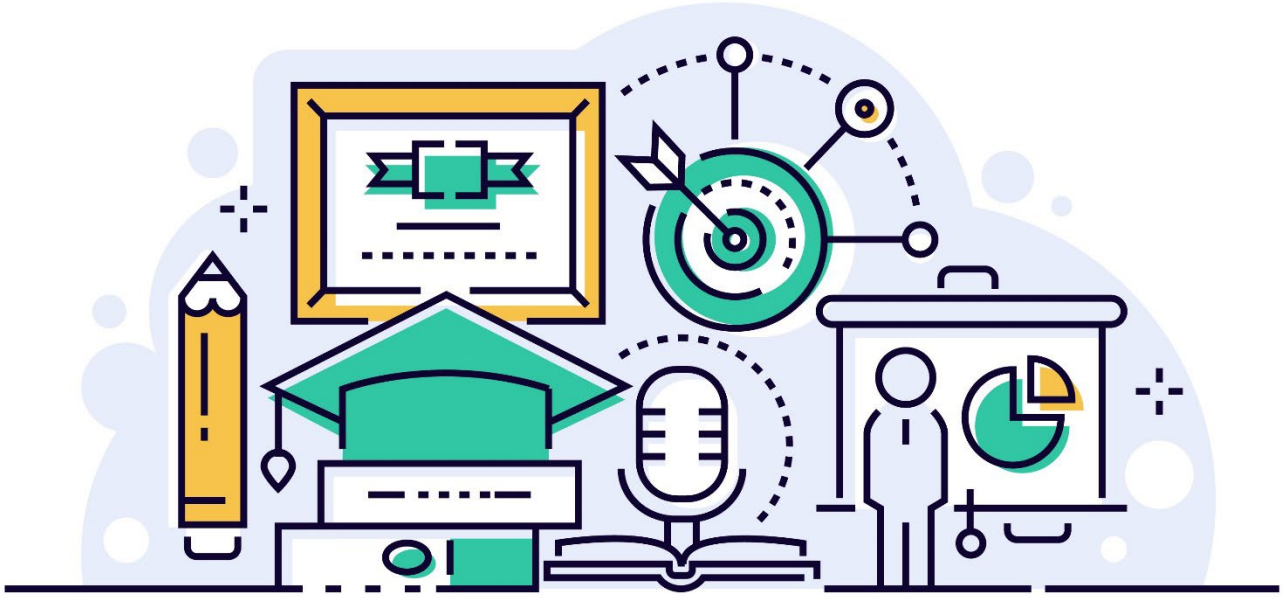
PUBLIC HEALTH SERVICES TRAINING STANDARDS



AND EVAULATION FRAMEWORK

June 2024

Guidelines & Recommendations for Staff

This document provides guidelines for staffs in Public Health Services to help stay current on training standards and evaluation. Any training developed and/or delivered by PHS staff and/or contractors should be done in accordance with this framework and these standards.

INQUIRIES

Public Health Services Training Standards and Evaluation Framework

Inquiries regarding the *Public Health Services Training Standards and Evaluation Framework* may be directed to the:

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This document was developed by the Public Health Services department, of the County of San Diego Health and Human Services Agency, under the County General Management System and in support of *Live Well San Diego.* LiveWellSD.org. Published June 2024.

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Public Health Services Training Standards and Evaluation Framework

GUIDELINES & RECOMMENDATONS FOR STAFF

INTRODUCTION

This document offers guidance for staff in Public Health Services (PHS) when developing training standards and evaluation. Included is an overview of workforce development and training, Core Competencies of Public Health Professionals, and PHS training standards and evaluation framework models. This framework will familiarize staff on current training standards and evaluation. The framework also provides resources to use when developing training materials.

What is Workforce Development in Public Health?

The Centers for Disease Control and Prevention (CDC) describes public health workforce development as efforts that are intended to build, train, and sustain a strong public health workforce. Public health workforce development activities and efforts prepare staff with the tools and resources needed to meet emerging and future challenges. [1]

What is Training Effectiveness?

According to CDC, the goal of training is to "help a learner improve their competence, capacity, and performance. Training helps learners gain new knowledge and skill. The most effective training also helps learners apply this information to their workplace, a process known as transfer of learning or simply learning transfer. Training effectiveness refers to how well your training supports learning and learning transfer."[2]

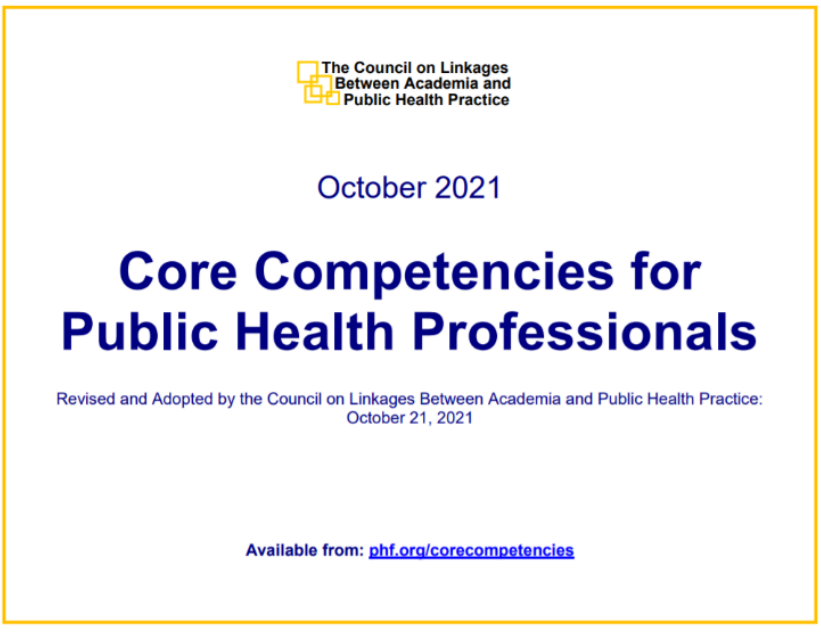
What are the Core Competencies of Public Health Professionals?

