

# Foundational Public Health Services Preliminary Cost Estimation Model

Final Report  
September 2013



FOUNDATIONAL PUBLIC HEALTH  
SERVICES SUBGROUP  
Public Health Improvement  
Partnership Agenda for Change  
Workgroup



**PUBLIC HEALTH**  
ALWAYS WORKING FOR A SAFER AND  
HEALTHIER WASHINGTON

# Public Health Improvement Partnership

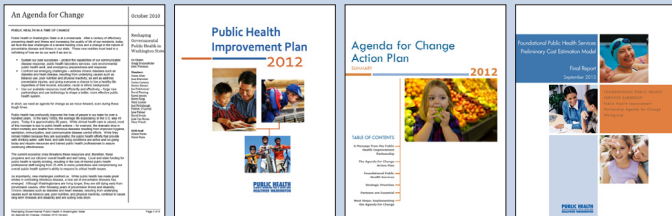
The Partnership is directed by the legislature to guide and strengthen the governmental public health system in Washington State. To accomplish that, we are responsible to ensure that our actions support a public health system that is accountable, continuously measures and improves performance and health outcomes, and reduces environmental and other health risks.



# Agenda for Change Workgroup

The Agenda for Change Workgroup was formed to support implementation of the Partnership's 2010 Agenda for Change Action Plan

## PRODUCTS OF THIS WORKGROUP



The Foundational Public Health Services Preliminary Cost Estimation Model report is a product of the Agenda for Change's Foundational Public Health Services Subgroup.



Project Manager Michael Hodgins

Lead Analyst Emmy McConnell

# Foundational Public Health Services Subgroup

## CO-CHAIRS

Barry Kling, Chelan-Douglas Health District

Jennifer Tebaldi, Washington State Department of Health

## SUBGROUP COORDINATOR

Marie Flake, Washington State Department of Health

## SUBGROUP MEMBERS

David Fleming, Public Health – Seattle & King County

David Windom, NE Tri County Health District

Dennis Worsham, Public Health – Seattle & King County

Elaine Conley, Community Health Leadership Forum (CHELF)

Jeff Ketchel, Grant County Public Health District

Maryanne Guichard, Washington State Department of Health

Peter Browning, Skagit County Department of Public Health

Regina Delahunt, Whatcom County Health Department

Tim McDonald, Snohomish Health District

Torney Smith, Spokane Regional Health District

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# EXECUTIVE SUMMARY

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## Background and Context

Public health services in Washington State are provided through a combination of federal, state, and local efforts, with the primary responsibility residing at the local level. The Public Health Improvement Partnership (the Partnership) is tasked by the Legislature to provide overall leadership and coordination of public health issues to improve and protect health across the State.

The Partnership includes representatives from the State Board of Health, the State Department of Health (DOH), Washington State Association of Local Public Health Officials, Local Health Jurisdictions (LHJs), Local Boards of Health, Tribal Nations, the American Indian Health Commission, and the Department of Health and Human Services.

The Partnership developed the Agenda for Change Work Plan in 2012 to provide an action plan to meet new challenges in a rapidly changing environment and use existing resources wisely. The world is evolving – new preventable disease challenges, health care reform, and diminishing resources all drive a need to rethink how public services are provided. Washington’s public health network has long been recognized as a national leader, and the Agenda for Change will help maintain this success.

A key element of the Agenda for Change’s 2012 work plan is to develop a definition of what constitutes the set of foundational public health services that should be available to all residents and communities statewide, and to provide information about the cost of providing these services to support policy discussions that will focus on providing sustainable funding for public health. To support this effort, the Agenda for Change Workgroup created the Foundational Public Health Services (FPHS) Subgroup.

The Subgroup’s purpose is to develop and help implement a long-term strategy for provision of the foundational public health services needed to assure a functional public health system statewide. This set of services would both provide basic services to the community and provide the necessary foundation for the public health system to perform adequately throughout the State.

## FRAMEWORK FOR THE FOUNDATIONAL DEFINITION

The foundational public health services are defined as capabilities and programs that must be present everywhere in order to work anywhere, and that should be sustainably funded.

Developing the definition of foundational services was an iterative process. Draft versions of the definitions were widely vetted and discussed with local public health leaders via the Washington State Association of Local Public Health Officials (WSALPHO) and its forums in 2012. Input was received and considered, and revisions were made.

The Subgroup's goal is to develop a long-term strategy for predictable and appropriate levels of funding. The Subgroup has broken down its work into three tasks:

1. Define the set of foundational public health services.
2. Estimate the cost of providing foundational public health services statewide and the level of funding needed to support those services.
3. Identify and secure a sustainable funding source for the foundational services.

The third task, securing sustainable funding, is the primary objective of the foundational services work. This report serves as the summary document for the work to-date that includes elements of the first two tasks of the Subgroup – identifying what constitutes the foundational set of services and developing a model to estimate the cost of providing these services.

## Foundational Definitions

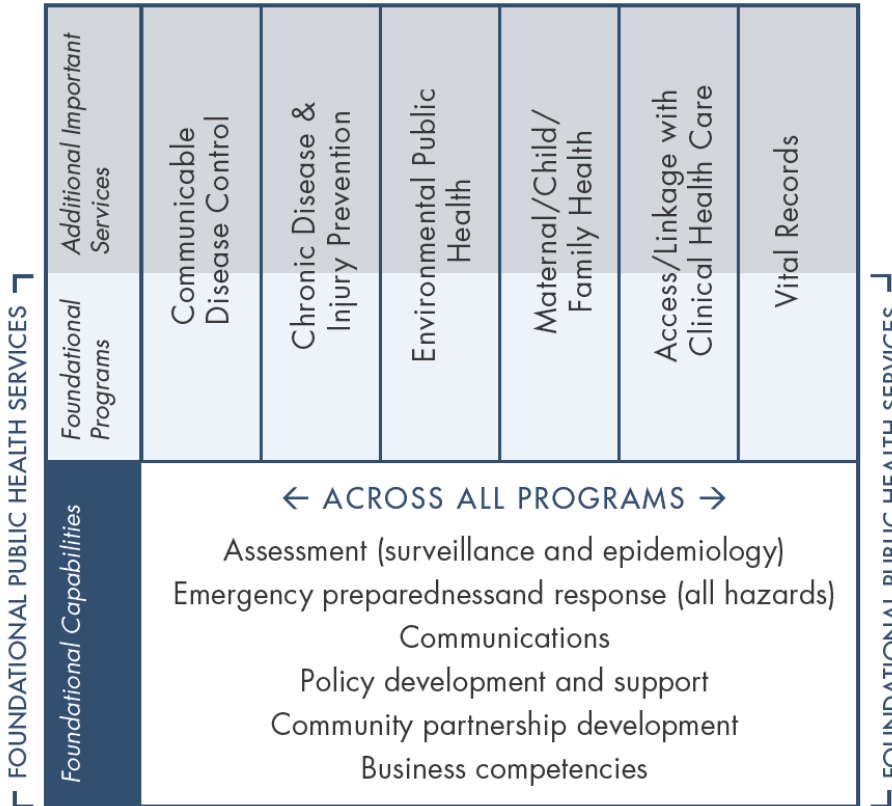
Currently, most states that identify expectations for core public health services use a framework that lays out ten essential public health services. This approach is somewhat outdated and does not do a particularly good job of capturing current realities in public health provision. A few states, however, are beginning to move in a new direction, initially proposed in the Institute of Medicine's (IOM) report *For the Public's Health: Investing in a Healthier Future*. This report studied the effectiveness of the essential services definition and provided guidance on a new framework going forward, concluding that public health providers should identify a "minimum package of public health services" consisting of basic programs that "no well-run public health department should be without" and cross-cutting capabilities to support all programs.

Washington is among a small group of states taking the first steps to redefine its public health services using the IOM model and in some ways is the farthest along in this process by considering both the definition of foundational services and estimating the cost of providing these services throughout the state.

There is a foundational level of public health services that must exist everywhere in order to work anywhere. The foundational public health services define the services that no community should be without, regardless of how they are provided. The definition of foundational services is based on the IOM framework of *capabilities* and *programs*.

Exhibit ES - 1 shows how these elements provide a framework for defining the foundational public health services.

**Exhibit ES - 1**  
**Foundational Capabilities and Programs**



Source: Washington State Public Health Improvement Partnership Agenda for Change, 2013.

## Estimate of Foundational Costs

An initial estimate of the cost to provide these foundational elements was developed using a financial model built to support the Subgroup’s work. The initial cost estimate is based on detailed estimates from DOH and nine LHJs of how much it would cost their organization to provide the foundational services, whether or not the services are currently being provided and regardless of how or if the services are currently funded.

The total cost estimate of providing the foundational services statewide is about \$328 million per year. Exhibit ES - 2 presents the full results of the Subgroup’s work on the initial cost estimate, showing the statewide foundational cost estimate broken down into individual programs and capabilities and split between costs at the state level and costs at the local level.

About 63% of the cost of providing the foundational capabilities is at the local level, and about 37% is at the state level. For the foundational programs, about 53% of the cost of

### FOUNDATIONAL CAPABILITIES

Capabilities are skills or capacities that an organization must possess in order to support its provision of the foundational programs. These capabilities are cross-cutting and range from basic organizational functions such as accounting and financial analysis to backend capacity such as database development and emergency planning . There are six elements that constitute the basis for defining the foundational public health capabilities.

### FOUNDATIONAL PROGRAMS

In defining the foundational programs, the goal was to identify the basic components necessary to keep the public safe and allow for additional programs to build on a strong foundation.

Programs are areas of DOH and LHJ responsibility that provide service directly to residents and communities. These include activities such as responding to disease outbreaks, monitoring the safety of food and water, and providing birth and death certificates. There are six elements that constitute the basis for defining the foundational public health programs.

### ADDITIONAL IMPORTANT SERVICES

There are many other important public health services not included in the foundational definition. Additional services are needed to address important local health risks or community priorities and fall under all six program categories.

is at the state level, and about 47% is at the local level. Within the programs, the distribution between state and local responsibility varies significantly.

It's important to remember that the responsibilities of DOH and the LHJs are different within each of the services, so it was expected that the share of costs would vary by element. However, the shared split of the total estimate between state and local costs strongly reflects the cooperative relationship between DOH and the LHJs in providing public health services in Washington.

**Exhibit ES - 2**  
**Estimated Cost of Providing Foundational Public Health Services Statewide**

Services Ranked By Cost	Total Estimated Cost of FPHS	State Dept. of Health	Local Health Jurisdictions	■ State DOH ■ LHJs	
				State DOH	LHJs
<b>Foundational Capabilities</b>	<b>75,700,000</b>	<b>27,750,000</b>	<b>47,945,000</b>	<b>37%</b>	<b>63%</b>
A. Assessment	11,350,000	5,410,000	5,935,000	48%	52%
B. Emergency Preparedness and Response	10,825,000	3,620,000	7,205,000	33%	67%
C. Communication	3,960,000	750,000	3,210,000	19%	81%
D. Policy Development and Support	4,415,000	1,115,000	3,300,000	25%	75%
E. Community Partnership Development	4,885,000	860,000	4,025,000	18%	82%
F. Business Competencies	40,265,000	15,995,000	24,270,000	40%	60%
<b>Foundational Programs</b>	<b>252,290,000</b>	<b>134,890,000</b>	<b>117,405,000</b>	<b>53%</b>	<b>47%</b>
A. Communicable Disease Control	33,760,000	9,010,000	24,750,000	27%	73%
B. Chronic Disease and Injury Prevention	24,855,000	12,590,000	12,265,000	51%	49%
C. Environmental Public Health	95,800,000	33,760,000	62,045,000	35%	65%
D. Maternal/Child/Family Health	25,175,000	13,765,000	11,410,000	55%	45%
E. Access/Linkage with Clinical Health Care	65,585,000	62,145,000	3,440,000	95%	5%
F. Vital Records	7,115,000	3,620,000	3,495,000	51%	49%
<b>Total Cost</b>	<b>327,990,000</b>	<b>162,640,000</b>	<b>165,350,000</b>	<b>50%</b>	<b>50%</b>

Source: DOH, 2013; Participating LHJs, 2013; and BERK, 2013.

Exhibit ES - 3 shows how much of the initial estimate comes from each of the capabilities and programs for the total statewide cost, for only DOH, and for the LHJs in total.

**Exhibit ES - 3**  
**Estimated Statewide Foundational Costs by Service**

Services Ranked By Cost	Total Estimated Cost of FPHS		State Dept. of Health		Local Health Jurisdictions	
<b>Foundational Capabilities</b>	<b>75,700,000</b>	<b>23%</b>	<b>27,750,000</b>	<b>17%</b>	<b>47,945,000</b>	<b>29%</b>
F. Business Competencies	40,265,000	12%	15,995,000	10%	24,270,000	15%
A. Assessment	11,350,000	3%	5,410,000	3%	5,935,000	4%
B. Emergency Preparedness and Response	10,825,000	3%	3,620,000	2%	7,205,000	4%
E. Community Partnership Development	4,885,000	1%	860,000	1%	4,025,000	2%
D. Policy Development and Support	4,415,000	1%	1,115,000	1%	3,300,000	2%
C. Communication	3,960,000	1%	750,000	0%	3,210,000	2%
<b>Foundational Programs</b>	<b>252,290,000</b>	<b>77%</b>	<b>134,890,000</b>	<b>83%</b>	<b>117,405,000</b>	<b>71%</b>
C. Environmental Public Health	95,800,000	29%	33,760,000	21%	62,045,000	38%
E. Access/Linkage with Clinical Health Care	65,585,000	20%	62,145,000	38%	3,440,000	2%
A. Communicable Disease Control	33,760,000	10%	9,010,000	6%	24,750,000	15%
D. Maternal/Child/Family Health	25,175,000	8%	13,765,000	8%	11,410,000	7%
B. Chronic Disease and Injury Prevention	24,855,000	8%	12,590,000	8%	12,265,000	7%
F. Vital Records	7,115,000	2%	3,620,000	2%	3,495,000	2%
<b>Total Cost</b>	<b>327,990,000</b>		<b>162,640,000</b>		<b>165,350,000</b>	

Source: DOH, 2013; Participating LHJs, 2013; and BERK, 2013.

About 77% of the initial cost estimate is generated from the cost of providing the foundational programs, and about 23% is from the cost of providing the foundational capabilities. This percentage varies for DOH (83% for programs and 17% for capabilities) and for the LHJs (71% for programs and 29% for capabilities), but in general the cost of providing the programs is significantly higher than the cost of providing the foundational capabilities.

#### APPROACH AND METHODOLOGY

The statewide foundational cost estimate was developed using a financial model that used sample cost data provided by participating organizations as input and scaled the sample cost data up to a statewide estimate.

The statewide foundational cost estimate is comprised of two primary components:

1. An estimate of DOH's costs of providing the foundational services
2. An estimate of the total cost for all 35 LHJs statewide to provide the foundational services

DOH and nine LHJs provided detailed estimates of how much it would cost their organization to provide the foundational services, whether or not the services are currently provided and regardless of how or if the services are currently funded.

## Next Steps

The Subgroup's focus going forward will be further refining the cost estimate into a requested funding level, producing ideas for a sustainable funding source, providing information and recommendations on potential options, and providing technical support to policy makers in designing a final sustainable funding model.

