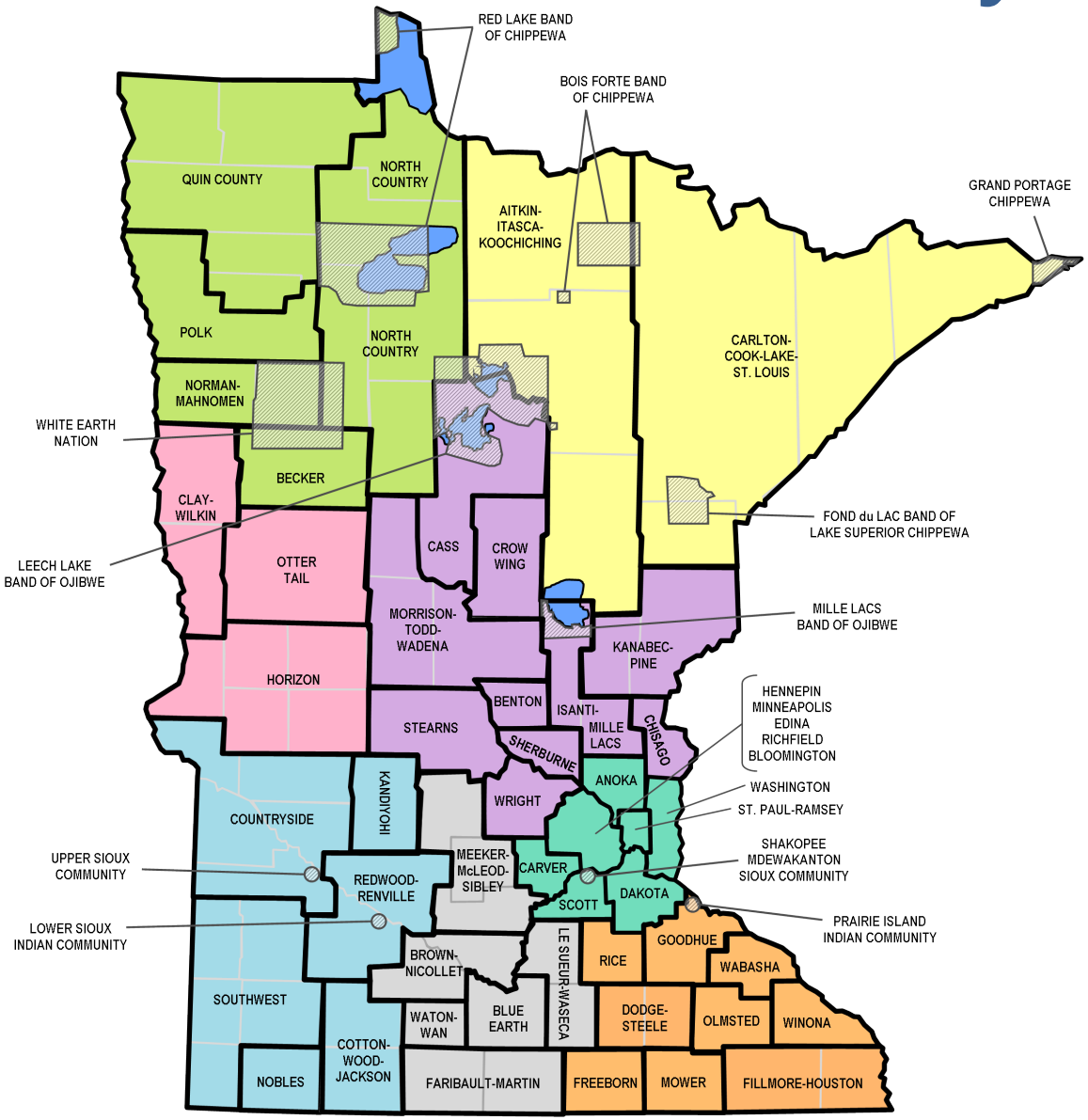
MN Local Public Health System



Updated
January 12, 2012

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Study Design & Data Elements

- Mixed methods, retrospective evaluation
- Quantitative component to examine potential relationships between SHIP grantee performance and factors related to LHD capacity and organizational structure.
- Qualitative interviews conducted with 15 SHIP grantees to provide more nuanced information about the implementation of SHIP in their communities. Of high interest were factors that grantees felt facilitated the rapid roll-out of a comprehensive intervention strategy and others that may have served as barriers.

