

One Health Workforce Competency Framework and Evaluation Toolkit

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ACKNOWLEDGMENT

We work to support competency-based training and evaluation to ensure high quality training that delivers results. We acknowledge the vast amount of work that has been done by One Health Workforce training initiatives globally, the value of a resource library for sharing lessons learned and materials across programs, and the utility of competency-frameworks and assessment methods and tools to address gaps in trainings. This competency framework is an overview of approaches and practical tools that we hope you may find useful to support your One Health Workforce training initiative.

Financial support

This framework was developed with a funding from the USAID One Health Workforce - Next Generation (OHW-NG) project.

ABBREVIATIONS

AFROHUN	Africa One Health University Network
CBE	Competency Based Education
EPT	Emerging pandemic threats
OHW-NG	One Health Workforce - Next Generation project.
OH	One Health
OIR	Outbreak investigation and emergency response
SEAOHUN	Southeast Asia One Health University Network
USAID	United States Agency for International Development

DEFINITIONS

Competencies are a blend of tacit and explicit knowledge, behaviour and skills that gives someone the potential for effectiveness in task performance.¹ Competencies allow individuals to function in an organizational setting, or when referred to as work readiness competencies, impact the success of individuals and organizations, and that can be improved by training and development. E.g. sets of competencies for analytical thinking, interpersonal skills, leadership, communication, system thinking and technical expertise in a particular area like One Health competencies to attain the organizational goals efficiently and effectively.

Competency proficiency assessment is a measurement that assigns an expected level of competence on a given competency. Leading practice scales have behavioral indicators as their building blocks with related behaviors organized under each competency. Scale ratings range from three to seven mastery levels, with five levels being the most common.

Competency tier level: Each competency requires number of layers of knowledge to integrate with the identified work assigned to the individual in the organization. Workplace competencies are needed in the knowledge economy to ensure their acquisition of skills as they progress through work tasks and job roles. Individuals progress through the levels of beginner, intermediate, advanced and expert as they gain further education, experience and application of specific job duties. Beginners are new entries to the field with minimal application of skill an experience while experts are leaders in the field with a wide variety of skills including organizational leadership and management.²

Competency management is the set of management practices that identify and optimize the skills and competencies required to deliver on an organization's business strategy. Competency management provides the foundation to develop strategic talent management practices such as workforce planning, acquiring top talent, and developing employees to optimize their strengths.

Competency-based framework (CBF) is a set of selected competencies of various domains for a specific discipline or organization needed to achieve professional results. CBF provides a shared understanding and common language of the necessary knowledge, behavior and skills needed to achieve organizational objectives, and the framework will be used to design and develop evaluation strategies/tools.³

Domain: Competencies grouped in a large set by the type/area of knowledge or skill involved. E.g. One Health Management, Outbreak Investigation and Response, System Thinking.⁴

Module: A set of separate parts that, when combined, form a complete whole. In a single class, a module is a chapter, class meeting or lecture on a specific topic. A domain may have different modules based on list of topics.⁵

1 Sharma, P. (2017). Competence Development at the Workplace: a conceptual framework. JK International Journal of Management and Social Science, 1(1), 39-44.

2 National Institute of Health: Competencies Proficiency Scale. Available at: <https://hr.nih.gov/working-nih/competencies/competencies-proficiency-scale>

3 Benayouny, A. (2017). Competency-Based Framework: The Benefits and the Challenges. International Journal of Management and Applied Science, 3(9), 6-11. http://www.ijraj.in/journal/journal_file/journal_pdf/14-407-15115027096-11.pdf

4 Gebbie, M. K., & Gill, E. S. Competency-to-curriculum toolkit New York: Association for Prevention Teaching and Research, Columbia University: http://www.phf.org/resourcestools/Documents/Competency_to_Curriculum_Toolkit08.pdf

5 Definition of Module: <https://www.reference.com/world-view/module-education-24493465c954da62>

INTRODUCTION

Need for OHW resource library, competency framework, and evaluation toolkit

Competency frameworks are important to define what trainees need to know, understand, and be able to do. Training assessments are key to identify what trainees learn and determine if the training results in desired change. While there are a multitude of One Health Workforce trainings, some training manuals have not defined the competencies, and few to none according to level of proficiency. Many training manuals include an evaluation survey to measure learners' reaction to the training, some have included assessments to measure learning outcomes of knowledge, but few have tools to measure learners' behavior or results at the organizational or institutional level. There is a need to share lessons and synthesize resources across One Health Workforce training initiatives and to address gaps to enhance training quality and measure success.

Objective of OHW resource library, competency framework, and evaluation toolkit

This manual was developed to promote competency-based training and evaluation for One Health Workforce by organizing current approaches, methodologies, and tools into a resource library and building a competency framework and assessment toolkit.

Description of OHW resource library, competency framework, and evaluation toolkit

This manual includes a resource library, competency framework, and assessment toolkit for One Health Workforce training programs. It builds on the abundance of expertise, experience, and resources developed by One Health Workforce training initiatives across 23 countries in Africa and Southeast Asia and around the globe. It includes theories, concepts, and methodologies for competency-based training and evaluation including the Backward Design, the Capability Maturity Model, and the Kirkpatrick four-level evaluation model.

The resource library includes a mapping of existing competency frameworks, training materials, and evaluation tools from One Health Workforce partners across 23 countries in Africa and Southeast Asia and external relevant materials. The resource library provides an organized global platform for searching, sharing, and accessing of resources, tools, best practices, and materials for One Health Workforce training and assessment.

The competency framework consists of competencies and sub-competencies organized across fifteen domains of One Health Workforce training and practice and defined at four levels of proficiency including beginner, intermediate, advanced, and expert. The competency framework provides guidance for defining what a One Health Workforce trained professional should know, understand, and be able to do.

The evaluation toolkit consists of methods and tools for evaluating One Health Workforce training and practice at four levels including reaction to training, learning outcomes, behavior and performance, and results at the organizational and institutional level. The assessment toolkit provides guidance, methods, and tools for determining the effect and quality of One Health Workforce training.

BACKGROUND

COMPETENCY-BASED TRAINING AND EVALUATION

Effective competency-based frameworks create a real-time and predictive inventory of the capability of any workforce. By defining required job roles and associated competency proficiency, leadership can readily identify strengths and skill gaps. Competency management then informs targeted skills development learning solutions improving individual and organizational performance, leading to better business results. These competencies are used to develop a competency framework that becomes an outline for learning development. The learning development may range from beginner through to expert/mastery for each of the competencies established in the framework structure.

A competency framework defines the knowledge, skills, and attributes needed for people within a profession or organization. Each role will have its own set of competencies required to perform a specific function effectively. Such a framework usually includes a number of competencies that are applied to multiple levels and occupational roles. Each competency statement defines, in generic terms, excellence in working behavior; this definition then establishes the benchmark against which individuals are assessed. A competency framework is a means by which institutions communicate in which behaviors or skills are required, valued, recognized and rewarded with respect to specific professional or occupational roles. The competency-based framework has the following expected key benefits:

- linking job requirement to organizational strategic goals,
- reduce the cost of training by identifying real training needs through identifying the competency gaps,
- providing a roadmap for employee development and career planning,
- providing a common understanding of the behaviors needed to achieve organizational objectives, and
- promoting employees based on performance rather than solely on seniority.

Competency framework includes domains, high-level competencies and sub-competencies, and functional competencies. Functional competencies are defined by duties and responsibilities assumed by individuals for a given task.

METHODS



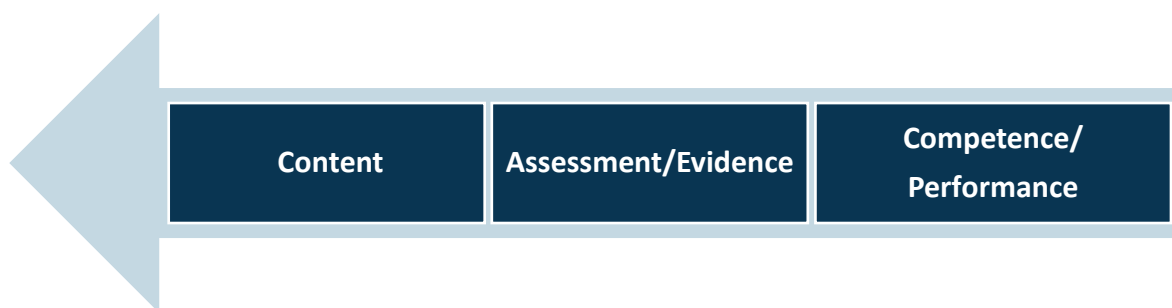
METHODS

Four key theories and methods underly our approach to development of the OHW competency framework and assessment toolkit. The Backward Design approach guides development of competency-based learning and assessment. Competency based workforce assessment in professional development programs clears the path for more detailed and accurate workforce planning, certification, skill acquisition, deployment of changing healthcare needs, and many other purposes. The Capability Maturity Model informs the delineation of competencies according to level of proficiency from beginner, intermediate, advanced, to expert. And the Kirkpatrick evaluation model informs the assessment of training at four levels including learners' reaction, learning outcomes, behavioral performance, and results at the organizational level.

BACKWARD DESIGN APPROACH TO COMPETENCY-BASED TRAINING AND EVALUATION

The Backward Design (BD) approach is well-known for creating competency-based training and is a compelling strategy for achieving results-based, participant-centered education program.⁶ The BD approach defines the competencies needed to achieve organization's strategic goals, and, in the context of One Health, provides a vehicle for integrating the health needs of a country with the priorities of the profession. The three-step backward design, as indicated in Fig 1, begins by first defining the desired competency or performance, secondly determining assessment and evaluation methods and measures, and third by developing the educational content. The competencies are the building blocks for high-quality individual and organizational performance and development of assessment strategies and tools. Competency evaluation is the foundation of competency management of workforce development.⁷ Thus, the BD approach will be used to develop a generic One Health education competency-based framework followed by competency assessment toolkits. This document addresses steps 1 and 2.

Figure 1: The three steps backward design for educational planning.

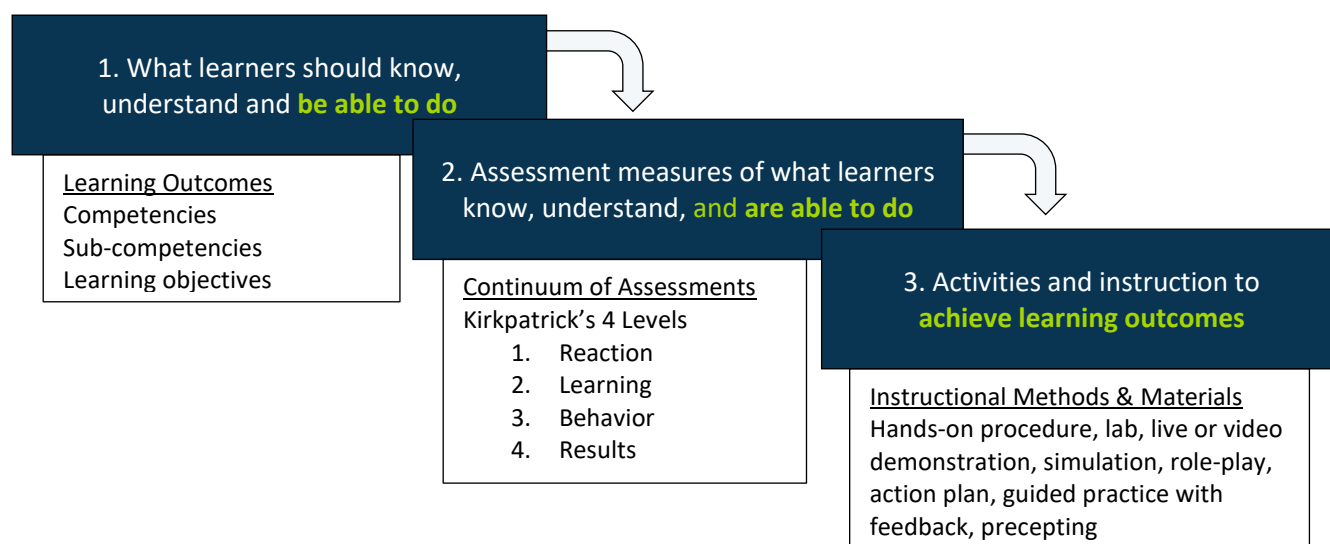


⁶ Reynolds, H. L., & Kearns, K. D. (2017). A planning tool for incorporating backward design, active learning, and authentic assessment in the college classroom. *College Teaching*, 65(1), 17-27.

⁷ Scoresby, J., Tkatchov, M., Hugus, E., & Marshall, H. (2018). Applying service design in competency-based curriculum development. *The Journal of Competency-Based Education*, 3(3), e01171.

The detailed steps of BD course planning are well depicted in Fig 2, which ICAP at Columbia University adapted from the Wiggins et al. (2005) model, from defining competencies to development of evaluation methods and contents.⁸ The first stage of the model is also broken down into the sequence of identifying/developing competency statements, specifying sub-competencies for each competency statement (when needed) and then writing cognitive, behavioral and affective learning objectives for each competency or sub-competency statement. The second stage includes the development of assessments which provide evidence of skill acquisition and competency development. In this competency framework, Kirkpatrick's Four Levels of Evaluating Training Programs is specified for developing measures and evaluation methods. Evaluation is the crucial step of a competency-based training program because the competency assessments make up the participants' level of knowledge and skills and are the sole determiner of success. The third stage identifies the instructional methods and materials that will be used to achieve the learning outcomes. This includes various types of instructional delivery and activities such as hands-on procedures, demonstrations, lecture or guided practice. This manual addresses steps 1 and 2, determining learning outcomes and assessments.

Figure 2: Backward educational planning and curriculum development approach. Adapted from Wiggins et al. (2005)



COMPETENCY-BASED WORKFORCE ASSESSMENT

Competency management is the entire process of assigning, assessing, and tracking the knowledge, skills, and experience required to perform specific activities. Institutions have an objective approach of ranking and evaluating trainees or employees against the training and learning that is being performed. Competency assessment in professional development programs clears the path for more detailed and accurate workforce planning, certification, skill acquisition, deployment of changing healthcare needs, and many other purposes (Figure 3).

⁸ Wiggins, G., Wiggins, G. P., & McTighe, J. (2005). Understanding by design. ASCD. Page 18.

Figure 3: Significance of competency management and evaluation



A competency-based workforce assessment supports growth at both the individual and organizational level. Organizations are able to make better hiring decisions utilizing competency-based screening tools, develop strategic employee training plans and identify targeted areas for continued training and education within their workforce. At the individual level, competency-based workforce assessments support employees to have clear expectations for their roles, responsibilities, and deliverables, understand their areas of growth and focus their trainings to develop specific skills.⁹

Utilizing a competency-based workforce assessment tool will allow organizations such as AFROHUN and SEAOHUN to identify gaps in education and training programs that support the OH workforce. These assessments can be utilized to identify the areas where additional education is required including revising curriculum at the university level, short-term, targeted in-service training or continued professional development.

⁹ National Institute of Health (2015). Workforce Planning Toolkit: Competencies Overview. Pgs. 3-7
<https://hr.nih.gov/sites/default/files/public/documents/workforce/workforce-planning/pdf/07-nihcompetenciesoverview.pdf>

CAPABILITY MATURITY MODEL FOR DEFINING PROFICIENCY AT FOUR LEVELS

The key OH competencies are categorized along a continuum from beginner to expert using capability maturity model, defining performance. Based on the complexity and level of responsibility, an average of three to five functional competencies is assigned under each task in the drafted OH competency framework, as shown below in Table 1. The functional competencies are further categorized using the capacity maturation model (CMM) from beginner to an expert level based on the level of education and experiences of skill acquisition.

Table 1: Capability Maturity Model for OHW

Proficiency tier level	Description of the competency staging levels ¹⁰¹¹¹²¹³
Beginner/ Novice	A beginner worker is one who can demonstrate an elementary level of performance and <u>focusing on developing understanding through on-the-job experience</u> . Beginners might have gained enough classroom or on-the-job training to note recurring principles and themes but might not yet be able to apply them consistently. The beginner worker might have sufficient subject matter knowledge but has limited experiential knowledge needed to perform a task, behavior, or function without frequent guidance or oversight.
Intermediate	An intermediate professional is one who has been in the same or similar job and who begins to see their actions within the context of the OH's long-range goals and plans and <u>focusing on enhancing knowledge or skill</u> . The intermediate OH professional is developing knowledge and experience to recognize a situation in terms of an overall picture or in terms of which aspects are most salient or most important. The intermediate worker has the necessary ability to cope with OH approaches and is able to perform a task, behavior, or function with a high degree of independence.
Advanced	Advanced OH professionals understand situations as a whole and perceive their meaning in terms of the OH long-term goals and focusing on broader professional issues. The advanced person learns from experience or has taken intensive experiential training with practical application and knows how plans need to be modified in response to specific events. The advanced OH professional uses established principles to manage complex processes and has developed sufficient mastery to integrate or design a new task, behavior, or function.
Expert	The expert OH professional, with substantial experience and knowledge, has an intuitive grasp of situations and focuses on the root of the problem at a <u>strategic level</u> . The expert operates from a deep understanding of the total situation and integrates systems thinking, collaborative relationships, and the resources at their disposal to achieve the OH strategic goals. The expert has acquired mastery to design new strategies, policies, tasks, behaviors, and functions that support quality operations.

The stages of competency or skill of the maturation model (Figure 4) was used for developing the OH competency framework of the two domains which is designed and developed with the key functional competencies in Table 4. Following the development of the OH competency framework with the capability maturity model, the next step will be identifying existing assessment methods and tools that map to each competency and develop these where they are missing. These resources will be compiled into a toolkit, enabling educators and trainees to establish and

10 Fisher, C., Cusack, G., Cox, K., Feigenbaum, K., & Wallen, G. R. (2016). Developing competency to sustain evidence-based practice. *The Journal of nursing administration*, 46(11), 581.

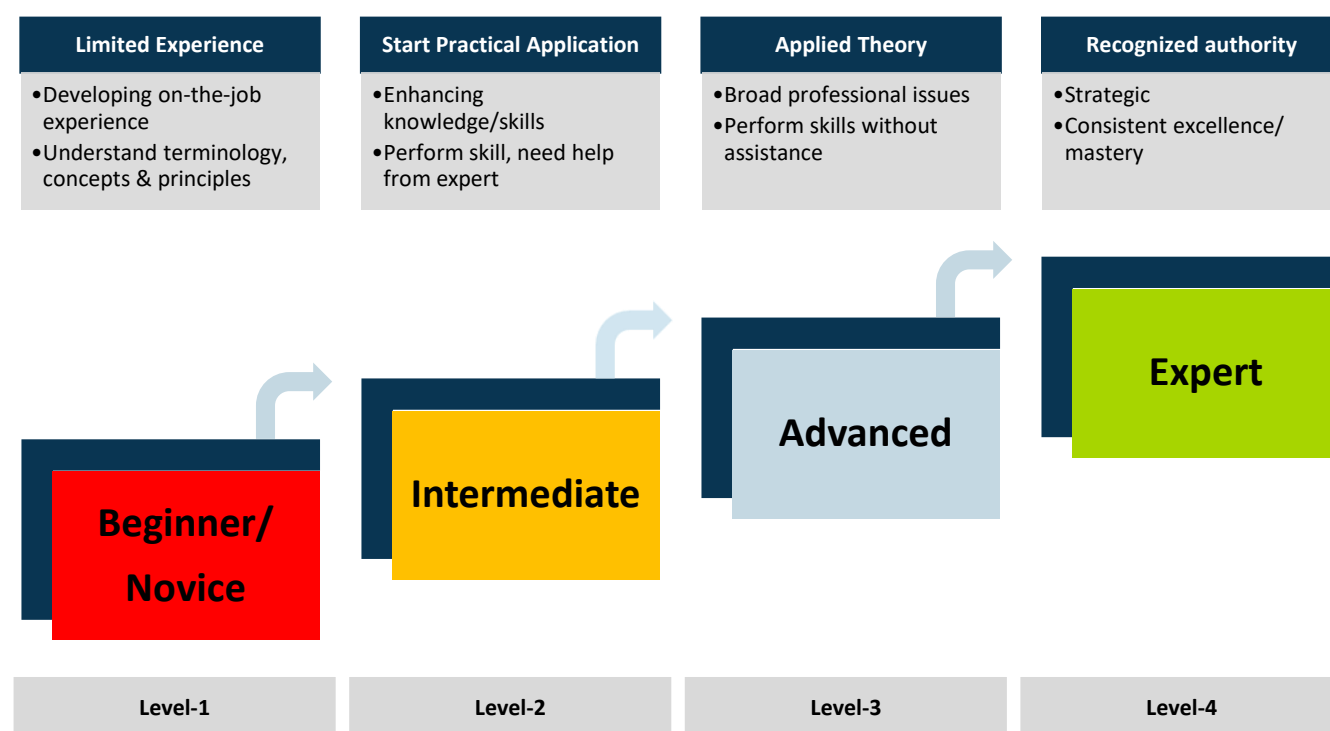
11 Benner, P. (1984). *From novice to expert*. Menlo Park.

12 Dreyfus SE, Dreyfus HL. *A five-stage model of the mental activities involved in directed skill acquisition*. Berkeley, CA: University of California–Berkeley; 1980.

13 National Institute of Health: Competencies Proficiency Scale. Available at: <https://hr.nih.gov/working-nih/competencies/competencies-proficiency-scale>

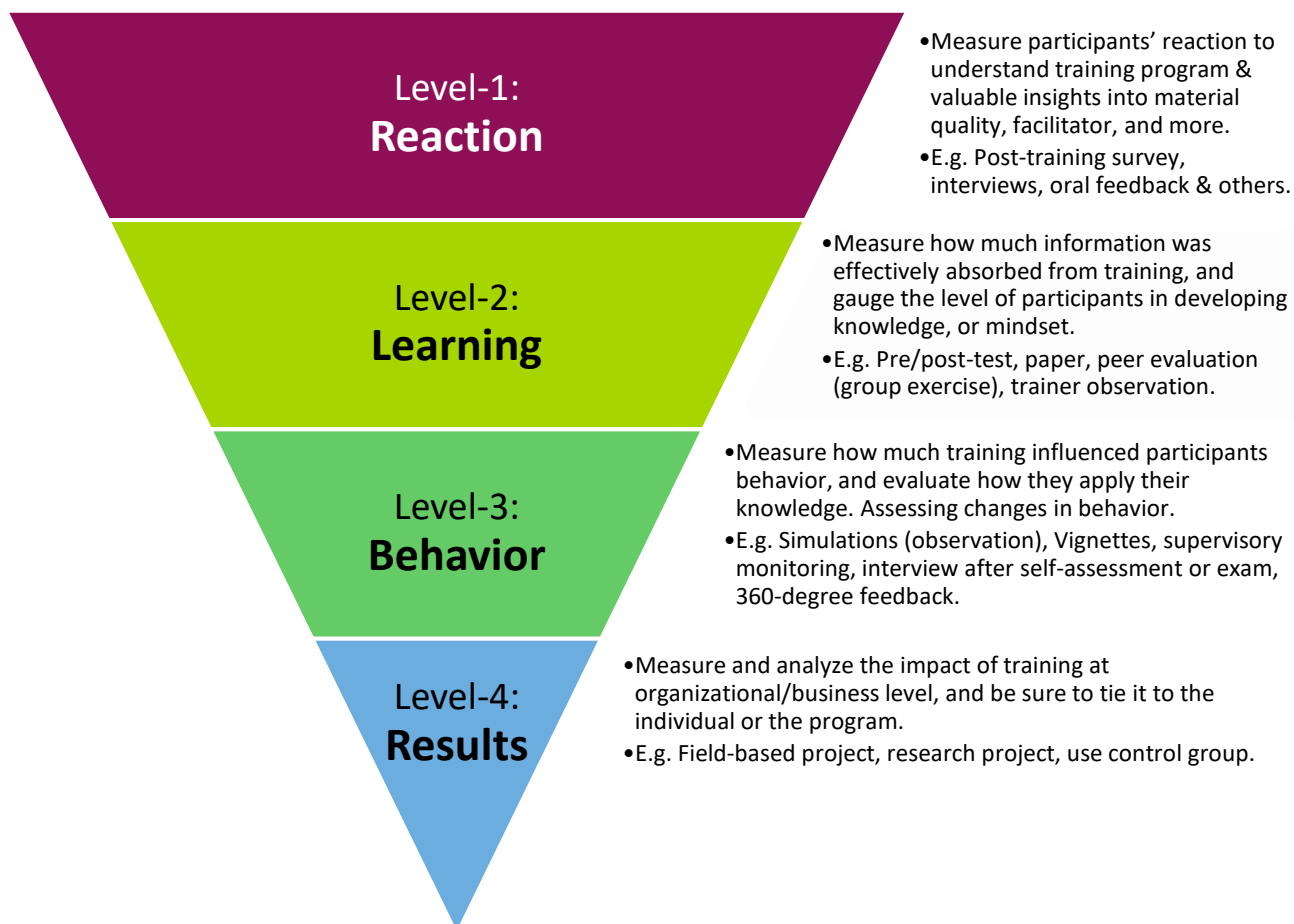
document OH skills effectively. The generic OH competency framework and evaluation tools will benefit university networks and countries to use as a reference and adapt to the local settings, in consultation with national OH coordinating bodies, policymakers, professional associations, and/or licensing agencies.

