



# TRIBAL EPIDEMIOLOGY CENTERS

Public Health Infrastructure (TECPHI) Program



# YEAR 1

# Workforce Development Supplement



# Enhancing Essential Public Health Services:

## Building and supporting a diverse and skilled public health workforce

In 2017, the Centers for Disease Control and Prevention’s (CDC) National Center for Chronic Disease Prevention and Health Promotion Healthy Tribes Program funded Tribal Epidemiology Centers (TECs) for the five-year Tribal Epidemiology Centers Public Health Infrastructure (TECPHI) cooperative agreement. The second five-year cycle of funding began in 2022. TECPHI supports each of the 12 Tribal Epidemiology Centers (TECs) and one Network Coordinating Center (NCC) to support a culturally informed, evidence-based, holistic, and population-level approach to disease prevention, health promotion, and wellness. A key strategy of the cooperative agreement is to strengthen public health capacity and infrastructure.

A competent, well-trained workforce is an essential component to improving TEC capacity, infrastructure, and sustainability. TECs play a critical role in supporting and developing a public health workforce. The ability of the TEC to provide public health services to Tribes, Tribal organizations, and Urban Indian Organizations (T/TO/UIOs) depends on the experience and skills of the staff in analyzing, planning, implementing, and evaluating programs and activities. TEC staff participate in professional development opportunities to enhance staff skills, respond to technical assistance requests, and address the dynamic needs of the people they serve. The majority of the training that TEC staff receive and the training they provide to T/TO/UIO partners, focus on advancing health equity within AI/AN populations to address public health issues. In TECPHI Year 1, TECs prioritized the workforce development needs of staff and T/TO/UIO and Tribal community members.

TECPHI performance measure (PM) data aligns with the 10 EPHS. Three PMs capture data directly related to the EPHS related to workforce development: Building and supporting a diverse and skilled public health workforce. In the second cycle of TECPHI, the TECs and the NCC established PM baselines using data from the previous TECPHI funding period (2017-2022). Table 1 shares the TEC and NCC baseline data from the beginning of Year 1, the Year 1 actual results, and the change since baseline:

**Table 1. TECPHI workforce development PM baseline and actual data and changes made since baseline.**

Performance Measures (n = number of TECs/NCC)	Baseline	Y1 Actual	Change Since Baseline	% Change
Number of trainings for TECs and TEC-supported T/TO/UIOs and partner organization staff (n=12)	426	938	512	120
Number of TEC staff (n=13)	358	377	19	5.3
Number of TEC Workforce Development Planning activities (n=8)	4	107	103	2575

A consistent focus of effort was seen among all TECs was around enhancing opportunities for workforce development. Compared to the baseline, there was a 120% increase in the number of trainings offered in Year 1. Trainings help TEC staff acquire new skills and knowledge, enhance competence and productivity, and understand best practices, resulting in higher quality work for the AI/AN population. TECPHI supports 377 TEC staff and at least 34% of TEC staff are AI/AN. One TEC created a hiring committee to address workforce capacity issues, leading to successfully filling a variety of roles.

Several TECs supported interns and one TEC was funded to develop an 8-week internship program that was offered to over 40 AI/AN students across the country.

Additionally, TECs engaged in 25 times as many workforce development planning activities than at baseline. Activities included staff development activities such as professional development discussions with staff, workforce assessments, and personalized staff training plans. An example of an activity is the use of assessments and surveys and several TECs and the NCC employed this strategy during Year 1.

One of the main purposes of the NCC is to support the strengthening of the public health capacity and infrastructure of the TECs and T/TO/UIOs. In TECPHI Year 1, the NCC deployed the TEC Year 1 Workforce Development Assessment to all TEC staff. The findings will:

- Identify TEC staff strengths and opportunities for building skills and knowledge
- Identify TEC staff interests and needs
- Inform workforce and individual professional development plans
- Inform a list of training topics the NCC will offer TEC staff and partners
- Understand demographic characteristics of TEC staff

The NCC will administer the tool to TEC staff annually and results will continue to inform training topics throughout the five years.

