CAPACITY DEVELOPMENT COUNTRY SUPPORT

# TRAINING NEEDS ANALYSIS TOOLKIT

# **IMMUNIZATION SUPPLY CHAIN**

# **MODULE I**

## INTRODUCTION TO TRAINING THE IMMUNIZATION SUPPLY CHAIN WORKFORCE



### TNA Toolkit for the Immunization Supply Chain Workforce

Updated: February 1, 2018

A collaboration between

### **UNICEF** Supply Division

and

The People that Deliver (PtD) Initiative

Funded by

GAVI, the Vaccine Alliance

### Documents in this series:

Module I.	Introduction to Training the ISC Workforce
Module II.	Tools for ISCM Training Needs Analysis
Module III.	Template for ISCM Training Strategy
Module IV.	Template for ISCM Training Plan
Module V.	Templates for ISCM Training Implementation

### Further information:

Musonda Kasonde Capacity Development Unit UNICEF Supply Division mkasonde@unicef.org

### TNA Toolkit for the Immunization Supply Chain Workforce

One of the major challenges identified during the effective vaccine management (EVM) and HR rapid assessments carried out by UNICEF and its partners in various countries in 2016 and 2017 was the non-systematic approach to HR capacity development and the ad-hoc manner in which training is conducted. This haphazard approach to training means that learning is not optimized and does not result in the full impact being achieved in terms of immunization supply chain performance.

This Training Needs Analysis (TNA) Toolkit is a response to that problem and aims to fill a gap, in that it offers a structured and sustainable approach to training through detailed skills mapping, analysis and planning that is country driven. The purpose of this initiative is to enhance productivity of individuals by enabling development of their competencies in line with organizational objectives.

The development of this TNA Toolkit aligns with the global strategy on Human Resource for Health (HRH) 2030 which aims to ensure that Ministries of Health in countries have inclusive institutional mechanisms through strengthened technical and managerial capacity of their workforce.

The intended target group for this TNA Toolkit are Supply Chain Managers and Leaders at all levels of the Immunization Supply Chain.



### **TNA Toolkit Overview**











### Module I. Introduction to Training the ISC Workforce

Provides an introduction to the suite of documents that make up the TNA Toolkit. Describes its purpose and intended target group. The People that Deliver (PtD) Initiative Competency Compendium is introduced as the primary basis for the TNA methodology (Module II). Training options are described, as well as the stepped approach to carrying out a TNA as the basis for developing a Training Strategy (Module III) and Training Plan (Module IV).

### Module II. Tools for ISCM Training Needs Analysis

Describes two methods that may be used to assess the competence of individuals or teams of ISCM workers. The first method is Employee Self-Assessment, which is best done as a dialogue between an employee and his/her line manager. The second is the Employee Proficiency Test, which takes a snapshot of the current level of knowledge of the individual ISCM worker. Some examples are given of practical applications of both methods.

### Module III. Template for ISCM Training Strategy

Provides a template, i.e. detailed outline, of a generic ISCM Training Strategy for countries to use and adapt to their own specific needs. Section headings and content of sections are suggested, not prescribed. The Training Strategy is meant to be developed, based on the outcome of a Training Needs Analysis (Module II).

### Module IV. Template for ISCM Training Plan

Provides a generic template for a costed ISCM Training Plan and is accompanied by several templates that can be downloaded, used and adapted to suit the specific needs of the country and of those planning and facilitating training events. A costed training action plan is an essential tool to ensure access to the necessary funds, facilitators and venues to implement planned training.

### Module V. Templates for ISCM Training Implementation

Provides a selection of templates that may be used for training implementation, including formats for training curricula and training evaluation. All templates can be downloaded. Countries are encouraged to adapt these to their own specific needs.