Figure 4: Stages of competency or skill of maturation model used for developing the OH competency framework



KIRKPATRICK MODEL FOR EVALUATING TRAINING AT FOUR LEVELS

The Kirkpatrick Model¹⁴¹⁵ is well-recognized to design evaluation strategies for classroom training, e-learning, informal learning, social learning, or any other type of modality in which individuals gain knowledge or skills to do their jobs more effectively. This model will be used for developing/updating OH assessment strategies and tools (Fig 5). The Model consists of four hierarchical levels of evaluation. The most basic level, Level 1 (i.e., Reaction), assesses the degree to which training participants find the training program favorable, engaging, and relevant to their jobs. The next level, Level 2 (i.e., Learning) measures the extent to which participants acquire the intended knowledge, skills, attitude, confidence, and commitment based on their participation in the training. Level 3 (i.e., Behavior) evaluates the degree to which participants can apply what they learned during the training when they are back at their jobs, so long as they are provided with the support they need. The highest level of evaluation, Level 4 (i.e., Results) assesses the degree to which targeted outcomes at organizations occur as a result of the training.

Figure 5: Kirkpatrick's Four Levels of Training Evaluation

RESOURCE MAPPING AND KNOWLEDGE MANAGEMENT USING AIRTABLE

Mapping and synthesis were conducted to identify existing resources and tools for OHW training and practice across 23 countries in Southeast Asia and Africa and external relevant materials. Identified resources were organized in a resource library where they are searchable by region, country, domain, competency category, evaluation method, and evaluation tool. Resources were then drawn upon and synthesized into guidance including a competency framework and an evaluation toolkit.

Online search engine and university websites were used to identify the existing OH related training materials, competencies, and evaluation resources. Resources were scanned not only from AFROHUN and SEAHOHUN websites but also other institutions providing training or program related to the OH domains. Additional literature reviews were completed for each domain to augment the competencies with more targeted and detailed levels of skill acquisitions. An online database, Airtable, was used for organizing OH resources. Over two hundred resources were found and included in the Airtable and can be filtered, grouped, and sorted across various pre-defined categories

and fields including resource type (evaluation tool, competency framework), Region (AFROHUN, SEAOHUN, global), country, OH domain, competency level (1-4), evaluation level (1-4), evaluation method, evaluation tool, and more. The fields, categories, and pre-defined elements for filtering, grouping, and sorting resources are included in Table 2 below. The functions of Airtable filtering, grouping, and sorting can be viewed in Figure 6 below. The Airtable can be viewed online at the following link:

<https://airtable.com/shrMRm1joz9HFBnok/tblcE8SjbH7wyq0dC>

Table 2: Resource Mapping: Fields, Categories, and Elements for Searching, Grouping, and Filtering Resources

REGION	COUNTRY	OH DOMAIN	COMPETENCY LEVEL	EVALUATION LEVEL	EVALUATION METHOD	EVALUATION TOOL	TRAINING METHOD	TRAINING TOOL
SEAOHUN	Cambodia	Behavior Change	1-Beginner	1-Reaction	Satisfaction survey	Questionnaire	University Course	Curriculum
AFROHUN	Indonesia	Collaboration and Partnership	2-Proficient	2-Learning	Pre-post test	Multiple choice exam	Tutorial	Training Manual
Global	Laos	Communication	3-Advanced	3-Behavior	Self-assessment	Knowledge checklist	Field Experience	Online Course
	Malaysia	Culture and Ethics	4-Expert	4-Results	Group-assessment	Skills checklist	Workshop	Textbook
	Philippines	Ecosystems Health			Direct observation	Performance checklist	Seminar	Guideline
	Thailand	Epidemiology			Simulation Lab		Communities of Practice	Reference
	Vietnam	Gender			Field Assessment		Inservice Training	Application
	Myanmar	Infectious Disease Management			Performance Evaluation		Student Clubs	
	Cameroon	Outbreak Investigation			Quality Improvement		Simulations	
	DRC	Leadership			Monitoring and Evaluation		Certificates	
	Ethiopia	Management			Program Evaluation		Masters Degree	
	Kenya	Policy and Advocacy			Research Project		Doctoral Degree	
	Uganda	Research						
	Rwanda	Risk Analysis						
	Tanzania	Systems Thinking						
	Senegal							

Figure 6: Airtable Resource Mapping: Fields, Categories, and Elements for Filtering, Grouping, and Sorting Resources

Airtable Grid view

Hide fields Filter Group Sort

No groupings applied to this view

Pick a field to group by

Find a field

Country

OH Domain

Competency Level

Competency Category

Evaluation Level

Evaluation Method

Evaluation Tool

	Resource Title	Category	Language	Region	Country	OH Domain	Competency Level
1	Principles of Epidemiology	Training Material	English	Global	Other	Epidemiology Outbreak Investigation	2- Proficient
2	Self-Study Modules	Training Material	English	Global	Other	Outbreak Investigation	1- Beginner
3	Frontline Field Epidemiology	Publication	English	Global	Other	Epidemiology Outbreak Investigation	2- Proficient
4	Getting Started with Implementation	Guidelines	English	Global	Other	Outbreak Investigation	3- Advanced
5	Field Epidemiology Manual	Best Practice Publication	English	Global	Other	Epidemiology Infectious Disease	2- Proficient
6	Outbreak Toolkit Case Studies	Training Material Publication	English	Global	Other	Epidemiology Outbreak Investigation	2- Proficient
7	Outbreaks and Epidemiology	Training Material	English	Global	Other	Epidemiology Outbreak Investigation	1- Beginner
8	Self-Assessment of Field Epidemiology	Evaluation Tool	English	AFROHUN	Kenya	Epidemiology	2- Proficient
9	Epidemiology Competency Assessment	Evaluation Tool	English	Global	Other	Epidemiology	1- Beginner
10	Epidemiology Competency Assessment	Evaluation Tool	English	Global	Other	Epidemiology	2- Proficient
11	Epidemiology Competency Assessment	Evaluation Tool	English	Global	Other	Epidemiology	3- Advanced
12	Epidemiology Competency Assessment	Evaluation Tool	English	Global	Other	Epidemiology	4- Expert
13	SEAOHUN, Culture Values and Ethics Module	Training Material	English	SEAOHUN	Cambodia Indonesia Laos	Gender	Unspecified
14	OHCEA, Gender and EPT Module	Training Material	English	AFROHUN	Cameroon Democratic Republic of the Congo	Gender	Unspecified
15	LWBIWH, Sex and Gender Medical Education	Evaluation Tool	English	Americas	United States	Gender	1- Beginner
16	Health Resources and Services Administration	Best Practice Publication	English	Global	Other	Gender	1- Beginner

23 records

RESOURCE LIBRARY



RESOURCE LIBRARY

COMPETENCY RESOURCE LIBRARY

Existing competency frameworks, categories, and statements were scanned for each OHW domain and compiled into a resource library in Airtable. Competency resources are categorized and searchable by domain, competency category, region, and country. Over two hundred resources were found across fifteen OHW domains. For example, in the gender domain, ten resources were identified including competency frameworks or statements related to gender and OHW. These resources were further categorized by competency categories within the gender domain including gender awareness, analysis, health education, healthcare, programs, and policy. The competency framework resources for the gender domain are highlighted as an example below in Table 3. The competency framework resources for the gender domain are shown in the Airtable resource library in Figure 7. To view all competency resources please visit the Airtable at the following link:

<https://airtable.com/shrMRm1joz9HFBnok/tblcE8SJbH7wyq0dC>

Scanning existing competency frameworks revealed that many training materials including OHCEA do not include explicit competency statements. Other training materials include competency statements but do not specify competency level (beginner, intermediate, advanced, expert). The scan revealed a need to define competencies for OHW and to provide more detailed sub-competencies according to competency level (beginner, intermediate, advanced, expert) to fill the gap in competency resources. The scan also revealed repeating competency themes and categories across resources so that we could begin to identify core competency categories to be included in the synthesized competency framework. The scan included OHW regional and country competencies as well as additional resources to provide a more comprehensive resource library of competencies to draw upon.

Competency Resources by Domain

Table 3: Example: Mapping Existing Competency Framework Resources by Gender Domain

RESOURCE	DOMAIN	COMPETENCY LEVEL	COMPETENCY CATEGORY
SEAOHUN, Culture Values and Ethics Module	Gender	Unspecified	Gender Awareness
OHCEA, Gender and EPT Module	Gender	Unspecified	Gender Awareness
LWBIWH, Sex and Gender Medical Education National Student Survey	Gender	1-Beginner	Gender Health Education
Health Resources and Services Administration. Women's Health Curricula, Final Report on Expert Panel Recommendations for Interprofessional Education	Gender	1-Beginner	Gender Health Education
World Health Organization. Institutional Competency in Gender Integration	Gender	Unspecified	Gender Policy
CARE, Gender marker	Gender	1-Beginner, 2-Intermediate, 3-Advanced, 4-Expert	Gender program

RESOURCE	DOMAIN	COMPETENCY LEVEL	COMPETENCY CATEGORY
United Nations Women, Gender Equality Capacity Assessment Tool	Gender	Unspecified	Gender program
Interagency gender working group, core gender training	Gender	Unspecified	Gender program
UNICEF, Gender Mainstreaming Self-Assessment	Gender	Unspecified	Gender program
World Health Organization, Integrating Gender into the Curricula for Health Professionals	Gender	1-Beginner	Gender Health Education

Figure 7: Example Airtable: Mapping Existing Competency Framework Resources by Gender Domain

OHW Resource Library for Airtable						
Table 1						
VIEWS	Grid view	Hide fields	Filter	Grouped by 1 field	Sort	Color
Resource Title	OH Domain	Competency Level	Competency Category	Evaluation Level	Evaluation Method	
SEAOHUN, Culture Values and Ethics M...	Gender	Unspecified	Gender Awareness	Level Two Learning	Self-Asses	
OHCEA, Gender and EPT Module	Gender	Unspecified	Gender Awareness	Level Three Behavior	Self-Asses	
LWBIWH, Sex and Gender Medical Educ...	Gender	1- Beginner	Gender Health Education	Level Two Learning	Level F	Research f
Health Resources and Services Administ...	Gender	1- Beginner	Gender Health Education	Level Four Results		Research f
World Health Organization, Institutional...	Gender	Unspecified	Gender Policy	Level Four Results		Quality Im
CARE, Gender marker	Gender	1- Beginner	2- Proficient	Level Four Results		Quality Im
United Nations Women, Gender Equalit...	Gender	Unspecified	Gender Programs	Level Two Learning	Level T	Program E
Interagency gender working group, cor...	Gender	Unspecified	Gender Programs	Level One Reaction		Satisfactio
UNICEF, Gender Mainstreaming Self-As...	Gender	Unspecified	Gender Programs	Level Two Learning	Level T	Self-Asses

EVALUATION RESOURCE LIBRARY

Existing evaluation and assessment tools were scanned for each OHW domain and compiled in a resource library in Airtable. Evaluation resources were categorized and can be filtered, grouped, and sorted in Airtable according to evaluation level, evaluation method, OHW domain, competency category, region, and country. Over two hundred resources were found across fifteen OHW domains. To view all evaluation resources please visit the Airtable at the following link: <https://airtable.com/shrMRm1joz9HFBnok/tblcE8SJbH7wyq0dC>

Scanning existing evaluation tools revealed that the majority of evaluation tools available related to OHW were available at Level 1: Reaction and Level 2: Learning. OHCEA and SEAOHUN include tools for measuring Levels 1 and 2 but not 3 and 4 of the Kirkpatrick evaluation methods and this was common across most resources identified. Many training manuals include a learner satisfaction questionnaire to measure Level 1: Reaction and the majority of Level 2: Learning tools included self-assessment of learning using knowledge checklists and Likert scales. There was an

identified need for more objective measures of Level 2: Learning evaluation such as multiple choice pre/post tests. Fewer evaluation resources and tools were found to measure Level 3: Behavior or Level 4: Results. There was an identified need to develop approaches and tools to evaluate Level 3: Behavior through skills observations and Level 4: Results through program evaluation and quality improvement tools.

For example, the scan of existing or available assessment tools in the domain of Outbreak Investigation and Emergency Response (OIR) found certain tools at Level One Reaction and Level Two Knowledge. Many available educational packages had instructional foci on a singular outbreak event or disease and the available evaluations assessed participants' overall appraisal of the training or contained minimal knowledge assessments such as targeted case studies, short answers, or multiple-choice questions. Individual performance-based assessments that could be aligned with the Level Three Behavior and Level Four Reaction evaluations were not found during the scan. Many of the OIR competencies and sub-competencies are performance and experience-based and will, therefore, require higher-level tools to evaluate skill acquisition and proficiency.

The scan of existing or available assessment tools in the domain of Gender and One Health found tools to evaluate all four levels of Kirkpatrick Evaluation model, including reaction, learning, behavior, and results. SEAOHUN and AFROHUN training materials on Gender included assessment tools for Kirkpatrick Levels 2 (Learning) and 3 (Behavior). The SEAOHUN assessment tool for Level 2, Learning, used self-report on a 5-point scale to assess learners' ability to understand and apply competencies after training. The AFROHUN assessment tool for Level 3, Behavior, used a simulation self-assessment and team-assessment tool to measure the behavioral performance of competencies after the training on a 5-point scale. Additional assessment tools were gathered during scanning to complement the existing SEAOHUN and AFROHUN assessment tools and to evaluate Levels 1-4 of the Kirkpatrick model. The IGWG, USAID, Participant Evaluation Form was identified during the scan as a useful assessment tool to evaluate Level 1, Reaction, using a 5-point scale and short answers to assess participants' satisfaction with the training on gender and to gather participant feedback. The PHF Competency Assessment Tool for Public Health Professionals was identified during the scan as a useful assessment tool for evaluating Level 2, Learning, using learners' self-report of knowledge and skill on a five-point scale. The Academic Health Council, Inter-professional collaborator assessment rubric was identified during the scan to evaluate Level 3, Behavior, by using direct observation of demonstrated competency based on frequency of behavior and independence of performance on a four-point scale. The CARE Gender Marker assessment tool was identified during the scan to evaluate Level 4, Results, by assessing organizational level results of integrating gender sensitivity into programs on a five-point scale. The WHO tool evaluates Level 4, Results, by assessing gender sensitive policies on a five-point scale. The HRSA tool for Integrating Gender into Health Professional Education was identified to evaluate Level 4, Results, by assessing Education Institution on a scale of 1-4 for Institutional Readiness for Inter-professional Sex and Gender Specific Women's Health Education. Existing evaluation tools from SEAOHUN and AFROHUN were synthesized together with additional assessment tools identified during the scanning and compiled into a comprehensive assessment tool for evaluating Gender and One Health on all four levels of Kirkpatrick Evaluation Model and is included in Annex 2.

Below is a table showing the existing evaluation resources by Kirkpatrick evaluation levels across OHW domains (Table 4). The blue boxes indicate where resources were identified. As you can see, there is a lack of evaluation resources particularly in Levels 3 and 4 of the Kirkpatrick model. Below you can see a snapshot of the Airtable to see how the evaluation tools are categorized and can be filtered, grouped, and sorted by evaluation level (Figure 8). For full access to all two-hundred plus evaluation resources please visit the Airtable website at:

<https://airtable.com/shrMRm1joz9HFBnok/tblcE8SJbH7wyq0dC>

Evaluation Resources by Evaluation Level

Table 4. Example: Mapping Existing Evaluation Resources by Evaluation Level

DOMAIN	EVALUATION LEVEL			
	Level I	Level II	Level III	Level IV
Gender	Level I	Level II	Level III	Level IV
Culture, Values, and Ethics		Level II	Level III	
Policy and advocacy	Level I	Level II		
Leadership		Level II		
Management		Level II	Level III	
Systems Thinking	Level I	Level II		
Risk Assessment and Mitigation		Level II		
Ecosystems Health		Level II		
Infectious diseases Management		Level II		

Figure 8. Example: Mapping Existing Evaluation Resources by Evaluation Level

The screenshot shows the 'OHW Resource Library for Airtable' interface. The table is titled 'Table 1' and is grouped by 'OH DOMAIN'. The columns are: Resource Title, OH Domain, Competency Level, Competency Category, and Evaluation Level. The 'OH DOMAIN' column is filtered to show 'Gender' (Count 12). The 'Competency Level' column is filtered to show '1- Beginner' and '2- Proficient'. The 'Evaluation Level' column shows various levels of learning and behavior.

Resource Title	OH Domain	Competency Level	Competency Category	Evaluation Level
SEAOHUN, Culture Values and Ethics M...	Gender	Unspecified	Gender Awareness	Level Two Learning
OHCEA, Gender and EPT Module	Gender	Unspecified	Gender Awareness	Level Three Behavior
LWBIWH, Sex and Gender Medical Educ...	Gender	1- Beginner	Gender Health Education	Level Two Learning
Health Resources and Services Administ...	Gender	1- Beginner	Gender Health Education	Level Four Results
World Health Organization, Institutional...	Gender	Unspecified	Gender Policy	Level Four Results
CARE, Gender marker	Gender	1- Beginner 2- Proficient	Gender Programs	Level Four Results
United Nations Women, Gender Equalit...	Gender	Unspecified	Gender Programs	Level Two Learning
Interagency gender working group, cor...	Gender	Unspecified	Gender Programs	Level One Reaction
UNICEF, Gender Mainstreaming Self-As...	Gender	Unspecified	Gender Programs	Level Two Learning
WHO, Integrating Gender into Curricula...	Gender	1- Beginner	Gender Health Education	Level Four Results

COMPETENCY FRAMEWORK



COMPETENCY FRAMEWORK

SYNTHESIZED COMPETENCY FRAMEWORK

A competency framework including competencies and sub-competencies was synthesized and categorized across fifteen domains of OHW and defined according to proficiency level of beginner, intermediate, advanced, and expert. The OH competency framework is designed to show workflows and competency levels, driving the ability to review/design different types of evaluation strategies and tools linked to competency. The framework is a deep dive into competency levels to identify gaps and all the resources required to close these gaps. The framework ties competencies and sub-competencies with evaluation strategies, and it is consolidated and provides a clear visual aid for identifying competency gaps. Based on competency gaps, institutions and/or users can review and/or develop a training package and integrate the framework with different competency management systems. Furthermore, the generic competency framework would be critical for workforce demand analysis and planning. It can also be a reference for executives to gain key insights into the OH competencies for different roles and skill requirements and create competency role profiles to meet organizational needs.

Competencies by Domain

The competency framework in Table 5 below includes key competencies listed across fifteen OHW domains including: outbreak investigation and response, gender, culture values and ethics, policy and advocacy, leadership, management, systems thinking, risk assessment and mitigation, ecosystems health, communication, behavior change, infectious disease, research, collaboration and partnership, and public health principles. Each domain includes 3-8 key competency categories and competency statements. These competency categories were identified during the competency mapping and scanning stage and competency statements were derived and synthesized from existing competency frameworks and statements included in the resource library. This list of competency statements is not comprehensive or exhaustive but is to serve as an example library of what were found to be common and vital minimum competencies to be included in each domain. These competency statements may be adapted to different contexts and settings.

Table 5. Competency Framework: Competencies by Domain

1. DOMAIN: ONE HEALTH PRINCIPLES AND CONCEPTS
Competency 1 Explain the history and concept of One Health
Competency 2 Describe the OHCC domains and their application (Six Global Domains: Management, Communication, Culture and Beliefs, Leadership, Collaboration and Partnership, Values and Ethics, Systems Thinking)
Competency 3 Describe the application of the One Health approach.
2. DOMAIN: INFECTIOUS DISEASE MANAGEMENT AND FUNDAMENTALS
Competency 1 Identify and analyze the risk factors associated with illness during an infectious disease outbreak or epidemic.
Competency 2 Design and implement an infectious disease management plan
Competency 3 Evaluate the effectiveness of One Health actions in infectious disease management

Competency 4 Design a disease surveillance and monitoring system

3. DOMAIN: OUTBREAK INVESTIGATION AND RESPONSE

Competency 1 Outbreak Investigation: Apply steps in conducting outbreak investigation

Competency 2 Outbreak Preparation: Review investigation and outbreak management experiences for applying best practices for potential outbreak events

Competency 3 Outbreak Response: Use systematic approach for outbreak response

Competency 4 Outbreak Recovery: Use systematic approach to recovery from outbreak and return to SOP

4. DOMAIN ECOSYSTEM HEALTH

Competency 1 Ecosystems Principles: Understand fundamental ecological/ecosystem principles

Competency 2 Ecosystems Relationships: Recognize interrelationships among ecosystems, animal health and human health

Competency 3 Ecosystems Impacts: Analyze the effects of direct impacts on the environment

5. DOMAIN ONE HEALTH EPIDEMIOLOGY

Competency 1 Apply epidemiological thinking and a public health approach to a OH related health issue or disease

Competency 2 Implement and interpret surveillance systems to assess OH related health issue or disease

Competency 3 Provide OH policy recommendations based on epidemiological analysis

6. DOMAIN: ONE HEALTH RISK ANALYSIS

Competency 1 Risk Assessment: Conduct One Health Risk Assessment and Analysis

Competency 2 Risk Management: Implement One Health Risk Management and Mitigation

Competency 3 Risk Reporting: Conduct One Health Risk Communication and Reporting

7. DOMAIN: ONE HEALTH RESEARCH

Competency 1 Research programs: develops research programs

Competency 2 Ethical conduct: ensures the ethical and responsible conduct of research

Competency 3 Research foundation: integrates scientific and technical knowledge for use as a foundation for research

Competency 4 Research project execution: conducts research to address a public health issue or answer a public health question

Competency 5 Research data management, analysis, and application: conducts research according to professional standards of data management, analysis, and application

Competency 6 Dissemination of research findings: disseminates research findings

Competency 7 Translation: translates research findings to public health practice

8. DOMAIN: ONE HEALTH LEADERSHIP

Competency 1 Shared Vision: Articulate a shared mission, set of core values, and vision to achieve OH goals

Competency 2 Collaborative Solutions: Utilize collaborative methods and skills of negotiation and conflict management across sectors and disciplines to facilitate cooperation in working together to address challenges and achieve OH goals.

