Public Health PBRN
Monthly Virtual Meeting
May 16, 2013
Research-in-Progress Presentation by
Connecticut PBRN
Characteristics of a Local Health Department Associated with the Use of the Health Equity Index.
Moira Lawson, PhD and Michael Knapp, PhD.

If you are dialed into the conference line on the telephone 877-394-0659 code 7754838037#, 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.
CHARACTERISTICS OF A LOCAL HEALTH DEPARTMENT ASSOCIATED WITH THE USE OF THE HEALTH EQUITY INDEX
Connecticut does not have a governmental county structure.
2003 Survey of Local Health Directors

**74% respondents:**
- Believed that public health workforce resources should be devoted to health equity
- Felt they should collaborate with other sectors or disciplines

**82% respondents:**
- Reported that education in principles, objectives and practice of health equity through social justice was important

The health departments cited a lack of credible local data as a major barrier to addressing health disparities.
The Health Equity Index is a web-based, community-specific assessment tool used to examine social, economic, political, and environmental conditions strongly associated with health status indicators.

Comprised of 3 datasets:
- Social Determinants of Health
- Health Outcomes
- Demographics

Uses a decile scale to compare data across all neighborhoods and towns in the state.
DATA AT THE TOWN LEVEL

Hartford

Social Determinant Score

<table>
<thead>
<tr>
<th>Social Determinant</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civic Involvement</td>
<td>1</td>
</tr>
<tr>
<td>Community Safety</td>
<td>1</td>
</tr>
<tr>
<td>Economic Security</td>
<td>2</td>
</tr>
<tr>
<td>Education</td>
<td>2</td>
</tr>
<tr>
<td>Employment</td>
<td>3</td>
</tr>
<tr>
<td>Housing</td>
<td>3</td>
</tr>
<tr>
<td>Environmental Quality</td>
<td>4</td>
</tr>
</tbody>
</table>

Health Outcome Score

<table>
<thead>
<tr>
<th>Health Outcome</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Childhood Illness</td>
<td>1</td>
</tr>
<tr>
<td>Liver Disease</td>
<td>2</td>
</tr>
<tr>
<td>Renal Disease</td>
<td>2</td>
</tr>
<tr>
<td>Mental Health</td>
<td>2</td>
</tr>
<tr>
<td>Health Care Access</td>
<td>2</td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>2</td>
</tr>
<tr>
<td>Life Expectancy</td>
<td>3</td>
</tr>
<tr>
<td>Perinatal Care</td>
<td>3</td>
</tr>
<tr>
<td>Accidents/Violence</td>
<td>3</td>
</tr>
<tr>
<td>Diabetes</td>
<td>3</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>3</td>
</tr>
<tr>
<td>Respiratory Illness</td>
<td>4</td>
</tr>
<tr>
<td>Cancer</td>
<td>5</td>
</tr>
</tbody>
</table>

Hartford Demographics

POPULATION
- Total residents: 121,928
- Population density: 7,012.52/sq mi

RACE/ETHNICITY
- Hispanic or latino: 46.52%
- Black or African American: 37.99%
- White: 27.30%
- Other: 26.63%
- Multiracial: 6.00%
- Asian: 1.60%
- American Indian or Alaskan Native: 0.38%
- Native Hawaiian or Pacific Islander: 0.04%
- Diversity index: High

HOUSEHOLD
- Female headed households with people under 18: 24.62%
- Households with people under 18: 41.89%

AGE
DATA AT THE LOCAL LEVEL

Census Block Group: 090035047001

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>POPULATION</strong></td>
<td></td>
</tr>
<tr>
<td>Total residents</td>
<td>1,557</td>
</tr>
<tr>
<td>Population density</td>
<td>6,457.89/sq mi</td>
</tr>
<tr>
<td><strong>RACE/ETHNICITY</strong></td>
<td></td>
</tr>
<tr>
<td>Hispanic or latino</td>
<td>58.73%</td>
</tr>
<tr>
<td>Black or african american</td>
<td>31.26%</td>
</tr>
<tr>
<td>White</td>
<td>29.86%</td>
</tr>
<tr>
<td>Other</td>
<td>20.08%</td>
</tr>
<tr>
<td>Multiracial</td>
<td>7.64%</td>
</tr>
<tr>
<td>Asian</td>
<td>2.32%</td>
</tr>
<tr>
<td>American indian or alaskan native</td>
<td>0.00%</td>
</tr>
<tr>
<td>Native hawaiian or pacific islander</td>
<td>0.00%</td>
</tr>
<tr>
<td>Diversity index</td>
<td>High</td>
</tr>
<tr>
<td><strong>HOUSEHOLD</strong></td>
<td></td>
</tr>
<tr>
<td>Female headed households with people under 18</td>
<td>33.92%</td>
</tr>
<tr>
<td>Households with people under 18</td>
<td>69.42%</td>
</tr>
<tr>
<td><strong>AGE</strong></td>
<td></td>
</tr>
<tr>
<td>Average age</td>
<td>27.8</td>
</tr>
<tr>
<td>Age 6 and under</td>
<td>14.94%</td>
</tr>
<tr>
<td>Age 18 and under</td>
<td>36.75%</td>
</tr>
<tr>
<td>Age 65 and over</td>
<td>6.74%</td>
</tr>
</tbody>
</table>

