A REPORT ON THE ALABAMA DEPARTMENT OF PUBLIC HEALTH—QUALITY IMPROVEMENT (QI) MATURITY SURVEY, OCTOBER 2015

Prepared by

The Department of Health Care Organization and Policy in
The UAB School of Public Health
INTRODUCTION

ADPH is seeking national accreditation for the state health department from the Public Health Accreditation Board (PHAB). As part of that effort, the QI Council was established to support department leadership in building a culture of continuous quality improvement throughout the organization.\(^1\)

The QI Council conducted a QI Phases Assessment in September 2014 to assess the status of the agency’s QI culture and to inform development of the department’s QI Plan. A baseline measure of the agency’s QI culture that included input from all employees was needed to further evaluate organizational QI maturity and the effectiveness of the QI Plan.

The QI Maturity Tool is a validated survey instrument used to assess and monitor QI efforts in public health agencies.\(^2\) The tool was created by the Multi-State Learning Collaborative evaluation team at the University of Southern Maine’s Muskie School. The tool is designed to:

- Identify features of an organization that may enhance or impede QI approaches;
- Monitor the impact of efforts to create a more favorable environment for QI to flourish;
- Define potential cohorts of public health agencies for evaluation purposes.\(^3\)

Since 2012, the Minnesota Department of Health (MDH) has been monitoring organizational QI maturity and evaluating the implementation of the agency QI Plan through the use of a 10-question survey.\(^4\) The survey was developed by the Minnesota Public Health practice-based research network (PBRN). The PBRN used methods to identify a select number of items from the QI Maturity Tool as the basis for calculating organizational- and system-level QI maturity scores. These survey questions collectively span the key domains of QI maturity which include: organizational culture, capacity/competency, and alignment/spread. Questions also align with national standards of PHAB and were judged by practice partners to be most relevant and actionable for local health departments. The 10-question mean score is highly correlated with the full QI Maturity Tool based on a similarly calculated mean score.\(^5\)

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\(^1\) Additional information about the QI Council and/or the QI Plan is available at www.adph.org/accreditation.


\(^4\) Quality Improvement Plan, Minnesota Department of Health, April 2013. For more information on the tool: www.health.state.mn.us/lphap.

ADPH sought technical assistance from MDH regarding its survey methodology and outcomes, and the QI Council elected to use the 10-question survey tool for its QI culture assessment. Assistance was enlisted from the University of Alabama at Birmingham School of Public Health to issue the survey and report results. This report details results of the initial survey issued by the QI Council in 2015 to establish a baseline measure of QI maturity. The survey will be issued annually to measure change in the QI culture of the department. Survey results will be reported through the department’s Performance Dashboard (performance management application) and the staff newsletter.

Responses to the 10-question survey were grouped by professional tier. The tiers are based on the national Core Competencies for Public Health Professionals developed by the Council on Linkages Between Academia and Public Health Practice. These competencies were designed for public health professionals at three different levels. Survey respondents were asked to classify themselves into one of three professional Tiers based on the following definitions:

- **Tier 1 (entry level):** Individuals who carry out day-to-day tasks of public health organizations and are not in management positions.
- **Tier 2 (supervisors and managers):** Individuals with program management and/or supervisory responsibilities.
- **Tier 3 (senior managers and CEOs):** Individuals at a senior/management level and leaders of public health organizations. Tier 3 public health professionals (e.g., health officers, executive directors, CEOs) typically have staff members who report to them.

During spring 2015, all employees in the Alabama Department of Public Health (ADPH) were provided the opportunity to participate in this quality improvement initiative.

**METHODS**

Evaluators used descriptive statistics to illustrate the distribution of job classification between tiers and to identify worksite locations. Participants were asked to rate their level of agreement with specific statements using a five point rating scale. Questions were categorized under the following headings: (a) Organizational Culture, (b) Capacity/Competence, and (c) Alignment and Spread.

A numerical value was assigned to each response option as follows:

<table>
<thead>
<tr>
<th>Strongly Disagree = 1</th>
<th>Agree = 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree = 2</td>
<td>Strongly Agree = 5</td>
</tr>
<tr>
<td>Neutral = 3</td>
<td>Don’t know = 6 (missing)</td>
</tr>
</tbody>
</table>
All “Don’t know” responses were categorized as missing values and thus were excluded from analysis. Means and standard deviations were calculated and reported for individual items. Results are presented as a composite of all three tiers as well as separately by tier.