Competency 3 Team Commitment: Motivate, coach, mentor, and mobilize the OH team to work together to achieve OH goals.

Competency 4 Professionalism: Apply ethical principles and professional code of conduct in leadership of OH programs.

9. DOMAIN: ONE HEALTH MANAGEMENT

Competency 1 General management: Ensures sound management of OH organizational operations

Competency 2 Program Management: Plan, Design, Implement, Monitor, and Evaluate OH Programs

Competency 3 Financial management: Ensures sound OH financial management

Competency 4 Human resource management: Ensures effective management of human resources for OH

Competency 5 Emergency Preparedness and Response: Ensure readiness to prepare and respond to emerging pandemic threats and outbreaks

10. DOMAIN: SYSTEMS THINKING

Competency 1 Systems Thinking Principles: Describe the elements of complex problems and systems thinking. Utilize wicked theory for systems thinking

Competency 2 Systems Thinking Diagrams: Create and use systems mapping to deepen understanding of One Health problems. Develop a Causal Loop Diagram for systems thinking

Competency 3 Systems Thinking Partnerships: Partner with One Health team members to develop solutions to complex One Health problems using systems thinking and tools. Develop interprofessional, interdisciplinary and multi-sectoral collaboration for systems thinking

11. DOMAIN: ONE HEALTH COLLABORATION AND PARTNERSHIP

Competency 1 Promote inclusion of representatives of diverse constituencies across human, animal, environmental health and other relevant disciplines

Competency 2 Work with individuals of other professions to maintain a climate of mutual respect and shared values

Competency 3 Use the knowledge of one's own role and those of other professions to appropriately assess and address the needs of the organization and populations served.

Competency 4 Communicate with all stakeholders in a responsive and responsible manner that supports a team approach to the strengthening OH systems and to promote OH

12. DOMAIN: ONE HEALTH COMMUNICATION AND INFORMATICS

Competency 1 Communication techniques: deploys formal written and oral communication strategies

Competency 2 Active listening skills: displays active listening skills when interacting with others

Competency 3 Comprehension of materials: demonstrates comprehension of written documents and directions

Competency 4 Communication technology: utilizes technology to communicate information to internal and external partners

Competency 5 Communication professionalism: ensures professionalism in communication with customers and stakeholders

Competency 6 Professional reports: prepares professional written reports and oral presentations

Competency 7 Risk communication: applies emergency and risk communication principles and techniques to explain information to targeted audiences

Competency 8 Public health value: promotes the value of the public health

Competency 9 Media relations: works with the media to provide information about public health laboratories and public health issues

13. DOMAIN: GENDER, ONE HEALTH, AND INFECTIOUS DISEASE MANAGEMENT

Competency 1 Gender Awareness: Demonstrate awareness of gender dynamics in emerging pandemic threats (EPT)

Competency 2 Gender Analysis: Evaluate how gender intersects with emerging pandemic threats

Competency 3 Gender Response: Develop gender-sensitive response plans for emerging pandemic threats

14. DOMAIN: ONE HEALTH POLICY AND ADVOCACY

Competency 1 Political Process: Demonstrate Awareness of the OH Political Process

Competency 2 Policy Analysis: Analyze OH Policy and identify the different challenges involved in development and implementation

Competency 3 Policy Development: Plan, design, develop and implement OH Policy

Competency 4 Organizing and Negotiation: Organize national and international stakeholders in negotiating for OH policy

Competency 5 Advocacy and Marketing: Utilize principles of social marketing and advocacy to communicate routinely with target audiences regarding OH needs, objectives, accomplishments, and critical information

Competency 6 Legislation and Regulation: Translate community and organizational analyses and plans into specific regulatory actions and legislative proposals for OH

15. DOMAIN: BEHAVIOR CHANGE (SPECIFIC TO ONE HEALTH)

Competency 1 Explain behavior change theories and change management concepts.

Competency 2 Adapt and apply models for individual behavior change to One Health contexts

Competency 3 Adapt and apply models for community behavior change to One Health contexts

16. DOMAIN: CULTURE, BELIEFS, VALUES AND ETHICS (SPECIFIC TO ONE HEALTH)

Competency 1 Culture and Beliefs: Demonstrate cultural competence in OH initiatives by identifying, interpreting and addressing local norms, wisdom, values, beliefs and culture about human, animal and environmental health.

Competency 2 Professionalism and Trust: Generate trust among the community in OH initiatives through actions based on the highest ethical, scientific, and professional standards, transparency, and accountability.

Competency 3 Health and Safety: Prevent, minimize, and mitigate health harms and promote and protect public safety, health, and well-being in OH initiatives

Competency 4 Health Justice and Equity: Promote equitable distribution of resources and social conditions necessary to secure equal opportunities for the realization of health and other capabilities by individuals and communities served by OH initiatives.

Competency 5 Interdependence and Solidarity: Foster positive, and mitigate negative, relationships among individuals, societies, and environments in ways that protect and promote the flourishing of humans, communities, nonhuman animals, and the ecologies in which they live.

Competency 6 Human Rights and Civil Liberties: Promote respect for personal autonomy, self-determination, privacy, and the absence of discrimination and domination in its many interpersonal and institutional forms

Competency 7 Inclusivity and Engagement: Include and engage diverse publics, communities, and stakeholders to ensure informed decision making and promote diversity within OH programs and interventions

Sub-Competency 7.01 Awareness of diversity as it applies to individuals and populations (eg, language, culture, values, socioeconomic status, geography, education, race, gender, age, ethnicity, sexual orientation, profession, religious affiliation, mental and physical abilities, historical experiences

Sub-Competency 7.02 Diversity in the OH public health workforce

17. DOMAIN: PRINCIPLES OF PUBLIC HEALTH (RELATED TO ONE HEALTH)

Competency 1 Analyze factors of health that impact the health of the human, animal, and environmental communities

Sub-Competency 1.01 Describe the factors that affect the health of the human, animal and environmental communities

Sub-Competency 1.02 Collect data on factors that affect the health of the human, animal and environmental communities

Sub-Competency 1.03 Utilize public health sciences to analyze data from on factors that affect the health of the human, animal and environmental communities

Competency 2 Implement policies and programs in collaboration with governmental and community organizations to support One Health

Sub-Competency 2.01 Understand the interrelationships among government authorities, policymakers, industry and researchers related to implementation of One Health programs

Sub-Competency 2.02 Develop OH programs, policies and services in collaboration with governmental and community organizations

Sub-Competency 2.03 Implement programs, policies and services in collaboration with governmental and community organizations to support One Health

Sub-Competency 2.04 Evaluate programs, policies and services in collaboration with governmental and community organizations to support One Health

Competency 3 Engage communities in programs to improve OH systems

Sub-Competency 3.01 Communicate effectively with communities to obtain input and feedback on OH policies and programs

Sub-Competency 3.02 Incorporate a variety of approaches to improving OH systems that respect diverse values, beliefs and cultures

Sub-Competency 3.03 Advocate for communities to ensure delivery of resources and conditions to improve OH systems

18. DOMAIN: SURVEILLANCE

Competency 1 Function of surveillance: recognizes the function of lab-based surveillance

Competency 2 Notification rules and regulations: complies with national and jurisdictional rules and regulations regarding notifiable results

Competency 3 Surveillance testing: performs outbreak or exposure detection

Competency 4 Response to critical surveillance event: responds to critical surveillance events

Competency 5 Information for surveillance: recognizes vital information needed for surveillance

Competency 6 Data analysis: analyzes data from surveillance

Competency 7 Data management: manages public health surveillance data using secure data management systems

Competency 8 Recognition of significant results: recognizes significant results in surveillance data

Competency 9 Partnerships: maintains partnerships to conduct surveillance

Competency 10 Dissemination of data: disseminates data relevant to audience

19. DOMAIN: IMPLEMENTATION SCIENCES

Competency 1 Stakeholders and implementation team: Inspire stakeholders and implementation team

Competency 2 Evidence to inform implementation: Use evidence and theory to implementation strategies

Competency 3 Assess and monitor: understand the system, context and culture

Competency 4 Implementation: Use process models and frameworks to guide implementation

Competency 5 Dissemination: Leverage opportunities and encourage evidence-based decision making

Competency Framework: Competencies by Proficiency Level in the Outbreak Investigation and Response Domain

Table 6. Competency Framework: Sub-Competencies by Proficiency Level in the Outbreak Investigation and Response Domain (e.g. Outbreak investigation and response)

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
1. Outbreak Investigation: Apply steps in conducting outbreak investigation			
List sources of information that might be used to indicate unusual disease activity (clinicians, patients, surveillance data, media)	Gather information from various sources of disease reporting	Develop data collection tools to ensure accurate information collection from different sources	Evaluate the quality information from various sources of disease reporting
Identify what constitutes an unusual occurrence of a disease and a potential outbreak	Utilize data from collected information to develop hypothesis on cause of outbreak	Test hypothesis on the cause of outbreak to determine the cause and develop descriptive features of the outbreak	Evaluate the hypothesis testing and determine a cause and descriptive features the outbreak
Collect information to formulate the demographic	Utilize data from collected information to establish a case definition hypothesis	Test hypothesis to establish a case definition and develop	Evaluate hypothesis to establish a case definition and

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
<p>and temporal description of the apparent outbreak</p> <p>List and describe the procedures for collecting, storing, and transporting clinical and/or environmental samples</p> <p>Describes requirements for notification of outbreaks according to organizational/national plans and policies</p>	<p>Collect clinical and environmental samples according to procedure</p> <p>Implements organizational plans and policies for notification of emergencies and/or outbreaks</p>	<p>descriptive features of a case definition</p> <p>Develop collection procedures and determine clinical and environmental samples to be collected</p> <p>Develops internal policies and procedures for notification of emergencies and/or outbreaks</p>	<p>determine descriptive feature of a case</p> <p>Evaluate collection procedures and determine which clinical/environmental samples are collected</p> <p>Oversees the collaboration with stakeholders and agencies to develop and implement plans and policies for notification of emergencies and/or outbreaks</p>
2. Outbreak Preparation: Review investigation and outbreak management experiences for applying best practices for potential outbreak events			
<p>Explains the outbreak response plan and sustainability of Operations Plan</p> <p>Participates in outbreak response training, exercises, and drills</p> <p>Describe partners and their relationships with the institution</p> <p>Describes emergency agreements between the institution and other partners</p> <p>Explains how the OH interacts with emergency preparedness and response networks</p>	<p>Assists with development and implementation of the outbreak response plan and sustainability of Operations Plan</p> <p>Contributes to the development of outbreak response training, exercises, and drills</p> <p>Interacts with partners on staff</p> <p>Updates agreements with partners to ensure emergency response capability</p> <p>Describes the plans, policies, and procedures the institution has in place to prepare for and respond to a public health emergency</p>	<p>Manages development and implementation of the outbreak response plan</p> <p>Conducts outbreak response training, exercises, and drills in collaboration with stakeholder agencies</p> <p>Engages partners to sustain relationships and ensure an effective response</p> <p>Trains staff on agreements in place to ensure emergency response capability</p> <p>Develops the organizational plans, policies, and procedures to prepare for and respond to a public health emergency</p>	<p>Oversees outbreak response plan, including implementation of the sustainability of Operations Plan with external partners</p> <p>Oversees the collaboration with stakeholders to conduct training, exercises, and drills, ensuring proper resources are available</p> <p>Develops new partnerships to ensure effective emergency response</p> <p>Negotiates agreements between partner organizations to ensure emergency response capability</p> <p>Oversees the collaboration with emergency preparedness and response networks to develop and implement plans, policies, and procedures to prepare for and respond to a public health emergency</p>
3. Outbreak Response: Use systematic approach for outbreak response			
<p>Participates in meetings and conference calls to receive information on the situation</p> <p>Describes circumstances for, and varying degrees of surge</p>	<p>Prepares information on the situation</p> <p>Adjusts workflow to ensure timeliness of diagnostic testing</p>	<p>Facilitates the briefing of key stakeholders to create situational awareness</p> <p>Identifies creative strategies to manage surge or overflow testing</p>	<p>Manages implementation of COOP measures and ICS activation</p> <p>Implements a management system that promotes flexibility and maximizes the</p>

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
Describes the emergency communication plan and the policies and procedures for receiving and disseminating information with emergency response partners and/or public	<p>in collaboration with surge partners</p> <p>Complies with the emergency communication plan and the policies and procedures for receiving and disseminating information with emergency response partners and/or public</p>	Ensures rapid and secure communications with emergency response partners and/or public during emergencies and surge outbreaks	<p>ability to deliver surge capacity</p> <p>Manages the emergency communication plan and the policies, processes, and procedures for securely receiving and disseminating information with emergency response partners and the public during emergencies and surge incidents</p>
4 Outbreak Recovery: Use systematic approach to recovery from outbreak and return to SOP			
<p>Returns to standard, daily roles and responsibilities</p> <p>Records feedback from patient/families/visitors/other engaged stakeholders in a systematic manner</p>	<p>Provides updates and guidance to staff on changes to SOP and distributed updates</p> <p>Reviews stakeholder feedback and identify common trend for improvement(I)</p>	<p>Manages and implements changes in SOP</p> <p>Identifies how feedback can be operationalized into institutional functioning</p>	<p>Revises and oversees SOP to mitigate outbreak or infection recurrence</p> <p>Implements and assess strategies and new systems based on stakeholder feedback</p>



EVALUATION TOOLKIT



EVALUATION TOOLKIT

An evaluation toolkit for OHW was developed across four levels of Kirkpatrick Evaluation: Level 1 (Reaction), Level 2 (Learning), Level 3 (Behavior), and Level 4 (Performance). The assessment toolkit is a synthesis of existing assessment tools and strategies and serves as an example for use and adaptation.

LEVEL 1 EVALUATION: REACTION

Level 1 evaluation (Reaction) measures the learner's reaction to the training, including their satisfaction with the training. Satisfaction can be measured by a questionnaire delivered after the training. Indicators may include satisfaction with meeting training goals, training materials, and facilitation. Scaled responses and open-ended feedback are helpful. A Level 1 assessment tool for Learner Satisfaction in OHW training is included below.

Level 1 Evaluation Tool: Learner Satisfaction Questionnaire¹⁶

Please rate your satisfaction with the OHW training using a scale from one to four (1 to 4) with one (1) being the lowest satisfaction and four (4) being the highest satisfaction.	
1. OHW training goals and objectives were met.	
2. OHW training materials were clear and easy to understand.	
3. OHW training facilitators were effective and supportive in their teaching.	
4. OHW training venue and schedule was conducive to learning.	
Please tell us what you found most useful in the workshop and why.	
How will you use the knowledge and skills gained from the workshop in your work?	
What types of follow-up (e.g., technical assistance) would be helpful to you?	
How might we improve the workshop in the future?	
Additional comments or suggestions:	

¹⁶ IGWG, USAID, 2017, Participant Evaluation Form, <https://www.igwg.org/wp-content/uploads/2017/05/EvaluationForm.pdf>

LEVEL 2 EVALUATION: LEARNING

Level 2 evaluation (Learning) measures how much information was effectively absorbed from training, and gauges the level of participants in developing knowledge, or mindset. Pre/post-test, self-assessment, peer evaluation (group exercise), or trainer observation methods may be used. A Level 2 evaluation tool for self-assessment of knowledge and skill is included below with instructions for use.

Level 2 Evaluation Tool: Self-Assessment of Knowledge and Skill Checklist

Description of the Self-Assessment of Knowledge and Skills Checklist

This self-assessment of knowledge and skills checklist is a tool for evaluating learning outcomes according to level two of the Kirkpatrick evaluation method. OHW competencies are organized into fifteen domains. The purpose of this assessment is to help you explore your level of competence within these domains. A competency is any knowledge or skill of an individual or organization that has been shown to cause or predict outstanding performance. A collection of competencies makes up a behavioral roadmap that is directly related to both individual and organizational performance. By assessing your level of knowledge or skill for each competency statement described, you will be able to prioritize your learning time to focus on those areas that are most important to you and to concentrate where the need for training and learning may be greatest.

Instructions for How to Complete the Knowledge and Skills Checklist

1. Read each competency statement listed within a domain. The tool is divided into the following nineteen OHW domains:
 - 1) One Health Principles and Concepts
 - 2) Infectious Disease Management
 - 3) Outbreak Investigation and Response
 - 4) Ecosystem Health
 - 5) One Health Epidemiology
 - 6) One Health Risk Analysis
 - 7) One Health Research
 - 8) One Health Leadership
 - 9) One Health Management
 - 10) Systems Thinking
 - 11) One Health Collaboration and Partnership
 - 12) One Health Communication and Informatics
 - 13) Gender, One Health and Infectious Disease Management
 - 14) One Health Policy and Advocacy
 - 15) Behavior Change
 - 16) Culture, Beliefs, Values and Ethics
 - 17) Principles of Public Health
 - 18) Surveillance
 - 19) Implementation Sciences

2. Rate your level of knowledge and skill. In each domain, and for each competency statement, think about the level at which you are currently knowledgeable and able to perform the skill. Then rate your level of proficiency on each competency statement by selecting the number on the continuum from “None” (1) to “Proficient” (4) that best describes your self-reported level of expertise for that statement. If the competency statement is not relevant to your job role, you may select “NR” not relevant to my role.

Self-evaluate your competency in OHW on a scale of 1 to 4 based on perceived knowledge and skill
1 = None: I am unaware or have very little knowledge of the skill
2 = Aware: I have heard of, but have limited knowledge or ability to apply the skill
3 = Knowledgeable: I am comfortable with my knowledge or ability to apply the skill
4 = Proficient: I am very comfortable, am an expert, or could teach this skill to others
NR = Not relevant to my role

3. Comment. At the end of each domain there is a place to write any comments you have. For example, if you feel like an expert in a competency but may still want training or learning opportunities in a particular skill, please enter your comments in the comments section. You may also want to share this assessment with your supervisor, colleagues, or others and ask them to add comments as well. These comments may be helpful to you and your supervisor in planning for your professional development.
4. Score your results. After you have entered your responses, calculate and enter the sum of your scores in the column next to “Total Score” for each domain and for the entire tool. Then calculate and enter your average score in the column next to “Average Total” for each domain and for the entire tool.
5. Review and interpret your results. You are now ready to identify the strengths in your practice and the areas that you would like to improve or strengthen. For example, if you have scored a “1” in any domain, you will want to consider focusing your time and energy toward achieving the competencies in that domain, followed by domains in which you scored a “2,” with a lower priority given to domains in which you scored a “3” or higher. Once you have identified your priorities, you can use this information to guide you in developing a learning plan with one or more personal professional goals; in engaging in a discussion with your supervisor, mentor, or coach; and in choosing learning opportunities that will help you reach your goals and meet the requirements for continuing competence in OHW.

Self-Assessment of Knowledge and Skills Checklist¹⁷

OHW Level 2 Evaluation Tool: Self-Assessment of Knowledge and Skills Checklist

¹⁷ PHF, 2014, Competency Assessment for Public Health Professionals, http://www.phf.org/resourcestools/Documents/Competency_Assessment_Tier1_2014.pdf

Self-evaluate your competency in OHW on a scale of 1 to 4 based on perceived knowledge and skill	
1 = None: I am unaware or have very little knowledge of the skill 2 = Aware: I have heard of, but have limited knowledge or ability to apply the skill 3 = Knowledgeable: I am comfortable with my knowledge or ability to apply the skill 4 = Proficient: I am very comfortable, am an expert, or could teach this skill to others NR = Not relevant to my role	
To what degree are you able to effectively...	
1. One Health Principles and Concepts	
Explain the history and concept of One Health	1 2 3 4 NR
Describe the OHCC domains and their application (Six Global Domains: Management, Communication, Culture and Beliefs, Leadership, Collaboration and Partnership, Values and Ethics, Systems Thinking)	1 2 3 4 NR
Describe the application of the One Health approach.	1 2 3 4 NR
Total Score (Add all scores and enter the total here)	
Average Total (Divide the "Total Score" by 4 and enter the result here)	
2. INFECTIOUS DISEASE MANAGEMENT and FUNDAMENTALS	
Identify and analyze the risk factors associated with illness during an infectious disease outbreak or epidemic.	1 2 3 4 NR
Design and implement an infectious disease management plan.	1 2 3 4 NR
Evaluate the effectiveness of One Health actions in infectious disease management.	1 2 3 4 NR
Design a disease surveillance and monitoring system.	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 4 and enter the result here)	
3. OUTBREAK INVESTIGATION AND RESPONSE	
Apply steps in conducting outbreak investigation	1 2 3 4 NR
Review investigation and outbreak management experiences for applying best practices for potential outbreak events	1 2 3 4 NR
Use systematic approach for outbreak response	1 2 3 4 NR
Use systematic approach to recovery from outbreak and return to SOP	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 4 and enter the result here)	
4. ECOSYSTEMS HEALTH	
Understand fundamental ecological/ecosystem principles	1 2 3 4 NR
Recognize interrelationships among ecosystems, animal health and human health	1 2 3 4 NR
Analyze the effects of direct impacts on the environment	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 6 and enter the result here)	
5. ONE HEALTH EPIDEMIOLOGY	
Apply epidemiological thinking and a public health approach to a OH related health issue or disease	1 2 3 4 NR
Implement and interpret surveillance systems to assess OH related health issue or disease	1 2 3 4 NR
Provide OH policy recommendations based on epidemiological analysis	1 2 3 4 NR

Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 6 and enter the result here)	
6. RISK ASSESSMENT AND MITIGATION	
Conduct One Health risk assessment and analysis	1 2 3 4 NR
Implement One Health risk management and mitigation	1 2 3 4 NR
Conduct One Health risk communication and reporting	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 6 and enter the result here)	
7. ONE HEALTH RESEARCH	
Develop research programs	1 2 3 4 NR
Ensure the ethical and responsible conduct of research	1 2 3 4 NR
Integrate scientific and technical knowledge for use as a foundation for research	1 2 3 4 NR
Develop new testing methodology	1 2 3 4 NR
Conduct research to address a public health issue or answer a public health question	1 2 3 4 NR
Conduct research according to professional standards of data management, analysis, and application	1 2 3 4 NR
Disseminate research findings	1 2 3 4 NR
Translate research findings to public health practice	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 8 and enter the result here)	
8. ONE HEALTH LEADERSHIP	
Articulate a shared mission, set of core values, and vision to achieve OH goals.	1 2 3 4 NR
Utilize collaborative methods and skills of negotiation and conflict management across sectors and disciplines to facilitate cooperation in working together to address challenges and achieve OH goals.	1 2 3 4 NR
Motivate, coach, mentor, and mobilize the OH team to work together to achieve OH goals.	1 2 3 4 NR
Apply ethical principles and professional code of conduct in leadership of OH programs.	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 4 and enter the result here)	
9. ONE HEALTH MANAGEMENT	
Ensure sound management of OH operations	1 2 3 4 NR
Plan, design, implement, monitor, and evaluate OH programs	1 2 3 4 NR
Ensure sound financial management of OH programs	1 2 3 4 NR
Ensure effective management of human resources for OH programs	1 2 3 4 NR
Ensure readiness to prepare and respond to emerging pandemic threats and outbreaks	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 5 and enter the result here)	
10. SYSTEMS THINKING	
Describe the elements of complex problems and systems thinking.	1 2 3 4 NR
Create and use systems mapping to deepen understanding of One Health problems.	1 2 3 4 NR

