

# Standard Competencies Framework for the Immunization Workforce

## **Immunization Program Competencies Initiative**

Supporting the objective of the Expanded Program on Immunization

DRAFT

December 20, 2018

Version 2.1

*Dedicated to the health care workers around the world whose perseverance and care protect children  
from vaccine- preventable diseases*

[https://www.who.int/immunization/programmes\\_systems/workforce/standard\\_competencies\\_framework/en/](https://www.who.int/immunization/programmes_systems/workforce/standard_competencies_framework/en/)

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## Introduction

In May 2012, 194 member states of the World Health Assembly endorsed the Global Vaccine Action Plan (GVAP), a framework to prevent millions of deaths by 2020 through more access to existing vaccines that is equitable for people in all communities. GVAP describes building capacity of managers and front line health workers as a recommended action to support strong systems. Because of this recommendation, immunization programs in ministries of health throughout the world have included workforce development initiatives among their GVAP activities. Countries lack guidelines to help them address workforce planning, management and evaluation.

Stakeholders agreed on the need to describe all competencies required for an immunization program to succeed at all levels: National, provincial, district and community. The use of competencies helps countries better distribute resources as per required functions and more adequately define roles and responsibilities of health workforce.

### Development Process

The United States Centers for Disease Control and Prevention (CDC) led a working group of key partners (listed in *Acknowledgements*) to define standard competencies. The working group used four data collection methods in a step-wise approach to define competencies.

1. **Organizational objectives** of an immunization program were defined using a literature review of existing immunization strategy, guideline and reference documents.
2. Using the organization objectives as a guide, a development committee of the working group conducted a literature review. The development committee also queried subject matter experts to define the **attributes** of a successful immunization system (“successful” meaning an immunization system that was meeting its objectives). The larger working group reviewed and revised the attributes.
3. Using the attributes as a guide, the development committee again conducted a literature review and interviewed subject matter experts to develop a draft of the **work functions** that are required at each of the four levels. The draft was reviewed and revised by the larger working group.
4. To develop the **competencies**, in addition to the three data collection methods described for the first three steps, key informant interviews were conducted with immunization officers, largely at the national and district level.

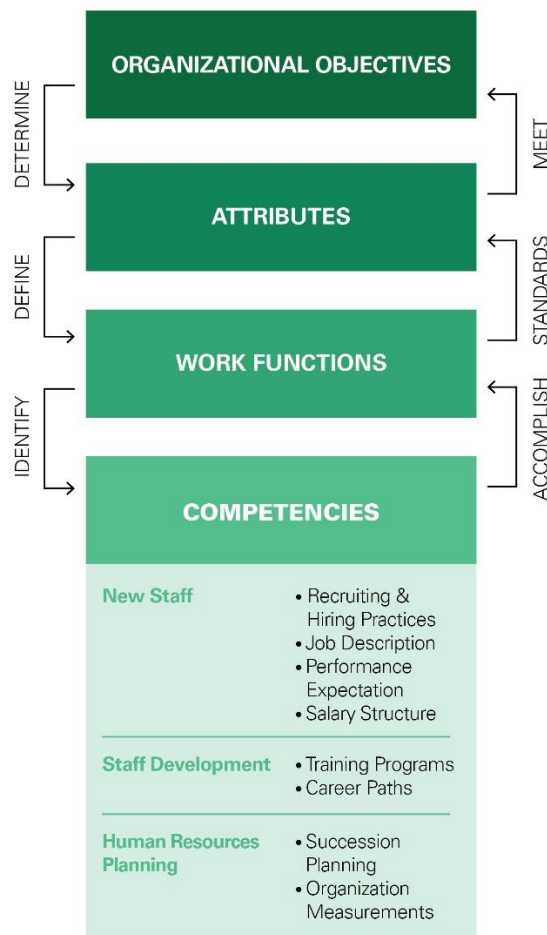
After completion of the first draft in late 2016, the World Health Organization (WHO) proposed publishing the standard competencies as normative guidance for countries’ immunization programs. This work was presented at the April 2017 meeting of the Strategic Advisory Group of Experts (SAGE). SAGE agreed with the WHO proposal and emphasized the importance of looking at functions and competencies from a health system perspective. SAGE also recommended piloting in a variety of country contexts.

In October 2017, WHO convened a group of immunization experts to review and make recommendations on the first draft of domains, work functions and standard competencies at the national level of the immunization program. Those recommendations were integrated into the draft document.

## About this Document

This document is intended to support the assessment, design, development and evaluation of workforce management and development. It is based on a framework that links the competencies of the workforce to the objectives of an organization, both for planning and for monitoring.

Organizations define **objectives** based on their mission. They determine the **attributes** that would indicate they are meeting their objectives at an agreed-upon level of quality. Based on those attributes, they are able to identify the **work functions** that are needed to produce quality outputs as well as the **competencies** that are needed to do the work. Competencies inform key aspects of the human resources function in an organization. Competencies can be used to determine whether work functions are being accomplished to the standards of quality that have been set, and can demonstrate if the organization is meeting its objectives.



### Assumptions

- The EPI functions within the broader health system of a country
- Underlying governance, stability and national infrastructure are essential to vaccination systems
- Interaction, communication, feedback are critical across levels and domains
- Decentralization may move some functions between national, provincial and district levels
- The work done at each level is not necessarily done by a single individual
- Additional competencies that are not specific to immunization, such as information technology, laboratory systems, accounting, and human resources management, are essential to a successful EPI.

### **Notes:**

- Supervision for all domains is included in Human Resources and Performance Management domain
- Program monitoring is described in the Monitoring, Evaluation and Data use domain

### Glossary of Terms

#### **Attributes**

The observable characteristics of an immunization program that is meeting its objectives

#### **Competency**

Knowledge, skills and attitude required for successful work performance. Written as broad statements, they can be used to develop detailed learning objectives for training.

