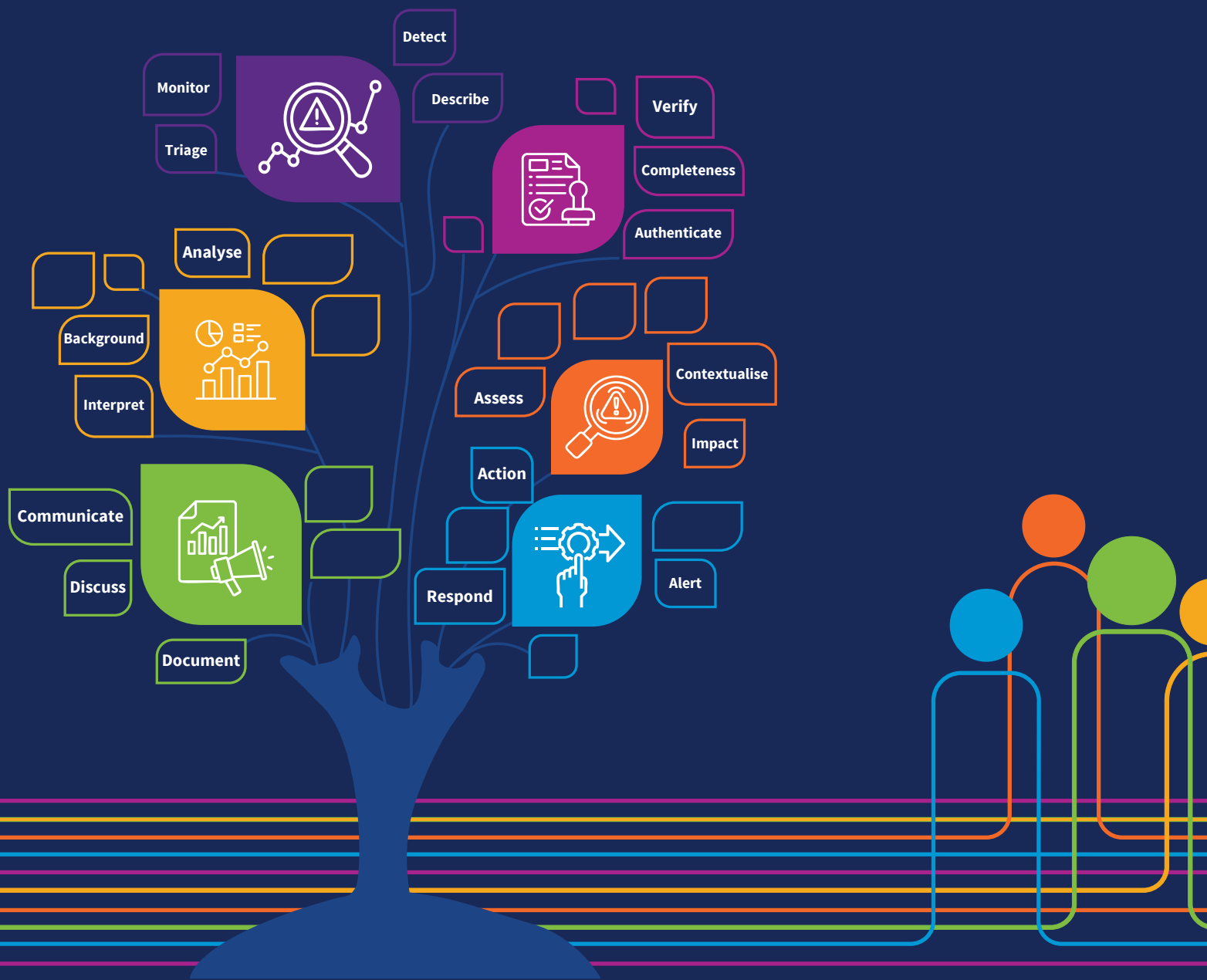


Public Health Intelligence Competency Framework



World Health Organization

HUB
Pandemic and Epidemic
Intelligence



Public Health Intelligence **Competency Framework**

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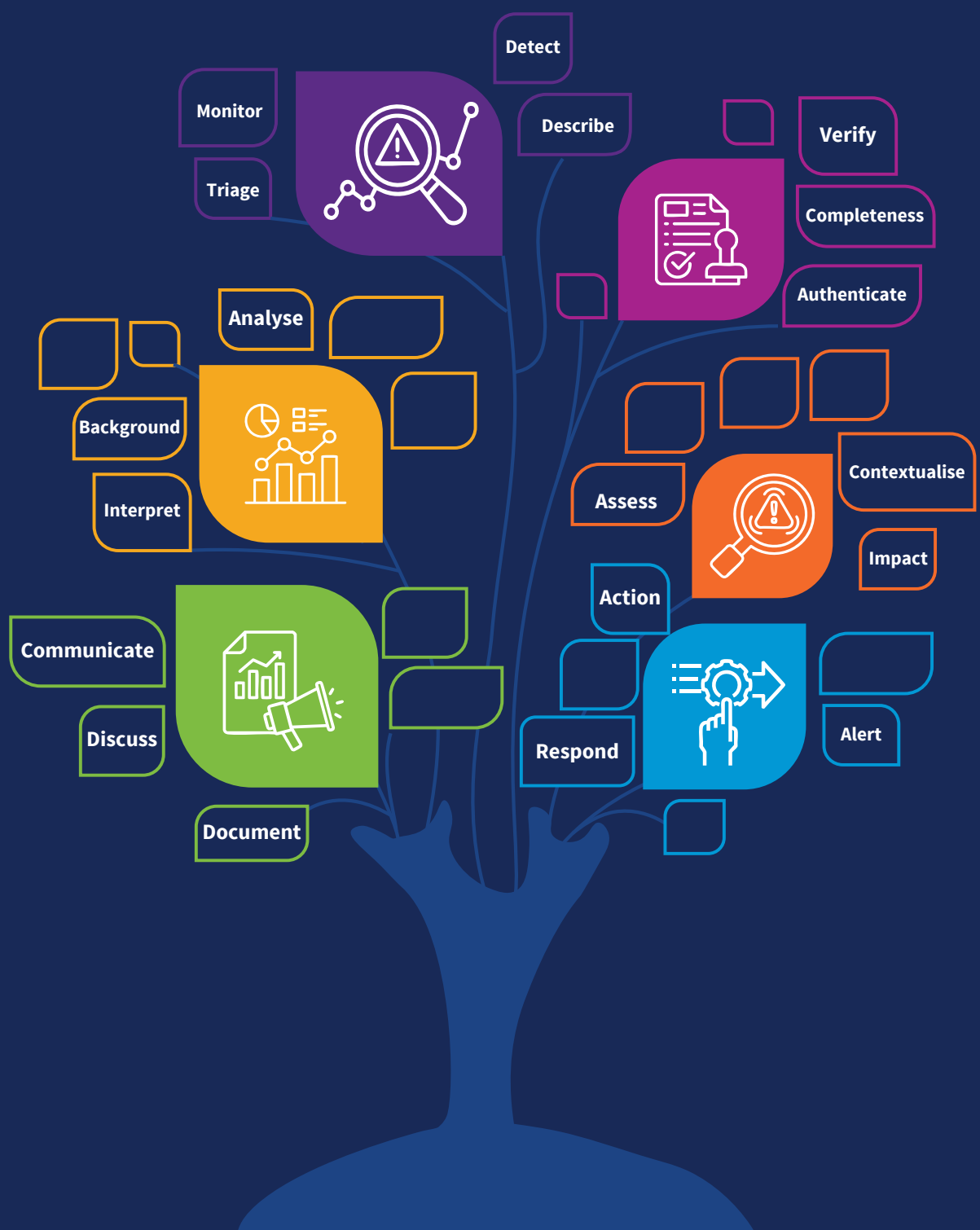
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FOREWORD

Public health systems face an ever-changing landscape shaped by emerging diseases, shifting demographics, environmental pressures and rapid advances in technology. The capacity to respond effectively in such an environment depends on a workforce that can interpret complex information, act on credible evidence and anticipate new challenges before they escalate. Building this capacity requires deliberate investment in the skills and knowledge that form the backbone of public health intelligence.

The *Public Health Intelligence Competency Framework* offers a structured approach to cultivating these skills. It defines the expertise needed for effective public health intelligence, ranging from the early detection and verification of signals, through rigorous analysis and assessment, to translating insights into policies and actions that safeguard health. In doing so, it addresses the pressing need for clear standards and guidance in this vital field of practice.

This Framework is not intended solely for specialists; it is designed to be relevant across the spectrum of public health roles, from local health officers to global policy-makers. It aligns with international best practices, complements other WHO competency frameworks, and can be adapted to different systems, hazards and contexts. Drawing on lessons from past events and anticipating the demands of future crises, the Framework integrates technical expertise with essential functional skills such as communication, critical thinking and collaboration.

The development of the Framework is the result of close collaboration between WHO Member States, academic institutions and stakeholders worldwide. We extend our sincere gratitude to all who contributed to this effort, colleagues and partners both within WHO and those across other organisations whose commitment and insights have been central to shaping this document.

By adopting and applying these competencies, public health organisations can strengthen preparedness, sharpen decision-making and foster a more agile, informed and connected workforce. In this way, the Framework serves not only as a reference but as a pathway towards a stronger, more responsive public health intelligence capacity that is ready to meet the challenges of today and tomorrow.



A handwritten signature in dark ink, appearing to read 'Chikwe Ihekweazu'.

Dr Chikwe Ihekweazu

Executive Director of the WHO Health Emergencies Programme



PREFACE

Public health intelligence is the foundation of informed decision-making in health policy and practice. It draws on a wide range of capabilities, from analysing and interpreting data to transforming evidence into clear, actionable guidance. In an age of abundant and fast-moving information, the ability to recognise what is most relevant, interpret correctly and use it to guide timely action is essential.

The *Public Health Intelligence Competency Framework* sets out the core capabilities and professional attributes needed for effective work in this field. It has been designed as a practical tool for public health professionals, educators, and organizations to guide workforce development, inform training programmes, and support recruitment, assessment, and continuing professional growth.

Developed through an extensive consultative process involving partners across the public health spectrum, the Framework complements existing WHO and partner competency frameworks, including the *Global Competency Framework for Universal Health Coverage and the Competencies for One Health Field Epidemiology (COHFE) Framework*. Its structure is adaptable to diverse public health roles, from field operations to policy-making, and to different systems, hazards, and contexts.

The competencies are organized into domains, with each domain describing specific knowledge, skills, and behaviours essential for effective practice. The document also includes guidance on applying the Framework in educational, organizational, and policy contexts. An accompanying curriculum offers a pathway to translate competencies into targeted training and capacity-building activities.

This Framework represents a shared commitment to building a capable, confident, and connected public health workforce. Strong public health intelligence capacity depends not only on technical proficiency, but also on the ability to work across disciplines, to question assumptions, and to apply sound judgement in complex and evolving situations.

