Examining the Relationship between Quality Improvement and Accreditation Strategies for Regional Local Health Departments in Nebraska

Department of Health Services Research & Administration, College of Public Health, University of Nebraska Medical Center

Office of Community and Rural Health, NE Department of Health and Human Services

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- Nebraska local health departments (LHDs), Nebraska Public Health PBRN, and Dr. William Riley
- Project team: Li-Wu Chen, PhD (Co-PI), David Palm, PhD (Co-PI), Anh Nguyen, MSPH, Janelle Jacobson, MPH, CHES
Population Density Per County; Nebraska 2010

- 0.6 - 7.0
- 7.1 - 100.0
- 100.1 - 500.0
- 500.1 - 1521.8

Type of County
★ Urban County
☐ Frontier County
☐ Nebraska Public Health Districts


Produced by: University of Nebraska Medical Center, College of Public Health Department of Health Services Research and Administration, 2011. Cartography: Nicole Vanosdel, Medical Geographer, 2011.
Scope of Work

❖ Quantitative Component –

Conduct a correlation analysis between the quality improvement (QI) measures and accreditation attributes for Nebraska LHDs, using survey data.

❖ Qualitative Component --

Conduct site visit interviews on selected Nebraska LHD sites to collect more in-depth qualitative information on LHDs’ strategies and planning for QI, accreditation and general performance management.
Current QI Activities and Accreditation Attributes in Nebraska’s Local Health Departments:

Results from 2011 LHD Quality Improvement Survey
Objective

- To assess the current status of Nebraska’s LHDs in implementing public health quality improvement (QI) initiatives.
- To assess the accreditation attitudes, beliefs, and perceived readiness of Nebraska’s LHDs.
- To examine the correlation between QI and accreditation attributes for NE LHDs.
Data Sources

- LHD Quality Improvement Survey, 2011 (Chen et al., 2011)
  - QI Taxonomy: Dr. William Riley
    - University of Minnesota
  - Multi-State Learning Collaborative: 2011 Annual Survey
    - Muskie School of Public Service, University of Southern Maine
- Consulted the Nebraska Public Health PBRN
LHD Quality Improvement Survey

- QI Maturity Domains & Dimensions (Joly et al., 2012)
  - Organizational Culture: Values and norms that pervade how the agency interacts with its staff and stakeholders.
  - Commitment & Collaboration
  - Capacity and Competency: Skills, functions, and approach used within an organization to assess and improve quality.
  - Skills, Methods, & Investment
  - QI Practice: Ever implemented QI, Number of Projects, Length of Time Engaged in QI, Use of QI Strategy
  - Alignment and Spread: Extent to which QI supports and is supported by the organization as well as the diffusion of QI within the agency.
  - Integration, Authority, Value, & Implementation
- Accreditation attitudes, beliefs, and readiness
LHD Quality Improvement Survey

❖ Study Population

❖ Sample

❖ Surveyed all 21 LHD directors

❖ Response

❖ Total of 19 responses (90.5% of total sample)

❖ Regional: n = 17

❖ Single-County: n = 2
Analysis

- Descriptive Statistics (Frequencies, Percentages, Means, Medians, Min, and Max)
  - QI Maturity Measures: Items, Domains (Sum of Items), & Dimensions (Sum of Items)
  - Accreditation Measures: Attitudes, Beliefs, and Readiness items

- Spearman Correlation Analysis
  - QI Maturity x Accreditation
Organizational Culture: Commitment

Organizational Culture: Commitment (N = 19)

- My agency leaders are receptive to new ideas for improving agency programs, services, and outcomes: 100.0%
- The impetus for improving quality in my public health agency is largely driven by an internal desire to make our services and outcomes better: 84.2%
- The board and/or the management team of my public health agency work together for common goals: 84.2%
Organizational Culture: Collaboration

- Agency data are shared with staff for performance improvement purposes: 84.2% Agree, 15.8% Neutral, 0% Disagree.
- When things go wrong, my agency looks at matters in a respectful way without blaming others: 89.5% Agree, 10.5% Neutral, 0% Disagree.
- Staff consult with, and help, one another to solve problems: 100.0% Agree, 0% Neutral, 0% Disagree.
- Staff members are routinely asked to contribute to decisions at my agency: 100.0% Agree, 0% Neutral, 0% Disagree.

Organizational Culture: Collaboration (N = 19)
The leaders of my public health agency are trained in basic methods for evaluating and improving quality, such as Plan-Do-Study-Act.