The Subgroup has developed a two-year Work Plan for the 2013-15 biennium to achieve its goal of identifying and securing a sustainable funding source for foundational public health services. The Plan includes the following milestones:

1. By **December 2013**: Have a clear description of the funding history, current funding situation, and future funding options to discuss with public health professionals and the Workgroup's key partners.
2. By **June 2014**: In collaboration with local government partners, clearly describe options, pros and cons, and an agreed upon set of recommended elements (or a recommended model) for sustainable funding of foundational public health services statewide.
3. By **Summer 2014**: Assist in the introduction of a broadly supported proposal to partners and policy makers in preparation for the 2015 legislative session.



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# INTRODUCTION AND CONTEXT

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## Public Health Improvement Partnership

Public health services in Washington State are provided through a combination of federal, state, and local efforts with the primary responsibility residing at the local level. The Public Health Improvement Partnership is tasked by the Legislature to provide overall leadership and coordination of public health issues to improve and protect health across the State. Please see Appendix F for more information about the structure of public health in Washington State.

The Partnership includes representatives from the State Board of Health, the State Department of Health, Washington State Association of Local Public Health Officials, Local Health Jurisdictions (LHJs), Local Boards of Health, Tribal Nations, the American Indian Health Commission, and the Department of Health and Human Services.

### ONGOING PARTNERSHIP EFFORTS

The Partnership developed the Agenda for Change Work Plan in 2012 to provide an action plan to meet new challenges in a rapidly changing environment and use existing resources wisely. The world is evolving – new preventable disease challenges, health care reform, and diminishing resources all drive a need to rethink how public services are provided. Washington’s public health network has long been recognized as a national leader, and the Agenda for Change will help maintain this success.

The Partnership adopted the 2012 Agenda for Change Action Plan as its guiding document for the next two years. The Plan focuses on achievable actions that fully recognize the current resource challenges in government-funded public health efforts. The Partnership includes the following priorities in its short-term plan:

- Commit to health equity
- Prioritize strategic efforts
- Develop foundational public health services
- Modernize business practices
- Identify essential partners

The Partnership chartered an Agenda for Change Workgroup to turn the broad concepts in the Action Plan into more specific action steps.

## Foundational Public Health Services

### THE FOUNDATIONAL PUBLIC HEALTH SERVICES SUBGROUP

A key element of the Agenda for Change's 2012 work plan is to develop a definition of what constitutes the set of foundational public health services that should be available to all residents and communities statewide, and to provide information about the cost of providing these services to support policy discussions that will focus on providing sustainable funding for public health. To support this effort, the Agenda for Change created the Foundational Public Health Services (FPHS) Subgroup.

The Subgroup's purpose is to develop and help implement a long-term strategy for provision of the foundational public health services needed to assure a functional public health system statewide. This set of services would both provide basic services to the community and provide the necessary foundation for the public health system to perform adequately throughout the State.

### SUBGROUP OBJECTIVES AND TASKS

The Subgroup's goal is to develop a long-term strategy for predictable and appropriate levels of funding. The Subgroup has broken down its work into three tasks:

1. Define the set of foundational public health services.
2. Estimate the cost of providing foundational public health services statewide and the level of funding needed to support those services.
3. Identify and secure a sustainable funding source for the foundational services.

The third task, securing sustainable funding, is the primary objective of the foundational services work. This report serves as a summary document for the work to-date that includes elements of the first two tasks of the Subgroup – identifying what constitutes the foundational set of services and developing an analytical model to estimate the cost of providing these services.

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# DEFINING THE FOUNDATION

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The first step toward a sustainable source of funding for foundational public health services was to define exactly which services should be considered foundational. The Subgroup framed the foundational public health services (FPHS) as those that must be present everywhere in order to work anywhere. The foundational definition includes the services that no community should be without, regardless of how they are provided. The FPHS include cross-cutting capabilities that underlie and support programs and a basic level of programs.

Developing the definition of foundational services was an iterative process. Draft versions of the definitions were widely vetted and discussed with local public health leaders via the Washington State Association of Local Public Health Officials (WSALPHO) and its forums in 2012. Input was received and considered, and revisions were made. This section presents the results of the Subgroup's work to define the foundational public health services.

## Definition of Foundational Public Health Services

The definition of foundational services is based on the framework of *capabilities* and *programs*. Exhibit 1 shows how these elements provide a framework for defining the foundational public health services.

**FOUNDATIONAL CAPABILITIES**

Capabilities are skills or capacities that an organization must possess in order to support its provision of the foundational programs. These capabilities are cross-cutting and range from basic organizational functions such as accounting and financial analysis to backend capacity such as database development and emergency planning . There are six elements that constitute the basis for defining the foundational public health capabilities.

**FOUNDATIONAL PROGRAMS**

In defining the foundational programs, the goal was to identify the basic components necessary to keep the public safe and allow for additional programs to build on a strong foundation.

Programs are areas of DOH and LHJ responsibility that provide service directly to residents and communities. These include activities such as responding to disease outbreaks, monitoring the safety of food and water, and providing birth and death certificates. There are six elements that constitute the basis for defining the foundational public health programs.

**ADDITIONAL IMPORTANT SERVICES**

There are many other important public health services not included in the foundational definition. Additional services are needed to address important local health risks or community priorities and fall under all six program categories. For a comprehensive list of these services, please see Appendix A.

**Exhibit 1**  
**Foundational Capabilities and Programs**

FOUNDATIONAL PUBLIC HEALTH SERVICES	Additional Important Services	Communicable Disease Control	Chronic Disease & Injury Prevention	Environmental Public Health	Maternal/Child/Family Health	Access/Linkage with Clinical Health Care	Vital Records	
	Foundational Programs							
FOUNDATIONAL PUBLIC HEALTH SERVICES	Foundational Capabilities	← ACROSS ALL PROGRAMS → Assessment (surveillance and epidemiology) Emergency preparedness and response (all hazards) Communications Policy development and support Community partnership development Business competencies						FOUNDATIONAL PUBLIC HEALTH SERVICES

Source: Washington State Public Health Improvement Partnership Agenda for Change, 2013.

For a complete list of foundational capabilities and programs included in the definition, please see Appendix A. For a comparison of foundational capabilities and programs as defined in Washington State and other comparable states, please see Appendix B.

The responsibilities of the State DOH and the LHJs vary across each of the services. Even within specific programs, the collaborative structure of Washington’s public health system is evident. For some programs, the State has the primary responsibility, sometimes the LHJs have primary responsibility, and sometimes the responsibility is shared. In all cases, state and local efforts are not duplicative – each provides complementary components of the program.

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# INITIAL ESTIMATE OF FOUNDATIONAL COSTS

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The ultimate goal of the Subgroup is to develop a tool that will support their efforts to identify the level of funding needed from non-fee and non-categorical state and local sources to support the foundational public health services. The first step in understanding this overall funding needs is to understand how much the foundational services cost in total, regardless of whether or how they are currently funded.

This chapter provides an overview of the cost model that was developed to support the Subgroup's work and summarizes the initial estimates of the total statewide cost of the foundational services. The Subgroup may continue to refine both its definition of foundational services and the estimate of cost to provide these services in subsequent phases of work. As such, the model described here provides a flexible tool to support these future discussions.

## Approach and Methodology

Estimating the statewide cost of providing foundational public health services presents a significant analytical challenge because services are delivered by 35 autonomous LHJs and the state Department of Health.

This section explains the approach taken to this analysis, the framework for applying the analysis, and the structure of the financial model used to develop this initial statewide foundational cost estimate.

### ANALYTIC APPROACH OVERVIEW

The primary means of developing the statewide foundational cost estimate was to develop a flexible financial model that used sample cost data provided by participating organizations as input and scaled the sample cost data up to a statewide estimate.

The statewide foundational cost estimate is comprised of two primary components:

1. An estimate of the State Department of Health's costs of providing the foundational services

LOCAL HEALTH JURISDICTIONS  
PROVIDING SAMPLE DATA

The following LHJs provided sample data for this analysis (in order of population served):

1. Public Health – Seattle-King County
2. Spokane Regional Health District
3. Clark County Public Health
4. Whatcom County Health Department
5. Chelan-Douglas Health District
6. Grant County Health District
7. Northeast Tri County Health District
8. Walla Walla County Health Department
9. Lincoln County Health and Human Services

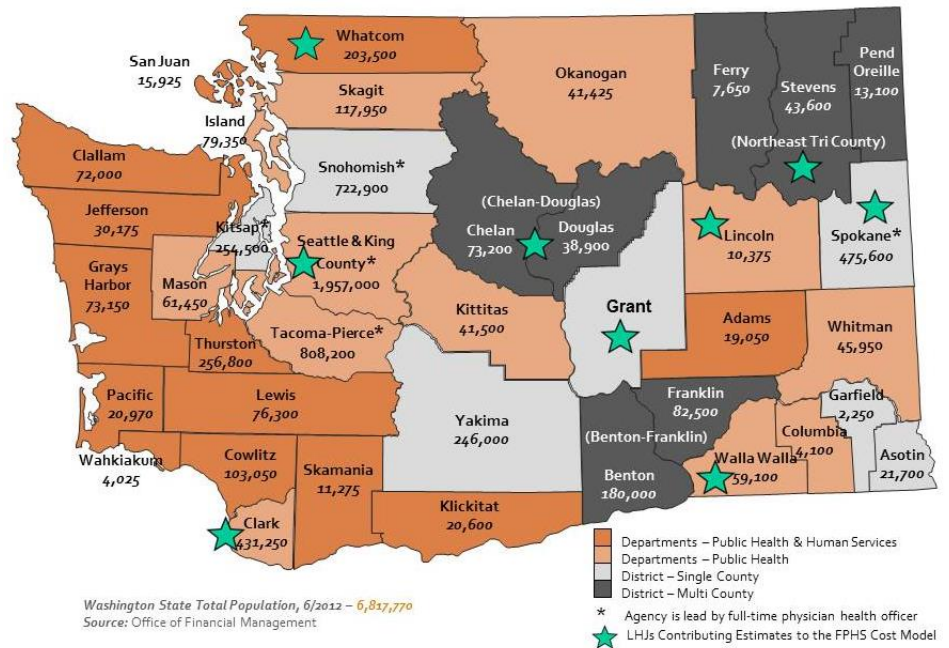
2. An estimate of the total cost for all 35 LHJs statewide to provide the foundational services

To develop the cost estimate, the Subgroup asked DOH and nine LHJs to provide detailed estimates of how much it would cost their organization to provide the foundational services, based on the detailed definitions included in Appendix A.

The nine participating LHJs represent a cross section of organizations, including those serving large and small populations, those located in the east, central, and west portions of the State, and both department and district governances. The provided sample data was then used to extrapolate to statewide costs.

Exhibit 2 shows how the participating LHJs relate to the statewide LHJ system in terms of geography, population served, and governance structure.

**Exhibit 2**  
**Washington State’s Local Health Jurisdictions**



Source: Public Health Improvement Partnership, 2013.

Each of the participating LHJs and DOH provided a detailed estimate of what it would cost to deliver the defined services, whether or not the services are currently provided and regardless of how the services are currently funded. This detailed estimate included number of staff, salary and benefit information, and overhead and indirect support needs to ensure the sample estimated the full cost of providing the foundational services.

To achieve higher validity of the data and a consistent interpretation of definitions, levels of service, and funding sources, costs were collected through a consistent input form and supplemented both with personal interviews and numerous group discussions that involved the Subgroup and agencies that contributed data.



## FOUNDATIONAL COST ESTIMATE ANALYTIC FRAMEWORK

In any cost estimating effort, the key to developing a reliable estimate is to understand to the greatest extent possible (1) the unit cost of providing a service and (2) the quantity of the services being provided or delivered. There are three major technical challenges that this study's analytic framework takes into account:

- 1. Developing cost factors.** The statewide foundational cost estimate is built from the ground up on a series of cost factors that relate the cost of providing a particular foundational service to the magnitude of the service that needs to be provided in each jurisdiction. These cost factors were developed through the sample data provided by the LHJs. In most cases, the factor is based on a per capita relationship, but in some cases it is based on other demographic factors, such as disease rates.
- 2. Scaling cost data statewide.** Once per-unit cost factors were developed, the per-unit factors were applied to the total service units needed to estimate the likely statewide cost of providing the foundational services. Costs were scaled based on the underlying drivers of demand for each service (such as population) and the total magnitude of each driver statewide.
- 3. Accounting for economies of scale.** The analytic framework is structured so costs are not scaled on a one-to-one basis between organizations, as there are often economies of scale within larger organizations that result in slightly smaller per-unit costs of providing a service than at smaller organizations.

## FINANCIAL MODEL STRUCTURE

The primary tool for creating this initial statewide foundational cost estimate was a flexible, assumption-driven financial model that allowed for evaluation of alternative concepts and changes in key assumptions about the three technical challenges noted above: cost factors, cost scaling, and economies of scale.

The purpose of the financial model is to create an order-of-magnitude estimate of the cost of providing the foundational public health services statewide. It's important to note that this is a model, and does not imply a definitive "answer" to the analytic question. It is based on estimated data and designed to generate a reasonable cost estimate for planning and policy-level use.

The model was developed in multiple steps and in close collaboration with the Subgroup to ensure that, to the maximum extent practical, the model contained sufficient flexibility and functionality to support decision making, and the model was able to reflect the public health cost structure in Washington State.

The key steps in the model's cost estimating methodology are:

- 1.** Translating sample data into program or per-unit cost factors for direct service costs
- 2.** Applying appropriate overhead and indirect cost factors to account for total costs

## OVERHEAD AND INDIRECT COSTS

Including overhead and indirect costs in the statewide estimate ensures that the estimate captures the full cost of providing the foundational public health services.

Direct costs – the cost of the staff and supplies that directly provide the foundational services – do not capture all the costs of running an organization.

Overhead and indirect costs must be included to reflect the true cost of doing business, and include costs such as:

- Rent and Capital Improvements
- Utilities
- Vehicles and Large Equipment
- Facility Management
- Fiscal and Legal Services
- Human Resources
- Information Technology
- Administration and Leadership

3. Applying appropriate elasticity factors to account for economies of scale
4. Scaling per-unit costs to all jurisdictions statewide based on underlying cost factors
5. Finalizing a statewide foundational cost estimate

These steps are described in more detail in the following sections.

**Translating sample data into per-unit factors for direct service costs.** The key step in developing cost factors was to collect real world information from the LHJs about the underlying cost drivers of each foundational service. The sample costs provided were then scaled to the magnitude of each cost driver in each LHJ's service area (e.g. population, rates of tuberculosis infection, number of restaurants) to create a cost factor for each service that was based on the number of driver units within the jurisdiction.

It's important to note that the estimated cost was based on the **foundational level of service as defined by the Subgroup**. In this way, the cost factors capture the full cost of providing the foundational level of service and not the LHJ's current costs of providing related services, which may be below or above the foundational level.

The resulting cost factors describe the relationship between direct service costs and the specific cost drivers.

**Applying overhead and indirect cost factors.** Factors, structured as a percentage cost increase applied to direct service costs, were developed for overhead and indirect costs that allow for appropriate scaling of the direct service costs up to a total cost of service. These factors were designed to capture the relevant costs associated with doing business, such as rent, facility maintenance, and administration.

Since the definitions of overhead and indirect costs vary across organizations and some of the elements within the definition of foundational capabilities are commonly categorized as overhead costs, interviews were conducted to ensure the model did not double count any of these costs when developing the indirect and overhead cost factors.