**Scores**

<table>
<thead>
<tr>
<th>Social Determinant</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civic Involvement</td>
<td>1</td>
</tr>
<tr>
<td>Community Safety</td>
<td>1</td>
</tr>
<tr>
<td>Education</td>
<td>2</td>
</tr>
<tr>
<td>Economic Security</td>
<td>2</td>
</tr>
<tr>
<td>Housing</td>
<td>2</td>
</tr>
<tr>
<td>Environmental Quality</td>
<td>2</td>
</tr>
<tr>
<td>Employment</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health Outcome</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious Disease</td>
<td>1</td>
</tr>
<tr>
<td>Childhood Illness</td>
<td>1</td>
</tr>
<tr>
<td>Accidents/Violence</td>
<td>2</td>
</tr>
<tr>
<td>Health Care Access</td>
<td>2</td>
</tr>
<tr>
<td>Mental Health</td>
<td>3</td>
</tr>
<tr>
<td>Perinatal Care</td>
<td>3</td>
</tr>
<tr>
<td>Life Expectancy</td>
<td>3</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>5</td>
</tr>
<tr>
<td>Cancer</td>
<td>6</td>
</tr>
<tr>
<td>Renal Disease</td>
<td>7</td>
</tr>
<tr>
<td>Liver Disease</td>
<td>7</td>
</tr>
<tr>
<td>Diabetes</td>
<td>8</td>
</tr>
<tr>
<td>Respiratory Illness</td>
<td>8</td>
</tr>
</tbody>
</table>
## Hartford – Housing Overview

### Housing Score

| 3 | LOW |

_How this is calculated:

- Number of subsidized housing units per 1000 local residents
- Rental vacancy rates as a percentage of rental units
- Owner-occupied housing as a percentage of total housing units
- Crowded housing as a percentage of total households
- Percent of households that have moved in the last 5 years
- Median gross rent as percent of household income
- Percent of households paying over 30% of income for rent
- Percent of households paying over 30% of income for mortgage

### Related Scores

<table>
<thead>
<tr>
<th>Health Outcome</th>
<th>Score</th>
<th>$R_s$</th>
<th>Compare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious Disease</td>
<td>2</td>
<td>0.55</td>
<td>□□□□□</td>
</tr>
<tr>
<td>Health Care Access</td>
<td>2</td>
<td>0.47</td>
<td>□□□□□</td>
</tr>
<tr>
<td>Childhood Illness</td>
<td>1</td>
<td>0.42</td>
<td>□□□□□</td>
</tr>
<tr>
<td>Accidents/Violence</td>
<td>3</td>
<td>0.40</td>
<td>□□□□□</td>
</tr>
<tr>
<td>Mental Health</td>
<td>2</td>
<td>0.37</td>
<td>□□□□□</td>
</tr>
<tr>
<td>Renal Disease</td>
<td>2</td>
<td>0.33</td>
<td>□□□□□</td>
</tr>
<tr>
<td>Life Expectancy</td>
<td>3</td>
<td>0.31</td>
<td>□□□□□</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>3</td>
<td>0.29</td>
<td>□□□□□</td>
</tr>
<tr>
<td>Respiratory Illness</td>
<td>4</td>
<td>0.29</td>
<td>□□□□□</td>
</tr>
<tr>
<td>Diabetes</td>
<td>3</td>
<td>0.24</td>
<td>□□□□□</td>
</tr>
<tr>
<td>Perinatal Care</td>
<td>3</td>
<td>0.22</td>
<td>□□□□□</td>
</tr>
<tr>
<td>Liver Disease</td>
<td>2</td>
<td>0.20</td>
<td>□□□□□</td>
</tr>
<tr>
<td>Cancer</td>
<td>5</td>
<td>0.18</td>
<td>□□□□□</td>
</tr>
</tbody>
</table>

Correlations above are reported at the municipality level.
GIS MAPPING
After pilot testing the Index with 10 LHDs, we found that some LHDs were more successful in integrating use of the Index into their plans, programs and operations.

- A number of sites used the Index regularly for more than a year for workforce development, grant writing and work in the community.
- A number of sites used the index for a short specific project.
- Others did not use the Index during the pilot study.
The CT PBRN proposed a study to identify the characteristics most significantly associated with a local health department’s use of the Index.

We postulated that differences in demographics of a population served by a LHD would lead to differences in the way they view or deal with health disparities.

We postulated that leadership by a health director was essential for successful Index use.
SECONDARY DATA COLLECTION

Annual report to CT DPH
- Full-time/Part-time
- Department/District
- Rural/Urban/Suburban
- Board of directors
- Funding sources

2010 Census/Index data
- Population size/density
- Geography
- Racial/Ethnic diversity
- Poverty
- Education
A survey was developed after discussions with the Minnesota PBRN and California colleagues.

An email was sent to LHD directors with an explanation of the project, stressing that access to the Index would be available to all participants.

Periodic email reminders were sent out to LHD directors for the first three months of the project.