The Core Competencies for Public Health Professionals (Core Competencies), as demonstrated in *Figure 1,* are a consensus set of knowledge and skills for the broad practice of public health, as defined by the 10 Essential Public Health Services. Developed by the Council on Linkages Between Academia and Public Health Practice (Council on Linkages), the Core Competencies reflect foundational or crosscutting knowledge and skills for professionals engaging in the practice, education, and research of public health. These competencies are organized into eight domains, representing skill areas within public health, and three tiers, which describe different types of responsibilities within public health organizations. [3]

Domains

- **Domain 1:** Data Analytics and Assessment Skills
- **Domain 2:** Policy Development and Program Planning Skills
- **Domain 3:** Communication Skills
- **Domain 4:** Health Equity Skills
- **Domain 5:** Community Partner Skills
- **Domain 6:** Public Health Sciences Skills
- **Domain 7:** Management and Finance Skills
- **Domain 8:** Leadership and Systems Thinking Skills

Figure 1. Core Competencies for Public Health Professionals.



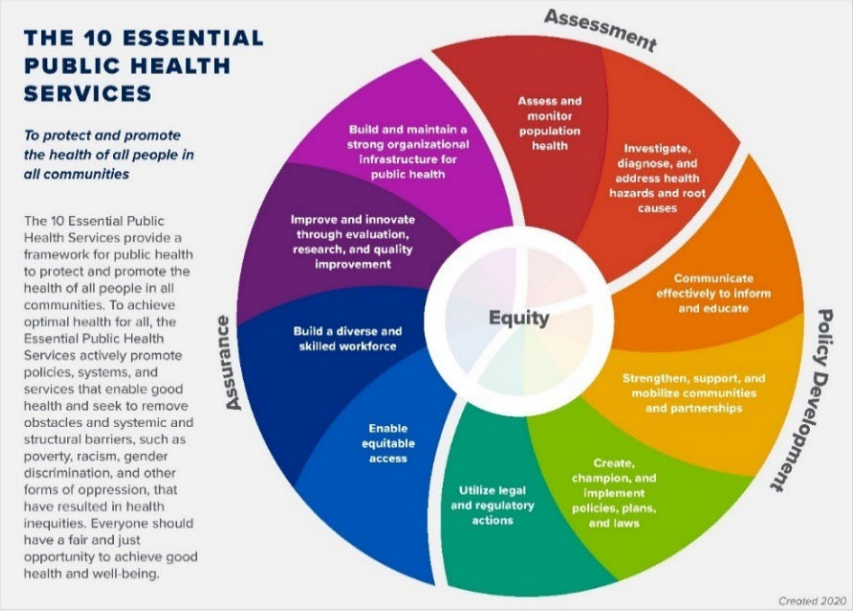
Source: 2021 Core Competencies for Public Health Professionals (phf.org).

PHS periodically surveys all staff on the Core Competencies of Public Health Professionals. PHS employees were assessed on their knowledge of the Core Competencies in 2016, 2022 and again in 2024. To increase PHS staff's knowledge of each of the domains listed in the Core Competencies, all trainings offered should support the Core Competencies, when appropriate. The domain skills of the PHS workforce will be evaluated every two years to assess if training needs have been met.

What are the 10 Essential Services of Public Health?

The CDC created the 10 Essential Public Health Services to outline all public health activities that communities should undertake. For the past 25 years, the 10 Essential Public Health Services framework has become an established framework for carrying out the mission of public health among health departments across the United States. In 2020, the framework was updated and revised to reflect current and future public health practices. A notable revision to the framework is "equity" portrayed in the center of the framework. To achieve equity, the 10 Essential Public Health Services actively promote policies, systems, and overall community conditions that enable optimal health for all and seek to remove systemic and structural barriers that have resulted in health inequities. Such barriers include poverty, racism, gender discrimination, ableism, and other forms of bias. Everyone should have a fair and just opportunity to achieve optimal health and well-being.[4]

Figure 2. The 10 Essential Public Health Services.



Source: Centers for Disease Control and Prevention

Link to Public Health Accreditation

Public health accreditation uses a standardized process to evaluate and compare health departments across the nation to ensure achievement standards are met and identify areas for improvement. This evaluation process for accreditation aligns with the 10 Essential Public Health Services but uses its own structural framework and refers to the service areas as "domains." There are 12 Accreditation Domains or groups of services (PHAB, Version 1.5), with the 10 Essential Services providing the foundation for 10 of the 12 domains (*Table 1*). Of note, PHAB Standard and Measures, Version 2022 has only 10 domains that completely align with the 10 Essential Public Health Services.