**Applying appropriate elasticity factors to account for economies of scale.** Not all areas of service scale on a one-to-one relationship with their underlying cost driver. The model provided the ability to apply an elasticity percentage to each service's cost factor to control how costs scaled across the LHJs.

Elasticity assumptions allow the model to define what portion of costs are "variable" (i.e., changing with the underlying cost driver) and what portion of costs are "fixed" (i.e. remain stable for all types of organizations).

**Scaling per-unit costs to all jurisdictions statewide based on underlying cost factors.** The model used the three inputs developed above (direct service cost factors, overhead and indirect percentages, and elasticity assumptions) to create an estimate for every LHJ in the State. These individualized estimates include the number of FTEs and the costs for direct service and indirect and overhead needs for each element of the foundational services.

Costs were scaled based on the magnitude of the chosen cost drivers at each jurisdiction.

**Finalizing the statewide foundational cost estimate.** The final step in developing the statewide foundational cost estimate was to analyze the model's outputs using alternative scenarios for cost drivers and elasticity factors to create a reasonable estimate.

In order to bring qualitative input and subject matter expertise into the quantitative financial model, the process included multiple work sessions with the Subgroup and the jurisdictions that provided sample data to refine the assumptions in the model. These work sessions were integral to creating a reasonable and justifiable preliminary estimate of foundational costs.

## ASSUMPTIONS AND RATIONALE

As part of developing an initial estimate of the statewide foundational costs, specific assumptions and model settings were chosen based on group input, subject matter expertise, and the analytic framework. This section describes the key assumptions that drive the estimate and the rationale behind them.

**Elasticity Assumption.** For the statewide foundational cost estimate, the model used an elasticity assumption of 80% for all of the foundational programs and services. This means the model is treating 80% of the costs as "variable" and 20% of the costs as "fixed" across all organizations.

This elasticity factor creates a curve across the different sized organizations that resonated as the most reasonable to the Subgroup and to the agency representatives reviewing the modeling work. The impacts of this assumption are explored further in the Sensitivity Analysis on page 16.

**Jurisdictional Groupings for Scaling Factors.** The statewide foundational cost estimate is comprised of two components: (1) the estimates of DOH's foundational functions and (2) the combination of all LHJs statewide performing the foundational functions. DOH's estimate is based directly on the sample data provided by the Department, and was not adjusted by the model.

The estimate for the State's 35 LHJs is based on a sample set of 9 local jurisdictions. The sample data from these jurisdictions, as noted in the methodology section above, was used to create scaling factors that drive the estimates for all other LHJs.

One of the key assumptions in the model is choosing how the sample data is scaled to the non-sampled LHJs. At its most basic, the model can create an overall average from the nine sample jurisdictions and create cost factors to scale costs to all other LHJs. However, the model also allows additional levels of granularity by providing the flexibility to group the sample jurisdiction data according to various characteristics and use develop separate cost factors for each that can then be applied to jurisdictions with similar characteristics.

For the initial statewide foundational cost estimate, the model uses the inputs from the sample jurisdictions serving significant urban centers to create scaling factors for the other jurisdictions serving similar markets. The model is then used to develop cost factors

## ECONOMIES OF SCALE

The term "economies of scale" refers to a situation where costs scale in a less than one-to-one relationship with service levels.

The basis for an organization's economies of scale is usually a combination of the following factors:

- Lower input costs due to volume discounts or reduced inventories
- Distribution of fixed costs, such as administration and infrastructure
- More efficient operations due to advanced technology or labor specialization

An example of a foundational public health service with potential for large economies of scale is Communication – both small and large organizations only need one or two staff members to manage communication tasks for most sizes of organizations.

On the other end of the spectrum, a program with a large direct service component such as Environmental Public Health Inspections has smaller economies of scale, because staff needs increase quickly with changes in scale.

The model addresses economies of scale using an elasticity assumption which allows only certain portions of costs to vary with changes in underlying drivers.

using the all other sample jurisdictions to create estimates for the remainder of jurisdictions statewide.

## Key Findings

### TOTAL STATEWIDE FOUNDATIONAL COST ESTIMATE

The initial estimate of the total annual cost to provide the foundational services statewide is about \$328 million. Exhibit 3 presents the results of the Subgroup’s work on the initial estimate, showing the statewide foundational cost estimate broken down into individual capabilities and programs and split between costs at the state level and costs at the local level.

**Exhibit 3**  
**Estimated Cost of Providing Foundational Public Health Services Statewide**

Services Ranked By Cost	Total Estimated Cost of FPHS	State Dept. of Health	Local Health Jurisdictions	■ State DOH ■ LHJs	
				State DOH	LHJs
<b>Foundational Capabilities</b>	<b>75,700,000</b>	<b>27,750,000</b>	<b>47,945,000</b>	<b>37%</b>	<b>63%</b>
A. Assessment	11,350,000	5,410,000	5,935,000	48%	52%
B. Emergency Preparedness and Response	10,825,000	3,620,000	7,205,000	33%	67%
C. Communication	3,960,000	750,000	3,210,000	19%	81%
D. Policy Development and Support	4,415,000	1,115,000	3,300,000	25%	75%
E. Community Partnership Development	4,885,000	860,000	4,025,000	18%	82%
F. Business Competencies	40,265,000	15,995,000	24,270,000	40%	60%
<b>Foundational Programs</b>	<b>252,290,000</b>	<b>134,890,000</b>	<b>117,405,000</b>	<b>53%</b>	<b>47%</b>
A. Communicable Disease Control	33,760,000	9,010,000	24,750,000	27%	73%
B. Chronic Disease and Injury Prevention	24,855,000	12,590,000	12,265,000	51%	49%
C. Environmental Public Health	95,800,000	33,760,000	62,045,000	35%	65%
D. Maternal/Child/Family Health	25,175,000	13,765,000	11,410,000	55%	45%
E. Access/Linkage with Clinical Health Care	65,585,000	62,145,000	3,440,000	95%	5%
F. Vital Records	7,115,000	3,620,000	3,495,000	51%	49%
<b>Total Cost</b>	<b>327,990,000</b>	<b>162,640,000</b>	<b>165,350,000</b>	<b>50%</b>	<b>50%</b>

Source: DOH, 2013; Participating LHJs, 2013; and BERK, 2013.

About 63% of the cost of providing the foundational capabilities is at the local level, and about 37% is at the state level. It was expected that the cost of the capabilities, which are elements that support provision of public health services, would be higher for LHJs than for DOH because there are significant economies of scale within those programs that can be achieved by a large organization such as DOH. For example, business competencies require many fixed costs such as IT systems and human resources and finance departments that don’t vary significantly in size between organizations.

For the foundational programs, about 53% of the cost is at the state level, and about 47% is at the local level. Within the programs, the distribution between state and local responsibility varies significantly. The biggest difference in costs is within Access/Linkage

with Clinical Health Care, where DOH comprises 95% of the costs of this program. This difference is driven by DOH's significant responsibilities around healthcare provider licensing and monitoring.

It's important to remember that the responsibilities of DOH and the LHJs are different within each of the services, so it was expected that the share of costs would vary by element. However, the nearly even split of the total estimate between state and local costs strongly reflects the cooperative relationship between DOH and the LHJs in providing public health services in Washington.

Exhibit 4 shows how much of the estimate comes from each of the capabilities and programs for the total statewide cost, for only DOH, and for the LHJs in total.

**Exhibit 4**  
**Estimated Statewide Foundational Costs by Service**

Services Ranked By Cost	Total Estimated Cost of FPHS		State Dept. of Health		Local Health Jurisdictions	
<b>Foundational Capabilities</b>	<b>75,700,000</b>	<b>23%</b>	<b>27,750,000</b>	<b>17%</b>	<b>47,945,000</b>	<b>29%</b>
F. Business Competencies	40,265,000	12%	15,995,000	10%	24,270,000	15%
A. Assessment	11,350,000	3%	5,410,000	3%	5,935,000	4%
B. Emergency Preparedness and Response	10,825,000	3%	3,620,000	2%	7,205,000	4%
E. Community Partnership Development	4,885,000	1%	860,000	1%	4,025,000	2%
D. Policy Development and Support	4,415,000	1%	1,115,000	1%	3,300,000	2%
C. Communication	3,960,000	1%	750,000	0%	3,210,000	2%
<b>Foundational Programs</b>	<b>252,290,000</b>	<b>77%</b>	<b>134,890,000</b>	<b>83%</b>	<b>117,405,000</b>	<b>71%</b>
C. Environmental Public Health	95,800,000	29%	33,760,000	21%	62,045,000	38%
E. Access/Linkage with Clinical Health Care	65,585,000	20%	62,145,000	38%	3,440,000	2%
A. Communicable Disease Control	33,760,000	10%	9,010,000	6%	24,750,000	15%
D. Maternal/Child/Family Health	25,175,000	8%	13,765,000	8%	11,410,000	7%
B. Chronic Disease and Injury Prevention	24,855,000	8%	12,590,000	8%	12,265,000	7%
F. Vital Records	7,115,000	2%	3,620,000	2%	3,495,000	2%
<b>Total Cost</b>	<b>327,990,000</b>		<b>162,640,000</b>		<b>165,350,000</b>	

Source: DOH, 2013; Participating LHJs, 2013; and BERK, 2013.

About 77% of the statewide cost estimate is generated from the cost of providing the foundational programs, and about 23% is from the cost of providing the foundational capabilities. This percentage varies for DOH (83% for programs and 17% for capabilities) and for the LHJs (71% for programs and 29% for capabilities), but in general the cost of providing the programs is significantly higher than the cost of providing the foundational capabilities.

Within the foundational capabilities, the largest component is Business Competencies, which constitutes about 12% of the total statewide cost estimate and slightly more than half of the total cost for the foundational capabilities. The other foundational capabilities are minor portions of the statewide cost estimate, constituting no more than 3% of the total.

Within the foundational programs, the largest overall component is Environmental Public Health, which constitutes 29% of the total estimate, or about \$95.8 million per year. The second largest program is Access/Linkage with Clinical Health Care at 20% of the total, or about \$65.6 million. As noted above, the estimate for this program contains a large component for healthcare provider licensing.

### STATE DEPARTMENT OF HEALTH FOUNDATIONAL COST ESTIMATE

As shown in Exhibit 4, the majority of the costs for providing foundational services at the state level are within the foundational programs. The largest cost center for DOH is Access/Linkage with Clinical Health Care, which comprises about 38% of DOH's total estimated cost, or about \$62.1 million.

- Clinical Health Care costs at the state level are largely driven by inspection and licensing of healthcare facilities and licensing, monitoring, and discipline of healthcare providers. This is a large function that is only applicable to DOH, and is not provided by LHJs.
- It's important to note that this program is primarily supported by fees and licensing costs, meaning it does not drive significant need for state and local funding.

The second largest service at the state level, in terms of cost, is the Environmental Public Health division, which makes up about 21% of DOH's foundational cost estimate, or about \$33.8 million.

- As with Clinical Health Care, there is a large state-only component within this program related to protecting the public and workers from radiation exposure and ensuring safe shellfish and public drinking water systems.
- This program also has a large, fee-supported component related to conducting mandated public health inspections of food, water, and liquid and solid waste streams.

Business Competencies, a foundational capability, is the third largest portion of DOH's estimate. This service constitutes about 10% of DOH's foundational cost estimate, or about \$16 million. This service includes the State's costs related to general business administration, such as human resources, IT systems, legal support, and policy and communications.

One significant difference between state and local responsibilities is the state laboratory. DOH runs a large, state of the art laboratory that supports all realms of public health. While PHSKC also has a laboratory, it primarily conducts clinical testing and most LHJs use the state laboratory for their needs.

The costs associated with the state laboratory are included in DOH's foundational cost estimate, and are spread throughout the relevant programs that the lab supports in order to align costs more closely to the LHJ cost structure. Exhibit 5 shows how the state laboratory costs are included within individual programs and capabilities. Overall, the laboratory costs associated with supporting the State's foundational programs and capabilities constitute about 7.8% of DOH's total cost estimate, or about \$12.6 million.

**Exhibit 5**  
**Distribution of DOH Laboratory Costs Across FPHS**

	Cost of Service Without Lab	Lab Cost By Service	Cost of Service Including Lab	Lab Cost as % of Service
<b>Foundational Capabilities</b>	<b>26,925,000</b>	<b>825,000</b>	<b>27,750,000</b>	<b>3.0%</b>
A. Assessment	5,410,000	0	5,410,000	0.0%
B. Emergency Preparedness and Response	2,795,000	825,000	3,620,000	22.8%
C. Communication	750,000	0	750,000	0.0%
D. Policy Development and Support	1,115,000	0	1,115,000	0.0%
E. Community Partnership Development	860,000	0	860,000	0.0%
F. Business Competencies	15,995,000	0	15,995,000	0.0%
<b>Foundational Programs</b>	<b>123,105,000</b>	<b>11,785,000</b>	<b>134,890,000</b>	<b>8.7%</b>
A. Communicable Disease Control	4,960,000	4,050,000	9,010,000	45.0%
B. Chronic Disease and Injury Prevention	12,590,000	0	12,590,000	0.0%
C. Environmental Public Health	30,750,000	3,010,000	33,760,000	8.9%
D. Maternal/Child/Family Health	9,040,000	4,725,000	13,765,000	34.3%
E. Access/Linkage with Clinical Health Care	62,145,000	0	62,145,000	0.0%
F. Vital Records	3,620,000	0	3,620,000	0.0%
<b>Total Cost</b>	<b>150,030,000</b>	<b>12,610,000</b>	<b>162,640,000</b>	<b>7.8%</b>

Source: DOH, 2013; and BERK, 2013.

Please see Appendix C for notes about specific activities that are included within DOH's defined foundational responsibilities and Appendix E for additional information on the policy implications of this initial analysis.

## LOCAL HEALTH JURISDICTION ESTIMATES

Similar to DOH, the majority of the cost of providing the foundational services lies within the foundational programs. The largest single component of the estimate at the local level is the Environmental Public Health programs, which constitutes about 38% of the total LHJ estimate, or about \$62 million. A large portion of the costs associated with Environmental Public Health is supported by fees and licenses for public health inspections of food and drinking water supplies as well as solid and liquid waste.

The second largest service for LHJs is Communicable Disease Control, which is estimated to cost about \$24.8 million per year, or 15% of the total foundational cost estimate for LHJs. Providing supportive Business Competencies is also estimated to comprise about 15% of the total LHJ foundational cost estimate, at about \$24.3 million.

