

USER GUIDE

Public Health Workforce Calculator



Before you Begin

The Calculator is intended for use by local health departments (LHDs) who:

- Serve a population of less than 500,000
- Operate in a decentralized public health system

While local health departments not fitting the above criteria are welcome to use the Calculator, the resulting estimates may not be reliable.

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Welcome

This **User Guide** is designed to supplement the **Public Health Workforce Calculator**. It provides step-by-step instructions, definitions, and tips to ensure you receive the most reliable results possible from the Calculator based on your inputs.

Related Resources

This User Guide should be use alongside the following links/resources.

[Calculator](#)

[Advanced User Template](#)

[FAQ](#)

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About the Public Health Workforce Calculator

The [Public Health Workforce Calculator](#) provides users with an estimate of the minimum number of full-time equivalents (FTEs) needed by a jurisdiction to provide the [Foundational Public Health Services](#) (FPHS), by Foundational Capability (FC) and Foundational Area (FA). The Calculator was designed to help local health departments plan for staffing needed to deliver the FPHS.

Who Should Use the Calculator

The Calculator is intended for **use by local health departments (LHDs) who serve populations of less than 500,000 and operate in a decentralized public health system -- independent from the state health department's central office.**

While health departments not fitting the above criteria are welcome to use the Calculator, the resulting estimates may not be reliable.

Please see the FAQs to learn more about the how the Calculator was developed and for answers to frequently asked questions about the Calculator.

TIP: We recommend all users familiarize themselves with the Foundational Public Health Services before entering information into the Calculator. [Review them here.](#)

Step-by-Step Guide

Step 1: Choose your User Option

Basic Users Click Below		Advanced Users Click Below	
Click Here for the Basic Calculator (Streamlined)	Click Here for the Basic Calculator (Expanded)	Click Here for the Advanced Calculator (Streamlined)	Click Here for the Advanced Calculator (Expanded)

The Calculator has two user options:

1. **Basic User:** a local health department that **has not** participated in Foundational Public Health Services (FPHS)-related Capacity and Cost Assessment
 - a. Basic users will use their best judgment to estimate staffing needs, relative to similar health departments, to meet Foundational Capabilities and Foundational Areas
2. **Advanced User:** a local health department that **has** participated in Foundational Public Health Services (FPHS)-related Capacity and Cost Assessment and has data on the number of FTEs that contribute to each Foundational Capability and Foundational Area, or that can reasonably estimate these
 - a. Advanced users will use data from their Capacity and Cost assessment work

TIP: Unsure what FPHS Capacity and Cost Assessment is? [Learn more here.](#)

Step-by-Step Guide

Step 2: Choose Streamlined or Expanded Version

Basic Users Click Below		Advanced Users Click Below	
Click Here for the Basic Calculator (Streamlined)	Click Here for the Basic Calculator (Expanded)	Click Here for the Advanced Calculator (Streamlined)	Click Here for the Advanced Calculator (Expanded)

The Calculator includes a Streamlined version and an Expanded version:

- The **Streamlined version** aggregates six of the Foundational Capabilities (Equity, Organizational Competencies, Policy Development and Support, Accountability and Performance Management, and Communications) into an ‘All Other’ category. This aggregation increases the reliability of the estimate produced by the Calculator.
- The **Expanded version** allows users to provide separate inputs for each of the same six Foundational Capabilities (Equity, Organizational Competencies, Policy Development and Support, Accountability and Performance Management, and Communications). The estimates produced can be considered experimental and are not as reliable as when the six Foundational Capabilities are aggregated into the ‘All Other’ category in the Streamlined version.

TIP: View a definition for each Foundational Capability and Foundational Area [here](#).

Why are there two versions, Streamlined and Expanded?

While many of the staffing categories of the Foundational Capabilities (FCs) and the Foundational Areas (FAs), overall, constitute a large percentage of a department’s total staffing, due to data limitations, certain Foundational Capabilities have been found to be highly variable, and can produce unstable results. To improve reliability, these Foundational Capabilities were grouped into ‘All Other’ (Streamlined Version). Users who wish to expand these Capabilities (Expanded Version) for estimation purposes may do so with the following caveat:

- Expanding the ‘All Other’ category introduces more uncertainty into those estimates, as these Foundational Capabilities were found to be highly variable across agencies, but a single distribution (or set of percentages) is used in this experimental feature, for illustrative purposes only. This means that some agencies might be expected to reasonably have higher percentages of staff toward, equity, for example, and some lower, than what the output is showing, to accomplish equity oriented Foundational Capabilities for populations of a certain size.