Directors were also reminded to complete the survey in their quarterly membership newsletter.

SURVEY COMPLETION WAS REQUIRED FOR INDEX ACCESS
PRIMARY DATA COLLECTION

Pre-access Survey

- Years of service of health director
- Background and education of health director
- Communication style and frequency
- Belief in health equity and social justice as a role of a LHD
- Staff size, breadth, diversity, education
- Activities in the community
- Accreditation
Each LHD was given a unique access key to be used to register.

Every user in a LHD was asked to register using the LHD key to set up their own account.

Each LHD was offered an on-site training session with CADH staff.

Google analytics used to track usage:
- # of logins
- # of page views
- # of users in a LHD

Usage was tracked over a 7 month period.
Post-access Survey

- How was the Index used?
  Grant writing, Strategic planning, Community needs assessment, Workforce training, Personal interest, or Did not use

- Who in LHD used the Index?
  Health Director, Epidemiologist, Health Educator, Nurse, Administrator, Consultant, Student, other
Wilcoxon-Whitney test was conducted to test the hypothesis of no difference between departments that did and did not complete the initial survey.

Proportional logistic regression modeling was used to determine which LHD characteristics could best predict the level of Index usage.
# RESULTS

**Characteristics of LHD and their correlation with participation in the study. (Mann-Whitney test)**

<table>
<thead>
<tr>
<th>LHD Characteristic</th>
<th>Participant</th>
<th>Non-Participant</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Time/Part Time</td>
<td>37 FT / 3 PT</td>
<td>13 FT / 21 PT</td>
<td>.001**</td>
</tr>
<tr>
<td>Department/District</td>
<td>22 dept.</td>
<td>31 dept.</td>
<td>.003**</td>
</tr>
<tr>
<td></td>
<td>18 district</td>
<td>3 district</td>
<td></td>
</tr>
<tr>
<td>Board of Directors</td>
<td>28 with / 12 w/o</td>
<td>7 with / 27 w/o</td>
<td>.000**</td>
</tr>
<tr>
<td>Urban/Rural</td>
<td>36 Urban</td>
<td>25 Urban</td>
<td>0.350</td>
</tr>
<tr>
<td></td>
<td>4 Rural</td>
<td>9 Rural</td>
<td></td>
</tr>
<tr>
<td>Geographic Size</td>
<td>41 mi²</td>
<td>28 mi²</td>
<td>.027*</td>
</tr>
<tr>
<td>Population Density</td>
<td>1185/mi²</td>
<td>575/mi²</td>
<td>.010**</td>
</tr>
<tr>
<td>% Population Non-Caucasian</td>
<td>7.8%</td>
<td>5.8%</td>
<td>.001**</td>
</tr>
<tr>
<td>% Population Hispanic</td>
<td>3.2%</td>
<td>2.1%</td>
<td>.006**</td>
</tr>
<tr>
<td>% Families Living in Poverty</td>
<td>5.2%</td>
<td>3.0%</td>
<td>.001**</td>
</tr>
<tr>
<td>Education Level of Population (Overall HEI Score)</td>
<td>5</td>
<td>7</td>
<td>.002**</td>
</tr>
</tbody>
</table>

*p < 0.05, **p < 0.01
RESULTS

- Only 40/74 (54%) of health directors completed the survey.

- From usage data, LHDs were divided into 4 categories:
  - **Non-users** – those who had registered but never logged in to the Index.
  - **Light users** – LHDs in which one or more users had logged in for the first week after receiving access but had not done so again.
  - **Moderate users** – LHDs in which one or more users had logged in to the Index periodically throughout the project.
  - **Heavy users** – LHDs in which one or more users logged into the Index consistently throughout the project, looking at numerous page views when logged in.
Models were fit using proportional logistic regression. Best fitting model contained ‘Years DOH’ \((p=0.02)\) and ‘MPH staff’ \((p=0.04)\) variables. No other variables contributed to the model predicting index use.

<table>
<thead>
<tr>
<th></th>
<th>OR</th>
<th>2.5 %</th>
<th>97.5 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years DOH</td>
<td>1.962764</td>
<td>1.110664</td>
<td>3.660730</td>
</tr>
<tr>
<td>MPH staff</td>
<td>2.068840</td>
<td>1.037687</td>
<td>4.382605</td>
</tr>
</tbody>
</table>
POST USAGE SURVEY

Heavy Index users
- Most often used the index for community needs assessments, strategic planning and grant writing
- Most often had multiple staff members using the Index

Moderate Index users
- Were more likely to have used the index solely for conversations with municipal leaders

Light Index users
- Were most likely to have used the index for personal interest
- Most often only the health director had used the Index
- Full-time health directors were likely to offer more than environmental health services to their communities and were therefore more likely to be interested in using a health equity tool.

- Health departments in economically challenged and racially or ethnically diverse areas were likely to have programs dealing with health disparities and were therefore more likely to use the Index.

- The presence of a board of directors may bring a broader vision to the role of local public health, and thus lead to higher participation rates in a variety of public health related projects.
IMPLICATIONS 2

- Health directors who have been in their position for a longer time may have a broader view of their responsibilities as local health leaders.

