

# APPLIED EPIDEMIOLOGY COMPETENCIES

2022

Assessment Tool for Supervisors

# **TABLE OF CONTENTS**

INTRODUCTION	1
About the Applied Epidemiology Competencies (AECs)	1
How to Complete the AEC Assessment	1
Description of Tiers	3
DOMAIN 1: DATA ANALYTICS AND ASSESSMENT SKILLS	4
Foundational Tier Assessment	5
Intermediate Tier Assessment	8
Practiced Tier Assessment	12
Advanced Tier Assessment	16
DOMAIN 2: PUBLIC HEALTH SCIENCES SKILLS	20
Foundational Tier Assessment	21
Intermediate Tier Assessment	23
Practiced Tier Assessment	25
Advanced Tier Assessment	27
DOMAIN 3: COMMUNICATION SKILLS	29
Foundational Tier Assessment	30
Intermediate Tier Assessment	32
Practiced Tier Assessment	35
Advanced Tier Assessment	37
DOMAIN 4: COMMUNITY PARTNERSHIP SKILLS	39
Foundational Tier Assessment	40
Intermediate Tier Assessment	42
Practiced Tier Assessment	44
Advanced Tier Assessment	46
DOMAIN 5: MANAGEMENT AND FINANCE SKILLS	48
Foundational Tier Assessment	49
Intermediate Tier Assessment	51
Practiced Tier Assessment	53
Advanced Tier Assessment	55
DOMAIN 6: LEADERSHIP AND SYSTEM THINKING SKILLS	57
Foundational Tier Assessment	58

Intermediate Tier Assessment	60
Practiced Tier Assessment	62
Advanced Tier Assessment	64
DOMAIN 7: POLICY DEVELOPMENT AND PROGRAM PLANNING SKILLS	66
Foundational Tier Assessment	67
Intermediate Tier Assessment	69
Practiced Tier Assessment	71
Advanced Tier Assessment	73
INTERPRETING YOUR RESULTS	75
RESOURCES	78
Appendices	80
APPENDIX A. DOMAIN 1 COMPETENCIES AND SUB-COMPETENCIES	81
APPENDIX B. DOMAIN 2 COMPETENCIES AND SUB-COMPETENCIES	89
APPENDIX C. DOMAIN 3 COMPETENCIES AND SUB-COMPETENCIES	93
APPENDIX D. DOMAIN 4 COMPETENCIES AND SUB-COMPETENCIES	98
APPENDIX E. DOMAIN 5 COMPETENCIES AND SUB-COMPETENCIES	102
APPENDIX F. DOMAIN 6 COMPETENCIES AND SUB-COMPETENCIES	105
APPENDIX G. DOMAIN 7 COMPETENCIES AND SUB-COMPETENCIES	108



# **INTRODUCTION**

# **About the Applied Epidemiology Competencies (AECs)**

The Applied Epidemiology Competencies (AECs) are a set of knowledge and skills for the broad practice of applied epidemiology in public health. The AECs contain 35 **competency statements** and 372 **sub-competencies**. The AECs are organized into seven **domains** (e.g., skill areas) that cut across public health disciplines. The purpose of this assessment is to help applied epidemiologists and their supervisors to assess individual competence within these seven domains.

This assessment tool is primarily designed as a self-assessment. This version, for supervisors of applied epidemiologists, asks you to assess the competencies of someone who reports to you, so that it can be used to provide guidance. Results of the assessment can be used to inform professional development goals, identify skill gaps associated with specific AECs, and/or develop a learning plan focused on the development of specific AECs. Individual results may be useful when aggregated for broader planning and assessment purposes as well (e.g., within departments, agencies, states, or regions).

## **How to Complete the AEC Assessment**

The competency assessment is divided into the following seven domains:

- Data Analytics and Assessment Skills
- Public Health Sciences Skills
- Communication Skills
- Community Partnership Skills
- Management and Finance Skills
- Leadership and Systems Thinking Skills
- Policy Development and Program Planning Skills

The first four of these—Data Analytics and Assessment Skills, Public Health Sciences Skills, Communication Skills, and Community Partnership Skills—are considered core to the practice of applied epidemiology. The last three—Management and Finance Skills, Leadership and Systems Thinking Skills, and Policy Development and Program Planning Skills—are still important in certain roles, but not necessarily for all applied epidemiology roles. These are referred to as "professional" domains, to distinguish them from the "core" domains.

1. For each domain, you will be asked to select a tier (e.g., 1-4 or N/A) that will be used to assess your colleague's competency in that specific domain. Review the descriptions of the tiers (below) that you will be asked to use for each domain. While



the tiers roughly correspond to cumulative experience in applied epidemiology, it is expected that in practice, these roles may involve different functions depending on factors such as the size of an agency or department. Therefore, you may decide that your colleague is functioning as one tier for some or most domains, but a different tier for others. The assessment accommodates these variations in competence across domains (e.g., selecting a tier for each domain in Step 3 below).

- 2. Starting with Domain #1 (Data Analytics and Assessment Skills), review the description of the **domain**, its associated **competencies** and the brief **description of the tiers** associated with that domain. If you would like to view all the specific sub-competencies in the domain, refer to Appendices A thru G.
- 3. Select the **tier** (e.g., 1-4, or N/A) that you would like to use to assess your competencies for that domain. (*Note: the tier you select will have a hyperlink that will redirect you to the tier-specific assessment.*)
- 4. Read each sub-competency and rate your colleague's level of proficiency by selecting the number that best describes their perceived level of proficiency for that specific sub-competency.

For example: To what degree is your colleague able to independently... identify diverse populations that may be significant to addressing factors affecting the health of a community?

1 = None	They are unaware or have very little knowledge of the skill.
2 = Aware	They are aware but have limited knowledge or ability to apply the skill.
3 = Knowledgeable	They are comfortable with their knowledge or ability to apply the skill.
4 = Proficient	They are very comfortable, considered an expert, and/or could teach this skill to others.
N/A	This sub-competency is not applicable or expected for the position and/or tier being assessed.

5. At the end of each domain, there is space to write comments. This space can be used to record any information or insights that could be useful in interpreting your colleague's assessment results and/or discussing the results with them, mentors, or other colleagues (e.g., human resources staff for workforce development purposes). For example, this space can be used to record your thoughts about the relevance of a particular domain, competency, or sub-competency to their position and/or to note areas where they are especially interested in pursuing learning opportunities.



- 6. After you have entered your score for the sub-competencies in the domain, the sum of your scores will appear in the column next to "Total Score" and the mean of your scores for the domain will appear in the column next to "Average Score."
- 7. Continue to Domains #2 #7 and repeat steps 3-5.
- 8. Review your results for the ratings of your colleague/supervisee and follow the guidance offered in the "Interpreting Your Results" section to determine potential next steps.

## **Description of Tiers**

# Tier 1: Foundational

Individuals with these skills are those who are completing academic programs or are early in their public health careers; still gaining training or applied experience on the job. These individuals require supervision when performing most tasks. Their responsibilities include describing factors affecting community health; identifying epidemiologic data and surveillance system needs; collecting surveillance data; identifying the roles and resources provided by epidemiologists and other public health professionals; and assisting in collaborations with internal and external program resources.

# Tier 2: Intermediate

Individuals with these skills are those who administer epidemiology programs and projects, often independently. These individuals may require supervision while managing larger or more complex programs or projects and other tasks. Their responsibilities include conducting epidemiological investigations; communicating epidemiological findings to diverse audiences; defining public health actions and interventions; collaborating with others to perform epidemiologic activities; and applying data to support public health policies, services, and programs.

# Tier 3: Practiced

Individuals with these skills are those with subject matter expertise or who manage epidemiology programs and resources that may include finances and personnel. These individuals perform their job duties independently and may supervise others on a project-by-project basis or all the time. Their responsibilities include systems thinking; development of surveillance systems; interpreting the results of epidemiologic investigations and surveillance; evaluating the suitability of data collection, databases, and program objectives; developing communication strategies to present data, key findings, and interventions to professional audiences and the public; assigning resources to epidemiology activities and programs; promoting evidence-based decision making using epidemiology data; and evaluating the impact of activities toward community health goals.

# Tier 4: Advanced

Individuals with these skills are those who typically hold senior positions within organizations, demonstrate leadership, and are visionaries. These individuals require no supervision for their job duties but may supervise and mentor others. Their responsibilities include communicating epidemiologic program needs to internal and external collaborators; analyzing programs, staffing needs, and policies relating to epidemiology; administering financial and personnel resources; evaluating database generation and surveillance systems; advocating for health equity, a diverse workforce, and program needs; facilitating relationships with collaborators; informing development of policies and laws; justifying program resources; and engaging in organizational strategic planning.



## **DOMAIN 1: DATA ANALYTICS AND ASSESSMENT SKILLS**

Competencies in this domain include the following:

- 1.1 Identifies the diversity of individuals and populations (e.g., language, culture, values, socioeconomic status, geography, education, race, gender identity, age, ethnicity, sexual orientation, profession, religious affiliation, mental and physical abilities, historical experiences)
- 1.2 Describes factors that affect the health of a community (e.g., income, education, laws, environment, climate change, resilience, homelessness, food security, access to healthcare, racial equity, distribution of resources and power, social and community engagement, changing demographics)
- 1.3 Designs surveillance systems using the principles of ethics, DEIA, and justice.
- 1.4 Conducts surveillance activities (e.g., reviews surveillance data needs, assesses existing surveillance data and systems, collects, analyzes, evaluates, and communicates surveillance data)
- 1.5 Investigates factors that affect the health of a community
- Manages data (e.g., surveillance, investigations, studies, programs, and other data)
- 1.7 Analyzes data (e.g., surveillance, investigations, studies, programs, and other data)
- 1.8 Interprets results from data analysis
- 1.9 Applies evidence-based interventions and control measures (e.g., considering DEIA and specific community needs)

For **Domain 1**, the **foundational** level focuses on activities such as identifying, describing, collecting and conducting. The **intermediate** level builds on foundational activities and includes activities such as recognizing, using, explaining, analyzing and evaluating. The **practiced** level builds on the first two levels and includes activities such as advocating, prioritizing, designing and leading. The **advanced** level builds on the first three levels and includes activities such as applying, assessing, implementing, managing and facilitating. If you would like to view all the specific sub-competencies in the domain, refer to Appendix A.

Select the tier that you would like to use to assess your colleague's competencies in this domain:

Foundational Tier Intermediate Tier Practiced Tier Advanced Tier



# **Foundational Tier Assessment**

# Domain 1: Data Analytics and Assessment Skills

1 = None	They are unaware or have very little knowledge of the skill.
2 = Aware	They are aware but have limited knowledge or ability to apply the skill.
3 = Knowledgeable	They are comfortable with their knowledge or ability to apply the skill.
4 = Proficient	They are very comfortable, considered an expert, and/or could teach this skill to others.
N/A	This sub-competency is not applicable or expected for the position and/or tier being assessed.

To wha	To what degree is your colleague able to independently				
1.1.1	Identify diverse populations that may be significant to addressing factors affecting the health of a community	Select One			
1.2.1	Describe factors that affect the health of a community	Select One			
1.2.2	Identify cultural, environmental, historical, social, and structural frameworks that affect the health of a community	Select One			
1.2.3	Identify gaps in available data (e.g., limitations of data, errors in estimates, lack of primary literature or studies)	Select One			
1.3.1	Consult with scientific literature, current public health programs, and the community to identify specific populations of interest and factors affecting community health for surveillance	Select One			
1.3.2	Collect data from populations of interest to assess factors affecting the health of a community and health disparities using the principles of ethics, DEIA, and justice and mitigating potential negative impacts of data collection on the population	Select One			
1.4.1	Identify surveillance data needs for factors affecting the health of a community	Select One			



To wha	at degree is your colleague able to independently	
1.4.2	Identify limitations of data in surveillance activities (e.g., sources of bias, unequal distribution, and misclassification)	Select One
1.4.3	Identify elements of a surveillance system (e.g., system features, data elements, connectivity, cost-benefit analysis, burden to public health system, agency, and reporting entity)	Select One
1.4.4	Collaborate with informaticians to identify and implement data needs, automation processes, and surveillance systems	Select One
1.4.5	Collect surveillance data (e.g., conducts epidemiologic investigation interviews, compiles quantitative data)	Select One
1.4.6	Describe individual and community privacy when analyzing surveillance systems	Select One
1.5.1	Describe methods used to investigate factors affecting the health of the community (e.g., community health status assessments)	Select One
1.5.2	Describe epidemiologic study designs and their applicability to investigating factors that affect the health of a community	Select One
1.5.3	Participate in epidemiologic investigation (e.g., identifies population of interest, identifies investigation timeframe, considers and accounts for sources of bias and confounders)	Select One
1.6.1	Collaborate with informaticians to collect, parse, prepare, and provision data to design and maintain databases and tools	Select One
1.6.2	Describe database design principles that allow for accurate and actionable data across diverse communities	Select One
1.6.3	Document database design, data management, security, and assumptions	Select One

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)

**<sup>1=</sup>None** (unaware or very little knowledge of the skill) **2=Aware** (aware but have limited knowledge or ability to apply the skills)

**<sup>3=</sup>Knowledgeable** (comfortable with my knowledge or ability to apply the skills)



To wha	at degree is your colleague able to independently	
1.6.4	Describe practices for secure (restricted access), stable (routine backups, database redundancy), and sustainable data storage and data sharing	Select One
1.7.1	Conduct descriptive data analysis to assess public health objectives	Select One
1.7.2	Describe data analysis plan	Select One
1.7.3	Describe valid statistical techniques and variables based on relevant factors (e.g., data, study design, sample size, hypotheses)	Select One
1.8.1	Identify epidemiologic principles and methods needed to make recommendations regarding the validity of epidemiologic data	Select One
1.8.2	Apply the principles of causation when making inferences about key findings (e.g., strength, consistency, biological plausibility, dose-response, and temporal relationship)	Select One
1.9.1	Identify the key types of intervention for the factor affecting the health of the community and their prior success in the community of interest	Select One
1.9.2	Prepare materials for consultation with collaborators to identify and prioritize public health action	Select One

#### **AVERAGE SCORE**

Со	mm	ents	<b>S</b> :						



Scoring Guide:

**1=None** (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



# **Intermediate Tier Assessment**

# Domain 1: Data Analytics and Assessment Skills

1 = None	They are unaware or have very little knowledge of the skill.
2 = Aware	They are aware but have limited knowledge or ability to apply the skill.
3 = Knowledgeable	They are comfortable with their knowledge or ability to apply the skill.
4 = Proficient	They are very comfortable, considered an expert, and/or could teach this skill to others.
N/A	This sub-competency is not applicable or expected for the position and/or tier being assessed.

To wha	To what degree is your colleague able to independently				
1.1.1	Recognize the diversity of individuals and populations e.g., diverse populations, biases, systemic and structural factors affecting health equity)	Select One			
1.2.1	Assess the impact of specific factors that affect the health of a community (e.g., determining expected number of cases, outcomes, disease burden, prevalence of risk behaviors)	Select One			
1.2.2	Explain cultural, environmental, historical, social, and structural frameworks that affect the health of a community	Select One			
1.2.3	Explain gaps in available data (e.g., limitations of data, errors in estimates, lack of primary literature or studies)	Select One			
1.3.1	Use standardized categories when defining populations of interest considering cultural, environmental, historical, social, and structural factors	Select One			
1.3.2	Collect data from populations of interest to assess factors affecting the health of a community and health disparities using the principles of ethics, DEIA, and justice and mitigating potential negative impacts of data collection on the population	Select One			
1.4.1	Explain surveillance data needs (e.g., case definitions, data sources, quality, limitations, data collection elements, data transfer,	Select One			

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



To wh	at degree is your colleague able to independently	
	data collection timeliness, frequency of reporting, uses of data, functional requirements of information systems to support)	
1.4.2	Use identified population categories or subcategories when performing data analysis	Select One
1.4.3	Evaluate surveillance systems (e.g., system features, data elements, connectivity, cost-benefit analysis, burden to public health system, agency, and reporting entity)	Select One
1.4.4	Collaborate with informaticians to identify and implement data needs, automation processes, and surveillance systems	Select One
1.4.5	Analyze surveillance data (e.g., identifies key findings, creates data visualizations, contextualizes results in existing scientific and community knowledge, considers impact on public health programs)	Select One
1.4.6	Evaluate surveillance systems for validity (e.g., identification of population categories, social determinants of health, factors affecting the health of a community, and privacy considerations)	Select One
1.5.1	Conduct community health status assessments involving the affected community to investigate factors affecting the health of the community	Select One
1.5.2	Select epidemiologic study design most applicable to investigation of specific factor that affects the health of a community	Select One
1.5.3	Conduct epidemiologic investigation (e.g., identifies population of interest, creates case definition, identifies investigation timeframe, considers and accounts for sources of bias and confounders)	Select One
1.6.1	Collaborate with informaticians to collect, parse, prepare, and provision data to design and maintain databases and tools	Select One
1.6.2	Manage data and databases (e.g., including data transformation, creating datasets and variables, merging and splitting databases, formatting data, documenting data transformation)	Select One

**Scoring Guide:** 

**1=None** (unaware or very little knowledge of the skill) **2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



To what degree is your colleague able to independently				
1.6.3	Define database design, data management, security, and assumptions	Select One		
1.6.4	Apply practices for secure (restricted access), stable (routine backups, database redundancy), and sustainable data storage and data sharing	Select One		
1.7.1	Conduct descriptive epidemiology data analysis to assess public health objectives	Select One		
1.7.2	Compile datasets to be used in analysis (e.g., qualitative and quantitative data)	Select One		
1.7.3	Assess valid statistical techniques and variables based on the data, study design, sample size, hypotheses, and other relevant factors	Select One		
1.8.1	Apply knowledge of epidemiologic principles and methods to make recommendations regarding the validity of epidemiologic data (e.g., including likely sources of bias, validity and reliability of data collection instruments and methods, limitations in study design, sample selection, data collection, analysis, significance testing, and other features, influence of power and confidence limits)	Select One		
1.8.2	Create data presentation or visualization of data analysis to convey key findings in the context of current knowledge, public health programs, and community priorities and needs (e.g., dashboards, tables, charts, graphs)	Select One		
1.9.1	Relate key findings to existing policies, regulations, and laws, as well as other factors (e.g., cultural, environmental, historical, social, and structural factors that may affect the recommendations or interventions)	Select One		
1.9.2	Consult directly with collaborators to identify and prioritize public health action based on data analysis	Select One		

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)

**<sup>3=</sup>Knowledgeable** (comfortable with my knowledge or ability to apply the skills)



#### **AVERAGE SCORE**

Comments:						



Stop and move on to **Domain 2** competencies



#### **Practiced Tier Assessment**

#### Domain 1: Data Analytics and Assessment Skills

1 = None
They are unaware or have very little knowledge of the skill.