With permission, the NCC adapted the 2019 Montana Public Health Workforce Assessment based on the roles and responsibilities of TEC staff.<sup>1</sup> The following resources frame the assessment:

- **The Core Competencies for Public Health Professionals:** The Core Competencies are based on the **10 Essential Public Health Services (EPHS)** and are the foundational skills desirable for professionals working in the practice, education, and research of public health. They are organized into eight skill domains within public health and three career tiers of public health.
- **The Public Health Workforce Interests and Needs Survey (PH WINS):** PH WINS is a national survey for the governmental public health workforce. It collects data on demographics, training needs, and interests. The survey utilizes the Core Competencies to establish a national public health workforce competency baseline.
- **The Public Health Accreditation Board's Standards and Measures for Initial Accreditation (PHAB):** The accreditation process assesses a health department's capacity to carry out the 10 EPHS, manage an effective health department, and maintain strong and effective communications with the governing entity.

The resources also provide structure for workforce development planning and action and serve as a starting point for public health professionals and organizations to better understand and meet workforce development needs, improve performance, prepare for accreditation, and enhance the health of the communities they serve.

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<sup>1</sup> Montana Public Health Workforce Development Group. (2020). Montana Public Health: Public Health Workforce Assessment. Accessed November 28, 2022 from <https://www.umt.edu/mt-public-health-training/mt-ph-wf-report-full>.

The assessment included the following sets of questions:

- **Demographics:** Position at the TEC, the highest level of education, how long they had worked at the TEC, and CPH certification status;
- **Current proficiency in core competencies:** 10 skill domains on a 1 to 4 scale (1=Unsure or no experience, 2=Beginner, 3=Proficient, 4=Expert); and,
- **Training ideas:** Identified gaps in domains, needs and interests for training topics, and opportunities to improve skills and knowledge.

After completing the assessment, TEC staff could download a pdf of the completed survey to develop a professional development plan based on the self-reported proficiencies in each of the domains.

## Methods

The Workforce Development assessment survey was created in REDCap. Unique links were sent to TEC Directors (12), TECPHI Program Managers (13), and TECPHI Program Evaluators (16) for a total of 41 survey links sent via email through the REDCap system in May 2023. Additionally, the emails to the Program Managers included a public link to share with all TEC staff with an incentive to be entered into a drawing with completion of the survey. TEC staff were given 2 weeks to complete the survey. The survey was completed by 110 TEC staff, representing just under 25% of TEC staff.

TEC staff assessed their experience with skills in each of the public health domains where 1= unsure or no experience, 2 = beginner, 3= proficient, and 4= expert. The results were downloaded from REDCap into an Excel spreadsheet. Average scores were calculated overall for each domain and then for each of the positions.

## Results\*

\*Please note the numbers differ from what is presented in the full TECPHI Progress Report, which shares national cross-site evaluation performance measure data. This report shares results from a survey of a small subset of individual TEC staff.

### Current Proficiency in Public Health Domains

Overall, TEC staff indicated they had the most experience (proficient) in the following domains:

- Domain 8 – Build a diverse and skilled workforce (3.17)
- Domain 5 – Create, champion, and implement policies, plans, and laws that impact health (3.16)
- Domain 3 – Communicate effectively to inform and educate (3.10)

TEC staff had the least experience (beginner) in the following domains:

- Domain 9 – Improve and innovate through evaluation, research, and quality improvement (2.97)
- Domain 2 – Investigate, diagnose, and address health hazards and root causes (2.77)
- Domain 6 – Utilize legal and regulatory actions (2.69)