- The presence of more MPH on staff may lead to a greater capacity for understanding community data.
LIMITATIONS

- The sample size was small and participation rate low, with a total of only 74 health directors in the state, 40 of whom took the survey.

- Directors of health were the sole contact for the survey, but in some LHDs, other staff may be more instrumental in program participation and index usage.

- Utilization of the Index may be influenced by factors which we were not able to examine in this study.
INDEX IMPROVEMENTS
UNDER THE PBRN PROJECT

- Redesigned based on 2 rounds of formal usability reviews with LHD staff
- Stratified by race & ethnicity
- Temporal stratification
- Municipal reference group modeling
DATA AT THE TOWN & NEIGHBORHOOD LEVELS
STRATIFICATION BY MUNICIPAL REFERENCE GROUPS

Hartford

Births Not Receiving Prenatal Care in the First Trimester: 20.44%

2008-2010

<table>
<thead>
<tr>
<th>Avg. score</th>
<th>Towns with similar demographics to Hartford</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Bridgeport: access08: 8, Population: 138,668</td>
</tr>
<tr>
<td></td>
<td>New Britain: access08: 3, Population: 71,203</td>
</tr>
<tr>
<td></td>
<td>New Haven: access08: 4, Population: 125,318</td>
</tr>
<tr>
<td></td>
<td>New London: access08: 8, Population: 25,782</td>
</tr>
<tr>
<td></td>
<td>Waterbury: access08: 8, Population: 107,847</td>
</tr>
<tr>
<td></td>
<td>Windham: access08: 7, Population: 23,920</td>
</tr>
</tbody>
</table>

Map color indicates access08. Orange means low and brown means high.

Neighborhood Scores

<table>
<thead>
<tr>
<th>Neighborhoods</th>
<th>access08</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asylum Hill</td>
<td>4</td>
<td>11,055</td>
</tr>
<tr>
<td>Barry Square</td>
<td>4</td>
<td>16,282</td>
</tr>
<tr>
<td>Behind-the-Rocks</td>
<td>8</td>
<td>8,408</td>
</tr>
<tr>
<td>Blue Hills</td>
<td>3</td>
<td>9,883</td>
</tr>
<tr>
<td>Clay Arsenal</td>
<td>2</td>
<td>6,429</td>
</tr>
<tr>
<td>Downtown</td>
<td>5</td>
<td>949</td>
</tr>
<tr>
<td>Frog Hollow</td>
<td>4</td>
<td>9,081</td>
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<tr>
<td>North Meadows</td>
<td>10</td>
<td>923</td>
</tr>
<tr>
<td>Northeast</td>
<td>2</td>
<td>10,156</td>
</tr>
</tbody>
</table>
HEALTH OUTCOMES CORRELATED WITH SOCIAL INDICATORS

High Positive Correlation
Spearman’s rank correlation coefficient ($R_s$) of 0.56

The correlation implies that higher values of Ambulatory Care Sensitive Hospitalizations are strongly correlated to higher values of Federal Toxic Release Inventory (TRI): Number of Facilities Reporting.

How is this calculated?
This correlation is performed at the zip code level, which is the highest common resolution between the data sets of these two measures.
SCORES AND CORRELATIONS RE-RUN USING THE MRG MODEL

No Significant Correlation

Spearmann's rank correlation coefficient ($R_s$) of 0.00

*How is this calculated?*
This correlation is performed at the zip code level, which is the highest common resolution between the data sets of these two measures.
Hartford
Skin Cancer Incidence Rate: 9 per 100,000
2009-2010

TEMPORTAL STRATIFICATION
Hartford
Skin Cancer Incidence Rate: 9 per 100,000
2006-2010

Scores by racial/ethnic group in Hartford
for Skin Cancer Incidence Rate

<table>
<thead>
<tr>
<th>Neighborhood</th>
<th>Black or African American</th>
<th>Hispanic or Latino</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asylum Hill</td>
<td>6</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Barry Square</td>
<td>6</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Behind-the-Rocks</td>
<td>6</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Blue Hills</td>
<td>2</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Clay Arsenal</td>
<td>6</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Downtown</td>
<td>N/A</td>
<td>N/A</td>
<td>9</td>
</tr>
<tr>
<td>Frog Hollow</td>
<td>6</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>North Meadows</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Northeast</td>
<td>6</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Parkville</td>
<td>6</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Sheldon-Charter Oak</td>
<td>6</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>South End</td>
<td>2</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>South Green</td>
<td>6</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>South Meadows</td>
<td>N/A</td>
<td>N/A</td>
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<td>Southwest</td>
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<td>8</td>
</tr>
<tr>
<td>Upper Albany</td>
<td>6</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>West End</td>
<td>6</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Hartford total</td>
<td>2</td>
<td>2</td>
<td>9</td>
</tr>
</tbody>
</table>

Racial Stratification
Correlations by Race/Ethnicity

between Skin Cancer Incidence Rate and Household Income

<table>
<thead>
<tr>
<th>Race/ethnicity</th>
<th>Correlation</th>
<th>$R_s$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black or African American</td>
<td>None</td>
<td>-0.02</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>Low</td>
<td>0.15</td>
</tr>
<tr>
<td>White</td>
<td>High</td>
<td>0.54</td>
</tr>
</tbody>
</table>

Interpreting the correlation

Where sufficient population numbers permit, and if determinants contain racial and ethnic information, neighborhood scoring and correlations are stratified by race and ethnicity.