Staff at my public health agency who provide public health services are trained in basic methods for evaluating and improving quality, such as Plan-Do-Study-Act.

Capacity and Competency: Skills (N = 19)
## Capacity and Competency: Methods

### Capacity and Competency: Skills (N = 16)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Many individuals responsible for programs and services in my public health agency have the skills needed to assess the quality of their program and services.</td>
<td>10.5</td>
<td>31.6</td>
<td>57.9</td>
</tr>
<tr>
<td>My public health agency has objective measures for determining the quality of many programs and services.</td>
<td>21.1</td>
<td>21.1</td>
<td>57.9</td>
</tr>
<tr>
<td>Many individuals responsible for programs and services at my public health agency routinely use systematic methods (e.g., root cause analysis) to understand the root causes of problems.</td>
<td>26.3</td>
<td>42.1</td>
<td>31.6</td>
</tr>
<tr>
<td>Many individuals responsible for programs and services at my public health agency routinely use best or promising practices when selecting interventions for improving quality</td>
<td>5.3</td>
<td>94.7</td>
<td></td>
</tr>
<tr>
<td>Programs and services are continuously evaluated to see if they are working as intended and are effective.</td>
<td>15.8</td>
<td>84.2</td>
<td></td>
</tr>
<tr>
<td>The quality of many programs and services in my agency is routinely monitored.</td>
<td>5.3</td>
<td>15.8</td>
<td>79.0</td>
</tr>
</tbody>
</table>
Capacity and Competency: Investment

University of Nebraska Medical Center

Agency designates a Quality Improvement Officer.
- Disagree: 26.3%
- Neutral: 21.1%
- Agree: 52.6%
- Don't Know: 21.1%

Agency establishes process for identifying quality improvement priorities within many programs and services.
- Disagree: 10.5%
- Neutral: 47.4%
- Agree: 21.1%
- Don't Know: 21.1%

Capacity and Competency: Investment (N = 19)
In the past 12 months, a median of 3.0 (N = 8) formal projects has been implemented in LHDs.
How long has your public health agency been engaged in established and consistent efforts to improve the quality of services? (N = 19)
Quality Improvement Practice

Use of Quality Improvement Strategy (N = 15)

- Has not Used Any QI Model, Technique, or Metric: 13.3%
- Has Used Only QI Model, Technique, or QI Metric: 13.3%
- Has Used a Combination of QI Model and QI Technique, or QI Model and QI Metric, or QI Technique and QI Metric: 20.0%
- Has Used ALL QI Model, QI Technique, and QI Metric: 53.3%
Quality Improvement Practice

- 47.4% (n = 9) of LHDs indicated that a QI model was used for any QI program or intervention.

In your LHD, please indicate whether any of the following QI model(s) were used for any QI program or intervention.
Quality Improvement Practice

- 47.1% (n = 8) of LHDs indicated that QI techniques were used for any QI program or intervention.
Quality Improvement Practice

- 44.4% (n = 8) of LHDs indicated that quality measures or metrics were used for any QI program or intervention.
### Alignment and Spread: Integration

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency has job descriptions, including specific responsibilities related to measuring and improving quality, for individuals responsible for programs and services.</td>
<td>26.3</td>
<td>42.1</td>
<td>31.6</td>
<td>5.3</td>
</tr>
<tr>
<td>Agency staff are aware of external quality improvement expertise to help measure and improve quality.</td>
<td>31.6</td>
<td>31.6</td>
<td>31.6</td>
<td>5.3</td>
</tr>
<tr>
<td>Staff members at all levels participate in quality improvement efforts.</td>
<td>21.1</td>
<td>10.5</td>
<td>68.4</td>
<td>5.3</td>
</tr>
<tr>
<td>Customer satisfaction information is routinely used by many individuals responsible for programs and services.</td>
<td>36.8</td>
<td>10.5</td>
<td>52.6</td>
<td>5.3</td>
</tr>
<tr>
<td>Good ideas for measuring and improving quality in one program or service USUALLY are adopted by other programs or services in my public health agency.</td>
<td>31.6</td>
<td>63.2</td>
<td>5.3</td>
<td></td>
</tr>
<tr>
<td>Agency allocates sufficient time for staff to participate in quality improvement efforts.</td>
<td>31.6</td>
<td>31.6</td>
<td>31.6</td>
<td>5.3</td>
</tr>
<tr>
<td>Accurate and timely data are available for program managers to evaluate the quality of their services on an ongoing basis.</td>
<td>21.1</td>
<td>31.6</td>
<td>47.4</td>
<td>5.3</td>
</tr>
<tr>
<td>Improving quality is well integrated into the way many individuals responsible for programs and services work in my agency.</td>
<td>15.8</td>
<td>21.1</td>
<td>63.0</td>
<td>5.3</td>
</tr>
</tbody>
</table>
Alignment and Spread: Authority, Value, Implementation

**Authority:** Many individuals responsible for programs and services in my agency have the authority to change practices or influence policy to improve services within their areas of responsibility.