## Demographics

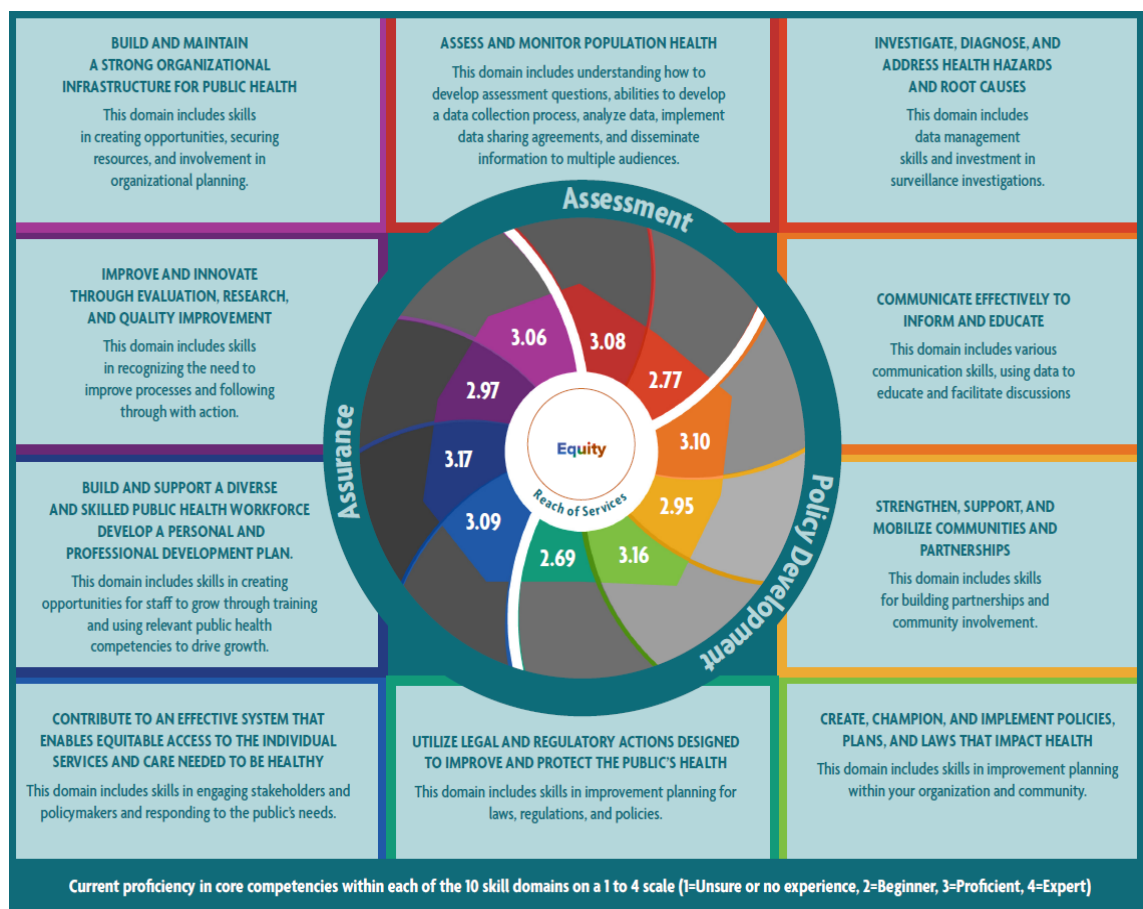
**Table 2. Demographics of TEC staff respondents.**

Demographic Characteristics	n (%)
<b>Staff Position</b>	
Epidemiologist	25 (36%)
Evaluator	13 (19%)
Coordinator	11 (16%)
Manager	10 (14%)
PH Specialist	7 (10%)
Director	4 (6%)
<b>Education Level</b>	
Some Undergrad	5 (5%)
Associates	5 (5%)
Undergraduate	17 (16%)
Master’s	64 (62%)
PHD	10 (10%)
<b>CPH</b>	
Yes	85 (81%)
No	20 (19%)
<b>TEC Tenure</b>	
0-2 Years	63 (61%)
3-4 Years	15 (15%)
5-9 Years	16 (16%)
10+ Years	9 (9%)
<b>Race/ Ethnicity</b>	
AI/AN	43 (41%)
Not AI/AN	62 (59%)

**Table 3. List of public health domains and overall average score for each domain (1= unsure or no experience, 2 = beginner, 3= proficient, and 4= expert)**

Domain	Public Health Domains	Domain Average
1	Assess and Monitor Population Health	3.1
2	Investigate, monitor and address health hazards and root causes	2.8
3	Communicate Effectively to inform and Educate	3.1
4	Strengthen, support, and mobilize communities and partnerships.	3.0
5	Create, champion, and implement policies, plans, and laws that impact health.	3.2
6	Utilize legal and regulatory actions designed to improve and protect the public's health	2.7
7	Contribute to an effective system that enables equitable access to the individual services and care needed to be healthy	3.1
8	Build and support a diverse and skilled public health workforce	3.2
9	Improve and innovate through evaluation, research, and quality improvement	3.0
10	Build and maintain a strong organizational infrastructure for public health.	3.1

**Figure 1. Overall average scores for each domain aligned with the 10 EPHS framework.**



When separated by staff titles, TEC Directors, Managers, Evaluators, Epidemiologists, Public Health Specialists, and Coordinator experience varied.