If one observes scores and correlations hold constant across race/ethnicity groupings, this suggests race and ethnicity is not a confounder or effect modifier.

Inconsistent correlations or scores may indicate that race/ethnicity is important in interpreting the observed patterns.

⚠️ Only Skin Cancer Incidence Rate (dises18) is stratified over Race/Ethnicity.
**Hartford** Skin Cancer Incidence Rate compared to Household Income

**Skin Cancer Incidence Rate: 9 per 100,000**
- 2006-2010

**Household Income: $30,730**
- 2006-2010

### Correlations over time
between Skin Cancer Incidence Rate and Household Income

<table>
<thead>
<tr>
<th>Time</th>
<th>Correlation</th>
<th>$R$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-2011</td>
<td>High</td>
<td>0.57</td>
</tr>
<tr>
<td>2009-2010</td>
<td>High</td>
<td>0.53</td>
</tr>
<tr>
<td>2008-2009</td>
<td>High</td>
<td>0.54</td>
</tr>
<tr>
<td>2007-2008</td>
<td>Medium</td>
<td>0.49</td>
</tr>
<tr>
<td>2006-2007</td>
<td>Medium</td>
<td>0.47</td>
</tr>
</tbody>
</table>

### Interpreting the correlation

While not a significance test per se, if you observe that correlations stay constant over time, this offers more confidence that the finding are not an anomaly that existed at only one period in time. A consistent increase or decrease over time in the magnitude of the correlations also provides some measure of certainty in the observations. These are findings worth investigating further.

On the other hand, inconsistent correlations over time suggest the findings could be due to random variation in small samples. This diminishes the certainty of the measured correlation at any particular moment in time.

⚠️ Only Skin Cancer Incidence Rate (disease18) is stratified over Time.
We will present this work to CT local health directors at a membership meeting in June. At that time we will discuss the results with members to gain more insight into the implications of the findings.

Epidemiologists from around the state are currently evaluating the new Index interface containing the new stratifications.

We are planning a full roll-out of the new Index interface in the near future.
THANKS TO:

CADH

- Sharon Mierzwa, MPH
- Charles Brown, MPH

Farmington Valley Health District

- Jennifer Kertanis, MPH

And to the Robert Wood Johnson Foundation and the National PBRN Coordinating Center for their funding and assistance.
Other Meeting Agenda Items

The Public Health Quality Improvement Exchange (PHQIX)

Jamie Pina, PhD, MSPH
Research Scientist, Center for Advancement of Health IT
RTI International
Public Health Quality Improvement Exchange

Welcome to www.phqix.org

Jamie Pina, PhD, MSPH
PBRN Webinar
Thursday, May 16, 2013
“Quality Improvement in Public Health is a continuous and ongoing effort to achieve measurable improvements in the efficiency, effectiveness, performance, accountability, outcomes and other indicators of quality of services or processes that achieve equity and improve the health of the community.” – Riley, 2010

- Executed by PH professionals
- No clear way to share what is learned across agencies
- Various funding sources
Documenting QI in Public Health

- Narratives
- “Storyboards”
- Reports
- Stand-alone documents
- Posted on the web, at sites sponsored by funding agency

The Multi-State Learning Collaborative: Lead States in Public Health Quality Improvement (MLC) brought state and local health departments together with other stakeholders—including public health institutes, health care providers, and universities—to improve public health services by implementing quality improvement (QI) practices. The MLC was managed by NNPHI and supported by the Robert Wood Johnson Foundation (RWJF). During the MLC’s six years, QI teams in each of the 16 participant states prepared for public health accreditation and applied QI practices to achieve specific and measurable goals, such as increasing immunization rates or increasing the number of adults exercising in a community.

The MLC helped foster learning, comradery, and momentum for accreditation; promote a new focus on infrastructure in public health departments; and grow the movement toward a culture of QI. When the MLC came to a close in April 2011, there were countless legacies, including the galvanization and preparation of health departments across the country for national accreditation.

NNPHI, the MLC participants, and the field of public health practitioners will continue to build upon the improved knowledge, practice, partnerships, and policy that resulted from the MLC.
- Typical Storyboard for QI
- Useful if you read the entire entry
- Reports findings

**HOWEVER**: Alone, this reporting strategy is not providing optimal value to the PH community
RWJF and PH Quality Improvement

- RWJF supports QI efforts in PH
- Identified the problem of information “slippage”
- Developed a prototype information exchange
Project Vision

- Share QI knowledge
- Provide Access to QI experts
- Create an online community dedicated to QI
- Guidance in developing QI strategy
- Support for accreditation
Public Health Quality Improvement exchange

The Public Health Quality Improvement Exchange (PHQIX) is a centralized communication hub dedicated to supporting quality improvement efforts in public health practices throughout the United States. Submit your own quality improvement initiative or search for interventions that might be relevant to your community.

