

# The Influence of Local Health Department Structure on Quality, Process, and Priorities of Community Health Assessment and Community Health Improvement Planning

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## Purpose

To investigate the variations of Community Health Assessment (CHA) and Community Health Improvement Planning (CHIP) process, quality, and outcomes based on structural organization of Local Health Departments (LHD), including LHD type; jurisdictional size; region; and LHD resources. Compare process, quality, and outcomes of joint jurisdictional and single jurisdiction CHAs and CHIPS.

## Background

Community Health Assessment and Community Health Improvement Plan represent approaches for Local Health Departments to join with the public health system and evaluate community health status and determine priorities. Community health assessment is a requirement of the Public Health Accreditation Board for LHD accreditation. This approach to investigating how process and structure influence quality and priorities of CHAs and CHIPs was adapted from the Wisconsin CHIPP (Community Health Improvement Planning and Process) Quality Measurement Tool.

Investigation of CHAs and CHIPS will:

- Inform progress
- Identify best practices
- Offer important information to allow LHDs to share resources
- Improve understanding of successful models of collaboration
- Allow for model replication

## Research Objectives

**Research Objective 1:** Investigate the variations of CHA and CHIP process, quality, and outcomes based on structural organization of LHDs, including LHD type; jurisdictional size; region; and LHD resources.

**Research Objective 2:** Compare process, quality, and outcomes of joint jurisdictional CHAs and CHIPs with LHDs conducting a single jurisdiction process.

## Results

Table 1: Local Health Department Characteristic by CHA CHIP Quality Measurement Tool Mean

| Local Health Department Characteristic |             | Total (N=110) | Quality Measurement Tool Mean | P-Value | No CHA or CHIP (N=14) |
|--|-------------|---------------|-------------------------------|---------|-----------------------|
| LHD Structure                          | City        | 33            | 2.20                          | .042    | 4                     |
|  | County      | 62            | 1.97                          |         | 9                     |
|  | Combined    | 10            | 2.51                          |         | 1                     |
| Jurisdictional Size                    | >25,000     | 23            | 1.89                          | .031    | 5                     |
|  | 25-50k      | 35            | 1.90                          |         | 6                     |
|  | >50-100k    | 21            | 2.22                          |         | 3                     |
|  | >100-200k   | 13            | 2.42                          |         | 0                     |
|  | 200k        | 12            | 2.42                          |         | 0                     |
| Full Time Equivalents                  | 1-10        | 26            | 2.00                          | .034    | 5                     |
|  | 11-20       | 19            | 2.05                          |         | 6                     |
|  | 21-40       | 32            | 1.90                          |         | 2                     |
|  | >40         | 26            | 2.42                          |         | 1                     |
| Total Budget                           | <\$900k     | 30            | 2.06                          | .011    | 8                     |
|  | \$900k-2M   | 34            | 1.83                          |         | 5                     |
|  | >\$2M       | 39            | 2.32                          |         | 1                     |
| Per Capita Budget                      | <\$23.04    | 30            | 2.02                          | .872    | 5                     |
|  | 23.05-35.12 | 36            | 2.22                          |         | 4                     |
|  | >35.12      | 37            | 2.01                          |         | 4                     |
| Region                                 | North       | 56            | 2.26                          | .006    | 5                     |
|  | Central     | 20            | 2.14                          |         | 7                     |
|  | South       | 29            | 1.75                          |         | 2                     |
| Board of Health                        | No          | 8             | 2.38                          | .235    | 1                     |
|  | Yes         | 94            | 2.07                          |         | 13                    |
| Cross-Jurisdictional CHIP              | No          | 66            | 2.03                          | .16     | ---                   |
|  | Yes         | 39            | 2.07                          |         | ---                   |
| Level of LHD-Hospital Collaboration    | None        | 16            | 1.59                          | <.001   | ---                   |
|  | Moderate    | 56            | 2.00                          |         | ---                   |
|  | High        | 33            | 2.51                          |         | ---                   |