Table 1. 10 Essential Public Health Services and 10 Accreditation Domains.

Core Function	10 Essential Public Health Services[#]		10 Accreditation Domains*
Assessment	Assess and monitor population health		Assess and monitor population health status, factors that influence healthy and community needs and assets
	Investigate, diagnose, and address health hazards and root causes		Investigate, diagnose, and address health problems and hazards affecting the population
Policy Development	Communicate effectively to inform and educate		Communicate effectively to inform and educate people about health, factors that influence it, and how to improve it
	Strengthen, support, and mobilize communities and partnerships		Strengthen, support, and mobilize communities and partnerships to improve health
	Create, champion, and implement policies, plans, and laws		Create, champion, and implement policies, plans, and laws that impact health
	Utilize legal and regulatory actions		Utilize legal and regulatory actions designed to improve and protect the public's health
Assurance	Enable equitable access		Contribute to an effective system that enables equitable access to the individual services and care needed to be healthy
	Build a diverse and skilled workforce		Build and support a diverse and skilled public health workforce
	Improve and innovate through evaluation, research, and quality improvement		Improve and innovate public health functions through ongoing evaluation, research, and continuous quality improvement
	Build and maintain a strong organizational infrastructure for public health		Build and maintain a strong organizational infrastructure for public health

Sources: Centers for Disease Control and Prevention.[#] Public Health Accreditation Board.[*]

Centers for Disease Control and Prevention Quality Training Standards

The CDC gathered education leaders to finalize eight training development standards, in January 2018.[5] The training development standards are to be utilized as a quality benchmark for trainings developed or funded by the CDC. The last routine review occurred, in September 2020, where CDC education leaders verified that the standards are an important tool to assist in training to optimize learning, especially during a time in public health with constant changing environments.

According to the CDC, a quality training is one that meets all eight standards:

1. **Training needs assessment** informs training development.
2. Training includes **learning objectives**.
3. Training content is **accurate and relevant**.
4. Training includes opportunities for **learner engagement**.
5. Training is designed for **usability and accessibility**.
6. **Training evaluation** informs improvement.
7. Training includes opportunity for **learner assessment**.
8. Training includes **follow-up support for the learner**.

What to Evaluate?

To evaluate **learning**, the CDC recommends to "design your evaluation to assess how successfully the learner met the training's learning objectives. Look at the combined results for all learners to help you understand their learning and identify data trends that indicate challenging topics for your learners—which might show a need to improve course content or instruction."

To evaluate **learning transfer**, the CDC recommends to "design your evaluation to assess how successfully the learner can apply what they learned when they return to the workplace. Look at the combined results for all learners to help you understand if learning transfer is occurring and which topics are challenging for learners to apply—which might show a need for follow-up support for the learners."

When to Evaluate Training Effectiveness?

Based on the evaluation recommendations from the CDC, the timing and data evaluation from the evaluation questions will determine the type of evaluation questions that will be asked. [6]

Before and After Training

The CDC recommends "the best way to evaluate any change in learning is through assessment before and after the training. Conduct a pretest before and a posttest after your training and then compare the results." For example, the training developer can use Poll Everywhere or create a poll in Microsoft Teams to conduct pre-test questions before the training begins.

During Training

The CDC recommends to "build knowledge or skill assessment into the training, like knowledge checks, quizzes, or observations. This can provide evaluation data and reinforce learning at the same time." For example, the training developer can use Poll Everywhere to ask knowledge or observation check questions throughout the training. Observation checks can be included throughout the presentation to inquire participants on the course material, such as how the course material applies to the systems that play in their public health practice.

Immediately After Training

In many situations, you might only be able to gather information from your learners immediately after the training ends. The CDC recommends to "design your post course evaluation to assess learning and predict learning transfer immediately after the course ends, while learners are available to respond." For example, the training developer can use Poll Everywhere to conduct post-test questions immediately after the training ends.

Delayed Evaluation or Follow-up

CDC recommends delayed evaluation, also called follow-up evaluation, as the best way to assess learning transfer. CDC states that this type of evaluation "helps training developers understand how much information learners retained, and if they have applied what they learned on the job. You can follow-up with learners to assess learning transfer after they have had time to go back to their workplace and apply what they have learned." For example, training developers can send a feedback evaluation survey using the SurveyMonkey platform within a week of training to assess learning transfer of participants. The CDC also has recommended training evaluation questions available to use when developing follow-up training evaluations.