Submit a quality improvement initiative.
Search existing quality improvement interventions and tools.
Visit the community forum to start a discussion or chat with an expert.

Quality Improvement Together...

PHQIX QI Highlight – Spokane Washington

Recent Submissions
The Cleveland County Quality Improvement Collaborative to Increase community engagement
Oakland County Health Department - October 3, 2012
This QI initiative began, because collaboration among community partners was limited and did not include a comprehensive assessment to provide the tools of work being done. The community wanted to...

Reducing the no show rate in vaccination clinics at a local health department: Lessons learned
Dorothy Health Department - October 3, 2012
The no show rate for vaccination clinics at Dorothy Health Department was too high, leading to inefficiencies in clinic effectiveness. A QI process was used to study the issue, collect...

Environments — Health: Public Use of Restaurant Inspection Reports
Appalachian Health Department - October 3, 2012
The Appalachian Health Department has not recently come in to our office of census and ask about an establishment’s inspection history. We have also had formal open records requests for this information.

News and Events
Ask an Expert
One of the features of PHQIX is the opportunity to “Ask an Expert.”
The Expert Panel
In order to ensure that the exchange is a huge success, PHQIX has created its own expert panel. It offers
User-Centred Design
PHQIX staff began building the exchange earlier this year with input from the PHQIX User Group.

Ask an Expert
A Culture of Quality: is it elusive?
Question:
We have been working on QC efforts for about the last two years, and feel like we have made great strides toward implementing a QC culture. What recommendations would you have not only for sustaining the gains that we have made, but also to continue to develop the skills of staff at all levels?
Submit a question
Site Statistics – Since December

8,750 visits
4,825 unique visitors
6.5 minutes average time on site
49,500 pageviews
740 registered users
57 published QI initiatives
22 ready to be published
Search

PHQIX makes it possible to search public health quality improvement initiatives that other users have submitted. You can learn about the work of your peers and benefit from the experience of everyone who participates. If you are interested in submitting your own QI initiative, please go to the submission page.

Enter a keyword in the text box below to begin searching through the QI initiatives we have in the exchange. From there, you can refine your search based on the parameters on the left.

You can also browse the QI initiatives by going to the browse page. From there, you can review every QI initiative in the exchange.

Enter your keywords: [search box]

Search
Engage your community in Quality Improvement to "move the needle" for positive health outcomes.
Washington County Health Department - October 3, 2012
Washington County Health Department formed a Core Quality Improvement Team. The team created an aim statement to improve community engagement and health improvement planning processes by increasing the community resources from 0-30%, increasing effectiveness of meetings, creating a vision, and...

The Cleveland County Quality Improvement Collaborative in increase community engagement
Cleveland County Health Department - October 3, 2012
This QI initiative began, because collaboration among community partners were limited and did not include a comprehensive assessment to provide the basis of work being done. The community wanted to work more collaboratively, reduce duplication of services, and improve the overall health of the...

Reducing the no show rate in immunization clinics at a local health department: Lessons Learned
District Health Department #10 - October 3, 2012
The overall no show rate for immunization clinics at District Health Department #10 was too high, leading to inefficiencies in clinic effectiveness. A QI process was used to study the issue, collect data, determine possible solutions, test the solutions, implement strategies, and continue to...

Environmental Health: Public Use of Restaurant Inspection Reports
Appleton Health Department - October 3, 2012
The Appleton Health Department has had citizens come in to our office or call and ask about an establishment’s inspection history. We have also had formal open records requests for this information. In order to provide easier access to these public records, we wanted to make them accessible on...

Increasing Identification of Resources in Kane County and Improving the Sharing and Leveraging Of These Resources to Achieve Community Health Improvement Plan Priorities
Kane County Health Department - October 3, 2012
Kane County community partners have a history of showing strong support for the health department but were less likely to share resources and follow-through on assigned tasks. Identification of community resources and leveraging them would result in increased productivity and reduce duplication of...

The Sexually Transmitted Disease Client Survey Process: Standardizing the Process to Increase Survey Return and Client Input
Allegan County Health Department - October 3, 2012
Allegan County had a 4% survey return rate and this was identified as an area for improvement. A PDSA QCI project occurred. The AIM statement was created: "Between September 01, 2010 and November 30, 2010 fifty percent (50%) of STD clients presenting for care at ACHD will complete and return a..."
Top search terms:

immunizations
lean
department of health
vision
infant mortality
primary care
immunization
data standards
To develop the PHQIX data collection template, we used the following resources:

Practice Exchange Prototype
OSTLTS Story Collection Template
SQUIRE Recommendations
NACCHO Profile
ASTHO Profile

PHQIX Expert Panel Focus Group
PHQIX User Group Focus Group

Literature review of public health QI
Text Analysis/WFA of previous QI Documentation
To review and refine the PHQIX data collection template, we used the following resources:

PHQIX Expert Panel (2 Rounds)
PHQIX User Group
QI Researchers
NNPHI experts
RWJF experts
We are presenting our work at Medinfo 2013:

“Synonym-based Word Frequency Analysis to Support the Development and Presentation of a Public Health Quality Improvement Taxonomy in an Online Exchange”
Public Health Quality Improvement
exchange

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QUALITY IMPROVEMENT TOGETHER.