As this is intended to be a living resource, it must continue to adapt to advances in science, technology, and practice, as well as to changes in how people and societies connect and interact. My hope is that it will help equip public health professionals to generate timely, relevant, and actionable intelligence, strengthening health security and improving population health in communities around the world.



A handwritten signature in black ink, appearing to read 'Philip A. Malik'.

Dr Philip AbdelMalik,
Unit Head, Intelligence Innovation and Integration
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This document was developed by a technical working group comprising professionals from the Centers for Disease Control and Prevention (CDC), the Robert Koch Institute, the Task Force for Global Health through the Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET), and the World Health Organization (WHO).

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All external experts submitted to WHO a declaration of interest disclosing potential conflicts of interest that might affect, or might reasonably be perceived to affect, their objectivity and independence in relation to the subject matter of this guidance. WHO reviewed each of the declarations and concluded that none could give rise to a potential or reasonably perceived conflict of interest related to the subjects discussed at the meeting or covered by the guidance.

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EXECUTIVE SUMMARY



Rapid identification of and response to health threats are critical for global health security. Recent major public health events have underscored the need to define essential public health intelligence (PHI) competencies to mitigate effects of such events and support countries to meet health regulation mandates. To address this need, the World Health Organization, in collaboration with global partners, has created the Public Health Intelligence Competency Framework, which aims to standardize core elements and competencies of the PHI workforce.

The development of the Framework was informed by a comprehensive landscape assessment, including literature reviews, job analyses, expert consultations and stakeholder surveys. This process identified key gaps in existing PHI training resources and helped shape the structure of the Framework.

The Framework is organized into four technical domains – detect, verify, analyse and assess – with each technical domain covering core PHI competencies, and a functional domain focused on collaborative information exchange. These domains align with an all-hazards and multisectoral One Health approach, recognizing the interconnectedness of human health, animal health and the environment. The Framework is accompanied by the Public Health Intelligence Curriculum, which is designed to support the development of PHI competencies, knowledge, skills and abilities for PHI professionals in the context of health threats.

The primary intended users of the Framework include organizations involved in public health surveillance, emergency response, policy-making, education and workforce development. Employers across sectors can use the Framework for hiring and performance evaluations. Regulatory agencies may apply the Framework to accreditation and licensing. Educators and trainers can integrate the Framework into preservice, in-training and in-service curricula. The PHI workforce can leverage the Framework to assess their skills and identify areas for improvement.

The Framework is adaptable to various organizational and regional contexts, ensuring relevance across different professional and geographical settings. As a dynamic and evolving resource, it is intended to be updated regularly to reflect advancements in PHI, emerging public health threats and evolving best practices. By providing a structured approach to PHI training and competency development, the Framework aims to enhance global public health preparedness and response capabilities. Strengthening PHI capacity through standardized competencies will ultimately contribute to improved health security, better coordination among stakeholders, and more effective decision-making in routine public health operations and emergency responses.



GLOSSARY

The following terms are defined within the context of Public Health Intelligence and may differ in other contexts.

Actionable insights: findings from interpretation or preliminary assessment of data or information from multiple sources that lead to actions such as decision-making.

Alert: a signal that (i) has been verified to be an event, (ii) has been assessed and (iii) requires an intervention and collective action (an investigation, a response or a communication with partners or the public) (1). See also **Event, Signal** and **Verification**).

Alert threshold: a predefined criterion or set of criteria (such as the number of cases of a disease) that, when met or exceeded, triggers an alert, signifying a public health risk requiring response and action from authorities (1).

All hazards approach: an approach to the management of the entire spectrum of public health events based on the recognition that there are common elements and common capacities required in the management of these events, including in the responses to almost all emergencies (1).

Artificial intelligence (AI): a branch of computer science, statistics and engineering that uses algorithms or models to perform tasks and exhibits behaviours such as learning, making decisions and making predictions (2).

Attitude: a person's feelings, values and beliefs that influence their behaviour and the performance of tasks (3).

Behaviour: observable conduct towards other people or tasks that expresses a competency. Behaviours are measurable in the performance of tasks (3).

Capability: the potential and capacity of an individual to perform specific tasks. Capability involves adaptability, judgment and future-focused thinking (3). See also **Competency**.

Collaborative surveillance: the systematic strengthening of capacity and collaboration among diverse stakeholders, both within and beyond the health sector, with the goal of enhancing public health intelligence and improving evidence for decision-making. Collaborative surveillance provides the enabling environment for public health intelligence (4).

Competency: the ability of a person to integrate knowledge, skills and abilities in their performance of tasks in each context. Competencies are durable, trainable and measurable (3). Competencies are the measures of how an individual performs a capability. See also **Capability**

Competency framework: an organized and structured representation of a set of interrelated and purposeful competencies that are needed to perform a job well (3).

Detection: a process by which signals of potential public health concern are identified, recorded and preliminarily assessed (5).

Early warning, alert and response (EWAR): an organized process to rapidly detect and respond to signals during acute public health events of any origin (1).

Epidemic Intelligence: Early warning, alert and response (EWAR): an organized process to rapidly detect and respond to signals during acute public health events of any origin (1). **Event:** defined by the International Health Regulations as “a manifestation of disease or an occurrence that creates a potential for disease” (7). It may include events that are infectious, zoonotic, food safety, chemical, radiological or nuclear in origin; and that may be transmitted by persons, vectors, animals, goods or food, or through the environment. In the context of this framework (and early warning, alert and response), an event refers to a signal that has been verified (1). See also **Alert, Signal** and **Verification**

Event-based surveillance: the organised collection, monitoring, assessment and interpretation of mainly unstructured ad hoc information regarding events or hazards that may represent an acute threat to human health (8). Event-based surveillance supports public health intelligence by feeding signals from diverse sources into the intelligence process.

Global public health security: the activities required, both proactive and reactive, to minimize the danger and impact of acute public health events that endanger people's health across geographical regions and international boundaries (9).

Hazard: a process, phenomenon, or human activity that may cause loss of life, injury, or other health impacts; property damage; social and economic disruption; or environmental degradation (10). Hazards may be single, sequential, or combined in their origin and effects. Under WHO classification, hazards include natural hazards (biological, extraterrestrial, geophysical and hydro-meteorological); human induced hazards (technological and societal); and environmental hazards (environmental degradation). Hazard focuses on the source of the harm rather than its likelihood. Further descriptions and classifications of hazards have been defined by the United Nations Office for Disaster Risk Reduction (11). See also **All-hazards approach**.

Indicator-based surveillance: a routine system for collecting, analysing and interpreting data on reportable diseases. The data are structured according to case definitions (12).

Integrated surveillance: the use of unified methods to conduct surveillance for multiple public health risks (13).

International Health Regulations: a legal instrument of international law that is legally binding on 196 countries, including the 194 WHO Member States. The Regulations aim to help the international community prevent and respond to acute public health threats that have the potential to cross borders and threaten people worldwide (7).

Knowledge: the recall of specifics and universals; the recall of methods and processes; and/or the recall of a pattern, structure or setting (3).

Learning objectives: the aims that should be achieved by the end of a learning experience. Learning objectives reflect change towards a specified standard or level. Course learning objectives capture the knowledge, skills and abilities related to the subject matter of the course (3,14).

Machine learning (ML): the subset of artificial intelligence that allows computer algorithms to learn through data, without being explicitly programmed to perform a task (2).

One Health approach: an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems. The approach recognizes that the health of humans, domestic and wild animals, plants and the wider environment (including ecosystems) are closely linked and interdependent. It mobilizes multiple sectors, disciplines and communities at various levels of society to work together to foster well-being and tackle threats to health and ecosystems. It also addresses the collective need for clean water, energy and air; safe and nutritious food; action on climate change; and contributions to sustainable development (15).

Public Health Intelligence: a core public health function responsible for identifying, collecting, connecting, synthesizing, analysing, assessing, interpreting and generating a wide range of information for actionable insights; and disseminating them for informed and effective decision-making to protect and improve the health of the population (16).

Public Health Intelligence Curriculum: a document that delineates the philosophy, goals, objectives, learning experiences, instructional resources and assessments that comprise a specific educational programme. The Curriculum encompasses the organization and sequencing of content necessary to develop the knowledge, skills and abilities needed to carry out core public health intelligence functions, and advice on modifying content to target audiences and selecting learning activities and assessments to ensure training effectiveness.

Public Health Intelligence Data: data collected from a variety of sources encompassing information from human health, human non-health and non-human sectors on existing or emerging public health threats (5).

Risk: the likelihood (or probability) of a specific event occurring within a given time if a person is exposed to a threat or hazard. Risk is a quantifiable concept that often reflects the likelihood of a negative event, such as death or disease (17).

Risk assessment: a continuous process of gathering, assessing and documenting information to estimate the nature and probability to adverse effects in humans, animals or the environment following an event or exposure to a hazard. A risk assessment provides the basis to inform the actions to reduce the negative consequences of public health events through preparedness and response activities (18).

Risk assessment tool: a standardized tool used to visually evaluate and prioritize potential health hazards by categorizing them based on likelihood of occurrence and severity of impact, allowing public health officials to identify which risks require the most immediate attention and mitigation strategies (19).

Risk communication: the real-time exchange of information, advice and opinions among experts, community leaders or officials and the people who are at risk or who have a direct influence on risk mitigation due to their practices or behaviour. Risk communication ensures people and communities are aware of current threats and can be used to promote behaviours to reduce risks (18,19).

Signal: the initial detection of a potential public health event, prior to verification. Signals may consist of information or reports of cases or deaths (individual or aggregated); potential exposure of humans to biological, chemical or radio nuclear agents; or the occurrence of natural or human-induced disasters (8). Signals can be raw, not yet assessed, in verification or verified. A verified signal transitions into an event. See also **Alert, Event, and Verification**

Skill: a specific cognitive or motor ability that is typically developed through training and practice and is not context-specific (3).

Social listening: monitoring the understanding, questions, concerns, information voids, narratives, misinformation, and disinformation that circulate in web-based and offline environments (20).

Surveillance (public health surveillance): the systematic, ongoing collection, collation and analysis of data for public health purposes and the timely dissemination of public health information for assessment and public health response, as necessary (7,10).