#### **Work functions**

The tasks that are required for an organization to meet its objectives

Abbreviations

AEFI	Adverse events following immunization
cMYP	Country multi-year plan
EPI	Expanded program on immunization
EU	European Union
HMIS	Health management information system
HSS	Health system strengthening
IDSR	Integrated disease surveillance and response
LMIS	Logistics management information system
MOH	Ministry of Health
NRA	National Regulatory Authority
SOP	Standard operating procedure
UMC	Uppsala monitoring centre
VPD	Vaccine preventable disease
WASH	Water, sanitation and hygiene
WHO	World Health Organization



## How to Use this Document

This document can assist immunization programs in revising or developing policies related to their workforce, including hiring, staff development, and human resources planning. There are three major components:

Component	Use this for	Example
Attributes	<ul style="list-style-type: none"> <li>Developing program performance indicators for domains and levels of the system</li> <li>Checking program performance indicators to ensure all aspects of an EPI are being monitored.</li> <li>Linking worker performance to outcomes</li> </ul>	As part of its strategic planning at the national level, an immunization program reviews the attributes and confirms that it has all the components in place for vaccine delivery but recognizes that it lacks a strategy to communicate and advocate with partners.
Functions	<ul style="list-style-type: none"> <li>Developing/reviewing terms of reference or job descriptions</li> <li>Reviewing system processes for effectiveness and efficiency</li> <li>Redesigning work processes</li> <li>Identifying the appropriate functions at varying levels of the system</li> <li>Re-organization of responsibilities, such as decentralization or centralization</li> </ul>	A country moves from a centralized to decentralized structure. It reviews all the functions described for national level and selects specific functions to move to the provincial level. Management could then use the competencies sections to identify which competencies will now be required at the provincial level and designs a competency development plan.
Competencies	<ul style="list-style-type: none"> <li>Linking work functions to required competencies</li> <li>Developing/reviewing terms of reference or job descriptions</li> <li>Conducting training needs assessments and creating training plans</li> <li>Determining criteria for career development</li> <li>Developing staff performance requirements</li> </ul>	An immunization program is moving to a merit-based salary structure. It modifies the standard competencies to create job descriptions describing 'junior', 'competent' and 'senior' levels of proficiency. It then uses the new competencies to create competency-based training programs that will enable staff to advance in their career.

*Important notes*


1. This document is not intended to be a regulatory document nor a training curriculum. It is expected that countries or agencies will customize it to fit their needs.
2. The attributes, functions and competencies describe an organization and workers who are fully meeting expectations in a 'typical' environment. Immunization programs may want to expand the descriptions to define additional proficiency levels such as 'junior' or 'senior'.
3. The **Human Resources and Performance Management** domain includes work functions and competencies that may be required of any manager in the immunization program, not only those in the EPI human resources department. In this way, some Human Resources competencies can be considered foundational.
4. Almost every job in immunization requires some level of proficiency in foundational competencies of **Management and Leadership** and **Vaccine Preventable Diseases and Program**. Consider this when conducting any type of task or performance analysis.
5. Competency statements by definition are broad. They are not sufficiently detailed to develop accurate training curricula. When conducting training needs assessments or training design, break down the competency statements into finer levels of detail to uncover the specific learning objectives that are needed.

# Attributes of a successful immunization program by domains and organizational level

## Attributes of successful EPI

	<b>Advocacy &amp; Communications</b>	<b>Disease Surveillance, Investigation &amp; Response</b>	<b>Human Resources &amp; Performance Management</b>	<b>Monitoring, Evaluation &amp; Data Use</b>	<b>Policy, Planning &amp; Finance</b>	<b>Safety of Vaccines &amp; Immunization</b>	<b>Vaccine Supplies &amp; Logistics</b>
<b>NATIONAL</b>	National & partner advocacy & communication. Communication strategies.	Management of disease surveillance, investigation & response. Laboratory collaboration.	Skilled motivated worker. Staffing, training & supervision. National human resources, training & performance support systems.	Quality data management. Established M&E indicators, national standards & tools. Evidence-based decision making & feedback. Program & policy evaluation.	Priority & policy setting. Annual & multi-year planning. Financing mechanisms & management.	National procedures for quality handling to ensure safe & effective vaccines. AEFI surveillance, reporting & response.	Vaccine, supplies & equipment procurement processes. Forecasting, planning & management.
<b>PROVINCE</b>	Advocacy. Collaboration. Communication strategies.	Coordination of disease surveillance, investigation & response.	Skilled motivated worker. Staffing, training & supervision.	Quality data management for decision making. Monitoring & feedback.	Evidence based policies. Planning & micro-planning. Resource management.	Safety measures implementation & monitoring. AEFI surveillance, reporting & response	Inventory forecasting, planning & management. Storage & distribution.
<b>DISTRICT/ SUB-DISTRICT</b>	Demand creation. Engaged community & local partners.	Disease surveillance, investigation & response.	Skilled motivated worker. Staffing, training & supervision.	Quality data collection, management & use. Monitoring & feedback.	Microplanning. Integrated services. Policy & standard operating procedure implementation. Resource management.	Supervision of safety measures. AEFI reporting & response.	Cold chain, supplies & equipment planning & monitoring. Storage & distribution.
<b>COMMUNITY</b>	Mobilized community.	Disease surveillance. Accurate records & reports. Effective response.	Skilled motivated worker. Staffing, training & supervision.	Accurate records & reports. Data use for continuous quality improvement.	Quality microplans.	Safe immunization practices.	Available supplies in good condition.

**Effective & efficient services**



**SUCCESSFUL EPI OUTCOMES**

## EPI Objective

According to the World Health Organization, the goal of the Expanded Program on Immunization is “universal access to all relevant vaccines for all who are at risk.”<sup>1</sup>

To achieve this goal, countries provide and manage products and services at the national and subnational level, using international guidelines as well as procedures to address specific country needs.

Countries establish specific objectives to reach the overall goal of immunization for all.