2 = Aware
They are aware but have limited knowledge or ability to apply the skill.

3 = Knowledgeable
They are comfortable with their knowledge or ability to apply the skill.

4 = Proficient
They are very comfortable, considered an expert, and/or could teach this skill to others.

N/A
This sub-competency is not applicable or expected for the position and/or tier being assessed.

To wha	To what degree is your colleague able to independently			
1.1.1	Identify systematic and structural barriers that perpetuate health inequities (e.g., racism, sexism, bigotry, poverty, gender discrimination)	Select One		
1.2.1	Articulate factors that require public health intervention or need further investigation	Select One		
1.2.2	Assess cultural, environmental, historical, social, and structural frameworks that affect the health of a community	Select One		
1.2.3	Evaluate gaps in available data (e.g., limitations of data, errors in estimates, lack of primary literature or studies)	Select One		
1.3.1	Evaluate cultural, environmental, historical, social, and structural factors for populations of interest	Select One		
1.3.2	Design data collection tools to capture information needed to assess factors affecting the health of a community and health disparities using the principles of ethics, DEIA, and justice and mitigating potential negative impacts of data collection on the population	Select One		
1.4.1	Assess surveillance data needs (e.g., data quality, availability, relevance, suitability, simplicity, sensitivity, predictability, timeliness, representativeness, flexibility)	Select One		

**Scoring Guide:** 

**1=None** (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



To wh	at degree is your colleague able to independently	
1.4.2	Assess identified population categories' suitability for data analysis and surveillance over time	Select One
1.4.3	Explain needed elements of new or existing surveillance systems (e.g., system features, data elements, connectivity, cost-benefit analysis, burden to public health system, agency, and reporting entity)	Select One
1.4.4	Advocate with informaticians for programs and policies to advance surveillance	Select One
1.4.5	Evaluate surveillance systems based on national guidance and methods, reporting entity needs, continuous quality improvement principles, and public health program (e.g., communicates surveillance results to reporting entities, communities, agency management)	Select One
1.4.6	Identify areas for improvement of surveillance systems related to social determinants of health and DEIA	Select One
1.5.1	Prioritize factors to investigate that are most impactful to the community (e.g., engages community members in determining priorities)	Select One
1.5.2	Design epidemiologic investigations that consider DEIA (e.g., identifies data sources, designs data collection tools, coordinates sampling and investigation)	Select One
1.5.3	Lead epidemiologic investigation (e.g., identifies population of interest, creates case definition, identifies investigation timeframe, considers and accounts for sources of bias and confounders)	Select One
1.6.1	Collaborate with informaticians to collect, parse, prepare, and provision data to design and maintain databases and tools	Select One
1.6.2	Design databases suitable for epidemiologic activities (e.g., including needed variables and data dictionary, ensuring compliance with national standards for coding and variables, supporting geographic analysis)	Select One

Scoring Guide:

**1=None** (unaware or very little knowledge of the skill) **2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



1.6.3 Manage documentation for database design, data management, security, and assumptions  1.6.4 Evaluate practices for secure (restricted access), stable (routine backups, database redundancy), and sustainable data storage and data sharing  1.7.1 Conduct analysis of data using software for data analysis and management (e.g., frequencies and descriptive statistics, adjustments, epidemiologic measures, trend analysis, measures of association, confidence intervals, statistics, multivariate analyses, regression analyses, geospatial and other graphical representations, questionnaire results, interview responses, indexing, coding, labeling, triangulation, and member checking)  1.7.2 Assess data quality metrics match to ensure correct interpretation  1.7.3 Evaluate results and interpretation of statistical analysis (e.g., assesses DEIA, potential confounders, data biases, and data misclassification)  1.8.1 Justify needs for the validity of epidemiologic data and conducting special analyses (e.g., survival analyses, cost-effectiveness, cost-benefit, cost-utility analyses)  1.8.2 Synthesize key findings from the data analysis based on current knowledge and public health programs to influence behavior and improve health  1.9.1 Propose new recommendations or modifications to existing interventions based on evidence (e.g., key findings, community input, risk communication and risk reduction methods, and shared risk and protective factors)  1.9.2 Consult directly with collaborators to identify and prioritize public. Select One	To wha	To what degree is your colleague able to independently			
backups, database redundancy), and sustainable data storage and data sharing  1.7.1 Conduct analysis of data using software for data analysis and management (e.g., frequencies and descriptive statistics, adjustments, epidemiologic measures, trend analysis, measures of association, confidence intervals, statistics, multivariate analyses, regression analyses, geospatial and other graphical representations, questionnaire results, interview responses, indexing, coding, labeling, triangulation, and member checking)  1.7.2 Assess data quality metrics match to ensure correct interpretation  1.7.3 Evaluate results and interpretation of statistical analysis (e.g., assesses DEIA, potential confounders, data biases, and data misclassification)  1.8.1 Justify needs for the validity of epidemiologic data and conducting special analyses (e.g., survival analyses, cost-effectiveness, cost-benefit, cost-utility analyses)  1.8.2 Synthesize key findings from the data analysis based on current knowledge and public health programs to influence behavior and improve health  1.9.1 Propose new recommendations or modifications to existing interventions based on evidence (e.g., key findings, community input, risk communication and risk reduction methods, and shared risk and protective factors)	1.6.3		Select One		
management (e.g., frequencies and descriptive statistics, adjustments, epidemiologic measures, trend analysis, measures of association, confidence intervals, statistics, multivariate analyses, regression analyses, geospatial and other graphical representations, questionnaire results, interview responses, indexing, coding, labeling, triangulation, and member checking)  1.7.2 Assess data quality metrics match to ensure correct interpretation  Select One  1.7.3 Evaluate results and interpretation of statistical analysis (e.g., assesses DEIA, potential confounders, data biases, and data misclassification)  1.8.1 Justify needs for the validity of epidemiologic data and conducting special analyses (e.g., survival analyses, cost-effectiveness, cost-benefit, cost-utility analyses)  1.8.2 Synthesize key findings from the data analysis based on current knowledge and public health programs to influence behavior and improve health  1.9.1 Propose new recommendations or modifications to existing interventions based on evidence (e.g., key findings, community input, risk communication and risk reduction methods, and shared risk and protective factors)	1.6.4	backups, database redundancy), and sustainable data storage and	Select One		
1.7.3 Evaluate results and interpretation of statistical analysis (e.g., assesses DEIA, potential confounders, data biases, and data misclassification)  1.8.1 Justify needs for the validity of epidemiologic data and conducting special analyses (e.g., survival analyses, cost-effectiveness, cost-benefit, cost-utility analyses)  1.8.2 Synthesize key findings from the data analysis based on current knowledge and public health programs to influence behavior and improve health  1.9.1 Propose new recommendations or modifications to existing interventions based on evidence (e.g., key findings, community input, risk communication and risk reduction methods, and shared risk and protective factors)	1.7.1	management (e.g., frequencies and descriptive statistics, adjustments, epidemiologic measures, trend analysis, measures of association, confidence intervals, statistics, multivariate analyses, regression analyses, geospatial and other graphical representations, questionnaire results, interview responses,	Select One		
assesses DEIA, potential confounders, data biases, and data misclassification)  1.8.1 Justify needs for the validity of epidemiologic data and conducting special analyses (e.g., survival analyses, cost-effectiveness, cost-benefit, cost-utility analyses)  1.8.2 Synthesize key findings from the data analysis based on current knowledge and public health programs to influence behavior and improve health  1.9.1 Propose new recommendations or modifications to existing interventions based on evidence (e.g., key findings, community input, risk communication and risk reduction methods, and shared risk and protective factors)	1.7.2	Assess data quality metrics match to ensure correct interpretation	Select One		
special analyses (e.g., survival analyses, cost-effectiveness, cost-benefit, cost-utility analyses)  1.8.2 Synthesize key findings from the data analysis based on current knowledge and public health programs to influence behavior and improve health  1.9.1 Propose new recommendations or modifications to existing interventions based on evidence (e.g., key findings, community input, risk communication and risk reduction methods, and shared risk and protective factors)  Select One	1.7.3	assesses DEIA, potential confounders, data biases, and data	Select One		
knowledge and public health programs to influence behavior and improve health  1.9.1 Propose new recommendations or modifications to existing interventions based on evidence (e.g., key findings, community input, risk communication and risk reduction methods, and shared risk and protective factors)  Select One	1.8.1	special analyses (e.g., survival analyses, cost-effectiveness, cost-	Select One		
interventions based on evidence (e.g., key findings, community input, risk communication and risk reduction methods, and shared risk and protective factors)	1.8.2	knowledge and public health programs to influence behavior and	Select One		
1.9.2 Consult directly with collaborators to identify and prioritize public Select One	1.9.1	interventions based on evidence (e.g., key findings, community input, risk communication and risk reduction methods, and shared	Select One		
health action based on data analysis	1.9.2	Consult directly with collaborators to identify and prioritize public health action based on data analysis	Select One		

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)

**<sup>3=</sup>Knowledgeable** (comfortable with my knowledge or ability to apply the skills)



#### **AVERAGE SCORE**

Comments:					



Stop and move on to **Domain 2** competencies



# **Advanced Tier Assessment**

# Domain 1: Data Analytics and Assessment Skills

1 = None	They are unaware or have very little knowledge of the skill.
2 = Aware	They are aware but have limited knowledge or ability to apply the skill.
3 = Knowledgeable	They are comfortable with their knowledge or ability to apply the skill.
4 = Proficient	They are very comfortable, considered an expert, and/or could teach this skill to others.
N/A	This sub-competency is not applicable or expected for the position and/or tier being assessed.

To wha	To what degree is your colleague able to independently			
1.1.1	Advocae for organizational policies, programs, and services to achieve health equity and social and environmental justice	Select One		
1.2.1	Advocate in partnership with community members to prioritize factors affecting the health of the community	Select One		
1.2.2	Apply the cultural, environmental, historical, social, and structural frameworks to describe factors affecting the health of a community	Select One		
1.2.3	Advocate for data quality and studies that fill the gaps (e.g., accuracy, completeness, validity, timeliness, consistency, integrity, and data quality studies)	Select One		
1.3.1	Assess limitations of identified population categories, data collection, sampling frame, and systems issues related to design	Select One		
1.3.2	Advocate for surveillance data that identifies assets and strengths of the community that can reduce systematic and structural barriers that perpetuate health inequities (e.g., racism, sexism, bigotry, poverty, gender discrimination) and demonstrate resilience	Select One		
1.4.1	Advocate for surveillance data strategies (e.g., case definitions, data sources, quality, limitations, data collection elements, data transfer, data collection timeliness, frequency of reporting, uses of data, functional requirements of information systems to support)	Select One		

**Scoring Guide:** 

**<sup>1=</sup>None** (unaware or very little knowledge of the skill)

**<sup>2=</sup>Aware** (aware but have limited knowledge or ability to apply the skills)

**<sup>3=</sup>Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**<sup>4=</sup>Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



To wh	at degree is your colleague able to independently	
1.4.2	Implement changes in population categories within data analysis and surveillance over time	Select One
1.4.3	Implement elements of new or existing surveillance systems considering DEIA (e.g., define objectives and uses, test data collection and storage, verify data collection meets needs, monitor data quality, review interoperability, collect data needed for decision making)	Select One
1.4.4	Advocate with informaticians for programs and policies to advance surveillance	Select One
1.4.5	Apply surveillance system data to inform public health policy	Select One
1.4.6	Implement improvements to surveillance systems related to social determinants of health and DEIA	Select One
1.5.1	Advocate for the use of community health status assessments and other methods used to investigate factors affecting the health of the community	Select One
1.5.2	Lead epidemiologic investigations that consider DEIA (e.g., monitoring investigation progress, informing impacted communities, the public, and the media, determining necessary improvements to the investigation)	Select One
1.5.3	Manage epidemiologic investigation (e.g., identifies population of interest, creates case definition, identifies investigation timeframe, considers and accounts for sources of bias and confounders)	Select One
1.6.1	Collaborate with informaticians to collect, parse, prepare, and provision data to design and maintain databases and tools	Select One
1.6.2	Evaluate data quality, accuracy, and reliability (e.g., designs and validates data entry techniques, cleans data, corrects errors)	Select One

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)

**<sup>1=</sup>None** (unaware or very little knowledge of the skill) **2=Aware** (aware but have limited knowledge or ability to apply the skills)

**<sup>3=</sup>Knowledgeable** (comfortable with my knowledge or ability to apply the skills)



To wha	at degree is your colleague able to independently	
1.6.3	Evaluate documentation for database design, data management, security, and assumptions	Select One
1.6.4	Advocate for practices for secure (restricted access), stable (routine backups, database redundancy), and sustainable data storage and data sharing	Select One
1.7.1	Conduct advanced data analytics methods (e.g., forecasting, mathematical modeling, Bayesian analysis, parsing qualitative data for natural language processing)	Select One
1.7.2	Facilitate access to datasets to conduct analyses (e.g., data sharing agreements and partnership building)	Select One
1.7.3	Advocate for the use of valid statistical techniques and statistical interpretation of results	Select One
1.8.1	Advocate for the validity of epidemiologic data and special analyses	Select One
1.8.2	Advocate for programs and policies using key findings from the data analysis	Select One
1.9.1	Evaluate new recommendations or modifications to existing interventions based on evidence (e.g., key findings, community input, risk communication and risk reduction methods, and shared risk and protective factors)	Select One
1.9.2	Consult directly with collaborators to identify and prioritize public health action based on data analysis	Select One

#### **AVERAGE SCORE**



Comment	s:
---------	----



Stop and move on to **Domain 2** competencies



#### **DOMAIN 2: PUBLIC HEALTH SCIENCES SKILLS**

Competencies in this domain include the following:

- 2.1. Describes the source of factors affecting community health (including morbidity and mortality) to guide epidemiologic activities
- 2.2. Collaborates with others (e.g., infectious diseases, biostatistics, environmental health, genetics, informatics, behavioral and community health, health policy and management experts) to support public health activities
- 2.3. Applies public health informatics in using epidemiologic data, information, and knowledge (e.g., including data collection, processing, analysis, and dissemination)
- 2.4. Manages information systems to promote effectiveness and security of data collection, processing, and analysis

For **Domain 2**, the **foundational** level focuses on activities such as identifying, describing, and assisting. The **intermediate** level builds on foundational activities and includes activities such as using, applying, explaining, maintaining, coordinating, and implementing. The **practiced** level builds on the first two levels and includes activities such as developing, assessing, and evaluating. The **advanced** level builds on the first three levels and includes activities such as integrating, ensuring, and advocating. If you would like to view all the specific sub-competencies in the domain, refer to <u>Appendix A</u>.

Select the tier that you would like to use to assess your colleague's competencies in this domain:

Foundational Tier Intermediate Tier Practiced Tier Advanced Tier



#### **Foundational Tier Assessment**

Domain 2: Public Health Sciences Skills

1 = None
2 = Aware
They are unaware or have very little knowledge of the skill.
They are aware but have limited knowledge or ability to apply the skill.
They are comfortable with their knowledge or ability to apply the skill.
They are very comfortable, considered an expert, and/or could teach this skill to others.

N/A
This sub-competency is not applicable or expected for the position and/or tier being assessed.

To wha	To what degree is your colleague able to independently			
2.1.1	Identify basic etiologic processes for human diseases, illnesses, and injury for subject matter areas of interest (e.g., infectious diseases, chronic diseases, adverse childhood experiences, drowning, accidents, air/water pollution, hazardous materials releases, toxicological outbreaks, natural disasters, mental/behavioral health)	Select One		
2.1.2	Identify the role and influence of socio-behavioral factors (e.g., including community, political, social, family, and individual behavioral factors), social determinants of health, and historic or structural discrimination in health risks and health status	Select One		
2.1.3	Identify factors impacting the delivery of the 10 essential public health services	Select One		
2.2.1	Identify the roles and capabilities of other public health professionals and how they can provide assistance in epidemiologic investigations, studies, surveillance, and programs	Select One		
2.2.2	Identify the roles and capabilities of laboratories and how they are used in epidemiologic investigations	Select One		
2.3.1	Identify information technologies and communication tools necessary to support epidemiologic investigations and surveillance (e.g., data linkage, programming, spatial analysis, machine learning, survey tools, dashboards)	Select One		

**Scoring Guide:** 

**1=None** (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



To what degree is your colleague able to independently						
2.3.2	Describe procedures and security policies to ensure the integrity and protection of confidential information in electronic files and computer systems	Select One				
2.3.3	Identify industry data standards specifications	Select One				
2.3.4	Describe the need for new or enhancement of existing systems to support epidemiologic activities	Select One				
2.3.5	Assist with documentation of information systems, databases, and datasets (e.g., guidelines, documented versions, dissemination methods, relevant standards specifications)	Select One				
2.3.6	Assist in coordination with informaticians and information systems resources to use, develop, and support the acquisition, maintenance, use, and dissemination of epidemiologic data	Select One				
2.4.1	Describe public health information systems and epidemiologic needs	Select One				
2.4.2	Describe confidentiality and privacy policies for the enterprise and security systems to support the implementation of those policies	Select One				
2.4.3	Identify needs for modernization of information systems and use of the most current technology	Select One				

#### **AVERAGE SCORE**

Comments:
-----------

		ļ



Stop and move on to **Domain 3** competencies

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



#### **Intermediate Tier Assessment**

Domain 2: Public Health Sciences Skills

1 = None They are unaware or have very little knowledge of the skill.
 2 = Aware They are aware but have limited knowledge or ability to apply the skill.
 3 = Knowledgeable They are comfortable with their knowledge or ability to apply the skill.
 4 = Proficient They are very comfortable, considered an expert, and/or could teach this skill to others.
 N/A This sub-competency is not applicable or expected for the position and/or tier being assessed.