PHS TRAINING STANDARDS AND EVALUATION FRAMEWORK MODEL

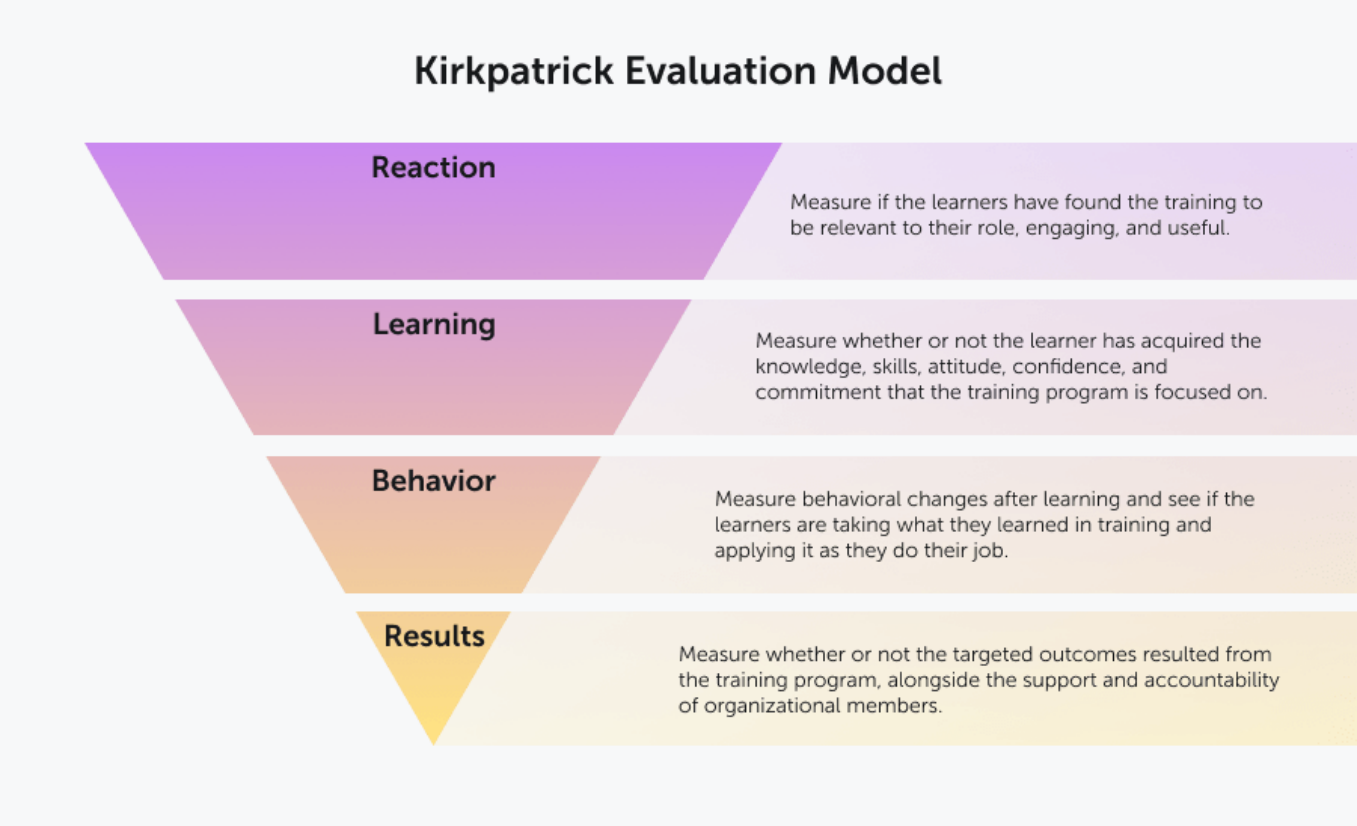
Introduction

PHS utilizes well established frameworks for evaluation of training to ensure training needs are met and training standards are adhered to. Established frameworks for evaluation of training ensures quality performance measures and managing performance measures are met.

The Kirkpatrick Model

The Kirkpatrick Model (*Figure 3*), also known as Kirkpatrick's Four Levels of Training Evaluation, is a well-known tool for evaluating the efficacy of training within an organization. The framework describes four levels of training outcomes: reaction, learning, behavior, and results.[6]

Figure 3. The Kirkpatrick Evaluation Model.



Source: The Kirkpatrick Model.

The levels are described as followed by The Kirkpatrick Model:

- **Level 1 Reaction**: "The degree to which participants find the training favorable, engaging, and relevant to their jobs."
- **Level 2 Learning**: "The degree to which participants acquire the intended knowledge, skills, attitude, confidence, and commitment based on their participation in the training."
- **Level 3 Behavior**: "The degree to which participants apply what they learned during training when they are back on the job."
- **Level 4 Results:** "The degree to which targeted outcomes occur as a result of the training and the support and accountability package."

Areas of impact can be measured in all levels within the Kirkpatrick Model. Using this evaluation framework can provide insight so the organization can adjust the learning path where necessary. Evaluating at all levels of the model will result in more effective training and a well-skilled workforce.

CDC Recommended Training Effectiveness Questions

For Postcourse Evaluations

1. Rate your knowledge of the course topic **before** the course.
   - ☐ Not at all knowledgeable
   - ☐ Slightly knowledgeable
   - ☐ Moderately knowledgeable
   - ☐ Very knowledgeable
   - ☐ Extremely knowledgeable
2. Rate your knowledge of (or skill in) the course topic now **after** the course.
   - ☐ Not at all knowledgeable
   - ☐ Slightly knowledgeable
   - ☐ Moderately knowledgeable
   - ☐ Very knowledgeable
   - ☐ Extremely knowledgeable
3. How relevant is this course to your current work?
   - ☐ Not at all relevant
   - ☐ Slightly relevant
   - ☐ Moderately relevant
   - ☐ Very relevant
   - ☐ Extremely relevant
4. What is your opinion of the balance of lecture and interactivity in this course?
   - ☐ Too much lecture and not enough interactive learning
   - ☐ Right amount of both lecture and interactive learning
   - ☐ Too much interactive learning and not enough lecture