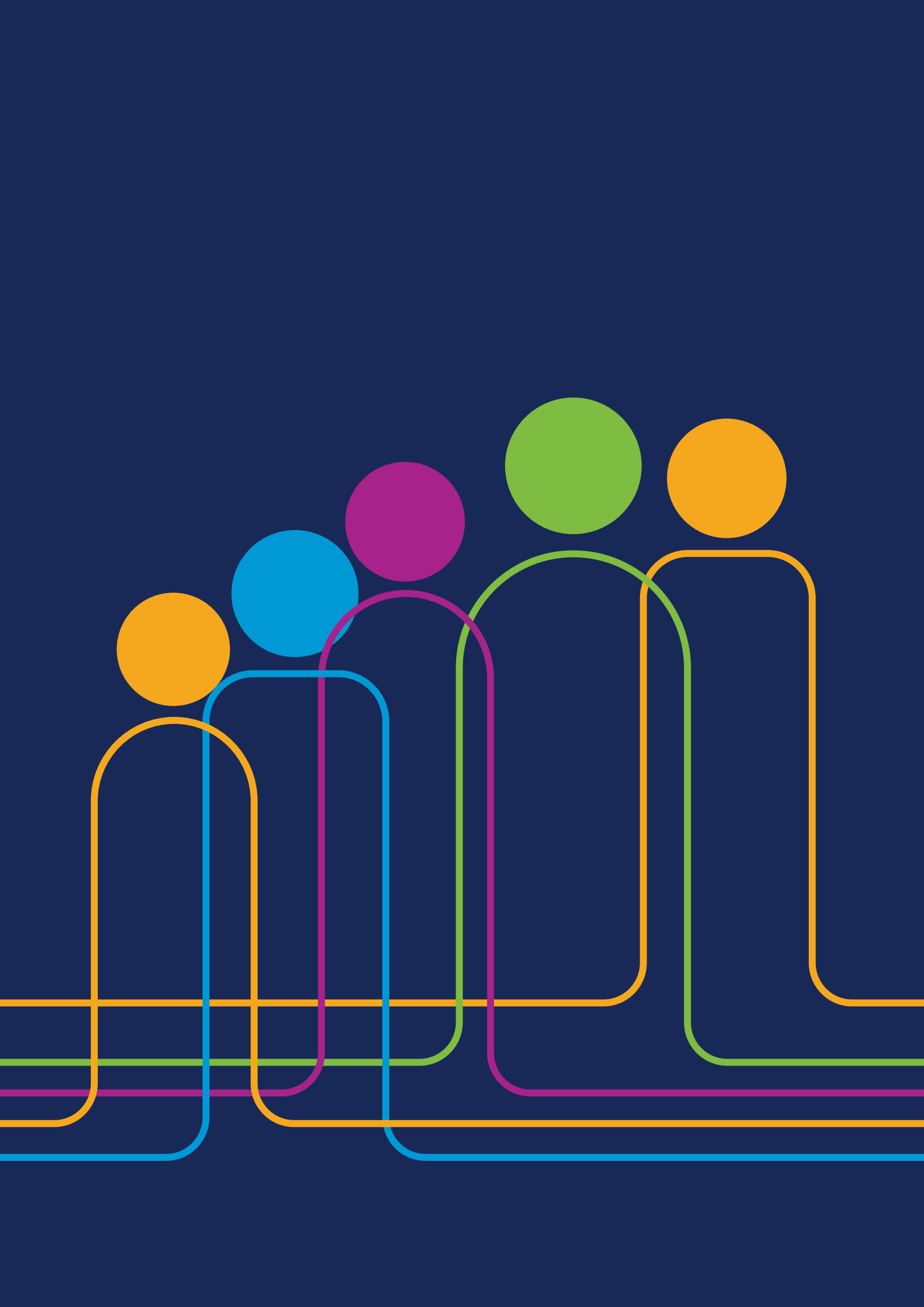
Task: an observable unit of work that draws on knowledge, skills and abilities. Tasks are time-limited, trainable and measurable (3).

Threat: a situation or development, or a combination of these, that can harm health security, as either a real or perceived danger (8). Examples include antimicrobial resistance or environmental threats such as climate change. Threats can also refer to deliberate events such as an intent to release a hazardous substance to cause harm (21).

Triage (of data and signals): the process of identifying, sorting and prioritizing data and addressing their quality issues (1).

Triangulation (of data): the process of combining and analysing public health data from multiple sources to generate a more comprehensive and accurate understanding of public health signals. This technique helps to cross-verify findings, reduce bias and identify patterns or trends that might not be evident when relying on a single data source (1,22).

Verification: confirming the authenticity, completeness and accuracy of the data, and eliminating hoaxes, false rumours and artefacts. Verification involves double-checking the primary source, integration and comparison with data from other sources, comparing with specified parameters and indicators, or performing field investigations (1). See also **Triangulation (of data)**.



INTRODUCTION

Background

The ability to rapidly identify and respond to health threats is critical to global health security. At the World Health Assembly in 1969, the International Health Regulations were adopted, providing a legal framework that requires World Health Organization (WHO) Member States to strengthen and maintain core capacities to detect, assess, notify and report public health events within their territory. The International Health Regulations have since undergone amendments and, more recently, a substantial revision, which was adopted in 2005 and entered into force in 2007 (7).

Public health intelligence (PHI) is a key component of achieving the International Health Regulations. PHI is defined as “a core public health function responsible for identifying, collecting, connecting, synthesizing, analysing, assessing, interpreting and generating a wide range of information for actionable insights; and disseminating them for informed and effective decision-making to protect and improve the health of the population” (5,16). PHI depends on timely data, comprehensive systems to collect the data, and people with the necessary skills and judgement to identify potential threats. Developing and sustaining PHI requires a team with the professional competencies to transform an abundance of raw data, from a variety of sources, into insights, information and knowledge to drive effective and confident public health decisions and actions.

It has become apparent that there is a strong need to develop an overarching competency-based framework for the PHI workforce. Ultimately, this will allow enhancement of global health emergency prevention, preparedness, response and resilience by strengthening PHI capacity, ensuring a global pool of well-trained people for PHI work in the health threat landscape.

In 2023, WHO launched the Collaborative Surveillance Framework, which was developed as a core component of the WHO Health Emergencies Programme (4). The Collaborative Surveillance Framework aims to improve PHI and decision-making by strengthening collaboration between stakeholders involved in surveillance. It introduces a conceptual model for organizations to optimize surveillance partnerships, working across sectors and disciplines, to address fragmented and insufficient capacities.

Building on the concept of multisectoral collaborations, and in collaboration with the Food and Agriculture Organization and the World Organisation for Animal Health, WHO developed the Competencies for

Public Health Intelligence (PHI) is defined as “a core public health function responsible for identifying, collecting, connecting, synthesizing, analysing, assessing, interpreting and generating a wide range of information for actionable insights; and disseminating them for informed and effective decision-making to protect and improve the health of the population” (5,16).

One Health Field Epidemiology (COHFE) Framework, which was launched in 2024 (23). The COHFE Framework defines the core One Health and sector-specific knowledge, skills and competencies for field epidemiologists. It is intended for use by existing public health and veterinary field epidemiology training programmes to design and update their curricula, or by countries or regions to set up new One Health field epidemiology training programmes.

The Public Health Intelligence Competency Framework presented in this document and the companion Public Health Intelligence Curriculum have been developed in the context of the Collaborative Surveillance Framework and the COHFE Framework, with the objective of outlining core PHI components and the essential competencies and training needed by the PHI workforce to effectively perform them, using an all-hazards and multisectoral approach. In the absence of internationally accepted PHI competencies, the Framework and the Curriculum aim to illustrate the ideal functions and tasks for effective PHI to allow for better collaboration and coordination across organizations.



Development of the Public Health Intelligence Competency Framework

The Framework was informed by a landscape assessment conducted between 2021 and 2023, which included a literature and document review, a survey of PHI experts, and consultation with subject matter experts. Development of the Framework was divided into three stages – research, drafting and revision.



Research stage

The research stage consisted of a landscape analysis of existing relevant competency frameworks and training materials to identify gaps in PHI competencies. Several resources relevant to PHI were identified and reviewed (11 competency frameworks, four curricula, five programmes, 25 courses, five workshops, one webinar series and seven toolkits or repositories of training resources). No resource closely matched the full breadth of PHI considered in this project.

The landscape analysis highlighted a clear gap in PHI training resources. No existing resource was rated as having very high relevance for PHI, and none matched the breadth of PHI activities. Most resources were rated as moderately relevant. There was high representation of applied and field epidemiology competencies, but they lacked essential elements of PHI. This helped to inform the development of the competency domains and the target audience presented here.

A stakeholder survey was also included in the research stage. A total of 55 stakeholders from a range of international PHI institutions were identified to participate in a short survey. Of these stakeholders, 26 (47%) responded and participated in the survey. The survey asked participants to share relevant PHI resources, such as curricula, training materials and job vacancy notices. Based on the survey results, a series of online focus groups and individual interviews were organized to collect more detailed input and advice on developing a PHI competency framework.

Respondents were further asked to score the importance of using information on or from 23 topics to PHI. Human health and animal health scored highest among PHI fields, with sporadic communicable diseases in humans, outbreaks of communicable diseases in humans and outbreaks of communicable diseases in animals being the most relevant core fields for PHI. Although other fields remain important for PHI, the competencies, tasks and courses presented in the Framework and the Curriculum have a strong focus in these three fields. The highest-ranked PHI functions and processes were epidemic intelligence, risk assessment, data analysis and interpretation, and event-based and indicator-based surveillance. The highest-ranked PHI outcome was early warning (which could possibly reflect the expertise of people who were surveyed). These key factors – particularly given the human and animal health priorities – clearly highlight the importance of maintaining a collaborative surveillance focus, with an emphasis on integrating event-based and indicator-based surveillance.



Drafting stage

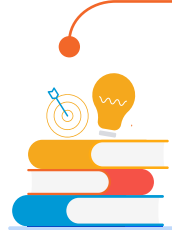
The second stage involved applying the landscape assessment findings to draft the structure of the Framework. This helped inform the development of the competencies, tasks and courses presented in the Framework and the Curriculum. The draft evolved through an iterative process that considered the findings from the research stage alongside the desired core functions of future health workers involved in PHI.



Revision stage

In the third stage, the draft Framework was reviewed and refined by a working group of subject matter experts at the Centers for Disease Control and Prevention and WHO. It was subsequently reviewed by a wider group of multisectoral One Health subject matter experts, including the members of the PHI Training Working Group set up specifically to advise on PHI training, development and delivery. Following these reviews, a group of subject matter experts from the Centers for Disease Control and Prevention, the Robert Koch Institute and WHO revised the Framework based on the reviews and feedback. This included revisions to ensure alignment with the WHO standard operating procedures for competency-based frameworks and previously published WHO frameworks, including the WHO Global Competency Framework for Universal Health Coverage (3), the COHFE Framework (23) and the WHO Global Competency and Outcomes Framework for the Essential Public Health Functions (24). Based on extensive feedback from subject matter experts, this revision made the tasks more descriptive to highlight key steps and revised the competencies to align with WHO standard operating procedures and other published WHO frameworks. The revised Framework was reviewed again by a range of subject matter experts from WHO Headquarters, WHO regional offices, members of the PHI Training Working Group, and external stakeholders representing higher education, public health and others, before being finalized.

Scope



The Framework is designed to apply to PHI work conducted in a variety of organizations with different professional focuses (e.g. human health, One Health) and geographical scopes, involving local, subnational, national, regional and global settings.

In the context of the Framework, PHI covers intelligence activities that support health protection and global public health security (25), including the integration of a collaborative surveillance approach. The goal is for the Framework to be used in the design of curricula, learning activities and assessments in new programmes, and in the revision of existing programmes. In addition, the Framework has multiple other relevant uses, including development of accreditation standards and criteria; identification of training needs and expectations; identification of gaps in knowledge, skills and performance; workforce planning and policy; guidance in writing job descriptions and assessing candidates; and career planning and self-assessment for individuals. In general, the Framework is not prescriptive but serves as a reference guide that can be tailored and customized to suit the specific needs of the target audience, the context in which they are working, and the materials being created.