### Table of Content

1	INT	RODUCTION	1
	1.1	The Public Health Supply Chain	1
	1.2	Why Training?	1
	1.3	Why Training Needs Analysis?	1
	1.4	Competency-Based Training	2
	1.5	Training Terminology	2
		1.5.1 Knowledge, Skills, Attitudes	2
		1.5.2 Curricula, Syllabi, Modules	3
	1.6	Mapping the Training Process	4
2	THE	ISC WORKFORCE	5
	2.1	Theory of Change	5
	2.2	Roles and Responsibilities	5
	2.3	Job Descriptions	7
	2.4	Performance Management and Supervision	7
3	LEA	RNER NEEDS ASSESMENT	8
	3.1	Introduction	8
	3.2	The LNA Process	8
	3.3	Adult Learning	8
4	CON	MPETENCY MODELING	9
	4.1	Introduction	9
		4.1.1 Competency-Based Training	9
		4.1.2 Competency Frameworks	9
	4.2	PtD iSCLM Competency Framework	9
		4.2.1 Overview	9
		4.2.2 Technical Domains	11
		4.2.3 Managerial Domains	13
	4.3	WHO Standard Competencies for the Immunization Technical Workforce	15
5	TRA	NINING MODALITIES	16
	5.1	Overview	16
	5.2	In-Service Training	16
	5.3	Long Term vs. Short Term Training	16
	5.4	Training of Trainers	17
		5.4.1 The ToT Concept	17
		5.4.2 Financial Incentives	17
	5.5	On-Boarding of New Recruits	17
	5.6	Mentorship Programmes	17
	5.7	Coaching	18
	5.8	Training Management	18
6	TNA	A METHODOLOGY	19
	6.1	Five Steps of TNA	19

6.2	Data Collection Methods	20
6.3	TNA for ISCM: Recommended Methods	21
REFERE	NCES	23
ANNEXI	ΞS	24
Ann	ex 1: Glossary of Terms	24
Ann	ex 2: Technical Specifications for a Training Management System	27
Ann	ex 3: Record of Revisions	28

### List of Tables

TABLE 1	EXAMPLES OF COUNTRY ISCM/EPI STAFF CLASSIFICATION	. 6
TABLE 2	THE PTD COMPETENCY COMPENDIUM, OVERVIEW	10
TABLE 3	PTD COMPETENCY FRAMEWORK WITH FOCUS ON IMMUNIZATION SUPPLY CHAIN	10

### List of Figures

FIGURE 1	TYPICAL PUBLIC HEALTH SUPPLY CHAIN	1
FIGURE 2	MAPPING THE TRAINING PROCESS	4
FIGURE 3	PATHWAY OF CHANGE: HR FOR ISC DEVELOPMENT CYCLE	5
FIGURE 4	EXAMPLES OF CLASSIFICATIONS OF ISCM/EPI STAFF FUNCTIONS	6
FIGURE 5	FIVE STEPS OF TRAINING NEEDS ANALYSIS	. 19

### Acronyms

3PL	Third Party Logistics
AEFI	Adverse Event Following Immunization
CC	Cold Chain
CIPS	Chartered Institute of Procurement and Supply
CPD	Continuous Professional Development
EML	Essential Medicines List
EPI	Extended Program of Immunization
EVM	Effective Vaccine Management
GAVI	Global Alliance for Vaccines and Immunization
HR	Human Resources
HRH	Human Resources for Health
HRIS	Human Resources Information System
HRM	Human Resources Management
IAPHL	International Association of Public Health Logisticians
ICT	Information and Communication Technology
ISC	Immunization Supply Chain
ISCM	Immunization Supply Chain Management
JD	Job Description
LNA	Learner Needs Assessment
МоН	Ministry of Health
MoU	Memorandum of Understanding
PM	Performance Management
PSA	Pamela Steele Associates
PSC	Pharmaceutical Supply Chain
PSM	Procurement and Supply Management
PtD	People that Deliver Initiative
QA	Quality Assurance
SC	Supply Chain
SCM	Supply Chain Management
SOP	Standard Operating Procedure
TNA	Training Needs Analysis
ТоТ	Training of Trainers
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

### **1** INTRODUCTION

### 1.1 The Public Health Supply Chain

Well-functioning supply chains are the backbone of a public health system. A supply chain (SC) is the collection of steps that ensures that products are readily available to the end user in the right quantity and quality and at the right time. Supply chain management (SCM) refers to the process that ensures that supply chains are efficient and cost-effective. Supply chains are critical to the provision of health services.



Public health supply chains are under increasing pressure to operate efficiently. With large-scale investments in health programs, a widening portfolio and volume of products, and expansion of services to new populations, supply chains must be flexible and responsive in a changing global environment. Increasingly, donors and policymakers look for accountability from each link in the supply chain and improvements that can be sustained without indefinite external funding.

### 1.2 Why Training?

Training is the process of enhancing the skills, capabilities, and knowledge of staff. The thinking and behaviour of staff is moulded by the training process. One of the most important things that can be done to ensure that supply chains operate at their peak, is to train staff in all aspects of the supply chain. There is often a feeling that staff involved in the supply chain only need to know the exact duties that they need to perform. Rather, staff need to be trained to see the 'bigger picture' and feel part of the totality of the process. Training programmes need to be tailored towards meeting actual employee training needs, aligned with broader organizational objectives.