Quantitative Data Elements

Variable	Format	Data Source
SHIP Grantee Performance	Exceeds, Meets or Approaching Expectations (Dichomotomized for regression: Exceeds vs. Meets/Approaching)	MDH SHIP Program Evaluation Staff
QI Maturity Score	High, Medium, Low	QI Maturity Tool
Readiness for Accreditation	Responses of Strongly Agree/Agree to two questions related to plans to obtain accreditation	QI Maturity Tool
Structure of LHD	Single County vs. Multi County	MDH OPI
Organization of LHD	Stand-Alone Health Department vs. within human services agency (or other entity)	MDH OPI
LHD Expenditures	Per capita expenditures related to chronic disease activities	PPMRS (2009-2010)
Participation in SHIP-specific QI Activities	High, Moderate, Expressed interest but did not participate	SHIP Project Team/OPI

PPMRS=Local Public Health Planning and Performance Measurement Reporting System

SHIP Ranking

- Grantees were reviewed on information provided to MDH in their annual, interim and final reports, as well as their adherence to grant requirements and use of MDH technical assistance.
- 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.
- Grantees were scored on each of the above areas, which were summed for a Total Report Score (total out of 50 possible points). Grantees did not receive a score for the grant requirements or technical assistance, but those requirements were considered when assigning the final ranking.

QI Maturity Score

- MDH worked collaboratively with the RAN and the University of Southern Maine (USM) to identify 10 questions from the *QI Maturity Tool* that represent three domains of QI within organizations: organizational culture, capacity/competency and alignment/spread.

- Potential questions were first identified by those that had the highest factor loading scores in studies by USM.

- Consultation with the RAN finalized the list by focusing on those that were deemed most actionable and relevant to QI maturity within an organization.

Joly BM, Booth M, Mittal P, Shaler G. Measuring quality improvement in public health: the development and psychometric Testing of a QI Maturity Tool. *Health Prof*. 35(2): 119-47, June 2012.

Questions Used for QI Score

Organizational Culture
Key decision makers believe QI is important
Staff are routinely asked to contribute to decisions
Staff has the authority to make change
My agency currently has a pervasive culture that focuses on continuous QI
Capacity/Competency
My agency has a QI plan
Leaders are trained in basic methods for improving quality
My agency has a high level of capacity to engage in QI efforts
Alignment and Spread
Job descriptions for many individuals include QI responsibilities
Customer satisfaction information is routinely used.
My agency currently has aligned our commitment to quality with most of our efforts, policies and plans.

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Ranking Entities by QI Score

- Preliminary review of QI scores by LHD indicated there may be misclassification by some LHDs (self-report).
- MDH staff who provided QI technical assistance to LPH were asked to independently review the preliminary scores and confirm their assignments. Sixteen entities were re-assigned based on MDH expert input (18%).
- For those LHDs who did not complete the *QI Maturity Tool*, MDH experts were asked to place them in the three categories (20%).

Levels of QI Maturity

Correspondence to QI Roadmap:

- Low: No knowledge, not involved, started to get involved
- Medium: Ad hoc QI
- High: Borderline formal QI, formal QI, QI Culture

http://www.naccho.org/topics/infrastructure/accreditation/upload/QI-Roadmap-11-16-11.pdf

Descriptive Statistics

Variable	%
Confident agency can obtain national voluntary accreditation*	45.5%
Agency has begun preparing for voluntary national accreditation*	27.3%
Adjusted QI Maturity Score	
High	17.6%
Medium	41.8%
Low	40.6%
Authority of Top Official: Has all six authorities	65.2%
Governance Structure	
Community Health Board	85.7%
Human Services Board	14.3%
Structure: Multi-County	64.8%
Final SHIP Ranking	
Exceeds Expectations	29.7%
Meets Expectations	55.0%
Approaching Expectations	15.3%

*Strongly Agree/Agree

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Multivariate Regression Results

SHIP Ranking (Dependent Variable): Exceeds Expectations vs. Meets/Approaching

Variable	OR	95% CI	p-value
QI Maturity	4.29	1.90-9.73	0.0005
2010 Exp*	1.04	1.00-1.08	0.07

None of the other variables of interest were associated with SHIP success in either univariate or multivariate analysis.