The Framework takes an all-hazards and multisectoral (including One Health) approach to PHI. The all-hazards approach acknowledges that although hazards vary in type, they challenge health systems in similar ways, demanding a multisectoral response. This aligns with One Health, which recognizes that improved coordination between the human health, animal health and environment sectors has reciprocal benefits and leads to unifying, integrated and sustainable solutions to health problems (15,26). In addition, the all-hazards approach recognizes that threats to public health are not exclusive to infectious diseases but also encompass natural or human-initiated disasters and intentionally or unintentionally released chemical, biological, radiological or nuclear agents or materials (21). It is important for countries to rapidly and accurately identify all such health threats to be able to quickly initiate response measures.

This document is a first-release version. It is intended to be revised and updated as needs and experiences change, and other PHI official products are developed. The dynamic nature of the Framework is necessary because PHI is a constantly evolving domain, shaped by rapid advancements in data collection methods and analytical techniques and the growing availability of real-time health data from a wide range of sources.

Structural content

The structural content of the Framework is based on the process that takes place within an established PHI system (18,24). The process consists of several steps in which signals are detected, verified, analysed and assessed for risk (Figure 1). This is followed by a separate step of further action and response, which is not covered in the Framework.

In the Framework, the first four steps of the PHI process are presented through technical domains that describe specific technical tasks undertaken in each step:

Technical domain 1: detect	It involves routine monitoring of data and signals and their key related information. The data and signals undergo triage to determine the action that needs to be taken, such as discarding, further monitoring or proceeding to verification.
Technical domain 2: verify	It involves confirming the authenticity and accuracy of the signals and the credibility and reliability of the information source. This is a collaborative process that involves communication and discussion with different stakeholders and consultation with official sources.
Technical domain 3: analyse	It involves epidemiological and statistical analyses and their interpretation. Consultation outside the PHI team and organization is often required. Analysis activities may also take place during other steps of the PHI process as new information becomes available.
Technical domain 4: assess	It involves determining the significance of the signals or event (for verified signals) and assessment of risk to the exposed population, multisectoral impact, the efficacy of response measures and overall generating actionable insights.

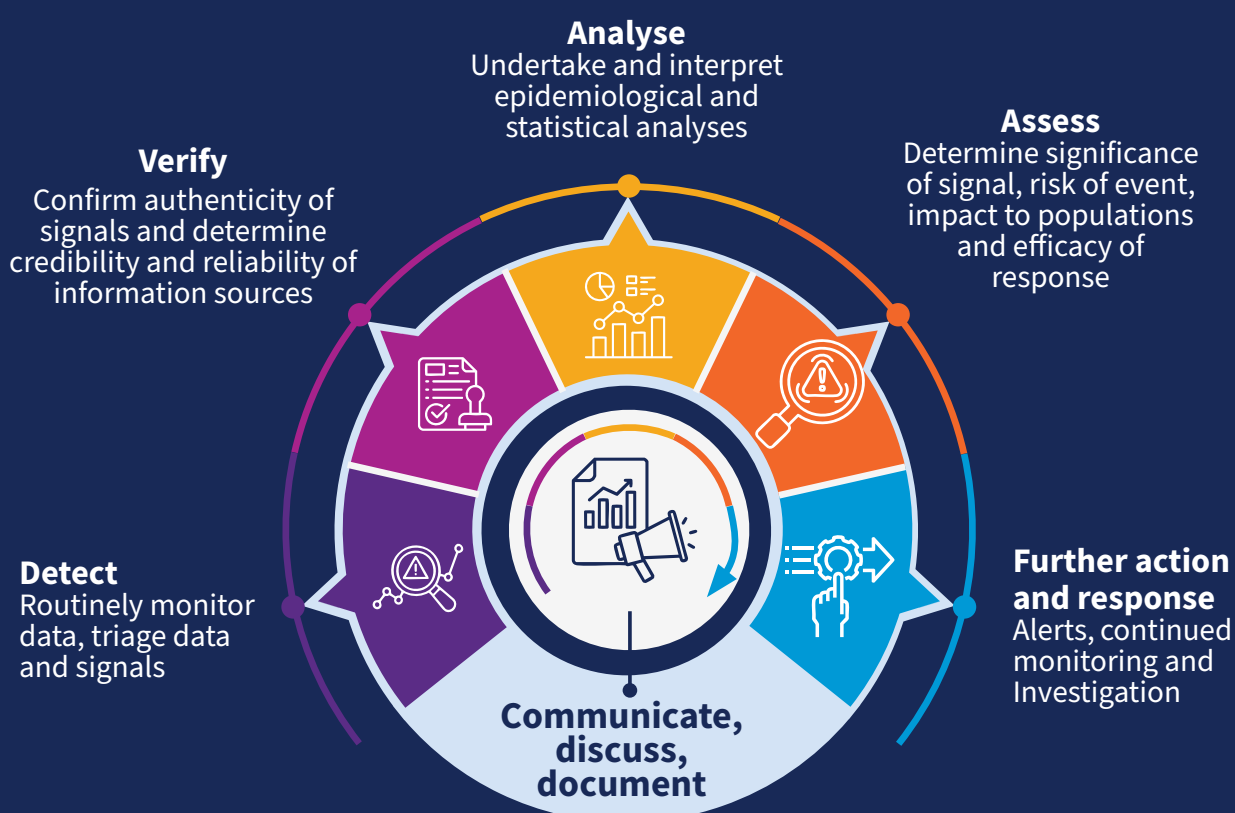
These four technical domains have been selected because they represent the steps in which possible public health threats are identified early and clearly assessed and understood, to provide solid evidence for decision-making and further action. During the performance of these steps, the PHI workforce should be able to clearly demonstrate the PHI competencies.

The technical domains also encompass an overarching step that focuses on regular communication, discussion and documentation as new information becomes available throughout the process. This occurs continuously at any time during the PHI process and includes interaction between internal team members, external collaborators and all other relevant stakeholders.

In general, the PHI process may be perceived as having a cyclical nature. The steps in the PHI process are not necessarily sequential, however, and may be skipped or repeated, depending on the circumstances. For example, signals of an emerging infectious disease may require immediate further action and alerts during the initial steps of analysis and assessment. Steps may also be combined, such as when the “detect”, “verify” and “analyse” steps are undertaken by the same team in an organization and the “assess” step is undertaken by another team. The technical domains in the Framework, representing the steps in the PHI process, are presented in a chronological order to facilitate simpler, more structured understanding.

It is worth noting that different organizations and different guidelines may use different terminology for the steps in the PHI process. The overall goal of the PHI process is to move from data through knowledge synthesis to action, with the specific aim of early detection for timely response. It is important to recognize that the PHI process presented in the Framework is generalized and can be modified to individual situations or institutions and their specific requirements.

Figure 1. Simplified representation of the public health intelligence process



Source: adapted from the WHO Epidemic Intelligence from Open Sources (EIOS) initiative (27).

HOW TO USE THE PUBLIC HEALTH INTELLIGENCE COMPETENCY FRAMEWORK

Target audience

The Framework is aimed at people involved in employing, licensing, regulating, educating and training the PHI workforce, members of the PHI workforce and policy-makers. Employers, including governmental, nongovernmental, academic and private-sector organizations at all levels, may use the Framework to set hiring and performance evaluation criteria.



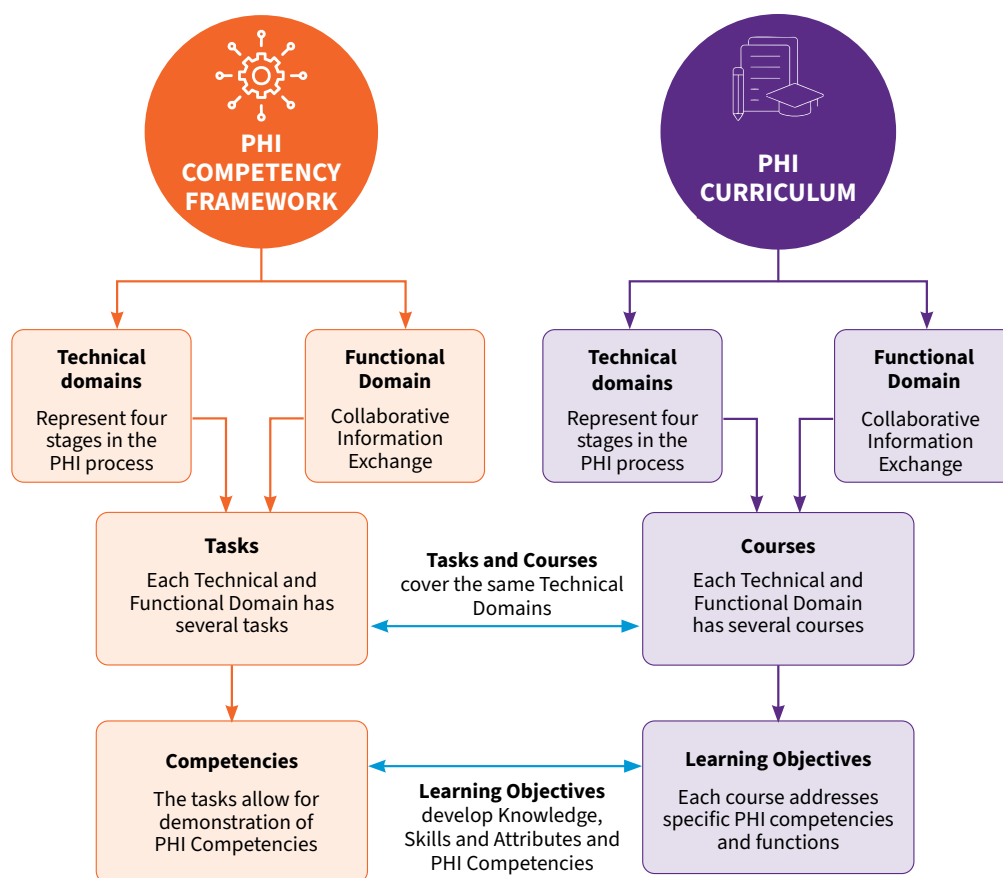
Licensing and regulatory agencies such as governmental, academic and labour organizations may use the Framework to establish accreditation and licensing criteria. Organizations involved with educating and training the PHI workforce, including those involved in delivering preservice curricula (e.g. in higher education), in-training curricula (e.g. field epidemiology training programmes) and in-service curricula (e.g. in applied public health settings), can use the Framework to inform course creation and curriculum development. The PHI workforce may use the Framework to identify general areas for improvement and specific activities that they currently perform well, considering their available resources. In addition, the Framework may be relevant for use by policy-makers to establish evidence-based policies, benchmarking performance against recognized competencies, informing strategic planning and enhancing accountability.