5. Will you use what you learned in this course in your work?
   - ☐ Definitely not
   - ☐ Probably not
   - ☐ Possibly
   - ☐ Probably yes
   - ☐ Definitely yes
   - ☐ Not applicable — I did not learn anything new from this course
6. What factors will keep you from using the content of this course in your work? (Select all that apply)
   - ☐ I need additional training in the subject matter
   - ☐ I will not have the resources I need
   - ☐ I will not be provided opportunities to use what I learned
   - ☐ I will not have the time to use what I learned
   - ☐ My supervisor will not support me in using what I learned
   - ☐ My colleagues will not support me in using what I learned
   - ☐ The course content is not relevant to my current work
   - ☐ Other (please specify):
7. What, if anything, do you plan to use from this course? (open-ended)
8. How could this course be improved to make it a more effective learning experience? (open-ended)
9. What part of this course was most helpful to your learning? (open-ended)

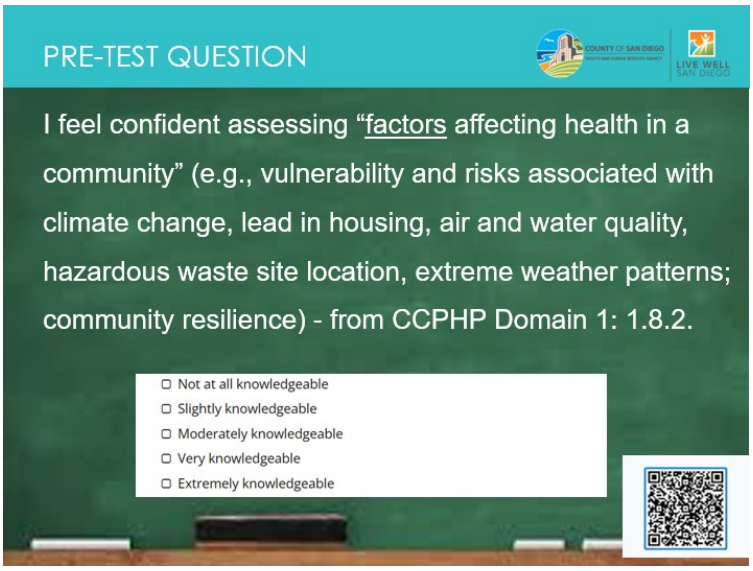
For Delayed Evaluation

1. To what extent have you used what you learned in this course in your work?
   - ☐ Not applicable—I did not learn anything new from this course
   - ☐ Not at all [if selected, go to question on barriers]
   - ☐ Some [if selected, go to question on barriers]
   - ☐ A lot [if selected go to question on facilitators]
2. What did you use from this course? (open-ended)
3. What factors helped you use the content of this course in your work? (Select all that apply)
   - ☐ I had reminders of key learning concepts or skills
   - ☐ I had the resources I needed
   - ☐ I had opportunities to use what I learned
   - ☐ I had time to apply what I learned
   - ☐ My supervisor supported me in using what I learned
   - ☐ My colleagues supported me in using what I learned
   - ☐ Other (please specify):
4. What factors kept you from using the content of this course in your work? (Select all that apply)
   - ☐ I need additional training in the subject matter
   - ☐ I did not remember the course content well enough to use it
   - ☐ I did not have the resources I needed
   - ☐ I did not have opportunities to use what I learned
   - ☐ I did not have the time to use what I learned
   - ☐ My supervisor did not support me in using what I learned
   - ☐ My colleagues did not support me in using what I learned
   - ☐ The course content was not relevant to my work
   - ☐ Other (please specify):

Examples of Pre- and Post-Test Questions

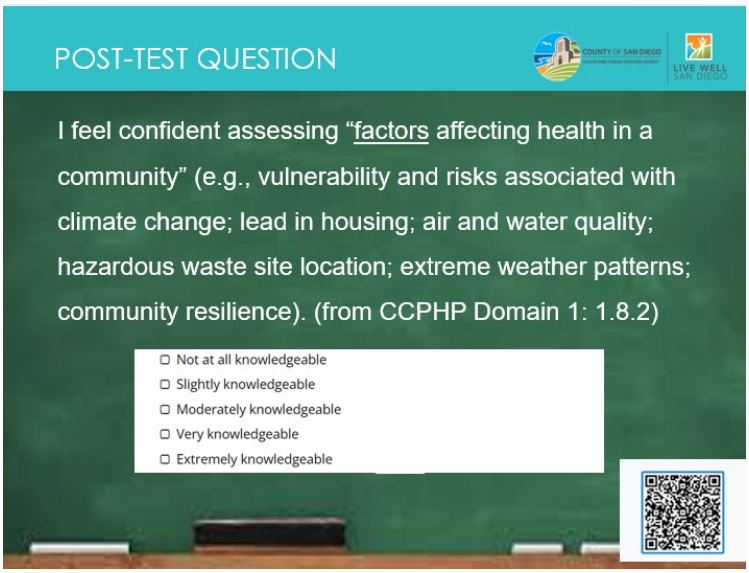
PHS provides pre and post-test questions for every training. Here is an example of both test questions from the Public Health 101 Series: Part 5 Climate Change (*Figures 4 and 5*). The pre-test questions will be the same as the post-test questions to assess and evaluate the effectiveness of the training by measuring learning progress. Having the same pre and post-test questions also ensures consistency in the assessment process for trainings.