**Value:** Spending time and resources on quality improvement is worth the effort.

**Implementation:** Many individuals responsible for programs and services in my public health agency find implementing methods for assessing and improving the quality of services to be challenging.

*Alignment and Spread: Authority, Value, Implementation (N = 19)*
## QI Maturity

<table>
<thead>
<tr>
<th>QI Maturity Domain &amp; Dimension</th>
<th>Sum of Scores Range</th>
<th>N</th>
<th>%</th>
<th>Mean</th>
<th>Median</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Organizational Culture</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Commitment</td>
<td>3 – 15</td>
<td>19</td>
<td></td>
<td>13.5</td>
<td>14.0</td>
<td>9.0</td>
<td>15.0</td>
</tr>
<tr>
<td>b. Collaboration</td>
<td>4 – 20</td>
<td>19</td>
<td></td>
<td>18.0</td>
<td>18.0</td>
<td>15.0</td>
<td>20.0</td>
</tr>
<tr>
<td><strong>2. Capacity and Competency</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Skills</td>
<td>2 – 10</td>
<td>18</td>
<td></td>
<td>7.7</td>
<td>8.0</td>
<td>4.0</td>
<td>10.0</td>
</tr>
<tr>
<td>b. Methods</td>
<td>6 – 30</td>
<td>19</td>
<td></td>
<td>22.6</td>
<td>22.0</td>
<td>14.0</td>
<td>29.0</td>
</tr>
<tr>
<td>c. Investment</td>
<td>2 – 10</td>
<td>17</td>
<td></td>
<td>6.1</td>
<td>6.0</td>
<td>2.0</td>
<td>10.0</td>
</tr>
<tr>
<td><strong>3. Quality Improvement Practice</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Ever implemented QI (N = 18)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td>15</td>
<td></td>
<td>83.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td>3</td>
<td></td>
<td>16.7</td>
<td></td>
<td></td>
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<tr>
<td>b. Number of projects, last 12 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>8</td>
<td></td>
<td>3.8</td>
<td>3.0</td>
<td>0.0</td>
<td>15.0</td>
</tr>
<tr>
<td>c. Length of time engaged in QI (N = 18)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No systematic QI efforts in place</td>
<td></td>
<td>3</td>
<td></td>
<td>15.8</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>&lt;1 year</td>
<td></td>
<td>1</td>
<td></td>
<td>5.3</td>
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<td></td>
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<tr>
<td>1–2 years</td>
<td></td>
<td>4</td>
<td></td>
<td>21.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3–4 years</td>
<td></td>
<td>2</td>
<td></td>
<td>10.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5+ years</td>
<td></td>
<td>9</td>
<td></td>
<td>47.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Use of QI Strategies (N = 15)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td>2</td>
<td></td>
<td>13.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QI model, technique, or metric</td>
<td></td>
<td>2</td>
<td></td>
<td>13.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combination of QI model and technique, QI model and metric, or QI technique and metric</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>QI model, technique, and metric</td>
<td></td>
<td>3</td>
<td></td>
<td>20.0</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>4. Alignment and Spread</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Integration</td>
<td>8 – 40</td>
<td>18</td>
<td></td>
<td>27.2</td>
<td>26.5</td>
<td>18.0</td>
<td>34.0</td>
</tr>
<tr>
<td>b. Authority</td>
<td>1 – 5</td>
<td>18</td>
<td></td>
<td>4.0</td>
<td>4.0</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>c. Value</td>
<td>1 – 5</td>
<td>19</td>
<td></td>
<td>4.3</td>
<td>4.0</td>
<td>3.0</td>
<td>5.0</td>
</tr>
<tr>
<td>d. Implementation</td>
<td>1 – 5</td>
<td>19</td>
<td></td>
<td>1.8</td>
<td>2.0</td>
<td>1.0</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Accreditation: Attitudes

My public health agency would seek accreditation under a voluntary national accreditation program within the first two years of the program (years 2011-2012).

