



Topic

Washington Delivery and cost Study (WA-DACS)

Title

“Costs and Cost-Drivers of Providing Foundational Public Health Services in Washington State and Relationships with Structural and Community Factors.”

Summary

Washington’s (WA) state-wide Foundational Public Health Services (FPHS) Workgroup is currently developing a strategy to determine “predictable and appropriate levels of financing” for thirteen “foundational” public health services (FPHS) and capabilities. In this study we: 1) Estimate and validate the cost per unit of service for selected *Foundational Public Health Services* for WA local health jurisdictions; 2) Determine how organizational and community factors influence the cost of FPHS in WA State; 3) Determine how variation in the cost of FPHS produced in WA relates to the equity of resource allocation.

Background

This DACS study emerged directly out of the efforts of two statewide task forces: the Agenda for Change (A4C) Supgroup on Public Health Funding¹ and the FPHS Workgroup. This study also stems, in part, from previous RWJF-funded PBRN studies on the variation in quality and effectiveness of public health services across the state. The public health leaders that make up these statewide workgroups were charged with defining, in operational terms, what services are essential to public health practice in Washington and to determine the costs of providing those services. Working from the framework in the Institute of Medicine (IOM) report on public health financing,² the FPHS Workgroup has already completed development of a consensus definition of what constitutes the **Foundational Public Health Services** (FPHS) for public health practice in Washington. The FPHS include **six “foundational capabilities”** (assessment, preparedness, communications, policy development, community partnership development, and business competency) and **six “foundational programs”** (Communicable Disease (CD) Control, Chronic Disease Prevention, Environmental Health, Maternal/Child/Family Health, Access/Linkage with Clinical Health Care, and Vital Records)—core programs that the foundational capabilities are expected to support.³

Methodology:

Study Design

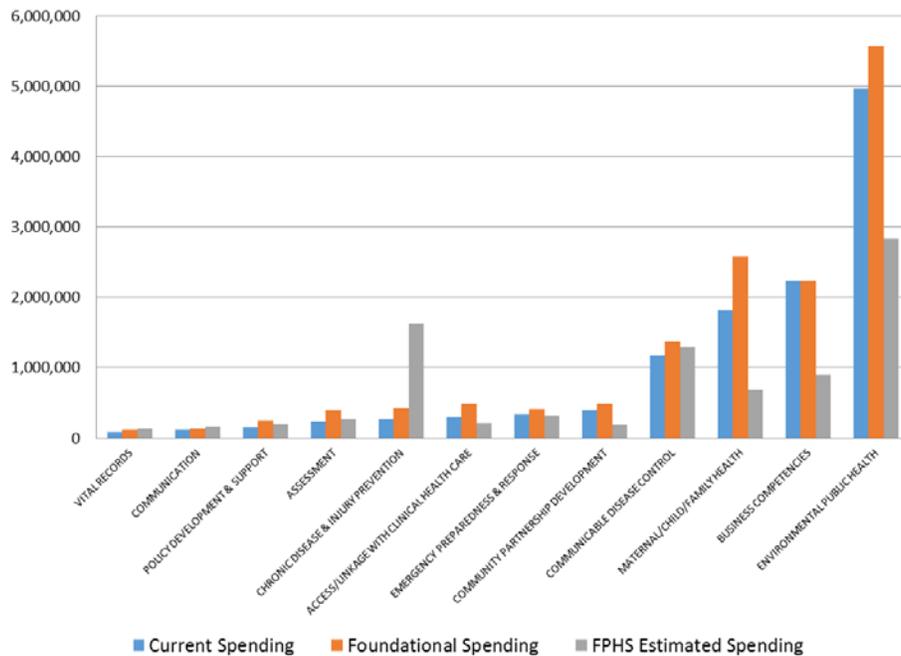
The FPHS previously commissioned a study of FPHS costs. That study produced estimates of those costs based on a cross-sectional survey completed by eight representative LHJs. We employ three separate cost estimation methods. First is a survey similar to the original FPHS survey that we administered to eight additional LHJs selected as part of a stratified sampling process. This approach is designed to capture not only the direct costs of providing services such as staff time and supplies utilized in delivering the service but also to derive estimates of indirect costs such as utility charges, costs of administrative support services and facilities costs. It also allows us to differentiate variable costs that are influenced by the volume of service provided from fixed costs that do not change over the usual relevant range of service volume. Second, we collect data directly from three LHJs. This allows us to examine changes over time in unit costs and economies of scale for FPHS spending. And third, we combine administrative data on public health activities – collected through the PHAST and WA MPROVE projects – with LHJ expenditures reported to the WA State Auditor. These data are not arranged according to the FPHS definitions, but they do reveal aggregate totals in key spending areas.