Partner with One Health team members to develop solutions to complex One Health problems using systems thinking and tools.	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 3 and enter the result here)	
11. COLLABORATION AND PARTNERSHIP	
Promote inclusion of representatives of diverse constituencies and disciplines	1 2 3 4 NR
Share vision, power, responsibility, and accountability among collaborators	1 2 3 4 NR
Use the knowledge of one's own role and those of other professions to appropriately assess and address the needs of the organization and populations served	1 2 3 4 NR
Communicate with all stakeholders in a responsive and responsible manner that supports a team approach to the strengthening OH systems and to promote OH	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 4 and enter the result here)	
12. One Health Communication and Informatics	
Communication techniques: deploys formal written and oral communication strategies	1 2 3 4 NR
Active listening skills: displays active listening skills when interacting with others	1 2 3 4 NR
Comprehension of materials: demonstrates comprehension of written documents and directions	1 2 3 4 NR
Communication technology: utilizes technology to communicate information to internal and external partners	1 2 3 4 NR
Communication professionalism: ensures professionalism in communication with customers and stakeholders	1 2 3 4 NR
Professional reports: prepares professional written reports and oral presentations	1 2 3 4 NR
Applies emergency and risk communication principles and techniques to explain information to targeted audiences	1 2 3 4 NR
Works with the media to provide information about public health issues	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 3 and enter the result here)	
13. GENDER, ONE HEALTH, AND INFECTIOUS DISEASE MANAGEMENT	
Demonstrate awareness of gender dynamics in emerging pandemic threats	1 2 3 4 NR
Evaluate how gender intersects with emerging pandemic threats	1 2 3 4 NR
Develop gender sensitive response plans and programs for emerging pandemic threats	1 2 3 4 NR
Provide gender-sensitive interdisciplinary healthcare for EPT	1 2 3 4 NR
Integrate gender and EPT into interdisciplinary healthcare education	1 2 3 4 NR
Develop gender-sensitive policies and frameworks for the health sector and EPT	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 6 and enter the result here)	
14. POLICY AND ADVOCACY	
Demonstrate Awareness of the Political Process and Roles in relation to OH	1 2 3 4 NR
Analyze OH policy and identify the different challenges involved in development and implementation	1 2 3 4 NR
Develop OH policy and conduct policy implementation	1 2 3 4 NR
Organize national and international stakeholders in negotiating for OH policy	1 2 3 4 NR

Utilize principles of social marketing and advocacy to communicate routinely with target audiences regarding OH needs, objectives, accomplishments, and critical information	1 2 3 4 NR
Translate community and organizational analyses and plans into specific regulatory actions and legislative proposals for OH	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 6 and enter the result here)	
15. BEHAVIOR CHANGE	
Explain behavior change theories and change management concepts	1 2 3 4 NR
Adapt and apply models for individual behavior change to One Health contexts	1 2 3 4 NR
Design behavior change strategies for One Health interventions in communities	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 3 and enter the result here)	
16. CULTURE, VALUES, AND ETHICS	
Demonstrate cultural competence in OH initiatives by identifying, interpreting and addressing local norms, wisdom, values, beliefs and culture about human, animal and environmental health.	1 2 3 4 NR
Generate trust among the community in OH initiatives through actions based on the highest ethical, scientific, and professional standards, transparency, and accountability.	1 2 3 4 NR
Prevent, minimize, and mitigate health harms and promote and protect public safety, health, and well-being in OH initiatives.	1 2 3 4 NR
Promote equitable distribution of resources and social conditions necessary to secure equal opportunities for the realization of health and other capabilities by individuals and communities served by OH initiatives.	1 2 3 4 NR
Foster positive, and mitigate negative, relationships among individuals, societies, and environments via OH in ways that protect and promote the flourishing of humans, animals, and ecologies.	1 2 3 4 NR
Promote respect for personal autonomy, self-determination, privacy, and the absence of discrimination and domination in its many interpersonal and institutional forms in all OH initiatives.	1 2 3 4 NR
Include and engage diverse publics, communities, and stakeholders to ensure informed decision making and promote diversity within OH programs.	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 7 and enter the result here)	
17. PRINCIPLES OF PUBLIC HEALTH	
Analyze factors of health that impact the health of the human, animal and environmental communities	1 2 3 4 NR
Implement policies and programs in collaboration with governmental and community organizations to support One Health	1 2 3 4 NR
Engage communities in programs to improve OH systems	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 3 and enter the result here)	
18. SURVEILLANCE	
Function of surveillance the function of lab-based surveillance	1 2 3 4 NR
Notification rules and regulations: complies with national and jurisdictional rules and regulations regarding notifiable results	1 2 3 4 NR
Surveillance testing: performs outbreak or exposure detection	1 2 3 4 NR

Response to critical surveillance event: responds to critical surveillance events	1 2 3 4 NR
Information for surveillance: recognizes vital information needed for surveillance	1 2 3 4 NR
Data analysis: analyzes data from surveillance	1 2 3 4 NR
Data management: manages public health surveillance data using secure data management systems	1 2 3 4 NR
Recognition of significant results: recognizes significant results in surveillance data	1 2 3 4 NR
Dissemination of data: disseminates data relevant to audiences	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 7 and enter the result here)	
19. IMPLEMENTATION SCIENCES	
Stakeholders and implementation team: Inspire stakeholders and implementation team	1 2 3 4 NR
Evidence to inform implementation: Use evidence and theory to implement strategies	1 2 3 4 NR
Assess and monitor: understand the system, context, and culture	1 2 3 4 NR
Dissemination: Leverage opportunities and encourage evidence-based decision making	1 2 3 4 NR
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 3 and enter the result here)	
One Health Workforce Competency Across Fifteen Domains	
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by total (90) and enter the result here)	

Comments:

LEVEL 3 EVALUATION: BEHAVIOR

Level 3 evaluation, Behavior, measures how much training influenced participants behavior, and evaluates how they apply their knowledge to their performance. Assessing changes in behavior or performance can be done through various methods including simulations (observation), vignettes, supervisory monitoring, interview after self-assessment or exam, 360-degree feedback, and more. Below is a Level 3 evaluation tool for supervisor direct observation of performance checklist for OHW.

Level 3 Evaluation Tool: Supervisor Direct Observation of Performance Checklist

Description of the Supervisor Direct Observation of Performance Checklist

This Supervisor Direct Observation of Performance Checklist is a tool for evaluating behavior according to Level 3 of the Kirkpatrick evaluation method. OHW competencies are organized into fifteen domains. The purpose of this assessment is to help supervisors or trainers evaluate supervisees' or trainees' level of competence within these domains. A competency is any knowledge or skill of an individual or organization that has been shown to cause or

predict outstanding performance. A collection of competencies makes up a behavioral roadmap that is directly related to both individual and organizational performance. By assessing the learners' frequency of behavior and independence of performance, the supervisor or trainer can determine learners' competency to perform their job role and identify areas for further training and supervision.

Instructions for How to Complete the Supervisor Direct Observation of Performance Checklist

1. Read each competency statement listed within a domain. The tool is divided into the 19 OHW domains.
2. Rate the supervisee's level of performance. In each domain, and for each competency statement, think about the level at which the supervisee is performing. Then rate the supervisee's level of performance on each competency statement by selecting the number on the continuum from "None" (1) to "Mastery" (4) that best describes the supervisee's performance. If the competency statement is not relevant to the supervisee's job role, you may select "NR" not relevant to role.

Directly observe demonstrated competency in One Health on a scale of 1 to 4 based on frequency of behavior and independence of performance
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- | |
|--|
| 1. None: Behavior is not demonstrated and/or task is not performed. |
| 2. Developing: Behavior is demonstrated occasionally and/or task is performed with supervision. |
| 3. Competent: Behavior is demonstrated frequently and/or task is performed independently. |
| 4. Mastery: Behavior is demonstrated consistently and/or task is performed and taught to others. |

NR = Not relevant to role

To what degree does the learner demonstrate...
--

3. Comment. At the end of each domain there is a place to write any comments you have. This is an opportunity to describe what the supervisee is doing well and in what areas they can improve. For example, if you feel like the supervisee is a master in a competency but may still need additional training or learning opportunities in a particular skill, please enter your comments in the comments section. You can ask the learner for their feedback and inputs as well. These comments may be helpful to you and your supervisee in planning for their professional development.
4. Score the results. After you have entered your responses, calculate and enter the sum of your supervisee's scores in the column next to "Total Score" for each domain and for the entire tool. Then calculate and enter the average score in the column next to "Average Total" for each domain and for the entire tool.
5. Review and interpret the results. You are now ready to identify the strengths in your supervisee's practice and the areas that you would like the learner to improve or strengthen. For example, if your supervisee scored a "1" in any domain, you will want to consider focusing your time and energy toward supporting the supervisee in achieving the competencies in that domain, followed by domains in which they scored a "2," with a lower priority given to domains in which they scored a "3" or higher. Once you have identified the priorities in collaboration with your supervisee, you can use this information to guide you in developing a learning plan with one or more goals; in engaging in a discussion with your

supervisee; and in choosing learning opportunities that will help your supervisee reach their goals and meet the requirements for continuing competence in OHW.

OHW Level 3 Evaluation Tool: Supervisor Direct Observation of Performance Checklist

Directly observe demonstrated competency in Gender and One Health on a scale of 1 to 4 based on frequency of behavior and independence of performance

None: Behavior is not demonstrated and/or task is not performed.

Developing: Behavior is demonstrated occasionally and/or task is performed with supervision.

Competent: Behavior is demonstrated frequently and/or task is performed independently.

Mastery: Behavior is demonstrated consistently and/or task is performed and taught to others.

NR = Not relevant to my role

To what degree does the learner demonstrate the competencies in each domain described above in the self assessment checklist.

One Health Workforce Competency Across Fifteen Domains

Total Score (Add all scores and enter total here)

Average Total (Divide the "Total Score" by total(90) and enter the result here)

LEVEL 4 EVALUATION: RESULTS

Level 4 evaluation, Results, measures and analyzes the impact of training at the organizational or institutional level, and links these results to the individual or the program. Methods used for measuring at this level may include a field-based project, research project, program evaluation, quality improvement project, or other methods. A Level 4 evaluation program quality checklist for OHW is included below.

Level 4 Evaluation Tool: Program Quality Checklist

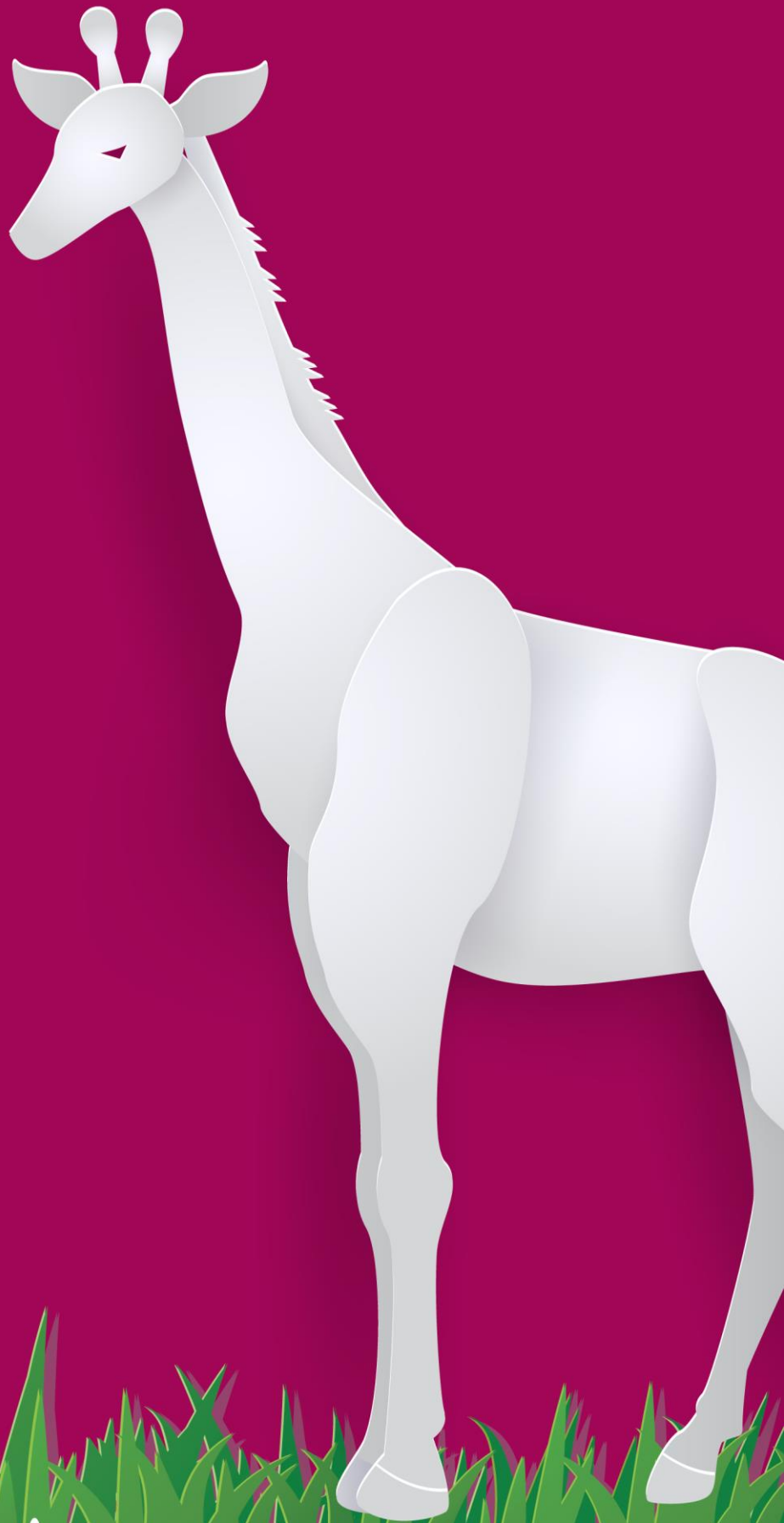
Score the Institution on a scale of 1-4 for Institutional Capacity for Inter-professional One Health Workforce Education	
1. Basic	Institutions at this stage include OHW education in a limited fashion, often focusing solely on an introduction to the principles of OHW. There are minimal or no interdisciplinary OHW specific education programs within the institution's health sciences schools or colleges.
2. Mid-level	Institutions at this stage have expanded OHW education. The curriculum includes OHW education incorporated into more than 50 percent of the degree curriculum and OHW is incorporated across more than one department. Students might have an option to choose an elective OHW or a field experience in OHW in addition to classroom learning and lectures.
3. High-level	Institutions at this stage have integrated OHW education throughout the 4-year curricula. The curricula includes multidisciplinary methods for training and evaluation across at least 10 OHW domains. These institutions may host OHW fellowships, residency tracks, and specialized student certificate programs in OHW.
4. Advanced	These institutions established activities to promote interdisciplinary OHW programs, schools and colleges in addition to inter-professional education across schools/colleges. They fully integrated OHW as a curricular thread throughout all levels of health professional education. They have avoided creating stand-alone curricula or modules, choosing instead to layer OHW

	into existing curricula as appropriate. They have postgraduate masters and PhD degree programs in OHW.
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Comments:

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ANNEX



ANNEX

OHW Competency Framework with Proficiency Level Across all Domains

One Health Competency Framework: Competencies and Sub-Competencies with Proficiency Level

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
1. Domain: One Health Principles and Concepts			
Competency 1 Explain the history and concept of One Health			
Define One Health and explain OH key concepts.	Describe the historical context of One Health	List stakeholders currently using the One Health approach.	Compare and contrast One Health with ecohealth, ecosystem health, global health, and environmental health
Competency 2 Describe the OH Core Competency domains and their application (Six Global Domains: Management, Communication, Culture and Beliefs, Leadership, Collaboration and Partnership, Values and Ethics, Systems Thinking)			
Describe the six global OH core competency domains, including their purpose and how they can be used.	Describe the OH core competencies by level of practitioner from Beginner, Intermediate, Advanced, to Expert level.	Describe evaluation tools and methods for ensuring proficiency of OH practitioners in OH core competencies.	Deliver training for OH practitioners in curriculum to achieve OH core competencies.
Competency 3 Describe the application of the One Health approach.			
Explain the application of the One Health approach.	Describe the trans-disciplinary application of the One Health approach.	Explain how One Health successfully brings together stakeholders to address complex emerging and reemerging disease threats	Apply OH to create stronger and more efficient integrated health systems with inputs from multiple stakeholders in addressing global health issues
2. Domain: Infectious Disease Management and Fundamentals			
Competency 1 Identify and analyze the risk factors associated with illness during an infectious disease outbreak or epidemic			
Describe the principles of infectious diseases, modes of transmission, and factors associated with a possible increased risk of infection	Conduct a risk assessment including necessary components to inform infectious disease management	Analyze findings of risk assessment to identify risk factors potential impact on population	Instruct or manage a team in implementation and analysis of risk assessment
Competency 2 Design and implement an infectious disease management plan			
Describe the components of infectious disease management	Design an infectious disease management plan	Implement, monitor, and evaluate an infectious disease management plan	Lead protocol development for a One Health Infectious disease management plan
Competency 3 Evaluate the effectiveness of One Health actions in infectious disease management			
Describe the measures used to evaluate effectiveness of an infectious disease control plan	Assess an infectious disease control plan and consider the unintentional or adverse effects if implemented	Implement a situational assessment to evaluate the effectiveness of an infectious disease control plan	Instruct or manage a team in conducting a situational assessment to evaluate

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
			effectiveness of infectious disease control plan
Competency 4 Design a disease surveillance and monitoring system			
Describe components of a disease surveillance system	Implement data collection and analysis for disease surveillance	Interpret and present findings to an audience on disease surveillance with recommended actions	Lead strategy development for infectious disease surveillance
3. Domain: Outbreak Investigation and Response			
Competency 1 Outbreak Investigation: Apply steps in conducting outbreak investigation			
Sub-Competency 1.01 Monitor for a potential outbreak			
List sources of information that might be used to indicate unusual disease activity (clinicians, patients, surveillance data, media)	Gather information from various sources of disease reporting	Develop data collection tools to ensure accurate information collection from different sources	Evaluate the quality information from various sources of disease reporting
Sub-Competency 1.02 Determine cause of an outbreak			
Identify what constitutes an unusual occurrence of a disease and a potential outbreak	Utilize data from collected information to develop hypothesis on cause of outbreak	Test hypothesis on the cause of outbreak to determine the cause and develop descriptive features of the outbreak	Evaluate the hypothesis testing and determine a cause and descriptive features the outbreak
Sub-Competency 1.03 Establish a case definition			
Collect information to formulate the demographic and temporal description of the apparent outbreak	Utilize data from collected information to establish a case definition hypothesis	Test hypothesis to establish a case definition and develop descriptive features of a case definition	Evaluate hypothesis to establish a case definition and determine descriptive feature of a case
Sub-Competency 1.04 Collect and test samples			
List and describe the procedures for collecting, storing, and transporting clinical and/or environmental samples	Collect clinical and environmental samples according to procedure	Develop collection procedures and determine clinical and environmental samples to be collected	Evaluate collection procedures and determination of which clinical/environmental samples are collected
Sub-Competency 1.05 Determine the need for outbreak/emergency notification			
Describe requirements for notification of outbreaks according to organizational/national plans and policies	Implement organizational plans and policies for notification of emergencies and/or outbreaks	Develop internal policies and procedures for notification of emergencies and/or outbreaks	Oversee the collaboration with stakeholders and agencies to develop and implement plans and policies for notification of emergencies and/or outbreaks
Competency 2 Outbreak Preparation: Review investigation and outbreak management experiences for applying best practices for potential outbreak events			
Sub-Competency 2.01 Prepare for outbreak/emergency events			
Explain the outbreak response plan and sustainability of Operations Plan	Assist with development and implementation of the outbreak response plan and sustainability of Operations Plan	Manage development and implementation of the outbreak response plan	Oversee outbreak response plan, including implementation of the sustainability of Operations Plan with external partners

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
Sub-Competency 2.02 Engage in emergency response training			
Participate in outbreak response training, exercises, and drills	Contribute to the development of outbreak response training, exercises, and drills	Conduct outbreak response training, exercises, and drills in collaboration with stakeholder agencies	Oversee the collaboration with stakeholders to conduct training, exercises, and drills, ensuring proper resources are available
Sub-Competency 2.03 Identify key partners			
Describe partners and their relationships with the institution	Interact with partners on staff	Engage partners to sustain relationships and ensure an effective response	Develop new partnerships to ensure effective emergency response
Sub-Competency 2.04 Execute agreements with partners			
Describe emergency agreements between the institution and other partners	Update agreements with partners to ensure emergency response capability	Train staff on agreements in place to ensure emergency response capability	Negotiate agreements between partner organizations to ensure emergency response capability
Sub-Competency 2.05 Engage outbreak/emergency preparedness and response networks			
Explain how the OH interacts with emergency preparedness and response networks	Describe the plans, policies and procedures the institution has in place to prepare for and respond to a public health emergency	Develop the organizational plans, policies and procedures to prepare for and respond to a public health emergency	Oversee the collaboration with emergency preparedness and response networks to develop and implement plans, policies, and procedures to prepare for and respond to a public health emergency
Competency 3 Outbreak Response: Use systematic approach for outbreak response			
Sub-Competency 3.01 Conduct situational briefing			
Participate in meetings and conference calls to receive information on the situation	Prepare information on the situation	Facilitate the briefing of key stakeholders to create situational awareness	Manage implementation of COOP measures and ICS activation
Sub Competency 3.02 Manage Surge Capacity			
Describe circumstances for, and varying degrees of surge	Adjust workflow to ensure timeliness of diagnostic testing in collaboration with surge partners	Identify creative strategies to manage surge or overflow testing	Implement a management system that promotes flexibility and maximizes the ability to deliver surge capacity
Sub-Competency 3.03 Engage outbreak/emergency communication			
Describe the emergency communication plan and the policies and procedures for receiving and disseminating information with emergency response partners and/or public	Comply with the emergency communication plan and the policies and procedures for receiving and disseminating information with emergency response partners and/or public	Ensure rapid and secure communications with emergency response partners and/or public during emergencies and surge outbreaks	Manage the emergency communication plan and the policies, processes, and procedures for securely receiving and disseminating information with emergency response partners and the public during emergencies and surge incidents
Competency 4 Outbreak Recovery: Use systematic approach to recovery from outbreak and return to SOP			
Sub-Competency 4.01 Return to normal operating procedures			

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
Return to standard, daily roles and responsibilities	Provide updates and guidance to staff on changes to SOP and distributed updates	Manage and implement changes in SOP	Revise and oversee SOP to mitigate outbreak or infection recurrence
Sub-Competency 4.02 Obtain and incorporate stakeholder feedback			
Record feedback from patient/families/visitors/other engaged stakeholders in a systematic manner	Review stakeholder feedback and identify common trend for improvement	Identify how feedback can be operationalized into institutional functioning	Implement and assess strategies and new systems based on stakeholder feedback
4. Domain Ecosystem Health			
Competency 1 Ecosystems Principles: Understand fundamental ecological/ecosystem principles			
Describe the basic principles and concepts of ecosystem health	Describe different ecosystem processes and components (abiotic and biotic)	Describe different types of ecosystems	Integrate ecosystem principles into OH programs
Competency 2 Ecosystems Relationships: Recognize interrelationships among ecosystems, animal health and human health			
Describe natural and manmade factors that disrupt ecosystems	Implement mitigations measures to counteract ecosystem health disruption	Manage and evaluate mitigation measures to counteract ecosystem health disruption	Design and oversee mitigation measures to counteract ecosystem health disruption
Competency 3 Ecosystems Impacts: Analyze the effects of direct impacts on the environment			
Sub-Competency 3.01 Analyze effect of disruption of ecosystems and the impacts on human and animal health			
Identify the risks of ecosystem disruption to human and animal health	Evaluate disrupted ecosystem impacts on human and animal health	Manage programs to mitigate impacts of disrupted ecosystems on human and animal health	Design and oversee programs to mitigate impacts of disrupted ecosystems on human and animal health
Sub-Competency 3.02 Analyze effect of climate change on ecosystem health			
Describe effects of climate change on ecosystem health	Implement strategies for climate change mitigation and adaptation	Manage and evaluate programs for climate change mitigation and adaptation	Design and oversee programs for climate change mitigation and adaptation
5. Domain One Health Epidemiology			
Competency 1 Apply epidemiological thinking and a public health approach to a OH related health issue or disease			
Define basic epidemiological terms and describe history of public health approaches	Identify OH issues that could be addressed using epidemiological thinking and a public health approach	Design epidemiological strategies and public health approaches to address OH issues or diseases	Evaluate and promote epidemiological strategies and public health approaches used to address OH issues or diseases
Competency 2 Implement and interpret surveillance systems to assess OH related health issue or disease			
Sub-Competency 2.01 Define surveillance and describe its role in OH			
Describe surveillance and its role in OH	Identify types of surveillance methods for OH issues	Design various surveillance systems	Evaluate efficacy of various surveillance systems for a OH issue
Sub-Competency 2.02 Determine sources of OH surveillance data			