Figure 4. Pre-Test Example.



Source: Public Health Services, May 2024.

Figure 5. Post-Test Example.

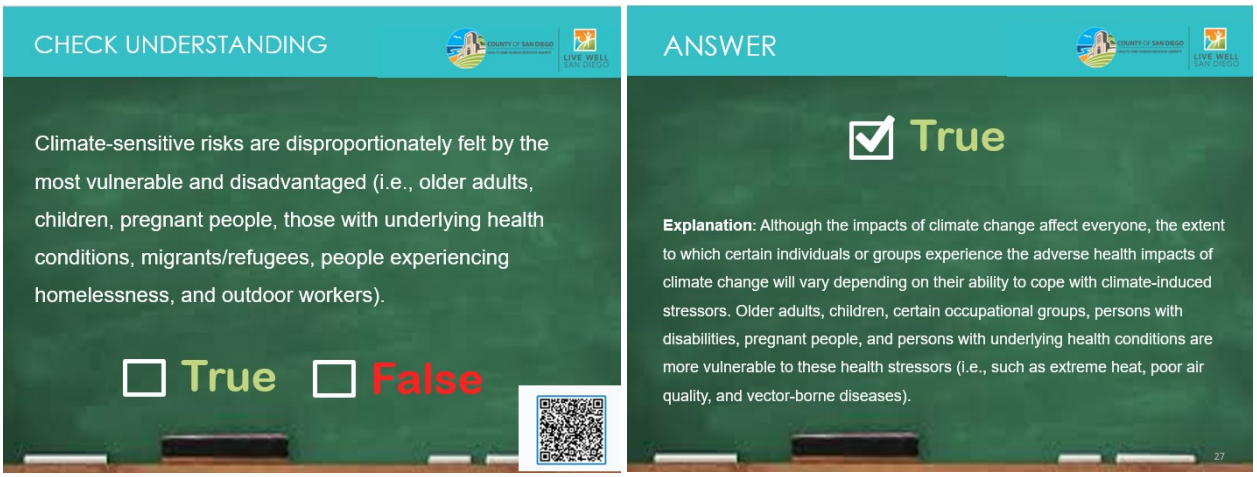


Source: Public Health Services, May 2024.

Examples of Knowledge Check Questions

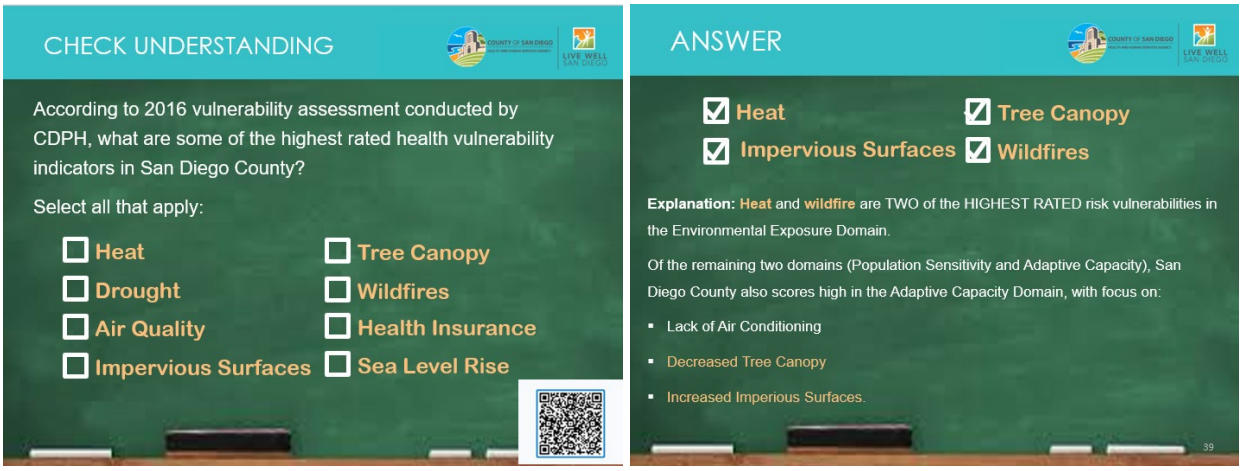
PHS provides knowledge check questions throughout every training. Here are examples below of knowledge check questions from the Public Health 101 Series: Part 5 Climate Change (*Figures 6 and 7*). Knowledge check questions allow staff members to assess their understanding of training material, reinforce learning, check comprehension, and provide feedback to both staff members and the instructor(s). Knowledge check questions can take various forms, such as multiple-choice, true/false, short answer, or fill-in-the-blank.

Figure 6. Knowledge Check Example 1.



Source: Public Health Services.

Figure 7. Knowledge Check Example 2.