My local public health agency would seek accreditation under a voluntary national accreditation program.

Accreditation Attitudes (N = 18)
Accreditation: Beliefs

Accreditation Beliefs (N = 18)

- **I believe that having national standards for public health performance is a good idea.**
  - Disagree: 5.6%
  - Neutral: 11.1%
  - Agree: 83.3%

- **I believe receiving national accreditation would strengthen my public health agency.**
  - Disagree: 11.1%
  - Neutral: 5.6%
  - Agree: 83.3%

- **I believe receiving national accreditation would improve the quality of services provided by my public health agency.**
  - Disagree: 11.1%
  - Neutral: 22.2%
  - Agree: 61.1%
  - Don't Know: 5.6%

- **I believe receiving national accreditation would enhance the credibility of my public health agency with our stakeholders.**
  - Disagree: 11.1%
  - Neutral: 22.2%
  - Agree: 66.7%
Accreditation: Perceived Readiness

- My public health agency has begun preparing for national voluntary accreditation. (N = 18)
  - Disagree: 16.7%
  - Neutral: 11.1%
  - Agree: 72.2%

- As of today, I am confident in my public health agency’s capacity to obtain national voluntary accreditation. (N = 17)
  - Disagree: 35.3%
  - Neutral: 29.4%
  - Agree: 35.3%
Quality Improvement Maturity and Accreditation

- **Attitudes Towards Accreditation:**
  - A commitment to QI and the length of time engaged in QI are positively associated with attitudes towards seeking voluntary national accreditation.
  - The use of QI strategies is positively associated with the attitudes towards seeking voluntary national accreditation within the first two years of the program.

- **Beliefs in Accreditation:**
  - Valuing QI is positively associated with believing that national standards are a good idea.
  - The ability to apply QI methods, integration of QI policies and practices, and the alignment and spread of QI within an agency are positively associated with the belief that accreditation would strengthen the agency.

- **Perceived Readiness for Accreditation:**
  - A commitment to QI is positively associated with the commencement in preparing for accreditation.
  - The use of QI strategies and the integration of QI policies and practices within the agency are positively associated with the confidence in the agency’s capacity to obtain accreditation.
Qualitative Component

- Conduct site visit interviews on selected Nebraska LHD sites to collect more in-depth qualitative information on LHDs’ strategies and planning for QI, accreditation, and general performance management.
LHD Site Visit Interviews

- Purpose of the qualitative study
  - Identify strengths and weaknesses in essential service areas
  - Examine the readiness for accreditation for regional LHDs in Nebraska
  - Examine the relationship between QI and accreditation to inform how QI and accreditation strategies can be better integrated.
Sites

- Four sites chosen for variation in composition and levels of readiness
Methods

- Seven interviews completed
  - Directors
  - Staff involved with quality improvement and accreditation
- Interviews were transcribed and coded for themes using QSR NVivo 10
Results

❖ Strengths in 10 Essential Service Areas
  ❖ Essential Service 2
    ❖ Diagnosing and investigating health problems and health hazards in the community
  ❖ Essential Service 4
    ❖ Mobilizing community partnerships and action to identify and solve health problems
Results (cont.)

- Weakness in 10 Essential Service Areas
  - Essential Service 10
    - Research for new insights and innovative solutions to health problems
Results (cont.)

❖ Challenges to Implementing Accreditation
  ❖ Feeling overwhelmed by the process and confusion of what was required
  ❖ “I think when we first started, it was just getting the big pieces together….what really do they mean, you know, what really are they looking for when you are gonna submit…I think those are some challenges because we are still not quite sure what the PHAB standards and what they are asking for” (LHD Staff Member)
Results (cont.)

- Challenges to Implementing Accreditation
  - Competing priorities of existing daily tasks and staff time needed for compiling the documentation
  - “Most people are fairly busy managing their programs, the challenge will be having them to be able to take the time to gather their documents in conjunction with their daily tasks and to fill up the folders that we have in the common drive… I think the challenge for us will be for staff to have time to do it.” (LHD director)
Results (cont.)

- Challenges to Implementing QI
  - Very similar to challenges in implementing QI:
    - Competing priorities and a lack of staff time
  - “We are incredibly short staffed, not only we are out of space, but everybody is doing many jobs, so is this having the time, quality takes time, it saves time, but it takes time…. We will never have enough resources.” (LHD Director)
Results (cont.)