## EPI Services

The immunization program is a complex system, composed of specialty areas which are interconnected. For a program to be successful—to reach its goals, work is done in the following major domains:

1. Advocacy and Communications
2. Disease Surveillance, Investigation and Response
3. Human Resources and Performance management
4. Monitoring, Evaluation and Data Use
5. Policy, Planning, and Finance
6. Safety of Vaccines and Immunization
7. Vaccine, Supplies and Logistics
8. Vaccination Service Delivery: Routine and Supplementary activities

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<sup>1</sup> World Health Organization, 1 December 2013

[http://www.who.int/immunization/programmes\\_systems/supply\\_chain/benefits\\_of\\_immunization/en/](http://www.who.int/immunization/programmes_systems/supply_chain/benefits_of_immunization/en/)  
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## Description of the competencies that are needed in a successful immunization program

This document defines competencies for eight technical domains, as well as two foundational domains.

Foundational competencies	
Management and Leadership	Set a vision and direct people and resources to support universal access to all relevant vaccines for all at risk
Vaccine Preventable Diseases and Program	Explain how vaccines work and apply knowledge about immunizing agents per national guidelines

Technical competencies	
Advocacy and Communications	Effectively communicate verbally or in writing in a manner appropriate for the target audience in matters related to EPI
Disease Surveillance, Investigation, and Response	Operate systems that monitor immunization coverage, VPD incidence and prevalence, and respond to VPD outbreaks
Human Resources and Performance Management	Plan and manage staffing, performance management and workforce development for immunization staff and community volunteers, either as part of a human resources department or in a technical management position
Safety of Vaccines and Immunization	Develop & maintain processes to ensure safe storage, transport, administration, and disposal of vaccine
Monitoring, Evaluation, and Data Use	Develop and use M&E systems to monitor the effectiveness of EPI activities at all levels of the system
Policy, Planning, and Finance	Develop and implement policies and plans that address implementation, quality and coverage objectives
Vaccination Service Delivery <b>District and community level only</b>	Safely deliver appropriate vaccines to the target population in a manner that optimizes coverage
Vaccine, Supplies and Logistics	Plan and manage systems and supplies to ensure consistent supply chain and safe transport and storage of vaccine

## The Work and Competencies by Level

### National Level

#### Advocacy and Communications

#### Work Functions

1. Advocate to key stakeholders to foster political support for immunization as national priority, generate and sustain adequate resourcing
2. Cultivate national and international partnerships
3. Build and maintain relationships and share appropriate information with key authorities, CSO and NGOs, professional associations, private sector, and media.
4. Engage with media to inform and communicate key messages and events
5. Ensure the development, implementation, and regular updating of a national plan for advocacy, communication, and stakeholder engagement
6. Develop national risk communication plan and strategies according to the type and the source of event
7. Contribute to maintaining a national working group to ensure regular coordination on planning of all aspects of advocacy, communications, and demand promotion
8. Support the development and dissemination of key tools and resources (e.g. messaging frameworks, training materials)
9. Conduct research to guide the development, implementation, and measurement of communication strategies

#### Competencies

1. Negotiate with high level officials and decision makers
2. Build trust-based relationships with internal and external partners
3. Use knowledge of health communication, risk communications, and social marketing principles to develop a communications plan for immunization
4. Select the appropriate medium for communicating with a target audience
5. Prepare and deliver complex technical content for various audiences
6. Prepare a media kit
7. Design and conduct a communications study (e.g. communication environment analysis, audience analysis, behavioral analysis, communication channel analysis)
8. Develop and implement a communications plan during an emergency
9. Develop and implement a communications strategy monitoring plan (e.g. demand creation)
10. Collect, analyze and interpret monitoring and other communications data
11. Make programmatic decisions based on evidence

Disease Surveillance, Investigation and Response**Work Functions**

1. Develop and communicate, and implement VPD disease surveillance, investigation and response guidelines
2. Develop and manage VPD surveillance system processes and tools (e.g. standard operational procedures, case investigation forms)
3. Monitor implementation of surveillance system guidelines (e.g. monitor quality of surveillance system against indicators, supervision)
4. Conduct surveillance system improvement activities
5. Conduct epidemiologic analyses and summarize data in a timely manner (e.g. person, time, place)
6. Communicate information to appropriate levels and groups (e.g. international & subnational reporting)
7. Monitor quality of public health labs that conduct VPD specimen testing
8. Collaborate between field and laboratory surveillance systems
9. Coordinate VPD surveillance with integrated and other disease surveillance systems (e.g. IDSR)
10. Coordinate or lead outbreak investigation and response activities across different health sectors (e.g. EPI, WASH, other disease programs)
11. Conduct or coordinate epidemiological studies as needed to answer relevant VPD questions (e.g. vaccine effectiveness)
12. Coordinate and share information with national health information systems (e.g. DHIS2, HMIS)

**Competencies**

1. Describe objectives of VPD surveillance by disease and how the different systems answer those objectives
2. Design and implement a VPD surveillance system
3. Design and implement a surveillance system monitoring plan
4. Triangulate data from multiple data sources to identify potential issues as well as synthesize information to inform actions Use technology to manage, analyze and interpret surveillance and other epidemiologic data
5. Collect, analyze and interpret surveillance system monitoring data
6. Make actionable recommendations based on surveillance or other epidemiologic data
7. Write technical reports
8. Design and conduct a VPD surveillance system evaluation
9. Lead surveillance quality improvement initiatives/projects
10. Identify and communicate the limitations of a surveillance system
11. Based on analysis of surveillance data, determine when a scientific study is needed
12. Write a study protocol
13. Conduct a field study, including under urgent conditions (e.g. outbreak investigation)