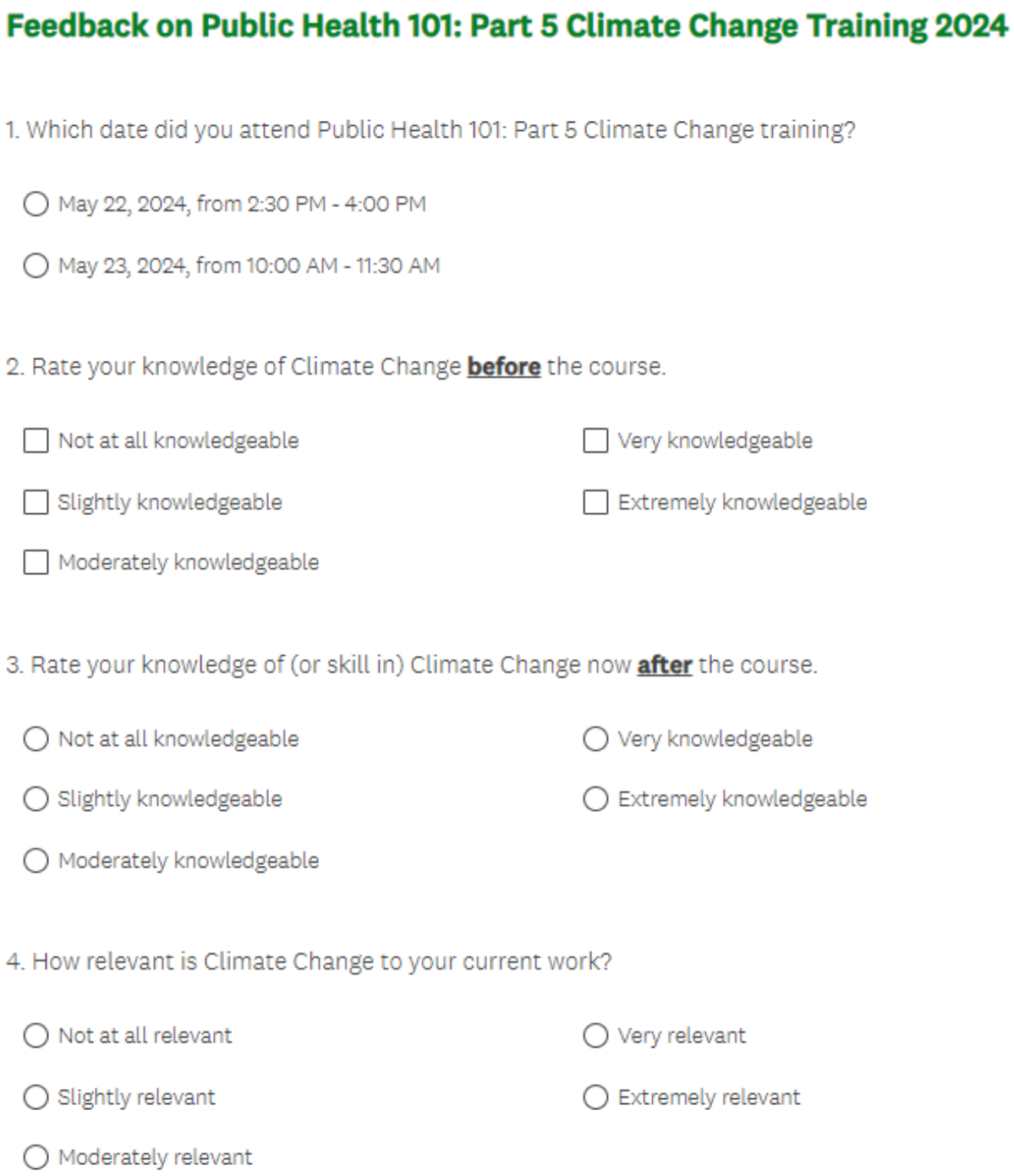


Source: Public Health Services, May 2024.

Example of Post Evaluation Survey

PHS provides a post evaluation survey after every training. Here is an example below of the post-evaluation survey from the Public Health 101 Series: Part 5 Climate Change (*Figure 8*). Post-evaluation surveys are another resource to effectively assess training programs and guide future public health trainings.

Figure 8. Post Evaluation Survey Example.



Feedback on Public Health 101: Part 5 Climate Change Training 2024

1. Which date did you attend Public Health 101: Part 5 Climate Change training?

- ◯ May 22, 2024, from 2:30 PM - 4:00 PM
- ◯ May 23, 2024, from 10:00 AM - 11:30 AM

2. Rate your knowledge of Climate Change **before** the course.

- ☐ Not at all knowledgeable
- ☐ Slightly knowledgeable
- ☐ Moderately knowledgeable
- ☐ Very knowledgeable
- ☐ Extremely knowledgeable

3. Rate your knowledge of (or skill in) Climate Change now **after** the course.

- ◯ Not at all knowledgeable
- ◯ Slightly knowledgeable
- ◯ Moderately knowledgeable
- ◯ Very knowledgeable
- ◯ Extremely knowledgeable

4. How relevant is Climate Change to your current work?

- ◯ Not at all relevant
- ◯ Slightly relevant
- ◯ Moderately relevant
- ◯ Very relevant
- ◯ Extremely relevant

5. Has Climate Change led to improved confidence in doing your job?

- ◯ Not at all confident
- ◯ Slightly confident
- ◯ Moderately confident
- ◯ Very confident
- ◯ Extremely confident

6. What is your opinion of the balance of lecture and interactivity in this course?

- ◯ Too much lecture and not enough interactive learning
- ◯ Right amount of both lecture and interactive learning
- ◯ Too much interactive learning and not enough lecture

