Variation in Costs of Foundational Public Health Services for WA LHJs: What factors help explain this

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PH Finance Systems

• “profoundly misaligned” financing system

• National imperative to better define, articulate, & measure PH activities & to estimate their revenues & expenditures

• local communities not equitably served by a core capacity for health promotion & protection

(IOM, 2012)
National Delivery & Cost Studies (DACS) funded

• RWJF’s DACS program launched in 2013
• To examine how characteristics of PH delivery systems influence cost, quality, & equity of PH service delivery
  – E.g. size, scope of activity, division of roles, contributing organizations, & methods of resource use
• 11 state PBRNs funded (e.g. FL, NC, OH, NY, CA)

http://www.publichealthsystems.org/delivery-and-cost-studies-dacs
Washington’s Delivery & Cost Study (DACS)

• Using the Foundational PH Services Framework
• Examine what factors promote & inhibit the provision of FPHS

• Study Aims
  • Examine variation in **Unit Costs** in FPHS
    – Determine how organizational & community factors influence costs of PH system service delivery in WA State
Framework for the Foundational Services

- Additional Important Services
  - Communicable Disease Control
  - Chronic Disease & Injury Prevention
  - Environmental Public Health
  - Maternal Child Family Health
  - Access to Clinical Care
  - Vital Records

Foundational Programs
- Foundational Capabilities
- Foundational Public Health Services

Across all Programs
- Assessment (surveillance and epidemiology)
- Emergency preparedness and response (all hazards)
- Communications
- Policy development and support
- Community partnership development
- Business competencies
Data Collection Instrument

- **FPHS Cost Estimation Instrument** developed
  - For developing cost function estimates & adapted from
    - Substance abuse services cost analysis program (SASCAP) instrument
    - Instrument used in WA State FPHS Workgroup data collected in 2014
    - Measures where LHJ incur costs, and also perceived need

- Instructions & support included
  - list of occupation definitions,
  - definitions of each FPH program and capability
  - definitions of non-labor expenses

- Respondents provided estimates of indirect labor & non-labor costs
  - FTE per occupation across the 6 FPH programs & 6 capabilities
  - salary paid per occupation
  - each FTE split within each FPH program & capabilities into its individual duties
  - non-labor expenses estimated (e.g. fleet cars, cellular phones, insurance)
Sample

• Selection criteria considered
  o Avoiding survey burden
  o Mix of:
    • Rural, micropolitan, & urban
    • Size of population served
    • Departments and Districts
    • Single county & multi-county
    • Standalone agency or combined with human services

• FPHS Workgroup reviewed final selection

• 10 WA LHJs completed FPHS Cost Estimation Instrument
  • 71% response rate
Analysis

• Combined cost & expenditure data with selected LHJ Service measures from the Activities & Services Inventory
  • Used service data that captured key elements of FPHS

• Examined unit cost estimates while controlling for demographic & other contextual data
  • population, poverty, unemployment, local voters’ “willingness to spend” on govt services, metropolitan vs. micropolitan area, NACCHO governance variables
Results

• Unit costs for selected FPHS units are measurable, and vary substantially across LHJs.

• Variation in unit costs is closely related to socioeconomic factors and political context.

• Unexplained variation still exists.
Current and Needed Costs for Foundational Public Health Capabilities Among Ten LHJs in WA (FY 2013)

Local Health Jurisdictions (LHJs)

- A
- B
- C
- D
- E
- F
- G
- H
- I
- J

Costs per capita ($)

- Assessment
- Emergency Preparedness
- Communication
- Policy Development and Support
- Community Partnership Development
- Business Competencies
Current and Needed Costs for Foundational Public Health Programs Among Ten LHJs in WA (FY 2013)

Costs per capita ($)
Unit Costs Vary Across LHJs

<table>
<thead>
<tr>
<th>FPHS Element II.A.4 Costs (CD - STI)</th>
<th>WA County LHJ1</th>
<th>WA County LHJ2</th>
</tr>
</thead>
<tbody>
<tr>
<td>STI Contacts Followed, 2012</td>
<td>663</td>
<td>29</td>
</tr>
<tr>
<td>Cost/Case Followed</td>
<td>$179.57</td>
<td>$541.48</td>
</tr>
</tbody>
</table>

Total Current and Needed Costs for CD Control by the Size of Population as Reported by Ten WA LHJs
Costs Vary Across LHJs – Why?

Current and Needed Costs on Chronic Disease and Injury Prevention by Poverty Level as Reported by Ten WA LHJs
The Gap Also Varies – Why?
Another Explanation for Variation in the Gap

Initiative 1351:
To Reduce Class Sizes in Public Schools
Limitations

• Unit costs may affect spending, which may affect outcomes, which may affect costs!

• Differing perceptions of *Instrument* data definitions

• Estimates needed for breaking down FTEs among specific duties

• Potential for data errors

• No consistent, direct measure of “actual” funding needs
Implications

• Expanded & growing research nationally with our *Cost Estimation Instrument*
• Data & evidence needed for educating public & policy-makers

**Data visualizations with participants**

*If what we’re comparing is investment & engagement ... in the types of things we’ve been filling out [in this data collection instrument], it would tell the story of strategy & philosophy. Across the state, comparing one or another of us [LHJs], can be useful... I’d like to know [for example] how we do against [X] county? What is it they are able or not able to do, particularly with respect to foundational services – things that are supposed to be available everywhere. What’s the funding that’s driving the difference between like-sized departments, vs ideology?*
Practice Applications

• State-wide
  o “Triangulation” of DACS data with data collected in 2014
  o Include DACS data to continue to improve state-wide estimates
  o These findings will add information to crucial statewide policy discussions

• Locally
  o Opportunities for comparisons
  o Can generate questions to ask of one another regarding differences in practice
  o Quality improvement opportunities