Human Resources and Performance Management**Work Functions**

1. Provide recommendations and advocate for national HR policies to support immunization program needs
2. Assess staffing needs at all levels of the Immunization program
3. Develop a plan and define strategies to fill permanent or temporary staffing needs at all levels
4. Provide guidelines and indicators for performance management (e.g. supportive supervision/ task shifting/delegation/disciplinary action)
5. Monitor workforce performance indicators and provide recommendations employees
6. Develop and maintain job descriptions in coordination with national human resource authorities
7. Create workforce development strategies based on training needs assessments
8. Coordinate development of guidelines for and implementation of training and on-the-job support, coaching and mentoring
9. Contribute to creating an environment that supports career development and staff retention
10. Develop guidelines and a system for conducting supportive supervision
11. Assist in building the capacity of staff working at all levels to meet immunization program objectives

**Competencies**

1. Use knowledge of key human resource methods and best practices (e.g. workflow analysis, staff turnover, succession planning, competency-based training) for workforce decision making
2. Conduct, interpret and use a staffing needs assessment
3. Develop solutions for complex human resource problems
4. Forecast and plan for human resources needs
5. Write a job description
6. Manage staff recruitment including conduct a job interview, evaluate suitability of candidates
7. Manage, analyze and interpret human resources data
8. Make actionable recommendations based on evidence
9. Manage the national performance review system
10. Conduct a staff performance review and provide constructive feedback
11. Establish indicators for human resource performance (e.g. staff turnover rate)
12. Design, develop and implement a VPD staff workforce development intervention, including training
13. Train staff to effectively and efficiently perform immunization program tasks
14. Design and conduct training evaluations



Monitoring, Evaluation and Data Use**Work Functions**

1. Identify data needs and develop monitoring and evaluation plans and tools
2. Define standards for M&E and data use for subnational levels (e.g. indicator definitions, format, frequency)
3. Collaborate with national groups/departments to establish standards (e.g. denominators, data sharing)
4. Create guidance around data protection and ensuring security of data.
5. Design and manage immunization components within national health management information system
6. Manage and interpret data, and use data for decision making
7. Monitor policy, plans and budget implementation; and performance indicators
8. Calculate and report on indicators to the national MOH, international and/or regional bodies (e.g. Joint Reporting Form)
9. Provide feedback to subnational level on reported data, quality, performance indicators and interpretation
10. Operate a knowledge management system to organize, maintain and share a repository of studies , publications, assessments, and other immunization system documents
11. Budget and manage supply and distribution of data management instruments
12. Develop and implement quality assurance processes and tools
13. Design and conduct periodic program evaluations and special studies

**Competencies**

1. Design an immunization program monitoring, evaluation, and data use plan
2. Use technology to manage, analyze, and interpret immunization program data
3. Triangulate data from multiple data sources to identify potential issues as well as synthesize information to inform actions
4. Identify and use appropriate epidemiologic and other data tools to properly analyze data to inform program management
5. Recognize data quality issues and limitations
6. Make actionable recommendations based on evidence
7. Write technical reports
8. Determine when a special study (e.g. operational research, economic) is needed
9. Design a special study based on program requirements
10. Operate a knowledge management system
11. Design and conduct program evaluations
12. Advocate for evidence based decision making when facing logistical or political obstacles

Policy, Planning, and Finance**Work Functions**

1. Set national vision and targets for immunization
2. Define and revise national immunization policy and schedule based on scientific evidence, epidemiological priorities, program data and health equity
3. Adapt and ensure that national policies comply with international regulations/guidelines and contribute to global health goals and Global Vaccine Action Plan (GVAP)
4. Develop multi-year strategic plan for immunization (e.g. cMYP), including priorities, targets, strategies and budget to achieve national immunization objectives
5. Engage appropriately with national advisory groups, e.g. National Immunization Technical Advisory Group (NITAG), Interagency Coordinating Committee (ICC)
6. Integrate immunization planning appropriately into broader plans, e.g. HSS
7. Develop annual operational plans for immunization
8. Provide guidance for development and facilitate implementation of micro-plans at subnational and community levels
9. Mobilize resources from internal and external sources (e.g. Gavi, Global Fund, EU funding programs and other grant applications)
10. Budget for and monitor resources, track expenditures and ensure timely flow of funds through the system
11. Prepare periodic reports
12. Ensure compliance with public finance regulations, audit and accountability requirements

**Competencies**

1. Make programmatic decisions based on evidence, policies and regulations
2. Use knowledge of public administration and public financial management regulations for planning and policy making
3. Write technical, policy and planning documents
4. Set strategic targets and priorities to achieve national immunization goals
5. Develop short term and long term strategies and operational plans
6. Plan and manage national projects (e.g. introduction of new vaccines, coverage surveys and national immunization days)
7. Implement plans, programs and policies (e.g. national immunization schedule)
8. Prioritize activities and risks
9. Use technology to analyze and interpret program and economic data
10. Develop and manage budgets
11. Develop a forecast for immunization program resource requirements
12. Foster a culture of accountability for effective use of resources
13. Develop proposals for funding

*Safety of Vaccines and Immunization***Work Functions**

1. Establish and manage an AEFI surveillance system to ensure timely detection, investigation and response to issues with vaccines, immunization errors and error-related reactions, signal detection and causality assessment
2. Liaise with the National Regulatory Authority (NRA) to obtain vaccines that are of assured quality, efficacy, and safety
3. Establish and ensure functionality of national expert committee on vaccine and immunization safety
4. Develop and update SOPs with clearly identified roles and responsibilities of each staff category involved in AEFI surveillance, and guidelines
5. Coordinate or lead investigations at national or subnational level
6. Facilitate causality assessment and advise further research as appropriate
7. Provide guidance and feedback to subnational levels and public
8. Share AEFI data with international agencies (WHO, UNICEF, UMC) and manufacturers
9. Participate in/coordinate with – in communication plans to address ongoing issues (public and media awareness) and in crisis communication plans during crises
10. Develop guidance and policy on safe immunization practices including safe disposal of waste