A structured training programme, designed with clear objectives in mind, provides staff with opportunities to develop holistically, preparing the way for an improvement in their performance. With a proper training and development program in place, in line with internal strategies of the organization, staff will be tuned into overall organizational objectives, thus ensuring optimum productivity.

### 1.3 Why Training Needs Analysis?

A Training Needs Analysis (TNA) is an essential process needed for effective and targeted training. It can be defined as the identification of training requirements and the most cost effective means of meeting those requirements. TNAs seek to identify accurately the levels of the present situation in the target groups, by way of surveys, interviews, observation, secondary data analysis and/or workshops. The gap between the present status and desired status may indicate problems that in turn can be translated into training needs.

It is generally acknowledged that TNAs are important, yet they are often overlooked<sup>1</sup>. One of the major challenges identified during the effective vaccine management (EVM) and HR assessments carried out in various countries during 2016 and 2017<sup>2</sup>, was the non-systematic approach to HR capacity development and the ad-hoc manner in which training is conducted, which does not optimize learning and does not result in the full impact being achieved in terms of immunization supply chain performance. Without assessing the real and current needs of individuals and of the organization, training interventions will remain hit and miss. It is therefore essential to have a more structured and sustainable approach to training through detailed skills mapping, analysis and planning that is country driven.

The UNICEF TNA Toolkit comprises methodologies and templates and is ideal in guiding countries to assess, plan and implement training activities for their supply chain workforce and leaders at all levels. The development of this toolkit aligns with the global strategy on human resources for health (HRH) 2030 which aims to ensure that countries have inclusive institutional mechanisms through strengthened technical and management capacity in Ministries of Health.

### 1.4 Competency-Based Training

A competency is defined as being the blend of knowledge, skills and abilities, needed to perform a specific task. Worldwide, the traditional approach to training has been for trainers to determine what content needs to be learned, teach it, and then test to see whether the content was learned. Traditional teaching and training methods usually relied on passive memorization from lectures as the dominant learning method for trainees. This approach, though long established, does not guarantee sustainable learning outcomes. Educational reforms support the application of competency-based approaches, i.e. defining, teaching, and assessing competencies and subsequently evaluating trainee performance in relation to these, focusing on the outcome of the training, rather than on the process, in other words applying knowledge and skills rather than merely gaining knowledge.

### 1.5 Training Terminology

### 1.5.1 Knowledge, Skills, Attitudes

With respect to training practice, it is important to differentiate between knowledge, skills and attitudes. **Knowledge** refers to the 'cognitive domain' and specifically to a person's understanding of facts and procedures. **Skills** refer to the capacity of an individual to perform specific actions in order to achieve a specific goal. **Attitudes** refer to the 'affective domain' that includes the learner's values, beliefs, biases, emotions, and role expectations that may influence his/her performance.

There is clear evidence from teaching practice that knowledge *alone* is not enough to bring about better management or better delivery of service. Although learners often tend to like formal lectures, the unidirectional transfer of knowledge using formal lectures is not, by itself, effective in increasing competence by those doing the learning. Contemporary training methodologies which emphasize interactivity have shown to be a more effective basis for increasing competence in all cadres of supply chain workers and employees in general.

The outcome of effective training methodologies is that the learners are provided with knowledge, skills and attitudes that enables them to manage or practice aspects of the supply chain more competently. The training methodologies that a trainer selects should be in accordance with predefined training objectives.

Methods to facilitate learner 'attitude openness' and 'introspection' include individual exercises in self-reflection, group discussion and focus groups. Training exercises must be designed to expose

<sup>&</sup>lt;sup>1</sup> Conclusion from moderated peer group discussion on IAPHL forum (2017).

<sup>&</sup>lt;sup>2</sup> Country studies by UNICEF SD/ESARO/EAPRO conducted during 2016-2017.

learners to situations where they have to reflect on or confront their own beliefs, values and attitudes. The trainer provides structure to the learning process and is alert to the possible need for guidance. Basic elements, that are key to the success of any training session, include:

- 50% of the training includes interaction between trainer and trainees, such as role play, video, interviews, group discussion, etc.
- A clear presentation of the training objectives is given to the learners at the beginning of each training session.
- The completion of each training course is followed by an evaluation of the course by the trainees.
- Training is based on a bottom-up participative teaching style.
- Training builds on existing knowledge and experience of trainees.
- Whenever possible, the ratio of trainers to trainees of should be 1:10 or better.