**QI Score Calculation**

Based on scores, the evaluation team added a “composite score” column to the original data set to represent the average of the 10 individual item scores (2 items from Organizational Culture, 3 items from Capacity/Competency, and 5 items from Alignment and Spread). The composite score could range from 1-5. Consistent with NACCHO guidelines, a numerical value was assigned to each response option as follows:

<table>
<thead>
<tr>
<th>Rating</th>
<th>Numerical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree or Don’t Know</td>
<td>1</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
</tr>
<tr>
<td>Neutral</td>
<td>3</td>
</tr>
<tr>
<td>Agree</td>
<td>4</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>5</td>
</tr>
</tbody>
</table>

A QI Maturity Score was calculated as the median of the composite scores (see Table 1). The median represents the 50th percentile, which means that 50% of scores were higher and 50% were lower than the median QI Score.

- Scores in the 1.0-2.9 range represent no knowledge of QI or lack of involvement in QI;
- Scores in the 3.0-3.9 range represent informal or ad hoc QI;
- Scores in the 4.0-5.0 range represent more formalized QI.

**Table 1**

*QI Maturity Score for the Alabama Department of Health*

<table>
<thead>
<tr>
<th></th>
<th>All respondents</th>
<th>Tier 1</th>
<th>Tier 2</th>
<th>Tier 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid N</td>
<td>1375</td>
<td>474</td>
<td>387</td>
<td>462</td>
</tr>
<tr>
<td>Median (QI Maturity Score)</td>
<td>3.30</td>
<td>3.10</td>
<td>3.40</td>
<td>3.40</td>
</tr>
<tr>
<td>Range of Scores</td>
<td>1.0-5.0</td>
<td>1.0-5.0</td>
<td>1.0-5.0</td>
<td>1.0-4.9</td>
</tr>
<tr>
<td>Distribution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low QI (1.0-2.9)</td>
<td>34.0%</td>
<td>38.6%</td>
<td>31.3%</td>
<td>31.2%</td>
</tr>
<tr>
<td>Medium QI (3.0-3.9)</td>
<td>45.7%</td>
<td>42.6%</td>
<td>44.4%</td>
<td>48.7%</td>
</tr>
<tr>
<td>High QI (4.0-5.0)</td>
<td>20.3%</td>
<td>18.8%</td>
<td>24.3%</td>
<td>20.1%</td>
</tr>
</tbody>
</table>

Based on these results, ADPH recorded an overall QI Maturity Score of 3.30, which falls in the mid-range of the scoring rubric. Interestingly, when viewed by tier, Tier 2 employees (supervisors and managers) had a higher percentage of High QI scores (24.3%) than did Tier 3 employees (senior managers and CEOs at 20.1%). Further, across all tiers, approximately one-third of employees reported Low QI scores (38.6%, 31.3%, and 31.2%, respectively). These results suggest that ADPH has significant opportunities to grow as an organization with respect to system-wide improvements.
Job Classification
A total of 1,381 ADPH employees completed the QI survey. Based on job classification, 475 individuals were categorized as Tier 1 (34.4%), 389 as Tier 2 (28.2%), and 463 as Tier 3 (33.5%).

Note: For question regarding Job Classification, there were 54 missing responses (3.9%).

Worksite Distribution - Overall
The worksite distribution of ADPH employees was divided among County Office (55.4%), Central Office (30.5%), and Area Office (13.5%).

Note: For question regarding Worksite Distribution, there were 8 missing responses (0.6%).
In the following section, respondents were asked to rate their level of agreement with specific statements regarding organizational structures and processes. Results represent a composite of all Tiers. Responses were based on a five point rating system (1=Strongly Disagree; 5=Strongly Agree).

### Organizational Culture

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADPH currently has a pervasive culture that focuses on continuous quality improvement.</td>
<td>1314</td>
<td>3.46</td>
<td>1.02</td>
</tr>
<tr>
<td>Staff members are routinely asked to contribute to decisions at ADPH.</td>
<td>1322</td>
<td>3.01</td>
<td>1.14</td>
</tr>
</tbody>
</table>

### Capacity/Competence

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADPH has a quality improvement plan.</td>
<td>1167</td>
<td>3.62</td>
<td>0.92</td>
</tr>
<tr>
<td>ADPH currently has a high level of capacity to engage in quality improvement efforts.</td>
<td>1213</td>
<td>3.49</td>
<td>0.99</td>
</tr>
<tr>
<td>The leaders in my division use basic methods for evaluating and improving quality.</td>
<td>1123</td>
<td>3.33</td>
<td>1.02</td>
</tr>
</tbody>
</table>