**Competencies**

1. Develop and implement a vaccine and immunization safety-monitoring plan
2. Design and implement an adverse event following immunization (AEFI) surveillance, response, and investigation system
3. Use technology to collect, analyze, and interpret vaccine safety data
4. Make programmatic decisions based on evidence, relevant national legislation, international standards, and regulations and safety databases
5. Write standard operating procedures and technical reports for vaccine and immunization safety
6. Conduct AEFI program quality assessments and make improvement recommendations

Vaccines, Supplies and Logistics**Work Functions**

1. Develop multi-year strategic and annual work plans for the immunization supply chain
2. Develop, update and disseminate standard operating procedures and guidelines for effective management of the supply chain
3. Forecast and procure appropriate vaccines and immunization related materials
4. Define and implement vaccine arrival procedures (includes customs clearance)
5. Implement and enforce proper vaccine handling, storage and distribution procedures
6. Execute end to end temperature monitoring
7. Maintain cold chain inventory, assess and plan for cold chain equipment and spare parts
8. Establish and implement a cold chain equipment maintenance system
9. Establish, maintain and update stock control/logistics management information system (LMIS)
10. Ensure the availability of transport for distribution of vaccines, supplies and supervision
11. Develop protocols and ensure safe disposal of waste
12. Introduce and maintain performance indicators for monitoring and evaluation of the immunization supply chain and logistics system synergies and partnerships on optimizing immunization supply

**Competencies**

1. Analyze outsourcing needs, contract administration and contract management
2. Manage and maintain infrastructure (transport, cold chain )
3. Assess needs and select and implement appropriate product solution (vaccine, cold chain, immunization supplies etc)
4. Forecast vaccine, cold chain, supply and logistical needs
5. Co-ordinate with others on procurement
6. Develop vaccine arrival, storage, transportation, vaccine management and waste management processes
7. Develop and implement effective end to end temperature monitoring
8. Define policy and processes for repair and maintenance of cold chain equipment, temperature monitoring devices
9. Design and implement an LMIS
10. Develop and implement a supply chain monitoring plan
11. Use an LMIS to collect, manage, analyze and interpret supply data
12. Collect, analyze and interpret supply chain monitoring data
13. Make programmatic decisions based on evidence
14. Write technical reports for supply chain
15. Write a standard operating procedure for supply chain
16. Apply knowledge of legal and manufacturing frameworks and constraints to vaccine procurement

Vaccination Service Delivery**Work Functions**

It is assumed that national level staff do not work with service delivery directly. Rather the work described in the technical and foundational domains supports quality service delivery at the lower levels

Foundational: Management and Leadership**Competencies**

1. Define and communicate the organization's vision, mission and strategies
2. Make effective, ethical, and timely decisions that match available resources
3. Integrate core values, integrity, equity and accountability throughout all organizational practices
4. Foster a culture of evidence-based decision making, use of scientific knowledge and continuous improvement
5. Communicate verbally and in writing in a credible, effective way to various target audiences
6. Use interpersonal communication skills to motivate, collaborate, and build alliances
7. Use technology such as the internet, smart phones and informatics applications to complete immunization tasks
8. Conduct situation analysis (e.g. stakeholder, landscape)
9. Solve problems and deal effectively with uncertainty and complexity
10. Manage time by prioritizing and delegating work
11. Create a safe and trust-based work environment
12. Plan and manage projects
13. Conduct a meeting
14. Supervise staff performance

Foundational: Vaccine Preventable Diseases and Program**Competencies**

1. Apply knowledge of key epidemiologic and clinical features of each vaccine-preventable disease to making decisions
2. Access and use information regarding vaccines, immunization trends and policies (e.g. schedules, presentations, handling, dosage, delivery technologies, etc.)
3. Apply public health sciences (epidemiology, biostatistics, social sciences, informatics) to decision making and planning
4. Integrate knowledge about the main steps in vaccine development and evaluation into decision making
5. Describe diseases, basic immunology, herd immunity and vaccines to an audience with varying levels of scientific knowledge
6. Consult current WHO position papers, recommendations, national, global and regional strategies and initiatives, national committees/advisory groups and other resources
7. Describe relevant national and international health regulations and legal frameworks, including the national regulatory authority
8. Provide evidence on the need for a new vaccine or for a changed indication or presentation of a current vaccine
9. Communicate evidence on the need for vaccines and the role vaccines play in preventing disease
10. Use detailed knowledge of the country's immunization program and international regulations and guidance to implement immunization policies

## Provincial Level

### Advocacy and Communications

#### Work Functions

1. Advocate EPI priorities to national level and with partners
2. Collaborate with partners to plan and conduct fundraising
3. Prioritize outreach services
4. Review and improve community outreach strategies
5. Coordinate communications with cross-sector & provincial leaders
6. Develop risk and other communication strategies, messages and material addressing local/state issues and concerns
7. Respond to stakeholders and media in cases of acute events
8. Monitor population knowledge, attitudes and practices
9. Share lessons learned with lower levels

#### Competencies

1. Develop a communication plan for a program or project
2. Develop a risk communication plan
3. Interact with the media, including holding a press conference
4. Use technology appropriately to communicate with stakeholders
5. Conduct a stakeholder analysis
6. Negotiate with stakeholders
7. Develop and deliver a formal technical presentation to a decision maker

Disease Surveillance, Investigation, and Response**Work Functions**

1. Conduct regular VPD surveillance summary & analysis
2. Monitor & improve the quality of surveillance data
3. Lead outbreak investigation and response when needed
4. Supervise and ensure disease surveillance, investigation and response quality
5. Conduct epidemiological studies

**Competencies**

1. Operate a VPD surveillance/health information system
2. Prepare a surveillance summary report
3. Lead an outbreak investigation
4. Conduct epidemiological studies

Human Resources and Performance Management**Work Functions**

1. Adapt national performance standards as needed
2. Staff district and provincial positions in coordination with provincial and/or national human resource authorities
3. Plan and provide supportive supervision for provincial, district and health facility employees
4. Train/mentor district staff and health facility supervisors
5. Conduct staffing planning
6. Conduct staff performance reviews and provide constructive feedback
7. Manage change