*Per capita expenditures, odds ratio associated with a $1/ capita increase in spending.

Quantitative Lessons Learned

- Limitations of organizational structure and governance variables for the purposes of regression. Much nuance is lost with a dichotomous representation.

- It is possible to pull together data from multiple sources, but it is difficult and requires making assumptions when reporting entities differ between data sources.

- Increasing the sample size for this type of work, for example through multi-PBRN studies, may be critical for improving the precision of results and being able to draw solid conclusions.

Qualitative Interviews

- Fifteen SHIP grantees were selected to participate in telephone interviews.
- Represented five grantees from each level of performance (exceeds, meets, approaching expectations)
- Balanced on:
  --multi-county vs. single county
  --stand-alone health vs. human services agency
- Interviews conducted during July-August 2012

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Methods

- Interview tool designed in collaboration with the RAN.
- Pilot tested with MDH SHIP staff who used to work at the local level.
- Interviews conducted by Gearin and Gyllstrom and recorded.
- Interviews transcribed by external vendor.
- Coding and thematic identification followed approach outlined by Hahn (Hahn, C., Sage, 2008).

Results

- All identified grantee organizations participated in the interviews (100% response)
- Average interview length= 37 minutes

Characteristic	#
Grantee Designation	
Multi-County	9
Single County	6
Geographic	
Twin Cities Metro	2
Greater MN	13
Organizational Structure	
Stand-alone Health	11
Within Human Services	5

Preliminary Themes

- **Staffing:** Crucial to hire SHIP coordinator, who is not also responsible for other programs/services; staff mix of new and existing employees effective.
- **Leadership and CHB Support**: Strong director who could run interference with the board, while giving large freedom to act, most effective model. Variation in CHB support.
- **Organizational & Community Characteristics:** Willingness to try something new and grantee experience working in the community key.
- **Financing:** Blessing and a curse—so much money created increased scrutiny

Preliminary Themes

- **Multi-CHB grantees**: huge benefit to regional support, sharing of ideas, training and resources; geographic distance could become a barrier
- **Translation/Sustainability:** Increased knowledge and buy-in around PSE; strengthened partnerships in communities and across CHBs; staff versus contract employees; some CHBs saw value and allocated local tax to continue support.
- **QI Collaborative:** While most saw value in QI, it was viewed as yet another thing to do and poorly-timed.
- **Role of MDH:** Generally positive, yet recognition that MDH was learning with grantees and stretched too thin (not enough staffing or resources).

Overall Conclusions

- A culture of quality appears to be associated with success on implementing SHIP. It is unclear whether a more refined quality culture is merely a marker for overall capacity or has its own unique contribution.

- Those organizations that used funding to hire designated SHIP staff (as opposed to using current employees who had other responsibilities), as well as those that gave SHIP staff freedom to act, were more effective in implementing the intervention.

- The role of leadership and that relationship to the CHB was important—more so than strictly looking at organizational structure or governance.

- Having SHIP statewide was crucial—it allowed for regional sharing of ideas and resources among the grantees—beyond their own grantee partnerships. Those grantees that maximized that support were most successful.

Limitations & Challenges

- Compiling data from multiple sources, with changing reporting entities between data sources.
- While *a priori* power calculations predicted sufficient power, the exceeds and approaching expectations strata were sparse, which generated wide confidence intervals.
- Qualitative interviews required respondents to think back on their experiences with SHIP, and their project's success may have influenced their recall.

Implications for our system

- Local health departments and CHBs had success working together on SHIP, which has in some cases resulted in them working together in other areas or other projects.

- May be a more natural approach for working with community partners and health systems, which don't necessarily fit within current health jurisdictional boundaries.

Next Steps

- Translation and dissemination of results
  --Use results to inform development of the latest statewide, Legislative SHIP Proposal.
  --Preliminary results to study participants

- Focus on research priorities, as identified by the RAN and participants in the 2012 Community Health Conference (CHS) who attended a session on PHSSR.
  --Further explore how to best operationalize the concepts of organizational structure and governance for use in quantitative models (57% of participants at the CHS conference session identified this as the highest priority direction for future research).

- Continue to work with the concept of a QI maturity score and track the system over time.