TIP: Selecting your User Option and Version

Who should use the Basic Calculator (Streamlined)?

A user that has not completed Capacity and Cost Assessment work in their health department; or does not know the number of staff working in each of the FPHS categories. This option requires fewer inputs than the Advanced Calculator while still generating the most statistically reliable output from the Calculator.

Who should use the Basic Calculator (Expanded)?

A user that has not completed Capacity and Cost Assessment work in their health department; or does not know the number of staff working in each of the FPHS categories. This option allows for a more detailed result by individual Foundational Capacity and Area, but includes variables for some Foundational Capabilities (currently in beta, please use with caution).

Who should use the Advanced Calculator (Streamlined)?

A user that has undertaken Capacity and Cost Assessment work and/or knows the number of staff working in each of the FPHS categories; wants more control over the Calculator inputs; and wants the most statistically reliable result.

Who should use the Advanced Calculator (Expanded)?

A user that has undertaken Capacity and Cost Assessment work and/or knows the number of staff working in each of the FPHS categories; wants more control over the Calculator inputs; and wants a more detailed result by individual Foundational Capacity and Area, but includes variables for some Foundational Capabilities (currently in beta, please use with caution).

Step-by-Step Guide

Step 3: Enter Information into the Calculator

You are almost ready to enter your local health departments information into the Calculator. Below are a few navigation tips to help you move around the Calculator


TIP: Move around the Calculator with these navigation buttons.



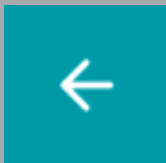
To return to the starting page of the Calculator at any time, click the home icon on the upper left side of the Calculator. Note: input data will be preserved during your session unless you change them



To learn more about what to enter for a specific field, click the question mark and read the pop-up information

 **Download Image**

To download, or save, a page of the Calculator, including your inputs and the Calculator's results, click the Download Image button at the bottom of the Calculator



To return to the inputs page, click the back arrow. Note: input data will be preserved during your session unless you change them

Step-by-Step Guide

Step 3: Enter Information into the Calculator

You are now ready to input your local health department's information into the Calculator.

Characteristics of Your Local Health Department (LHD)	
In what state is your local health department (LHD) located?	<input type="text" value="[Select State]"/>
What is the name of your LHD?	<input type="text" value="[Please type the name of your LHD, which will appear on your output.]"/> ?
How many residents does your jurisdiction serve?	<input type="text" value="50,000"/> ?

No matter the user type (Basic or Advanced) or version (Streamlined or Expanded) you select, **you will need to input characteristics of your local health department including your state, health department name, and number of residents served.** State must be selected from a drop down menu; full local health department name must be entered; and number of residents must be entered as a numeric value.

Step-by-Step Guide

Step 3: Enter Information into the Calculator

The information you enter **after** your health department characteristics, in the Foundational Public Health Services (FPHS) Inputs section, **is dependent on the user type and version you select.**

Foundational Public Health Services (FPHS) Inputs

In this section, if the FPHS are provided by an entity outside of the local health department (e.g., if environmental health services are provided by a different agency), the FTE reported in the Calculator should reflect the total FTE working toward each of the FPHS, regardless of where the FTE is employed. The Calculator will report back an estimate of how many FTEs are plausibly needed in a jurisdiction of the same size to fully deliver the FPHS.

Who are my peers?

To determine peer health departments we recommend web resources like the County Health Rankings and Roadmaps [Peer Counties page](#).

What does need relative to peers mean?

This parameter lets users indicate where they are relative to their peers in terms of need. By default it should be left to Average. The concept is - if you have higher needs in aspects of, e.g., Environmental Health relative to your peers, the Calculator will boost the FTE need in its output. Importantly, this should be an objective measure, not a subjective one. Higher levels of STI outbreaks, foodborne illness, or other FPHS services would be important. Do not include Community-specific Services, even if they are in an area like Communicable Disease Control. Sometimes it can be challenging to distinguish between components of a Foundational Area that are FPHS versus Community-specific services.

Step-by-Step Guide

Step 3: BASIC USERS Enter Information into the Calculator

Basic Users should use their best judgment to estimate their ‘Need Relative to Peers’ for each Foundational Capability and Foundational Area. Users will indicate whether their need is much less, less, average, more, or much more, relative to their peers. By default, it is set to average.