**Competencies**

1. Conduct human resources planning
2. Provide supportive supervision for district employees
3. Supervise district staff performance & development
4. Mentor district staff and health facility supervisors
5. Write a job description
6. Conduct a job interview
7. Develop a staff performance plan



Monitoring, Evaluation, and Data Use**Work Functions**

1. Collect and/or review reported administrative data from lower levels
2. Manage data and assess quality using set parameters
3. Coordinate with gatekeepers of provincial and/or national information system
4. Conduct data quality assessments (DQA)
5. Implement vaccination coverage surveys
6. Develop and implement quality assurance tools (ex, checklists)
7. Monitor program processes for continuous improvement
8. Monitor performance indicators and disease occurrence
9. Evaluate program components, strategies and interventions
10. Report key information to higher levels and key stakeholders
11. Provide feedback on reported data, quality, performance indicators and interpretation
12. Conduct regular reviews; ex, meetings with district/local level
13. Make programmatic decisions based on quality evidence & report to next level

**Competencies**

1. Analyze & interpret quantitative & qualitative data from a survey, surveillance or other source
2. Use quantitative methods to monitor an EPI program
3. Develop a monitoring plan
4. Conduct data quality assessments (DQA)
5. Lead a quality improvement project
6. Develop data archiving policies
7. Conduct an EPI performance review
8. Use data analysis to set priorities and take action
9. Prepare performance reports
10. Disseminate findings to stakeholders

Policy, Planning, and Finance**Work Functions**

1. Set provincial policies and standards
2. Compile and review district microplans
3. Plan or adapt and implement programs and projects with key stakeholders, ex.
  - Macroplan (annual and multiple year)
  - SIAs
  - Vaccine introduction
4. Assist with resource mobilization
5. Prepare proposals
6. Manage budget and other resources
7. Develop quarterly provincial work plan
8. Implement policies

**Competencies**

1. Use evidence for priority setting and planning
2. Develop multi-year and annual program plans
3. Prepare a proposal
4. Manage a provincial-level project, such as the introduction of a new vaccine or a coverage survey
5. Manage funds and other resources
6. Implement plans, programs and policies

Safety of Vaccines and Immunization**Work Functions**

1. Adapt national waste management plans and guidelines
2. Adapt national AEFI monitoring and risk communication plans and guidelines
3. Implement and monitor safety measures and policies
4. Supervise and ensure AEFI surveillance, investigation and response
5. Report AEFI and investigation findings to the national level

**Competencies**

1. Implement and monitor safety measures and policies
2. Manage AEFI surveillance and reporting
3. Collect, analyze, and interpret vaccine and immunization safety monitoring data
4. Write technical reports for vaccine and immunization safety
5. Lead an AEFI investigation

Service Delivery**Work Functions**

It is assumed that provincial level staff do not work with service delivery directly. Rather the work described in the technical and foundational domains supports quality service delivery at the lower levels

Vaccine, Supplies and Logistics**Work Functions**

1. Forecast needs for vaccine, supplies, & equipment
2. Manage inventory of vaccines, supplies & equipment including storage in safe places and with effective temperature control
3. Request, receive and distribute vaccines, supplies & equipment
4. Monitor vaccine vial monitors and cold chain temperature
5. Develop equipment maintenance plans
6. Monitor and maintain equipment functioning
7. Manage transport
8. Procure any vaccines and supplies not provided through national program

**Competencies**

1. Forecast vaccine needs
2. Procure vaccine & supplies
3. Develop a vaccine management plan
  - vaccine distribution
  - equipment maintenance
  - equipment monitoring
  - supply chain monitoring
  - cold chain monitoring

Foundational: Management and Leadership

**Competencies**

1. Set short term organizational goals and performance objectives
2. Make effective, ethical, and timely decisions that match available resources
3. Provide constructive and corrective feedback in a respectful and constructive manner
4. Manage time by setting priorities and delegating tasks
5. Create a safe and trust-based work environment
6. Lead a quality improvement project
7. Manage a provincial level project
8. Develop a budget
9. Conduct a meeting
10. Supervise staff performance

Foundational: Vaccine Preventable Diseases and Program

**Competencies**

1. Apply knowledge of key epidemiologic and clinical features of each vaccine-preventable disease of national interest to making decisions
2. Access and use information regarding future vaccines, immunization trends and policies
3. Describe diseases and vaccines to an audience with minimal or no science knowledge (political leaders, media), other medical professionals and professional organizations

## District/Sub-District Level

### Advocacy and Communications

#### Work Functions

1. Evaluate community knowledge, attitudes and practices and share results
2. Build partnerships and advocate with community leaders , government sectors, and other stakeholders
3. Implement communication strategies to reach high risk groups (i.e., Nomadic groups)
4. Provide communication strategies for micro-plans
5. Plan and conduct fundraising
6. Plan and implement community outreach (to create demand, educate...)
7. Build community networks
8. Coordinate with local media for messaging
9. Respond to community and media in cases of acute events
10. Share lessons learned with health facilities

#### Competencies

1. Develop communications plans for routine immunization and supplemental immunization activities
2. Develop an advocacy plan
3. Prepare technical reports
4. Use technology appropriately to communicate with the target population
5. Develop a risk communication plan
6. Develop and deliver a technical presentation to technical and non-technical audiences
7. Conduct behavioral surveillance

Disease Surveillance, Investigation, and Response**Work Functions**

1. Conduct active case searches and manage zero reporting system
2. Compile, summarize, analyze and report disease surveillance
3. Detect, investigate and report outbreaks
4. Implement outbreak response activities including control measures
5. Produce accurate maps and display of data
6. Supervise and monitor disease surveillance according to key indicators

**Competencies**

1. Use knowledge of notifiable diseases to record, report and respond to VPD cases
2. Investigate a VPD outbreak
3. Implement outbreak control measures
4. Supervise and monitor disease surveillance according to key indicators