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
Recognize potential uses of data to inform surveillance system	Describe sources, quality, and limitations of surveillance data	Decide on sources of surveillance data	Assess the adequacy of the data elements to be collected or reported
Sub-Competency 2.03 Collect OH surveillance data			
Collect data for verification of the defined surveillance system parameters	Test data collection, data storage, and analytical methods	Validate data collection, data storage, and analytical methods	Assess performance of data collection systems against the defined surveillance system parameters monitor data quality
Sub-Competency 2.04 Interpret OH surveillance data			
Complete data analysis and report key findings	Identify implications of key findings on OH issues	Examine implications of key findings on OH issues	Synthesize key findings any implications on OH for dissemination for policy makers
Sub-Competency 2.05 Evaluate OH surveillance systems			
Collect data necessary for evaluation of surveillance systems	Implement evaluation data collections systems	Develop recommendations for surveillance system based on data	Design evaluation systems and decide on modifications to systems
Competency 3 Provide OH policy recommendations based on epidemiological analysis			
Sub-Competency 3.01 Develop OH policies based on epidemiological analysis			
Describe OH policy recommendations	Identify surveillance data results to develop OH policy recommendations	Translate results from surveillance studies into policy recommendations	Evaluate policy recommendations for accuracy, feasibility, and impact
Sub-Competency 3.02 Disseminate OH policies based on epidemiological analysis			
Describe dissemination plan for OH policy recommendations	Implement dissemination plan for OH policy recommendations	Design a dissemination plan for OH policy recommendations	Evaluate dissemination plan for OH policy recommendations
Sub-Competency 3.03 Evaluate OH policies based on epidemiological analysis			
Collect data on impact of OH policies	Interpret data collected on impact of OH policies	Provide feedback on OH policies based on impact data	Re-design OH policies based on feedback
6. Domain: One Health Risk Analysis			
Competency 1 Risk Assessment: Conduct One Health Risk Assessment and Analysis			
Sub-Competency 1.01 Conduct hazard identification and characterization			
Describe the hazard identification process and procedures	Conduct hazard identification and characterization using qualitative and quantitative methodologies	Manage the hazard identification and characterization process	Develop policies and procedures regarding hazard identification and characterization
Sub-Competency 1.02 Conduct exposure assessment			
Describe the exposure assessment process and procedures	Conduct exposure assessment using qualitative and quantitative methodologies	Manage the exposure assessment process	Develop policies and procedures regarding exposure assessment
Sub-Competency 1.03 Conduct risk characterization			

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
Describe the risk characterization process and procedures	Conduct risk characterization using qualitative and quantitative methodologies	Manage the risk characterization process	Develop policies and procedures regarding risk characterization
Competency 2 Risk Management: Implement One Health risk management and mitigation			
Sub-Competency 2.01 Implement option assessment			
Describe risk management and mitigation option assessment	Implement risk management and mitigation option assessment	Manage the implementation of risk management and mitigation option assessment	Develop policies and procedures regarding risk mitigation option assessment
Sub-Competency 2.02 Implement option implementation			
Describe risk management option implementation	Implement risk management option implementation	Manage the implementation of risk management option implementation	Develop policies and procedures regarding risk management option implementation
Sub-Competency 2.03 Implement monitoring and review			
Describe risk management and mitigation monitoring and review	Implement risk management and mitigation monitoring and review	Manage the implementation of risk management and mitigation monitoring and review	Develop policies and procedures regarding risk mitigation planning and implementation utilizing findings of monitoring and review
Competency 3 Risk Reporting: Conduct One Health risk communication and reporting			
Sub-Competency 3.01 Conduct risk communication using methods and tools			
Describe risk communication and reporting methods and tools	Conduct risk communication and reporting utilizing methods and tools	Manage risk communication and reporting and evaluates effectiveness of methods and tools	Develop policies, processes, and procedures for risk communication and reporting methods and tools
Sub-Competency 3.02 Disseminate key messages			
Describe risk communication and reporting key messages	Deliver risk communication and reporting using key messages	Manage risk communication and reporting ensuring key messages are conveyed	Develop policies, processes, and procedures for risk communication and reporting to ensure key messages are conveyed
Sub-Competency 3.03 Conduct quality assurance			
Describe risk communication quality assurance standards of timeliness, transparency, effectiveness, and adequacy	Conduct risk communication and reporting according to quality assurance standards	Manage risk communication and reporting and evaluate to ensure quality assurance standards are met	Develop policies, processes, and procedures for risk communication and reporting quality assurance
7. Domain: One Health Research			
Competency 1 Research programs: develop research programs			
Sub-Competency 1.01 Develop research objectives and agenda			
Describe the OH's research objectives	Illustrate how research projects fit within the OH's research objectives and agenda	Formulate research projects that align with the OH's research objectives and agenda	Develop hypothesis-driven research objectives and a research agenda for the OH

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
Sub-Competency 1.02 Manage research funding			
Describe general funding mechanisms that support public health research	Participate in writing funding proposals for research projects	Lead drafting of research funding proposals	Manage the overall processes for obtaining and sustaining research funds
Sub-Competency 1.03 Review funding proposal			
Describe basics of the proposal review process	Review internal proposals to verify adherence to guidelines and recommended principles	Serve as an ad hoc reviewer for research proposal reviews	Serve on research proposal review committees
Sub-Competency 1.04 Manage research staffing needs			
Describe own role as part of the research staff	Recognize research staffing needs	Participate in hiring research staff	Develop the strategic plan to recruit and retain researchers
Sub-Competency 1.05 Manage research resource			
Use financial and material resources judiciously	Consider available financial, human, and material resources when planning experiments	Assess financial, human, and material resources when planning research projects	Align financial, human, and material resources to support the research program
Sub-Competency 1.06 Comply with regulatory requirements			
Comply with regulatory requirements in the performance of research	Identify noncompliance with regulatory requirements pertaining to the performance of research	Manage processes regarding staff compliance with regulatory requirements concerning the performance of research	Ensure that OH programs operate consistent with regulatory requirements concerning the performance of research
Competency 2 Ethical conduct: ensures the ethical and responsible conduct of research			
Sub-Competency 2.01 Ensure ethical conduct in research			
Comply with policies, processes, and procedures related to ethical conduct in research	Instruct others in policies, processes, and procedures regarding ethical conduct in research	Ensure staff compliance to policies and procedures related to ethical research practices	Oversee the policies, processes, and procedures for implementing and maintaining ethical research practices
Sub-Competency 2.02 Comply with human and nonhuman subjects research ethics			
Comply with policies, processes, and procedures related to doing research in human and nonhuman subjects	Instruct others in policies, processes, and procedures related to doing research in human and nonhuman subjects	Ensure staff compliance to policies and procedures related to doing research in human and nonhuman subjects	Oversee the policies, processes, and procedures for implementing and maintaining ethical practices related to doing research in human and nonhuman subjects
Sub-Competency 2.03 Collaborate with other researchers			
Comply with established agreements with collaborators	Describe complexities regarding issues of collaboration, including authorship	Ensure staff compliance with established agreements for research collaboration	Build research collaborations
Sub-Competency 2.04 Share research data			
Comply with established agreements pertaining to	Describe issues that might arise pertaining to data	Ensure staff compliance with established agreements regarding data sharing	Establish guidelines for sharing research data

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research data sharing and the use of intellectual property	ownership and the sharing of data		
Competency 3 Research foundation: integrates scientific and technical knowledge for use as a foundation for research			
Sub-Competency 3.01 Complete literature searches			
Perform basic literature searches using a limited number of sources	Perform complex searches, aggregating results from multiple sources	Validate appropriateness of how searches are performed	Rectify gaps in data generated from searches
Sub-Competency 3.02 Critique scientific literature			
Read scientific and technical literature relevant to own work	Assess quality of literature and pertinence to own work	Synthesize scientific evidence derived from literature	Evaluate scientific literature and data to determine impact on OH research programs
Sub-Competency 3.03 Complete statistical concepts and tests			
Recognize meaning of common statistical concepts and tests	Apply appropriate statistical concepts and tests in performance of research	Interpret statistical tests and concepts used in literature	Critique statistical tests and concepts used in literature
Sub-Competency 3.04 Design research studies			
Explain characteristics of common study designs	Recognize strengths and limitations of study designs	Consider study design characteristics when planning research activities	Evaluate evidence-based research guidelines to select or develop study designs
Sub-Competency 3.05 Develop scientific and technical concepts and procedures			
State scientific and technical concepts and procedures	Discuss scientific and technical concepts and procedures	Critique scientific and technical concepts and procedures	Generate novel scientific and technical concepts and procedures
Sub-Competency 3.06 Identify emerging trends			
State latest scientific and technical advances relevant to current research	Discuss latest scientific and technical advances relevant to current research	Identify emerging trends in scientific and technical advances and possible impact to OH	Analyze emerging trends in scientific and technical advances to make decisions regarding impact on OH
Competency 4 Research project execution: conduct research to address a public health issue or answer a public health question			
Sub-Competency 4.01 Design research project			
Explain how own tasks and activities support specific research projects	Summarize the public health issues and research questions addressed by specific research projects	Design research projects	Oversee research projects to address the identified public health issues or questions
Sub-Competency 4.02 Develop experimental strategy and design			
State the purpose of each step performed in individual experiments	Explain the overall experimental strategy	Design individual experiments	Generate the overall experimental strategy and hypotheses for specific research project
Sub-Competency 4.03 Conduct experiments			
Use established research protocols	Provide input regarding research protocols and the conduct of experiments	Develop research protocols to guide the conduct of experiments	Oversee the conduct of experiments

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Competency 5 Research data management, analysis, and application: conduct research according to professional standards of data management, analysis, and application			
Sub-Competency 5.01 Complete data collection and quality			
Record experimental procedures and data	Monitor quality and integrity of recorded information and data	Design data collection and entry methods that meet data quality standards	Develop policies, processes, and procedures to ensure data quality and integrity
Sub-Competency 5.02 Implement data management			
Comply with policies and procedures for data management	Assist with the management of data for individual experiments	Manage project data	Oversee the management of research data for the OH
Sub-Competency 5.03 Interpret data analysis and results			
Assist with data analysis of individual experiments	Analyze project data	Interpret data for individual research projects	Oversee data analysis plans and results interpretation for the OH's research projects
Sub-Competency 5.04 Summarize data			
Describe data tables and graphs	Summarize experimental data using multiple formats	Develop outlines and formats for data summaries	Critique data summaries
Sub-Competency 5.05 Apply research findings to current research			
State OH's research findings	Examine the OH's research data to determine its significance in the context of the scientific literature	Implement integration of internal and external research findings into OH's research practices	Oversee integration of internal and external research findings into revised research agenda, objectives, and/or experimental strategies
Competency 6 Dissemination of research findings: disseminate research findings			
Sub-Competency 6.01 Meeting and conference presentations			
Attend institutional scientific presentations	Present research to colleagues within the organization or via poster at external event	Present research via oral presentation for discipline-wide audiences	Serve as an invited speaker at external meetings and conferences
Sub-Competency 6.02 Prepare manuscripts			
Assist in manuscript drafting and editing	Draft sections of research manuscripts	Publish as first author or senior author in journals of the discipline	Publish as senior author for multi-OH or multi-institutional research projects or in high-impact interdisciplinary journals
Sub-Competency 6.03 Complete manuscript peer review process			
Read drafts of manuscripts submitted for peer review	Informally critique manuscripts submitted for peer review	Participate in the peer review process as a formal reviewer	Participate in the manuscript peer review process as member of the editorial board
Competency 7 Translation: translate research findings to public health practice			
State research findings as they relate to current public health practices	Describe implications of research findings on public health practices	Translate research findings to public health practices	Oversee translation of research discoveries into meaningful changes in public health practices

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8. Domain: One Health Leadership			
Competency 1 Shared Vision: Articulate a shared mission, set of core values, and vision to achieve OH goals			
Sub-Competency 1.01 Articulate mission, vision, and core values			
Identify and articulate the content, purpose, and value of mission and core values statements	Facilitate mission and core values statement development	Facilitate reassessment and adaptation of core values and mission to vision	Communicate effectively to translate understanding of core values, mission, and vision into action
Sub-Competency 1.02 Engage in strategic planning			
Identify and articulate the purpose of strategic vision and planning	Develop and articulate a strategic vision and plan	Encourage and support others to share the strategic vision and plan	Identify and incorporate innovative concepts and methods into strategic vision, planning and decision making
Competency 2 Collaborative Solutions: Utilize collaborative methods and skills of negotiation and conflict management across sectors and disciplines to facilitate cooperation in working together to address challenges and achieve OH goals.			
Sub-Competency 2.01 Collaborate across interprofessional and intersectoral level			
Describe the value of collaboration in the workplace	Collaborate with team members within a OH program	Lead cross-functional teams to accomplish projects	Create a workplace environment that encourages teamwork and collaboration
Sub-Competency 2.02 Engage in communication, negotiation, and conflict management			
Employ active communication skills	Communicate information and feedback to colleagues and management staff	Ensure the open and frequent exchange of communication between OH staff	Foster a culture of open and frequent communication
Competency 3 Team Commitment: Motivate, coach, mentor, and mobilize the OH team to work together to achieve OH goals.			
Sub-Competency 3.01 Build staff engagement			
Participate in activities to support the OH's goals	Implement activities that support staff engagement	Develop programs that support a culture of staff engagement	Foster a culture of staff engagement and commitment
Sub-Competency 3.02 Develop staff recognition and professional development			
Participate in staff recognition and professional development programs	Evaluate the effectiveness of staff recognition and professional development programs	Develop staff recognition and professional development programs	Foster a culture that ensures staff recognition and professional development
Sub-Competency 3.03 Engage in coaching and mentoring			
Describe the benefits of coaching and mentoring	Develop a pool of potential coaches and mentors for staff	Establish coaching and mentoring programs	Foster a culture where coaching and mentoring are deeply-rooted
Competency 4 Professionalism: Apply ethical principles and professional code of conduct in leadership of OH programs.			
Sub-Competency 4.01 Comply with ethical practices and professional code of conduct			
Apply ethical principles and a professional code of conduct to the workplace	Serve as a role model of ethical and professional behavior by consistently conforming to the highest standards and practices	Ensure staff compliance with the policies and procedures related to ethical practices and a professional code of conduct	Foster the policies, processes, and procedures related to ethical practices and a professional code of conduct

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Sub-Competency 4.02 Promote diversity culture			
Explain the value of having a diverse workforce	Promote a diverse workforce	Develop programs that support a culture of diversity	Foster a culture where diversity is valued
9. Domain: One Health Management			
Competency 1 General management: Ensure sound management of OH organizational operations			
Sub-Competency 1.01 Ensure effective organizational structure			
Describe the organizational structure of the OH	Coordinate OH program structure to meet organizational needs	Adapt organizational structure to meet the mission and directives for OH programs	Oversee a process† to ensure organizational structure meets the mission and directives for OH program
Sub-Competency 1.02 Comply with laws and regulations for OH operation			
Comply with laws and regulations related to OH operations	Coordinate program activities according to laws and regulations related to OH operations	Manage OH programs consistent with laws and regulations related to OH operations	Ensure that OH programs are consistent with federal, state, and local laws and regulation
Sub-Competency 1.03 Manage technical operations			
Work collaboratively on technical and operational planning	Implement technical and operational plans	Develop processes and procedures to manage technical operations	Oversee the policies, processes, and procedures related to the development and evaluation of technical operation
Sub-Competency 1.04 Implement Internal policy			
Comply with documented internal policies and guidelines	Implement internal policies for a OH program	Ensure staff compliance with OH-wide policies	Oversee internal policy implementation and staff compliance
Competency 2 Program Management: Plan, design, implement, monitor, and evaluate OH Programs			
Sub-Competency 2.01 Engage in program planning and design			
Contribute to an outbreak response, prevention, and surveillance program plan and design	Develop outbreak response, prevention and surveillance program plan and design	Direct the management of outbreak response, prevention, and surveillance program planning and design	Oversee outbreak response, prevention, and surveillance program planning and design across OH
Sub-Competency 2.02 Implement program plan			
Use basic project management concepts and tools	Train staff on project management techniques	Direct the management of projects at the programmatic level	Oversee project management across the OH
Sub-Competency 2.03 Implement program monitoring and valuation			
Contribute data for program effectiveness monitoring and evaluation	Analyze data to assist in the monitoring and evaluation of program effectiveness	Direct activities to monitor and evaluate the effectiveness of OH programs	Oversee the policies and procedures regarding the measurement, analysis, and improvement of program effectiveness
Competency 3 Financial management: Ensures sound OH financial management			
Sub-Competency 3.01 Manage budgets, income, and expenditures			

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Comply with budgetary guidelines	Monitor staff compliance to the budget	Reconcile budget, expenditures, and income	Oversee budgets, including development and staff compliance with agency and legislative mandate
Sub-Competency 3.02 Utilize financial management systems			
Use designated financial management tools	Integrate financial management tools for a OH program	Optimize the financial management system for the OH	Oversee the policies, processes, and procedures related to financial management and fiduciary responsibility
Sub-Competency 3.03 Utilize resource management systems			
Use workplace resources efficiently	Optimize use of OH program resources	Manage resources for the OH	Oversee the policies, processes, and procedures related to resource management
Competency 4 Human resource management: Ensure effective management of human resources for OH			
Sub-Competency 4.01 Comply with human resource policies			
Comply with human resource rules and requirements	Enforce human resource requirements and policies	Manage human resource requirements and policies	Oversee the policies, processes, and procedures related to the human resource system
Sub-Competency 4.02 Conduct performance review			
Describe how the formal performance appraisal process impacts OH operations	Administer performance appraisals	Evaluate effectiveness of the performance appraisal process in improving OH productivity and practice	Oversee the continuous improvement of the performance management system
Sub-Competency 4.03 Engage in conflict resolution			
Identify the need for management intervention in conflict resolution	Resolve conflicts in a fair and equitable manner	Integrate mechanisms to support cooperation and manage conflict across the OH	Oversee the policies, processes, and procedures to ensure the fair and equitable resolution of conflicts
Sub-Competency 4.04 Engage in professional development			
Participate in professional development activities	Recommend professional development activities	Assess professional development gaps to ensure and support staff competency development	Oversee the policies, processes, and procedures to encourage and address professional development
Competency 5 Emergency Preparedness and Response: Ensure readiness to prepare and respond to emerging pandemic threats and outbreaks			
Describe emergency management policies and procedures	Operate within assigned roles when carrying out emergency management and response duties	Manage the emergency management and response plan at the programmatic level	Oversee OH-wide emergency management and response
10. Domain: Systems Thinking			

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Competency 1 Systems Thinking Principles: Describe the elements of complex problems and systems thinking. Utilize wicked theory for systems thinking			
Describe systems thinking concepts, theories, and approaches (ie wicked theory)	Apply systems thinking concepts, theories and approaches to complex problems	Incorporate systems thinking concepts, theories, and approaches into program management and OH operations	Strategize and create innovative approaches to systems thinking in complex problems
Competency 2 Systems Thinking Diagrams: Create and use systems mapping to deepen understanding of One Health problems. Develop a Causal Loop Diagram for systems thinking			
Describe systems mapping, diagrams, methods, and tools (ie causal loop diagram)	Apply systems thinking diagrams to identify elements of OH problem and map integration points	Incorporate findings of systems thinking diagrams into program management and OH operations	Strategize and create innovative approaches to OH operations and policies using systems thinking diagrams
Competency 3 Systems Thinking Partnerships: Partner with One Health team members to develop solutions to complex One Health problems using systems thinking and tools. Develop interprofessional, interdisciplinary and multi-sectoral collaboration for systems thinking			
Identify stakeholders, disciplines, and sectors using systems thinking tools)	Collaborate with external stakeholders to integrate information and actions across disciplines and sectors using systems thinking tools	Evaluate gaps in engagement with external stakeholders to support the activities of the OH	Develop strategies to engage external stakeholders to accomplish the mission, vision, and activities of the OH
11. Domain: One Health Collaboration and Partnership			
Competency 1 Promote inclusion of representatives of diverse constituencies across human, animal, environmental health and other relevant disciplines			
Sub-Competency 1.01 Demonstrate cultural awareness and understanding of diversity			
Define cultural awareness and diversity within an OH organizational context	Implement cultural awareness in daily interactions with all stakeholder	Design strategies that support engagement of diverse stakeholders	Evaluate and promote structures that support engagement of diverse stakeholders
Sub-Competency 1.02 Promote diversity and inclusion with the organization			
Describe and document opportunities to promote diversity and inclusion	Promote cultural awareness and diversity within an OH organization	Identify gaps in cultural awareness and diversity	Develop and promote strategies to address gaps within the organization
Competency 2 Work with individuals of other professions to maintain a climate of mutual respect and shared values			
Sub-Competency 2.01 Maintain definition and demonstration of mutual respect and shared values			
Define mutual respect and shared values in a professional, OH setting	Reinforce definitions of mutual respect and shared values amongst all stakeholders	Design systems and structures to ensure development of mutual respect and understanding	Evaluate and promote organizational definitions of mutual respect and understanding
Sub-Competency 2.02 Consistent engagement of other professionals with mutual respect and shared values			
Respectfully engage with all stakeholders and implement feedback on engagement	Support development of consistent engagement that aligns with organizational definition of respect and shared value	Identify gaps in engagement and provide feedback	Design feedback mechanisms to identify gaps in engagement

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Competency 3 Use the knowledge of one's own role and those of other professions to appropriately assess and address the needs of the organization and populations served.			
Sub-Competency 3.01 Develop a clear definition of one's role within an organization			
Define individual roles and responsibilities	Identify how roles and responsibilities support the goals of the organization	Provide feedback on the roles and responsibilities	Expand or diminish role based on organizational needs
Sub-Competency 3.02 Develop a clear definition of other roles within an organization			
Define the roles and responsibilities of other individuals within organization	Identify how other roles support the goals of the organization	Provide feedback on other roles and responsibilities	Expand or diminish roles and responsibilities of other positions based on the needs of the organization
Sub-Competency 3.03 Identify who can meet a specific need based on role			
Identify individual whose roles and responsibilities can meet a need	Communicate with individual who can support a need	Promote communication between individual within the organization	Develop an organizational chart with clearly defined structure
Competency 4 Communicate with all stakeholders in a responsive and responsible manner that supports a team approach to the strengthening OH systems and to promote OH			
Sub-Competency 4.01 Utilize an external communications policy to engage stakeholders			
Consistently and correctly use communication protocols	Promote consistent and correct use of communication protocols	Provide clear, specific feedback on individual use of policies and organizational gaps in communication	Develop strategies and policies to engage diverse stakeholders to promote and strengthen OH
Sub-Competency 4.02 Advocate for OH policies in engagement with external stakeholders			
Define OH policies to external stakeholders	Identify external stakeholders who could strengthen and promote OH systems	Communicate and promote OH policies with external stakeholders	Develop policies for external stakeholders to incorporate OH policies into their work
12. Domain: One Health Communication and Informatics			
Competency 1 Communication techniques: deploy formal written and oral communication strategies			
Sub-Competency 1.01 Utilize appropriate written communication			
Identify key messages for written communication	Apply logical structure to written communications	Incorporate tools to organize and present detailed or complex information	Establish content, style, tone, and form for written messages according to target audience
Sub-Competency 1.02 Utilize appropriate oral communication			
Identify key messages for oral communication	Apply language and tone in oral communications tailored to target audience	Select communication methods tailored to target audience	Establish content, style, tone, and form for oral messages tailored to target audience
Competency 2 Active listening skills: display active listening skills when interacting with others			
Sub-Competency 2.01 Engage in dialogue exchange			
Provide undivided attention to the other participants in a dialogue	Summarize the dialogue to show understanding	Provide feedback based on the dialogue summary	Facilitate dialogue exchange through paraphrasing and clarification of critical points
Sub-Competency 2.02 Understand contextual clues			