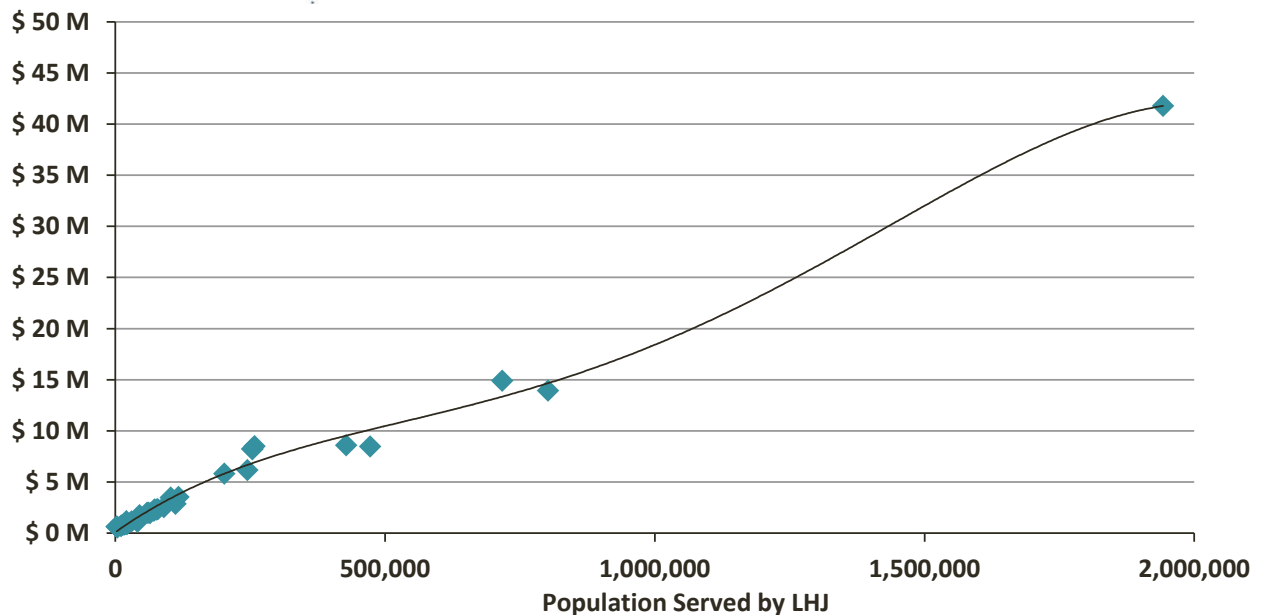
Please see Appendix C for notes about specific activities that are included within LHJs' defined foundational responsibilities. For a full accounting of the cost estimates by foundational service for all LHJs, please see Appendix D.

**Individual LHJ Estimates.** The foundational LHJ cost estimate was built from the ground up by modeling the cost of providing the foundational services for each of the State's 35

LHJs individually. Exhibit 6 shows the foundational cost estimate for each LHJ compared to the size of the population they serve.

- The overall curve is generated by the elasticity and cost scaling assumptions explained above. The elasticity factor drives a flattening of the curve due to economies of scale as the service area grows.
- The small variances away from the curve are due to differences in labor costs throughout the State. The cost factors within the model were scaled appropriately to each jurisdiction based on relative labor costs taken from the U.S. Bureau of Labor Statistics.
- The difference in labor costs is also the primary reason that the estimate for PHSKC, with a service population of about 1.9 million, is higher than the rest of the curve would suggest – labor costs in King County are significantly higher than the rest of the state.

**Exhibit 6**  
**Estimated Annual Cost of Providing Foundational Public Health Services by Local Health Jurisdiction**



Source: Participating LHJs, 2013; and BERK, 2013.

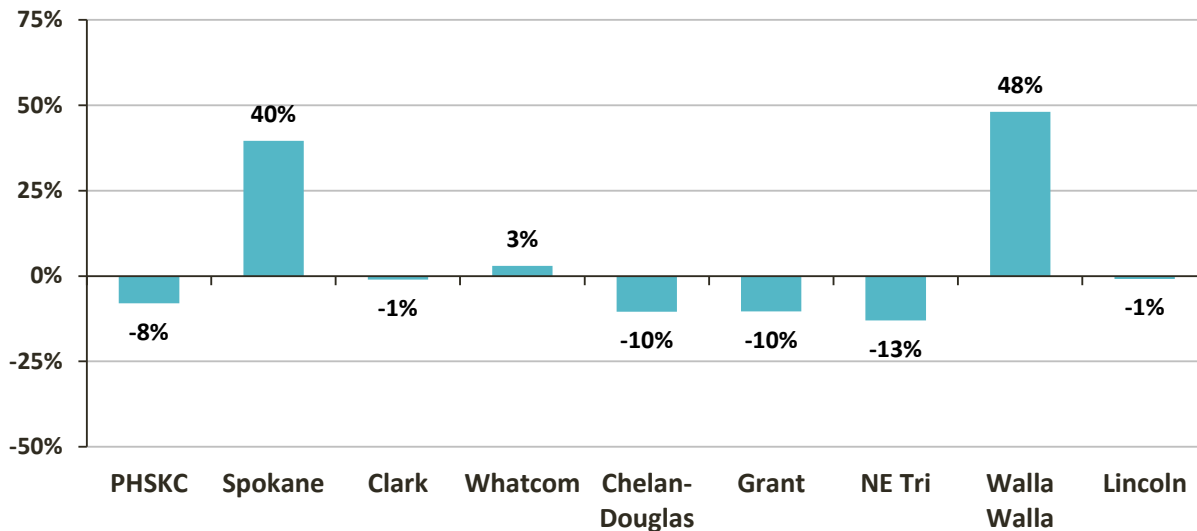
A continual check in refining the model and the assumptions in the model was to compare the cost estimates generated for the nine LHJs that provided sample data with their sample cost data. Exhibit 7 shows the difference between the model-estimated costs and the provided sample cost data for the nine participating LHJs.

Where the percentage is positive, it means the model is estimating a cost for that LHJ that is *higher* than the provided sample cost data. Where the percentage is negative, the model is estimating a cost *lower* than the provided sample.



## Exhibit 7

## Estimated Costs Compared to Provided Estimates For LHJs Providing Sample Data



Source: Participating LHJs, 2013; and BERK, 2013.

- In the model, most of the jurisdictions (PHSKC, Clark, Whatcom, Chelan-Douglas, Grant, and Lincoln) are estimated to within 10% of their provided sample.
- The model is estimating costs for Spokane and Walla Walla that are more than 10% higher than the provided samples, and is estimating a cost for NE Tri that is more than 10% lower than the provided sample.

Overall, the total model-estimated cost for these nine jurisdictions is within \$1.1 million of their combined provided estimates, or about 0.3% of the total statewide foundational cost estimate. A jurisdiction by jurisdiction review of all 35 LHJs shows that this assumption creates reasonable estimates for every organization, including for the largest and smallest jurisdictions.

This analysis drove a decision to use the model-estimated costs for these nine jurisdictions in the statewide foundational cost estimate, instead of the costs directly provided in the sample data. The difference between using the model-generated costs and the provided costs is about \$1.1 million, or a 0.3% variation from the selected statewide estimate.

One can see why the totals would be similar by the results shown in Exhibit 7, since the majority of jurisdictions are being slightly underestimated by the model, while a few jurisdictions are being significantly overestimated. These variations average out to an estimate that is within a few percentage points of the provided total for these jurisdictions.

Given the similarity between the provided sample data and the model-generated estimate, the Subgroup and the participating jurisdictions decided it was appropriate to use the model-generated estimates rather than the sample data for two main reasons:

1. Using only model-generated estimates means that all jurisdictions are estimated using the same methodology, creating consistency for comparing the estimates across different sizes of organizations.
2. Using the model-generated estimates averages out some of the variation between participating LHJs' provided samples. Since there was variation among the survey responses, using the model-generated estimate reduces the impact of the sample as the samples drive the cost factors, but do not directly add into the statewide foundational cost estimate.

## Sensitivity Analysis

The foundational cost estimate outlined in the previous section is based on a specific methodology and set of assumptions. In order to provide additional confidence in the model approach and analysis, a sensitivity analysis was undertaken to see how different modeling assumptions would impact the overall estimate of statewide costs.

The assumptions that have the greatest impact on the estimate of statewide costs are the jurisdictional groupings used for development of the scaling factors and the elasticity assumptions which describe the how sensitive each cost factor is to changes in the underlying driver. Each of these elements is analyzed individually and in combination below to see how costs might vary under alternative assumptions.

### JURISDICTIONAL GROUPINGS FOR SCALING FACTORS

As noted above, the model allows control over how the sample jurisdiction data is scaled to the other jurisdictions. For the selected estimate, the model uses the inputs from jurisdictions with large urban centers to create scaling factors for other jurisdictions with large urban centers. The model then averages the inputs from all other jurisdictions with non-urban centers to create estimates for all other jurisdictions statewide.

For sensitivity analysis, the model was tested for five additional scaling factor scenarios:

**Scenario 1.** Jurisdictions were grouped into five size categories based on population size.

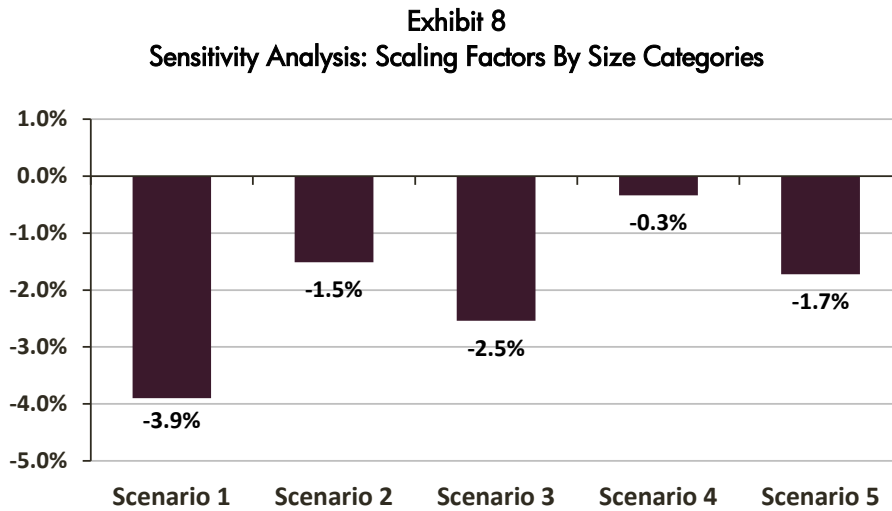
**Scenario 2.** PHSKC was removed from the scaling factors, and the average sample data from the eight other jurisdictions was used to estimate all other jurisdictions.

**Scenario 3.** PHSKC was removed from the scaling factors, and the remaining jurisdictions were split into two categories based on population size. The two groups were split into extra small jurisdictions (serving populations below 60,000) and all other jurisdictions.

**Scenario 4.** PHSKC was removed from the scaling factors, and the remaining jurisdictions were split into two categories based on population size. The two groups were split into large jurisdictions (serving populations between 425,000 and 800,000) and all other jurisdictions.

**Scenario 5.** The overall average of the nine sample jurisdictions was used to create scaling factors for all estimated jurisdictions.

Exhibit 8 shows the impact on the statewide foundational cost estimate of these five different scaling factor scenarios.



Source: DOH, 2013; Participating LHJs, 2013; and BERK, 2013.

Different scaling factor groupings impact the estimate by a maximum of 3.9%, or about \$12.8 million. Most scaling factor options fall within 2.5% of the selected estimate.

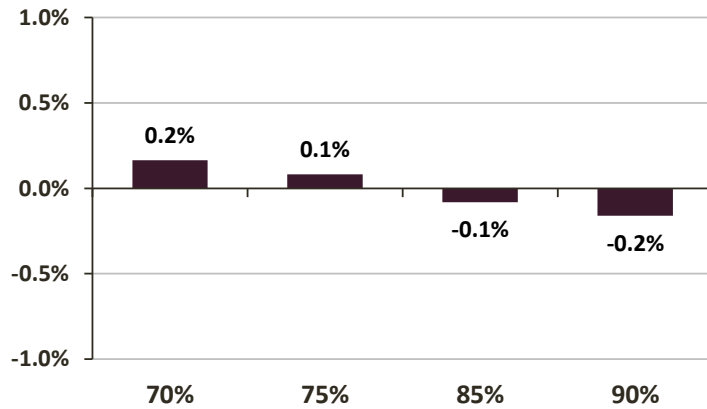
## ELASTICITY ASSUMPTION

The basis for the selected elasticity assumption of 80% and background on how the elasticity assumption works is explained in more detail on page 8. The purpose of this section is to understand how different elasticity assumptions would impact the statewide cost estimate, if at all.

To understand the sensitivity, the model was tested with four additional elasticity assumptions ranging from 70% to 90% variable costs. The Subgroup and participating jurisdictions advised that elasticity factors above or below that range did not make sense given the way public health services are provided.

Exhibit 9 shows the impact on the statewide foundational cost estimate of different elasticity factors.

**Exhibit 9**  
**Sensitivity Analysis: Elasticity Assumptions**



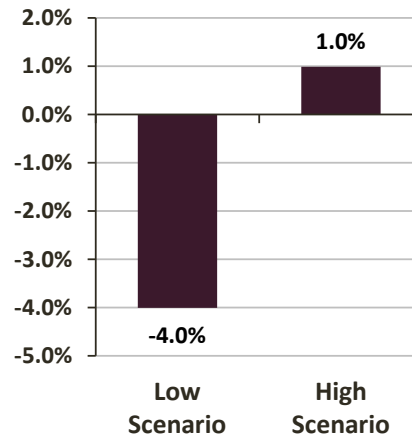
Source: DOH, 2013; Participating LHJs, 2013; and BERK, 2013.

Different elasticity assumptions, using the scaling groupings from the selected estimate, do not significantly impact the statewide cost estimate. At 70% and 90% elasticity, the total estimate is only impacted by about 0.2%, or \$0.5 million.

### RANGE OF COMBINED IMPACTS

In order to conduct a full sensitivity analysis, alternative key assumptions were tested in combination to understand how the impacts added together. The changes in assumptions are not directly additive. The model was tested with every permutation of the elasticity and scaling grouping assumptions identified above, and the highest and lowest results are presented in Exhibit 10.

**Exhibit 10**  
**Sensitivity Analysis: Combined Impacts of Assumptions**



Source: BERK, 2013.

- Choosing Scenario 1 from the scaling grouping factors, which groups jurisdictions into five distinct size categories based on their population, and setting elasticity to 90% results in an estimate that is 4.0%, or about \$13.1 million, lower than the selected estimate.
- Choosing Scenario 5 from the scaling grouping factors, which creates an overall average scaling factor for each element, and setting elasticity to 70% results in an estimate that is about 1.0%, or \$3.2 million, higher than the selected estimate.



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# NEXT STEPS

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## Foundational Public Health Services Subgroup

The Foundational Public Health Services Subgroup is currently within the Agenda for Change Workgroup in the Partnership's organizational structure. Moving forward into the 2013-15 biennium, the Subgroup will be moved up in the structure to be its own distinct workgroup.

The Workgroup will continue to work toward identifying a sustainable funding program to support foundational public health services in Washington State. The Workgroup's focus will be refining the preliminary revenue analysis, producing ideas for a sustainable funding source, providing information and recommendations on potential options, and providing technical support to policy makers in designing a final sustainable funding model

## 2013-15 Work Plan

The Subgroup has developed a two-year work plan for the 2013-15 biennium to achieve its goal of identifying a sustainable funding program for foundational public health services. The plan includes the following milestones:

1. By **December 2013**: In consultation with key partners, have a clear description of the funding history, current funding situation, and future funding options to discuss with public health professionals and the Workgroup's key partners.
2. By **June 2014**: In collaboration with local government partners, clearly describe options for sustainable funding of foundational public health services statewide.
3. By **Summer 2014**: Assist in the introduction of a broadly supported proposal to partners and policy makers in preparation for the 2015 legislative session and continue working towards adoption of a new model.