To what degree is your colleague able to independently						
2.1.1	Describe human and environmental biology and behavioral sciences and principles that determine the potential biological mechanisms of disease, illness, and injury (e.g., chain of infection, host-agent-environment model, genetics and genomics)	Select One				
2.1.2	Explain the role and influence of socio-behavioral factors (e.g., including community, political, social, family, and individual behavioral factors), social determinants of health, and historic or structural discrimination in health risks and health status	Select One				
2.1.3	Explain factors impacting the delivery of the 10 essential public health services	Select One				
2.2.1	Collaborate with other public health professionals to provide assistance in epidemiologic investigations, studies, surveillance, and programs	Select One				
2.2.2	Coordinate laboratory and epidemiologic activities, including test or sample selection, data structures, communication, and reporting results in the field (e.g., results of health screenings and other surveys, identification of infectious diseases, biomarker assessment, susceptibility or predisposition based on genomic data)	Select One				
2.3.1	Use information technologies and communication tools that support data acquisition, entry, abstraction, management, analysis, planning, mapping, visualization, and reporting	Select One				

**Scoring Guide:** 

**1=None** (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To what degree is your colleague able to independently						
2.3.2	Apply procedures and security policies to ensure the integrity and protection of confidential information in electronic files and computer systems	Select One				
2.3.3	Explain industry data standards specifications	Select One				
2.3.4	Participate in the development of new or enhancement of existing systems to support epidemiologic activities	Select One				
2.3.5	Maintain documentation of information systems, databases, and datasets (e.g., guidelines, documented versions, dissemination methods, relevant standards specifications)	Select One				
2.3.6	Coordinate with informaticians and information systems resources to use, develop, and support the acquisition, maintenance, use, and dissemination of epidemiologic data	Select One				
2.4.1	Implement the development of integrated, cost-effective public health information systems that are consistent with a larger (enterprise-level) information architecture	Select One				
2.4.2	Participate in development of confidentiality and privacy policies for the enterprise and security systems to support the implementation of those policies	Select One				
2.4.3	Explain needs for modernization of information systems and use of the most current technology	Select One				

#### **AVERAGE SCORE**

C	_			_			_
	П	m	m	Δ	n	re	-
•	u			•			



Scoring Guide:

**1=None** (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



# **Practiced Tier Assessment**

Domain 2: Public Health Sciences Skills

1 = None	They are unaware or have very little knowledge of the skill.
2 = Aware	They are aware but have limited knowledge or ability to apply the skill.
3 = Knowledgeable	They are comfortable with their knowledge or ability to apply the skill.
4 = Proficient	They are very comfortable, considered an expert, and/or could teach this skill to others.
N/A	This sub-competency is not applicable or expected for the position and/or tier being assessed.

To what degree is your colleague able to independently						
2.1.1	Incorporate etiologic processes, scientific literature, community input, and public health databases into the development of prevention and control strategies	Select One				
2.1.2	Evaluate the role and influence of socio-behavioral factors (e.g., including community, political, social, family, and individual behavioral factors), social determinants of health, and historic or structural discrimination in health risks and health status	Select One				
2.1.3	Evaluate factors impacting the delivery of the 10 essential public health services	Select One				
2.2.1	Collaborate with other public health disciplines and experts to assess provided data and draw conclusions applicable to epidemiologic activities	Select One				
2.2.2	Interpret laboratory data, accounting for factors that influence the results of sample collection, screening, and diagnostic tests	Select One				
2.3.1	Develop data models from multiple sources to create new information or review existing information to support public health decision-making	Select One				
2.3.2	Ensure application of interoperable data standards as needed for storage and transmission	Select One				

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To wha	To what degree is your colleague able to independently						
2.3.3	Apply industry data standards specifications	Select One					
2.3.4	Lead the development of new or enhancement of existing systems to support epidemiologic activities	Select One					
2.3.5	Assess compliance of information systems, databases, and datasets (e.g., guidelines, documented versions, dissemination methods, relevant standards specifications)	Select One					
2.3.6	Assess program needs with informaticians and information systems resources to use, develop, and support the acquisition, maintenance, use, and dissemination of epidemiologic data	Select One					
2.4.1	Evaluate information systems for epidemiology programs (e.g., aligned objectives, business functions, and business processes)	Select One					
2.4.2	Develop confidentiality and privacy policies for the enterprise and security systems to support the implementation of those policies	Select One					
2.4.3	Assess needs for modernization of information systems and use of the most current technology	Select One					

#### **AVERAGE SCORE**

O.	Johnnents.							



Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



#### **Advanced Tier Assessment**

Domain 2: Public Health Sciences Skills

1 = None They are unaware or have very little knowledge of the skill.
 2 = Aware They are aware but have limited knowledge or ability to apply the skill.

**3 = Knowledgeable** They are comfortable with their knowledge or ability to apply the skill.

**4 = Proficient** They are very comfortable, considered an expert, and/or could teach

this skill to others.

**N/A** This sub-competency is not applicable or expected for the position

and/or tier being assessed.

To wha	To what degree is your colleague able to independently						
2.1.1	Advocate for prevention and control strategies that address etiologic processes for human disease, illness, and injury	Select One					
2.1.2	Advocate for the recognition of socio-behavioral factors (e.g., including community, political, social, family, and individual behavioral factors), social determinants of health, and historic or structural discrimination in health risks and health status	Select One					
2.1.3	Address factors impacting the delivery of the 10 essential public health services	Select One					
2.2.1	Supervise collaboration with other public health disciplines and experts to assess provided data and draw conclusions applicable to epidemiologic activities	Select One					
2.2.2	Evaluate laboratory and epidemiologic activity coordination and laboratory data, accounting for factors that influence the results of sample collection, screening and diagnostic tests	Select One					
2.3.1	Evaluate data models to support public health decision-making	Select One					
2.3.2	Support training on interoperable data standards as needed for storage and transmission	Select One					

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To what degree is your colleague able to independently			
2.3.3	Integrate data industry standards into policies and programs	Select One	
2.3.4	Advocate for the development of new or enhancement of existing systems to support epidemiologic activities	Select One	
2.3.5	Ensure compliance of information systems, databases, and datasets (e.g., guidelines, documented versions, dissemination methods, relevant standards specifications)	Select One	
2.3.6	Advocate for collaboration with informaticians and information systems resources to use, develop, and support the acquisition, maintenance, use, and dissemination of epidemiologic data	Select One	
2.4.1	Advocate for continuous quality improvement of information systems	Select One	
2.4.2	Evaluate enterprise policies and security systems for confidentiality and privacy standards	Select One	
2.4.3	Advocate for modernization of information systems and use of the most current technology	Select One	

#### **AVERAGE SCORE**

Comments:					



Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



### **DOMAIN 3: COMMUNICATION SKILLS**

Competencies in this domain include the following:

- 3.1. Determines communication strategies (e.g., considering literacy, needs, and preferences of audiences, selecting methods and format of information presented and data visualization)
- 3.2. Applies principles of risk communication
- 3.3. Facilitates accessible communication among individuals, groups, and organizations
- 3.4. Disseminates messages to internal and external audiences
- 3.5. Conducts investigations and interviews accommodating the needs of the population

For **Domain 3**, the **foundational** level focuses on activities such as identifying and describing. The **intermediate** level builds on foundational activities and includes activities such as tailoring, assisting, applying, selecting, demonstrating, developing, defining, implementing, and collaborating. The **practiced** level builds on the first two levels and includes activities such as developing, monitoring, evaluating, applying, collaborating, reviewing, ensuring, and managing. The **advanced** level builds on the first three levels and includes activities such as monitoring, facilitating, evaluating, collaborating, advocating, and ensuring. If you would like to view all the specific sub-competencies in the domain, refer to Appendix A.

Select the tier that you would like to use to assess your colleague's competencies in this domain:

Foundational Tier Intermediate Tier Practiced Tier Advanced Tier



# **Foundational Tier Assessment**

Domain 3: Communication Skills

1 = None	They are unaware or have very little knowledge of the skill.
2 = Aware	They are aware but have limited knowledge or ability to apply the skill.
3 = Knowledgeable	They are comfortable with their knowledge or ability to apply the skill.
4 = Proficient	They are very comfortable, considered an expert, and/or could teach this skill to others.
N/A	This sub-competency is not applicable or expected for the position and/or tier being assessed.

To what degree is your colleague able to independently			
3.1.1	Identify audience, content, and methods for dissemination of information (e.g., preparation of abstracts, manuscripts, written or oral reports, press releases, dynamic dashboards, maps, social media, blogs, podcasts, websites, television, radio)	Select One	
3.1.2	Assist in responding to public queries	Select One	
3.2.1	Participate in developing and reviewing risk communication messages about topics affecting the health of a community	Select One	
3.3.1	Identify barriers and facilitators to communication with audiences (e.g., cultural, environmental, historical, social, structural, educational, and accessibility factors)	Select One	
3.3.2	Identify professional interpersonal, interdisciplinary, transdisciplinary, and multidisciplinary communication skills (e.g., communicating with linguistic and cultural proficiency, negotiating, resolving conflicts)	Select One	
3.3.3	Identify messaging needs of media or communications experts (e.g., tailoring messaging to the public, providing proactive information, creating accessible quotes and information summaries)	Select One	

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To what degree is your colleague able to independently			
3.4.1	Identify epidemiologic findings, methodology, and principles messaging for affected individuals, communities, organizations, the public or professional audiences (e.g., using mechanisms tailored to that audience, using age-appropriate materials, using plain language, implementing CLAS Standards, ensuring accessibility for people with disabilities, engaging interpreters and translators, and acknowledging the changing communication ecosystem)	Select One	
3.4.2	Describe educational and behavioral techniques and technological tools to promote public health (e.g., through community education, behavior modification, collaborative policy development, issue advocacy, and community mobilization)	Select One	
3.4.3	Follow policies that address security, privacy, and legal considerations	Select One	
3.4.4	Identify misinformation and disinformation	Select One	
3.5.1	Identify cultural, environmental, historical, social, and structural factors impacting the population	Select One	
3.5.2	Identify mechanisms for contact and communication with population (e.g., hard of hearing, nonverbal, other primary language of population, and lack of broadband access)	Select One	

#### **AVERAGE SCORE**

	Comments:				
1					



Comments:

Stop and move on to **Domain 4** competencies

**Scoring Guide:** 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



# **Intermediate Tier Assessment**

Domain 3: Communication Skills

1 = None	They are unaware or have very little knowledge of the skill.
2 = Aware	They are aware but have limited knowledge or ability to apply the skill.
3 = Knowledgeable	They are comfortable with their knowledge or ability to apply the skill.
4 = Proficient	They are very comfortable, considered an expert, and/or could teach this skill to others.
N/A	This sub-competency is not applicable or expected for the position and/or tier being assessed.

To what degree is your colleague able to independently			
3.1.1	Tailor information based on audience, content, and methods for dissemination (e.g., preparation of abstracts, manuscripts, written or oral reports, press releases, dynamic dashboards, maps, social media, blogs, podcasts, websites, television, radio)	Select One	
3.1.2	Assist in responding to public queries	Select One	
3.2.1	Apply risk communication principles to communicate epidemiologic messages (e.g., tailoring risk communication to diverse audiences, following agency risk communication strategy and policy for media inquiries) using principles of ethics, DEIA, and justice	Select One	
3.3.1	Select audience-, program-, and intervention-specific communication methods (e.g., written or oral reports, press releases, dynamic dashboards, maps, social media, blogs, podcasts, websites, television, radio)	Select One	
3.3.2	Demonstrate professional interpersonal, interdisciplinary, transdisciplinary, and multidisciplinary communication skills (e.g., communicating with linguistic and cultural proficiency, negotiating, resolving conflicts)	Select One	
3.3.3	Collaborate with media or communications experts to facilitate messaging (e.g., tailoring messaging to the public, providing	Select One	

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To what degree is your colleague able to independently			
	proactive information, creating accessible quotes and information summaries)		
3.4.1	Communicate epidemiologic findings, methodology, and principles to affected individuals, communities, organizations, the public or professional audiences (e.g., using mechanisms tailored to that audience, using age-appropriate materials, using plain language, implementing CLAS Standards, ensuring accessibility for people with disabilities, engaging interpreters and translators, and acknowledging the changing communication ecosystem)	Select One	
3.4.2	Implement educational and behavioral techniques and technological tools to promote public health (e.g., through community education, behavior modification, collaborative policy development, issue advocacy, and community mobilization)	Select One	
3.4.3	Develop policies that address security, privacy, and legal considerations	Select One	
3.4.4	Respond to misinformation and disinformation	Select One	
3.5.1	Develop investigational strategy incorporating knowledge of the population and communication needs	Select One	
3.5.2	Define staff support or mechanisms needed to communicate with population (e.g., interpreters, translators, sign language, other language services)	Select One	

**AVERAGE SCORE** 



Co	m	m	е	n	ts	
----	---	---	---	---	----	--



Stop and move on to **Domain 4** competencies



## **Practiced Tier Assessment**

Domain 3: Communication Skills

1 = None	They are unaware or have very little knowledge of the skill.
2 = Aware	They are aware but have limited knowledge or ability to apply the skill.
0 - K	

**3 = Knowledgeable** They are comfortable with their knowledge or ability to apply the skill.

**4 = Proficient** They are very comfortable, considered an expert, and/or could teach

this skill to others.

**N/A** This sub-competency is not applicable or expected for the position

and/or tier being assessed.

To what	at degree is your colleague able to independently	
3.1.1	Create communication strategy for epidemiologic information (disease prevention, health promotion, key findings) for the general public, the community impacted, the news media, and/or to policy makers (e.g., considering DEIA, inclusive communication, populations with low literacy or access issues)	Select One
3.1.2	Respond to public queries	Select One
3.2.1	Consult across agencies, organizations, and communities to provide guidance on risk communication for intended audiences	Select One
3.3.1	Develop and design content needed for communication in line with best practices (e.g., promoting diverse opinions and DEIA, evaluating community reach, audience literacy and language needs, access and functional needs, data visualization)	Select One
3.3.2	Monitor application of professional interpersonal, interdisciplinary, transdisciplinary, and multidisciplinary communication skills (e.g., communicating with linguistic and cultural proficiency, negotiating, resolving conflicts)	Select One
3.3.3	Collaborate with media or communications experts to facilitate messaging (e.g., tailoring messaging to the public, providing proactive information, creating accessible quotes and information summaries)	Select One

**Scoring Guide:** 

**1=None** (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To wha	at degree is your colleague able to independently	
3.4.1	Review epidemiologic findings, methodology, and principles of communication and messaging for accuracy and supportive evidence prior to dissemination	Select One
3.4.2	Evaluate educational and behavioral techniques and technological tools to promote public health (e.g., through community education, behavior modification, collaborative policy development, issue advocacy, and community mobilization)	Select One
3.4.3	Evaluate policies that address security, privacy, and legal considerations	Select One
3.4.4	Ensure response to misinformation and disinformation	Select One
3.5.1	Apply investigative methods that address the needs of the population (e.g., including application of principles of ethics, DEIA, and justice)	Select One
3.5.2	Manage staff support or mechanisms needed to communicate with population (e.g., interpreters, translators, sign language, other language services)	Select One

#### **AVERAGE SCORE**

Comments:						



Stop and move on to **Domain 4** competencies

**<sup>4=</sup>Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



## **Advanced Tier Assessment**

Domain 3: Communication Skills

1 = None	They are unaware or have very little knowledge of the skill.
2 = Aware	They are aware but have limited knowledge or ability to apply the skill.

**3 = Knowledgeable** They are comfortable with their knowledge or ability to apply the skill.

**4 = Proficient** They are very comfortable, considered an expert, and/or could teach

this skill to others.

**N/A** This sub-competency is not applicable or expected for the position

and/or tier being assessed.

To wha	To what degree is your colleague able to independently				
3.1.1	Monitor implementation of communication strategy for technical information (e.g., accuracy of messaging, validity of conclusions, appropriateness of data visualization, suitability for audience)	Select One			
3.1.2	Facilitate opportunities to respond to public queries (e.g., conducting townhalls, reaching out to the media and public)	Select One			
3.2.1	Evaluate epidemiologic messaging for use of risk communication principles	Select One			
3.3.1	Evaluate messaging for equality principles (e.g., promoting diverse opinions and DEIA, evaluating community reach, audience literacy and language needs, access and functional needs, data visualization)	Select One			
3.3.2	Evaluate application of professional interpersonal, interdisciplinary, transdisciplinary, and multidisciplinary communication skills (e.g., communicating with linguistic and cultural proficiency, negotiating, resolving conflicts)	Select One			
3.3.3	Collaborate with media or communications experts to facilitate messaging (e.g., tailoring messaging to the public, providing proactive information, creating accessible quotes and information summaries)	Select One			

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To wh	at degree is your colleague able to independently	
3.4.1	Advocate for the dissemination of accurate and evidence-based epidemiologic findings, methodology, and principles to affected individuals, communities, organizations, the public or professional audiences	Select One
3.4.2	Advocate for educational and behavioral techniques and technological tools to promote public health (e.g., through community education, behavior modification, collaborative policy development, issue advocacy, and community mobilization)	Select One
3.4.3	Advocate for policies that address security, privacy, and legal considerations	Select One
3.4.4	Evaluate response to misinformation and disinformation	Select One
3.5.1	Monitor investigative methods that address the needs of the population (e.g., including application of principles of ethics, DEIA, and justice)	Select One
3.5.2	Ensure epidemiologic activity results or outcomes are communicated back to the community	Select One

#### **AVERAGE SCORE**

Comments:	Comments:					



Stop and move on to **Domain 4** competencies

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



# **DOMAIN 4: COMMUNITY PARTNERSHIP SKILLS**

Competencies in this domain include the following:

- 4.1. Describes epidemiologic conditions, systems, programs, and policies affecting community health and resilience
- 4.2. Maintains bidirectional relationships that improve community health and resilience
- 4.3. Participates in emergency management for public health emergencies

For **Domain 4**, the **foundational** level focuses on activities such as describing, identifying, reviewing, assisting, and participating. The **intermediate** level builds on foundational activities and includes activities such as engaging, explaining, summarizing, assisting, developing, and responding. The **practiced** level builds on the first two levels and includes activities such as collaborating, assessing, evaluating, participating, maintaining, and coordinating. The **advanced** level builds on the first three levels and includes activities such as advocating, evaluating, assessing, communicating, representing, and designing. If you would like to view all the specific sub-competencies in the domain, refer to <u>Appendix A</u>.

Select the tier that you would like to use to assess your colleague's competencies in this domain:

Foundational Tier Intermediate Tier Practiced Tier Advanced Tier



## **Foundational Tier Assessment**

Domain 4: Community Partnership Skills

1 = None
They are unaware or have very little knowledge of the skill.

2 = Aware
They are aware but have limited knowledge or ability to apply the skill.

3 = Knowledgeable
They are comfortable with their knowledge or ability to apply the skill.

4 = Proficient
They are very comfortable, considered an expert, and/or could teach this skill to others.

N/A
This sub-competency is not applicable or expected for the position and/or tier being assessed.

To what degree is your colleague able to independently				
4.1.1	Describe cltural, environmental, historical, social, and structural factors that affect the community's health and resilience	Select One		
4.1.2	Identify the different levels of governmental public health (tribal, territorial, local, state, and federal), their legal authority, and their roles and responsibilities in the community and public health programs	Select One		
4.1.3	Identify cultural, environmental, historical, social, and structural factors to provide context for an investigation	Select One		
4.2.1	Provide assistance to communities, partners, and local public health systems relating to surveillance, epidemiologic data, evaluation, and planning (e.g., combating misinformation and disinformation)	Select One		
4.2.2	Review the community's history and past interactions with the public health system to create communication strategies and support capacity building	Select One		
4.3.1	Participate in continuing education and training to plan for, respond to, and recover from emergencies	Select One		

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To wha	To what degree is your colleague able to independently				
4.3.2	Participate in scheduled emergency management exercises and/or drills	Select One			
4.3.3	Describe tools to support community partnerships in support of emergency management (e.g., assessments for the mental and physical health of emergency responders and volunteers, training materials for laboratory networks and healthcare providers, resources for the community)	Select One			
4.3.4	Describe incident command system (ICS) and the national incident management system (NIMS) structures	Select One			

#### **AVERAGE SCORE**

(	Con	nmen	ts:					



Stop and move on to **Domain 5** competencies



# **Intermediate Tier Assessment**

Domain 4: Community Partnership Skills

1 = None They are unaware or have very little knowledge of the skill.
 2 = Aware They are aware but have limited knowledge or ability to apply the skill.
 3 = Knowledgeable They are comfortable with their knowledge or ability to apply the skill.