Human Resources and Performance Management**Work Functions**

1. Staff health facility and district positions in coordination with district and/or provincial human resource authorities
2. Train, plan and provide supportive supervision for district and health facility employees
3. Provide or facilitate salary and incentives for immunization staff
4. Conduct staffing planning
5. Manage change
6. Conduct staff performance reviews and provide constructive feedback

**Competencies**

1. Develop a staffing plan at the district and/or community level
2. Develop a supportive supervision plan
3. Supervise and mentor staff performance & development
4. Conduct a performance review
5. Conduct a job interview
6. Write a terms of reference document

Monitoring, Evaluation, and Data Use**Work Functions**

1. Collect, enter and/or analyze reported administrative data from public, private and other vaccination providers
2. Manage data and assess quality using set parameters
3. Monitor program processes for continuous quality improvement
4. Monitor performance indicators and disease occurrence
5. Monitor coverage for district and in HF catchment areas
6. Report key information to higher levels and key stakeholders
7. Evaluate program components and interventions
8. Make programmatic decisions based on quality evidence & report to next level
9. Conduct review; ex. meetings with health facility management and or staff

**Competencies**

1. Analyze, & interpret quantitative data from a survey, surveillance or other source
2. Use quantitative methods to monitor an EPI program
3. Conduct and use information from data quality assessments (DQA)
4. Monitor program implementation including immunization sessions and records
5. Complete qualitative checklists and prepare reports
6. Conduct an EPI performance review
7. Use data analysis to make decisions
8. Lead a quality improvement project
9. Archive immunization data
10. Prepare performance reports
11. Disseminate findings to stakeholders



Policy, Planning, and Finance**Work Functions**

1. Set local vision/priorities
2. Using population, program data and compiled health facility microplans, create a district microplan that reaches all populations:
  - Maps
  - Logistics
  - HRA plans
  - Communications
  - Staffing
  - Scheduling
  - Budget
3. Assist health facilities with planning supplementary immunization activities (SIA)
4. Develop quarterly district work plan
5. Implement programs, projects and plans, ex, SIAs
6. Implement standard operating procedures (SOPs) including those that integrate immunization with other health services
7. Manage budget and other resources

**Competencies**

1. Use evidence for priority setting and planning
2. Plan and monitor the appropriate session types (fixed, outreach, mobile) for a population or catchment area
3. Develop a district macro plan
4. Develop district work plan
5. Manage projects such as supplementary immunization activities (SIA)
6. Use health facility data to estimate resource requirements
7. Implement plans and SOPs

Safety of Vaccines and Immunization**Work Functions**

1. Adapt waste management plans and SOPs
2. Implement safety and waste disposal policies
3. Supervise safety measures
4. Use national AEFI monitoring and risk communication guidelines to develop plans
5. Investigate and report AEFIs along with investigation findings to the province level

**Competencies**

1. Collect, analyze, and interpret vaccine and immunization safety monitoring data
2. Implement safety and waste disposal procedures
3. Supervise safety measures (vaccine, injection, waste)
4. Investigate and report AEFIs

Vaccination service delivery**Work Functions**

1. Supervise vaccination service delivery
2. Improve quality and reach of services on an ongoing basis using available information

Competencies that are required to conduct these work functions are described in the district/sub-district-level technical and foundational competencies.

Vaccine, Supplies and Logistics**Work Functions**

1. Forecast vaccine and supply needs
2. Manage and maintain inventory of vaccines, supplies & equipment including storage in safe places and with effective temperature control
3. Order, receive and distribute vaccines, supplies & equipment for health facilities
4. Monitor district level cold chain including vaccine vial monitors and equipment temperature
5. Develop equipment maintenance plans
6. Monitor and maintain equipment functioning
7. Procure non-vaccine supplies not supplied by higher levels
8. Maintain records and submit reports on supply/stock-outs
9. Manage transport

**Competencies**

1. Forecast vaccine needs
2. Develop a vaccine management plan
3. Monitor the supply chain
4. Develop equipment maintenance plans
5. Manage the supply chain

Foundational: Management and Leadership**Competencies**

1. Set short term organizational goals and performance objectives
2. Make effective, ethical, and timely decisions that match available resources
3. Mentor staff in a respectful and constructive manner
4. Take action based on evidence and stakeholder priorities
5. Manage time by setting priorities
6. Create a safe and trust-based work environment
7. Manage a district level project
8. Develop a budget
9. Conduct a meeting
10. Supervise staff performance

Foundational: Vaccine Preventable Diseases and Program**Competencies**

1. Apply knowledge of key epidemiologic and clinical features of each vaccine-preventable disease of national interest to making decisions
2. Describe the purpose, action and potential concerns of key components present in a given vaccine product
3. Explain diseases and vaccines to an audience with minimal or no science knowledge; other medical professionals, and professional organizations

## Community Level

### Advocacy and Communications

#### Work Functions

1. Determine literacy of audience and most appropriate communication method/material
2. Provide clear & accurate information to community/patients/caregivers
3. Plan and conduct community outreach and mobilization, including special or high-risk populations
4. Provide education, program updates, and feedback to community members
5. Address vaccine hesitancy and false perceptions
6. Build partnerships with community leaders, government sectors & other stakeholders during planning, priority setting, outreach, and evaluation
7. Build community networks
8. Coordinate with local media for messaging
9. Respond to community and media in cases of acute events
10. Review community outreach plans, activities and results
11. Advocate for immunization programs to influential stakeholders and partners

#### Competencies

1. Design communications plans for the public
2. Develop appropriate communication messages to generate demand, based on understanding the needs of specific populations and communities
3. Conduct community outreach and mobilization for VPD, including for special or high-risk populations
4. Deliver health education related to VPDs and how vaccines can prevent them
5. Communicate respectfully verbally or in writing with technical and non-technical audiences
6. Collaborate with community partners and other NGOs, sectors
7. Use technology appropriately to communicate with the target population