### 1.5.2 Curricula, Syllabi, Modules

The term **curriculum** is generally understood as the subjects and materials to be taught by an educational institution; typically it is listed as a set of subjects, but also may include the learning experiences, skills, and abilities trainees are expected to learn. A **syllabus** refers to the content or subject matter of an individual subject.

A curriculum can be arranged in modules, which can be organized as **general modules**, which are considered necessary in order to build the basis for what needs to be taught, and **modules on specific themes**. Each module can be used on its own; however it is recommended that general modules are taught before introducing specific modules. **Modules** are normally organized as follows :

- At the beginning of each module an entry scenario is provided. It can be used throughout the session to illustrate specific issues and aspects of the theme.
- Reference modules are given for specific topics, in order to show where to refer to for further details.
- Each module is preceded by a statement of 2-3 major overall goals, which define the desired outcome on completion of the module.
- Learning objectives are always expressed from the point of view of the learner and relate to the different dimensions of learning : cognitive (knowledge), affective (attitudes) or of technical competence (skills).

Modules should be designed to allow for flexible use. For instance, with a target group of procurement specialists, it may be appropriate to spend a half day sessions on general procurement topics and then several days on issues specifically related to procurement practice related to immunization supplies.

Documentation plays a fundamental role in the process of developing quality learning materials. The outcome of the training implementation stands or falls with the quality of the documented learning materials produced. For this reason, trainers and facilitators will ensure that the quality of materials used and produced complies with acceptable norms and standards. At the end of any training intervention, an evaluation is conducted to ensure that students have mastered the desired competencies.

### 1.6 Mapping the Training Process

Training is commonly defined as an organized activity aimed at imparting information and/or instructions to improve the recipient's performance or to help him or her attain a required level of competence. Without a systematic approach to training, supply chain workers will be trained arbitrarily and haphazardly. Mapping the training process is a methodology for managing workforce development through training. It is a systematic approach to determining the training needs of individuals with the objective of ensuring that these individuals are equipped to carry out their duties effectively by having the necessary knowledge, skills and attitudes to perform.

The training process begins with identifying people's work-related needs. Critical questions need to be asked, such as what are the performance gaps of the organization and can these gaps be addressed by training? Is poor performance caused by people not having the necessary skills, or is there a lack of equipment, or are there no set procedures for staff to adhere to? Analysis and design of the training are part of the decision-making phase. What must be learned? What will we teach? These are critical questions. In reality, these questions are not always asked and the assumption is made that training in itself is a panacea for poor organizational performance.



FIGURE 2 MAPPING THE TRAINING PROCESS

Once the decision has been made that training is indeed appropriate, individuals need to be evaluated as to which competency areas need to be addressed. This is best done by way of a training needs analysis, the content of which is based on a relevant health supply chain competency framework, i.e. an exhaustive list of competencies within that specific field.

The design phase is followed by the development and implementation, or delivery, of training content. There are many training delivery methodologies or modalities to choose from, depending on whether the predominant objective of the training concerns 'knowledge', 'attitudes', or 'skills'.

Evaluation tends to be the weakest link in the chain, i.e. the one given the least attention to. Usually, training is followed by a test to determine the immediate outcome of the training. What that does not tell us, however, is whether the trainee will be able to perform his tasks better, so that organizational performance will be impacted. Assessing long term impact of training requires the application of appropriate result indicators (Modules III and IV).

### 2 THE ISC WORKFORCE

### 2.1 Theory of Change

Theory of Change (TOC) uses backwards mapping requiring planners to think in backwards steps from a long-term programmatic or organizational goal (impact) to the intermediate (outcome) and early-term changes (outputs) that are required to cause the desired change or impact. This creates a set of connected entities, referred to as *pathway of change*. The pathway of change represents the desired change process and reflects a cycle of continuous improvement.



FIGURE 3 PATHWAY OF CHANGE: HR FOR ISC DEVELOPMENT CYCLE

### 2.2 Roles and Responsibilities

The Public Health Supply Chain requires a mix of professional expertise. The ISCM workforce usually consists of pharmacists, logisticians, supply chain managers, data managers, warehouse and transport personnel – all of whom collectively are tasked with ensuring appropriate product selection, forecasting, procurement, storage, distribution and use of health commodities. Key personnel, including doctors, nurses and other clinical and administrative staff also contribute a portion of their time and responsibilities within the system to provide the appropriate medicines and commodities to improve health. Health sector SC workers typically are designated to one of these levels of the Supply Chain:

National Level	>	Planners, Managers, Administrators
Central Store	>	Manager, Store Workers, Drivers
Intermediate Stores	>	Manager, Store Workers, Drivers
Health Facility	>	Pharmacists, Nurses
Service Point	>	Nurses, Community Health Workers

The lack of suitably qualified human resources in adequate numbers is often quoted as being one of the root causes of poor performance of the health supply chain.