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Exhibit open posture and facial expression to engage the other participants in a dialogue	Apply range of body language cues to enhance the exchange	Exhibit active listening during the dialogue exchange	Incorporate multiple behaviors of engagement during dialogue exchanges
Sub-Competency 2.03 Engage in respectful exchange			
Defer judgment during dialogue exchanges	Provide counterpoints while being respectful of disagreements	Coach others in techniques of respectful exchange	Facilitate respectful dialogue among participants in the exchange
Competency 3 Comprehension of materials: demonstrate comprehension of written documents and directions			
Follow written directions	Apply knowledge acquired from written text to situations	Adapt concepts from written text for use in new situations	Extrapolate information from written text to develop new ideas that enhance work processes
Competency 4 Communication technology: utilize technology to communicate information to internal and external partners			
Describe employer's policies and procedures for sharing information	Use designated technology for sharing information	Manage technology policies and procedures used for sharing information	Evaluate the effectiveness of the technology used for sharing information
Competency 5 Communication professionalism: ensure professionalism in communication with customers and stakeholders			
Sub-Competency 5.01 Maintain professional attitude			
Use tone of voice and language tailored to interactions with customers and stakeholders	Display professional demeanor in all situations with customers and stakeholders	Monitor interactions with customers and stakeholders to ensure they are conducted professionally	Establish policies for professional customer and stakeholder interactions
Sub-Competency 5.02 Engage in information exchange			
Provide information based on policies and procedures to meet the needs of customers and stakeholders	Determine information needs through collaboration with customers and stakeholders	Ensure that information exchange policies, processes, and procedures are followed to meet the needs of the customers and stakeholders	Develop overarching system for exchange of information to meet the needs of customers and stakeholders
Sub-Competency 5.03 Engage in information sharing opportunities			
Share information as directed	Select information to share	Develop information to share	Create opportunities for sharing information
Competency 6 Professional reports: prepare professional written reports and oral presentations			
Sub-Competency 6.01 Complete written reports			
Organize information for written reports	Create drafts of written reports	Revise written reports	Establish policies, processes, and procedures for written reports
Sub-Competency 6.02 Complete oral presentations			
Organize information for oral presentations	Create drafts of oral presentations	Revise oral presentations	Establish policies, processes, and procedures for oral presentations
Competency 7 Risk communication: apply emergency and risk communication principles and techniques to explain information to targeted audiences			

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Sub-Competency 7.01 Create risk communication plan			
Describe the risk communication process	Adhere to the risk communication plan	Ensure staff compliance with the risk communication plan	Establish policies, processes, and procedures related to the risk communication plan
Sub-Competency 7.02 Share emergency information			
List basic emergency information for target audience	Identify specific emergency information for target audience	Develop emergency information and messages tailored to target audience	Collaborate with agency leaders and partners to deliver emergency information and messages tailored to target audience
Sub-Competency 7.03 Develop empathetic risk communication			
Describe empathetic risk communication concepts	Deliver empathetic messaging in high-risk situations or emergencies	Create empathetic messaging in high-risk situations and emergencies	Evaluate empathetic messaging for high-risk situations and emergencies
Competency 8 Public health value: promote the value of the public health			
Sub-Competency 8.01 Engage in public relations			
Describe impact of the work of the public health and system	Coordinate opportunities for promoting the public health and system	Identify opportunities to promote the public health and system	Develop opportunities to promote the public health and system
Sub-Competency 8.02 Develop communication to educate and inform			
Support the development and distribution of communication materials about the public health	Present communication materials to explain the importance of the public health	Develop communication materials to explain the importance of the public health	Manage the policies, processes, and procedures regarding communication materials to explain the importance of the public health
Sub-Competency 8.03 Engage in public health storytelling			
Share approved public health stories	Incorporate use of stories when communicating the impact of public health work	Develop stories that convey information highlighting the impact of public health work	Evaluate the impact of storytelling in promoting the public health
Competency 9 Media relations: work with the media to provide information about public health laboratories and public health issues			
Sub-Competency 9.01 Comply with media relations policies and strategies			
Adhere to agency media relations policies and procedure	Identify situations where agency media relations policies and strategies apply	Monitor the application of agency media relations policies and strategies	Oversee media relations policies and strategies
Sub-Competency 9.02 Ensure “Plain talk” during communication			
Describe the value of using “plain talk”	Apply “plain talk” during public and media interactions	Develop “plain talk” language for media and public communications	Translate highly technical concepts using “plain talk” for media and public communications
Sub-Competency 9.03 Share key messages			

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
Describe the value of using key messages	Apply key messages during public and media interactions	Develop key messages for media and public communications	Oversee delivery of key messages on complicated, high-risk topics
13. Domain: Gender, One Health, and Infectious Disease Management			
Competency 1 Gender Awareness: Demonstrate awareness of gender dynamics in emerging pandemic threats (EPT)			
Understand gender definitions and concepts including gender concepts related to sex, gender norms, gender roles, equity, equality, and life cycle in relation to EPT	Understand the relationships between gender inequality, gender norms, and health and wellbeing	Understand gender transformative approaches to address gender equity in response to EPT	Advocate and promote gender equality and equity in response to EPT
Competency 2 Gender Analysis: Evaluate how gender intersects with emerging pandemic threats			
Identify basic principles and related concepts of gender and EPT epidemiology, disease transmission, and the response cycle (preparation, detection, response, and evaluation).	Utilize gender analysis tools in EPT disease surveillance, response, prevention and control	Analyze how gender impacts and is impacted by EPT through conducting gender analysis and systemic monitoring and evaluation	Report and use gender-relevant lessons learned including gender best practices in EPT and resources to address those gaps and apply findings for subsequent program adaptation
Competency 3 Gender Response: Develop gender-sensitive response plans for emerging pandemic threats			
Sub-Competency 3.01 Gender Healthcare: Provide gender-sensitive interdisciplinary healthcare for EPT			
Identify relevant Sex and Gender Specific Health (SGH) epidemiology, pathophysiology, clinical presentation, and therapeutic response	Apply SGSH considerations in clinical decision making and patient care	Incorporate SGSH in scientific inquiry and research design	Teach SGSH information to others (peer health professionals or patients)
Sub-Competency 3.02 Gender Healthcare Education: Integrate gender and EPT into interdisciplinary healthcare education			
Integrate gender and EPT into healthcare education at a basic level by including a limited focus on gender through women's reproductive health and EPT	Integrate gender and EPT into healthcare education at a mid-level by including gender and EPT in a lecture series or guest lecture	Integrate gender and EPT into healthcare education at a high level by incorporating gender and EPT into curriculum and including specialized certificate programs	Integrate gender and EPT into healthcare education at an advanced level by incorporating gender and EPT into curriculum for interprofessional health education and exports expertise to national level
Sub-Competency 3.03 Gender Program: Develop gender-sensitive programming for EPT			
Recognize impacts of gender-sensitive programming for responding to EPT	Develop Gender Sensitive programs that adapts to gender norms, work around existing gender differences and inequalities to ensure equitable allocation/services/support aligned with the pre-existing gender differences, structures, systems, and power divisions in society.	Develop Gender Responsive programs that challenge inequitable gender norms and respond to the different needs and constraints of individuals based on their gender and sexuality, open space for discussing, challenging, and engaging with inequitable gender structures, systems, divisions, and power relations.	Develop Gender Transformative programs that change inequitable gender norms and relations to promote equality, demonstrating both the ambition to transform gender and the resources, willingness and capacity to institutionalize transformative programming.

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Sub-Competency 3.04 Gender Policy: Develop gender-sensitive policies and frameworks for the health sector and EPT			
Recognize impacts of policy on promoting gender equality in response to EPT	Implement gender policies that attempt to target both women and men effectively, working within existing gender divisions of resources and responsibilities	Develop gender specific policies that respond to gender specific needs, working within existing gender divisions of resources and responsibilities	Advocate and ensure implementation of gender redistributive policies intended to transform existing distributions to create a more balanced relationship between men and women
14. Domain: One Health Policy and Advocacy			
Competency 1 Political Process: Demonstrate Awareness of the OH Political Process			
Explain the basic principles and concepts of OH policy and advocacy	Explain the process of developing and implementing OH policy and advocacy	Explain the process of analyzing and evaluating OH policy and advocacy	Explain the process of collaboration with various stakeholders in OH policy and advocacy
Competency 2 Policy Analysis: Analyze OH Policy and identify the different challenges involved in development and implementation			
Sub-Competency 2.01 Conduct situation analysis			
Describe situation analysis and application to OH policy and advocacy	Conduct a situation analysis to identify policy problems that affect OH issues	Oversee a situation analysis and integrate findings into OH programming	Develop OH policy and advocacy to address findings of a situation analysis
Sub-Competency 2.02 Conduct stakeholder analysis			
Describe stakeholder analysis and application to OH policy and advocacy	Conduct a stakeholder analysis to identify policy problems that affect OH issues	Oversee a stakeholder analysis and integrate findings into OH programming	Develop OH policy and advocacy to address findings of stakeholder analysis
Sub-Competency 2.03 Conduct quality improvement			
Explain strategies for continuous quality improvement for OH policy and advocacy	Apply strategies for continuous quality improvement for OH policy and advocacy	Implement strategies for continuous quality improvement for OH policy and advocacy	Develop strategies for continuous quality improvement for OH policy and advocacy
Sub-Competency 2.04 Utilize public health informatics			
Describe how public health informatics is used in developing, implementing, and improving OH policy and advocacy	Use public health informatics to develop, implement, and improve OH policy and advocacy	Assess the use of public health informatics to develop, implement, and improve OH policy and advocacy	Strategize OH policy and advocacy plans to address findings of public health informatics
Competency 3 Policy Development: Plan, design, develop and implement OH Policy			
Sub-Competency 3.01 Engage in strategic planning			
Describe organizational strategic plan	Contribute to the development of the organizational strategic plan	Lead development of the organizational strategic plan	Integrate current and projected trends into organizational strategic plan
Sub-Competency 3.02 Develop strategic plans			
Describe options of OH Policy and Advocacy	Examine feasibility and implications of OH policy and advocacy	Recommend approach to OH policy and advocacy	Select approach to OH policy and advocacy

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Sub-Competency 3.03 Implement strategic plans			
Understand how OH policies, regulations and guidelines are developed and implemented	Develop and deliver a policy brief that addresses OH policy in relation to other global health challenges	Manage implementation and integration of OH policy into programming	Analyze the effects of regional and local policies, economics and culture on One Health issue
Competency 4 Organizing and Negotiation: Organize national and international stakeholders in negotiating for OH policy			
Sub-Competency 4.01 Engage with national agencies			
Identify national agencies that create and oversee policies, guidelines, and regulations that affect OH issues	Develop an advocacy plan for a OH issue that would address different stakeholders and decision makers at the national level	Advocate across multiple agencies and organizations at a national level for a position on a OH issue	Facilitate collaborations among various stakeholders at the national level in OH Policy Advocacy
Sub-Competency 4.02 Engage with international agencies			
Identify international agencies that create and oversee policies, guidelines, and regulations that affect OH issues	Develop an advocacy plan for a OH issue that would address international level stakeholders and decision makers	Advocate across multiple agencies and organizations at an international level for a position on a OH issue	Facilitate collaborations among various stakeholders at the international level in OH Policy Advocacy
Competency 5 Advocacy and Marketing: Utilize principles of social marketing and advocacy to communicate routinely with target audiences regarding OH needs, objectives, accomplishments, and critical information			
Describe social marketing strategies for advocacy to achieve OH goals	Develop, implement, and evaluate advocacy, community education, and social marketing strategies to achieve OH goals and objectives	Manage OH advocacy and marketing teams and initiatives	Engage with high level stakeholders to advocate for OH needs and objectives
Competency 6 Legislation and Regulation: Translate community and organizational analyses and plans into specific regulatory actions and legislative proposals for OH			
Describe regulatory actions and legislative proposals relevant to OH issues	Guide the community and organization in assisting and supporting legislative deliberation and action on OH issues	Manage OH advocacy and marketing teams and initiatives	Engage with high level policymaking bodies in legislative deliberation and action on OH issues
15. Domain: Behavior Change (specific to One Health)			
Competency 1 Explain behavior change theories and change management concepts.			
Explain the theories of behavior change and change management at individual and community level	Explain the theories of behavior change and change management in relation to One Health issues at individual and community level	Evaluate the theories of behavior change and change management at individual and community level	Evaluate the theories of behavior change and change management in relation to One Health issues at individual and community level
Competency 2 Adapt and apply models for individual behavior change to One Health contexts			
Sub-Competency 2.01 Identify individual health behaviors and health behavior problems			
Describe assessment tools to identify individual health	Complete an assessment tool with an individual identify	Interpret assessment results to identify individual health behaviors and health problem	Evaluate assessment process to identify areas where process could be improved

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
behaviors and health problems	individual health behaviors and health problems		
Sub-Competency 2.02 Apply intervention/model to modify individual OH behaviors			
Describe various interventions/models that could be utilized to modify an individual health behavior	Identify a specific intervention/model that could be implemented to modify an individual OH behavior	Implement a specific intervention/model to modify an individual behavior	Evaluate the selection and implementation of an intervention /model
Sub-Competency 2.03 Assess intervention/model impact on individual OH behaviors			
Identify tools to assess impact of an intervention/model on an individual OH behavior	Complete an assessment of the impact of an intervention/model on an individual OH behavior	Interpret assessment results to identify the efficacy of an intervention/model on an individual OH behavior	Identify an additional or alternative intervention/model on an individual OH behavior
Sub-Competency 2.04 End intervention/model impact on individual OH behavior and plan for long-term maintenance			
Identify steps needed to end interventions describe plans for long-term maintenance can be support	Implement steps for ending interventions and plans for long-term maintenance	Evaluate long term maintenance plan for efficacy on ensuring behavioral change	Oversee and provide feedback on the intervention and long-term maintenance plane
Competency 3 Adapt and apply models for community behavior change to One Health contexts			
Sub-Competency 3.01 Identify community health behaviors and health behavior problems			
Describe assessment tools to identify community health behaviors and health problems	Complete an assessment tool with an individual identify community health behaviors and health problems	Interpret assessment results to identify community health behaviors and health problems	Evaluate assessment process to identify areas where process could be improved
Sub-Competency 3.02 Apply intervention/model to modify community OH behaviors			
Describe various interventions/models that could be utilized to modify a community health behavior	Identify a specific intervention/model that could be implemented to modify a community OH behavior	Implement a specific intervention/model to modify a community behavior	Evaluate the selection and implementation of an intervention /model
Sub-Competency 3.03 Assess intervention/model impact on community OH behaviors			
Identify tools to assess impact of an intervention/model on a community OH behavior	Complete an assessment of the impact of an intervention/model on a community OH behavior	Interpret assessment results to identify the efficacy of an intervention/model on a community OH behavior	Identify an additional or alternative intervention/model on a community OH behavior
Sub-Competency 3.04 End intervention/model impact on community OH behavior and plan for long-term maintenance			
Identify steps needed to end interventions describe plans for long-term maintenance can be support	Implement steps for ending interventions and plans for long-term maintenance	Evaluate long term maintenance plan for efficacy on ensuring behavioral change	Oversee and provide feedback on the intervention and long-term maintenance plan
16. Domain: Culture, Beliefs, Values and Ethics (specific to One Health)			
Competency 1 Culture and Beliefs: Demonstrate cultural competence in OH initiatives by identifying, interpreting, and addressing local norms, wisdom, values, beliefs and culture about human, animal and environmental health.			
Sub-Competency 1.01 Demonstrate cultural and gender competence			

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
Describe cultural norms, wisdom, and beliefs, of the community and of oneself, about gender in relation to OH	Implement OH initiatives that are sensitive and responsive to cultural norms, wisdom, and beliefs about gender	Manage and train OH staff to ensure cultural competence in gender and OH	Direct strategy, policy, or research to promote cultural competence in gender and OH
Sub-Competency 1.02 Demonstrate cultural and animal competence			
Describe cultural norms, wisdom, and beliefs, of the community and of oneself, about animals in relation to OH	Implement OH initiatives that are sensitive and responsive to cultural norms, wisdom, and beliefs about animals	Manage and train OH staff to ensure cultural competence in animals and OH	Direct strategy, policy, or research to promote cultural competence in animals and OH
Sub-Competency 1.03 Demonstrate cultural and environmental competence			
Describe cultural norms, wisdom, and beliefs, of the community and of oneself, about the environment in relation to OH	Implement OH initiatives that are sensitive and responsive to cultural norms, wisdom, and beliefs about the environment	Manage and train OH staff to ensure cultural competence in the environment and OH	Direct strategy, policy, or research to promote cultural competence in the environment and OH
Competency 2 Professionalism and Trust: Generate trust among the community in OH initiatives through actions based on the highest ethical, scientific, and professional standards, transparency, and accountability.			
Sub-Competency 2.01 Display competence and comply with standards of practice			
Describe the ethical, scientific, and professional standards of practice in OH	Implement OH initiatives according to ethical, scientific, and professional standards of practice	Oversee OH initiatives to ensure ethical, scientific, and professional standards of practice, identify and reform inadequate practice	Design standards of practice and processes to ensure accountability to the highest ethical, scientific, and professional standards in OH
Sub-Competency 2.02 Demonstrate transparency and accountability			
Describe full transparency in OH decision making, disclosure of conflict of interests, and admitting unintended program consequences	Demonstrate full transparency in OH decision making, disclosing conflicting interests, and admitting unintended program consequences	Oversee and hold OH programs and staff accountable to transparency, disclosure of conflict of interests, and revealing unintended program consequences	Lead OH initiatives with full transparency, disclosure of conflict of interests, and admission of unintended program consequences
Sub-Competency 2.03 Demonstrate professional ethics and personal values			
Identify and reflect on personal values in relation to the professional code of ethics	Demonstrate professional ethics and personal values alignment in OH Interventions	Ensure professionalism of staff implementing OH Interventions	Guide a culture of professional ethics informing all OH Interventions
Competency 3 Health and Safety: Prevent, minimize, and mitigate health harms and promote and protect public safety, health, and well-being in OH initiatives			
Sub-Competency 3.01 Ensure protections for human subjects' research			
Discuss the risks to and importance of protections for humans involved in research for OH	Implement OH human subjects research in compliance with Institutional Review Board procedures	Oversee and train OH staff in human subjects' research in compliance with Institutional Review Board procedures	Direct OH human subjects research in compliance with Institutional Review Board procedures
Sub-Competency 3.02 Ensure timeliness, ethical decision making, risk and benefit analysis			

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
Discern the risk and benefits of the range of actions to be taken in OH initiatives for responding to an outbreak to protect the public safety	Act in a timely manner to implement emergency response in OH initiatives according to the resources and mandate to protect the public safety	Prepare and trains OH staff in emergency response plans to protect the public safety	Direct emergency response planning across OH programs to protect the public safety
Sub-Competency 3.03 Protect vulnerable populations			
Describe vulnerable populations and actions to prevent harm and promote safety through OH initiatives	Identify vulnerable populations and implements actions to prevent harm and promote safety through OH initiatives	Manage and train OH staff to identify vulnerable populations and implement actions to prevent harm and promote safety in OH initiatives	Design and oversee OH programs to address the needs of vulnerable populations, prevent harm, and promote safety
Competency 4 Health Justice and Equity: Promote equitable distribution of resources and social conditions necessary to secure equal opportunities for the realization of health and other capabilities by individuals and communities served by OH initiatives.			
Sub-Competency 4.01 Ensure availability, accessibility, acceptability, and quality of health service delivery			
Describe the issues of access, availability, acceptability, quality and barriers to public health services in relation to OH	Deliver OH services that are available, accessible, acceptable, and quality for all individuals and communities	Manage and train OH staff to implement services that are available, accessible, acceptable, and quality for all individuals and communities	Lead advocacy, policy, and research to address barriers and improve availability, accessibility, acceptability, and quality of OH services for all communities
Sub-Competency 4.02 Address structural and institutional equity and social determinants of health			
Understand the health status of populations, determinants of health and illness, factors contributing to health promotion and disease prevention, and structural and institutional factors influencing the use of health services in relation to OH	Implement OH interventions that address the health status of populations, determinants of health and illness, factors contributing to health promotion and disease prevention, and structural and institutional factors influencing the use of health services	Manage and train OH staff on the health status of populations, determinants of health and illness, factors contributing to health promotion and disease prevention, and structural and institutional factors influencing the use of health services	Lead advocacy, policy and research on OH interventions to address the health status of populations, determinants of health and illness, factors contributing to health promotion and disease prevention, and structural and institutional factors influencing the use of health services
Competency 5 Interdependence and Solidarity: Foster positive, and mitigate negative, relationships among individuals, societies, and environments in ways that protect and promote the flourishing of humans, communities, nonhuman animals, and the ecologies in which they live.			
Identify the relationship between humans, animals, and the environment on OH outcomes	Implement OH interventions that address the relationship between humans, animals, and the environment to promote OH outcomes	Manage and train OH staff on the relationship between humans, animals, and the environment on OH and interventions to promote OH outcomes	Lead advocacy, policy, and research on the relationship between humans, animals, and the environment to inform OH interventions and promote OH outcomes
Competency 6 Human Rights and Civil Liberties: Promote respect for personal autonomy, self-determination, privacy, and the absence of discrimination and domination in its many interpersonal and institutional forms			
Sub-Competency 6.01 Promote equality and non-discrimination			
Explain that the right to health must be enjoyed without	Demonstrate equality and non-discrimination on the	Manage and train OH staff on equality and non-	Redress any discriminatory program or policy in relation