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# APPENDIX A

## FOUNDATIONAL PUBLIC HEALTH SERVICES DEFINITION

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# Definition of Foundational Public Health Services

This appendix provides a more detailed description of the definition of the foundational public health services and examples of additional important public health services. The definition of foundational capabilities and programs was used to help jurisdictions providing sample data to understand the different components that should and should not be included in their cost estimates.

## DEFINITION OF FOUNDATIONAL CAPABILITIES

**A. Assessment (Surveillance and Epidemiology).** The foundational definition of this capability includes:

- a) Ability to collect sufficient statewide data to develop and maintain electronic information systems to guide public health planning and decision making at the state and local level. Foundational data includes Behavioral Risk Factor Surveillance Survey (BRFSS), Healthy Youth Survey (HYS), and vital statistics and foundational information systems include PHIMS, PHRED, CHARS, and CHAT.
- b) Ability to access, analyze, and use data from eight specific information sources, including (1) U.S. Census data, (2) vital statistics, (3) notifiable condition data, (4) certain clinical administrative data sets including hospital discharge, (5) BRFSS, (6) HYS, (7) basic community and environmental health indicators, and (8) local and state chart of accounts.
- c) Ability to prioritize and respond to data requests and to translate data into information and reports that are valid, statistically accurate, and readable to the intended audiences.
- d) Ability to conduct a basic community and statewide health assessment and identify health priorities arising from that assessment, including analysis of health disparities.

**B. Emergency Preparedness (All Hazards).** The foundational definition of this capability includes:

- a) Ability to develop and rehearse response strategies and plans, in accordance with national and state guidelines, to address natural or manmade disasters and emergencies, including special protection of vulnerable populations.
- b) Ability to lead the Emergency Support Function 8 – Public Health & Medical for the county, region, jurisdiction, and state.
- c) Ability to activate the emergency response personnel in the event of a public health crisis; coordinate with federal, state, and county emergency managers and other first responders; and operate within, and as necessary lead, the incident management system.
- d) Promote community preparedness by communicating with the public in advance of an emergency, steps that can be taken before, during, or after a disaster.

**C. Communication.** The foundational definition of this capability includes:

- a) Ability to maintain ongoing relations with local and statewide media including ability to write a press release, conduct a press conference, and use electronic communication tools to interact with the media.
- b) Ability to develop and implement a communication strategy, in accordance with Public Health Accreditation Board Standards, to increase visibility of a specific public health issue and communicate risk. This includes the ability to provide information on health risks, healthy behaviors, and disease prevention in culturally and linguistically appropriate formats for the various communities served, including use of electronic communication tools.

- D. Policy Development and Support.** The foundational definition of this capability includes:
- a) Ability to develop basic public health policy recommendations that are evidence-based and legally feasible.
  - b) Ability to work with partners and policy makers to enact policies that are evidence-based.
  - c) Ability to utilize cost benefit information to develop an efficient and cost-effective action plan to respond to the priorities identified in a community and statewide health assessment, including identification of best and emerging practices, and those that respond to health inequities.
- E. Community Partnership Development.** The foundational definition of this capability includes:
- a) Ability to create and maintain relations with important partners, including health-related national, statewide, and community-based organizations; community groups or organizations representing populations experiencing health disparities; key private businesses and health care organizations; and key federal, tribal, state, and local government agencies and leaders.
  - b) Ability to strategically select and articulate governmental public health roles in programmatic and policy activities and coordinate with these partners.
- F. Business Competencies.** The foundational definition of this capability includes:
- a) *Leadership.* Ability to lead internal and external stakeholders to consensus and action planning (adaptive leadership) and to serve as the public face of governmental public health in the community.
  - b) *Accountability and Quality Assurance Services.* Ability to uphold business standards and accountability in accordance with federal, state, and local laws and policies and to assure compliance with national and Public Health Accreditation Board Standards.
  - c) *Quality Improvement.* Ability to continuously improve processes, including plan-do-study-act cycles.
  - d) *Information Technology Services.* Ability to maintain and access electronic health information to support the public health agency operations and analyze health data. Ability to support, maintain, and use communication technology.
  - e) *Human Resources Services.* Ability to develop and maintain a competent workforce, including recruitment, retention, and succession planning functions; training; and performance review and accountability.
  - f) *Fiscal Management, Contract, and Procurement Services.* Ability to comply with federal, state, and local standards and policies.
  - g) *Facilities and Operations.* Ability to procure, maintain, and manage safe facilities and efficient operations.
  - h) *Legal Services and Analysis.* Ability to access and appropriately use legal services in planning and implementing public health initiatives.

## DEFINITION OF FOUNDATIONAL PROGRAMS

- A. Communicable Disease Control.** The foundational definition of this program includes:
- a) Provide timely, statewide, and locally relevant and accurate information to the state and community on communicable diseases and their control, including strategies to increase local immunization rates.
  - b) Identify statewide and local communicable disease control community assets, develop and implement a prioritized communicable disease control plan, and advocate and seek funding for high priority policy initiatives.

- c) Ability to receive laboratory reports and other identifiable data, conduct disease investigations, including contact notification, and recognize, identify, and respond to communicable disease outbreaks for notifiable conditions in accordance with national and state mandates and guidelines.
- d) Assure the availability of partner notification services for newly diagnosed cases of syphilis, gonorrhea, and HIV according to CDC guidelines.
- e) Assure the appropriate treatment of individuals who have active tuberculosis, including the provision of directly-observed therapy according to Centers for Disease Control and Prevention (CDC) guidelines.
- f) Assure availability of public health laboratory services for disease investigations and response, and reference and confirmatory testing related to communicable diseases.
- g) Coordinate and integrate other categorically-funded communicable disease programs and services.

**B. Chronic Disease and Injury Prevention.** The foundational definition of this program includes:

- a) Provide timely, statewide, and locally relevant and accurate information to the state and community on chronic disease prevention and injury control
- b) Identify statewide and local chronic disease and injury prevention community assets, develop and implement a prioritized prevention plan, and advocate and seek funding for high priority policy initiatives.
- c) Reduce statewide and community rates of tobacco use through a program that conform to standards set by Washington laws and CDC's Office on Smoking and Health, including activities to reduce youth initiation, increase cessation, and reduce secondhand smoke exposure.
- d) Work actively with statewide and community partners to increase statewide and community rates of health eating and active living through a prioritized program of best and emerging practices aligned with national and state guidelines for health eating and active living.
- e) Coordinate and integrate other categorically-funded chronic disease and injury prevention programs and services

**C. Environmental Public Health.** The foundational definition of this program includes:

- a) Provide timely, statewide, and locally relevant and accurate information to the state and community on environmental public health issues and health impacts from common environmental or toxic exposures.
- b) Identify statewide and local community environmental public health assets and partners, and develop and implement a prioritized prevention plan to protect the public's health by preventing and reducing exposures to health hazards in the environment.
- c) Conduct mandates environmental public health laboratory testing, inspections, and oversight to protect food, water recreation, drinking water, and liquid and solid waste streams in accordance with federal, state, and local laws and regulations.
- d) Identify and address priority notifiable zoonotic (e.g. birds, insects, rodents) conditions, air-borne, and other public health threats related to environmental hazards.
- e) Protect workers and the public from unnecessary radiation exposure in accordance with federal, state, and local laws and regulations
- f) Participate in broad land use planning and sustainable development to encourage decisions that promote positive public health outcomes (e.g. consideration of housing, urban development, recreational facilities, and transport).
- g) Coordinate and integrate other categorically-funded environmental public health programs and services.

**D. Maternal/Child/Family Health.** The foundational definition of this program includes:

- a) Provide timely, statewide, and locally relevant and accurate information to the state and community on emerging and on-going maternal child health trends taking into account the important of Adverse Childhood Experiences (ACEs) and health disparities.
- b) Assure mandated newborn screening done by the state public health lab to test every infant born in Washington to detect and prevent the developmental impairments and life-threatening illnesses associated with congenital disorders that are specified by the State Board of Health
- c) Identify, disseminate, and promote emerging and evidence-based information about early interventions in the prenatal and early childhood period that optimize lifelong health and social-emotional development.
- d) Identify local maternal and child health community assets; using life course expertise and an understanding of health disparities, develop a prioritized prevention plan; and advocate and seek funding for high priority policy initiatives.
- e) Coordinate and integrate other categorically funded maternal, child, and family health programs and services.

**E. Access/Linkage with Clinical Health Care.** The foundational definition of this program includes:

- a) Provide timely, statewide, and locally relevant and accurate information to the state and community on the clinical healthcare system.
- b) Improve patient safety through inspection and licensing of healthcare facilities and licensing, monitoring, and discipline of healthcare providers.
- c) In concert with national and statewide groups and local providers of health care, identify healthcare assets, develop prioritized plans for increasing access to health homes and quality health care, and advocate and seek funding for high priority policy initiatives.
- d) Provide state-level health system planning
- e) Coordinate and integrate other categorically-funded clinical health care programs and services.

**F. Vital Records.** The foundational definition of this program includes:

- a) In compliance with state law and in concert with national, state, and local groups, assure a system of vital records
- b) Provide certified birth and death certificates in compliance with state law and rule.

# Examples of Additional Important Public Health Services

The foundational services are only a subset of everything that public health is, and that public health organizations in Washington State need to do to support the State's residents. This appendix provides a list of examples of additional important public health services provided by DOH and by LHJs. In some cases, the additional important public health services are needed to address important local health risks or community priorities, in other cases they are supported by fees or other funding sources outside of core state and local public health funding.

The list is intended to add description and detail to another level of important public health services that many, if not all, jurisdictions will be able to offer. The list is not intended to be all-inclusive. The list of 'augmented foundational capabilities' that follows next illustrates capacities that some health departments may develop in response to staff interests and partnerships with educational institutions, organizations in other sectors, and external funders.

## ADDITIONAL IMPORTANT PUBLIC HEALTH SERVICES AND PROGRAMS

### A. Communicable Disease Control

- a) Management of vaccine distribution for childhood vaccine providers in accordance with national Guidelines for Quality Standards for Immunization (including current federal categorical funding)
- b) HIV services, including Ryan White HIV clinical services and federal and state HIV prevention services in accordance with state and federal regulations for these programs (including current federal and state categorical funding)
- c) Assurance of access to HIV/STD testing and treatment
- d) Assurance of treatment of latent tuberculosis infection
- e) Assurance of provision of partner notification services for chlamydia infections
- f) Development of appropriate response strategies for new and emerging diseases through surveillance, program evaluation, and applied research

### B. Chronic Disease and Injury Prevention

- a) Provision of specific clinical preventive services and screening (breast and cervical cancer, colon cancer) in accordance with the USPHTF for Clinical Preventive Services (including current federal and state funding)
- b) Other categorically-funded chronic disease prevention programs (including current federal funding for chronic disease and community transformation)
- c) Development of appropriate strategies for prevention and control of chronic diseases and injury through surveillance, program evaluation, and applied research

### C. Environmental Public Health

- a) Development of appropriate response strategies for newly-recognized toxic hazards and other adverse environmental health conditions through surveillance, program evaluation, and applied research
- b) Assessment, policy development, and implementation of evidence-based health promotion elements in land use, built environment, and transportation

#### **D. Maternal/Child/Family Health**

- a) Assure access and/or coordination of Women, Infants and Children Supplemental Nutrition Services (WIC) that adhere to the USDA Nutrition Services Standards (including current categorical federal funding)
- b) Assure access and/or coordination of maternity support and nurse family partnership services (including services currently funded by third party payers including Medicaid)
- c) Family planning services (including current state and federal categorical funding)
- d) Child Death Review
- e) Outreach, linkage and system development for children with special needs

#### **E. Access/Linkage with Clinical Health Care**

Facilitate the availability of...

- a) Clinical services to vulnerable populations that follow established clinical practice guidelines and are delivered in a timely manner, including integrated medical and behavioral care, sexual health, oral health, adolescent health services, immunizations, and travel health services (including services funded by third party payers, including Medicaid)
- b) Quality, accessible, and timely jail health services in accordance with standards set by the National Commission on Correctional Health Care that include medical, mental health, chemical dependency, dental, nursing, pharmacy, and release planning services
- c) Emergency medical services including basic life support (BLS) and advanced life support (ALS) response by certified EMTs and paramedics to residents in need of emergency medical services (including current locally funded levy services)
- d) Public health laboratory testing that meet certification standards of Washington Department of Health's Office of Laboratory Quality Assurance and the federal Clinical Laboratory Improvement Amendments to assure accurate, reliable, and prompt reporting of test results (including services funded by third party payers including Medicaid)
- e) Refugee health screening that follows CDC's Refugee Health Guidelines and is delivered within 90 days of arrival in the US, in accordance with the Office for Refugee Resettlement (including current categorical federal funding)
- f) Monitoring and reporting of indices of measures of quality and cost of healthcare
- g) Death investigations and authorization to dispose of human remains that meet National Association of Medical Examination accreditation standards

#### **AUGMENTED FOUNDATIONAL CAPABILITIES**

- A. Ability to conduct public health practice applied research and evaluation, including data collection, data analysis, policy research, and evaluation services that meet standards for peer-reviewed publications
- B. Ability to identify and promote policy change opportunities in non-health sectors including the use of analytic tools to assess the health impact of these policies
- C. Ability to develop and implement social marketing campaigns, including social media communication platforms
- D. Ability to collaborate in training and service with community education programs and schools of public health
- E. Ability to develop effective interventions, in partnership with community members, to reduce and eliminate health disparities
- F. Ability to compete for grant funding from government organizations, philanthropic organizations, health system partners, and corporate foundations

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## APPENDIX B

# FOUNDATIONAL PUBLIC HEALTH SERVICES DEFINITION COMPARISON

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# Comparison of Washington’s Definitions with Other States

The A4C Subgroup on Public Health Funding has been developing a definition of what should constitute the “Foundational Public Health Services” that would be available statewide. To augment the Subgroup’s efforts and provide broader context to the discussion of core public health services, BERK conducted a literature review of similar efforts completed or underway in other states. In particular, the literature review started with the work undertaken by the Institute of Medicine (IOM) and their 2012 report *For the Public’s Health: Investing in a Healthier Future*, as well as the work that is underway via the Robert Wood Foundation to identify what other states are doing and how these efforts might influence the work in Washington.

Many states use the 10 essential public health services articulated by the Centers for Disease Control and Prevention’s National Public Health Performance Standards Program in 1994. These 10 services form the framework for what states expect of local public health systems across the country:

1. Monitor the health status to identify and solve community health problems.
2. Diagnose and investigate health problems and health hazards in the community.
3. Inform, educate, and empower people about health issues.
4. Mobilize community partnerships and action to identify and solve health problems.
5. Develop policies and plans that support individual and community health efforts.
6. Enforce laws and regulations that protect health and ensure safety.
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
8. Assure competent public and personal health care workforce.
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
10. Research for new insights and innovative solutions to health problems.

While this paradigm has been widely adopted across the country, there is also a sense that this framework has “not proved useful for planning and setting priorities for the use of limited public health funding,” per the 2012 IOM report. The conclusion drawn is that the 10 Essential Services, while broadly true, do not allow the specificity necessary to help policy makers and practitioners make decisions around the aforementioned planning and priority-setting, as well as demonstrating accountability and estimating costs necessary for the specific tasks associated with these services.