Foundational Capabilities	Need Relative to Peers
Assessment & Surveillance	Average
Emergency Prep. & Response	Average
All Other*	Average

* Includes the following Capabilities: Equity, Organizational Competencies, Policy Development & Support, Accountability & Performance Management, and Communications. The Expanded version of the calculator provides experimental estimates for each of those six Capabilities.

Foundational Areas	Need Relative to Peers
Chronic Disease & Injury Prev.	Average
Communicable Disease Control	Average
Environmental Public Health	Average
Maternal, Child, & Family Health	Average
Clinical Care Access/Linkage	Average

TIP: Download image to save a copy of your inputs.

Step-by-Step Guide

Step 3: ADVANCED USERS Enter Information into the Calculator

Advanced Users should use the [Calculator Template](#) to collect the data they need before inputting it into the Calculator. Open the Calculator Template and select the Streamlined or Advanced tab, based on the version you are using for your local health department.

Use this tab to collect Advanced Calculator (Streamlined) inputs					
Characteristics of Your Local Health Department					
In what state is your local health department?			[Select State]		
What is the name of your local health department?			Excellent County Health Department		
How many residents does your jurisdiction serve?			27,000		
Foundational Public Health Services (FPHS) Inputs					
Foundational Categories		Current Total Staffing (#)*	Foundational Staffing (#)	% Provided by My LHD	Need Relative to Peers
Foundational Capabilities	Assessment & Surveillance	0.0	0	100%	Average
	Emergency Preparedness & Response				
	All Other (includes Equity, Organizational Competencies, Policy Development & Support, Accountability & Performance Management, and Communications)				
	SUBTOTAL ALL FOUNDATIONAL CAPABILITIES	0.0	0		
Foundational Areas	Chronic Disease & Injury Prevention	0.0	0	100%	Average
	Communicable Disease Control				
	Environmental Public Health				
	Maternal, Child & Family Health				
	Clinical Care Access/Linkage				
	SUBTOTAL ALL FOUNDATIONAL AREAS	0.0	0		
TOTAL		0.0	0.0		

Step-by-Step Guide

Step 3: **ADVANCED USERS Enter Information into the Calculator**

Use the following guidance to determine your inputs:

Your Current FPHS FTES

- Current Total Staffing (#): refers to the total number of current FTEs working in the local health department, regardless of whether they are providing FPHS
 - This input should be entered in increments of 0.1 FTEs
 - By default, this is set to 0.0
- Foundational Staffing (#): the FTE you report in this Calculator should reflect the total FTE working toward each of the FPHS, regardless of where the FTE is employed
 - In some communities, the FPHS are provided solely by one governmental public health department; in others, the FPHS are provided through a system including multiple local health departments or the state health department
 - This should be the FTE that work on **foundational** work in this category
 - This input should be a whole number of FTEs
 - By default, this is set to 0

Factors Affecting FPHS Needs

- % Provided by My LHD: estimate the percentage of this work that is directly provided by FTEs employed by the local health department (as opposed to services provided by employees of other agencies --i.e., state health department)
 - By default, this is set to 100%
- Need Relative to Peers: consider the local health departments needs in the Foundational Capability or Foundational Area relative to that of similar local health departments and indicate whether your need is likely to be much less, less, average, more, or much more, relative to theirs
 - By default, this is set to average
 - Example: need might be lower for community health assessment related efforts if a health system in your community leads that work and the local health department is part of the coalition

Step-by-Step Guide

Step 3: **ADVANCED USERS** Enter Information into the Calculator

Enter the information collected in the Calculator Template into the Calculator.

	Your Current FPHS FTEs		Factors Affecting FPHS Needs	
	Current Total Staffing (#)	Foundational Staffing (#)	% Provided by My LHD	Need Relative to Peers
Foundational Capabilities	?	?	?	?
Assessment & Surveillance	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="100"/>	Average ▾
Emergency Prep. & Response	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="100"/>	Average ▾
All Other*	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="100"/>	Average ▾
<p>* Includes the following Capabilities: Equity, Organizational Competencies, Policy Development & Support, Accountability & Performance Management, and Communications. The Expanded version of the calculator provides experimental estimates for each of those six Capabilities.</p>				
Foundational Areas				
Chronic Disease & Injury Prev.	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="100"/>	Average ▾
Communicable Disease Control	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="100"/>	Average ▾
Environmental Public Health	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="100"/>	Average ▾
Maternal, Child, & Family Health	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="100"/>	Average ▾
Clinical Care Access/Linkage	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="100"/>	Average ▾
Your FPHS FTE Input Totals	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>		

TIP: Download image to save a copy of your inputs.