- Challenges to Implementing QI
  - Early adopter LHD indicated that their existing quality improvement infrastructure was helpful in beginning the process for accreditation
  - “We already had a firm, we were already doing a lot of stuff. So for example, there are a lot of HR stuff in PHAB and under the human resources section [of the PHAB standards and measures]. You know for us that is like a check, check, check, check, check, you know we were doing all of that.” (LHD Director)
Results (cont.)

❖ How these challenges are addressed
  ❖ Team-based approach with in LHDs
    ❖ “We’ve had teams for a long time….all of our teams are effective” (LHD Director)
Results (cont.)

- How these challenges are addressed
  - Early adopters of QI providing technical assistance to late adopters of QI on accreditation
  - “That’s one of the health departments from the conference calls, that [name removed] would get on and discuss, talk about the progress they had made. I actually called her and individually got to talk to her on the phone and she helped me quite a bit with a plan of how to set up our common drive on the computer to be able to store the documents.” (LHD Staff Member)
Results (cont.)

- How these challenges are addressed
  - Sharing existing copies of policies, procedures and other documentation
    - “Now we are moving to a new capability, that will be easier, share documents and that kind of stuff. We do plan to borrow and steal anything what we can get” (LHD Director)
Results (cont.)

- Relationship between QI and accreditation
  - Not separable, one lead to another
    - “I think accreditation is part of the quality improvement process for health Department. They go hand-in-hand. And I know you need to have quality improvement plan to be accredited. Like you need a strategic plan and the only to fit together and make sense so it’s just one piece of one big animal.” (LHD Director)
Results (cont.)

- Relationship between QI and accreditation
  - Accreditation as a driving factor for QI
    - "Accreditation is showing us where we are falling down in QI. That is not necessarily a positive because it opens up little weak areas that I do not like to see but that are there. But it is helping me see what they are and where they are. So it helps me correct that if I was not doing accreditation I might not be purposely might be blind to some of these. Yes, so accreditation is helping with QI because as we go through with it I know I am going to see more areas where we are not doing anything. Oh my God, how could it go unattended because it has not come across in any of the programs of the staff are doing it." (LHD Director)
Results (cont.)

- Readiness for accreditation
  - Variation in levels of readiness
    - Early adopter of QI has submitted their letter of intent and will have site visit in 2013
    - Later adopters of QI have some of their pre-requisites done
      - Will apply in 3–5 years
Results (cont.)

- Opportunities in QI and Accreditation
  - QI will improve LHD activities through documented evaluation and better serving the public
  - “Even a QI project around something like that [fit testing respirators], it is gonna tell me when the best time to get this evaluation….those evaluation will get us set up and that is like every program and every grant have that opportunity to look at it, and get that feedback.” (LHD Staff Member)
Results (cont.)

❖ Opportunities in QI and Accreditation
  ❖ Possible funding opportunities to those accredited
    ❖ “One of the benefits that has been dangled in front of us has been perhaps if you have been accredited, in the future, there will be few less hoops to jump through when you are applying [for a grant]. Perhaps, you are not accredited, in the future, you might not be able to apply for certain types of funds. And those, I think, would be all important.” (LHD Director)
Results (cont.)

- Opportunities in QI and Accreditation
  - Improving QI and standardization of processes will make LHD better
  - “I will say that it is gonna make us all obviously more standard everywhere...we all are gonna be, you know, talking same language, we all know that we are gonna have certain things that we should have, I think that to me, is the biggest thing, that is all how we all [will be doing the same things]” (LHD Staff Member 1) “Kind of a framework of excellence” (LHD Staff Member 2)
Results (cont.)

- Role of the State Office of Community and Rural Health in Accreditation and QI in LHDs
  - Provided funding through the Public Health Association of Nebraska
    - Pre-requisites for accreditation
    - Self-assessments of PHAB
    - Mind Manager software
    - QI plan or project
Role of the State Office of Community and Rural Health in Accreditation and QI in LHDs

“So all of those trainings last fall helped a lot and there’s also monthly conference calls for a couple of workgroups that we have within the state. There’s one that works with policies and procedures. And there’s another one that works with Mind Manager workgroup. So it’s nice to get on these conference calls and learn from the people that develop the Mind Manager software, but also when we do have our conference calls within the state we learn from other health departments what they’ve done. “(LHD Staff Member)

“And if we didn’t have [consultant] and if you guys had not made that possible, possibly we would all be light years behind and it has been a huge benefit.” (LHD Director)
References