Technical and functional domains and related competencies

The Framework comprises four technical domains – detect, verify, analyse, assess – and one functional domain – collaborative information exchange (Figure 2). The functional domain goes beyond the “communicate, discuss and document” presented in the technical domains by covering purposeful, interactive sharing tailored to different audiences and contexts and by emphasizing ethics, cultural awareness and adaptability. Each technical and functional domain is divided into several tasks and subtasks that together represent the work that should be undertaken by the PHI workforce to ensure adequate completion of the steps in the PHI process. In addition, each technical domain has an overarching task that covers details of related communication, discussion and documentation aspects.

The domains also encompass several technical or functional competencies that are necessary for undertaking the steps in the PHI process and for ensuring successful PHI workflow and collaborations (Table 1, Annex 1,2). PHI workforce members who possess these competencies should be able to successfully complete the tasks and subtasks of each technical and functional domain. With reference to the Framework, competencies are expected to have been learned through training, education and continued development of each PHI workforce member.

Figure 2. Structure and content of the Public Health Intelligence Competency Framework and Curriculum



The competency model used aligns with the WHO Global Competency Framework for Universal Health Coverage and follows the WHO standard operating procedures for competency-based frameworks (3,14,25).

Figure 2 also includes the Public Health Intelligence Curriculum, a companion document developed alongside the Framework. The Curriculum mirrors the technical and functional domains presented in the Framework. Each domain in the Curriculum includes a set of courses that align with the tasks outlined in the Framework. These courses include learning objectives targeted to complement the subtasks in the Framework. By completing the courses and achieving the associated learning objectives, learners gain the knowledge, skills and abilities needed to perform the tasks presented in the Framework and strengthen their corresponding competencies. In addition to the technical and functional domains, the Curriculum contains training on the foundations of PHI, which serves as a base for the courses because it covers introductory knowledge and core skills used throughout the Curriculum.

Table 1. Technical and functional competencies in the public health intelligence (PHI) process^a

Technical Competencies
Competency 1: Evaluates data and information from a range of sources
Competency 2: Engages in practices to ensure data security, confidentiality and privacy
Competency 3: Considers contextual factors in the analysis of PHI data
Competency 4: Contributes to a culture of continuous quality improvement of PHI data
Competency 5: Takes an adaptive, collaborative and rigorous approach to PHI decision-making
Competency 6: Incorporates a systems approach to decision-making, considering One Health and all-hazards perspectives
Competency 7: Takes a solutions-oriented approach to problem solving in PHI
Competency 8: Demonstrates effective use of data for generating actionable insights
Competency 9: Adapts priorities based on unexpected or changing situations
Competency 10: Engages multisectoral One Health stakeholders for implementing joint PHI activities
Competency 11: Builds and maintains a trusting network of multisectoral One Health stakeholders to support PHI activities
Competency 12: Learns from a range of multisectoral One Health partners
Competency 13: Incorporates a holistic approach to PHI
Functional Competencies
Competency 14: Ensures others have clear, accurate, and timely information
Competency 15: Proactively manages interactions with others
Competency 16: Adapts communication to the goals, needs, cultural context, urgency, and sensitivity of the interaction
Competency 17: Listens actively and attentively
Competency 18: Conveys information purposefully
Competency 19: Acknowledges the importance of stakeholder information needs
Competency 20: Tailors communication to the audience
Competency 21: Works within the limits of competence and scope of practice for PHI activities
Competency 22: Engages in lifelong learning and reflective practice to improve performance of PHI activities
Competency 23: Demonstrates high standards of ethical conduct
Competency 24: Focuses on well-being, recognises stress and seeks support when needed
Competency 25: Operates with cultural sensitivity, respectfulness, and compassion
Competency 26: Adapts to unexpected or changing situations
Competency 27: Plans strategically
Competency 28: Empowers others
Competency 29: Manages tensions and conflicts

^a Each competency has a list of associated behaviours used to demonstrate competencies (see Annexes 1 and 2). In relation to the Public Health Intelligence Competency Framework, behaviours refer to the practical way in which a PHI workforce member applies competencies to complete the tasks and subtasks in the technical or functional domains.

TECHNICAL DOMAINS



TECHNICAL DOMAIN 1: DETECT



Introduction



This step is the process of identifying and understanding the signals that can indicate potential public health events, setting the foundation for a timely, effective response. Through the tasks in this domain, signals are detected and key information related to identification of the signals is documented. The signals undergo triage, through triangulation with information from other sources, to determine whether they are real signals. Ultimately, the information collected and reviewed in these tasks determines the action that must be taken, such as discarding, further monitoring or proceeding to verification.

Note that although signals may be discarded in this step, signals may also be discarded at later stages as more information is identified, analysed and verified.

Competencies

The most relevant core PHI technical competencies for this technical domain are:

Competency 1:
Evaluates data and information from a range of sources



Competency 2:
Engages in practices to ensure **data security, confidentiality and privacy**



Competency 4:
Contributes to a culture of **continuous quality improvement** of PHI data.



Tasks

There are three separate tasks and one overarching task in this technical domain. Each separate task has several subtasks (Table 2). Collectively, the tasks and subtasks highlight activities that are essential parts of this step in the PHI process:

Overarching task T1.0 – communicate, discuss and document

This consists primarily of identifying the stakeholders that need to be informed and identifying who should inform the stakeholders. Additionally, the PHI team prepares plans and templates for communication, including a standardized format for documenting all steps undertaken to detect and triage the signals. During and following triage, the PHI team and stakeholders discuss and agree on the next steps (monitor, verify or discard).

Task T1.1 – detect signals from PHI data

This is a core activity of a PHI programme. Signals that can indicate a possible public health threat are detected through routine monitoring of PHI data from different sources. This monitoring should be undertaken regularly and in a timely manner so that no potentially serious signals are missed.

Task T1.2 – describe signals from PHI data

The purpose of this is to understand the type and scope of the signals and to identify gaps in the available information. The products of this activity can be used in other stages of the PHI process (e.g. verification and assessment). The products are revised as new related information becomes available.

Task T1.3 – triage signals from PHI data

The purpose of this is to understand which signals pose a significant health threat and to feed this information into other stages of the PHI process (e.g. verification, analysis and assessment). This includes cross-referencing (triangulation) with data from multiple other sources. It may require directly contacting stakeholders through appropriate communication channels, or it may be sufficient to identify an official or reliable source covering the same information as the initial signal source. Determining whether a signal is of concern requires teamwork. The possible outcomes following triage are monitoring, verification or discarding.

Table 2: Tasks and subtasks in technical domain 1 ‘Detect’

Tasks	
Communicate, discuss and document	
Subtasks	Identify stakeholders that need to be informed
	Identify relevant protocols and prepare communication, and create templates for documenting all steps
	Communicate with colleagues and experts
	Discuss triage outcomes and decide on next steps
Detect signals from PHI data	
Subtasks	Monitor official and unofficial quantitative and qualitative data sources directly related to human health (e.g. epidemiological surveillance systems, hospitals, laboratories)
	Monitor official and unofficial quantitative and qualitative data sources indirectly related to human health (e.g. animal health surveillance, food safety surveillance, climate and weather systems, air quality monitoring systems, early warning systems)
	Monitor official mainstream media and unofficial social media, community boards and other similar information sources (“social listening”)
	Aggregate related signals
	Identify and flag initial possible misinformation or disinformation
Describe signals from PHI data	
Subtasks	Identify the geographical and temporal scope of the signals
	Identify the agent associated with the signals (e.g. substance, organism, animal, environmental factor) and its mode of transmission
	Describe human cases with person, place and time
	Identify the intent behind the signals (e.g. natural, deliberate human activity, unintentional human activity)
	Compile appropriate and useful information from health and non-health sources that describes known and unknown facts about the signals
	Explain the level of uncertainty, bias and limitations of the information
Triage signals from PHI data	
Subtasks	Compile information about the data and signals in relation to existing baselines, thresholds, and seasonal trends from PHI data sources
	Perform PHI data triangulation using the compiled information from PHI data sources
	Consult with colleagues, experts and contacts to determine the possible impact and trajectory of the signal
	Apply a decision instrument tailored to the specific organisation to assess if the signal may constitute a health threat in the local context
	Apply Annex 2 of the International Health Regulations (2005) to assess if the threat may constitute a public health emergency of international concern
	Determine (filter and select) which signals should be monitored, verified or discarded

TECHNICAL DOMAIN 2: VERIFY



Introduction



Verifying PHI signals is a critical process that aims to confirm their authenticity and accuracy. It includes ensuring the source of information is accurate, credible and reliable. During verification, PHI team members strive to obtain more information about the signal through consultation of the original source of the signal and other official sources that can provide details to assist in the process for the next steps.

A verified signal constitutes a public health event. It is important to note, however, that the event may fall outside a given organization's scope or mandate.

Competencies

The most relevant core PHI technical competencies for this domain are:

Competency 1:
Evaluates data and information from a range of sources



Competency 4:
Contributes to a culture of to a culture of **continuous quality improvement** of PHI data



Competency 8:
Demonstrates **effective use of data** for generating actionable insights



Tasks

There is one separate task and one overarching task in this technical domain. The separate task has several subtasks (Table 3). Collectively, the task and subtasks highlight activities that are essential parts of this step in the PHI process:

Task T2.0 – communicate, discuss and document

The primary goal is to maintain regular contact with all stakeholders and, where relevant, to initiate contact with the original source of the data or information to obtain material that confirms the accuracy and completeness of the signal. In addition, there is a focus on coordination using official communication channels to communicate regularly about signals and to meet and discuss their validity. The procedure for verification is documented and the data are stored in a defined location.

Task T2.1 – verify the completeness, consistency and significance of PHI signals

The overall purpose is to determine the authenticity of a signal and whether it correctly poses a threat to public health. This is done by considering further information related to the signal in local and wider contexts, through official channels or sources. It may require directly contacting the original sources of the data and information through the appropriate communication channels and coordinating through established mechanisms.

Table 3: Tasks and subtasks in technical domain 2 - verify

Tasks	
Communicate, discuss and document	
Subtasks	Maintain contact with stakeholders following established protocols
	Communicate with colleagues, experts and stakeholders that can share information about the original source and additional sources of information using established communication channels
	Communicate with colleagues and experts. Discuss significance of signals
Verify the completeness, consistency and significance of PHI signals	
Subtasks	Reach out to the source of signal, local or district health authorities and other appropriate points of contact
	Compile information from official sources to confirm the accuracy and credibility of the signal
	Compile information from official sources to identify local and wider contexts that impact the validity of the signal
	Consult with colleagues, experts and contacts to confirm or refute the signal
	Determine whether the signal can be verified based on information from official sources and/or colleagues
	Evaluate the limitations, quality, relevance and significance of data, information and evidence behind the signal

TECHNICAL DOMAIN 3: ANALYSE

Introduction



Following collection of data and contextual information, formal analysis is undertaken. Typically, the staff involved with the analysis will communicate and consult with other people in the organization, including those involved with data screening, recording and transformation, and those involved with assessing and interpreting the information, communication and decision-making. Consultation outside the PHI team and organization may be required, such as with experts in specific signal characteristics (e.g. agent, intent, scope) and people who can provide appropriate information about the signal and the setting in which it was detected.