Acknowledgments

- The Minnesota Department of Health is a grantee of two national programs of the Robert Wood Johnson Foundation
  - Public Health Services and Systems Research
  - Practice Based Research Network in Public Health

- The Public Health Practice-Based Research Networks (PBRN) National Coordinating Center and the National Coordinating Center for PHSSR at the University of Kentucky College of Public Health
  - Glen Mays, PhD, MPH

- National Network of Public Health Institutes (NNPHI)
  - Nikki Lawhorn, Sc.D., MPP and Erica P. Johnson, MA

- Brenda M. Joly PhD, MPH, University of Southern Maine

- Bryan Dowd, PhD, University of Minnesota

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MN SHIP
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Other Meeting Agenda Items

PBRN Research and Resource Updates

- Status of the MPROVE study
- RWJF Connect eTraining Series Webinar: Leveraging the Media to Gain Policymaker Support. December 14, 2-3:30pm ET.
- IOM Report: An integrated Framework for Assessing the Value of Community-Based Prevention
- NAS Report: Using Science as Evidence in Public Policy

Research Funding Updates

- PCORI
  - RFP: Comprehensive Inventory of Research Networks.
  - RFI: Input on Research Networks
- PHSSR Junior Investigators
- NNPHI CFP in PHSSR

Program Monitoring Updates

- Quarterly Check-In Calls

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Other Meeting Agenda Items

Dissemination Updates

- PBRN presentations at APHA
- JPHMP special issue on PBRNs/PHSSR is now available.
- Frontiers special issue on PBRN Research is in production
- AJPM PBRN theme issue: early 2013 release

Upcoming meetings

- November 14, 1:00-2:30pm ET: Rapid Cycle Evaluation of Health System Information
- November 29, 1:00-2:00pm ET: PH PBRN Quarterly Training Session- Conducting Comparative Effectiveness Research and Patient Centered Outcomes Research Studies in PHSSR: Design, Analysis, and Funding Considerations. Glen Mays
- December 20, 1:00-2:30pm ET: PH PBRN Monthly Virtual Meeting, research-in-progress by Massachusetts PBRN

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Other Meeting Agenda Items

Grants Administration Update: Contacting the Public Health PBRN National Coordinating Center

National Program Offices

- The Robert Wood Johnson Foundation awards most grants through calls for proposals (CFPs) issued for national programs. A national program consists of a cluster of grantees and other interested parties who work together to create impact in one of the Foundation's program areas.

Functions of the PH PBRN NCC

- Manage the grant selection process
- Monitor site performance
- Provide technical assistance to sites
- Provide communication
- Provide consultation
- Provide Program Leadership

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Other Meeting Agenda Items

Grants Administration Update: Contacting the Public Health PBRN National Coordinating Center

Remember to Route All Questions on Grant Budgeting, Reporting, and Administration to the PBRN Coordinating Center: The PBRN National Coordinating Center is your one-stop source for information and assistance on the administrative aspects of your Public Health PBRN grants, including budgeting, expenditures, subcontracts, and reporting. Please make sure that you send your network's questions to the Coordinating Center (email publichealthPBRN@uky.edu or telephone **(859) 218-2094**). All requests for no-cost extensions, budget modifications, and other changes regarding your network's Robert Wood Johnson Foundation Public Health PBRN grants must be submitted to and reviewed by the PBRN National Coordinating Center before they can be considered by the Foundation.

Remember to Route all PBRN Grant Reports and Products to the Coordinating Center and the Foundation: Your network's narrative and financial reports should be submitted electronically to the PBRN National Coordinating Center and to the Robert Wood Johnson Foundation following the Foundation's reporting guidelines. All products from your network should be submitted electronically as well, as soon as they are completed.

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Grant Reporting Reminders

- Send to *grantreports@rwjf.org* , copy to *PublicHealthPBRN@uky.edu*
- RWJF guidelines for annual, final narrative reports & bibliography: *http://www.rwjf.org/files/publications/RWJF_GranteeReportingInstructions.pdf*
- RWJF guidelines for financial reports: *http://www.rwjf.org/files/publications/RWJF_FinancialGuidelinesReporting.pdf*
- RWJF guidelines for electronic submission standards for products and reports *http://www.rwjf.org/content/dam/files/rwjf-web-files/GranteeResources/RWJF_ElectronicSubmissions.pdf*

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