### Alignment and Spread

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>The key decision makers in the agency believe quality improvement is very important.</td>
<td>1259</td>
<td>3.79</td>
<td>0.98</td>
</tr>
<tr>
<td>ADPH currently has aligned our commitment to quality with most of our efforts, policies, and plans.</td>
<td>1254</td>
<td>3.65</td>
<td>0.93</td>
</tr>
<tr>
<td>Job responsibilities for many individuals responsible for programs and services in my division include those specific to measuring and improving quality.</td>
<td>1263</td>
<td>3.50</td>
<td>0.95</td>
</tr>
<tr>
<td>Customer satisfaction information is routinely used by many individuals responsible for programs and services throughout the agency.</td>
<td>1210</td>
<td>3.48</td>
<td>1.01</td>
</tr>
<tr>
<td>When trying to facilitate change, staff has the authority to work within and across boundaries.</td>
<td>1271</td>
<td>3.07</td>
<td>1.00</td>
</tr>
</tbody>
</table>
DATA BY TIER

The following sections present QI responses by Tier.

Tier 1

The worksite distribution of ADPH employees in Tier 1 (n=475) was divided among County Office (64.0%), Central Office (24.8%), and Area Office (10.7%).

Note: For question regarding Worksite Distribution for Tier 1, there were 2 missing responses (0.4%).

Tier 1 respondents (n=475) represented 34.4% of total survey responses.
For Tier 1, respondents were asked to rate their level of agreement with specific statements regarding organizational structures and processes. Responses were based on a five point rating system (1=Strongly Disagree; 5=Strongly Agree).

### Organizational Culture – Tier 1

<table>
<thead>
<tr>
<th></th>
<th>Tier 1</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Staff members are routinely asked to contribute to decisions at ADPH.</td>
<td>446</td>
<td>2.83</td>
<td>1.16</td>
</tr>
<tr>
<td>ADPH currently has a pervasive culture that focuses on continuous quality improvement.</td>
<td>439</td>
<td>3.42</td>
<td>1.03</td>
</tr>
</tbody>
</table>

### Capacity/Competence – Tier 1

<table>
<thead>
<tr>
<th></th>
<th>Tier 1</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>ADPH has a quality improvement plan.</td>
<td>389</td>
<td>3.43</td>
<td>0.94</td>
</tr>
<tr>
<td>ADPH currently has a high level of capacity to engage in quality improvement efforts.</td>
<td>397</td>
<td>3.43</td>
<td>1.00</td>
</tr>
<tr>
<td>The leaders in my division use basic methods for evaluating and improving quality.</td>
<td>367</td>
<td>3.24</td>
<td>1.06</td>
</tr>
</tbody>
</table>

### Alignment and Spread – Tier 1

<table>
<thead>
<tr>
<th></th>
<th>Tier 1</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>The key decision makers in the agency believe quality improvement is very important.</td>
<td>423</td>
<td>3.74</td>
<td>1.01</td>
</tr>
<tr>
<td>ADPH currently has aligned our commitment to quality with most of our efforts, policies, and plans.</td>
<td>420</td>
<td>3.69</td>
<td>0.93</td>
</tr>
<tr>
<td>Customer satisfaction information is routinely used by many individuals responsible for programs and services throughout the agency.</td>
<td>405</td>
<td>3.63</td>
<td>0.98</td>
</tr>
<tr>
<td>Job responsibilities for many individuals responsible for programs and services in my division include those specific to measuring and improving quality.</td>
<td>416</td>
<td>3.47</td>
<td>0.92</td>
</tr>
<tr>
<td>When trying to facilitate change, staff has the authority to work within and across boundaries.</td>
<td>422</td>
<td>3.02</td>
<td>1.00</td>
</tr>
</tbody>
</table>
Tier 2
The worksite distribution of ADPH employees in Tier 2 (n=389) was divided among County Office (61.7%), Central Office (28.0%), and Area Office (9.5%).

Note: For question regarding Worksite Distribution for Tier 2, there were 3 missing responses (0.8%).

Tier 2 respondents (n=389) represented 28.2% of total survey responses.
For Tier 2, respondents were asked to rate their level of agreement with specific statements regarding organizational structures and processes. Responses were based on a five point rating system (1=Strongly Disagree; 5=Strongly Agree).