It is important to note that activities in this step may also take place throughout the “detect” and “verify” steps in the PHI process as data and information are gathered and updated. This varies between organizations and settings, however, and “analyse” is presented as a separate step in this Framework, while acknowledging that its activities in many circumstances happen concurrently with the initial steps in the PHI process.

Competencies

The most relevant core PHI technical competencies for this domain are:

Competency 3:

Considers **contextual factors** in the analysis of PHI data



Competency 4:

Contributes to a culture of to a culture of **continuous quality improvement** of PHI data



Competency 8:

Demonstrates **effective use of data** for generating actionable insights



Tasks

There is one separate task and one overarching task in this technical domain. The separate task has several subtasks (Table 4). Collectively, the task and subtasks highlight activities that are essential parts of this step in the PHI process:

Task T3.0 – communicate, discuss and document

Both internal and external communication and discussion take place. Internal communication and discussion involve investigating details about the signal and determining appropriate analysis steps. External communication and discussion are for consulting with experts and informing stakeholders about the nature of the signal, possible public health consequences and action points.

Task T3.1 – conduct analysis to support risk assessment, decision-making and response

The purpose of this is to generate an initial perception before the assessment. This happens through interpretation of the data gathered, considering the context (e.g. geopolitical incidents, cultural and sociological context) and conducting additional analyses as appropriate. This may also require consulting technical experts in specific fields.



Table 4: Tasks and subtasks in technical domain 3 - analyse

Tasks	
Communicate, discuss and document	
Subtasks	Communicate and discuss with internal colleagues, experts and contacts to seek consultation Communicate and discuss decisions with stakeholders in a timely manner, according to the level of urgency, using established protocols and information channels Continuously document results
Conduct analysis to support risk assessment, decision-making, and response	
Subtasks	Identify available and appropriate sources of information for informing risk assessment, decision-making, and response
	Use relevant data validation techniques
	Use relevant privacy and security protocols
	Perform epidemiological and statistical analysis of available data
	Perform spatial analysis (e.g., mapping) and modelling, if needed
	Interpret trends and insights from multiple information sources
	Evaluate limitations, quality, relevance and significance of data, information and evidence
	Appraise the level of uncertainty and limitations of epidemiological analysis, models, forecasts, or other PHI methods
	Seek necessary expertise to support analysis and interpretation of the analysis
	Interpret intelligence in the context of similar signals and the current context (e.g., geopolitical incidents, cultural and sociological context)
	Identify additional data needs
	Incorporate and analyse new information as it arrives to strengthen understanding of the signals

TECHNICAL DOMAIN 4: ASSESS



Introduction



Having verified the signal, with the addition of detailed epidemiological analyses and considerations of limitations and uncertainties, the signal has become an event, and its impact needs to be assessed. This assessment involves determining the risk to affected people and populations and considering additional impacts in local contexts such as health-care capacity. The assessment is summarized to generate appropriate insights for decision-making. Close communication within and outside the organization is required, including with experts in the characteristics of the event and with people who can provide contextual information about the setting of the event. This process helps determine the risk level of the event, informing the next steps that should be taken.

Competencies

The most relevant core PHI technical competencies for this domain are:

Competency 7:
takes a **solutions-oriented approach** to problem-solving in PHI



Competency 8:
demonstrates **effective use of data** for generating actionable insights



Competency 12:
learns from a range of **multisectoral One Health partners**



Competency 13:
incorporates a **holistic approach** to PHI.



Tasks

There are two separate tasks and one overarching task in this technical domain. The separate tasks have several subtasks (Table 5). Collectively, the tasks and subtasks highlight activities that are essential parts of this step in the PHI process. Note that for an informal risk assessment, some subtasks can be discarded, particularly those that relate to risk management and response:

Task T4.0 – communicate, discuss and document:

Communication continues internally and externally to seek guidance, update newly acquired information about the signal, present results of the assessment, and discuss whether the importance of the signal should be scaled up or down. Throughout the task, new results or information are continuously documented, including important points that arise from communication with stakeholders.

Task T4.1 – conduct risk assessment for an event from PHI data

The purpose of this is to determine the risk that the event poses to the affected population. This involves considering all relevant factors, such as the cultural context and the capacity of health systems. Risk assessments can be informal or formal. Risk assessments can be performed at the individual analyst level or following a template and set questions in collaboration with other technical experts. In general, risk assessments should involve collaborating with One Health partners and other sectors. The task introduces the concept of risk assessment tools, which help to systematically identify, analyse and prioritize public health risks by considering the chance of an event happening and the potential harm the event could cause if it does occur.

Task T4.2 – generate insights for decision-making

The purpose of this is to generate insights from the results of the analysis and risk assessment. These insights must be summarized and presented in a way that is easy to understand and interpret by internal and external stakeholders. This task is essential to support decision-making.

Table 5: Tasks and subtasks in technical domain 4 - assess

Tasks	
Communicate, discuss and document	
Subtasks	Communicate and discuss with internal colleagues, experts and contacts
	Communicate and discuss decisions with stakeholders in a timely manner, according to the level of urgency, using established protocols
	Continuously document results
	Meet reporting regulations under international law
Conducting risk assessment for signals from PHI data	
Subtasks	Identify and select information needed to inform the risk assessment
	Identify populations and subgroups at risk or at increased risk
	Formulate risk questions
	Apply a risk assessment tool to determine the estimated level of risk: • evaluate the likelihood of a harmful effect to the public • measure or estimate present and potential consequences or impact on health, health systems, economies, and societies • assess the vulnerability and capacity of health systems and communities • identify lessons from previous signals, including in other settings • integrate uncertainties into assessment
	Apply a joint risk assessment tool with One Health stakeholders when appropriate (e.g. zoonotic diseases, food safety, environmental threats, antimicrobial resistance)
	Anticipate changes in risk based on existing intelligence and how public health interventions may change the trajectory of an event
	Determine the scale of response required and consequences of insufficient or untimely response
	Provide risk management options based on the outcome of the assessment
	Repeat the risk assessment based on emerging data and information
	Seek feedback on the value of the risk assessments to improve the usefulness of future assessments
Generating insights for decision-making	
	Summarize results from analysis and risk assessment to support decision-making
	Generate insights based on results from analysis and risk assessment
	Prepare data, reports and visualizations to support decision-making

FUNCTIONAL DOMAIN



FUNCTIONAL DOMAIN: COLLABORATIVE INFORMATION EXCHANGE



Introduction



The functional domain of collaborative information exchange encompasses the processes through which people and organizations share information, ideas, experiences and feedback to achieve specific goals. Effective collaboration relies on clear and purposeful communication – verbal, non-verbal, written and digital – tailored to different audiences, situations and platforms. By facilitating problem-solving, decision-making and coordination, effective information exchange enhances teamwork and ensures messages are accurately understood in formal and informal settings. This functional domain emphasizes professional integrity, ethical standards, cultural sensitivity and adaptability, enabling PHI professionals to navigate diverse situations and respond effectively to changing circumstances.

Competencies

All 16 core PHI functional competencies are applicable for this functional domain, but the following are the most relevant:

Competency 14:

Ensures others have **clear, accurate, and timely information**



Competency 15:

Pro-actively **manages interactions** with others



Competency 18:

Conveys information purposefully



Competency 19:

Acknowledges the **importance of stakeholder information** needs

**Competency 20:**

Tailors communication to the audiences

**Competency 21:**

Works within the limits of **competence and scope of practice** for PHI activities

**Competency 25:**

Operates with **cultural sensitivity, respectfulness, and compassion**

**Competency 26:**

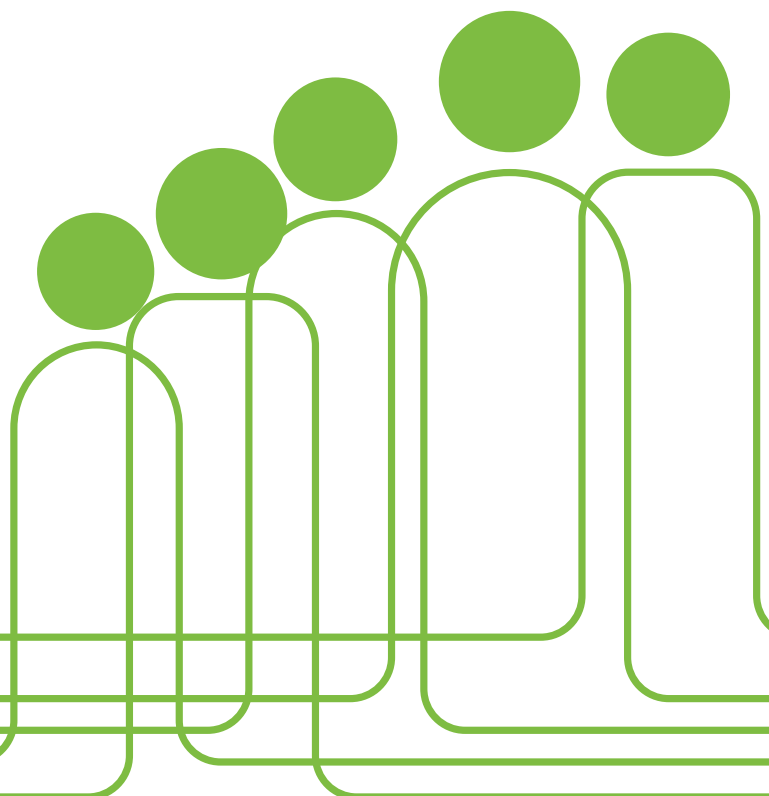
Adapts to **unexpected or changing situations**