The Table below gives examples of how countries have classified their own ISCM/EPI staff functions. Source: ISCM Training Needs Analyses in Indonesia and Lesotho (UNICEF SD, 2017).

	Supply Chain Roles		
Level of deployment	Example 1: Indonesia	Example 2: Lesotho	
Central (National)	EPI Manager or Deputy Manager	EPI Manager	
	Cold Chain & Logistics Focal Point	EPI Deputy Manager	
	Technical Staff Immunization	Cold Chain Officer	
		□ Logistics Officer	
		□ Surveillance Officer	
		Data Management Officer	
Provincial	Provincial EPI Manager	[No provincial level]	
	Cold Chain/Logistics/Program Manager		
District	District EPI Manager	District Health Manager	
	Cold Chain/Logistics/Program Manager	Public Health Nurse	
		Child Health Officer/ EPI Focal Person	
		Pharmacist	
		Logistics Officer	
□ Facility	□ Vaccinator (Midwife/Nurse)	□ Nurse/Midwife	
	Immunization Coordinator	Health Assistant	
		Nurse Assistant	

TABLE 1 EXAMPLES OF COUNTRY ISCM/EPI STAFF CLASSIFICATION

### Other attempts have been made to categorize ISCM/EPI staff functions:

National	Country EPI Logistics Co- ordinator Vaccine Store Management Officer National Cold Chain and Logistics Officer National EPI Logistician Logistics Program Officer Vaccines Quality Assurance and Commodity Security Officer 1,2,3,4,5,6	Program Manager 1,2,3,4,5,6	Surveillance Officer AEFI Investigation Officer 1,2,3,4,5,6	Government MoH Leadership Central Medical Stores Central Stores Manager
	Epidemiologist 1,2,3,4,5,6	Training and Communication Officer Trainers 1,2,3,4,5,6	Program Data Manager 1,2,3,4,5,6	
	National Store Manager 2,3,4,5,6	Program Technician 1,2,3,4,5,6	National Vaccine Store Manager 2,3,4,5,6	Intermediate Warehouse
Regional	Store Keepers Store Managers 1,3,4,5,6	Regional Immunization and Vaccines Officers (RIVOs) 3,4,5,6		Malager
negionar	Regional Cold Chain Technician 3,4,5,6	Regional EPI Logistician 1,2,3,4,5,6		Health Clinic
District	Vaccines Pharmavigilance Officer Store Managers 1,3,4,5,6	District Logistics and CC Officer Immunization and vaccine officer 3,4,5,6		Clinic Pharmacist or Nurse
	District Depot Manager District Store Keepers 3,4,5,6	District Cold Chain Technician (DCCT) 3,4,5,6		Community Based
Facilities	Nurses Immunization staff 3,4,6			Distributor (CBD)
Community	CHWs (Mobilization and defaulter tracing only in Kenya) 3,4,6			Adapted from: Community Health USAID   DELIVER PROJECT Worker

SC Competency Domains vs. SC Roles and Responsibilities (PtD, 2015)

SC Staff from National to Community level (USAID Delivery Project)

FIGURE 4 EXAMPLES OF CLASSIFICATIONS OF ISCM/EPI STAFF FUNCTIONS

There appears no one and the same system for ISCM staff classification. This diversity in staff role definitions has repercussions in how we plan and design generic competency assessments. The absence of a 'standard' or 'generic' staff structure such as commonly exists, for example, for medical

professionals and engineers, makes the application of a universally applicable TNA more challenging. As mentioned above, a TNA requires a clear definition of functional or operational job areas for which specific health workers with a specific job title are responsible. In the absence of such a common country-independent structure we will need to define a generic set of functional areas that can be applied to any given country situation. Health workers within the ISC need to decide for which specific ISC functional area(s) they are responsible, regardless of their actual job title.

### 2.3 Job Descriptions

Job descriptions (JDs) are broad written statements of specific functions. They form the basis for supportive supervision and performance evaluation of staff. Job descriptions ensure that staff is fully informed and aware of their responsibilities. In many countries, within the realm of public sector SCM, workers often don't have JDs, or they are too generic<sup>3</sup>. In addition, individual workers may take on tasks that are not mentioned in their JDs. To complicate matters further, there is a trend, in many countries, towards task shifting necessitated by the problem of staff shortages.