The IOM report introduces a new framework for considering what they describe as a “minimum package of public health services.” On the one hand, there should be foundational capabilities that are needed (and typically shared) across programs and are required to support them. On the other hand, there should be basic programs that “no well-run public health department can be without.” In spelling out what these basic programs are, there would be added certainty as to expectations for health departments as well as greater information for policy makers when funding decisions are made.

The IOM report lists some examples of what they would consider both foundational capabilities and basic programs, though not comprehensively. Instead, the authors believe that “a more complete stakeholder discussion and development process are critical for” establishing a minimum package of public health services.

As mentioned above, most states today currently utilize the 10 essential public health services when identifying expectations around core public health services. A few states, however, are beginning to move in the direction established by the IOM report. Washington may very well be the farthest ahead, as the other states that have (or are in the process of) spelled out alternative conceptions for core public health services have not yet considered cost studies.



A quick review of states' definition of core/essential/minimum public health services found that three states—Ohio, Colorado, and Texas—have defined, or are in the process of defining, alternatives to the 10 essential public health services. Texas's Public Health Funding and Policy Committee is currently in the process of "defin[ing] the core public health services a local health entity should provide in a county or municipality" and will also look at funding sources available for use by local health entities.

Comparing the Washington definition with these other efforts suggests that there is a fair amount of overlap between Washington and IOM, Ohio, and Colorado. While there are some discrepancies in classification (e.g. Ohio classifies Emergency Preparedness and Epidemiology as basic programs) and category headings, nothing that the Subgroup calls out is missing from the other examples. And while Colorado appears to be missing capabilities such as Policy Development and Support and Community Partnership Development, their "delivery of the core services shall be performed in accordance with the 10 Essential Public Health Services" (listed above), which include references to mobilizing community partnerships and developing policies and plans.

In terms of the Essential Programs there is general overlap around category titles, but much overlap in the sub-elements of these categories. This has mostly to do with the level of specificity in the Subgroup's definition, and it is likely safe to assume that the other states will emphasize the general sub-elements that repeat across categories (i.e. "provide timely, relevant, accurate information;" "identify assets, develop plans, advocate;" "coordinate/integrate other programs and services").

While the review indicates a relatively high level of overlap between Washington and IOM, Ohio, and Colorado, there are a few elements missing from the Subgroup's definition of a minimum package of public health services that appear in these three other places:

- Ohio and Colorado both specifically call out administering vaccines to individuals. The FPHS includes individual vaccine administration as an example of an additional important public health service, while categorizing the promotion of immunizations as a foundational public health services.
- Ohio and Colorado are more explicit in stating that health equity and socio-economic factors are important elements of core/essential public health services
- The IOM report specifically calls out mental health and substance abuse as a basic/essential program; Colorado does mention "mental and behavioral health" (though not substance abuse), while Ohio mentions drug and alcohol abuse prevention and behavioral health as other public health services

The remaining differences between the various minimum packages are relatively minor and/or the result of differing levels of specificity between and among these packages. For example, Ohio specifically calls out community engagement in both the foundational and basic programs sections. While Washington does not use this specific term, it is clear that the Community Partnership Development category would include this task.

Additionally, Colorado mentions operational characteristics that will almost certainly be a part of any minimum package that Washington was to establish (e.g. implementing policies in compliance with state laws, assessing the provision of services, etc.).

Presented below is a matrix that compares what is identified by the IOM report and the states of Ohio and Colorado as foundational capabilities and basic programs to the current FPHS Subgroup definitions. It is important to note that Colorado does not distinguish between foundational capabilities and basic programs. First, foundational capabilities:

In this matrix, a checkmark refers to the fact that IOM, Ohio, or Colorado considers the element a specific foundational capability (i.e. "Assessment (Surveillance and Epidemiology)" is a foundational capability in Washington), whereas a dot refers to the fact that IOM, Ohio, or Colorado considers the element a sub-element of a foundational capability (i.e. "Access to lab services" is a sub-element of the Assessment foundational capability).

**Exhibit B - 1**  
**Comparison of Washington's Foundational Capabilities with Other States**

Washington's Foundational Capabilities	IOM	OH	CO	Notes
<b>Assessment (Surveillance and Epidemiology)</b>	✓	✓ *	✓	*Ohio classifies Epidemiology as a "Basic Program"
Access to lab services		■		
Data collection/analytic capabilities		■	■	
Data response/report preparation	■			
Community health assessment capability	■	■	■	
<b>Emergency Preparedness and Response (All Hazards)</b>		✓ *	✓	*Ohio classifies Emergency Preparedness as a "Basic Program"
Develop and rehearse strategies and plans			■	
Lead Emergency Support Function 8 - Public Health			■	
Activate, coordinate, operate incident management system			■	
Promote preparedness through communication			■	
<b>Communication</b>	✓	✓	✓	
Interface with media via press release and press conference		■		
Communication strategy on risks, behaviors, prevention & culturally/linguistically appropriate			■	
<b>Policy Development and Support</b>	✓	✓		
Develop evidence-based policy recommendations		■		
Work with partners/policy makers to enact policies		■		
Utilizing cost benefit information to develop action plans				
<b>Community Partnership Development</b>	✓	✓		
Create and maintain relationships with partners		■		
Select/articulate/coordinate roles and activities with partners				
<b>Business Competencies</b>				
Leadership			■	
Accountability/Quality Assurance		■	■	
Quality Improvement	■			
Information Technology		■		
Human Resources		■	■	
Fiscal Management, Contract, and Procurement		■	■	
Facilities and Operations				
Legal Services		■		

In terms of the Foundational Programs there is general overlap around category titles, but much less so in the sub-elements of these categories.

**Exhibit B - 2**  
**Comparison of Washington's Foundational Programs with Other States**

Washington's Foundational Programs	IOM	OH	CO	Notes
<b>Communicable Disease Control</b>	✓	✓	✓	
Provide timely, relevant, accurate information			■	
Identify assets, develop plans, advocate for initiatives				
Receive lab reports, conduct investigations, respond to outbreaks			■	
Per CDC, assure availability of notification services				
Per CDC, assure treatment of active TB				
Coordinate/integrate other programs and services				
<b>Chronic Disease and Injury Prevention</b>	✓	✓ *	✓	*Ohio refers to this as "Health Promotion and Prevention"
Provide timely, relevant, accurate information				
Identify assets, develop plans, advocate for initiatives			■	
Reduce tobacco use		■		
Increase healthy eating and active living		■	■	
Coordinate/integrate other programs and services				
<b>Environmental Public Health</b>	✓	✓	✓	
Provide timely, relevant, accurate information				
Identify assets, develop/implement plan to prevent/reduce exposure				
Inspections to protect food, water, waste		■	■	
Identify/address priority notifiable public health threats				
Protect workers and public from unnecessary radiation exposure				
Participate in land use planning and sustainable development			■	
Coordinate/integrate other programs and services				
<b>Maternal/Child/Family Health</b>	✓		✓ *	
Provide timely, relevant, accurate information				*Colorado subsumes this category under the comparable "Chronic Disease and Injury Prevention" category
Identify, disseminate, promote information that optimize development				
Identify assets, develop plans, advocate for initiatives				
Coordinate/integrate other programs and services				
<b>Access/Linkage with Clinical Health Care</b>		✓	✓	
Provide timely, relevant, accurate information				
Assure safety through inspection, licensing, monitoring, discipline of healthcare facilities/providers				
Identify assets, develop plans, advocate for initiatives				
Coordinate/integrate other programs and services				
<b>Vital Records</b>		✓	✓	
Assure a system of vital records				
Provide certified birth/death certificates				

## References

Robert Wood Johnson Foundation. *Transforming Public Health: Emerging Concepts for Decision Making in a Changing Public Health World*

Institute of Medicine. *For the Public's Health: Investing in a Healthier Future*

Health Policy Institute of Ohio. *Public Health Futures: Considerations for a New Framework for Local Public Health in Ohio*

State of Colorado Department of Public Health and Environment. *Core Public Health Services (6 CCR 1014-7)*

State of Colorado. *Colorado Public Health Act of 2008 Executive Summary*

State of Colorado. *Statement of Basis and Purpose and Specific Statutory Authority for Core Public Health Services (6 CCR 1014-7)*

State of Texas. Public Health Funding and Policy Committee website

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# APPENDIX C

## DETAILED COST ESTIMATE ASSUMPTIONS BY SERVICE

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# Introduction

The purpose of this appendix is to provide additional detail on the specific services that are and aren't included in the statewide foundational cost estimate and the approach that DOH and the individual LHJs took when estimating the sample data.

This appendix presents a list of instructions for what DOH and LHJs referred to when deciding what should or should not be included in their foundational public health services sample cost data.

# Cost Estimate Assumptions

## FOUNDATIONAL CAPABILITIES

## ASSUMPTIONS FOR COST MODEL

### A. Assessment (Surveillance and Epidemiology)

- |  |   |
|--|---|
| <p>a) Ability to collect sufficient statewide data to develop and maintain electronic information systems to guide public health planning and decision making at the state and local level. Foundational data includes Behavioral Risk Factor Surveillance Survey (BRFSS), Healthy Youth Survey (HYS), and vital statistics and foundational information systems include PHIMS, PHRED, CHARS, and CHAT.</p> <p>b) Ability to access, analyze, and use data from eight specific information sources, including (1) U.S. Census data, (2) vital statistics, (3) notifiable condition data, (4) certain clinical administrative data sets including hospital discharge, (5) BRFSS, (6) HYS, (7) basic community and environmental health indicators, and (8) local and state chart of accounts.</p> <p>c) Ability to prioritize and respond to data requests and to translate data into information and reports that are valid, statistically accurate, and readable to the intended audiences.</p> <p>d) Ability to conduct a basic community and statewide health assessment and identify health priorities arising from that assessment, including analysis of health disparities.</p> | <p>Part a)</p> <ul style="list-style-type: none"><li>• Applies to DOH and any LHJ that pays for its own additional BRFSS sample in addition to that purchased by DOH</li><li>• Includes costs for data collection of BRFSS, HYS, and turning vital records into vital statistics data, PHIP Activities and Services data</li><li>• For DOH only: include costs for building and maintaining the following data systems: PHIMS, PHRED, CHARS, CHAT. Costs for Washington Immunization Information (WII) System, EDRS, etc. will be captured under their respective programs.</li></ul> <p>Part d)</p> <ul style="list-style-type: none"><li>• For DOH: focus on the effort involved in producing the Health of Washington State. Also include the effort involved in producing a state health improvement plan (SHIP).</li><li>• For LHJs: Focus on CHA and CHIP</li></ul> |
|--|---|

FOUNDATIONAL CAPABILITIES

ASSUMPTIONS FOR COST MODEL

**B. Emergency Preparedness (All Hazards)**

- a) Ability to develop and rehearse response strategies and plans, in accordance with national and state guidelines, to address natural or manmade disasters and emergencies, including special protection of vulnerable populations.
- b) Ability to lead the Emergency Support Function 8 – Public Health & Medical for the county, region, jurisdiction, and state.
- c) Ability to activate the emergency response personnel in the event of a public health crisis; coordinate with federal, state, and county emergency managers and other first responders; and operate within, and as necessary lead, the incident management system.
- d) Promote community preparedness by communicating with the public in advance of an emergency, steps that can be taken before, during, or after a disaster.

Part a)

- DOH should include the costs for the following IT systems: WA Secures, WA Serve, WA TRAC
- DOH should include a subset of the CDC 15 and HPP 8 capabilities – the “short list” of activities that would not be captured as routine public health business in other program areas: emergency operation coordination, WA Secures, WA Serve, WA TRAC, pharmaceutical distribution, medical counter measures, planning for medical surge and state public health laboratory biological and chemistry capacity
- FOR DOH and LHJs: Include planning and readiness, not the cost of actual response during an emergency. The capacity to respond will be captured in specific programs

Part d)

- For DOH: assume agency indirect costs cover/provide overall agency web page infrastructure, production, management, and content

**C. Communication**

- a) Ability to maintain ongoing relations with local and statewide media including ability to write a press release, conduct a press conference, and use electronic communication tools to interact with the media.
- b) Ability to develop and implement a communication strategy, in accordance with Public Health Accreditation Board Standards, to increase visibility of a specific public health issue and communicate risk. This includes the ability to provide information on health risks, healthy behaviors, and disease prevention in culturally and linguistically appropriate formats for the various communities served, including use of electronic communication tools.

- For DOH:
  - Exclude internal communications like Sentinel (agency newsletter), update to the Governor, program-specific communications campaigns (i.e. immunizations, pertussis, tobacco)
  - Web hardware is to be accounted for by DIRM in foundational capabilities – business competencies/IT

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## FOUNDATIONAL CAPABILITIES

## ASSUMPTIONS FOR COST MODEL

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### D. Policy Development and Support

- a) Ability to develop basic public health policy recommendations that are evidence-based and legally feasible.
  - b) Ability to work with partners and policy makers to enact policies that are evidence-based.
  - c) Ability to utilize cost benefit information to develop an efficient and cost-effective action plan to respond to the priorities identified in a community and statewide health assessment, including identification of best and emerging practices, and those that respond to health inequities.
- For DOH: the bulk of this is covered by Divisional and Agency indirect rates. Add an amount for the additional policy development and support costs funded with state general fund dollars.

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### E. Community Partnership Development

- a) Ability to create and maintain relations with important partners, including health-related national, statewide, and community-based organizations; community groups or organizations representing populations experiencing health disparities; key private businesses and health care organizations; and key federal, tribal, state, and local government agencies and leaders.
  - b) Ability to strategically select and articulate governmental public health roles in programmatic and policy activities and coordinate with these partners.
- For DOH: the bulk of this is covered by Divisional and Agency indirect rates.
  - For DOH: capability includes Office of Public Health Systems Development (OPHSD) and PHIP, Office of Policy Legislative and Constituent Relations (OPLCR) – Tribal Liaison



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FOUNDATIONAL CAPABILITIES

ASSUMPTIONS FOR COST MODEL

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**F. Business Competencies**

- a) *Leadership*. Ability to lead internal and external stakeholders to consensus and action planning (adaptive leadership) and to serve as the public face of governmental public health in the community.
    - For DOH: bulk of this covered by Divisional and Agency indirect rates
    - For DOH: capability includes communications (to staff, etc.) and communication support for agency leadership (i.e. speech writing, presentations, and materials, etc.)
  - b) *Accountability and Quality Assurance Services*. Ability to uphold business standards and accountability in accordance with federal, state, and local laws and policies and to assure compliance with national and Public Health Accreditation Board Standards.
  - c) *Quality Improvement*. Ability to continuously improve processes, including plan-do-study-act cycles.
  - d) *Information Technology Services*. Ability to maintain and access electronic health information to support the public health agency operations and analyze health data. Ability to support, maintain, and use communication technology.
  - e) *Human Resources Services*. Ability to develop and maintain a competent workforce, including recruitment, retention, and succession planning functions; training; and performance review and accountability.
  - f) *Fiscal Management, Contract, and Procurement Services*. Ability to comply with federal, state, and local standards and policies.
  - g) *Facilities and Operations*. Ability to procure, maintain, and manage safe facilities and efficient operations.
  - h) *Legal Services and Analysis*. Ability to access and appropriately use legal services in planning and implementing public health initiatives.
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FOUNDATIONAL PROGRAMS

ASSUMPTIONS FOR COST MODEL

**A. Communicable Disease Control**

- a) Provide timely, statewide, and locally relevant and accurate information to the state and community on communicable diseases and their control, including strategies to increase local immunization rates.
- b) Identify statewide and local communicable disease control community assets, develop and implement a prioritized communicable disease control plan, and advocate and seek funding for high priority policy initiatives.
- c) Ability to receive laboratory reports and other identifiable data, conduct disease investigations, including contact notification, and recognize, identify, and respond to communicable disease outbreaks for notifiable conditions in accordance with national and state mandates and guidelines.
- d) Assure the availability of partner notification services for newly diagnosed cases of syphilis, gonorrhea, and HIV according to CDC guidelines.
- e) Assure the appropriate treatment of individuals who have active tuberculosis, including the provision of directly-observed therapy according to Centers for Disease Control and Prevention (CDC) guidelines.
- f) Assure availability of public health laboratory services for disease investigations and response, and reference and confirmatory testing related to communicable diseases.
- g) Coordinate and integrate other categorically-funded communicable disease programs and services.