7. Will you use what you learned in this course in your work?

- ◯ Definitely not
- ◯ Probably not
- ◯ Possibly
- ◯ Probably yes
- ◯ Definitely yes
- ◯ Not applicable- I did not learn anything new from this course

8. What factors will keep you from using the content of this course in your work? (Select all that apply)

- ☐ I need additional training in the subject matter
- ☐ I will not have the resources I need
- ☐ I will not be provided opportunities to use what I learned
- ☐ I will not have the time to use what I learned
- ☐ My supervisor will not support me in using what I learned
- ☐ My colleagues will not support me in using what I learned
- ☐ The course content is not relevant to my current work
- ☐ Other (please specify)
- ☐ None of the above

9. What, if anything, do you plan to use from this course?

10. How could this course be improved to make it a more effective learning experience?

11. What part of this course was most helpful to your learning?

Done

Powered by SurveyMonkey

Source: Public Health Services, June 2024.

RESOURCEFUL NATIONAL ORGANIZATION RESOURCES ON TRAINING

Table of Training Offerings from National Organizations

Provided in the framework is a selection of training offerings from national organizations (*Table 2*) that are most appropriate and feasible for PHS staff to utilize when developing their own training materials. Training topics are referenced in the Workforce Development Plan across Public Health Services (PHS), County of San Diego Health and Human Services Agency (HHSA) over the next two years (FY 23/24 and FY 24/25), and are aligned to the current Public Health Services Strategic Plan—2023-24 and 2024-25.

Table 2. Public Health Services Training Offerings from National Organizations.

Name of National Organization	Description
American Public Health Association (APHA)	Plays a crucial role in establishing industry standards and influencing public health policies. APHA collaborates with the Association of Schools and Programs of Public Health, forming the two corporate members of the nonprofit Council on Education for Public Health. This council is recognized by the US Department of Education as the independent agency responsible for accrediting schools and programs in public health. Students who take courses from the accredited schools and programs are well-prepared to pursue careers in the field of public health. [8]
Associate of State and Territorial Health Officials (ASTHO)	A nonprofit group dedicated to encouraging the efforts of public health officials at the state and territorial levels. ASTHO aims to promote the advancement and effectiveness of public health policies across the entire nation. ASTHO's website provides general courses on a variety of public health topics.[9]
CDC TRAIN Course Catalog	Provides a convenient way for visitors to search for any course or document on the TRAIN Learning Network site. It's worth noting that the curriculum available on this platform is approved by the National Board of Public Health Examiners (NBPHE), allowing individuals to earn Certified Public Health Continuing Education Credit (CPCHE).[10]

National Association of County and City Health Officials (NACCHO)	Organizes webinars and showcases partner webinars that focus on important public health topics. These webinars are designed to support local health departments and provide valuable insights into emerging topics. NACCHO is a great recourse to stay informed and learn more about relevant public health issues.[11]
National Network of Public Health Institutes (NNPHI)	Works towards supporting public health professionals in their important roles of ensuring the health of the nation, especially in a rapidly changing social, political, and economic environment. NNPHI achieves this through providing comprehensive and engaging training resources on public health practice and population health improvement. NNPHI provides public health professionals with the tools they need to support the nation. [12]
Public Health Accreditation Board (PHAB) Course Catalog	Offers a wide range of educational opportunities, training programs, and capacity building support. Additionally, PHAB collaborates with local health departments and other groups to create personalized educational products and services.[13]
Public Health Foundation (PHF)	Offers a wide range of educational opportunities, training programs, and capacity building support. Additionally, PHAB collaborates with local health departments and other groups to create personalized educational products and services. [14]
Public Health Learning Navigator	An organized online resource that helps the public health workforce find high-quality learning materials.[15]

Source: Public Health Services, May 2024.

SUMMARY

Reflections

Public Health Services (PHS) has developed a training standard and training evaluation framework to optimize success in training their workforce. The framework provides resources and tools to tailor training and evaluation of trainings for the staff and management of PHS. Through these training and evaluation standards, the requirement for PHS to be a talented workforce that is knowledgeable and skilled will be elevated as it is aligned to the Core Competencies and CDC Quality Training standards.

Recommendations for Staff

All PHS staff should be familiar with all concepts of training standards and evaluation included in this framework. The following list is provided to help staff stay current on training standards and evaluation. Any training developed and/or delivered by PHS staff and/or contractors for PHS staff should be done in accordance with this framework and these standards.

- Know that the Core Competencies of Public Health Professionals.
    - Become familiar with each of the eight domain skills and their associated competency statements for each of the three tiers.
- Know and understand the CDC Quality Training Standards.
- Know how to evaluate learning and learning transfer.
- Know when to evaluate training (e.g., before, during, after training).
- Know the principles of the Kirkpatrick model.
- Aware of training offerings to use as a resource when developing training materials.

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ACKNOWLEDGEMENTS

Thank you to everyone who contributed to the preparation and review of this Training Standards and Evaluation Framework.

- Wilma J. Wooten, M.D., M.P.H., Public Health Officer
- Jo-Ann Julien B.A., M.Ed., Workforce Director
- Anissa Busch, M.P.H., Senior Data & Research Analyst

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LIVE WELL
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Accredited Health Department
PHAB
Advancing Public Health Performance
Public Health Accreditation Board