Developing generic JDs for the supply chain is problematic, because many health workers (doctors, nurses, administrators, engineers, etc.) perform supply chain related tasks as part of their broader or primary function. A recommendation from the above mentioned studies is that countries should develop their own JDs for their own ISC workers. As is the case with roles and responsibilities, the absence of generic cross-country applicable JDs also has an impact how we plan and design generic competency assessments.

### 2.4 Performance Management and Supervision

Staff performance management is the process of optimising productivity and quality of work of the workforce with the objective of positively impacting the performance of the programme or the organization. Performance monitoring measures what an individual actually does as opposed to what they can or should do. Performance monitoring creates opportunities to improve knowledge, skills and performance, which the aim of enhancing a worker's motivation and job satisfaction.

Supportive supervision is an iterative process of helping staff to improve their work performance. It is carried out in a respectful and non-authoritarian way with a focus on using supervisory visits as an opportunity to improve staff performance. Supportive supervision is based on a constructive dialogue between a supervisor or line-manager and an employee.

<sup>&</sup>lt;sup>3</sup> Finding from country studies by UNICEF SD/ESARO/EAPRO carried out during 2016-2017.

### **3 LEARNER NEEDS ASSESMENT**

### 3.1 Introduction

One aspect which tends to be overlooked when planning training interventions, is assessing the individuals' learning needs, learning style and readiness to learn. What are individuals capable of learning and what would be the best way to train them? A Learner Needs Assessment (LNA) has the potential to enhance the effectiveness of training interventions.

### 3.2 The LNA Process

LNAs require methodologies and tools for learning that focus on the individual's needs, motivations and aspirations. How do we ensure that we create the right environment for optimal learning? Begin the process by interviewing the trainee. First, find out more about him/her as an individual. What are the expectations, what motivates the person to attend training sessions? Find out what the preferred learning style is, so that training strategies can be matched as closely as possible to the persons' preferred method. Questions one might ask to determine individual learning styles are:

- What learning style do you prefer (give examples)?
- Do you prefer theory or practice?
- What time of day do you learn best?
- Do you learn something better in a small or larger group?

Uncovering the answers to such questions is essential to designing effective training interventions.

### 3.3 Adult Learning

There is a common perception that the best way to motivate adults to learn is with rewards, such as money; the carrot-and-stick approach. That's a mistake, says Daniel H. Pink, author of a book<sup>4</sup> on motivating individuals. He asserts that the secret to high performance and satisfaction-at-work is the deeply human need to direct our own lives, to learn and create new things, and to do better by our own standards.

Malcolm Knowles (1913-1997), one of the pioneers in the field for adult learning, defined five main characteristics of adult learners. Knowles' 'Theory of Andragogy' identified five assumptions that teachers and trainers should make about adult learners.

- 1. *Self-Concept* Because adults are at a mature developmental stage, they have a more secure self-concept than younger learners. This allows them to take part in directing their own learning.
- 2. *Past Learning Experience* Adults have a vast array of experiences to draw on as they learn, as opposed to younger learners.
- 3. *Readiness to Learn* Many adults have reached a point whereby they see the value of education and are ready to be serious about and focused on learning.
- 4. *Practical Reasons to Learn* Adults are looking for practical, problem-centred approaches to learning.
- 5. *Driven by Internal Motivation* Generally speaking adults tend to be more internally motivated than youngsters.

Adult learners are attracted to what they perceive as useful to their work and, more importantly, to themselves. A lack of commitment and motivation by adult learners can be a major challenge. It is important, therefore, to recognize these needs at the start of any adult learning intervention.

<sup>&</sup>lt;sup>4</sup> PINK DH (2013). To Sell Is Human: The Surprising Truth About Moving Others. By Daniel H. Pink.

### 4 COMPETENCY MODELING

### 4.1 Introduction

### 4.1.1 Competency-Based Training

A competency is defined as being the blend of knowledge, skills and abilities, needed to perform a specific task. Worldwide, the traditional approach to education in the health sector has been for trainers to determine what content needs to be learned, teach it, and then test to see whether the content was learned. This approach, though long established, does not guarantee that trainers use content and apply methodologies that reflect the needs of the workplace. A competency-based education model starts by asking the question: What must the trainee be able to do on the job, after the training? Then, appropriate training and assessment methods are developed that will ensure reaching the objectives. After each training intervention, an evaluation is conducted to ensure that trainees have mastered the desired competencies.