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
discrimination on the grounds of race, age, ethnicity, gender or any other status in relation to OH	grounds of race, age, ethnicity, gender, or any other status in implementation of OH initiatives	discrimination on the grounds of race, age, ethnicity, gender, or any other status in OH initiatives	to OH and advocate for equality for all individuals and communities served by OH initiatives
Sub-Competency 6.02 Ensure privacy and confidentiality			
Explain the right to privacy and confidentiality of individuals and communities in relation to OH	Implement OH programs with respect for the right to privacy and confidentiality of individuals and communities served	Manage and train OH staff on the right to privacy and confidentiality of individuals and communities served by OH	Oversee and redress any breaches to privacy and confidentiality of individuals and communities served by OH initiatives
Sub-Competency 6.03 Ensure informed consent			
Explain the right to self-determination and the procedures for obtaining informed consent at the individual and group level in relation to OH initiatives	Implement OH initiatives with respect for self-determination by ensuring informed consent is obtained when necessary	Manage and train OH staff to respect self-determination and ensure informed consent is obtained when necessary	Oversee and redress any breaches to self-determination of individuals and communities served by OH initiatives
Competency 7 Inclusivity and Engagement: Include and engage diverse publics, communities, and stakeholders to ensure informed decision making and promote diversity within OH programs and interventions			
Sub-Competency 7.01 Promote awareness of diversity as it applies to individuals and populations (eg, language, culture, values, socioeconomic status, geography, education, race, gender, age, ethnicity, sexual orientation, profession, religious affiliation, mental and physical abilities, historical experiences)			
Describe the concept of diversity as it applies to individuals and populations in OH programs and interventions	Identify diversity of individuals and populations within a community addressed by OH programs and interventions	Recognize the ways diversity influences OH policies, programs, and the health of a community	Raise awareness of diversity as it applies to individuals and populations in OH programs and interventions
Sub-Competency 7.02 Promote diversity in the OH public health workforce			
Describe the value of a diverse OH public health workforce	Demonstrate the value of a diverse OH public health workforce	Advocate for a diverse OH public health workforce	Take measures to support a diverse OH public health workforce
17. Domain: Principles of Public Health (related to One Health)			
Competency 1 Analyze factors of health that impact the health of the human, animal, and environmental communities			
Sub-Competency 1.01 Describe the factors that affect the health of the human, animal and environmental communities			
Describe the factors that affect the health of the human, animal and environmental communities	Monitor the factors that affect the health of the human, animal and environmental communities	Identify the factors that affect the health of the human, animal and environmental communities	Evaluate the factors that affect the health of the human, animal and environmental communities
Sub-Competency 1.02 Collect data on factors that affect the health of the human, animal and environmental communities			
Utilize data collection tools to gather quantitative and qualitative data on factors that affect human, animal and public health	Implement data collection tools to gather quantitative and qualitative data on factors that affect human, animal and public health	Develop data collection tools to gather quantitative and qualitative data on factors that affect human, animal and public health	Evaluate data collection tools to gather quantitative and qualitative data on factors that affect human, animal and public health

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
Sub-Competency 1.03 Utilize public health sciences to analyze data from on factors that affect the health of the human, animal and environmental communities			
Describe public health analysis of qualitative and quantitative data the health of the human, animal and environmental communities	Analyze quantitative and qualitative data the health of the human, animal and environmental communities	Determine trends from quantitative and qualitative data the health of the human, animal and environmental communities	Identify and resolve gaps in data the health of the human, animal and environmental communities
Competency 2 Implement policies and programs in collaboration with governmental and community organizations to support One Health			
Sub-Competency 2.01 Understand the interrelationships among government authorities, policymakers, industry and researchers related to implementation of One Health programs			
Describe the interrelationships among government authorities, policymakers, industry and researchers related to implementation of One Health programs	Contribute to interrelationships among government authorities, policymakers, industry and researchers related to implementation of One Health programs	Manage the interrelationships among government authorities, policymakers, industry and researchers related to implementation of One Health programs	Develop and maintain interrelationships among government authorities, policymakers, industry and researchers related to implementation of One Health programs
Sub-Competency 2.02 Develop OH programs, policies and services in collaboration with governmental and community organizations			
Describe OH policy in collaboration with governmental and community organizations	Contribute to OH policy in collaboration with governmental and community organizations	Develop OH policy in collaboration with governmental and community organizations	Select OH policy in collaboration with governmental and community organizations from implementation
Sub-Competency 2.03 Implement programs, policies and services in collaboration with governmental and community organizations to support One Health			
Describe implementation strategies for programs, policies and services in collaboration with governmental and community organizations to support One Health	Apply implementation strategies for programs, policies and services in collaboration with governmental and community organizations to support One Health	Manage implementation strategies for programs, policies and services in collaboration with governmental and community organizations to support One Health	Develop implementation strategies for programs, policies and services in collaboration with governmental and community organizations to support One Health
Sub-Competency 2.04 Evaluate programs, policies and services in collaboration with governmental and community organizations to support One Health			
Collect data for evaluation of in collaboration with governmental and community organizations to support One Health	Analyze evaluation data on programs, policies and services in collaboration with governmental and community organizations to support One Health	Provide feedback on based on evaluation data on programs, policies and services in collaboration with governmental and community organizations to support One Health	Re-design programs, policies and services in collaboration with governmental and community organizations to support One Health based on evaluation data
Competency 3 Engage communities in programs to improve OH systems			
Sub-Competency 3.01 Communicate effectively with communities to obtain input and feedback on OH policies and programs			
Apply communication protocols and strategies form	Manage communication protocols and strategies form	Develop communication protocols and strategies form	Evaluate communication protocols and strategies form

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
effectively with communities to obtain input and feedback on OH policies and programs	effectively with communities to obtain input and feedback on OH policies and programs	effectively with communities to obtain input and feedback on OH policies and programs	effectively with communities to obtain input and feedback on OH policies and programs
Sub-Competency 3.02 Incorporate a variety of approaches to improving OH systems that respect diverse values, beliefs and cultures			
Implement strategies for incorporating diverse values, beliefs, and cultures into OH system development	Manage strategies for incorporating diverse values, beliefs, and cultures into OH system development	Develop strategies for incorporating diverse values, beliefs, and cultures into OH system development	Evaluate strategies for incorporating diverse values, beliefs, and cultures into OH system development
Sub-Competency 3.03 Advocate for communities to ensure delivery of resources and conditions to improve OH systems			
Describe strategies for advocating communities to ensure delivery of resources and conditions to improve OH systems	Implement strategies to advocating communities to ensure delivery of resources and conditions to improve OH systems	Manage strategies to advocating communities to ensure delivery of resources and conditions to improve OH systems	Develop strategies to advocating communities to ensure delivery of resources and conditions to improve OH systems
18. Domain: Surveillance			
Competency 1 Function of surveillance: recognize the function of lab-based surveillance			
Describe the importance of lab-based surveillance	Explain the integration of public health lab testing into broader surveillance programs	Ensure selected lab testing and reporting procedures are aligned with surveillance activities and program requirements	Oversee the policies, processes, and procedures that ensure lab data will support public health surveillance activity and program requirements
Competency 2 Notification rules and regulations: comply with national and jurisdictional rules and regulations regarding notifiable results			
Describe notification rules and regulations	Report data to leadership/policy makers	Manage the approval and communication of public health surveillance results	Contribute to determination of national, state, and local notification conditions
Competency 3 Surveillance testing: perform outbreak or exposure detection			
Sub-Competency 3.01 Develop surveillance testing systems			
Describe test sample collection, storage, and analytical requirements	Identify the functional requirements of surveillance testing protocols	Create surveillance testing protocols that include functional requirements	Direct development and modifications to surveillance testing systems based on jurisdictional guidance and analytical capabilities
Sub-Competency 3.02 Engage in outbreak or exposure event detection			
Describe at least one definition of an outbreak or exposure event	Inform supervisor of potential outbreak or exposure event	Report potential outbreak or exposure events to key stakeholders	Contribute to the modification of outbreak or exposure event recognition processes or definitions
Sub-Competency 3.03 Test for outbreak or exposure events			
Follow sample prioritization schema for testing during an outbreak or exposure event	Ensure that outbreak or exposure event samples are prioritized according to schema	Report outbreak or exposure event testing results to key stakeholders	Represent the organization in After Action Reviews for outbreak or exposure events

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
Competency 4 Response to critical surveillance event: respond to critical surveillance events			
Sub-Competency 4.01 Critical event planning			
Describe critical event response processes and procedures related to surveillance	Apply critical event processes and procedures related to surveillance	Evaluate plans and After Action Review findings following critical events	Modify the policies, processes, and procedures for critical surveillance events based on results of exercises or actual events
Sub-Competency 4.02 Respond to critical event			
Describe own critical event response duties related to surveillance	Manage resources required to respond to critical events	Implement the critical event response plan	Oversee the activation and termination of the critical event response plan
Sub-Competency 4.03 Coordinate critical event response			
Describe the need to coordinate priorities	Communicate priorities to staff and management team	Coordinate activities during critical events to align with identified priorities	Ensure implementation of response plans during critical events
Sub-Competency 4.04 Develop new testing capabilities			
Identify when current testing capabilities do not exist to test an analyte or organism	Apply technical knowledge to implement new testing capabilities	Develop plans to address testing capabilities for a specific new organism or analyte during critical surveillance events	Determine the overall strategy for development of new testing capabilities during critical surveillance events
Competency 5 Information for surveillance: recognize vital information needed for surveillance			
Sub-Competency 5.01 Collect demographic information			
Enter demographic information that is necessary to carry out surveillance activities	Communicate the required demographic information to submitters	Ensure submission of crucial demographic information by submitters	Determine demographic information fields required in informatics systems, requisition forms, and reports
Sub-Competency 5.02 Collect sample information			
Enter sample information that is necessary to carry out surveillance activities	Monitor the capture of sample information	Ensure collection of sample information	Determine policies, processes, and procedures for sample information collection based on jurisdictional requirements and guidelines
Competency 6 Data analysis: analyze data from surveillance			
Describe surveillance data analysis methods	Analyze surveillance data	Interpret surveillance data	Develop standards for data analysis and for interpretation of surveillance data
Competency 7 Data management: manage public health surveillance data using secure data management systems			
Sub-Competency 7.01 Conduct data collection			
Conduct data entry	Determine validity and reliability of data collection instruments and methods	Ensure data collection system adheres to organization, local, and national standards	Coordinate modifications to data collection systems using state and national guidance and methods

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
Sub-Competency 7.02 Maintains data storage and retrieval			
Use secure and stable data storage and retrieval systems	Ensure that the design of storage and retrieval databases include the necessary variables and data dictionary	Develop secure and stable data storage and retrieval systems, including creating new variables as necessary to support analysis of data	Develop standards for secure and stable data storage and retrieval
Competency 8 Recognition of significant results: recognize significant results in surveillance data			
Sub-Competency 8.01 Monitors significant values and results			
Adhere to policies and procedures to verify significant results	Report significant results with interpretation to management team and customers	Monitor significant results to ensure staff compliance with policies for reporting	Develop plans with customers to identify significant results in the population or environment
Sub-Competency 8.02 Identify Trends in data			
Provide trend results	Identify trends in surveillance data	Explain trends in surveillance data to leadership/managers and customers	Evaluate capabilities based on trend data to address customer needs and public health issues
Competency 9 Partnerships: maintain partnerships to conduct surveillance			
Sub-Competency 9.01 Manages multidisciplinary teamwork			
Communicate approved information to other institutions	Implement the multi-disciplinary surveillance communication plan	Manage the multi-disciplinary surveillance communication plan	Develop a multi-disciplinary surveillance communication plan
Sub-Competency 9.02 Support education and solicit feedback for partners			
Explain sample requirements and surveillance procedures	Guide partners in selection of surveillance methods, data collection, and evaluation	Evaluate effectiveness and efficiency of surveillance processes and procedures between organization and partners	Develop surveillance policies, processes, and procedures with partners
Competency 10 Dissemination of data: disseminate data relevant to the audience			
Describe importance and use of oral and written communication in presenting surveillance and monitoring data	Report surveillance and monitoring data orally or in writing to managers/policy makers and epidemiologists	Explain surveillance and monitoring data orally or in writing to external stakeholders	Synthesize surveillance and monitoring data orally and in writing for national and international audiences for policy decision-making purposes
19. Domain: Implementation Sciences			
Competency 1 Stakeholders and implementation team: Inspire stakeholders and implementation team			
Explain the significance of implementation sciences	Develop an implementation plan for using implementation sciences, and adapting intervention strategies to their settings	Engage multi-discipline team and stakeholders and use evidence-based data, and intervention strategies that improve system and capacity	Promote and oversee implementation sciences for sustainable improvement of system using evidence-based information
Competency 2 Evidence to inform implementation: Use evidence and theory to implement strategies			
Explain theory and methods of implementation sciences	Apply technical knowledge of implementation science to	Develop plans to address gaps and root causes for a specific	Determine the overall strategy for development of new

BEGINNER	INTERMEDIATE	ADVANCED	EXPERT
	identify root causes and possible interventions	program and healthcare services	testing capabilities during critical surveillance events
Competency 3 Assess and monitor: understand the system, context, and culture			
Understand evidence-based approaches in clinical practices and public health programs	Identify evidence-based strategies for addressing gaps in a public health program or healthcare services	Monitor evidence-based strategies to improve public health programs or healthcare services based on the context and culture	Design important directions and efforts to maximize the impact of implementation strategies or interventions
Competency 4 Dissemination: Leverage opportunities and encourage evidence-based decision making			
Sub-Competency 3.01 Review feasibility of using targeted evidence-based interventions			
Explain how to review and identify effective interventions and implementation processes	Discuss the scientific and technical evidence-based practices and recommendations	Analyze trends and results of evidence-based interventions, and sustainable implementation strategies	Interpret and use data/results for policy and/or procedure change to ensure prioritized scientific strategies are implemented.
Sub-Competency 3.02 Prioritize and adapt successful interventions			
Describe the current implementation strategies supported by research, evidence-based best practices and recommendations	Discusses application and challenges of implementing scientific practices and experiences	Plan for enhancing scientific practices and experiences of public health, and intervention sustainability	Develop policies, processes, and procedures that ensure effective public health program or healthcare services

OHW EVALUATION TOOL FOR GENDER DOMAIN LEVELS 1-4

Gender and One Health Evaluation Methods and Tools

Level 1: Reaction

Questionnaire: Satisfaction with Training in Gender and One Health¹⁸¹⁹

Please rate how well each of the training goals was met. Use a scale from one to four (1 to 4) with one (1) being the lowest and four (4) being the highest.

- | | |
|---|--|
| 1. Participants are more effective in their disciplines by being aware of gender dynamics and applying gender sensitive approaches to emerging pandemic prevention, disease control, surveillance and response. | |
| 2. Participants have the skills and knowledge to be effective agents of gender responsive One Health approaches. | |
| 3. Participants become transformative agents by promoting gender equality and equity in all aspects of their work and sharing this information with others. | |
| 4. Participants become gender trainers, helping to incorporate gender sensitive indicators and assessment tools in their courses as well as sharing information with other colleagues. | |

Please provide additional feedback on the course by answering the questions below.

Were the workshop materials and facilitation clear and easy to understand?

Please tell us what you found most useful in the workshop and why.

How will you use the knowledge and skills gained from the workshop in your work?

What types of follow-up (e.g., technical assistance) would be helpful to you?

How might we improve the workshop in the future?

Additional comments or suggestions:

¹⁸ OCHEA, Gender and One Health Goals of the Training, <https://airtable.com/tbl729wTU9hZmGC7/viwAAAeWuPUPNIDk8?blocks=hide>

¹⁹ IGWG, USAID, 2017, Participant Evaluation Form, <https://www.igwg.org/wp-content/uploads/2017/05/EvaluationForm.pdf>

Level 2: Learning

2.1 Self-Assessment: Knowledge and Skill in Gender and One Health²⁰

Self-evaluate your competency in Gender and One Health on a scale of 1 to 4 based on perceived knowledge and skill	
1 = None: I am unaware or have very little knowledge of the skill	
2 = Aware: I have heard of, but have limited knowledge or ability to apply the skill	
3 = Knowledgeable: I am comfortable with my knowledge or ability to apply the skill	
4 = Proficient: I am very comfortable, am an expert, or could teach this skill to others	
NR = Not relevant to my role	
To what degree are you able to effectively...	
Gender Awareness	
1. Identify basic gender principles and related concepts including sex, gender, gender roles, equity, equality, and life cycle in relation to emerging pandemic threats. (B)	
2. Contemplate the impact of cultural beliefs about gender and the impact of those beliefs on One Health and access to health care in emerging pandemic threats. (I)	
3. Apply gender sensitive approaches to address gender dynamics in response to emerging pandemic threats. (A)	
4. Advocate and promote gender equality and equity in response to emerging pandemic threats. (E)	
Gender Analysis	
5. Identify basic principles and related concepts of gender and emerging pandemic threat epidemiology, disease transmission, and the response cycle (preparation, detection, response, and evaluation). (B)	
6. Utilize gender analysis tools in emerging pandemic threat disease surveillance, response, prevention and control. (I)	
7. Analyze how gender impacts and is impacted by emerging pandemic threats through conducting gender analysis and systemic monitoring and evaluation. (A)	
8. Report and use gender-relevant lessons learned including gender best practices in emerging pandemic threats and resources to address those gaps and apply findings for subsequent program adaptation. (E)	
Gender-Sensitive Healthcare	
9. Identify relevant Sex and Gender Specific Health epidemiology, pathophysiology, clinical presentation, and therapeutic response in relation to emerging pandemic threats (B)	
10. Apply sex and gender specific health considerations in clinical decision making and patient care in response to emerging pandemic threats (I)	
11. Incorporate sex and gender specific health in scientific inquiry and research design in response to emerging pandemic threats (A)	
12. Teach sex and gender specific health information to others (peer health professionals or patients) in relation to emerging pandemic threats (E)	
Gender-Sensitive Health Education	
13. Recognize the impacts of gender sensitive interdisciplinary health education for responding to emerging pandemic threats. (B)	
14. Integrate gender and EPT into healthcare education at an intermediate level by including gender and EPT in a lecture series or guest lecture (I)	
15. Integrate gender and EPT into healthcare education at an advanced level by incorporating gender and EPT into curriculum and including specialized certificate programs (A)	

16. Integrate gender and EPT into healthcare education at an expert level by incorporating gender and EPT into curriculum for interprofessional health education and exports expertise to national level	
Gender-Sensitive Programs	
17. Recognize the impacts of gender sensitive programming for responding to emerging pandemic threats. (B)	
18. Develop Gender Sensitive programs that adapts to gender norms, work around existing gender differences and inequalities to ensure equitable allocation/services/support aligned with the pre-existing gender differences, structures, systems, and power divisions in society. (I)	
19. Develop Gender Responsive programs that challenge inequitable gender norms and respond to the different needs and constraints of individuals based on their gender and sexuality, open space for discussing, challenging, and engaging with inequitable gender structures, systems, divisions, and power relations. (A)	
20. Develop Gender Transformative programs that change inequitable gender norms and relations to promote equality, demonstrating both the ambition to transform gender and the resources, willingness and capacity to institutionalize transformative programming. (E)	
Gender-Sensitive Policies	
21. Recognize the impacts of gender sensitive policies for responding to emerging pandemic threats. (B)	
22. Implement gender policies that attempt to target both women and men effectively, working within existing gender divisions of resources and responsibilities. (I)	
23. Develop gender specific policies that respond to gender specific needs, working within existing gender divisions of resources and responsibilities. (A)	
24. Advocate and ensure implementation of gender redistributive policies intended to transform existing distributions to create a more balanced relationship between men and women. (E)	
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 24 and enter the result here)	

Comments:

2.2 Pre-Post Test: Knowledge and Attitude in Gender and One Health²¹

Knowledge²²

Please complete the multiple choice questions below to assess knowledge of Gender and One Health.

1. Socially constructed gender roles and identities affect vulnerability to and experiences of an outbreak.
 - a. True
 - b. False

21 UNWOMEN, 2018, evaluation tool for training for gender equality, [https://www.dropbox.com/preview/OHW-NG%20\(shared\)/3.%20Competency%20Framework/Evaluation%20Tools/Gender/Evaluation%20Tool_Training%20Gender%20Equality_05-02-18%20LA%20\(1\).pdf?role=personal](https://www.dropbox.com/preview/OHW-NG%20(shared)/3.%20Competency%20Framework/Evaluation%20Tools/Gender/Evaluation%20Tool_Training%20Gender%20Equality_05-02-18%20LA%20(1).pdf?role=personal)

22 UNWOMEN, 2018, evaluation tool for training for gender equality, [https://www.dropbox.com/preview/OHW-NG%20\(shared\)/3.%20Competency%20Framework/Evaluation%20Tools/Gender/Evaluation%20Tool_Training%20Gender%20Equality_05-02-18%20LA%20\(1\).pdf?role=personal](https://www.dropbox.com/preview/OHW-NG%20(shared)/3.%20Competency%20Framework/Evaluation%20Tools/Gender/Evaluation%20Tool_Training%20Gender%20Equality_05-02-18%20LA%20(1).pdf?role=personal)

2. Disaggregating data by sex during outbreak investigation and response analysis is important for identifying:
 - a. Difference in infection rates between men and women
 - b. Difference in mortality rates between men and women
 - c. Biological and social factors contributing to outbreak
 - d. All of the above

3. Higher infection rates among women during outbreaks may be attributed to
 - a. Women's social responsibilities as caregivers
 - b. Women's weaker immune system in relation to men
 - c. Wrong data. Men and women are infected at equal rates

4. Inequalities between men and women is a result of
 - a. Special abilities that men have and women do not have.
 - b. Power imbalance between men and women.
 - c. Biological differences between men and women.

5. All human rights are equally important because
 - a. One right cannot be fulfilled without other rights.
 - b. They are not related and not connected.
 - c. Governments have said so.

6. Violence Against Women and Girls is
 - a. An effective way to correct behaviors.
 - b. Nonexistent in developed countries.
 - c. One of many acts that keep a woman or a girl under the control of others.