**4 = Proficient** They are very comfortable, considered an expert, and/or could teach

this skill to others.

**N/A**This sub-competency is not applicable or expected for the position

and/or tier being assessed.

To wha	To what degree is your colleague able to independently					
4.1.1	Engage communities in bidirectional dialogue on health issues impacting their community at all stages of epidemiologic activities (e.g., engages with the community in a way that is accessible)	Select One				
4.1.2	Explain the different levels of governmental public health (tribal, territorial, local, state, and federal), their legal authority, and their roles and responsibilities in the community and public health programs	Select One				
4.1.3	Summarize findings within cultural, environmental, historical, social, and structural factors	Select One				
4.2.1	Provide assistance to communities, partners, and local public health systems relating to surveillance, epidemiologic data, evaluation, and planning (e.g., combating misinformation and disinformation)	Select One				
4.2.2	Describe partners and collaborators necessary to support epidemiologic activities and community capacity building	Select One				
4.3.1	Explain emergency planning activities (e.g., developing written plans, communicating epidemiology roles and capabilities, providing data to inform activities)	Select One				

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



To wha	To what degree is your colleague able to independently					
4.3.2	Participate in scheduled emergency management exercises and/or drills	Select One				
4.3.3	Develop tools to support community partnerships in support of emergency management (e.g., assessments for the mental and physical health of emergency responders and volunteers, training materials for laboratory networks and healthcare providers, resources for the community)	Select One				
4.3.4	Respond to public health emergencies within incident command system (ICS) and the national incident management system (NIMS) structures (e.g., conducting surveillance activities, developing and deploying assessment tools, conducting case investigations and chart reviews, monitoring morbidity and mortality, reporting findings to emergency managers)	Select One				

Comments:						





# **Practiced Tier Assessment**

Domain 4: Community Partnership Skills

1 = None They are unaware or have very little knowledge of the skill.
 2 = Aware They are aware but have limited knowledge or ability to apply the skill.

**3 = Knowledgeable** They are comfortable with their knowledge or ability to apply the skill.

**4 = Proficient** They are very comfortable, considered an expert, and/or could teach

this skill to others.

**N/A** This sub-competency is not applicable or expected for the position

and/or tier being assessed.

To wh	To what degree is your colleague able to independently						
4.1.1	Collaborate with communities to identify health priorities for study demonstrating principles of DEIA and cultural humility (e.g., including populations, communities, and individuals who may not have had previous opportunity to participate in priority setting)	Select One					
4.1.2	Assess components of the public health system and community (e.g., specific populations within the community or region, epidemiologic data collection and analysis needs, community themes and strengths, relationships among public and private organizations, community medical-care delivery system)	Select One					
4.1.3	Solicit feedback from members of the community to ensure findings are represented in lived experiences	Select One					
4.2.1	Evaluate information and input from the community and from community health assessments to aid in the design, interpretation, and conduct of epidemiologic activities considering the principles of data sovereignty and data sharing	Select One					
4.2.2	Identify partners and collaborators necessary for epidemiologic activities and community capacity building (e.g., including people from racial and ethnic minority groups, historically underserved and underrepresented groups, and groups subject to health disparities)	Select One					

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



To wh	at degree is your colleague able to independently	
4.3.1	Participate in emergency planning activities (e.g., developing written plans, communicating epidemiology roles and capabilities, providing data to inform activities)	Select One
4.3.2	Evaluate emergency management exercises and/or drills and actual emergency responses	Select One
4.3.3	Maintain community partnerships in support of emergency management (e.g., local government offices, faith-based organizations, volunteer organizations, healthcare providers, hospitals, laboratory networks, utilities, coroners/medical examiners, transportation authorities)	Select One
4.3.4	Coordinate emergency recovery activities (e.g., conducting epidemiological assessments to inform recovery efforts, participating in after-action reporting and improvement plan activities, updating emergency management plans)	Select One

Comments:					





## **Advanced Tier Assessment**

## Domain 4: Community Partnership Skills

1 = None They are unaware or have very little knowledge of the skill.2 = Aware They are aware but have limited knowledge or ability to apply the skill.

**3 = Knowledgeable** They are comfortable with their knowledge or ability to apply the skill.

**4 = Proficient** They are very comfortable, considered an expert, and/or could teach

this skill to others.

**N/A** This sub-competency is not applicable or expected for the position

and/or tier being assessed.

To wha	To what degree is your colleague able to independently						
4.1.1	Advocate for community health priorities demonstrating principles of DEIA and cultural humility	Select One					
4.1.2	Evaluate changes that are occurring or are expected to occur that affect the community's health or the public health system (e.g., a Mobilizing for Action through Planning and Partnerships forces of change assessment, identifying threats and opportunities)	Select One					
4.1.3	Assess impact of investigation findings on the population and relevance	Select One					
4.2.1	Advocate for information and input from the community and from community health assessments to aid in the design, interpretation, and conduct of epidemiologic activities	Select One					
4.2.2	Communicate with partners and multidisciplinary collaborators in the community through proactive outreach efforts (e.g., to regulated industry, government offices, faith-based organizations, emergency management, coroners/medical examiners, transportation, utilities, community coalitions, and community grantees)	Select One					
4.3.1	Represent epidemiologic activities in development of agency emergency management plans (e.g., emergency operations response plan, continuity plan, pandemic influenza plan, mitigation plan, disaster recovery plan)	Select One					

**Scoring Guide:** 

**1=None** (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



To wh	To what degree is your colleague able to independently					
4.3.2	Design emergency management exercises and/or drills and actual emergency responses	Select One				
4.3.3	Advocate for partnerships with emergency management partner professionals	Select One				
4.3.4	Evaluate emergency response and recovery activities	Select One				

## **AVERAGE SCORE**

Comments:			



**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



# **DOMAIN 5: MANAGEMENT AND FINANCE SKILLS**

Competencies in this domain include the following:

- 5.1. Describes factors that affect the financial and operational health of the organization (e.g., equitable and fair treatment of staff, support from the governing body and community, sustainability of funding, training of managers)
- 5.2. Engages in epidemiologic activities within the organization's budget, operational plan, and financial rules
- 5.3. Manages operational and financial resources for epidemiologic activities
- 5.4. Secures extramural funding (e.g., preparing proposals, grant applications, vendor contracts, and requests for proposals)
- 5.5. Manages human capital (including recruitment, retention, and professional development of staff)

For **Domain 5**, the **foundational** level focuses on activities such as identifying, maintaining, describing, recognizing, and following. The **intermediate** level builds on foundational activities and includes activities such as formulating, maintaining, estimating, comparing, reviewing, describing, and defining. The **practiced** level builds on the first two levels and includes activities such as implementing, creating, estimating, reviewing, tracking, assigning, developing, collaborating, and evaluating. The **advanced** level builds on the first three levels and includes activities such as justifying, auditing, managing, administering, adjusting, arranging, implementing, an recommending. If you would like to view all the specific subcompetencies in the domain, refer to <u>Appendix A</u>.

Select the tier that you would like to use to assess your colleague's competencies in this domain:

Foundational Tier Intermediate Tier Practiced Tier Advanced Tier



# **Foundational Tier Assessment**

# Domain 5: Management and Finance Skills

1 = None	They are unaware or have very little knowledge of the skill.
2 = Aware	They are aware but have limited knowledge or ability to apply the skill.
3 = Knowledgeable	They are comfortable with their knowledge or ability to apply the skill.
4 = Proficient	They are very comfortable, considered an expert, and/or could teach

this skill to others.

**N/A** This sub-competency is not applicable or expected for the position

and/or tier being assessed.

To wha	To what degree is your colleague able to independently					
5.1.1	Identify epidemiologic program goals, objectives, tasks, and resources	Select One				
5.1.2	Maintain accurate records related to financial and operational health	Select One				
5.2.1	Identify resources necessary to carry out tasks in the operational plan (e.g., personnel, equipment, supplies, and travel costs)	Select One				
5.3.1	Describe progress of meeting project or program goals and deliverables expected	Select One				
5.3.2	Recognize project or program financial documents (e.g., budget, balance sheet, profit and loss)	Select One				
5.3.3	Follow organizational chain of command	Select One				
5.3.4	Identify opportunities to increase awareness of external staffing support funding (e.g., where to network, search for consultants, post RFPs)	Select One				

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To wha	To what degree is your colleague able to independently				
5.4.1	Describe funding needs for epidemiologic activities	Select One			
5.5.1	Identify issues affecting recruitment, retention, and professional development of epidemiology workforce	Select One			
5.5.2	Identify the importance of a diverse, inclusive, and competent epidemiologic workforce	Select One			

Comments:	comments:				





# **Intermediate Tier Assessment**

# Domain 5: Management and Finance Skills

1 = None	They are unaware or have very little knowledge of the skill.
2 = Aware	They are aware but have limited knowledge or ability to apply the skill.
3 = Knowledgeable	They are comfortable with their knowledge or ability to apply the skill.
4 = Proficient	They are very comfortable, considered an expert, and/or could teach this skill to others.
N/A	This sub-competency is not applicable or expected for the position and/or tier being assessed.

To wha	To what degree is your colleague able to independently				
5.1.1	Formulate tasks to meet project or program goals and objectives	Select One			
5.1.2	Maintain accurate records related to financial and operational health	Select One			
5.2.1	Estimate resources and costs necessary to carry out tasks in the operational plan, including personnel, equipment, supplies, and travel costs	Select One			
5.3.1	Compare progress to expectations established in financial and organizational program plans	Select One			
5.3.2	Review project or program financial documents (e.g., budget, balance sheet, profit and loss)	Select One			
5.3.3	Describe epidemiology program function on the public health agency management team	Select One			
5.3.4	Define project scope of work for external staffing support (contractors or consultants) based on project or program needs and requirements	Select One			

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To wha	To what degree is your colleague able to independently				
5.4.1	Identify funding sources and opportunities to support epidemiologic activities	Select One			
5.5.1	Describe workforce, workplace, and other issues that impact recruitment, retention, and professional development	Select One			
5.5.2	Describe strategies to recruit and retain a diverse, inclusive, and competent epidemiologic workforce	Select One			

Comments:					





# **Practiced Tier Assessment**

# Domain 5: Management and Finance Skills

1 = None	They are unaware or have very little knowledge of the skill.
2 = Aware	They are aware but have limited knowledge or ability to apply the skill.
3 = Knowledgeable	They are comfortable with their knowledge or ability to apply the skill.
4 = Proficient	They are very comfortable, considered an expert, and/or could teach this skill to others.
N/A	This sub-competency is not applicable or expected for the position and/or tier being assessed.

To wh	To what degree is your colleague able to independently				
5.1.1	Implement a timeline for carrying out the tasks to meet project or program goals and objectives	Select One			
5.1.2	Create records related to financial and operational health (e.g., budgets, balance sheets, and progress reports)	Select One			
5.2.1	Estimate expenditures that may arise from epidemiologic activities (e.g., rapid investigations and emergency response)	Select One			
5.3.1	Review project or program goals and deliverables expected within defined budget	Select One			
5.3.2	Track fiscal expenditures against financial plan for project or program	Select One			
5.3.3	Assign staff and resources to support epidemiology program function (e.g., FTEs, interns, students, fellows, contractors)	Select One			
5.3.4	Develop requests for proposals (RFPs) to obtain external staffing support (consultants or contractors)	Select One			

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To wha	To what degree is your colleague able to independently				
5.4.1	Collaborate with budget and operational staff to obtain funding (e.g., preparing funding applications, allocating awarded funds, describing funds and resources available for project or program activities)	Select One			
5.5.1	Develop agency recruitment, retention, and professional development plans	Select One			
5.5.2	Evaluate strategies to improve epidemiologic workforce recruitment, retention, and professional development (e.g., including improving workforce satisfaction, developing professional development plans, fostering a healthy work environment)	Select One			

#### **AVERAGE SCORE**

Comments:					



Stop and move on to <u>Domain 6</u> competencies



## **Advanced Tier Assessment**

## Domain 5: Management and Finance Skills

**1 = None** They are unaware or have very little knowledge of the skill.

**2 = Aware** They are aware but have limited knowledge or ability to apply the skill.

**3 = Knowledgeable** They are comfortable with their knowledge or ability to apply the skill.

**4 = Proficient** They are very comfortable, considered an expert, and/or could teach

this skill to others.

**N/A** This sub-competency is not applicable or expected for the position

and/or tier being assessed.

To wha	To what degree is your colleague able to independently				
5.1.1	Justify costs, personnel, staffing, travel, or other resource needs associated with program goals, projects, and tasks	Select One			
5.1.2	Audit records related to financial and operational health	Select One			
5.2.1	Manage the budget for needed resources within the rules of the agency	Select One			
5.3.1	Administer resources to support epidemiologic activities	Select One			
5.3.2	Adjust staffing and activities to stay within defined budget	Select One			
5.3.3	Justify personnel and resources needed for epidemiology program function in the public health agency	Select One			
5.3.4	Manage contractual obligations of agency with external staffing support (consultants or contractors)	Select One			

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



To wha	To what degree is your colleague able to independently				
5.4.1	Arrange disbursement of funding for projects or programs (e.g., maintaining budget records, creating budget workplan, detailing grant allowable expenses)	Select One			
5.5.1	Implement agency recruitment, retention, and professional development plans with agency management	Select One			
5.5.2	Recommend fiscal support of and agency policy changes that support staff recruitment, retention, and professional development strategies	Select One			

Comments:			





# **DOMAIN 6: LEADERSHIP AND SYSTEM THINKING SKILLS**

Competencies in this domain include the following:

- 6.1. Applies the organization's vision and program goals in all epidemiologic activities
- 6.2. Engages in change management
- 6.3. Engages in performance management of self and other team members
- 6.4. Manages workforce development

For **Domain 6**, the **foundational** level focuses on activities such as describing, identifying, self-evaluating, applying, reflecting, collaborating, demonstrating, and participating. The **intermediate** level builds on foundational activities and includes activities such as engaging, using, identifying, self-evaluating, applying, reflecting, evaluating, disseminating, and participating. The **practiced** level builds on the first two levels and includes activities such as constructing, developing, managing, self-evaluating, applying, reflecting, ensuring, facilitating, and generating. The **advanced** level builds on the first three levels and includes activities such as engaging, supervising, coaching, self-evaluating, applying, reflecting, advocating, ensuring, and facilitating. If you would like to view all the specific sub-competencies in the domain, refer to <u>Appendix A</u>.

Select the tier that you would like to use to assess your colleague's competencies in this domain:

Foundational Tier Intermediate Tier Practiced Tier Advanced Tier



# **Foundational Tier Assessment**

Domain 6: Leadership and System Thinking Skills

1 = None	They are unaware or have very little knowledge of the skill.
2 = Aware	They are aware but have limited knowledge or ability to apply the skill.
3 = Knowledgeable	They are comfortable with their knowledge or ability to apply the skill.
4 = Proficient	They are very comfortable, considered an expert, and/or could teach this skill to others.
N/A	This sub-competency is not applicable or expected for the position and/or tier being assessed.

To wha	To what degree is your colleague able to independently				
6.1.1	Describe the organization's vision and program goals	Select One			
6.2.1	Describe a shared vision of change	Select One			
6.3.1	Identify roles, responsibilities, and performance of all team members in epidemiologic activities	Select One			
6.3.2	Evaluate own performance and areas for improvement	Select One			
6.3.3	Apply project and time management skills needed for epidemiologic activities	Select One			
6.3.4	Engage in continuous self-reflection about one's biases (e.g., perceptions, assumptions, stereotypes, and implicit and explicit biases)	Select One			
6.4.1	Collaborate with project team members of varied backgrounds and education	Select One			

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To wha	To what degree is your colleague able to independently					
6.4.2	Demonstrate ongoing learning (e.g., identifying and advocating for participation in professional development, continuing education, and personal education or training)	Select One				
6.4.3	Participate in collaborative relationship activities for workforce development	Select One				

Comments:			





# **Intermediate Tier Assessment**

Domain 6: leadership and System Thinking Skills

1 = None They are unaware or have very little knowledge of the skill.
 2 = Aware They are aware but have limited knowledge or ability to apply the skill.
 3 = Knowledgeable They are comfortable with their knowledge or ability to apply the skill.
 4 = Proficient They are very comfortable, considered an expert, and/or could teach this skill to others.
 N/A This sub-competency is not applicable or expected for the position and/or tier being assessed.

To wha	at degree is your colleague able to independently	
6.1.1	Engage individuals and teams to implement organization's vision and program goals	Select One
6.2.1	Use change management techniques	Select One
6.3.1	Identify roles, responsibilities, and performance of all team members in epidemiologic activities	Select One
6.3.2	Evaluate own performance and areas for improvement	Select One
6.3.3	Apply project and time management skills needed for epidemiologic activities to ensure projects are being managed appropriately by the team	Select One
6.3.4	Engage in continuous self-reflection about one's biases (e.g., perceptions, assumptions, stereotypes and implicit and explicit biases)	Select One
6.4.1	Evaluate current agency staff to determine whether individuals with needed skills and abilities are present	Select One

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To wha	To what degree is your colleague able to independently					
6.4.2	Disseminate learning opportunities (e.g., webinars and events relating to epidemiologic analyses, communication skills, etc.)	Select One				
6.4.3	Participate in collaborative relationship activities for workforce development	Select One				

#### **AVERAGE SCORE**

Comments:			



**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



# **Practiced Tier Assessment**

# Domain 6: Leadership and System Thinking Skills

1 = None They are unaware or have very little knowledge of the skill.
 2 = Aware They are aware but have limited knowledge or ability to apply the skill.
 3 = Knowledgeable They are comfortable with their knowledge or ability to apply the skill.
 4 = Proficient They are very comfortable, considered an expert, and/or could teach

this skill to others.

**N/A** This sub-competency is not applicable or expected for the position

and/or tier being assessed.