### 4.1.2 Competency Frameworks

This TNA Toolkit is primarily based on the well-established Competency Compendium for Health Supply Chain Management, developed by People that Deliver (PtD, 2015). The Compendium presents a compilation of competency areas with associated behavioural competencies.

Users of this TNA Toolkit are advised to opt for a competency framework that suits their specific needs. The PtD competency framework, whether for the pharmaceutical supply chain in general, or adapted to immunization, may be complemented, or replaced, by other frameworks that are likely to be better suited to specific country requirements.

### 4.2 PtD iSCLM Competency Framework

### 4.2.1 Overview

Increasingly, within the public health sector, stakeholders are beginning to focus on workload modelling to determine the number of staff required within a system design approach (Village Reach, 2014). This approach can lead to a rethinking of the types and numbers of staff needed to manage logistics tasks.

The 'PtD (People that Deliver) Initiative Competency Compendium'<sup>5</sup> presents a compilation of competency areas with associated behavioural competencies derived from a number of frameworks. The term 'competency' may be defined as a cluster of related knowledge, skills and abilities that affects a major part of one's job. The PtD Competency Framework for Managers and Leaders distinguishes between technical and managerial competencies.

<sup>&</sup>lt;sup>5</sup> PEOPLE THAT DELIVER. (2014). Competency Compendium for Health Supply Chain Management: A Reference for Health Supply Chains.

#### TABLE 2 THE PTD COMPETENCY COMPENDIUM, OVERVIEW

	Domain	Competencies
Technical Domains	Selection Criteria & Quantification	Select and quantify the correct supplies
	Procurement	Procure supplies
	Storage & Distribution	Store and distribute supplies
	Use (at service point)	Using the supplies
Managerial Domains	Resource Management	Manage money, people, etc.
	Professional & Personal	Manage day-to-day responsibilities, career
		development

With reference to this framework, competency areas are not outlined by particular cadres or job titles (i.e. warehouse manager, dispensing officer, etc.), but rather they are listed by particular supply chain *functions*. This enables users of this framework to consider job functions, rather than job titles or professional titles. Functional areas typically reflect a defined task or set of tasks for either one person or a dedicated team of persons.

The Table of Competencies below is based on and adapted from the PtD Competency Compendium, with a focus on immunization supply chain managers (PtD, 2015 Appendix 1).

	Domain	Competencies
	A. Selection Criteria &	1. National disease patterns and immunization priorities
	Quantification	2. Vaccine forecasting and supply planning
		3. Budgeting for immunization programmes
		4. Cold Chain capacity assessment and planning
	B. Procurement	5. Vaccine procurement
		6. Supplier relationship management
ns		7. UNICEF procurement system
nai		8. UNICEF Cold Chain equipment procurement
loc	C. Storage & Distribution	9. Inventory management at vaccine stores
al [		10. Temperature monitoring
nic		11. Temperature mapping
sch		12. Distribution and transport
Ť		13. Writing and revising SOPs
	D. Use (at service point)	14. Immunization planning
		15. Immunization safety
		16. Management of AEFI
		17. Arranging vaccines in refrigerators, cold boxes & vaccine carriers
		18. Preventive maintenance of Cold Chain equipment at health facilities
		19. Disposal of immunization waste
	E. Resource Management	20. Supervision and staff performance management
		21. Financial management
		22. Cold Chain equipment management
		23. Infrastructure management
ins		24. Transport management
ma		25. 3PL Contract management
Do		26. Data for decision making
ial		27. Immunization systems design
ger	F. Professional & Personal	28. Introduction to vaccines management
ana		29. Computing and data skills
ž		30. Communication and interpersonal skills
		31. Problem solving and decision making
		32. Teamwork and team building
		33. Presentation skills and public speaking
		34. Fundraising and proposal writing

Domain	Competencies
	35. Conflict management
	36. Training of trainers

### 4.2.2 Technical Domains

### A. Selection Criteria & Quantification

The competencies required by a worker to select and quantify the correct supplies for their work situation (e.g. their country, district, facility).

Competency Domain	Description
<ol> <li>National disease patterns and immunization priorities</li> </ol>	The competencies required to understand and apply national policy and priorities, critical disease patterns and national Essential Medicine List (EML).
2. Vaccine forecasting and supply planning	The competencies required to forecast and plan vaccine supplies by estimating the quantity of immunization supplies.
3. Budgeting for immunization programmes	The competencies required to determine budgetary requirements for effectively conducting immunization programmes. Includes estimating cost of vaccines and related supplies.
<ol> <li>Cold Chain capacity assessment and planning</li> </ol>	The competencies required to forecast Cold Chain equipment needs, based on the gap between existing storage capacity and future needs.