**TEC Directors** (n=4) indicated they had the **most experience (proficient)** with:

- Domain 4 – Strengthen, support, and mobilize communities and partnerships (3.6)
- Domain 3 – Communicate Effectively to inform and Educate (3.2)
- Domain 5 – Create, champion, and implement policies, plans, and laws that impact health (3.2)

**TEC Directors** had the **least experience (beginner)** with:

- Domain 8 – Build and support a diverse and skilled public health workforce (2.9)
- Domain 9 – Improve and innovate through evaluation, research, and quality improvement (2.8)
- Domain 2 – Investigate, diagnose, and address health hazards and root causes (2.8)

**TEC Managers** (n=10) indicated they had the **most experience (proficient/ beginner)** with:

- Domain 4 – Strengthen, support, and mobilize communities and partnerships (3.4)
- Domain 3 – Communicate Effectively to inform and Educate (3.0)
- Domain 10 – Build and maintain a strong organizational infrastructure for public health (2.8)

**TEC Managers** had the **least experience (beginner)** with:

- Domain 2 - Investigate, diagnose, and address health hazards and root causes (1.6)
- Domain 6 – Utilize legal and regulatory actions designed to improve and protect the public's health (1.5)

**TEC Evaluators** (n=13) indicated they had the **most experience (proficient/beginner)** with:

- Domain 1 – Assess and Monitor Population Health (3.1)
- Domain 3 – Communicate Effectively to inform and Educate (3.0)
- Domain 9 – Improve and innovate through evaluation, research, and quality improvement (2.9)

**TEC Evaluators** had the **least experience (beginner)** with:

- Domain 10 – Build and maintain a strong organizational infrastructure for public health (2.7)
- Domain 6 – Utilize legal and regulatory actions designed to improve and protect the public's health (2.5)
- Domain 2 – Investigate, diagnose, and address health hazards and root causes (2.2)

**TEC Epidemiologists** (n=25) indicated they had the **most experience (beginner)** with:

- Domain 4 – Strengthen, support, and mobilize communities and partnerships. (2.9)
- Domain 1 – Assess and Monitor Population Health (2.9)
- Domain 3 – Communicate effectively to inform and educate (2.8)

**TEC Epidemiologists** had the **least experience (unsure or no experience/beginner)** with:

- Domain 5– Create, champion, and implement policies, plans, and laws that impact health (2.5)
- Domain 7– Contribute to an effective system that enables equitable access to the individual services and care needed to be healthy (2.5)
- Domain 10 – Build and maintain a strong organizational infrastructure for public health (2.4)
- Domain 6 – Utilize legal and regulatory actions designed to improve and protect the public's health (1.9)

**TEC Public Health Specialists** (n=7) indicated they had the **most experience (beginner)** with:

- Domain 3 – Communicate effectively to inform and educate (2.7)
- Domain 4 – Strengthen, support, and mobilize communities and partnerships. (2.6)
- Domain 1 – Assess and Monitor Population Health (2.5)

**TEC Public Health Specialists** had the **least experience (unsure or no experience/beginner)** with:

- Domain 6 – Utilize legal and regulatory actions designed to improve and protect the public's health (1.9)
- Domain 7– Contribute to an effective system that enables equitable access to the individual services and care needed to be healthy (1.9)
- Domain 2 – Investigate, diagnose, and address health hazards and root causes (1.6)