To wha	To what degree is your colleague able to independently					
6.1.1	Construct proposed projects and programs to support the organization's vision and program goals	Select One				
6.2.1	Develop strategies to implement change management techniques to implement change (e.g., ability to support change, identifying priorities, building new skills)	Select One				
6.3.1	Manage peers' and supervisors' performance bidirectionally (e.g., define expectations, clarify roles and responsibilities, anticipate problems and solutions, identify opportunities)	Select One				
6.3.2	Evaluate own performance and areas for improvement	Select One				
6.3.3	Apply project and time management skills needed for epidemiologic activities to ensure projects are being managed appropriately by the team	Select One				
6.3.4	Engage in continuous self-reflection about one's biases (e.g., perceptions, assumptions, stereotypes and implicit and explicit biases)	Select One				
6.4.1	Ensure that diverse, skilled teams are incorporated into organizational programs, plans, and the workforce	Select One				

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To wha	To what degree is your colleague able to independently					
6.4.2	Facilitate coaching and mentoring for staff performing epidemiologic activities (e.g., supervisor to staff, peer to peer, and staff to supervisor)	Select One				
6.4.3	Generate opportunities for collaborative relationships with key personnel of their agency, other agencies, and communities to support workforce development activities (e.g., identifying opportunities for collaboration with academic partnerships, community-based organizations, private sector)	Select One				

Comments:			





## **Advanced Tier Assessment**

# Domain 6: Leadership and System thinking Skills

1 = None They are unaware or have very little knowledge of the skill.
 2 = Aware They are aware but have limited knowledge or ability to apply the skill.
 3 = Knowledgeable They are comfortable with their knowledge or ability to apply the skill.

**4 = Proficient** They are very comfortable, considered an expert, and/or could teach

this skill to others.

**N/A** This sub-competency is not applicable or expected for the position

and/or tier being assessed.

To wha	at degree is your colleague able to independently	
6.1.1	Engage key contributors to support the organization's vision and program goals	Select One
6.2.1	Supervise methods for monitoring and sustaining organizational change	Select One
6.3.1	Coach team members as needed in the performance of their responsibilities (e.g., mentoring supervisees, other staff, and interns, supporting team member professional and personal development)	Select One
6.3.2	Evaluate own performance and areas for improvement	Select One
6.3.3	Apply project and time management skills needed for epidemiologic activities to ensure projects are being managed appropriately by the team	Select One
6.3.4	Engage in continuous self-reflection about one's biases (e.g., perceptions, assumptions, stereotypes and implicit and explicit biases)	Select One
6.4.1	Advocate for resources to ensure that diverse, skilled individuals are recruited and retained by the organization	Select One

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

3=Knowledgeable (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To wha	To what degree is your colleague able to independently			
6.4.2	Ensure resources are available to support workforce development (e.g., ongoing learning, continuing education, professional development, mentoring and coaching opportunities)	Select One		
6.4.3	Facilitate collaborative relationships with key personnel of their agency, other agencies, and communities to support workforce development activities (e.g., communicating with and supporting academic partnerships, community-based organizations, private sector)	Select One		

Comments:					





# DOMAIN 7: POLICY DEVELOPMENT AND PROGRAM PLANNING SKILLS

Competencies in this domain include the following:

- 7.1. Applies epidemiology to the development of public health policies, programs, services, and laws
- 7.2. Evaluates programs, policies, services, laws, and organizational performance
- 7.3. Engages in organizational strategic planning (e.g., strategic prioritization, research agenda, and action plans)
- 7.4. Applies principles of ethical and legal practice to epidemiologic activities, data analysis, assessment, and dissemination
- 7.5. Advocates for policies and public health actions that improve community health and resilience

For **Domain 7**, the **foundational** level focuses on activities such as describing, recognizing, following, identifying, demonstrating, and assisting. The **intermediate** level builds on foundational activities and includes activities such as describing, providing, following, creating, employing, reviewing, analyzing, providing, demonstrating, applying, defining, collaborating, and designing. The **practiced** level builds on the first two levels and includes activities such as describing, advocating, enforcing, monitoring, designing, evaluating, interpreting, participating, demonstrating, assessing, advocating, applying, and implementing. The **advanced** level builds on the first three levels and includes activities such as applying, advocating, enforcing, evaluating, communicating, recommending, assessing, analyzing, defending, demonstrating, and consulting. If you would like to view all the specific sub-competencies in the domain, refer to <u>Appendix A</u>.

Select the tier that you would like to use to assess your colleague's competencies in this domain:

Foundational Tier Intermediate Tier Practiced Tier Advanced Tier

66



## **Foundational Tier Assessment**

# Domain 7: Policy Development and Program Planning Skills

1 = None They are unaware or have very little knowledge of the skill.
 2 = Aware They are aware but have limited knowledge or ability to apply the skill.
 3 = Knowledgeable They are comfortable with their knowledge or ability to apply the skill.

**4 = Proficient** They are very comfortable, considered an expert, and/or could teach

this skill to others.

**N/A** This sub-competency is not applicable or expected for the position

and/or tier being assessed.

To what degree is your colleague able to independently				
7.1.1	Describe public health policies and policy development from an epidemiologic context (e.g., what systems are in place to implement policy, their flexibility, considerations of ethics, DEIA and justice, health in all policies)	Select One		
7.1.2	Recognize epidemiologic and surveillance data needed to inform the development and improvement of public health policies, programs, services, and laws	Select One		
7.1.3	Follow rules and laws applying to government employees and funding sources regarding lobbying and advocacy	Select One		
7.2.1	Identify SMART (Specific, Measurable, Attainable, Relevant, Time-bounded) program-relevant goals, objectives, and performance measures	Select One		
7.2.2	Identify data (e.g., surveillance, qualitative, quantitative) needed to track program objectives, performance, and outcomes	Select One		
7.2.3	Describe organizational policies, programs, and services considering ethics, DEIA, and justice	Select One		
7.2.4	Describe proposed bills and regulations that affect epidemiologic activities and public health programs and plans	Select One		

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

<sup>2=</sup>Aware (aware but have limited knowledge or ability to apply the skills)

**<sup>3=</sup>Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

<sup>4=</sup>Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To what degree is your colleague able to independently			
7.3.1	Describe the need for evidence-based and data driven decisions for strategic planning	Select One	
7.4.1	Demonstrate respect for community-level confidentiality, concerns of stigmatization, risks, and harm to community	Select One	
7.4.2	Describe ethics guidelines, principles, and laws when planning studies; conducting research; and collecting, managing, disseminating, and using data (e.g., considering data sovereignty, data governance, public health authority, confidentiality, Belmont principles, IRB processes, HIPAA, other privacy laws)	Select One	
7.4.3	Follow organization's policies and practices related to ethical, equitable, and inclusive conduct	Select One	
7.5.1	Describe evidence-based practices to inform public health actions	Select One	
7.5.2	Assist in designing public health actions that reduce systematic and structural barriers that perpetuate health inequities (e.g., racism, sexism, bigotry, poverty, gender discrimination)	Select One	

## **AVERAGE SCORE**

•	Johnnents.			
Г				



Comments:

Stop and move on to the chapter called, <u>Interpreting Your Results</u>

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



# **Intermediate Tier Assessment**

# Domain 7: Policy Development and Program Planning Skills

1 = None	They are unaware or have very little knowledge of the skill.
2 = Aware	They are aware but have limited knowledge or ability to apply the skill.
3 = Knowledgeable	They are comfortable with their knowledge or ability to apply the skill.
4 = Proficient	They are very comfortable, considered an expert, and/or could teach this skill to others.
N/A	This sub-competency is not applicable or expected for the position and/or tier being assessed.

To what degree is your colleague able to independently			
7.1.1	Describe the scope of regulations and laws affecting epidemiologic activities	Select One	
7.1.2	Provide epidemiologic and surveillance data to inform the development and improvement of public health policies, programs, services, and laws (e.g., providing input, evidence, or data, following organizational procedures, creating decision memos, identifying policy alternatives)	Select One	
7.1.3	Follow rules and laws applying to government employees and funding sources regarding lobbying and advocacy	Select One	
7.2.1	Create SMART (Specific, Measurable, Attainable, Relevant, Time-bounded) program-relevant goals, objectives, and performance measures	Select One	
7.2.2	Employ data from surveillance systems, databases, dashboards, and other data sources to track program objectives, performance, and outcomes	Select One	
7.2.3	Review organizational policies, programs, and services considering ethics, DEIA, and justice	Select One	

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



To subject the same of a construction of the same of the fact of the same of t							
lo wha	To what degree is your colleague able to independently						
7.2.4	Create analyses of proposed bills and regulations that affect epidemiologic activities and public health programs and plans	Select One					
7.3.1	Provide data analysis findings to improve organizational performance and impact strategic planning	Select One					
7.4.1	Demonstrate respect for community-level confidentiality, concerns of stigmatization, risks, and harm to community	Select One					
7.4.2	Apply ethics guidelines, principles, and laws when planning studies; conducting research; and collecting, managing, disseminating, and using data (e.g., considering data sovereignty, data governance, public health authority, confidentiality, Belmont principles, IRB processes, HIPAA, other privacy laws)	Select One					
7.4.3	Define expectations of ethical, equitable, and inclusive conduct for team members	Select One					
7.5.1	Collaborate with the community to identify public health actions and review public health decision making process	Select One					
7.5.2	Design public health actions that reduce systematic and structural barriers that perpetuate health inequities (e.g., racism, sexism, bigotry, poverty, gender discrimination)	Select One					

**TOTAL SCORE** 

## **AVERAGE SCORE**

Comments:						



Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



## **Practiced Tier Assessment**

## Domain 7: Policy Development and Program Planning Skills

1 = NoneThey are unaware or have very little knowledge of the skill.2 = AwareThey are aware but have limited knowledge or ability to apply the skill.3 = KnowledgeableThey are comfortable with their knowledge or ability to apply the skill.4 = ProficientThey are very comfortable, considered an expert, and/or could teach

this skill to others.

**N/A** This sub-competency is not applicable or expected for the position

and/or tier being assessed.

To wha	To what degree is your colleague able to independently					
7.1.1	Describe the value of epidemiology and other evidence-based information in developing policy	Select One				
7.1.2	Advocate for the incorporation of epidemiologic and surveillance data and the principles of data governance into policies, programs, services, and laws	Select One				
7.1.3	Enforce rules and laws applying to government employees and funding sources regarding lobbying and advocacy	Select One				
7.2.1	Monitor SMART (Specific, Measurable, Attainable, Relevant, Time-bounded) program-relevant goals, objectives, and performance measures	Select One				
7.2.2	Design systems to record progress toward program objectives, performance, and outcomes	Select One				
7.2.3	Evaluate the impact of policies, programs, and services on achieving epidemiology program goals and objectives considering ethics, DEIA, and justice	Select One				
7.2.4	Interpret analyses of proposed bills and regulations that affect epidemiologic activities and public health programs and plans	Select One				

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



To wha	To what degree is your colleague able to independently					
7.3.1	Participate in organizational strategic planning (e.g., contributing to strategic prioritization, research agenda, and action plans)	Select One				
7.4.1	Demonstrate respect for community-level confidentiality, concerns of stigmatization, risks, and harm to community	Select One				
7.4.2	Assess relevant ethics guidelines and laws for data collection, management, dissemination, and use of data and information (e.g., de-identification of data, HIPAA compliance, health data sharing and privacy, addressing health inequities and community representation)	Select One				
7.4.3	Advocate for ethical, equitable, and inclusive conduct of epidemiologic activities (e.g., addressing health disparities, health equity, and DEIA)	Select One				
7.5.1	Apply public health actions that have been shown to be effective in similar populations if supported by the community of interest	Select One				
7.5.2	Implement public health actions that reduce systematic and structural barriers that perpetuate health inequities (e.g., racism, sexism, bigotry, poverty, gender discrimination)	Select One				

## **TOTAL SCORE**

## **AVERAGE SCORE**

Comments:	Comments:					



Stop and move on to the chapter called, <u>Interpreting Your Results</u>

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

4=Proficient (very comfortable, considered an expert, and/or could teach this skill to others)



## **Advanced Tier Assessment**

## Domain 7: Policy Development and Program Planning Skills

1 = None They are unaware or have very little knowledge of the skill.
 2 = Aware They are aware but have limited knowledge or ability to apply the skill.
 3 = Knowledgeable They are comfortable with their knowledge or ability to apply the skill.

**4 = Proficient** They are very comfortable, considered an expert, and/or could teach

this skill to others.

**N/A** This sub-competency is not applicable or expected for the position

and/or tier being assessed.

To what degree is your colleague able to independently					
7.1.1	Apply public health policies or laws into epidemiology activities in programs or plans	Select One			
7.1.2	Advocate for policies, programs, services, and laws based on evidence including research and epidemiologic and surveillance data	Select One			
7.1.3	Enforce rules and laws applying to government employees and funding sources regarding lobbying and advocacy	Select One			
7.2.1	Evaluate SMART (Specific, Measurable, Attainable, Relevant, Time-bounded) program-relevant goals, objectives, and performance measures	Select One			
7.2.2	Communicate progress toward program objectives, performance, and outcomes to organization for use in program planning and modification	Select One			
7.2.3	Recommend improvements to policies, programs, services, and performance using continuous quality improvement methods and tools considering ethics, DEIA, and justice	Select One			
7.2.4	Assess programs, policies, services, proposed bills, and laws affecting the public health (e.g., their relationship with existing policies and laws, their impact on current programs and services, and their economic impact)	Select One			

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



To wha	To what degree is your colleague able to independently					
7.3.1	Analyze organizational performance data	Select One				
7.4.1	Defend community-level confidentiality, addresses concerns of stigmatization, risks, and harm to community	Select One				
7.4.2	Advocate for ethics guidelines and laws for data collection, management, dissemination, and use of data and information (e.g., incorporating DEIA and justice, addressing emerging health concerns, improving access to health information, promoting secure data sharing)	Select One				
7.4.3	Demonstrate ethical, equitable, and inclusive conduct in organizational epidemiologic activities (e.g., managing conflicts of interest, preparing and submitting research for publication, balancing individual privacy with risk to the community, responding to FOIA requests)	Select One				
7.5.1	Evaluate the choice of action strategy through consultation with the community of interest	Select One				
7.5.2	Consult with decision makers and the community on factors affecting community health, health inequities, and resilience (e.g., ethics, DEIA, justice, racism, sexism, bigotry, poverty, gender discrimination)	Select One				

## **TOTAL SCORE**

## **AVERAGE SCORE**

Comments:	Comments:					



Stop and move on to the chapter called, <u>Interpreting Your Results</u>

Scoring Guide: 1=None (unaware or very little knowledge of the skill)

**2=Aware** (aware but have limited knowledge or ability to apply the skills)

**3=Knowledgeable** (comfortable with my knowledge or ability to apply the skills)

**4=Proficient** (very comfortable, considered an expert, and/or could teach this skill to others)



## INTERPRETING YOUR RESULTS

It is now time to review your scores for your colleague/supervisee in each of the seven domains to identify their professional strengths and opportunities to further develop their career in applied epidemiology. Start by reviewing the average score from each domain in the corresponding row:

Domain	Average Score
Data Analytics and Assessment Skills	
2. Public Health Sciences Skills	
3. Communication Skills	
4. Community Partnership Skills	
5. Management and Finance Skills	
6. Leadership and Systems Thinking Skills	
7. Policy Development and Program Planning Skills	

The average score in each domain will range from 1.0 to 4.0. As indicated in the scoring guide used for each sub-competency, a score of 1 indicates lack of awareness or very little knowledge of a particular skill whereas a score of 4 indicates proficiency or being very comfortable with a particular skill. The average score in each domain can be interpreted in a similar manner. For example:

- An average score of around 1.0 for a particular domain indicates little knowledge of the group of skills that comprise that particular domain.
- An average score of around 2.0 indicates awareness but limited knowledge or ability to apply the skills that comprise that particular domain.
- An average score of around 3.0 indicates that you are comfortable with the knowledge or skill that comprise that particular domain.
- An average score of around 4.0 indicates that you have a high level of proficiency for the group of skills that comprise that particular domain.

There are many reasons why the scores might vary across domains. For example, some domains might include individual competencies that are not required or emphasized in your colleague's specific position and therefore they might not have had the opportunity to build those competencies. Alternatively, they may have played professional roles (in this job or a prior one) that provided unique opportunities to



expand their skills and competencies, but that are not available to everyone in a similar role.

## **Using The Scores**

You can use the average scores in each domain to identify opportunities for professional growth and development. For example, if you have given an average score of around 1.0 in any domain that is highly relevant to your colleague's job responsibilities, they will want to consider focusing their time and energy toward achieving the competencies in that domain, followed by domains in which you gave an average score of around 2.0, with a lower priority given to domains in which you gave an average score of 3.0 or higher.

Once you have identified priorities for your colleague, please review the training and professional development <u>resources</u> that are describing in the following section to find courses, webinars and training that fit goals based on their results from the AECs evaluation tool. For example:

- For additional training and professional development related to **Domain 1: Data** Analytics and Assessment Skills, start by exploring some of the resources offered by Appliedepi.com or Coursera.
- For additional training and professional development related to **Domain 2:** Public Health Sciences Skills, start by exploring some of the resources offered by the Public Health Informatics Institute Informatics Academy or CSTE Learn.
- For additional training and professional development related to **Domain 3:** Communication Skills, start by exploring some of the resources offered by the Northwest Center for Public Health Practice or Tableau.
- For additional training and professional development related to **Domain 4:** Community Partnership Skills, start by exploring some of the resources offered by the CDC TRAIN Learning Network or Region IV Public Health Training Center.
- For additional training and professional development related to **Domain 5:** Management and Finance Skills, start by exploring some of the resources offered by the Harvard Business School.
- For additional training and professional development related to **Domain 6: Leadership and System Thinking Skills**, start by exploring some of the resources offered by the CDC TRAIN Learning Network or LinkedIn Learning.
- For additional training and professional development related to **Domain 7:** Policy Development and Program Planning Skills, start by exploring some of the resources offered by the Public Health Learning Navigator or Northwest Center for Public Health Practice.

Your colleague can also use this information to guide them in engaging in a discussion with you as their supervisor, as well as other mentors or coaches; identifying additional learning opportunities that will help them reach their goals and meet the requirements



for continuing competence in their occupation or discipline; and developing a learning plan with one or more personal professional goals for the next year and beyond.



## **RESOURCES**

The following is a list of resources for training and professional development. We recommend utilizing these resources to find courses, webinars and training that fit your colleague's, team's, department's, and/or agency's goals based on the results from the AECs evaluation tool. Many of these search engines can be sorted by competencies, continuing education credits, and subject area. This list includes both free and paid resources.

**Appliedepi.org** - Non-profit organization with open-source training and tools.

Course examples: Introduction to R for Applied Epidemiology, Advanced R

<u>CDC TRAIN Learning Network</u> – Comprehensive catalog of public health training opportunities.