Overall for DOH and LHJs:

- Scope: notifiable conditions
- DOH focus: surveillance, outbreak investigation and related consultation to LHJs; 24/7 on-call medical epidemiologist; training/workshops.
- DOH exclude: work on syndromic surveillance PHEPR
- Do not account for anticipated future costs like IT and analysis cost to get data from the Health Information Exchange (HIE) on topics considered "Meaningful Use."
- Include cost for capacity to do basic outbreak response
- Include some amount of surge capacity

Part a) for DOH and LHJs:

- "provide" = generate and disseminate
- Immunizations – only cost the work defined in the document under Communicable Disease A1.
- Immunizations - exclude VFC activities and quality monitoring checks of health care providers, etc.

Part a) for DOH only

- Include the following data systems: LIMS, WIIS
- Exclude Biosense, PHEPR
- Include epidemiology/data analysis time, surveillance, outbreak investigation and related consultation to LHJs; 24/7 on-call medical epidemiologist; training/workshops.

Part d) for DOH and LHJs:

- Exclude HIV treatment; for HIV include only the work in the definition under Communicable Disease A.1-4. Exclude case management, etc. for HIV
- DOH-STD staff housed at PHSKC – DOH will include the portion of their work that is core in the DOH costs.

Part e) for DOH and LHJs:

- Include costs for state public health lab identification and antibiotic susceptibility on TB cultures performed in clinical labs across the state.

FOUNDATIONAL PROGRAMS

ASSUMPTIONS FOR COST MODEL

- Include the cost of TB drugs when public health provides them; include cost of DOT

Part f) for DOH only:

- Exclude primary diagnostic testing
- Include costs for state public health lab: foodborne disease investigation; pertussis investigations; West Nile Virus Rabies, and Hantavirus and other viral testing; influenza, syphilis and special bacteriology testing; Pulse Field Gel Electrophoresis; Molecular lab surveillance.

Part g) for DOH only:

- Assume this is addressed by indirect costs

**B. Chronic Disease and Injury Prevention**

- a) Provide timely, statewide, and locally relevant and accurate information to the state and community on chronic disease prevention and injury control
- b) Identify statewide and local chronic disease and injury prevention community assets, develop and implement a prioritized prevention plan, and advocate and seek funding for high priority policy initiatives.
- c) Reduce statewide and community rates of tobacco use through a program that conform to standards set by Washington laws and CDC’s Office on Smoking and Health, including activities to reduce youth initiation, increase cessation, and reduce secondhand smoke exposure.
- d) Work actively with statewide and community partners to increase statewide and community rates of health eating and active living through a prioritized program of best and emerging practices aligned with national and state guidelines for health eating and active living.
- e) Coordinate and integrate other categorically-funded chronic disease and injury prevention programs and services

Overall for LHJs:

- Includes costs for the capability to pursue policy changes (in government and business) and to convene (or at least actively participate in) a coalition of community partners intended to maximize the effect of available chronic disease prevention resources.

Overall for DOH:

- Assume that contract writing, management, oversight for foundational activities are covered by divisional in-directs.

Parts a) and b) for DOH and LHJs:

- “provide” = generate and disseminate

Parts a) and b) for DOH:

- Chronic Disease:
  - Include cost for the following data system: Cancer registry. Exclude BRFSS, HYS, CHARS – it is captured under Assessment.
  - Include epidemiology time for analysis of data from numerous data set (including i.e. BRFSS, HYS, CHARS, etc.)
  - Includes complete streets
  - Use CDC (901) Coordinated Chronic Disease & Health Promotion State Plan Grant Guidance as a model for core

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## FOUNDATIONAL PROGRAMS

## ASSUMPTIONS FOR COST MODEL

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activities – address 4 domains: 1) strategies to support and reinforce healthy behaviors (evidence-based practices and environmental approaches), 2) health system interventions, 3) clinic-community linkages, and 4) surveillance and epidemiology. Includes support for contract writing, management, oversight. This may also encompass MCH. Required every 5 years – will annualize costs.

- Injury Prevention
  - Include Injury & Violence Prevention Plan – many or all of the priorities in the plan (1-4). Include the following capacities: collecting data; design and implement interventions; build a solid infrastructure; provide technical support; affect public policy.
  - Exclude Trauma Plan items - they will be captured under Access to Critical Health Services
  - Include injury activities in the DOH Division of EPH - Drowning Prevention (Nancy Napolilli)
- In part a) include contracts for PCH (Cancer Registry: Fred Hutchison, DOH DIRM) and HSAQ, Motor Vehicle Crash Prevention: safety restraint check-up events database: Integrated Business Services
- In part b) include contracts for PCH (CTG, CHEF & ARC NW for training and technical assistance) and HSQA (Suicide Prevention, Drowning Prevention, Motor Vehicle Crash Prevention, EMSTS-Regions, Senior Falls Prevention, Senior Falls)

Part c) for DOH includes:

- DOH-PCH Contracts: Quit Line, Liquor Control Board, ESDs for school-based prevention.

Part d) for DOH:

- DOH-PCH Contracts: Feet First, PSRC, Comprehensive Health Education Foundation, WSDOT, American Indian Health Commission, Within Reach, UW.

Part e) for DOH:

- Assume addressed by division in-directs
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FOUNDATIONAL PROGRAMS

ASSUMPTIONS FOR COST MODEL

**C. Environmental Public Health**

- a) Provide timely, statewide, and locally relevant and accurate information to the state and community on environmental public health issues and health impacts from common environmental or toxic exposures.
- b) Identify statewide and local community environmental public health assets and partners, and develop and implement a prioritized prevention plan to protect the public’s health by preventing and reducing exposures to health hazards in the environment.
- c) Conduct mandates environmental public health laboratory testing, inspections, and oversight to protect food, water recreation, drinking water, and liquid and solid waste streams in accordance with federal, state, and local laws and regulations.
- d) Identify and address priority notifiable zoonotic (e.g. birds, insects, rodents) conditions, air-borne, and other public health threats related to environmental hazards.
- e) Protect workers and the public from unnecessary radiation exposure in accordance with federal, state, and local laws and regulations
- f) Participate in broad land use planning and sustainable development to encourage decisions that promote positive public health outcomes (e.g. consideration of housing, urban development, recreational facilities, and transport).
- g) Coordinate and integrate other categorically-funded environmental public health programs and services.
- Overall for DOH and LHJs:
- Includes capacity to do basic outbreak response
- Part a) for DOH and LHJs:
- “provide” = generate and disseminate
- Part c) for DOH and LHJs:
- Include costs for water bacteriology and biotoxin testing for Shellfish Program.
  - Include land use planning related to drinking water, well head siting, OSS siting and review development zoning and platting.
- Part e) for DOH:
- Include costs for state public health radiation chemistry lab.
- Part f) for DOH:
- Include built environment work and coordination with other state agencies on this.
- Part f) for LHJs:
- Include land use planning that is broader than a specific public health program area (e.g. drinking water, OSS); planning related to “built environment”, Health Impact Assessment (HIA), siting schools, etc.
- Part g) for DOH:
- Assume addressed by division in-directs

FOUNDATIONAL PROGRAMS

ASSUMPTIONS FOR COST MODEL

**D. Maternal/Child/Family Health**

- a) Provide timely, statewide, and locally relevant and accurate information to the state and community on emerging and on-going maternal child health trends taking into account the important of Adverse Childhood Experiences (ACEs) and health disparities.
- b) Assure mandated newborn screening done by the state public health lab to test every infant born in Washington to detect and prevent the developmental impairments and life-threatening illnesses associated with congenital disorders that are specified by the State Board of Health
- c) Identify, disseminate, and promote emerging and evidence-based information about early interventions in the prenatal and early childhood period that optimize lifelong health and social-emotional development.
- d) Identify local maternal and child health community assets; using life course expertise and an understanding of health disparities, develop a prioritized prevention plan; and advocate and seek funding for high priority policy initiatives.
- e) Coordinate and integrate other categorically funded maternal, child, and family health programs and services.

Overall for DOH and LHJS:

- Includes costs for a base program to support categorical programs such as the capability to pursue policies changes (in government and business) and to convene (or at least actively participate in) a coalition of community partners intended to maximize the effect of available maternal, child, and family health.

Part a) for DOH and LHJs:

- “provide” = generate and disseminate

Part a) for DOH:

- Include PRAMS – IT costs for data base / data management, data collection, epi and other costs involved in data analysis and dissemination

Part b) for DOH:

- Include costs for state public health newborn screening laboratory

Part c) for DOH:

- Use CDC (901) Coordinated Chronic Disease & Health Promotion State Plan Grant Guidance as a model for core activities – address 4 domains: 1) strategies to support and reinforce healthy behaviors (evidence-based practices and environmental approaches), 2) health system interventions, 3) clinic-community linkages, and 4) surveillance and epidemiology. Includes support for contract writing, management, oversight. This may also encompass MCH. Required every 5 years – will annualize costs.

Part d) for DOH:

- Assume addressed by division in-directs

**E. Access/Linkage with Clinical Health Care**

- a) Provide timely, statewide, and locally relevant and accurate information to the state and community on the clinical healthcare system.
- b) Improve patient safety through inspection and licensing of

Part a) for DOH and LHJs:

- “provide” = generate and disseminate

Part a) for DOH:

FOUNDATIONAL PROGRAMS

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healthcare facilities and licensing, monitoring, and discipline of healthcare providers.

- c) In concert with national and statewide groups and local providers of health care, identify healthcare assets, develop prioritized plans for increasing access to health homes and quality health care, and advocate and seek funding for high priority policy initiatives.
- d) Provide state-level health system planning
- e) Coordinate and integrate other categorically-funded clinical health care programs and services.

- Include cost for the following data system: Trauma Registry, ILRS, Washington Emergency medical Services Information System (WEMSIS)
- Include cost for using (staff / epi time) the following data: Trauma Registry, ILRS, WEMSIS, and CHARS.
- Include: PCH / OHC / Practice Improvement - communications HSC3 for PI ( per Anne Shields)

Part b) for DOH:

- 100% Fee supported
- Include all - considering “licensing” (both professions and facilities) as a governmental function overall – and not breaking this down to individual professions or facilities
- Exclude transient accommodations.
- Include: PCH / OHC / Practice Improvement - HSC4 position for PI to help staff OHC on this; most Medicaid and CMS-funded TA positions would report through this HSC4 (per Anne Shields)

Part d) for DOH:

- Include cost for developing current plans: EMS & Trauma Plan with subsections on Cardiac & Stroke; Rural Health Plan; American Indian Health Care Delivery Plan;
- Include cost to address the gap - statewide health / health care planning where DOH plays the role of central coordination among sister state agencies (HCA, DSHS, OIC, OFM, other) related to the Blue Ribbon Commission, Accountable Care Act, etc.

Part e) for DOH:

- Assume addressed by division in-directs

**F. Vital Records**

- a) In compliance with state law and in concert with national, state, and local groups, assure a system of vital records
- b) Provide certified birth and death certificates in compliance with state law and rule.

Part a) for DOH and LHJs:

- “provide” = generate and disseminate

Part a) for DOH:

- Include the following data systems – EDRS, Bedrock, BR3 Birth Registration

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# APPENDIX D

## LOCAL HEALTH JURISDICTION INDIVIDUAL COST ESTIMATES

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## Estimates by Local Health Jurisdiction

The purpose of this appendix is to provide additional detail on the foundational cost estimates by individual local health jurisdictions (LHJs). The initial statewide foundational cost estimate was comprised of individualized estimates for DOH and all 35 LHJs in the State.

Exhibit D - 1 shows the total foundational cost estimate for each LHJ, broken out between the estimate for providing foundational programs and capabilities. LHJs are sorted alphabetically.

**Exhibit D - 1**  
**Estimate of Foundational Costs by Local Health Jurisdiction**

<b>Organization</b>	<b>Foundational Capabilities</b>	<b>Foundational Programs</b>	<b>Total Foundational Services</b>
Adams	270,000	630,000	900,000
Asotin	260,000	620,000	880,000
Benton-Franklin	2,510,000	6,000,000	8,510,000
Chelan-Douglas	850,000	2,015,000	2,865,000
Clallam	650,000	1,540,000	2,190,000
Clark	2,460,000	6,125,000	8,585,000
Columbia	185,000	440,000	625,000
Cowlitz	1,010,000	2,455,000	3,465,000
Garfield	185,000	440,000	625,000
Grant	755,000	1,780,000	2,535,000
Grays Harbor	680,000	1,610,000	2,290,000
Island	690,000	1,655,000	2,345,000
Jefferson	340,000	805,000	1,145,000
Kitsap	2,430,000	5,805,000	8,235,000
Kittitas	415,000	970,000	1,385,000
Klickitat	345,000	825,000	1,170,000
Lewis	685,000	1,630,000	2,315,000
Lincoln	205,000	490,000	695,000
Mason	580,000	1,395,000	1,975,000
NE Tri	585,000	1,370,000	1,955,000
Okanogan	330,000	785,000	1,115,000
Pacific	270,000	650,000	920,000
PHSKC	11,850,000	29,920,000	41,770,000
San Juan	245,000	575,000	820,000
Skagit	1,050,000	2,475,000	3,525,000
Skamania	220,000	520,000	740,000
Snohomish	4,285,000	10,620,000	14,905,000
Spokane	2,435,000	6,040,000	8,475,000
Tacoma-Pierce	3,980,000	9,950,000	13,930,000
Thurston	2,415,000	5,790,000	8,205,000
Wahkiakum	160,000	385,000	545,000
Walla Walla	590,000	1,400,000	1,990,000
Whatcom	1,710,000	4,090,000	5,800,000
Whitman	515,000	1,225,000	1,740,000
Yakima	1,795,000	4,380,000	6,175,000
<b>Total of All LHJs</b>	<b>47,945,000</b>	<b>117,405,000</b>	<b>165,350,000</b>

Source: Participating LHJs, 2013; and BERK, 2013.

Exhibit D - 2 shows how the above foundational cost estimates translate to a per-capita cost for each LHJ, based on county population estimates.

