Public Health Issue
Prioritization
Methodology Review
Purpose

Public Health Issue Ranking

› Quantitative ranking strategy to compare Public Health Issues within the county

Prioritization Process

Prioritization Process

DATA COLLECTION
- NYSDOH Prevention Agenda Dashboard
- Common Grounds Data Portal
- VS Annual Reports
- 2016 CHNA

DATA ASSESSMENT
- Identification of appropriate indicators for PH Issues
- Creation of Public Health Issue ranking methodology

DATA ANALYSIS
Summary calculations result in Public Health Issue ranking scores

RANKING PRESENTATION
Ranked Public Health Issues are presented to stakeholders with pertinent data

PRIORITY SELECTION
Stakeholders assess data, supply local antidotes, and vote on priority areas for their county
Layers of Data

- **Prevention Agenda Priority Area**

- **Public Health Issue**
  - Example: Asthma

- **Indicator(s)**
  - Example: Asthma ED, Asthma Hospitalizations, Asthma Prevalence

- **Ranked Value**
  - Averaged

**Example:** Chronic Disease
Variable: Size (of rate)

Current indicator rate for NYS excluding NYC.

Current indicator rate for county

Upstate Rate

Indicator Rate

Percent (%)

difference

\[
\frac{\text{County} - \text{Upstate}}{\text{Upstate}} \times 100
\]

Scoring of Resultant Percentage

Points allotted depending on % difference from Upstate.

County size >5% less than Upstate

Negative point value
Range: -5 \(\rightarrow\) -1

County size within 5% greater or less than Upstate

0 point value

County size >5% greater than Upstate

Positive point value
Range: 1 \(\rightarrow\) 5

+1 point if county is worst 5 of all NYS counties for indicator
### Variable: Size (of rate)

<table>
<thead>
<tr>
<th>% Higher than Upstate</th>
<th>↓ 50% +</th>
<th>↓ 25-49.9%</th>
<th>↓ 15-24.9%</th>
<th>↓ 10-14.9%</th>
<th>↓ 5-9.9%</th>
<th>↓ 0-4.9%</th>
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<th>↑ 25-49.9%</th>
<th>↑ 50% +</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Points”</td>
<td>-5</td>
<td>-4</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Lyme Disease Case Rate

Values

• Upstate: 58.7
• County: 753.6

Calculation

\[ \frac{753.6 - 58.7}{58.7} \times 100 = 1184\% \]

Points

• 1184% greater than Upstate
• Points: 5
• Worst 5 of NYS counties-yes: +1
• TOTAL: 6 points
Ranking Categories

- **SIZE**
- **DISPARITY**
- **SERIOUSNESS**
- **ABSOLUTE NUMBER**
- **TREND**
- **INDICATOR WEIGHTS**
### Variable: Seriousness

<table>
<thead>
<tr>
<th>Category</th>
<th>Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality</td>
<td>5</td>
</tr>
<tr>
<td>Major Hospitalization</td>
<td>4</td>
</tr>
<tr>
<td>Minor Hospitalization</td>
<td>3</td>
</tr>
<tr>
<td>Major ED Visit</td>
<td>3</td>
</tr>
<tr>
<td>Minor ED Visit</td>
<td>2</td>
</tr>
<tr>
<td>Health Condition (e.g. asthma, diabetes)</td>
<td>2</td>
</tr>
<tr>
<td>Health Behavior (e.g. smoking, drinking); screening/preventive care-related</td>
<td>1</td>
</tr>
</tbody>
</table>
Ranking Categories

- **Indicator**
- **Size**
- **Seriousness**
- **Trend**
- **Disparity**
- **Absolute Number**
- **Indicator Weights**
Variable: Trend

2016 CHNA (2013-15) or comparable time frame → Percent (%) Change

\[
\frac{\text{County} - 2016\text{ CHNA}}{2016\text{ CHNA}} \times 100
\]

Scoring of Resultant Percentage → Points allotted depending on % change from 2016 CHNA.

County size >5% less than previous

Negative point value
Range: -5 → -1

County size within 5% greater or less than previous

0 point value

County size >5% greater than previous

Positive point value
Range: 1 → 5
<table>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Trend: Example

Asthma ED Rate

Values
- 2016 CHNA: 32
- County: 47.3

Calculation
\[
\left( \frac{47.3 - 32}{32} \right) \times 100 = 48\%
\]

Points
- 48% increase in rate since 2016 CHNA
- POINTS: 2
Ranking Categories

- Size
- Disparity
- Seriousness
- Absolute Number
- Trend
- Indicator Weights
**Variable: Disparity**

Summarizes disparities across groups within a population.

<table>
<thead>
<tr>
<th>Index of Disparity</th>
<th>Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 – 49.9</td>
<td>2</td>
</tr>
<tr>
<td>50 – 74.5</td>
<td>3</td>
</tr>
<tr>
<td>75+</td>
<td>4</td>
</tr>
</tbody>
</table>

*Index of Disparity*—Average of the absolute difference between rates for specific groups within a population and the overall population rate, divided by the rate for the overall population.
Variable: Absolute Number

2016 Indicator Variable

- Absolute Number

Ranked for each individual county

- All indicator* absolute numbers ranked, smallest - largest

Quintiles: Scores

<table>
<thead>
<tr>
<th>Quintile</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

* Except for: % low income population with food access, % housing units with severe problems, mammography screening, colorectal cancer screening, 2 year old immunization rate, PHV immunization rate, Flu vaccination in 65+ years old, % early care, % later or no care, % unintended pregnancy of live births, % children in government sponsored programs with well child visits, % exclusive breastfeeding in hospital.
Averaging Variables

Indicator Variable Point Values

Size + Trend + Absolute Number + Seriousness + Disparity

\[ \frac{\text{Size} + \text{Trend} + \text{Absolute Number} + \text{Seriousness} + \text{Disparity}}{5} = \text{Indicator Score} \]
Layers of Data

- **Prevention Agenda Priority Area**
  - Example: Chronic Disease

- **Public Health Issue**
  - Example: Asthma

- **Indicator(s)**
  - Example:
    - Asthma ED
    - Asthma Hospitalizations
    - Asthma Prevalence

- **Ranked Value**
### Averaging Indicators

#### Averaged Indicator Scores

**Example:**

<table>
<thead>
<tr>
<th>Public Health Issue</th>
<th>Asthma</th>
<th>Assault</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addition of all averaged Indicator Scores</td>
<td>Asthma ED Visits (2.7) + Asthma Hosp.(2.6) + Asthma Prevalence (2.5)</td>
<td>Assault Hosp. (3.0) + Assault ED Visits (2.8)</td>
</tr>
</tbody>
</table>

#### Public Health Issue Value

<table>
<thead>
<tr>
<th>Public Health Issue</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>2.6</td>
</tr>
<tr>
<td>Assault</td>
<td>2.9</td>
</tr>
</tbody>
</table>
Categories of Size, Seriousness, Trend, Disparity and Absolute Number are scored per each indicator and averaged together for indicator score.

Indicator scores per Public Health Issue are averaged or weighted, where appropriate, to calculate Public Health Issue score.

Public Health Issue scores are compared to create overall ranking in order to inform selection of priorities per county.
Thank You