<u>Course examples:</u> Practical Epidemiology Introduction, Advancing Racial and Social Justice

<u>Coursera</u> - Collaborating with 200+ universities and companies, Coursera offers more than 5,000 courses, certificates and degrees.

<u>Course examples:</u> Data Analysis with R, Excel Skills for Data Analytics and Visualization

**CSTE Learn** - Offers a range of interactive courses, webinars and toolkits.

<u>Course examples:</u> Informatics Basics, Risk Communication, Scientific Writing for MMWR

**Datacamp** – Courses for learning data science and statistical programming.

Course examples: Introduction to Python, Introduction to R

<u>Harvard Business School</u> – Online certificate courses in leadership and management skills.

Course examples: Leadership Principles, Management Essentials

Indian Health Service Tele-behavioral Health Center of Excellence

Comprehensive archive of webinars and on-demand training.

<u>Course examples:</u> Trauma and Stress Disorders Webinar Series: PTSD, Acute Stress Disorder and Complex PTSD in Adults

<u>LinkedIn Learning</u> – Formerly known as Lynda, LinkedIn learning offers 16,000+ expert-led courses.

Course examples: ArcGIS, SQL



Northwest Center for Public Health Practice - Available webinars, self-paced courses, toolkits and certificates based on different topics and competencies.

<u>Webinar examples:</u> A CLAS Act: Enhancing Culturally and Linguistically Appropriate Services in Preparedness, A Model for Addressing Racism and Belonging

<u>Public Health Informatics Institute Informatics Academy</u> - Catalog of courses on various competencies.

<u>Course examples:</u> The Stakes are High: Stakeholder Engagement for Public Health, Communications for Emerging Public Health Leaders

<u>Public Health Learning Navigator</u> - Curated online resource of available trainings provided by the Public Health Learning Network and National Network of Public Health Institutes.

Course examples: Advanced Program Evaluation, Project Management Tools

<u>Tableau</u> - Courses offered by the visual analytics platform, including certificate programs and stand-alone courses.

<u>Course examples:</u> Tableau Desktop I: Fundamentals, Tableau Desktop II: Intermediate

Region IV Public Health Training Center - One of the 10 regional PHTCs in the Public Health Learning Network, offering professional development, experiential learning and consulting and technical assistance.

<u>Course examples:</u> An Introduction to Community Assessment and Data Collection. An Introduction to Harm Reduction

<u>SAS</u> – Statistical software provider that includes classroom, live web classroom and elearning opportunities.

<u>Course examples:</u> SAS Macro Language 1: Essentials, SAS Programming 2: Data Manipulation Techniques

<u>Udemy</u> – Resource for more than 185,000 online video courses.

<u>Course examples:</u> Learn Python: The Complete Python Programming Course, Microsoft Excel – From Beginner to Expert in 6 Hours





## APPENDIX A. DOMAIN 1 COMPETENCIES AND SUB-COMPETENCIES

1.1. Identifies the diversity of individuals and populations (e.g., language, culture, values, socioeconomic status, geography, education, race, gender identity, age, ethnicity, sexual orientation, profession, religious affiliation, mental and physical abilities, historical experiences					
Foundational Tier Intermediate Tier Practiced Tier Advanced Tier					
T1: 1.1.1 Identifies diverse populations that may be significant to addressing factors affecting the health of a community	T2: 1.1.1 Recognizes the diversity of individuals and populations e.g., diverse populations, biases, systemic and structural factors affecting health equity)	T3: 1.1.1 Identifies systematic and structural barriers that perpetuate health inequities (e.g., racism, sexism, bigotry, poverty, gender discrimination)	T4: 1.1.1 Advocates for organizational policies, programs, and services to achieve health equity and social and environmental justice		

1.2. Describes factors that affect the health of a community (e.g., income, education, laws, environment, climate change, resilience, homelessness, food security, access to healthcare, racial equity, distribution of resources and power, social and community engagement, changing demographics)						
Foundational Tier	Advanced Tier					
T1: 1.2.1 Describes factors that affect the health of a community	T1: 1.2.1 Assesses the impact of specific factors that affect the health of a community (e.g., determining expected number of cases, outcomes, disease burden, prevalence of risk behaviors)	T3: 1.2.1 Articulates factors that require public health intervention or need further investigation	T4: 1.2.1 Advocates in partnership with community members to prioritize factors affecting the health of the community			
T1: 1.2.2 Identifies cultural, environmental, historical, social, and structural frameworks that affect the health of a community	T2: 1.2.2 Explains cultural, environmental, historical, social, and structural frameworks that affect the health of a community	T3: 1.2.2 Assesses cultural, environmental, historical, social, and structural frameworks that affect the health of a community	T4: 1.2.2 Applies the cultural, environmental, historical, social, and structural frameworks to describe factors affecting the health of a community			
T1: 1.2.3 Identifies gaps in available data (e.g., limitations of data, errors in estimates,	T2: 1.2.3 Explains gaps in available data (e.g., limitations of data, errors in estimates,	T3: 1.2.3 Evaluates gaps in available data (e.g., limitations of data, errors in estimates,	T4: 1.2.3 Advocates for data quality and studies that fill the gaps (e.g., accuracy,			



1.2. Describes factors that affect the health of a community (e.g., income, education, laws, environment, climate change, resilience, homelessness, food security, access to healthcare, racial equity, distribution of resources and power, social and community engagement, changing demographics)

Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
lack of primary literature or studies)	lack of primary literature or studies	lack of primary literature or studies)	completeness, validity, timeliness, consistency, integrity, and data quality studies)

1.3. Designs surveillance systems using the principles of ethics, DEIA, and justice				
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier	
T1. 1.3.1 Consults with scientific literature, current public health programs, and the community to identify specific populations of interest and factors affecting community health for surveillance	T2: 1.3.1 Uses standardized categories when defining populations of interest considering cultural, environmental, historical, social, and structural factors	T3: 1.3.1 Evaluates cultural, environmental, historical, social, and structural factors for populations of interest	T4: 1.3.1 Assesses limitations of identified population categories, data collection, sampling frame, and systems issues related to design	
T1: 1.3.2 Collects data from populations of interest to assess factors affecting the health of a community and health disparities using the principles of ethics, DEIA, and justice and mitigating potential negative impacts of data collection on the population	T2: 1.3.2 Collects data from populations of interest to assess factors affecting the health of a community and health disparities using the principles of ethics, DEIA, and justice and mitigating potential negative impacts of data collection on the population	T3: 1.3.2 Designs data collection tools to capture information needed to assess factors affecting the health of a community and health disparities using the principles of ethics, DEIA, and justice and mitigating potential negative impacts of data collection on the population	T4: 1.3.2 Advocates for surveillance data that identifies assets and strengths of the community that can reduce systematic and structural barriers that perpetuate health inequities (e.g., racism, sexism, bigotry, poverty, gender discrimination) and demonstrate resilience	



1.4. Conducts surveillance activities (e.g., reviews surveillance data needs, assesses existing surveillance data and systems, collects, analyzes, evaluates, and communicates surveillance data)			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 1.4.1 Identifies surveillance data needs for factors affecting the health of a community	T2: 1.4.1 Explains surveillance data needs (e.g., case definitions, data sources, quality, limitations, data collection elements, data transfer, data collection	T3: 1.4.1 Assesses surveillance data needs (e.g., data quality, availability, relevance, suitability, simplicity, sensitivity, predictability, timeliness,	T4: 1.4.1 Advocates for surveillance data strategies (e.g., case definitions, data sources, quality, limitations, data collection elements, data transfer, data collection
	timeliness, frequency of reporting, uses of data, functional requirements of information systems to support)	representativeness, flexibility)	timeliness, frequency of reporting, uses of data, functional requirements of information systems to support)
T1: 1.4.2 Identifies limitations	T2: 1.4.2 Uses identified	T3: 1.4.2 Assesses identified	T4: 1.4.2 Implements changes
of data analysis (e.g., sources of bias, unequal distribution, and misclassification)	population categories or subcategories when performing data analysis	population categories' suitability for data analysis and surveillance over time	in population categories within data analysis and surveillance over time
T1: 1.4.3 Identifies elements of a surveillance systems (e.g., system features, data elements, connectivity, costbenefit analysis, burden to public health system, agency, and reporting entity)	T2: 1.4.3 Evaluates surveillance systems (e.g., system features, data elements, connectivity, costbenefit analysis, burden to public health system, agency, and reporting entity)	T3: 1.4.3 Explains needed elements of new or existing surveillance systems (e.g., system features, data elements, connectivity, costbenefit analysis, burden to public health system, agency, and reporting entity)	T4: 1.4.3 Implements elements of new or existing surveillance systems considering DEIA (e.g., defines objectives and uses, tests data collection and storage, verifies data collection meets needs, monitors data quality, reviews interoperability, collects data needed for decision making)
T1: 1.4.4 Collaborates with informaticians to identify and implement data needs, automation processes, and surveillance systems	T2: 1.4.4 Collaborates with informaticians to identify and implement data needs, automation processes, and surveillance systems	T3: 1.4.4 Advocates with informaticians for programs and policies to advance surveillance	T4: 1.4.4 Advocates with informaticians for programs and policies to advance surveillance
T1: 1.4.5 Collects surveillance data (e.g., conducts epidemiologic investigation	T2: 1.4.5 Analyzes surveillance data (e.g., identifies key findings, creates	T3: 1.4.5 Evaluates surveillance systems based on national guidance and	T4: 1.4.5 Applies surveillance system data to inform public health policy



1.4. Conducts surveillance activities (e.g., reviews surveillance data needs, assesses existing surveillance data and systems, collects, analyzes, evaluates, and communicates surveillance data)				
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier	
interviews, compiles quantitative data)	data visualizations, contextualizes results in existing scientific and community knowledge, considers impact on public health programs)	methods, reporting entity needs, continuous quality improvement principles, and public health program (e.g., communicates surveillance results to reporting entities, communities, agency management)		
T1. 1.4.6 Describes individual and community privacy when analyzing surveillance systems	T2: 1.4.6 Evaluates surveillance systems for validity (e.g., identification of population categories, social determinants of health, factors affecting the health of a community, and privacy considerations)	T3: 1.4.6 Identifies areas for improvement of surveillance systems	T4: 1.4.6 Implements improvements to surveillance systems	

1.5. Investigates factors that affect the health of a community			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 1.5.1 Describes methods used to investigate factors affecting the health of the community (e.g., community health status assessments)	T2: 1.5.1 Conducts community health status assessments involving the affected community to investigate factors affecting the health of the community	T3: 1.5.1 Prioritizes factors to investigate that are most impactful to the community (e.g., engages community members in determining priorities)	T4: 1.5.1 Advocates for the use of community health status assessments and other methods used to investigate factors affecting the health of the community
T1: 1.5.2 Describes epidemiologic study designs and their applicability to investigating factors that affect the health of a community	T2: 1.5.2 Selects epidemiologic study design most applicable to investigation of specific factor	T3: 1.5.2 Designs epidemiologic investigation that consider DEIA (e.g., identifies data sources, designs data collection tools,	T4: 1.5.2 Leads epidemiologic investigation that consider DEIA (e.g., monitoring investigation progress, informing impacted



1.5. Investigates factors that affect the health of a community			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
	that affects the health of a community	coordinates sampling and investigation)	communities, the public, and the media, determining necessary improvements to the investigation)
T1: 1.5.3 Participates in epidemiologic investigation (e.g., identifies population of interest, identifies investigation timeframe, considers and accounts for sources of bias and confounders)	T2: 1.5.3 Conducts epidemiologic investigation (e.g., identifies population of interest, creates case definition, identifies investigation timeframe, considers and accounts for sources of bias and confounders)	T3: 1.5.3 Leads epidemiologic investigation (e.g., identifies population of interest, creates case definition, identifies investigation timeframe, considers and accounts for sources of bias and confounders)	T4: 1.5.3 Manages epidemiologic investigation (e.g., identifies population of interest, creates case definition, identifies investigation timeframe, considers and accounts for sources of bias and confounders)

1.6. Manages data (e.g., surveillance, investigations, studies, programs, and other data)			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 1.6.1 Collaborates with informaticians to collect, parse, prepare, and provision data to design and maintain databases and tools T1: 1.6.2 Describes database design principles that allow for accurate and actionable data across diverse communities	T2: 1.6.1 Collaborates with informaticians to collect, parse, prepare, and provision data to design and maintain databases and tools  T2: 1.6.2 Manages data and databases (e.g., including data transformation, creating datasets and variables, merging and splitting databases, formatting data, documenting data transformation)	T3: 1.6.1 Collaborates with informaticians to collect, parse, prepare, and provision data to design and maintain databases and tools  T3: 1.6.2 Designs databases suitable for epidemiologic activities (e.g., including needed variables and data dictionary, ensuring compliance with national standards for coding and variables, supporting geographic analysis)	T4: 1.6.1 Collaborates with informaticians to collect, parse, prepare, and provision data to design and maintain databases and tools  T4: 1.6.2 Evaluates data quality, accuracy, and reliability (e.g., designs and validates data entry techniques, cleans data, corrects errors)
T1. 1.6.3 Documents database design, data management, security, and assumptions	T2: 1.6.3 Defines database design, data management, security, and assumptions	T3: 1.6.3 Manages documentation for database	T4: 1.6.3 Evaluates documentation for database



1.6. Manages data (e.g., surveillance, investigations, studies, programs, and other data)			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
		design, data management, security, and assumptions	design, data management, security, and assumptions
T1: 1.6.4 Describes practices for secure (restricted access), stable (routine backups, database redundancy), and sustainable data storage and data sharing	T2: 1.6.4 Applies practices for secure (restricted access), stable (routine backups, database redundancy), and sustainable data storage and data sharing	T3: 1.6.4 Evaluates practices for secure (restricted access), stable (routine backups, database redundancy), and sustainable data storage and data sharing	T4: 1.6.4 Advocates for practices for secure (restricted access), stable (routine backups, database redundancy), and sustainable data storage and data sharing

1.7. Analyzes data (e.g., surveillance, investigations, studies, programs, and other data)			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 1.7.1 Conducts descriptive data analysis to assess public health objectives	T2: 1.7.1 Conducts descriptive epidemiology data analysis to assess public health objectives	T3: 1.7.1 Conducts analysis of data using software for data analysis and management (e.g., frequencies and descriptive statistics, adjustments, epidemiologic measures, trend analysis, measures of association, confidence intervals, statistics, multivariate analyses, regression analyses, geospatial and other graphical representations, questionnaire results, interview responses, indexing, coding, labeling, triangulation, and member checking)	T4: 1.7.1 Conducts advanced data analytics methods (e.g., forecasting, mathematical modeling, Bayesian analysis, parsing qualitative data for natural language processing)
T1: 1.7.2 Describes data analysis plan	T2: 1.7.2 Compiles datasets to be used in analysis (e.g., qualitative and quantitative data)	T3: 1.7.2 Assesses data quality metrics match to ensure correct interpretation	T4: 1.7.2 Facilitates access to datasets to conduct analyses (e.g., data sharing agreements and partnership building)



1.7. Analyzes data (e.g., surveillance, investigations, studies, programs, and other data)			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 1.7.3 Describes valid statistical techniques and variables based on relevant factors (e.g., data, study design, sample size, hypotheses)	T2: 1.7.3 Assesses valid statistical techniques and variables based on the data, study design, sample size, hypotheses, and other relevant factors	T3: 1.7.3 Evaluates results and interpretation of statistical analysis (e.g., assesses DEIA, potential confounders, data biases, and data misclassification)	T4: 1.7.3 Advocates for the use of valid statistical techniques and statistical interpretation of results

1.8. Interprets results from da	1.8. Interprets results from data analysis			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier	
T1: 1.8.1 Identifies epidemiologic principles and methods needed to make recommendations regarding the validity of epidemiologic data	T2: 1.8.1 Applies knowledge of epidemiologic principles and methods to make recommendations regarding the validity of epidemiologic data (e.g., including likely sources of bias, validity and reliability of data collection instruments and methods, limitations in study design, sample selection, data collection, analysis, significance testing, and other features, influence of power and confidence limits)	T3: 1.8.1 Justifies needs for the validity of epidemiologic data and conducting special analyses (e.g., survival analyses, cost-effectiveness, cost-benefit, cost-utility analyses)	T4: 1.8.1 Advocates for the validity of epidemiologic data and special analyses	
T1: 1.8.2 Applies the principles of causation when making inferences about key findings (e.g., strength, consistency, biological plausibility, doseresponse, and temporal relationship)	T2: 1.8.2 Creates data presentation or visualization of data analysis to convey key findings in the context of current knowledge, public health programs, and community priorities and needs (e.g., dashboards, tables, charts, graphs)	T3: 1.8.2 Synthesizes key findings from the data analysis based on current knowledge and public health programs to influence behavior and improve health	T4: 1.8.2 Advocates for programs and policies using key findings from the data analysis	



1.9. Applies evidence-based interventions and control measures (e.g., considering DEIA and specific community needs)			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 1.9.1 Identifies the key	T2: 1.9.1 Relates key findings	T3: 1.9.1 Proposes new	T4: 1.9.1 Evaluates new
types of intervention for the	to existing policies,	recommendations or	recommendations or
factor affecting the health of	regulations, and laws, as well	modifications to existing	modifications to existing
the community and their prior	as other factors (e.g., cultural,	interventions based on	interventions based on
success in the community of	environmental, historical,	evidence (e.g., key findings,	evidence (e.g., key findings,
interest	social, and structural factors	community input, risk	community input, risk
	that may affect the	communication and risk	communication and risk
	recommendations or	reduction methods, and	reduction methods, and
	interventions)	shared risk and protective	shared risk and protective
		factors)	factors)
T1: 1.9.2 Prepares materials	T2: 1.9.2 Consults directly with	T3: 1.9.2 Consults directly with	T4: 1.9.2 Consults directly with
for consultation with	collaborators to identify and	collaborators to identify and	collaborators to identify and
collaborators to identify and	prioritize public health action	prioritize public health action	prioritize public health action
prioritize public health action	based on data analysis	based on data analysis	based on data analysis