News And Events

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The Expert Panel:
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User-Contributed Design:
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Recent Submissions

The Cleveland County Quality Improvement Collaborative to Increase community engagement
Oakland County Health Department - October 3, 2012
This QI initiative began, because collaboration among community partners were limited and did not include a comprehensive assessment to provide the tools of work being done. The community wanted to...

Reducing the no show rate in immunization clinics at a local health department: Lessons learned
District Health Department #10 - October 3, 2012
The no show rate was a focus of the clinic staff, because it was seen as an inefficient use of clinic resources. A QI process was used to study the issue, collect...

Environments that reduce the use of restaurant inspection reports
Appalachia Health Department - October 3, 2012
The Appalachian Health Department has had concerns come in to the office of cars and ask about an establishment's inspection history. We have also had formal open records requests for this information.

Ask an expert:
A Culture of Quality: Is it Elusive?
Question:
We have been working on our efforts for about the last two years, and feel like we have made great strides toward implementing a QI culture. What recommendations would you have not only for sustaining the gains that have been made, but also to continue to develop the skills of staff at all levels?

Submit a question.
The Public Health Quality Improvement Exchange (PHQIX) is a centralized communication hub dedicated to supporting quality improvement efforts in public health practices throughout the United States. Submit your own quality improvement initiative or search for interventions that might be relevant to your community.

- Submit a quality improvement initiative.
- Search existing quality improvement interventions and tools.
- Visit the community forum to start a discussion or chat with an expert.
CATCH Kids-Club Collaborative Increase parent involvement in at-home CATCH activities

Summary

Summary:
Approximately 16% of Oklahoma’s youth ages 10-17 years were overweight/obese in 2007, ranking Oklahoma 17th in the nation for childhood obesity. In addition, Oklahoma ranked 50th in the nation for fruit and vegetable consumption. Coordinated physical activity and nutrition were not considered a priority in after-school programs. However, physical activity and nutrition became a focus of the Oklahoma State Department of Health through the Strong and Healthy Oklahoma initiative and was identified as a strategic priority for the agency. The CATCH Kids Club was introduced as a three-year pilot project in 20 after-school sites in Oklahoma at the beginning of the 2007 school year. Data showed that parental involvement was an essential part of sustainability but was not working well across the sites. A team was put together to work on increasing parent involvement and encourage at home CATCH related activities by 10%. Many initiatives were implemented across sites to encourage parental involvement such as monthly activity calendars, quarterly newsletters, parent fact sheets and tips on nutrition and physical activity, sending home nutritious recipes, CATCH Kids Club cookbook and implementing parent focus groups to find out what they wanted. Due to these initiatives, there was an 11% increase in kids sharing the importance of fruits and vegetables with their children and a 33% of parents reported participating in CATCH activities at home with their children.

Organization that conducted the QI initiative:
Oklahoma State Department of Health

Citation:

Planning and Execution Details

Health Impact

Training and Preparation

Information about the Community
Ask an Expert

The relationship between quality improvement and performance management

Question:
Quality improvement, Performance Management? What's the Connection? Just Tell Me What My Health Department Needs...

Reply:
Response by Leslie Balsch, MD, JD

The relationship between quality improvement (QI) and performance management (PM) is mutually reinforcing. However, sometimes the connection between them is not always so well articulated. For the past several years, public health leaders have placed great emphasis on embracing QI within their organizations. The Robert Wood Johnson Foundation and the Centers for Disease Control and Prevention have made substantial investments to strengthen public health QI capacity—and through those investments—organizational performance. To contrast, PM has...

Submit a question

Quality Improvement vs. Quality Planning

Question:
I've heard a lot about quality improvement, but what about quality planning? What is the difference between quality improvement and quality planning?

Reply:
Response by Cindy Giizi: acknowledgements to Laura Cal and Marni Mason. Cindy, Laurie, and Marni have been working collaboratively to define and describe OP.

Have you ever tried to apply quality improvement (QI) tools and methodologies to a planning process, for example, to develop a community health improvement plan? If you did, you would quickly find out that it's like wearing a sweater one size too small; it doesn't fit quite right and may even be a bit uncomfortable. Quality planning (QP) is the right fit for starting a planning process. Developing a new prevention program, ...

Submit a question

A Culture of Quality: Is it elusive?

Question:
We have been working on QI efforts for about the last two years, and feel like we have made great strides toward implementing a QI culture. What recommendations would you have not only for sustaining the gains that have been made, but also to continue to develop the skills of staff at all levels?

Reply:
Response by Jim Butler

As Public Health Quality Improvement (QI) Consultants, we are frequently asked by clients, “We are....
News and Events

New Video Highlight Coming Soon
Operation Chuck Wagon is the next QI initiative to be featured on PHQIX! This initiative, run by the Northern Kentucky Independent District Health Department (NKIDHD), addressed potential health risks associated with mobile food vendors. For more information, check out their submission. Stay tuned for the video, which will be displayed on the homepage!

New Crewing!
We are extending the "Spring into QI Submissions" drawing through the end of May. Submit a description of your QI effort for a chance to win great prizes including all-expense paid conference attendance and an iPad mini!