**Competency 27:**

Plans strategically

**Competency 28:**

Empowers others



Tasks

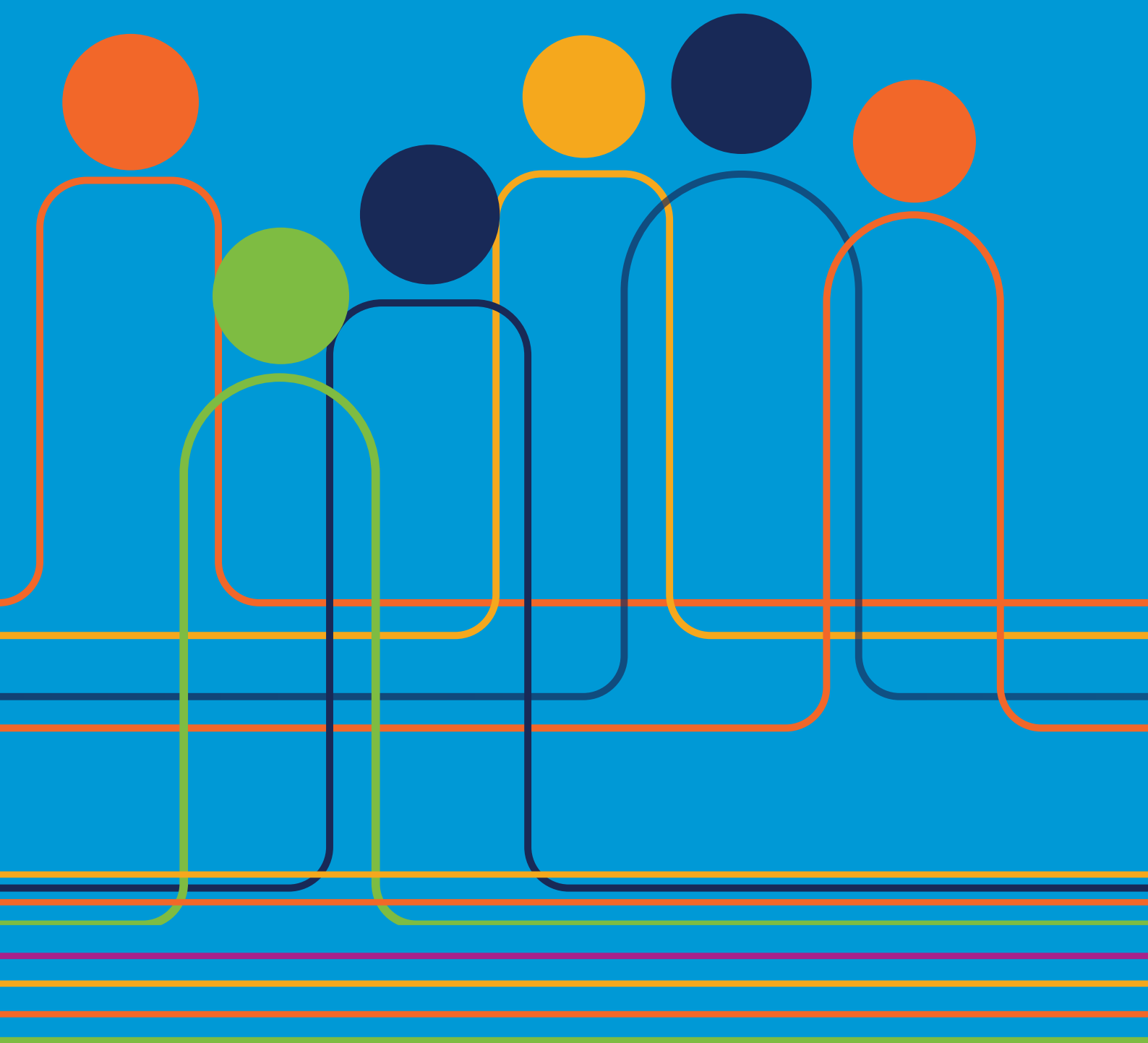
There are four separate tasks in this functional domain. The separate tasks have several subtasks (Table 6). Collectively, the tasks and subtasks highlight activities that are essential parts of collaborative information exchange for PHI:



Table 6: Tasks and subtasks in functional domain – collaborative information exchange

Tasks	
Manage and enhance information exchange with stakeholders	
Subtasks	Clarify the goals for information exchange, ensuring mutual understanding between parties
	Identify potential due to impairments, cultural differences, geography, or language
	Adapt information exchange styles to suit goals, needs, cultural context, urgency, and situational sensitivity
	Proactively reach out to stakeholders for feedback or providing critical information
	Use a balance of quantitative and qualitative PHI data to provide relevant, valuable, and context-specific information
	Use a range of information exchange methods, such as verbal, non-verbal, written, digital and visual
	Simplify complex information, using appropriate terminology to make content more accessible
	Support others in effective information exchange, encouraging open dialogue and self-expression
Provide timely intelligence of verified signals to support decision-making during a public health event	
Subtasks	Determine relevant intelligence needed for decision-making during an ongoing event
	Identify stakeholders in need of intelligence
	Assess stakeholder communication needs, including language preference, cultural context, awareness level and technical knowledge
	Create a plan for sharing intelligence, including: - identifying key messages - determining action points for stakeholders - identifying communication platforms and channels - determining communication frequency
	Assemble, synthesize and register all relevant PHI information in a standardized report for informing stakeholders of the event, prevention and control measures
	Communicate highlights of the PHI report to stakeholders, including level of uncertainty and limitations of results
	Respond to stakeholder requests for further analysis, assessment and information
	Monitor and evaluate communication activities and their impact and modify activities based on feedback

Tasks	
Adapt to change and challenges in PHI work	
Subtasks	Stay updated on emerging PHI trends and technologies, engaging in regular learning opportunities such as webinars, conferences and research
	Demonstrate flexibility when unexpected challenges or changes arise, adjusting approaches to maintain effectiveness
	Apply critical thinking to assess new or unforeseen situations in PHI activities, ensuring that responses are informed, appropriate and effective
	Practice ethical decision-making in dynamic situations, ensuring that responses to change align with professional ethics and standards
	Balance professional responsibilities with personal well-being, ensuring that work demands do not negatively affect health and mental resilience
Ensure successful collaboration and ethical practice in PHI work	
Subtasks	Collaborate with stakeholders to define a shared vision and key values that align with PHI and the overall organizational mission
	Consult with experts or seek guidance when confronted with tasks beyond competence to ensure accurate and effective outcomes
	Design collaboration strategies and actions that align with the overall PHI objectives, ensuring they are realistic and achievable
	Cultivate cultural sensitivity in all collaborations, ensuring respectful and inclusive communication with people from diverse backgrounds
	Adhere to ethical standards in all PHI activities, maintaining integrity, transparency, and confidentiality when handling PHI data
	Engage in continuous professional development, attending relevant training or certifications to expand PHI knowledge and skills
	Encourage all collaborators and team members to contribute their expertise and ideas in translating the shared vision into actionable results
	Acknowledge and celebrate team and individual achievements, recognizing contributions that help achieve PHI objectives



CONCLUDING REMARKS

The Public Health Intelligence Competency Framework presents technical domains that include the early detection of signals, verifying their validity, analysing contextual data, and assessing the potential risks of an event, with the aim to support informed, timely decision-making. The technical domains highlight a range of competencies that are essential for the PHI workforce to demonstrate during their work. Each technical domain emphasizes the importance of effective communication, collaboration and ethical practices to ensure PHI activities remain responsive, accurate and impactful. This is integrated with a functional domain that encompasses the functional competencies needed to effectively share information, communicate purposefully and work collaboratively within and across organizations. The functional domain supports ethical practice, stakeholder engagement, strategic planning and teamwork, ensuring PHI professionals can convey timely, accurate information and foster trust and coordination throughout the PHI process.

To build the skills required to implement these tasks effectively, and to develop the necessary technical and functional competencies, learners and professionals are encouraged to explore the Public Health Intelligence Curriculum. The Curriculum includes targeted courses and clearly defined learning objectives that align with the tasks and competencies outlined in the Framework. By engaging with this training, people can strengthen their technical and functional competencies and knowledge, skills and abilities that allow them to carry out PHI activities with confidence, competence and consistency.



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ANNEX 1: TECHNICAL COMPETENCIES



Competency 1: evaluates data and information from a range of sources

- 1.1 Critically appraises the limitations, quality, relevance and significance of data, information and evidence for PHI
- 1.2 Demonstrates critical thinking to synthesize information from multiple sources
- 1.3 Demonstrates initiative to prevent the inclusion of misinformation in PHI activities
- 1.4 Promotes access to data, information and evidence for PHI within and across sectors, organizations, fields and disciplines
- 1.5 Recognizes when there is a need for additional data and information
- 1.6 Considers special characteristics of the technology that generated the data and information
- 1.7 Seeks data, information and evidence from a range of multisectoral sources for PHI activities



Competency 2: engages in practices to ensure data security, confidentiality, and privacy

- 2.1 Acts ethically in the collection, use and analysis of PHI data
- 2.2 Upholds policies for maintaining the integrity and security of data used for PHI activities
- 2.3 Upholds privacy, confidentiality and legal requirements for obtaining, recording, storing, sharing, retaining and destroying acquired information



Competency 3: considers contextual factors in the analysis of PHI data

- 3.1 Challenges own biases in the analysis of PHI data
- 3.2 Considers geopolitical events and trends on PHI data
- 3.3 Considers the sociological, environmental and cultural context in which PHI data are collected
- 3.4 Considers the temporal context in which PHI data are collected



Competency 4: contributes to a culture of continuous quality improvement of PHI data

- 4.1 Adheres to data verification requirements for PHI data
- 4.2 Contributes to quality measurement and continuous quality improvement processes for PHI data
- 4.3 Learns from what works and what has not gone well in collection and analysis of PHI data
- 4.4 Identifies types of corroborating evidence needed to improve confidence or make decisions
- 4.5 Offers suggestions for improvement to address identified problems with PHI data
- 4.6 Promotes and implements quality assurance techniques for PHI data



Competency 5: takes an adaptive, collaborative and rigorous approach to PHI decision-making

- 5.1 Adapts the approach to decision-making that reflects the complexity and urgency of the situation
- 5.2 Approaches decisions analytically and methodically
- 5.3 Considers the consequences of decisions
- 5.4 Demonstrates critical thinking to reach decisions that are well reasoned, ethical, evidence-informed, feasible, timely and based on the best available PHI information
- 5.5 Evaluates assumptions against facts
- 5.6 Promotes collaborative decision-making
- 5.7 Seeks information and evidence from a range of multisectoral sources when approaching decision-making



Competency 6: incorporates a systems approach to decision-making, considering One Health and all-hazards perspectives

- 6.1 Acknowledges the complex nature of health threats
- 6.2 Anticipates the consequences of decisions on other sectors
- 6.3 Conceptualizes interrelationships between elements considering One Health and all-hazards perspectives



Competency 7: takes a solutions-oriented approach to problem-solving in PHI

- 7.1 Creates pragmatic solutions to identified problems in PHI activities
- 7.2 Focuses on solutions, end goals and results
- 7.3 Takes initiative to mitigate anticipated problems in PHI activities



Competency 8: demonstrates effective use of data for generating actionable insights

- 8.1 Ensures the use of timely and relevant PHI data to inform action
- 8.2 Seeks feedback on the value of data, insights and reports
- 8.3 Promotes the use of technology to generate insights



Competency 9: adapts priorities based on unexpected or changing situations

- 9.1 Adjusts priorities to respond according to the evolution of the public health events and demands
- 9.2 Embraces the dynamic nature of health threats
- 9.3 Manages competing demands



Competency 10: engages multisectoral One Health stakeholders for implementing joint PHI activities

- 10.1 Celebrates shared outcomes, goals and values across multiple sectors, fields and geographies when relevant
- 10.2 Enables multisectoral stakeholders to make contributions to PHI activities
- 10.3 Engages with stakeholders across sectors, organizations, fields and disciplines who can contribute to or influence the effectiveness of PHI activities
- 10.4 Adheres to the established and agreed ways of working within PHI activities
- 10.5 Jointly negotiates roles and responsibilities for effective and efficient PHI activities



Competency 11: builds and maintains a trusting network of multisectoral One Health stakeholders to support PHI activities

- 11.1 Maintains constructive and collaborative working relationships with stakeholders through both formal and informal channels
- 11.2 Maintains ethical boundaries with other members of the PHI network
- 11.3 Minimizes the impact hierarchical differences between stakeholders, including different levels of governance and sectors
- 11.4 Strives to develop a positive rapport with stakeholders characterized by respect, support and trust