Disease Surveillance, Investigation, and Response**Work Functions**

1. Follow standard operating procedures/case definitions to identify and report cases of VPD
2. Implement community disease surveillance
3. Conduct case investigation and report
4. Monitor surveillance indicators for catchment area
5. Collect & transport specimens
6. Practice infection control to limit HF based transmission of VPDs
7. Act on case investigation findings relevant to catchment area

**Competencies**

1. Implement community disease surveillance
2. Conduct case reporting and investigation
3. Collect & transport specimens
4. Use technology to collect, manage and analyze data

Human Resources and Performance Management**Work Functions**

1. Determine and communicate staffing, responsibilities and session coverage
2. Supervise staff performance & development
3. Implement training and on-the-job support to health care workers and volunteers
4. Recruit and manage volunteers and ad hoc staff to support immunization services
5. Conduct onboarding/orientation for new staff

**Competencies**

1. Develop a staffing schedule
2. Supervise staff performance & development
3. Complete a supportive supervision plan for staff
4. Recruit and manage community mobilizers/volunteers
5. Train health care workers and community volunteers

Monitoring, Evaluation, and Data Use**Work Functions**

1. Identify target populations and catchment areas
2. Record administered and due vaccines, ex, immunization registry, reminder/recall, defaulter tracing
3. Enter and compile data, and create and submit reports (paper and/or on-line)
4. Monitor program processes for continuous quality improvement
5. Check reported information for quality and accuracy
6. Monitor coverage for catchment area
7. Conduct regular review processes and meetings within health facility
8. Make programmatic decisions, ex high risk populations, surveillance, based on quality evidence
9. Provide feedback on and discuss reported data, quality, performance indicators and interpretation

**Competencies**

1. Complete patient immunization records, including registers and reminder/recall systems
2. Monitor immunization sessions and records
3. Summarize, analyze and interpret patient and catchment area vaccination information
4. Evaluate data quality
5. Prepare and submit timely and accurate reports
6. Use data analysis to make decisions
7. Archive immunization data
8. Disseminate findings to stakeholders

Policy, Planning, and Finance**Work Functions**

1. Use population and program data to produce microplans that reach all populations in the catchment area:
  - Target setting
  - Maps
  - Logistics
  - High Risk Area(HRA) and population plans
  - Communications
  - Staffing
  - Scheduling
  - Budget
2. Develop and implement quarterly workplans based on access, coverage and other information (ex, vaccine hesitancy)

**Competencies**

1. Use evidence for priority setting and planning
2. Prepare a health facility session plan, based on subnational guidelines
3. Develop a micro plan
4. Develop a work plan
5. Implement plans
6. Calculate the make-up of a target population
7. Use knowledge of the target population to plan vaccination services

Safety of Vaccines and Immunization**Work Functions**

1. Follow safe immunization practices when handling vaccines & injections
2. Implement district waste management guidelines and SOPs
3. Monitor and report adverse events following immunization (AEFI) according to guidelines/SOPs
4. Participate with higher levels on investigation of AEFIs

**Competencies**

1. Handle vaccines & injection supplies safely
2. Manage waste appropriately
3. Monitor and report adverse events following immunization (AEFI)
4. Take infection prevention measures



Vaccination Service Delivery**Work Functions**

1. Organize and conduct immunization sessions in a fixed facility, outreach site, or via mobile or supplementary immunization activities
2. Determine if individual is eligible for specific vaccines
3. Prepare and administer vaccine safely
4. Implement with other health care services and/or interventions
5. Monitor vaccination sessions so as to improve quality and reach of services
6. Advise and treat reactions that occur following immunization
7. Maintain patient immunization records

**Competencies**

1. Administer vaccine ethically, timely, correctly, and safely
2. Clearly explain to a caregiver how vaccines work, the vaccination schedule, and why return dates are important, based on national and other guidelines
3. Properly prepare and handle vaccine
4. Communicate with beneficiaries before, during or after a vaccination session
5. Safely dispose of waste
6. Recognize an AFP, measles or other VPD case, based on a case definition
7. Recognize, communicate risk, and respond to adverse reactions to immunization
8. Organize and conduct immunization sessions:
  - in a fixed facility
  - with communities at an outreach site
  - via mobile or supplementary immunization activities

Vaccine, Supplies and Logistics**Work Functions**

1. Plan vaccines, supplies and equipment based on target population and delivery strategy
2. Order, store and monitor vaccines and supplies safely and effectively
3. Monitor and maintain equipment, including temperatures
4. Maintain records of supply chain
5. Track and report supplies, particularly vaccine & wastage

**Competencies**

1. Plan for vaccines based on target population
2. Develop a vaccine management plan
3. Monitor vaccine supply and wastage
4. Manage, monitor and maintain equipment and supplies
5. Manage cold chain, considering vaccine potency, temperatures, and record keeping
6. Store vaccines and supplies effectively
7. Organize transport of supplies and staff to other service delivery and outreach sites
8. Maintain records on vaccines, supplies and logistics

Foundational: Management and Leadership

**Competencies**

1. Manage time by setting priorities
2. Make effective, ethical, and timely decisions that match available resources
3. Delegate tasks
4. Work as part of a team to achieve organizational objectives
5. Complete work tasks while under pressure
6. Use interpersonal communication skills to collaborate with and motivate others
7. Conduct a meeting
8. Create a safe and trust-based work environment

Foundational: Vaccine Preventable Diseases and Program

**Competencies**

1. Explain the benefit of immunization to a caregiver
2. Use current information on VPDs, vaccine formulations, schedule, uses, recommendations and handling during the delivery of vaccination services
3. Apply the knowledge of the components and properties of vaccines for safe and effective practice
4. Explain herd immunity and importance of population coverage for disease control
5. Describe how the state of coverage and burden of disease in their catchment area affects vaccination delivery strategies

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