PHQIX in Action

News and Events

Recent Submissions
- Preventing Unintended Secondary Pregnancies in Women Receiving WIC Services
- Barron County Department of Health and Human Services
- Sedgwick County Health Department
- The Partnership Assessment project's purpose was...
- Early Access Transfer Project: Eliminating Barriers in Improving Processes
Community Forum

The community forum is not actively moderated. We trust you will use your professional judgment in choosing appropriate subject matter and always treat your peers with respect. We will only step in if spam is posted or someone is behaving badly. We think we are more likely to get spam! Go ahead and use the forum and let us know if you have any questions or would like to see any additional features here.

Log in to post new content in the forum.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Replies</th>
<th>Last reply</th>
</tr>
</thead>
<tbody>
<tr>
<td>posting your agency Q1 data</td>
<td>16</td>
<td>By victoria bailey 2 weeks 2 days ago</td>
</tr>
<tr>
<td>Information Requestable at the CQMFront Open Forum Meeting</td>
<td>2</td>
<td>By jinha 1 month 3 weeks ago</td>
</tr>
<tr>
<td>Social Media Policy</td>
<td>8</td>
<td>By jinha 1 month 3 weeks ago</td>
</tr>
<tr>
<td>Sample Performance Management System</td>
<td>3</td>
<td>By asheyman 1 month 3 weeks ago</td>
</tr>
<tr>
<td>Photos: PHQIX at APHA</td>
<td>2</td>
<td>By diana smith 1 month 3 weeks ago</td>
</tr>
<tr>
<td>Happy New Year 2013!</td>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>So what’s in a name? PhQIX users, we need your help!</td>
<td>2</td>
<td>By logans 4 months 2 weeks ago</td>
</tr>
<tr>
<td>Q1 Project Topic: Client follow up for test results</td>
<td>4</td>
<td>By Grace deroiano 4 months 4 weeks ago</td>
</tr>
<tr>
<td>PHQIX is at APHA</td>
<td>1</td>
<td>By othropp 6 months 2 weeks ago</td>
</tr>
<tr>
<td>Looking great</td>
<td>1</td>
<td>By jinha 6 months 4 weeks ago</td>
</tr>
<tr>
<td>Welcome to PhQIX! Everyone!</td>
<td>4</td>
<td>By jinha 7 months 6 days ago</td>
</tr>
<tr>
<td>Test</td>
<td>1</td>
<td>By jinha 7 months 1 week ago</td>
</tr>
</tbody>
</table>

PHQIX in Action

Open Forum Meeting in Orlando, FL

News and Events

- New Video: Hardhat Counterpoint
- Operation Chuck Wagon is the next QI initiative to be featured on PHQIX. This initiative, run by...

- New developments:
  - We are extending the "Spine into..."

- PHQIX Atlanta
  - PHQIX staff are in Atlanta this...

Recent Submissions

- Preventing unintended secondary pregnancies in urban settings
- Women, Infants, and Children (WIC) Services
- Barrow County Department of Health and Human Services
- The Baron County Department of Health and Human...
- Improving the health of community collaboration: Communication, Empowerment, and Outreach
- Sadgrove County Health Department
- The Partnership Assessment project’s purpose area
- Farm Jones: Previous Project: Eliminating barriers to improving innocence
- Cascadia County Health Department
- Prenatal Population-based health status...
Follow us on twitter: @PublicHealthQIX #PHQIX
Identify trends in QI activity

See how practitioners describe their work

Read questions and comments

Provide insight to the community
The Public Health field is very collaborative in spirit

“Quality Improvement Together”
Thank you!

Questions?
Other Meeting Agenda Items

Welcome to our new PBRNs

- Alabama
- Pennsylvania
- Arkansas
- Illinois

Funding Opportunities

- CDC
- NINR
- Roadmaps to Health prize
- CBPR
Grants Administration Update:
Final Reports and Products

RACE
- FNR
- FFR
- Products
- BIB

MPROVE
- FNR
- FFR
- Products

• Send to PublicHealthPBRN@uky.edu; after approval send to grantreports@rwjf.org

• RWJF guidelines for annual, final narrative reports & bibliography:

• RWJF guidelines for financial reports:

• RWJF guidelines for electronic submission standards for products and reports
Reminders: Upcoming Meetings and Events

• May 29, 2013: **AcademyHealth Webinar**: Current Research Priorities for Understanding the US Public Health System: Speakers from Federal agencies that support HSR, PHSSR, and related research will discuss current funding priorities and provide insight on how researchers can strengthen funding prospects. These agency experts will also highlight resources offered to support research, and extend its impact. This free webinar will be held on May 29th.

• June 20, 2013: Public Health PBRN Monthly Virtual Meeting: Research-in-progress presentation by the Wisconsin PBRN

• June 25-26, 2013: **AcademyHealth Annual Research Meeting**, and PHSSR Interest Group Meeting, Baltimore MD

• July 10-12, 2013: **NACCHO Annual Sharing Session**, Dallas, TX
For more information contact:
Glen Mays
glen.mays@uky.edu

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