Competency 12: learns from a range of multisectoral One Health partners

- 12.1 Demonstrates willingness to learn from the experience of others
- 12.2 Engages in opportunities to improve collaboration within PHI teams and between multisectoral One Health partners
- 12.3 Learns from interactions with others and the feedback process
- 12.4 Provides constructive, sensitive and timely feedback and support to improve PHI activities
- 12.5 Seeks constructive, sensitive and timely feedback and support to improve PHI activities



Competency 13: incorporates a holistic approach to PHI

- 13.1 Considers behavioural and social science
- 13.2 Considers economic, environmental, political and social determinants of health
- 13.3 Contributes to protecting vulnerable populations
- 13.4 Recognizes the interconnectedness of humans, animals and the environment

ANNEX 2: FUNCTIONAL PHI COMPETENCIES



Competency 14: ensures others have clear, accurate and timely information

- 14.1 Shares information with relevant others in a timely manner
- 14.2 Supports others to speak about the progress of PHI activities and public health events
- 14.3 Promotes credibility and trust in health institutions



Competency 15: proactively manages interactions with others

- 15.1 Clarifies the communication goals for an interaction
- 15.2 Identifies when and how to initiate, conduct and close an interaction
- 15.3 Manages communication barriers due to cognitive, physical or sensory impairment, culture, developmental stage, geography or language
- 15.4 Supports others to communicate for themselves



Competency 16: adapts communication to the goals, needs, cultural context, urgency and sensitivity of the interaction

- 16.1 Adapts the style, language and method of communication to the interaction
- 16.2 Maintains an approach to communication characterized by calmness, compassion, empathy, respect, sensitivity and tact
- 16.3 Seeks to address gender issues in communication settings
- 16.4 Seeks to mitigate the impact of own beliefs, biases, emotional responses, opinions and values on verbal and non-verbal communication
- 16.5 Uses a range of verbal, non-verbal, visual, written and digital communication tools and techniques
- 16.6 Uses relevant abbreviations, language and terminology, translating complex and technical content into lay terms when necessary



Competency 17: listens actively and attentively

- 17.1 Responds sensitively to what others express
- 17.2 Supports others to ask questions and openly express experiences, feelings, ideas and opinions
- 17.3 Uses strategies to clarify what others express
- 17.4 Uses a range of non-verbal cues and verbal affirmations



Competency 18: conveys information purposefully

- 18.1 Adopts strategies that encourage a common understanding of information and decisions
- 18.2 Conveys quantitative and qualitative information of value and relevance to the audience
- 18.3 Differentiates between information as facts, context-specific evidence, opinion and misinformation
- 18.4 Expresses own opinions and perspectives with clarity, confidence and respect
- 18.5 Presents information clearly, coherently, concisely and organized logically
- 18.6 Provides information that supports the goals of the communication
- 18.7 Provides relevant, accurate and complete information



Competency 19: acknowledges the importance of stakeholder information needs

- 19.1 Communicates openly and honestly about what is known and not known
- 19.2 Creates opportunities for discussion
- 19.3 Demonstrates initiative to communicate with stakeholders



Competency 20: tailors communication to the audience

- 20.1 Accommodates audiences with diverse abilities to communicate
- 20.2 Develops and tailors messages for different audiences, using appropriate communication strategies, communication media and channels
- 20.3 Expresses information in a way that is suitable for the audience
- 20.4 Recognizes the capacity of the audience to comprehend technical information
- 20.5 Speaks and writes clearly and plainly
- 20.6 Strives to meet the audience's information needs



Competency 21: works within the limits of competence and scope of practice for PHI activities

- 21.1 Adheres to the duties, obligations and codes of conduct defined by occupational standards, legal regulations and organizational procedures for PHI activities
- 21.2 Maintains awareness of own competence and scope of practice for PHI activities
- 21.3 Seeks guidance when encountering situations beyond competence or scope of practice



Competency 22: engages in lifelong learning and reflective practice to improve performance of PHI activities

- 22.1 Engages in self-learning and reflective practice on PHI practice
- 22.2 Modifies own attitudes, behaviours and gaps in competence based on reflective practice
- 22.3 Seeks and engages in continuous formal and informal learning linked to current and emerging PHI practices



Competency 23: demonstrates high standards of ethical conduct

- 23.1 Acts with honesty, integrity and transparency
- 23.2 Avoids overuse or misuse of resources
- 23.3 Consults with others in situations with ethical implications
- 23.4 Honours commitments
- 23.5 Refuses individual gifts or other forms of influence intended to coerce or invite personal favour
- 23.6 Takes ownership of responsibilities and decisions, and their consequences
- 23.7 Uses physical, human and financial resources efficiently
- 23.8 Upholds legal and ethical principles for public health practice



Competency 24: focuses on well-being, recognizes stress and seeks support when needed

- 24.1 Engages in self-care practices that promote emotional resilience, health and well-being
- 24.2 Monitors mental, physical and social well-being in self and others
- 24.3 Understands how to identify signs of stress and ill health in self and others
- 24.4 Identifies strategies and resources available for support and help when needed for self and others
- 24.5 Seeks help or support where needed for own health and well-being
- 24.6 Uses a range of strategies to manage fatigue, ill health, stress and the impact of exposure to distressing and emergency situations



Competency 25: operates with cultural sensitivity, respectfulness, and compassion

- 25.1 Adopts an approach to practice that is non-blaming, non-discriminatory, non-judgemental and non-stigmatizing
- 25.2 Critically considers the causes and consequences of discrimination, exclusion, prejudice, stigma and other social challenges that influence trajectory of the threat
- 25.3 Demonstrates cultural sensitivity and embraces cultural diversity
- 25.4 Demonstrates compassion, empathy and respect for all groups of people, irrespective of age, asylum or migration status, criminal record, culture, disability, economic status, ethnicity, gender identity and expression, health literacy, health status, language, nationality, race, religion, sex, sexual orientation, treatment adherence, vulnerability to ill health, or any other characteristic
- 25.5 Maintains self-awareness around own beliefs, biases, emotional responses and values



Competency 26: adapts to unexpected or changing situations

- 26.1 Demonstrates a calm demeanour under pressure
- 26.2 Demonstrates flexibility to meet the needs of the situation
- 26.3 Uses a range of strategies to maintain PHI activities under pressure



Competency 27: plans strategically

- 27.1 Contributes to developing key values and a shared vision in planning and implementing policy
- 27.2 Contributes to maintaining organizational performance standards
- 27.3 Contributes to team and organizational learning to advance public health goals
- 27.4 Embraces the mission and priorities of the organization
- 27.5 Generates and communicates broad and compelling organizational direction, inspiring others to pursue the same direction
- 27.6 Proactively develops strategies to accomplish objectives
- 27.7 Uses public health ethics to manage self, others, information and resources



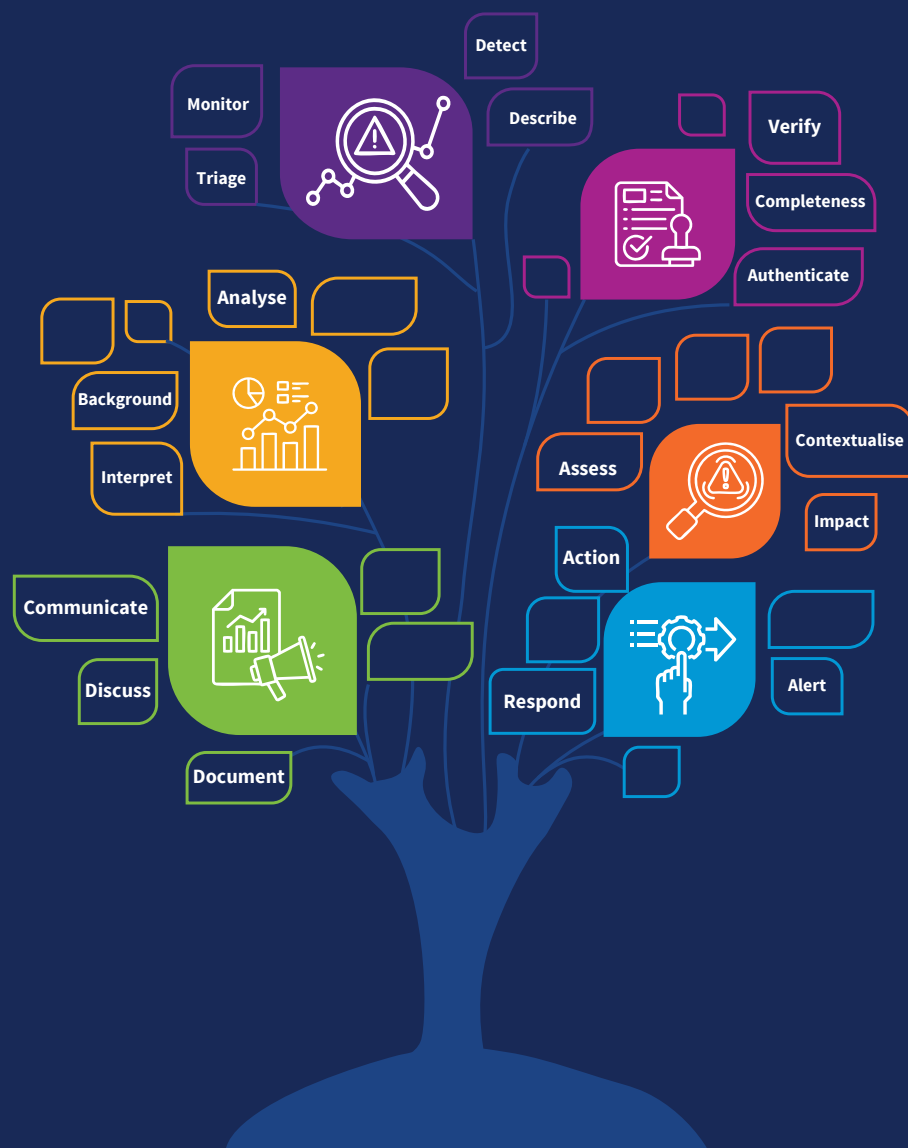
Competency 28: empowers others

- 28.1 Encourages contribution of others in translating vision into results
- 28.2 Encourages others to set challenging goals
- 28.3 Gives staff autonomy in important fields of their work
- 28.4 Holds others accountable for achieving results related to their field of responsibility
- 28.5 Shows appreciation for achievement and effort



Competency 29: manages tensions and conflicts

- 29.1 Anticipates tensions or potential areas of conflict
- 29.2 Considers different perspectives when seeking compromise, consensus or a decision
- 29.3 Focuses on the sources of tensions rather than arising conflicts
- 29.4 Supports a blame-free environment in which one is safe to question and seek support and guidance
- 29.5 Supports and acts in accordance with final group decision, even when such decisions may not entirely reflect own position
- 29.6 Takes positive action to avoid and dispel abuse, harassment or other disruptive behaviours
- 29.7 Uses diplomacy to mediate, negotiate or persuade
- 29.8 Serves as a role model



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