7. National laws and policies that allow only sons to inherit properties is an example of
 - a) Institutional violence against women and girls.
 - b) Discrimination.
 - c) All of the above

8. Women healthcare workers often make less than men and are unfairly compensated and supported when caring for the ill during outbreaks.
 - a. True
 - b. False

9. Who traditionally makes decisions about outbreak response?
 - a. Women
 - b. Men

10. How can women's sexual and reproductive health needs be met during outbreaks?
 - a. ensure pregnant women have access to care
 - b. ensure contraception is readily available
 - c. all of the above

Attitudes²³

Opinion	Agree	Disagree
1. Resources should be diverted to outbreak response at the expense of sexual and reproductive health		
2. Women's role is to be caretakers in society and women should care for the ill during outbreaks even at risk to their own health		
3. A woman should not move out of the domestic sphere. Her role is at home.		
4. Distrust in the healthcare system among women may be due to ways women have been mistreated by male healthcare providers in the past.		
5. Gender equality threatens culture, traditions, and identity. Gender roles should remain as they are.		
6. Giving rights to women takes away rights from men.		
7. Men should make the decisions in outbreak response. A man's role is to be the decision maker in society.		
8. Women should have the right to choose to start a family.		
9. Women who are sexually assaulted are usually to blame.		
10. Effective outbreak response should include data analysis disaggregated by sex		

²³ UNWOMEN, 2018, evaluation tool for training for gender equality, [https://www.dropbox.com/preview/OHW-NG%20\(shared\)/3.%20Competency%20Framework/Evaluation%20Tools/Gender/Evaluation%20Tool_Training%20Gender%20Equality_05-02-18%20LA%20\(1\).pdf?role=personal](https://www.dropbox.com/preview/OHW-NG%20(shared)/3.%20Competency%20Framework/Evaluation%20Tools/Gender/Evaluation%20Tool_Training%20Gender%20Equality_05-02-18%20LA%20(1).pdf?role=personal)

Level 3: Behavior

Direct Observation: Supervisor Observation of Behavior in Gender and One Health²⁴²⁵²⁶

Directly observe demonstrated competency in Gender and One Health on a scale of 1 to 4 based on frequency of behavior and independence of performance	
5. None: Behavior is not demonstrated and/or task is not performed.	
6. Developing: Behavior is demonstrated occasionally and/or task is performed with supervision.	
7. Competent: Behavior is demonstrated frequently and/or task is performed independently.	
8. Mastery: Behavior is demonstrated consistently and/or task is performed and taught to others.	
NR = Not relevant to role	
To what degree does the learner demonstrate...	
Gender Awareness	
1. Identify basic gender principles and related concepts including sex, gender, gender roles, equity, equality, and life cycle in relation to emerging pandemic threats. (B)	
2. Contemplate the impact of cultural beliefs about gender and the impact of those beliefs on One Health and access to health care in emerging pandemic threats. (I)	
3. Apply gender sensitive approaches to address gender dynamics in response to emerging pandemic threats. (A)	
4. Advocate and promote gender equality and equity in response to emerging pandemic threats. (E)	
Gender Analysis	
5. Identify basic principles and related concepts of gender and emerging pandemic threat epidemiology, disease transmission, and the response cycle (preparation, detection, response, and evaluation). (B)	
6. Utilize gender analysis tools in emerging pandemic threat disease surveillance, response, prevention and control. (I)	
7. Analyze how gender impacts and is impacted by emerging pandemic threats through conducting gender analysis and systemic monitoring and evaluation. (A)	
8. Report and use gender-relevant lessons learned including gender best practices in emerging pandemic threats and resources to address those gaps and apply findings for subsequent program adaptation. (E)	
Gender-Sensitive Healthcare	
9. Identify relevant Sex and Gender Specific Health epidemiology, pathophysiology, clinical presentation, and therapeutic response in relation to emerging pandemic threats (B)	
10. Apply sex and gender specific health considerations in clinical decision making and patient care in response to emerging pandemic threats (I)	
11. Incorporate sex and gender specific health in scientific inquiry and research design in response to emerging pandemic threats (A)	
12. Teach sex and gender specific health information to others (peer health professionals or patients) in relation to emerging pandemic threats (E)	
Gender-Sensitive Health Education	
13. Recognize the impacts of gender sensitive interdisciplinary health education for responding to emerging pandemic threats. (B)	

²⁴ Academic health council, Interprofessional collaborator assessment rubric, <file:///C:/Users/janel/Downloads/ICAR.pdf>

²⁵ Public health nursing competency evaluation tool, <https://www.nursing.umn.edu/sites/nursing.umn.edu/files/competencies-for-public-health-nursing-practice-instrument.pdf>

²⁶ Clinical skills performance evaluation tool, http://www.ast.org/uploadedFiles/Main_Site/Content/Educators/ClinPerf_ClinEval1.pdf

14. Integrate gender and EPT into healthcare education at a intermediate level by including gender and EPT in a lecture series or guest lecture (I)	
15. Integrate gender and EPT into healthcare education at an advanced level by incorporating gender and EPT into curriculum and including specialized certificate programs (A)	
16. Integrate gender and EPT into healthcare education at an expert level by incorporating gender and EPT into curriculum for interprofessional health education and exports expertise to national level	
Gender-Sensitive Programs	
17. Recognize the impacts of gender sensitive programming for responding to emerging pandemic threats. (B)	
18. Develop Gender Sensitive programs that adapts to gender norms, work around existing gender differences and inequalities to ensure equitable allocation/services/support aligned with the pre-existing gender differences, structures, systems, and power divisions in society. (I)	
19. Develop Gender Responsive programs that challenge inequitable gender norms and respond to the different needs and constraints of individuals based on their gender and sexuality, open space for discussing, challenging, and engaging with inequitable gender structures, systems, divisions, and power relations. (A)	
20. Develop Gender Transformative programs that change inequitable gender norms and relations to promote equality, demonstrating both the ambition to transform gender and the resources, willingness and capacity to institutionalize transformative programming. (E)	
Gender-Sensitive Policies	
21. Recognize the impacts of gender sensitive policies for responding to emerging pandemic threats. (B)	
22. Implement gender policies that attempt to target both women and men effectively, working within existing gender divisions of resources and responsibilities. (I)	
23. Develop gender specific policies that respond to gender specific needs, working within existing gender divisions of resources and responsibilities. (A)	
24. Advocate and ensure implementation of gender redistributive policies intended to transform existing distributions to create a more balanced relationship between men and women. (E)	
Total Score (Add all scores and enter total here)	
Average Total (Divide the "Total Score" by 24 and enter the result here)	

4. Level 4: Results

4.1 Program Evaluation Checklist: Program Quality in Gender and One Health²⁷

Score the program on a scale of 1-4 for achievement of integrating gender into programs responding to emerging pandemic threats.			
1. Neutral	2. Sensitive	3. Responsive	4. Transformative
Works with gender norms in response to emerging pandemic threats. Reinforces and may take advantage of pre-existing gender	Adapts to gender norms in response to emerging pandemic threats. Works around existing gender differences and inequalities to ensure equitable	Challenges inequitable gender norms in response to emerging pandemic threats. Responds to the different needs and	Changes inequitable gender norms and relations to promote equality in response to emerging pandemic threats. Demonstrates

²⁷ CARE, 2019, Gender Marker Self-Assessment Program Quality Tool, [https://www.dropbox.com/home/OHW-NG%20\(shared\)/3.%20Competency%20Framework/Literature%20review/Gender/Gender%20Evaluation%20Strategies%20and%20Tools/Organizational?preview=CARE_Gender-Marker-Guidance_new-colors1.pdf](https://www.dropbox.com/home/OHW-NG%20(shared)/3.%20Competency%20Framework/Literature%20review/Gender/Gender%20Evaluation%20Strategies%20and%20Tools/Organizational?preview=CARE_Gender-Marker-Guidance_new-colors1.pdf)

inequitable structures, systems, and divisions in society relating to gender. Does not consider how gender roles and relations can impede the achievement of programming outcomes, or how programming can negatively affect gender roles and relations.	allocation/services/support aligned with the pre-existing gender differences, structures, systems, and power divisions in society.	constraints of individuals based on their gender and sexuality, open space for discussing, challenging, and engaging with inequitable gender structures, systems, divisions, and power relations.	both the ambition to transform gender and the resources, willingness and capacity to institutionalize transformative programming in response to emerging pandemic threats.
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Comments:

4.2 Institutional Performance Checklist: Health Education Institution Performance in Gender and One Health²⁸

Score the Education Institution on a scale of 1-4 for Institutional Readiness for Interprofessional Sex and Gender Specific Women's Health Education in Response to Emerging Pandemic Threats	
5. Basic	Institutions at this stage include women's health education in a limited fashion, often focusing solely on reproductive health. There are minimal or no interdisciplinary sex- and gender-specific health programs within the institution's health sciences schools or colleges.
6. Mid-level	Institutions at this stage have expanded women's health education outside of the reproductive arena. The curriculum includes sex- and gender-specific health education incorporated into more than 50 percent of the degree curriculum and, when applicable, clinical women's health education expands outside of the Obstetrics and Gynecology Department. Students might have an option to choose an elective in women's health. These institutions may have a designated NIH ORWH Women's Health Center of Excellence (COE) or Clinical Center of Excellence (CCOE).
7. High-level	Institutions at this stage have integrated women's health education throughout the 4-year curricula (when applicable) and into post-graduate training. The curriculum includes an awareness of sex and gender as individual variables to be integrated throughout. These institutions may host women's health fellowships, women's health residency tracks, and specialized student certificate programs in women's health.
8. Advanced	These institutions established activities to promote interdisciplinary sex- and gender-specific women's health programs, schools and colleges in addition to interprofessional education across schools/colleges. They fully integrated women's health, and sex and

²⁸ HRSA, 2013, Integrating Gender into Health Professional Education, <https://www.dropbox.com/home/OHW->

NG%20(shared)/3.%20Competency%20Framework/Literature%20review/Gender/Gender%20Articles?preview=Womens+health+interprofessional+curricula+report.+hrsa.+2014.pdf

	gender, as a curricular thread throughout all levels of health professional education. They have avoided creating stand-alone curricula or modules, choosing instead to layer sex- and gender-specific women's health into existing curricula as appropriate.
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Comments:

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OUTBREAK INVESTIGATION AND RESPONSE - LEVEL II KNOWLEDGE ASSESSMENT

Directions: You are a member of an administrative team at a rural health facility in the Democratic Republic of the Congo. Utilizing the following resources to develop an action plan for your facility in the event of an outbreak of the Ebola Virus Disease outbreak. Research additional resources to support the action plan if needed.

By completing the action plan, the learner should be able to demonstrate their ability to:

- Design a plan for preparing for an outbreak
- Conduct an outbreak investigation
- Define the roles and responsibilities of all stakeholders
- Develop methods for communicating with various stakeholder
- Develop a plan for returning to standard operating procedures

Action Plan Resources

1. [Outbreak of Ebola virus disease in the Democratic Republic of the Congo, April–May, 2018: an epidemiological study](#)
2. [Ebola Virus Disease Testing & Shipping Instructions](#)
3. [Ebola virus disease Democratic Republic of Congo: external situation report 98/ 2020](#)
4. [Ebola Virus Disease \(EVD\) Evaluation Algorithm for Hospitals*](#)
5. [Ebola \(Ebola Virus Disease\) for Clinicians](#)
6. [DRC Ebola Outbreak Crisis Update](#)
7. [Problem of the Management of Haemorrhagic Fevers: Experience of Ebola Virus Disease in the Province of North Kivu and Ituri \(DR Congo\) and the Importance of Early Diagnosis](#)
8. [2017 Outbreak of Ebola Virus Disease in Northern Democratic Republic of Congo](#)

Action Plan Step One Preparing for an Outbreak

Develop a plan for preparing for an outbreak response that includes the following:

Describe the outbreak response plan. Describe the steps for the implementation of that plan.

Describe the emergency response drills and exercises training plan that will be implemented by your healthcare facility	
Describe the key partners and their role in supporting the emergency response at your health facility.	
Key Partner	Role in Emergency Response

Action Plan Step Two Investigating an Outbreak

Develop a plan for investigating an outbreak that includes the following:

What tools will be used to monitor the outbreak?		
What samples will be collected? How will they be collected to ensure the safety of stakeholders?		
Sample Type	Collection Procedure	
What is the cause of the outbreak?		
Utilize the table below to develop a case definition		
Element	Descriptive Features	Examples
Person	Age group	
	Sex	
	Occupation	
	Exclusion criteria	
	Race	
Place	Geographic Location	
	Facility	
Time	Illness Onset	
Clinical Features	Pneumonia	

Laboratory Criteria	Cultures; serology	
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Action Plan Step Three Outbreak Response Plan

Develop a plan for responding to the outbreak that includes the following:

Describe the communication policies and guidelines for the following stakeholders.	
Intra-agency Employees	
Community	
Media	
Government	
Other Stakeholder	
Describe the procedure for managing surge capacity.	

Action Plan Step Four Returning to Normal Operating Procedures Plan

Develop plan for returning to normal operating procedures that includes the following:

Describe the plan to return to standard operating procedures. Describe the steps for the implementation of that plan.
Design a survey for obtaining stakeholder feedback.

Utilize the following rubric to assess the action plan

Criteria	1	2	3	4	Comments
Outbreak response plan	Response plan is limited, and the implementation steps are unclear	Response plan is limited but the implementation steps are clear	Response plan is clear, but it is limited in its response to various situations	Response plan explains implementation with clear steps and plans for various situations	
Emergency drills and exercises	Emergency drill and exercises do not adequately prepare stakeholders for outbreak response	Emergency drills and exercises are limited in preparing stakeholders for outbreak response	Emergency drills and exercises adequately prepare stakeholders for outbreak response	Emergency drills and exercises effectively prepare stakeholders for outbreak response	
Key partners and their roles	Identified key partners are not supportive of the outbreak and their roles are not clearly defined	Identified key partners can support the outbreak but their roles are not clearly defined.	Identified key partners can adequately support the outbreak and their roles are clearly defined.	Identified key partners can effectively support the outbreak and their roles are clearly defined	
Determining the cause of the outbreak	The cause of the outbreak is not supported by evidence.	The cause of the outbreak is supported by minimal evidence	The cause of the outbreak is supported by sufficient evidence.	The cause of the outbreak is supported by considerable evidence.	
Establishing a case definition	The case definition is not clearly defined.	The case definition is minimally defined.	The case definition is sufficiently defined.	The case definition is clearly defined.	
Collecting and testing samples	The process for collecting samples is unclear and poses risks to stakeholders.	The process for collecting samples is limited and poses a few risks to stakeholders.	The process for collecting samples is clear and poses minimal risks to stakeholders.	The process for collecting samples is clear and plans for risks to stakeholders.	
Communication policies	Communications policies are not clear or effective for any stakeholders.	Communications policies are clear and effective for some stakeholders.	Communications policies are clear and effective for most stakeholders.	Communications policies are clear and effective for all stakeholders.	
Surge Capacity	The plan for surge capacity is not clear or flexible.	The plan for surge capacity is minimally flexible and limited in strategies.	The plan for surge capacity is flexible but has limited strategies for management.	The plan for surge capacity is flexible and has creative strategies for management.	

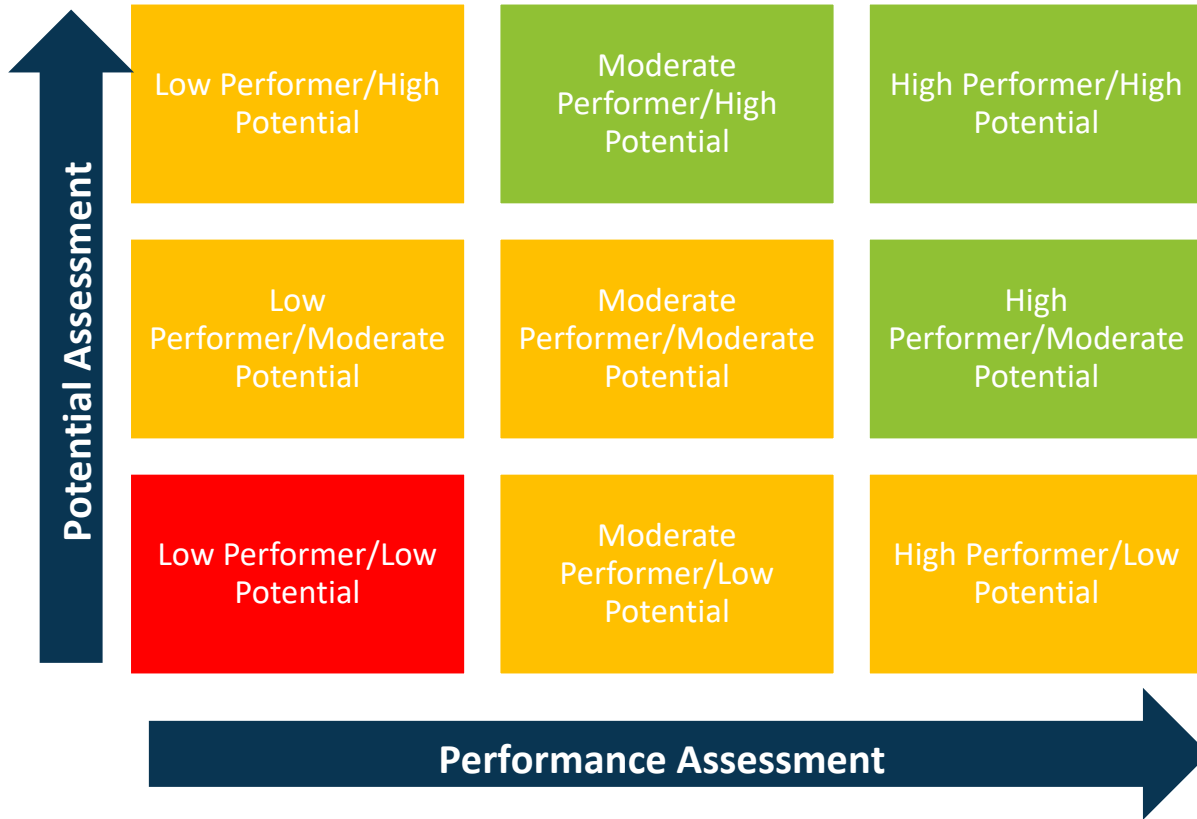
Return to standard operating procedures	Return plan is limited, and the implementation steps are unclear.	Return plan is limited but the implementation steps are clear.	Return plan is clear, but it is limited in its response to various situations	Return plan explains implementation with clear steps and plans for various situations	
Survey Design	The survey design is unclear and does not provide opportunities for stakeholder feedback.	The survey design is clear but provides limited opportunities for stakeholder feedback.	The survey design is clear and provides sufficient opportunities for stakeholder feedback.	The survey design is clear and provides ample opportunities for stakeholder feedback.	

OUTBREAK INVESTIGATION AND RESPONSE AND ONE HEALTH LEVEL THREE BEHAVIOR ASSESSMENT

The Nine Box Grid²⁹ can be used to assess an employee's performance on their daily responsibilities, meeting and achieving goals and completing the deliverables outlines in their job descriptions. It can also be used to assess an employee's potential for growth and their ability to move along the One Health capability maturation model competency framework. This behavioral assessment supports the identification of employees along a spectrum of performance and potential so as to identify any strategies or interventions needed. For example, supervisors can identify low performers who exhibit low potential and develop plans to support their improvement through targeted, competency-based interventions. Conversely, supervisors can identify high performers who exhibit high performance and high potential of provided supports such as mentoring or professional development to move them along the maturation model.

The color coding of the Nine Box Grid supports the supervisor in the identification of employees and the strategies needed to support their behavior. Employees who fall within the red category require more intensive interventions that support both their ability to meet job performance goals as well as improve their potential for growth and willingness to learn in a position. Employees who fall within the yellow category will need more minimal interventions that focus on building either their performance or potential. Employees who fall into the green category require supports or strategies that will continue to build their performance and potential to develop into possible leadership positions.

²⁹ 9 Box Toolkit: How to Create & Use the 9 Box in Succession, Karen N. Caruso, Ph.D.
<https://cdn2.hubspot.net/hubfs/91252/viaPeople%209%20Box%20Toolkit.pdf?t=1490190540420>



The rubric statements below can be used to measure an employee's competencies.

Measurements for Performance Assessment

Low	Moderate	High
Struggles to meet goals, performance expectations and complete deliverable for their position	Consistently meets goals, performance expectations and complete deliverable for their position	Exceeds goals, performance expectations and complete deliverable for their position

Measurement for Potential Assessment

Low	Moderate	High
Keeps current skills up to date, but demonstrates little effort to build new skills or apply lessons learned to increase performance.	Learns and applies new skills when the job calls for it; applies lessons learned to enhance success.	Learns and adapts quickly and applies skills and lessons learned to challenging situations.

Supervisors can assess an employee via the observational checklist below. For each competency and sub-competency, the employee's performance and potential should be rated either, L (Low), M (Moderate) or H (High). If the competency or sub-competency is not relevant to the employee's roles and responsibilities, the supervisor can put N/A. After completing the checklist, the supervisor can average the employee's score to identify where in the

grid they fall, and which types of strategies are required to support their growth along the One Health maturation model competency framework.

Competency	Performance	Potential
Preparation for outbreaks or emergency events: Review investigation and outbreak management experiences for applying best practices		
Sub-Competencies		
Prepares for outbreak/emergency event		
Engages in emergency response training		
Identifies key partners		
Executes agreements with partners		
Engages outbreak/emergency preparedness and response network		
Competency		
Outbreak Investigation: Apply steps in conducting an outbreak investigation		
Sub-Competencies		
Monitors for potential outbreaks		
Determines the cause of an outbreak		
Establishes a case definition		
Collects and tests samples		
Determines need for outbreak/emergency notification		
Competency		
Responding to outbreaks or emergency events: Use systematic approach for outbreak response		
Sub-Competencies		
Conducts situational briefings		
Manages surge capacity		
Engages outbreak emergency communication		
Competency		
Establish outbreak recovery measures: Use systematic approach to recover from outbreak and return to SOP		
Sub-Competencies		
Returns to normal operating procedures		
Obtains and incorporate stakeholder feedback		

Possible Interventions to Support Low Performance

If an employee is identified as a low performer in specific skills in the observation checklist, the supervisor can support their improvement through some of the following strategies: ³⁰

- Provide continuing professional development or education from the One Health curriculum
- Develop an action plan in collaboration with the employee
- Partner with employee on a project with an employee who is a moderate or high performer in the competencies requiring intervention
- Monitor employee performance in those skills and provided consistent feedback

³⁰ <https://www.businessnewsdaily.com/8997-performance-improvement-plan.html>

- Reassign the employee to task or duties where they exhibit greater performance

Possible Interventions to Support Low Potential

If an employee is identified as having low potential in specific skills in the observation checklist, the supervisor can support their improvement through some of the following strategies: ³¹

- Consistently acknowledge growth and achievement of targeted goals
- Provide personalized incentives that recognize growth and willingness to learn
- Provide accurate and target feedback that continues to support growth and behavior change

Possible Interventions to Improve Moderate Performance

If an employee is identified as a moderate performer in specific skills in the observation checklist, the supervisor can support their improvement through some of the following strategies:

- Provide continuing professional development or education from the One Health curriculum
- Provide opportunities for the employee to lead specific tasks within a larger project
- Allow employee to develop own goals for responsibilities and performance improvement
- Consistently monitor performance and provide specific, actionable feedback

Possible Interventions to Improve Moderate Potential

If an employee is identified as having moderate potential in specific skills in the observation checklist, the supervisor can support their improvement through some of the following strategies: ³²

- Allow employee to share their success and lessons learned with others to encourage skill sharing and leadership
- Provide employee with a mentor whose competencies are higher in areas where the employee's areas of growth

Possible Supports to Grow High Performance

If an employee is identified as a high performer in specific skills in the observation checklist, the supervisor can support their improvement through some of the following strategies:³³

- Provide continuing professional development or education from the One Health curriculum
- Provide opportunities for the employee to lead projects
- Promote employee to positions which allow them to utilize and grow their high performing competencies

Possible Supports to Grow High Potential

³¹ https://www.mindtools.com/pages/article/newTMM_80.htm

³² Waterhouse, Jennifer. (2008). Motivation in Public Management: The Call of Public Service edited by James L. Perry and Annie Hondeghem. Australian Journal of Public Administration. 67. 10.1111/j.1467-8500.2008.00605_7.x.

³³ Motivating Employees by Sharlyn J. Lauby American Society for Training and Development, 2005

If an employee is identified as having high potential in specific skills in the observation checklist, the supervisor can support their improvement through some of the following strategies: ³⁴

- Include the employee in leadership or management meetings
- Allow employee to mentor moderate or low potential employees
- Provide employee with a mentor who effectively fosters potential

Outbreak Investigation and Response and One Health Level Four Results Assessment

The following tools can be used to assess an organization's investigation and response to a One Health related outbreak.

Score the organization to response to a One Health outbreak and complete an investigation on that outbreak	
9. Basic	The organization can utilize real-time data, and scientific and clinical understanding of a disease to develop a case definition and can identify the cause of an outbreak. They have the laboratory capabilities to analyze samples and can monitor for indicators and triggers of a One Health disease outbreak.
10. Mid-level	The organization has a strategic operating plan for the allocation of human and financial resource to scale up the surveillance and monitoring of an outbreak, including collecting and testing samples, developing a case definition, and identifying a cause. They can support the management of surge capacity in the community and support key partners in the treatment and response to an outbreak.
11. High-level	The organization has a strategic operating plan that can be rapidly implemented to support surveillance, engaging key partners, and communication with communities. The organization can rapidly deploy resources to support an investigation and implement target interventions to minimize spread of the disease. The organization has relationships with key partners to support the implementation of these interventions. The organization has a clearly defined policy of outbreak communication and varied strategies to communication based on stakeholder. The organization is open to receiving stakeholder feedback and has identified policies for incorporating feedback into procedure.
12. Advanced	The organization is an identified leader in One Health disease outbreaks. The organization has a system that allows for rapid case detection and identification of the cause of the disease outbreak. They support strong surveillance systems that can monitor for clusters of outbreaks and support efficient laboratory work to identify cases. The organization develops and fosters effective and efficient relationships with other key partners to rapidly deliver response services and has a clear organizational plan for the deployment of services by themselves and key partners. The organization is a trusted member of the community and has strategic plans for clear, consistent communication based on the analysis of data and clinical understanding of disease. The organization can communicate in a culturally appropriate way that is reflective of the community they serve and incorporates the needs of the community into its response and investigation. The organization has a clear and effective policy to obtain and incorporate stakeholder feedback and implementation policies for returning to standard operating procedure.

³⁴ Ibid

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