**TEC Coordinators** (n=11) indicated they had the **most experience (beginner)** with:

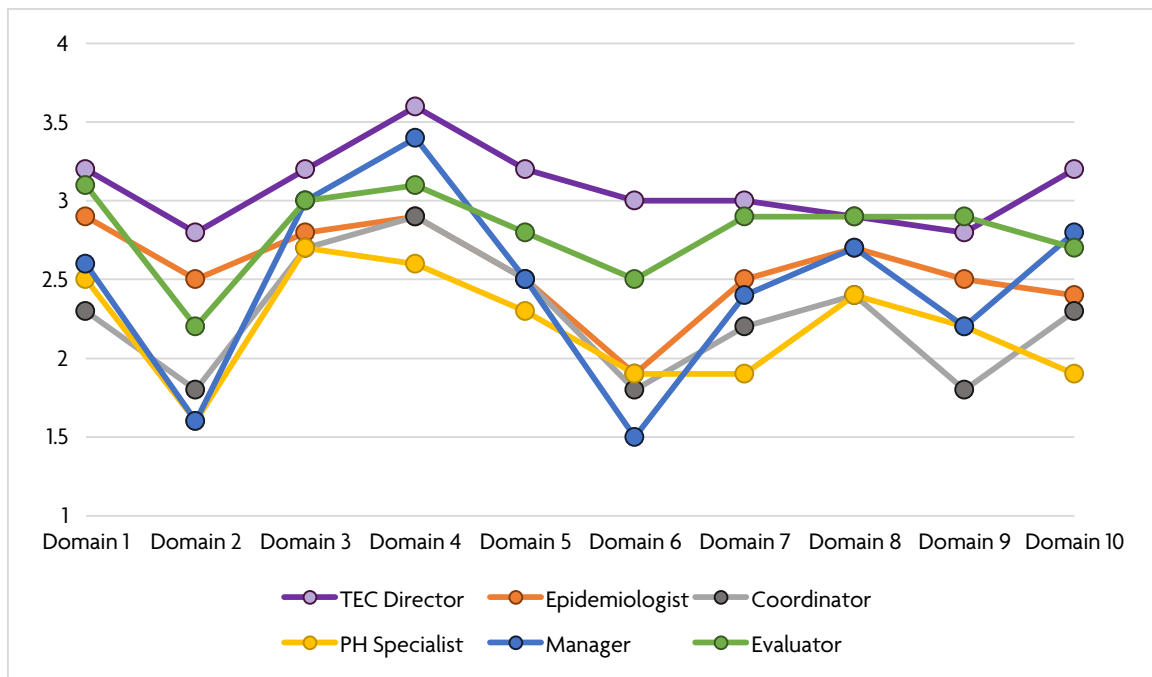
- Domain 4 – Strengthen, support, and mobilize communities and partnerships. (2.9)
- Domain 3 – Communicate effectively to inform and educate (2.7)
- Domain 1 – Assess and Monitor Population Health (2.3)

**TEC Coordinators** had the **least experience (unsure or no experience/ beginner)** with:

- Domain 2 – Investigate, diagnose, and address health hazards and root causes (1.8)
- Domain 6 – Utilize legal and regulatory actions designed to improve and protect the public's health (1.8)
- Domain 9– Improve and innovate through evaluation, research, and quality improvement (1.8)



**Figure 2. TEC Staff Experience by Job Title (n = 70)**



**Current proficiency in core competencies:** 10 skill domains on a 1 to 4 scale (1=Unsure or no experience, 2=Beginner, 3=Proficient, 4=Expert); **Domain 1:** Assess and monitor population health. **Domain 2:** Investigate, diagnose, and address health hazards and root causes. **Domain 3:** Communicate effectively to inform and educate. **Domain 4:** Strengthen, support, and mobilize communities and partnerships. **Domain 5:** Create, champion, and implement policies, plans, and laws that impact health. **Domain 6:** Utilize legal and regulatory actions designed to improve and protect the public’s health. **Domain 7:** Contribute to an effective system that enables equitable access to the individual services and care needed to be healthy. **Domain 8:** Build and support a diverse and skilled public health workforce **Domain 9:** Improve and innovate through evaluation, research, and quality improvement. **Domain 10:** Build and maintain a strong organizational infrastructure for public health.

## Findings

Overall, TEC staff indicated the least experience in utilizing legal and regulatory actions (2.69), investigating, diagnosing, and addressing health hazards and root causes (2.77), and improving and innovating through evaluation, research, and quality improvement (2.97).

Based on evaluation results and suggestions, the NCC will be hosting a webinar series in Year 2 offering monthly, 1 hr training opportunities based on the 10 Domains. Topics will include creating a data sharing agreement, building and maintaining workgroups and coalitions, organizational growth, how to publish, and communications planning and outreach.