## Results

Table 2: Local Health Department Characteristic by Mean Number of Priorities Selected

| Local Health Department Characteristic |             | Condition Priorities | Behavior Priorities | Community Priorities | Health System Priorities |
|--|-------------|----------------------|---------------------|----------------------|--------------------------|
| LHD Structure                          | City        | 2.33                 | 3.79                | 2.54                 | 2.45**                   |
|  | County      | 2.63                 | 3.61                | 1.80                 | 1.47                     |
|  | Combined    | 3.33                 | 4.55                | 2.00                 | 2.66                     |
| Jurisdictional Size                    | >25,000     | 2.00                 | 3.40                | 2.20*                | 1.60**                   |
|  | 25-50k      | 2.05                 | 3.70                | 1.68                 | 1.11                     |
|  | >50-100k    | 2.93                 | 3.56                | 1.43                 | 2.06                     |
|  | >100-200k   | 3.27                 | 3.90                | 2.27                 | 2.72                     |
|  | 200k        | 3.11                 | 4.77                | 3.66                 | 3.22                     |
| Full Time Equivalents                  | 1-10        | 1.82                 | 3.29                | 2.17                 | 1.58                     |
|  | 11-20       | 2.33                 | 2.83                | 1.45                 | 1.75                     |
|  | 21-40       | 2.75                 | 2.75                | 1.68                 | 1.31                     |
|  | >40         | 3.13                 | 3.95                | 2.63                 | 2.81                     |
| Total Budget                           | <\$900k     | 1.90                 | 3.50                | 2.21*                | 1.70                     |
|  | \$900k-2M   | 2.87                 | 3.68                | 1.18                 | 1.62                     |
|  | >\$2M       | 2.83                 | 3.87                | 2.48                 | 2.29                     |
| Per Capita Budget                      | <\$23.04    | 2.00                 | 3.11                | 1.94                 | 1.88                     |
|  | 23.05-35.12 | 2.62                 | 3.81                | 2.14                 | 1.77                     |
|  | >35.12      | 2.95                 | 4.09                | 2.13                 | 2.22                     |
| Region                                 | North       | 4.96**               | 4.40                | 2.20                 | 2.60                     |
|  | Central     | 2.70                 | 3.67                | 1.97                 | 1.82                     |
|  | South       | 3.61                 | 3.37                | 2.50                 | 1.62                     |
| Board of Health                        | No          | 2.37                 | 4.50                | 3.25*                | 2.50                     |
|  | Yes         | 2.65                 | 3.70                | 1.93                 | 1.90                     |
| Cross-Jurisdictional CHIP              | No          | 3.35***              | 4.11*               | 1.73*                | 1.59**                   |
|  | Yes         | 1.48                 | 3.29                | 2.62                 | 2.55                     |
| Level of LHD-Hospital Collaboration    | None        | 2.60**               | 3.80                | 2.80                 | 2.20*                    |
|  | Moderate    | 2.56                 | 3.65                | 1.71                 | 2.00                     |
|  | High        | 2.68                 | 3.93                | 2.35                 | 1.97                     |

\* P < .1    \*\* P < .05    \*\*\* P < .001

## Methods

Comparative case study design utilizing mixed methods

- Original data for this study was collected using an adapted CHIPP Quality Measurement Tool to analyze the quality of the CHIP/CHA process of all 110 of 124 Ohio LHDs that have completed the CHA/CHIP process in the last five years.
- The LHDs with the highest quality process for both CHA (4) and CHIP (4) were then surveyed and interviewed.
- Quantitative Analysis includes descriptive analysis and Chi-Square, t-tests, and ANOVA.

## Preliminary Findings

Regardless of structural issues, LHDs demonstrated a high degree of CHA/CHIP quality. Structural differences included:

- County departments were less likely to progress from CHA to CHIP, involve stakeholders, or establish guiding principles
- City departments were less likely to identify measurable objectives and time framed targets.
- There were no significant differences in CHA/CHIP quality or process based on Board of Health or on jurisdictional size.
- Lower budget health departments performed with similar quality to higher budget programs, with more use of guiding principles, but less use of measurable objectives.
- The largest structural differences were geographic. There were distinct regional differences in CHA/CHIPs quality and process.
- There is a linear relationship between LHD and Hospital collaboration and quality measurement tool mean, the higher the level of collaboration, the higher LHDs scored on the measurement tool
- Cross jurisdictional conducted CHIPs selected more community and health system priorities and less behavior and condition priorities than single jurisdiction CHIPs

## Conclusion

- Despite enormous differences in size, staffing, and resources diverse health departments showed more similarities than difference.
- Differences in quality based on budget and region raise concern about disparities in community health improvement.
- Quality differences based on LHD structure are identified to encourage eliminating these structural differences.