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Step 4: Submit

You are almost ready to view your FTE staffing estimate.

Give your scenario a name and click the arrow button to see your results. These inputs will be preserved throughout this session, unless you opt to change them. To save a copy of these inputs for your records, or just to view alongside your results, click the "Download" icon in the gray Tableau toolbar below.

Provide short scenario description. Maximum characters = 90



Give your planning scenario a name/description and click the arrow button to see your results.

Step 5: Interpret Results

The results produced by the Calculator represent estimates of the minimum number of FTEs needed to fully implement the FPHS by a local health department of comparable size and need. When interpreting the results, users should keep in mind that the estimates produced by the calculator rely on data from 170 LHDs in four states, user inputs, and a number of modeling assumptions. **These estimates should be used for planning purposes only and should not be viewed as exact.** Users should consider whether the calculator results seem practical or relevant to their community.

Data used in the development of the Calculator was from 2018 and does not reflect staffing changes that LHDs may have made because of the COVID-19 pandemic, nor is the Calculator meant to attend to planning for surge capacity.

Step-by-Step Guide

Step 5: Interpret Results

[Start typing to find the name of your local health department (LHD)] **[[Select State]]**
Estimated FTEs Required to Provide Foundational Public Health Services
Scenario: Provide short scenario description. Maximum characters = 90

Your department has 0.0 FTEs in total, of which 0.0 FTEs are providing Foundational Public Health Services (FPHS). While expanded services and community needs are part of what your FTEs are providing, given the inputs you provided, the calculator estimates that a local health department (LHD) serving a population of 50,000 requires a total **31.3** FTEs providing FPFS, to meet the needs that you identified. The bar graphs below show detailed estimates of the full staffing required for such a LHD to provide FPFS to its population. Gray lines in the graphs indicate your LHD's current levels of FTEs providing FPFS.

1

Detailed Estimates of Full FPFS Staffing Required

2 Foundational Capabilities require **14.6** FTEs.

Assessment & Surveillance	<div style="background-color: #90a4ae; width: 25%;"></div>	2.5 FTE expected (Add 2.5 FTE)	
Emergency Prep. & Response	<div style="background-color: #90a4ae; width: 15%;"></div>	1.8 FTE expected (Add 1.8 FTE)	
All Other*	<div style="background-color: #90a4ae; width: 70%;"></div>	10.3 FTE expected (Add 10.3 FTE)	

* Includes the following Capabilities: Equity, Organizational Competencies, Policy Development & Support, Accountability & Performance Management, and Communications. The Expanded version of the calculator provides experimental estimates for each of those six Capabilities.

2 Foundational Areas require **16.6** FTEs.

Chronic Disease & Injury Prev.	<div style="background-color: #90a4ae; width: 40%;"></div>	4.5 FTE expected (Add 4.5 FTE)	
Communicable Disease Control	<div style="background-color: #90a4ae; width: 20%;"></div>	2.1 FTE expected (Add 2.1 FTE)	
Environmental Public Health	<div style="background-color: #90a4ae; width: 65%;"></div>	6.5 FTE expected (Add 6.5 FTE)	
Maternal, Child, & Family Health	<div style="background-color: #90a4ae; width: 30%;"></div>	2.5 FTE expected (Add 2.5 FTE)	
Clinical Care Access/Linkage	<div style="background-color: #90a4ae; width: 10%;"></div>	1.0 FTE expected (Add 1.0 FTE)	

Users are provided with several points of information:

1. The total number of FTEs needed to fully implement the FPFS
2. The number of additional FTEs needed to provide the Foundational Capabilities and Foundational Areas, by category
3. The ratio of FTEs providing FPFS against FTEs contributing to other LHD work
4. The Calculator provides an output that is for jurisdictions of a certain size, rather than a particular jurisdiction. This means **the Calculator will not provide exact recommendations about your local health department, but those of a similar size, with similar need, as characterized by the inputs**

Step-by-Step Guide

Step 6: Save your Results

To save your results, click the download image button, then select download. Your results will be saved as a PNG file.

TIP: Use the results to support your local health departments workforce planning.