**Exhibit D - 2**  
**Estimate of Foundational Costs by Local Health Jurisdiction per 1,000 Population Served**

Organization	Cost per 1,000 Population Served
<b>LHJ Average</b>	<b>24,400</b>
Tacoma-Pierce	17,400
Spokane	17,900
Clark	20,100
Snohomish	20,800
PHSKC	21,500
Yakima	25,200
Chelan-Douglas	25,700
Okanogan	27,100
Grant	28,100
Whatcom	28,700
Island	29,800
Skagit	30,000
NE Tri	30,500
Lewis	30,500
Clallam	30,600
Grays Harbor	31,400
Thurston	32,300
Mason	32,300
Kitsap	32,400
Benton-Franklin	32,900
Kittitas	33,500
Cowlitz	33,700
Walla Walla	33,800
Jefferson	38,100
Whitman	38,800
Asotin	40,600
Pacific	44,000
Adams	47,500
San Juan	51,600
Klickitat	57,100
Lincoln	65,600
Skamania	66,400
Wahkiakum	136,300
Columbia	152,400
Garfield	277,800

Source: Participating LHJs, 2013; and BERK, 2013.

## Summary of Findings

- The largest organizations, such as Tacoma-Pierce, Spokane, Clark, Snohomish, PHSKC, and Yakima, have lower costs of service per capita in this preliminary estimation work. This is due to economies of scale that allow them to spread their fixed costs over a much larger service area, resulting in lower average costs.
- For very small organizations, the costs per capita are significantly higher than the overall average. This is due to the reality of fixed costs. Small organizations need to be a certain minimum size – at least 5 to 7 FTEs – to provide the foundational services regardless of if they serve a population of 10,000 or 2,500. Given this flattening of the curve on overall costs, the jurisdictions with the smallest populations have high per capita costs.
- Multi-county jurisdictions, such as NE Tri, Chelan-Douglas, and Benton-Franklin, are achieving lower per capita costs than counties with similar populations that have their own individual LHJ. This implies that even across a large geography, there are some economies of scale when combining services.

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# APPENDIX E

## POLICY IMPLICATIONS

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## Introduction

The Subgroup's efforts are focused on two key goals: (1) ensuring that everyone in Washington State has access to a foundational level of public health services and (2) identifying and a sustainable funding program to provide the defined services.

While some other states and the IOM have previously defined a core set of public health services, the Subgroup's efforts in Washington State are groundbreaking in their purposefulness. This is the first time that foundational services have been defined in a way that is specific enough to use for cost estimating, and the first time that any organization will be estimating those costs. The Subgroup's work will provide a basis for thinking about how to best use state and local funding to support public health and ensure all residents receive adequate public health service.

The Preliminary Cost Estimation Model Report serves as a summary document of the work to-date on defining the foundational services and developing a cost model and initial cost assumptions. The ultimate goal of recommending a sustainable funding program for these services will be accomplished through successful completion of the Subgroup's 2013-15 work plan, described in detail in the Next Steps chapter of the Report

This appendix presents the key policy questions of the Subgroup's efforts, to provide additional context for the initial statewide foundational cost estimate outlined in the Report and to identify the important policy questions as the Subgroup moves into its next phase of work.

## Policy Questions: Cost of Foundational Services

The initial cost estimate presented in the Report reflects the current public health service provision structure in Washington State, which includes a state Department of Health and 35 local health jurisdictions, and the current definitions of foundational public health services.

This section identifies some of the key policy questions that surrounded the cost estimate work, and that will be important to keep in mind going forward. The preliminary estimation methodology identifies real and achievable economies of scale for larger organizations that result in lower per-capita costs of providing service.

A key policy question on the cost side as the Subgroup works to refine the cost estimate going forward is determining if there are opportunities for economies of scale elsewhere in the State, and identifying the key trade-offs of those opportunities such as local control and local response availability. In future policy discussions, the Subgroup will consider policy questions such as:

- How can existing cooperative agreements be leveraged to improve their economies of scale? Are there additional opportunities to combine services?
- What activities and services are best provided locally to ensure adequate service levels?

## Policy Questions: How to Fund Foundational Services

The Report lays the foundation for the Subgroup to continue its work to identify a sustainable funding source to provide foundational public health services statewide. The purview of the Subgroup going forward will be to refine the cost estimate, determine the annual other (e.g., non-fee and non-categorical) funding need to support the foundational public health services and work to identify and a sustainable funding program that meets that need.

## PRELIMINARY FUNDING ASSESSMENT

The statewide foundational cost estimate provides a base for the Subgroup to accomplish its primary goal of identifying the level of state and local funding needed to support foundational public health services. In order to begin the discussion around this non-fee and non-categorical funding need, the Subgroup asked the organizations participating in the cost study to provide some general revenue information, breaking their cost estimates into three broad funding categories:

- Fee Support
- Categorical Support
- Remaining Funding Need

This was a preliminary way to begin planning for the next phase by investigating the current funding structures of LHJs and DOH, and identifying important policy questions that will support the upcoming revenue work. While this preliminary assessment was not conducted at the level of detail needed to estimate an adequate level of funding, there were some important high-level findings that came out of this work:

- There is a lot of variety among the LHJs with regards to how they pay for the foundational services. While the cost estimates aligned well on a per-capita basis, the revenue sources that accompany those costs are very different for each organization. The Subgroup will consider this challenge when deciding on scaling methodologies and assumptions in the future revenue work.
- Large LHJs, and PHSKC in particular, are funded very differently from smaller LHJs. PHSKC's sample revenue data showed that they are able to leverage significantly more fee and categorical support than smaller LHJs to support the foundational services.
- DOH funds its foundational services through more fee and categorical revenues than LHJs do, on average.

## FUNDING POLICY QUESTIONS

Identifying the other funding need is not as simple as using current funding proportions and applying those to the foundational costs. There are complex policy questions around how foundational public health services *should* be funded if the Subgroup wants to identify a sustainable revenue source.

The following set of policy issues provides an initial framework for determining the appropriate level of non-fee and non-categorical state and local funding support. The ongoing work of the Subgroup will delve deeper into these topics.

**Role of Categorical Support.** Given the goal of developing a sustainable funding source, the role of categorical funding in supporting the foundational services is an important topic. There are some trade-offs to relying on categorical funding to support foundational services. For example, categorical funding must be spent on specific activities and services as defined by the state and federal government; therefore, jurisdictions are not able to move spending between different services depending on the specific needs of their population. Additionally, categorical funding often comes with caps on the overhead and indirect costs that can be supported with the money. These caps don't always cover the full cost of doing business, especially for smaller jurisdictions with higher overhead percentages due to fixed costs.

Given these trade-offs and the fact that categorical funding can fluctuate from year to year depending on the financial health and priorities of the funding agency, the Subgroup will consider the appropriate role of categorical funding going forward

**Role of Fee Support.** Currently, fee support varies significantly across local health jurisdictions based on the size of their service areas. LHJs serving larger populations are more able to cover their costs through fees and licenses. In developing an appropriate estimate of funding need, the Subgroup will consider the role of fees, which may include setting fee recovery goals for some of the foundational public health services where high fee support makes sense, such as vital records and environmental public health.

**State and Local Responsibility.** Other funding includes both state and local sources of revenue. One important policy decision is to decide on an appropriate split between state and local responsibility for funding the foundational services. And, if state funding is increased, what safeguards may need to be in place to avoid supplanting existing local revenue streams.

**Funding Source Structure.** Existing public health funding sources were not created around the concept of providing foundational services, and there are many challenges to understanding how existing funding streams can support the foundational services, and how potential new revenue sources could best be designed.

- **Uses of existing funds.** Currently, a lot of non-fee and non-categorical funding from state and local sources supports non-foundational, yet critical elements of public health, including leveraging categorical funding and partnerships to maximize total public health spending and supporting local priorities and community-specific needs.

Using other funding in these ways is an effective way to provide greater service overall to residents of Washington State, and reallocating funding would have real impacts to communities and to the State.

- **Distribution of existing funds.** The total amount of non-fee and non-categorical funding available is a mix of state and local revenues, and local dollars cannot simply be redistributed around the state. PHSKC, for example, generates the majority of other local funding statewide. However, PHSKC has elected to generate that revenue to pay for additional services to its residents beyond the foundational level. These funds are not available to support the FPHS in other jurisdictions.

- **Sustainability.** Not all fee and categorical support is sustainable. While categorical funds currently support many foundational programs, they also indirectly support foundational capabilities such as business competencies through overhead and indirect charges. However, if the program receiving the grant were to go away, the need to provide business competencies would likely not decrease proportionally.

Additionally, the cost of providing the foundational public health services is not a static number – the cost will grow and change over time as inflation, changing health care structures, and population increases impact the cost and level of service. The Subgroup will work to identify a funding source that will grow and change with the costs of providing these services.

**Opportunities for Incentivizing Efficiency.** The Subgroup will collaborate with regional partners and local governments in developing its funding proposal to identify opportunities for new funding sources and new funding structures that may create incentives for efficiency in service provision.

## Policy Questions: Accountability

In developing a proposed funding structure, the Subgroup will also consider how to enforce accountability in how the funding is being used and whether or not funding is being used effectively. Important questions to address will include:

- How can funding be tracked to ensure its being spent on the foundational public health services?
- What performance and outcome measures should be used to track the effectiveness of services funded by these revenues?



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# APPENDIX F

## PUBLIC HEALTH IN WASHINGTON STATE

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## Introduction

Washington’s public health system depends on funding from local, state, and federal sources. Since the 1970s, cities and counties have been responsible for determining spending levels for public health. Per capita local public health spending varies widely across jurisdictions. The system has lacked the stability of a dedicated funding source since 2000, and legislative appropriations since 2000 have not adjusted for inflation and population growth.

Historically, a combination of local, state, and federal resources has financed local public health services. These include:

- Local funds—county general funds, licenses, permits, and fees for services,
- State funds—contracts for specific programs, general funds to meet local needs, and reimbursement for performing specific services (i.e., Medicaid reimbursement),
- Federal funds—contracts for specific programs and reimbursement for performing specific services (most of this funding is passed through the Washington State Department of Health), and
- Other funding—such as federal or private grants.

Understanding the current funding situation and historical trends will inform the Subgroup’s work around identifying an appropriate and sustainable funding source moving forward.

## Local Funding Trends

In the mid-1900s, when tuberculosis (TB) was more common, a portion of local property taxes was set aside for tuberculosis control and general public health. As TB declined, more of the funds were available for general public health. In 1976, the Washington Legislature repealed the requirement that those funds be spent on public health, leaving the cities and counties to determine spending levels for public health. Local government continued to collect the tax but could use it for another purpose.

While counties held the major responsibility for public health, the law made reference to cities as well, without stipulating the amount of cities’ financial participation. In practice, not all cities provided funding for public health. Over time, local governments made very different choices, and per capita public health spending came to vary widely from one jurisdiction to another.

Most local funding is derived from county contributions from taxes, fees, or other local sources. With no criteria set for local government contribution, the variation is pronounced. Data for 2007 reveal that local government funding to most public health agencies ranged from just over \$1 to nearly \$36 per capita, per year.

In 1993 the legislature passed the Health Services Act, which shifted 2.95% of motor vehicle excise tax (MVET) revenues from cities to counties for use by local public health departments and districts. This change effectively removed the statutory responsibility for cities to fund public health. It also clarified that counties were responsible and made clear that no city could establish its own health department. This portion of the law was to take effect in 1996. (Some cities continue to contribute to public health, but funding is generally tied to specific services and residence requirements.)

The amount of MVET revenue to be raised by the 2.95% fell roughly \$7 million short of what cities had collectively contributed. The legislature provided a special appropriation to make up most of the difference in the years that followed. The idea was that MVET revenues were growing, so the gap would be filled in time and public health would once again have a dedicated source of revenue that kept pace with population growth and inflation.

The distribution of the MVET funds was somewhat problematic. Since MVET funding had been tied to city contributions, the money for each county was linked to the level of past city contributions. This perpetuated the historical variation among jurisdictions.

Following voter approval of the tax-limiting Initiative 695, the legislature in 2000 voted to repeal the MVET. The stability of a dedicated funding source was gone. During the same session, the legislature appropriated an amount from state general fund that restored 90% of the lost public health funds. During the 2001 session, the legislature again made up 90% of the difference and has made an equal appropriation—without adjustments for inflation or population growth—in each biennium since.

**Categorical Funding.** Local public health agencies receive both federal and state funds, generally through contracts with the Washington State Department of Health and the Department of Social and Health Services. Most often, these are “categorical funds” because they are restricted to specific programs, including the Women, Infants, and Children (WIC) nutritional program; family planning; HIV services; tobacco use prevention; obesity prevention and physical activity and nutrition promotion; drinking water quality; and solid and hazardous waste programs.

Local public health agencies can be over-reliant on categorical funds, particularly when local resources decline. Recognizing this problem, the 1993 Health Services Act directed the use of state general funds to establish the Local Capacity Development Fund (LCDF). This fund supports locally determined needs and priorities. Washington’s 1993-1995 biennial budget appropriated \$10 million in what was characterized as a “down payment” toward an estimated need for \$115 million a year for local public health. In 1995, the LCDF was increased to \$16 million for the next biennium. No further legislative increases were made toward this fund, and during an economic downturn in 1999-2001, the fund was reduced by \$700,000.

State and federal funding often comes with special conditions such as distribution formulas, target populations, or other mandates. The Department of Health and each local public health agency develop a consolidated contract every five years that is amended as needed. The contract for each local agency includes the program requirements and deliverables.

## Unmet Funding Needs

Since the mid-1990s, the Public Health Improvement Partnership has supported a series of studies that have identified the gap between what was currently funded and what was actually needed to fully fund public health services. One study revealed that in the decade of 1994 to 2004, local public health funding dropped 27%—from \$82.7 million to \$60.4 million for 34 local public health jurisdictions (excluding Seattle-King County).

Inflation is a significant factor in this decline. For example, the LCDF amounts and the MVET replacement amounts stayed the same. Each year, the loss to inflation seems small, but between 2003 and 2008, the state population increased by 8% and the consumer price index increased by 17%.

The 2006 Washington Legislature created the Joint Select Committee on Public Health Funding, a bipartisan study committee of the House and Senate, to address the persistent public health funding shortfall. In response to the committee’s request for information, local and state public health officials developed and presented a report titled *Creating a Stronger Public Health System: Setting Priorities for Action* (labeled Statewide Priorities on the committee’s web site). The report ordered a list of priorities “for the next investment in public health” as follows:

- Stopping communicable diseases before they spread,
- Reducing the impact of chronic disease,
- Investing in healthy families,
- Protecting the safety of drinking water and air,

- Using health information to guide decisions, and
- Helping people get the health care services they need.

The committee unanimously concluded that “the lack of a stable source of funding provided specifically for public health services has eroded the ability of local health jurisdictions to maintain a reliable statewide system that protects the public’s health.”

It recommended that the state “provide additional funding in the amount of approximately \$50 million annually during the 2007-2009 biennium, as an initial investment” and that a “dedicated account for public health revenues” be established. Finally, it recommended that these actions be considered “the first step in what must be continuing state and local efforts to fund the public health system at a level that provides the capacity to effectively deliver the five core functions.”

The 2007 Washington Legislature appropriated an additional \$10 million annually for local public health during the 2007-2009 biennium (E2SSB 5930). The so-called “5930 funds” go to local agencies to address the priority areas of stopping communicable diseases before they spread and reducing the impact of chronic disease. Public health officials have developed statewide performance measures for each. The measures are improved uptake of childhood immunizations, more timely communicable disease investigation, and efforts to stop the obesity epidemic. Local public health agencies are using these funds for additional activities in their communities that are deemed to have the greatest potential to affect these performance measures. Currently, there is no mechanism in this funding stream to account for inflation, population growth, or new and additional public health responsibilities.