Findings

Our work to date reveals three key findings:

- 1) **Prior estimates understate LHJ spending needed to comport with FPHS expectations.** The figure below illustrates this point. In this figure you see three different estimates of FPHS costs for Kitsap County, WA FY2013. The blue bar is the LHJ’s self-reported actual spending in each FPHS area. The orange bar is the level of spending that LHJ has identified as necessary to provide minimum levels of service per the FPHS definitions. The gray bar is an estimate of those minimum spending levels as defined by the previous FPHS workgroup. Those estimates are substantially less than what Kitsap County health officials have identified as the minimum level of spending.

**Foundational Public Health Services Reported Costs and Cost Estimates,
Kitsap County, WA FY2013**



2) **Some LHJs prepare their budgets according to definitions similar to the FPHS.** Data from these jurisdictions offer an unprecedented opportunity to observe over time changes in FPHS unit costs, economies of scale, and economies of scope. The figure below shows the “harmonization” process required to synch this jurisdiction’s budget line items and cost centers to the FPHS definitions.

FPHS	Cost Center	CC Code	FPHS	Cost Center	CC Code
Environmental Public Health	Built Environment (BE)	590	Business Competencies	Administration	110
	Drinking Water (SHW)	520		Accounting	120
	Solid & Harardous Waste (SHW)	530		Human Resources	130
	Onsite Sewage Permitting (OSSP)	540		Community Health Administration	210
	Onsite Sewage Complaints (OSSC)	550		Information Technology	450
	Food & Living Environment	560		Environmental Health Administration	510
	Pollution Identification & Control (PIC)	600			
Maternal/Child / Family Health	Parent/Child Health (PCH)	220			
	Nurse Family Partnership (NFP)	221			
	Child Care Consultation (CCC)	230			
	Children with Special Health Care Needs (CSHCN)	250			
	Family Planning (FP)	270			
	Juvenile Detention	700			
	New Parent Support (NPS), was Newborn Home	280			

3) **Unit costs for selected FPHS units are measurable, and vary substantially across LHJs.** For example, the FPHS definition on Communicable Disease services includes a sub-element on sexually-transmitted infections. According to that definition each local LHJ should “Assure the availability of partner notification services for newly diagnosed cases of syphilis, gonorrhea, and HIV according to CDC guidelines.” LHJ survey participants identified the salaries, benefits, and non-labor costs related to delivering this sub-element. Connecting to our WA PHAST and MPROVE studies, we find that WA LHJs also measure “Total STI Contacts Followed.” Combining these data, we find large variations in unit costs across LHJs.

	Kitsap County LHJ	Cowlitz County LHJ
FPHS Element II.A.4 Costs (CD - STI)	119058	15703
STI Contacts Followed, 2012	663	29
Cost/Case Followed	\$179.57	\$541.48

Dissemination

Study presentations and final Fact Sheets will be made available for sharing with IOM members and/or other national Public Health finance audiences, using Washington's findings as a model for developing strategies for effective cost allocations and Public Health resource distribution. National-level dissemination will also be carried out through additional activities that include an interactive "sharing session" at the NACCHO Annual Meeting, a journal article, and postings on Washington's PBRN and Public Health Improvement Partnership websites.^{1,8}

Source

1. The Agenda for Change (A4C) Supgroup on Public Health Funding. (2012). Public health improvement partnership: Public Health Funding Subgroup: Washington State Department of Health. Retrieved from <http://www.doh.wa.gov/Portals/1/Documents/1200/A4C-FUNDpurpose.pdf>
2. Bekemeier, B., Chen, A., Kawaku, N., & Yang, Y. (2012, in press). Limited choices: Making decisions regarding local public health service changes during a financial crisis. *American Journal of Preventive Medicine*.
3. Washington State Department of Health. (2012). Agenda for change action plan for Washington's public health network: Summary. Retrieved from <http://www.doh.wa.gov/Portals/1/Documents/1200/A4C-APsummary.pdf>
4. Public Health-Seattle & King County. (2011). *Washington State Practice-Based Research Network*. Retrieved from <http://www.kingcounty.gov/healthservices/health/partnerships/pbrn.aspx>

Sponsors

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