# APPENDIX B. DOMAIN 2 COMPETENCIES AND SUB-COMPETENCIES

2.1. Describes the source of factors affecting community health (including morbidity and mortality) to guide			
epidemiologic activities Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 2.1.1 Identifies basic	T2: 2.1.1 Describes human	T3: 2.1.1 Incorporates etiologic	T4: 2.1.1 Advocates for
etiologic processes for human	and environmental biology and	processes, scientific literature,	prevention and control
diseases, illnesses, and injury for subject matter areas of	behavioral sciences and principles that determine the	community input, and public health databases into the	strategies that address etiologic processes for human
interest (e.g., infectious	potential biological	development of prevention and	disease, illness, and injury
diseases, chronic diseases,	mechanisms of disease,	control strategies	alocaso, ilinoco, ana injary
adverse childhood	illness, and injury (e.g., chain	<b>g</b>	
experiences, drowning,	of infection, host-agent-		
accidents, air/water pollution,	environment model, genetics		
hazardous materials releases,	and genomics)		
toxicological outbreaks, natural			
disasters, mental/behavioral health)			
T1: 2.1.2 Identifies the role	T2: 2.1.2 Explains the role and	T3: 2.1.2 Evaluates the role	T4: 2.1.2 Advocates for the
and influence of socio-	influence of socio-behavioral	and influence of socio-	recognition of socio-behavioral
behavioral factors (e.g.,	factors (e.g., including	behavioral factors (e.g.,	factors (e.g., including
including community, political,	community, political, social,	including community, political,	community, political, social,
social, family, and individual	family, and individual	social, family, and individual	family, and individual
behavioral factors), social	behavioral factors), social	behavioral factors), social	behavioral factors), social
determinants of health, and historic or structural	determinants of health, and historic or structural	determinants of health, and historic or structural	determinants of health, and historic or structural
discrimination in health risks	discrimination in health risks	discrimination in health risks	discrimination in health risks
and health status	and health status	and health status	and health status
T1: 2.1.3 Identifies factors	T2: 2.1.3 Explains factors	T3: 2.1.3 Evaluates factors	T4: 2.1.3 Addresses factors
impacting the delivery of the	impacting the delivery of the	impacting the delivery of the	impacting the delivery of the
10 essential public health	10 essential public health	10 essential public health	10 essential public health
services	services	services	services



2.2. Collaborates with others (e.g., infectious diseases, biostatistics, environmental health, genetics, informatics, behavioral and community health, health policy and management experts) to support public health activities				
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier	
T1: 2.2.1 Identifies the roles and capabilities of other public health professionals and how they can provide assistance in epidemiologic investigations, studies, surveillance, and programs	T2: 2.2.1 Collaborates with other public health professionals to provide assistance in epidemiologic investigations, studies, surveillance, and programs	T3: 2.2.1 Collaborates with other public health disciplines and experts to assess provided data and draw conclusions applicable to epidemiologic activities	T4: 2.2.1 Supervises collaboration with other public health disciplines and experts to assess provided data and draw conclusions applicable to epidemiologic activities	
T1: 2.2.2 Identifies the roles and capabilities of laboratories and how they are used in epidemiologic investigations	T2: 2.2.2 Coordinates laboratory and epidemiologic activities, including test or sample selection, data structures, communication, and reporting results in the field (e.g., results of health screenings and other surveys, identification of infectious diseases, biomarker assessment, susceptibility or predisposition based on genomic data)	T3: 2.2.2 Interprets laboratory data, accounting for factors that influence the results of sample collection, screening, and diagnostic tests	T4: 2.2.2 Evaluates laboratory and epidemiologic activity coordination and laboratory data, accounting for factors that influence the results of sample collection, screening and diagnostic tests	

2.3. Applies public health informatics in using epidemiologic data, information, and knowledge (e.g., including data collection, processing, analysis, and dissemination)			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 2.3.1 Identifies information technologies and communication tools necessary to support epidemiologic investigations and surveillance (e.g., data linkage, programming, spatial	T2: 2.3.1 Uses information technologies and communication tools that support data acquisition, entry, abstraction, management, analysis, planning, mapping, visualization, and reporting	T3: 2.3.1 Develops data models from multiple sources to create new information or review existing information to support public health decision-making	T4: 2.3.1 Evaluates data models to support public health decision-making



2.3. Applies public health informatics in using epidemiologic data, information, and knowledge (e.g., including data collection, processing, analysis, and dissemination)			
analysis, machine learning, survey tools, dashboards)	,		
T1: 2.3.2 Describes procedures and security policies to ensure the integrity and protection of confidential information in electronic files and computer systems	T2: 2.3.2 Applies procedures and security policies to ensure the integrity and protection of confidential information in electronic files and computer systems	T3: 2.3.2 Ensures application of interoperable data standards as needed for storage and transmission	T4: 2.3.2 Supports training on interoperable data standards as needed for storage and transmission
T1: 2.3.3 Identifies industry data standards specifications	T2: 2.3.3 Explains industry data standards specifications	T3: 2.3.3 Applies industry data standards specifications	T4: 2.3.3 Integrates data industry standards into policies and programs
T1. 2.3.4 Describes the need for new or enhancement of existing systems to support epidemiologic activities	T2: 2.3.4 Participates in the development of new or enhancement of existing systems to support epidemiologic activities	T3: 2.3.4 Leads the development of new or enhancement of existing systems to support epidemiologic activities	T4: 2.3.4 Advocates for the development of new or enhancement of existing systems to support epidemiologic activities
T1: 2.3.5 Assists with documentation of information systems, databases, and datasets (e.g., guidelines, documented versions, dissemination methods, relevant standards specifications)	T2: 2.3.5 Maintains documentation of information systems, databases, and datasets (e.g., guidelines, documented versions, dissemination methods, relevant standards specifications)	T3: 2.3.5 Assesses compliance of information systems, databases, and datasets (e.g., guidelines, documented versions, dissemination methods, relevant standards specifications)	T4: 2.3.5 Ensures compliance of information systems, databases, and datasets (e.g., guidelines, documented versions, dissemination methods, relevant standards specifications)
T1: 2.3.6 Assists in coordination with informaticians and information systems resources to use, develop, and support the acquisition, maintenance, use, and dissemination of epidemiologic data	T2: 2.3.6 Coordinates with informaticians and information systems resources to use, develop, and support the acquisition, maintenance, use, and dissemination of epidemiologic data	T3: 2.3.6 Assesses program needs with informaticians and information systems resources to use, develop, and support the acquisition, maintenance, use, and dissemination of epidemiologic data	T4: 2.3.6 Advocates for collaboration with informaticians and information systems resources to use, develop, and support the acquisition, maintenance, use, and dissemination of epidemiologic data



2.4. Manages information systems to promote effectiveness and security of data collection, processing, and analysis			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 2.4.1 Describes public health information systems and epidemiologic needs	T2: 2.4.1 Implements the development of integrated, cost-effective public health information systems that are consistent with a larger (enterprise-level) information architecture	T3: 2.4.1 Evaluates information systems for epidemiology programs (e.g., aligned objectives, business functions, and business processes)	T4: 2.4.1 Advocates for continuous quality improvement of information systems
T1: 2.4.2 Describes confidentiality and privacy policies for the enterprise and security systems to support the implementation of those policies	T2: 2.4.2 Participates in development of confidentiality and privacy policies for the enterprise and security systems to support the implementation of those policies	T3: 2.4.2 Develops confidentiality and privacy policies for the enterprise and security systems to support the implementation of those policies	T4: 2.4.2 Evaluates enterprise policies and security systems for confidentiality and privacy standards
T1: 2.4.3 Identifies needs for modernization of information systems and use of the most current technology	T2: 2.4.3 Explains needs for modernization of information systems and use of the most current technology	T3: 2.4.3 Assesses needs for modernization of information systems and use of the most current technology	T4: 2.4.3 Advocates for modernization of information systems and use of the most current technology



# APPENDIX C. DOMAIN 3 COMPETENCIES AND SUB-COMPETENCIES

3.1. Determines communication strategies (e.g., considering literacy, needs, and preferences of audiences, selecting methods and format of information presented and data visualization)  Foundational Tier Intermediate Tier Practiced Tier Advanced Tier				
T1: 3.1.1 Identifies audience, content, and methods for dissemination of information (e.g., preparation of abstracts, manuscripts, written or oral reports, press releases, dynamic dashboards, maps, social media, blogs, podcasts, websites, television, radio)	T2: 3.1.1 Tailors information based on audience, content, and methods for dissemination (e.g., preparation of abstracts, manuscripts, written or oral reports, press releases, dynamic dashboards, maps, social media, blogs, podcasts, websites, television, radio)	T3: 3.1.1 Creates communication strategy for epidemiologic information (disease prevention, health promotion, key findings) for the general public, the community impacted, the news media, and/or to policy makers (e.g., considering DEIA, inclusive communication, populations with low literacy or access issues)	T4: 3.1.1 Monitors implementation of communication strategy for technical information (e.g., accuracy of messaging, validity of conclusions, appropriateness of data visualization, suitability for audience)	
T1: 3.1.2 Assists in responding to public queries	T2: 3.1.2 Assists in responding to public queries	T3: 3.1.2 Responds to public queries	T4: 3.1.2 Facilitates opportunities to respond to public queries (e.g., conducting townhalls, reachinout to the media and public)	

3.2. Applies principles of risk communication			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 3.2.1 Participates in developing and reviewing risk communication messages about topics affecting the health of a community	T2: 3.2.1 Applies risk communication principles to communicate epidemiologic messages (e.g., tailoring risk communication to diverse	T3: 3.2.1 Consults across agencies, organizations, and communities to provide guidance on risk	T4: 3.2.1 Evaluates epidemiologic messaging for use of risk communication principles



3.2. Applies principles of risk communication			
audiences, following agend risk communication strateg and policy for media inquir using principles of ethics,	y audiences		
DEIA, and justice			

3.3. Facilitates accessible communication among individuals, groups, and organizations			
Intermediate Tier	Practiced Tier	Advanced Tier	
T2: 3.3.1 Selects audience-, program-, and intervention-specific communication methods (e.g., written or oral reports, press releases, dynamic dashboards, maps, social media, blogs, podcasts, websites, television, radio)	T3: 3.3.1 Develops and designs content needed for communication in line with best practices (e.g., promoting diverse opinions and DEIA, evaluating community reach, audience literacy and language needs, access and functional needs, data visualization)	T4: 3.3.1 Evaluates messaging for equality principles (e.g., promoting diverse opinions and DEIA, evaluating community reach, audience literacy and language needs, access and functional needs, data visualization)	
T2: 3.3.2 Demonstrates professional interpersonal, interdisciplinary, transdisciplinary, and multidisciplinary communication skills (e.g., communicating with linguistic and cultural proficiency, negotiating, resolving conflicts)  T2: 3.3.3 Collaborates with media or communications	T3: 3.3.2 Monitors application of professional interpersonal, interdisciplinary, transdisciplinary, and multidisciplinary communication skills (e.g., communicating with linguistic and cultural proficiency, negotiating, resolving conflicts) T3: 3.3.3 Collaborates with media or communications	T4: 3.3.2 Evaluates application of professional interpersonal, interdisciplinary, transdisciplinary, and multidisciplinary communication skills (e.g., communicating with linguistic and cultural proficiency, negotiating, resolving conflicts) T4: 3.3.3 Collaborates with media or communications	
	Intermediate Tier  T2: 3.3.1 Selects audience-, program-, and intervention-specific communication methods (e.g., written or oral reports, press releases, dynamic dashboards, maps, social media, blogs, podcasts, websites, television, radio)  T2: 3.3.2 Demonstrates professional interpersonal, interdisciplinary, transdisciplinary, and multidisciplinary communication skills (e.g., communicating with linguistic and cultural proficiency, negotiating, resolving conflicts) T2: 3.3.3 Collaborates with	Intermediate Tier  T2: 3.3.1 Selects audience-, program-, and intervention-specific communication methods (e.g., written or oral reports, press releases, dynamic dashboards, maps, social media, blogs, podcasts, websites, television, radio)  T2: 3.3.2 Demonstrates professional interpersonal, interdisciplinary, transdisciplinary, communication skills (e.g., communicating with linguistic and cultural proficiency, negotiating, resolving conflicts)  T2: 3.3.3 Collaborates with media or communications  T3: 3.3.1 Develops and designs content needed for communication in line with best practices (e.g., promoting diverse opinions and DEIA, evaluating community reach, audience literacy and language needs, access and functional needs, data visualization)  T3: 3.3.2 Monitors application of professional interpersonal, interdisciplinary, transdisciplinary, communication skills (e.g., communicating with linguistic and cultural proficiency, negotiating, resolving conflicts)  T3: 3.3.3 Collaborates with media or communications	



3.3. Facilitates accessible communication among individuals, groups, and organizations			
tailoring messaging to the	(e.g., tailoring messaging to	(e.g., tailoring messaging to	(e.g., tailoring messaging to
public, providing proactive	the public, providing proactive	the public, providing proactive	the public, providing proactive
information, creating	information, creating	information, creating	information, creating
accessible quotes and	accessible quotes and	accessible quotes and	accessible quotes and
information summaries)	information summaries)	information summaries)	information summaries)

3.4. Disseminates messages to internal and external audiences				
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier	
T1: 3.4.1 Identifies epidemiologic findings, methodology, and principles messaging for affected individuals, communities, organizations, the public or professional audiences (e.g., using mechanisms tailored to that audience, using age- appropriate materials, using plain language, implementing CLAS Standards, ensuring accessibility for people with disabilities, engaging interpreters and translators, and acknowledging the changing communication ecosystem)	T2: 3.4.1 Communicates epidemiologic findings, methodology, and principles to affected individuals, communities, organizations, the public or professional audiences (e.g., using mechanisms tailored to that audience, using ageappropriate materials, using plain language, implementing CLAS Standards, ensuring accessibility for people with disabilities, engaging interpreters and translators, and acknowledging the changing communication ecosystem)	T3: 3.4.1 Reviews epidemiologic findings, methodology, and principles of communication and messaging for accuracy and supportive evidence prior to dissemination	T4: 3.4.1 Advocates for the dissemination of accurate and evidence-based epidemiologic findings, methodology, and principles to affected individuals, communities, organizations, the public or professional audiences	
T1: 3.4.2 Describes	T2: 3.4.2 Implements	T3: 3.4.2 Evaluates	T4: 3.4.2 Advocates for	
educational and behavioral techniques and technological	educational and behavioral techniques and technological	educational and behavioral techniques and technological	educational and behavioral techniques and technological	
tools to promote public health	tools to promote public health	tools to promote public health	tools to promote public health	



3.4. Disseminates messages to internal and external audiences			
(e.g., through community education, behavior modification, collaborative policy development, issue advocacy, and community mobilization)	(e.g., through community education, behavior modification, collaborative policy development, issue advocacy, and community mobilization)	(e.g., through community education, behavior modification, collaborative policy development, issue advocacy, and community mobilization)	(e.g., through community education, behavior modification, collaborative policy development, issue advocacy, and community mobilization)
T1: 3.4.3 Follows policies that address security, privacy, and legal considerations	T2: 3.4.3 Develops policies that address security, privacy, and legal considerations	T3: 3.4.3 Evaluates policies that address security, privacy, and legal considerations	T4: 3.4.3 Advocates for policies that address security, privacy, and legal considerations
T1: 3.4.4 Identifies misinformation and disinformation	T2: 3.4.4 Responds to misinformation and disinformation	T3: 3.4.4 Ensures response to misinformation and disinformation	T4: 3.4.4 Evaluates response to misinformation and disinformation

3.5. Conducts investigations and interviews accommodating the needs of the population			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 3.5.1 Identifies cultural, environmental, historical, social, and structural factors impacting the population	T2: 3.5.1 Develops investigational strategy incorporating knowledge of the population and communication needs	T3: 3.5.1 Applies investigative methods that address the needs of the population (e.g., including application of principles of ethics, DEIA, and justice)	T4: 3.5.1 Monitors investigative methods that address the needs of the population (e.g., including application of principles of ethics, DEIA, and justice)
T1: 3.5.2 Identifies mechanisms for contact and communication with population (e.g., hard of hearing, nonverbal, other primary	T2: 3.5.2 Defines staff support or mechanisms needed to communicate with population (e.g., interpreters, translators, sign language, other language services)	T3: 3.5.2 Manages staff support or mechanisms needed to communicate with population (e.g., interpreters, translators, sign language, other language services)	T4: 3.5.2 Ensures epidemiologic activity results or outcomes are communicated back to the community



3.5. Conducts investigations and interviews accommodating the needs of the population			
language of population, and lack of broadband access)			



# APPENDIX D. DOMAIN 4 COMPETENCIES AND SUB-COMPETENCIES

Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 4.1.1 Describes cultural, environmental, historical, social, and structural factors that affect the community's health and resilience	T2: 4.1.1 Engages communities in bidirectional dialogue on health issues impacting their community at all stages of epidemiologic activities (e.g., engages with the community in a way that is accessible)	T3: 4.1.1 Collaborates with communities to identify health priorities for study demonstrating principles of DEIA and cultural humility (e.g., including populations, communities, and individuals who may not have had previous opportunity to participate in priority setting)	T4: 4.1.1 Advocates for community health priorities demonstrating principles of DEIA and cultural humility
T1: 4.1.2 Identifies the different levels of governmental public health (tribal, territorial, local, state, and federal), their legal authority, and their roles and responsibilities in the community and public health programs	T2: 4.1.2 Explains the different levels of governmental public health (tribal, territorial, local, state, and federal), their legal authority, and their roles and responsibilities in the community and public health programs	T3: 4.1.2 Assesses components of the public health system and community (e.g., specific populations within the community or region, epidemiologic data collection and analysis needs, community themes and strengths, relationships among public and private organizations, community medical-care delivery system)	T4: 4.1.2 Evaluates changes that are occurring or are expected to occur that affect the community's health or the public health system (e.g., a Mobilizing for Action through Planning and Partnerships forces of change assessment, identifying threats and opportunities)
T1: 4.1.3 Identifies cultural, environmental, historical, social, and structural factors to provide context for an investigation	T2: 4.1.3 Summarizes findings within cultural, environmental, historical, social, and structural factors affecting population	T3: 4.1.3 Solicits feedback from members of the community to ensure findings are represented in lived experiences	T4: 4.1.3 Assesses impact of investigation findings on the population and relevance



4.2. Maintains bidirectional relationships that improve community health and resilience			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 4.2.1 Provides assistance to communities, partners, and local public health systems relating to surveillance, epidemiologic data, evaluation, and planning (e.g., combating misinformation and disinformation)	T2: 4.2.1 Provides assistance to communities, partners, and local public health systems relating to surveillance, epidemiologic data, evaluation, and planning (e.g., combating misinformation and disinformation)	T3: 4.2.1 Evaluates information and input from the community and from community health assessments to aid in the design, interpretation, and conduct of epidemiologic activities considering the principles of data sovereignty and data sharing	T4: 4.2.1 Advocates for information and input from the community and from community health assessments to aid in the design, interpretation, and conduct of epidemiologic activities
T1. 4.2.2 Reviews the community's history and past interactions with the public health system to create communication strategies and support capacity building	T2: 4.2.2 Describes partners and collaborators necessary to support epidemiologic activities and community capacity building	T3: 4.2.2 Identifies partners and collaborators necessary for epidemiologic activities and community capacity building (e.g., including people from racial and ethnic minority groups, historically underserved and underrepresented groups, and groups subject to health disparities)	T4: 4.2.2 Communicates with partners and multidisciplinary collaborators in the community through proactive outreach efforts (e.g., to regulated industry, government offices, faith-based organizations, emergency management, coroners/medical examiners, transportation, utilities, community coalitions, and community grantees)



Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 4.3.1 Participates in continuing education and training to plan for, respond to, and recover from emergencies	T2: 4.3.1 Explains emergency planning activities (e.g., developing written plans, communicating epidemiology roles and capabilities, providing data to inform activities)	T3: 4.3.1 Participates in emergency planning activities (e.g., developing written plans, communicating epidemiology roles and capabilities, providing data to inform activities)	T4: 4.3.1 Represents epidemiologic activities in development of agency emergency management plans (e.g., emergency operations response plan, continuity plan, pandemic influenza plan, mitigation plan, disaster recovery plan
T1: 4.3.2 Participates in scheduled emergency management exercises and/or drills	T2: 4.3.2 Participates in scheduled emergency management exercises and/or drills	T3: 4.3.2 Evaluates emergency management exercises and/or drills and actual emergency responses	T4: 4.3.2 Designs emergency management exercises and/or drills and actual emergency responses
T1: 4.3.3 Describes tools to support community partnerships in support of emergency management (e.g., assessments for the mental and physical health of emergency responders and volunteers, training materials for laboratory networks and healthcare providers, resources for the community)	T2: 4.3.3 Develops tools to support community partnerships in support of emergency management (e.g., assessments for the mental and physical health of emergency responders and volunteers, training materials for laboratory networks and healthcare providers, resources for the community)	T3: 4.3.3 Maintains community partnerships in support of emergency management (e.g., local government offices, faith-based organizations, volunteer organizations, healthcare providers, hospitals, laboratory networks, utilities, coroners/medical examiners, transportation authorities)	T4: 4.3.3 Advocates for partnerships with emergency management partner professionals
T1: 4.3.4 Describes incident command system (ICS) and the national incident management system (NIMS) structures	T2: 4.3.4 Responds to public health emergencies within incident command system (ICS) and the national incident management system (NIMS) structures (e.g., conducting surveillance activities,	T3: 4.3.4 Coordinates emergency recovery activities (e.g., conducting epidemiological assessments to inform recovery efforts, participating in after-action reporting and improvement	T4: 4.3.4 Evaluates emergency response and recovery activities



4.3. Participates in emergency management for public health emergencies			
as ca re ar fin	eveloping and deploying ssessment tools, conducting ase investigations and chart eviews, monitoring morbidity and mortality, reporting andings to emergency lanagers)	plan activities, updating emergency management plans)	



operational health

## APPENDIX E. DOMAIN 5 COMPETENCIES AND SUB-COMPETENCIES

operational health

#### 5.1. Describes factors that affect the financial and operational health of the organization (e.g., equitable and fair treatment of staff, support from the governing body and community, sustainability of funding, training of managers) **Foundational Tier** Intermediate Tier **Practiced Tier** Advanced Tier T1: 5.1.1 Identifies T2: 5.1.1 Formulates tasks to T3: 5.1.1 Implements a T4: 5.1.1 Justifies costs, epidemiologic program goals, meet project or program goals timeline for carrying out the personnel, staffing, travel, or objectives, tasks, and and objectives tasks to meet project or other resource needs program goals and objectives associated with program resources goals, projects, and tasks T1: 5.1.2 Maintains accurate T2: 5.1.2 Maintains accurate T3: 5.1.2 Creates records T4: 5.1.2 Audits records related to financial and related to financial and records related to financial and records related to financial and

operational health (e.g., budgets, balance sheets, and

progress reports)

5.2. Engages in epidemiologic activities within the organization's budget, operational plan, and financial rules			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 5.2.1 Identifies resources necessary to carry out tasks in the operational plan (e.g., personnel, equipment, supplies, and travel costs)	T2: 5.2.1 Estimates resources and costs necessary to carry out tasks in the operational plan, including personnel, equipment, supplies, and travel costs	T3: 5.2.1 Estimates expenditures that may arise from epidemiologic activities (e.g., rapid investigations and emergency response)	T4: 5.2.1 Manages the budget for needed resources within the rules of the agency

operational health



5.3. Manages operational and financial resources for epidemiologic activities			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 5.3.1 Describes progress of meeting project or program goals and deliverables expected	T2: 5.3.1 Compares progress to expectations established in financial and organizational program plans	T3: 5.3.1 Reviews project or program goals and deliverables expected within defined budget	T4: 5.3.1 Administers resources to support epidemiologic activities
T1: 5.3.2 Recognizes project or program financial documents (e.g., budget, balance sheet, profit and loss)	T2: 5.3.2 Reviews project or program financial documents (e.g., budget, balance sheet, profit and loss)	T3: 5.3.2 Tracks fiscal expenditures against financial plan for project or program	T4: 5.3.2 Adjusts staffing and activities to stay within defined budget
T1: 5.3.3 Follows organizational chain of command	T2: 5.3.3 Describes epidemiology program function on the public health agency management team	T3: 5.3.3 Assigns staff and resources to support epidemiology program function (e.g., FTEs, interns, students, fellows, contractors)	T4: 5.3.3 Justifies personnel and resources needed for epidemiology program function in the public health agency
T1: 5.3.4 Identifies opportunities to increase awareness of external staffing support funding (e.g., where to network, search for consultants, post RFPs)	T2: 5.3.4 Defines project scope of work for external staffing support (contractors or consultants) based on project or program needs and requirements	T3: 5.3.4 Develops requests for proposals (RFPs) to obtain external staffing support (consultants or contractors)	T4: 5.3.4 Manages contractual obligations of agency with external staffing support (consultants or contractors)

5.4. Secures extramural funding (e.g., preparing proposals, grant applications, vendor contracts, and requests for proposals)			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 5.4.1 Describes funding needs for epidemiologic activities	T2: 5.4.1 Identifies funding sources and opportunities to support epidemiologic activities	T3: 5.4.1 Collaborates with budget and operational staff to obtain funding (e.g., preparing funding applications, allocating awarded funds, describing funds and resources available	T4: 5.4.1 Arranges disbursement of funding for projects or programs (e.g., maintaining budget records, creating budget workplan,



5.4. Secures extramural funding (e.g., preparing proposals, grant applications, vendor contracts, and requests for proposals)				
	for project or program detailing grant allowable activities) expenses)			

5.5. Manages human capital (including recruitment, retention, and professional development of staff)			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 5.5.1 Identifies issues affecting recruitment, retention, and professional development of epidemiology workforce	T2: 5.5.1 Describes workforce, workplace, and other issues that impact recruitment, retention, and professional development	T3: 5.1.1 Develops agency recruitment, retention, and professional development plans	T4: 5.1.1 Implements agency recruitment, retention, and professional development plans with agency management
T1: 5.5.2 Identifies the importance of a diverse, inclusive, and competent epidemiologic workforce	T2: 5.5.2 Describes strategies to recruit and retain a diverse, inclusive, and competent epidemiologic workforce	T3: 5.5.2 Evaluates strategies to improve epidemiologic workforce recruitment, retention, and professional development (e.g., including improving workforce satisfaction, developing professional development plans, fostering a healthy work environment)	T4: 5.5.2 Recommends fiscal support of and agency policy changes that support staff recruitment, retention, and professional development strategies



# APPENDIX F. DOMAIN 6 COMPETENCIES AND SUB-COMPETENCIES

6.1. Applies the organization's vision and program goals in all epidemiologic activities				
Foundational Tier Intermediate Tier Practiced Tier Advanced Tier				
T1. 6.1.1 Describes the organization's vision and program goals	T2: 6.1.1 Engages individuals and teams to implement organization's vision and program goals	T3: 6.1.1 Constructs proposed projects and programs to support the organization's vision and program goals	T4: 6.1.1 Engages key contributors to support the organization's vision and program goals	

6.2. Engages in change management			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 6.2.1 Describes a shared vision of change	T2: 6.2.1 Uses change management techniques	T3: 6.2.1 Develops strategies to implement change management techniques to implement change (e.g., ability to support change, identifying priorities, building new skills)	T4: 6.2.1 Supervises methods for monitoring and sustaining organizational change

6.3. Engages in performance management of self and other team members			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 6.3.1 Identifies roles, responsibilities, and performance of all team members in epidemiologic activities	T2: 6.3.1 Identifies roles, responsibilities, and performance of all team members in epidemiologic activities	T3: 6.3.1 Manages peers' and supervisors' performance bidirectionally (e.g., define expectations, clarify roles and responsibilities, anticipate problems and solutions, identify opportunities)	T4: 6.3.1 Coaches team members as needed in the performance of their responsibilities (e.g., mentoring supervisees, other staff, and interns, supporting



6.3. Engages in performance management of self and other team members			
			team member professional and personal development)
T1: 6.3.2 Evaluates own performance and areas for improvement	T2: 6.3.2 Evaluates own performance and areas for improvement	T3: 6.3.2 Evaluates own performance and areas for improvement	T4: 6.3.2 Evaluates own performance and areas for improvement
T1. 6.3.3 Applies project and time management skills needed for epidemiologic activities	T2: 6.3.3 Applies project and time management skills needed for epidemiologic activities to ensure projects are being managed appropriately by the team	T3: 6.3.3 Applies project and time management skills needed for epidemiologic activities to ensure projects are being managed appropriately by the team	T4: 6.3.3 Applies project and time management skills needed for epidemiologic activities to ensure projects are being managed appropriately by the team
T1: 6.3.4 Engages in continuous self-reflection about one's biases (e.g., perceptions, assumptions, stereotypes, and implicit and explicit biases)	T2: 6.3.4 Engages in continuous self-reflection about one's biases (e.g., perceptions, assumptions, stereotypes and implicit and explicit biases)	T3: 6.3.4 Engages in continuous self-reflection about one's biases (e.g., perceptions, assumptions, stereotypes and implicit and explicit biases)	T4: 6.3.4 Engages in continuous self-reflection about one's biases (e.g., perceptions, assumptions, stereotypes and implicit and explicit biases)

6.4. Manages workforce development			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 6.4.1 Collaborates with project team members of varied backgrounds and education	T2: 6.4.1 Evaluates current agency staff to determine whether individuals with needed skills and abilities are present	T3: 6.4.1 Ensures that diverse, skilled teams are incorporated into organizational programs, plans, and the workforce	T4: 6.4.1 Advocates for resources to ensure that diverse, skilled individuals are recruited and retained by the organization
T1: 6.4.2 Demonstrates ongoing learning (e.g., identifying and advocating for participation in professional development, continuing	T2: 6.4.2 Disseminates learning opportunities (e.g., webinars and events relating to epidemiologic analyses, communication skills, etc.)	T3: 6.4.2 Facilitates coaching and mentoring for staff performing epidemiologic activities (e.g., supervisor to	T4: 6.4.2 Ensures resources are available to support workforce development (e.g., ongoing learning, continuing education, professional



6.4. Manages workforce dev	elopment		
education, and personal education or training) T1: 6.4.3 Participates in collaborative relationship activities for workforce development	T2: 6.4.3 Participates in collaborative relationship activities for workforce development	staff, peer to peer, and staff to supervisor)  T3: 6.4.3 Generates opportunities for collaborative relationships with key personnel of their agency, other agencies, and communities to support workforce development activities (e.g., identifying opportunities for collaboration with academic partnerships, community-based organizations, private sector)	development, mentoring and coaching opportunities)  T4: 6.4.3 Facilitates collaborative relationships with key personnel of their agency, other agencies, and communities to support workforce development activities (e.g., communicating with and supporting academic partnerships, community-based organizations, private sector)



# APPENDIX G. DOMAIN 7 COMPETENCIES AND SUB-COMPETENCIES

Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 7.1.1 Describes public health policies and policy development from an epidemiologic context (e.g., what systems are in place to implement policy, their flexibility, considerations of ethics, DEIA and justice, health in all policies)	T2: 7.1.1 Describes the scope of regulations and laws affecting epidemiologic activities	T3: 7.1.1 Describes the value of epidemiology and other evidence-based information in developing policy	T4: 7.1.1 Applies public health policies or laws into epidemiology activities in programs or plans
T1: 7.1.2 Recognizes epidemiologic and surveillance data needed to inform the development and improvement of public health policies, programs, services, and laws	T2: 7.1.2 Provides epidemiologic and surveillance data to inform the development and improvement of public health policies, programs, services, and laws (e.g., providing input, evidence, or data, following organizational procedures, creating decision memos, identifying policy alternatives)	T3: 7.1.2 Advocates for the incorporation of epidemiologic and surveillance data and the principles of data governance into policies, programs, services, and laws	T4: 7.1.2 Advocates for policies, programs, services, and laws based on evidence including research and epidemiologic and surveillance data
T1: 7.1.3 Follows rules and laws applying to government employees and funding sources regarding lobbying and advocacy	T2: 7.1.3 Follows rules and laws applying to government employees and funding sources regarding lobbying and advocacy	T3: 7.1.3 Enforces rules and laws applying to government employees and funding sources regarding lobbying and advocacy	T4: 7.1.3 Enforces rules and laws applying to government employees and funding sources regarding lobbying and advocacy



7.2. Evaluates programs, policies, services, laws, and organizational performance			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 7.2.1 Identifies SMART (Specific, Measurable, Attainable, Relevant, Timebounded) program-relevant goals, objectives, and performance measures	T2: 7.2.1 Creates SMART (Specific, Measurable, Attainable, Relevant, Timebounded) program-relevant goals, objectives, and performance measures	T3: 7.2.1 Monitors SMART (Specific, Measurable, Attainable, Relevant, Timebounded) program-relevant goals, objectives, and performance measures	T4: 7.2.1 Evaluates SMART (Specific, Measurable, Attainable, Relevant, Timebounded) program-relevant goals, objectives, and performance measures
T1: 7.2.2 Identifies data (e.g., surveillance, qualitative, quantitative) needed to track program objectives, performance, and outcomes	T2: 7.2.2 Employs data from surveillance systems, databases, dashboards, and other data sources to track program objectives, performance, and outcomes	T3: 7.2.2 Designs systems to record progress toward program objectives, performance, and outcomes	T4: 7.2.2 Communicates progress toward program objectives, performance, and outcomes to organization for use in program planning and modification
T1: 7.2.3 Describes organizational policies, programs, and services considering ethics, DEIA, and justice	T2: 7.2.3 Reviews organizational policies, programs, and services considering ethics, DEIA, and justice	T3: 7.2.3 Evaluates the impact of policies, programs, and services on achieving epidemiology program goals and objectives considering ethics, DEIA, and justice	T4: 7.2.3 Recommends improvements to policies, programs, services, and performance using continuous quality improvement methods and tools considering ethics, DEIA, and justice
T1: 7.2.4 Describes proposed bills and regulations that affect epidemiologic activities and public health programs and plans	T2: 7.2.4 Creates analyses of proposed bills and regulations that affect epidemiologic activities and public health programs and plans	T3: 7.2.4 Creates analyses of proposed bills and regulations that affect epidemiologic activities and public health programs and plans	T4: 7.2.4 Assesses programs, policies, services, proposed bills, and laws affecting the public health (e.g., their relationship with existing policies and laws, their impact on current programs and services, and their economic impact)



7.3. Engages in organizational strategic planning (e.g., strategic prioritization, research agenda, and action plans)			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1. 7.3.1 Describes the need for evidence-based and data driven decisions for strategic planning	T2: 7.3.1 Provides data analysis findings to improve organizational performance and impact strategic planning	T3: 7.3.1 Participates in organizational strategic planning (e.g., contributing to strategic prioritization, research agenda, and action plans)	T4: 7.3.1 Analyzes organizational performance data

7.4. Applies principles of ethical and legal practice to epidemiologic activities, data analysis, assessment, and dissemination			
Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 7.4.1 Demonstrates respect for community-level confidentiality, concerns of stigmatization, risks, and harm to community	T2: 7.4.1 Demonstrates respect for community-level confidentiality, concerns of stigmatization, risks, and harm to community	T3: 7.4.1 Demonstrates respect for community-level confidentiality, concerns of stigmatization, risks, and harm to community	T4: 7.4.1 Defends community-level confidentiality, addresses concerns of stigmatization, risks, and harm to community
T1: 7.4.2 Describes ethics guidelines, principles, and laws when planning studies; conducting research; and collecting, managing, disseminating, and using data (e.g., considering data sovereignty, data governance, public health authority, confidentiality, Belmont principles, IRB processes, HIPAA, other privacy laws)	T2: 7.4.2 Applies ethics guidelines, principles, and laws when planning studies; conducting research; and collecting, managing, disseminating, and using data (e.g., considering data sovereignty, data governance, public health authority, confidentiality, Belmont principles, IRB processes, HIPAA, other privacy laws)	T3: 7.4.2 Assesses relevant ethics guidelines and laws for data collection, management, dissemination, and use of data and information (e.g., deidentification of data, HIPAA compliance, health data sharing and privacy, addressing health inequities and community representation)	T4: 7.4.2 Advocates for ethics guidelines and laws for data collection, management, dissemination, and use of data and information (e.g., incorporating DEIA and justice, addressing emerging health concerns, improving access to health information, promoting secure data sharing)



7.4. Applies principles of ethical and legal practice to epidemiologic activities, data analysis, assessment, and dissemination			
T1: 7.4.3 Follows organization's policies and practices related to ethical, equitable, and inclusive conduct	T2: 7.4.3 Defines expectations of ethical, equitable, and inclusive conduct for team members	T3: 7.4.3 Advocates for ethical, equitable, and inclusive conduct of epidemiologic activities (e.g., addressing health disparities, health equity, and DEIA)	T4: 7.4.3 Demonstrates ethical, equitable, and inclusive conduct in organizational epidemiologic activities (e.g., managing conflicts of interest, preparing and submitting research for publication, balancing individual privacy with risk to the community, responding to FOIA requests)

Foundational Tier	Intermediate Tier	Practiced Tier	Advanced Tier
T1: 7.5.1 Describes evidence- based practices to inform public health actions	T2: 7.5.1 Collaborates with the community to identify public health actions and review public health decision making process	T3: 7.5.1 Applies public health actions that have been shown to be effective in similar populations if supported by the community of interest	T4: 7.5.1 Evaluates the choice of action strategy through consultation with the community of interest
T1: 7.5.2 Assists in designing public health actions that reduce systematic and structural barriers that perpetuate health inequities (e.g., racism, sexism, bigotry, poverty, gender discrimination)	T2: 7.5.2 Designs public health actions that reduce systematic and structural barriers that perpetuate health inequities (e.g., racism, sexism, bigotry, poverty, gender discrimination)	T3: 7.5.2 Implements public health actions that reduce systematic and structural barriers that perpetuate health inequities (e.g., racism, sexism, bigotry, poverty, gender discrimination)	T4: 7.5.2 Consults with decision makers and the community on factors affecting community health, health inequities, and resilience (e.g., ethics, DEIA, justice, racism, sexism, bigotry, poverty, gender discrimination)