**Organizational Culture – Tier 2**

<table>
<thead>
<tr>
<th>Tier 2</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADPH currently has a pervasive culture that focuses on continuous quality improvement.</td>
<td>379</td>
<td>3.54</td>
<td>0.99</td>
</tr>
<tr>
<td>Staff members are routinely asked to contribute to decisions at ADPH.</td>
<td>376</td>
<td>3.04</td>
<td>1.12</td>
</tr>
</tbody>
</table>

**Capacity/Competence – Tier 2**

<table>
<thead>
<tr>
<th>Tier 2</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADPH has a quality improvement plan.</td>
<td>333</td>
<td>3.77</td>
<td>0.89</td>
</tr>
<tr>
<td>ADPH currently has a high level of capacity to engage in quality improvement efforts.</td>
<td>353</td>
<td>3.60</td>
<td>0.97</td>
</tr>
<tr>
<td>The leaders in my division use basic methods for evaluating and improving quality.</td>
<td>315</td>
<td>3.45</td>
<td>1.01</td>
</tr>
</tbody>
</table>

**Alignment and Spread – Tier 2**

<table>
<thead>
<tr>
<th>Tier 2</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The key decision makers in the agency believe quality improvement is very important.</td>
<td>364</td>
<td>3.87</td>
<td>0.95</td>
</tr>
<tr>
<td>ADPH currently has aligned our commitment to quality with most of our efforts, policies, and plans.</td>
<td>362</td>
<td>3.72</td>
<td>0.91</td>
</tr>
<tr>
<td>Job responsibilities for many individuals responsible for programs and services in my division include those specific to measuring and improving quality.</td>
<td>362</td>
<td>3.60</td>
<td>0.98</td>
</tr>
<tr>
<td>Customer satisfaction information is routinely used by many individuals responsible for programs and services throughout the agency.</td>
<td>345</td>
<td>3.51</td>
<td>1.03</td>
</tr>
<tr>
<td>When trying to facilitate change, staff has the authority to work within and across boundaries.</td>
<td>361</td>
<td>3.13</td>
<td>1.04</td>
</tr>
</tbody>
</table>
**Tier 3**

The worksite distribution of ADPH employees in Tier 3 (n=463) was divided among County Office (41.0%), Central Office (39.1%), and Area Office (19.9%).

![Bar chart showing distribution of employees across different offices](image)

Tier 3 respondents (n=463) represented 33.5% of total survey responses.

For Tier 3, respondents were asked to rate their level of agreement with specific statements regarding organizational structures and processes. Responses were based on a five point rating system (1=Strongly Disagree; 5=Strongly Agree).
### Organizational Culture – Tier 3

<table>
<thead>
<tr>
<th></th>
<th>Tier 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>ADPH currently has a pervasive culture that focuses on continuous quality improvement.</td>
<td>450</td>
</tr>
<tr>
<td>Staff members are routinely asked to contribute to decisions at ADPH.</td>
<td>452</td>
</tr>
</tbody>
</table>

### Capacity/Competence – Tier 3

<table>
<thead>
<tr>
<th></th>
<th>Tier 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>ADPH has a quality improvement plan.</td>
<td>405</td>
</tr>
<tr>
<td>ADPH currently has a high level of capacity to engage in quality improvement efforts.</td>
<td>420</td>
</tr>
<tr>
<td>The leaders in my division use basic methods for evaluating and improving quality.</td>
<td>401</td>
</tr>
</tbody>
</table>

### Alignment and Spread – Tier 3

<table>
<thead>
<tr>
<th></th>
<th>Tier 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>The key decision makers in the agency believe quality improvement is very important.</td>
<td>427</td>
</tr>
<tr>
<td>ADPH currently has aligned our commitment to quality with most of our efforts, policies, and plans.</td>
<td>428</td>
</tr>
<tr>
<td>Job responsibilities for many individuals responsible for programs and services in my division include those specific to measuring and improving quality.</td>
<td>439</td>
</tr>
<tr>
<td>Customer satisfaction information is routinely used by many individuals responsible for programs and services throughout the agency.</td>
<td>418</td>
</tr>
<tr>
<td>When trying to facilitate change, staff has the authority to work within and across boundaries.</td>
<td>440</td>
</tr>
</tbody>
</table>
REFERENCES