### **B.** Procurement

The competencies required by a worker to procure the supplies needed for their work situation.

Competency Domain	Description		
5. Vaccine procurement	The competencies required to apply public procurement regulations, appreciate financial accounting practices and use this knowledge to analyse and evaluate vaccine order costings. Includes knowledge of international, local and e-procurement.		
6. Supplier relationship management	The competencies required to understand contractual relationships with suppliers and to develop effective relationships with key stakeholders. Includes transparency in tendering and contracting, as well as dealing with conflict of interest.		
7. UNICEF procurement system <sup>6</sup>	The competencies required to plan, implement and evaluate a procurement process appropriate to the value/risk of the category being procured along with a clear understanding of UNICEF procurement processes.		
8. UNICEF Cold Chain equipment procurement	The competencies required to select and order Cold Chain equipment through the UNICEF Supply Division.		

<sup>&</sup>lt;sup>6</sup> UNICEF-related competencies (7. And 8.) are not relevant for countries that do not procure vaccines through UNICEF Supply Division.

### C. Storage & Distribution

The competencies required by a worker to store and distribute supplies. This includes moving supplies to their facility and sending them to other facilities. It also includes the competencies required to manage the outsourcing of these activities, and partnerships related to these activities.

Competency Domain	Description
9. Inventory management at Vaccine Stores	The competencies required to physically manage vaccine and other immunization products to ensure that they are protected from harmful environmental conditions or handling, remain accessible, and are maintained in good condition.
10. Temperature monitoring	The competencies required to manage temperature monitoring of vaccines and other immunization materials, thus avoiding wastage due to temperature excursions.
11. Temperature mapping	The competencies required to map the differences and changes in temperature that occur within temperature controlled rooms due to influences like opening doors, proximity to cooling fans, personnel movement, and the quantity of products being stored at any given time.
12. Distribution and transport	The competencies required to manage the distribution and transportation of vaccines to off-site or satellite facilities.
13. Writing and revising SOPS	The competencies required to create, review, manage and distribute SOPs.

### D. Use (at Service Point)

The competencies required by a worker to ensure the best possible outcomes from the use of the supplies in their work situation where patients are treated.

Competency Domain	Description	
14. Immunization planning	The competencies required to plan, implement, monitor and evaluate immunization activities. Includes supply chain, programmatic planning and partner collaboration.	
15. Immunization safety	The competencies required to guide, support and assist staff in carrying out their duties in ensuring the safety of immunizations.	
16. Management of AEFI	The competencies required to manage and report Adverse Events Following Immunization (AEFI).	
17. Arranging vaccines in refrigerators, cold boxes and vaccine carriers	The competencies required to arrange vaccines inside refrigerators, cold boxes and vaccine carriers in a manner that helps ensure that they remain in good condition with minimum risk of exposure to damaging temperatures.	
<ol> <li>Preventive maintenance of Cold Chain equipment at health facilities</li> </ol>	The competencies required to carry out first-line preventive maintenance of refrigerators, cold boxes and vaccine carriers.	
19. Disposal of immunization waste	The competencies required to segregate, store, collect, transport, handle and dispose sharps and identify roles and responsibilities of all staff involved with managing immunization waste and sharps in particular.	

### 4.2.3 Managerial Domains

### E. Resource Management

The competencies required by a worker to manage resources and to ensure that the system works effectively.

Competency Domain	Description		
20. Supervision and staff performance management	The competencies required to manage people and their work activities with the goal of optimizing efficient use of staff talent. Includes supportive supervision and how it relates to training and performance management.		
21. Financial management	The competencies required to adhere to financial guidelines, regulations, principles and standards when committing resources or processing financial transactions. Includes budgeting and finance for non-financial managers.		
22. Cold chain equipment management	The competencies required to manage Cold Chain equipment, including selection, installation, maintenance and replacement. Including power supplies and generators.		
23. Infrastructure management	The competencies required to manage and maintain service delivery points, including health facility building structures, utilities and communication systems.		
24. Transport management	The competencies required to manage and maintain vehicles, motorbikes and other means of transport for vaccine distribution.		
25. 3PL contract management	The competencies required to manage contracts made with customers, vendors, partners, or employees, including contract negotiation and monitoring.		
26. Data for decision making	The competencies required to monitor immunization activities, understand the information flow, analyse data and use the generated information for decision making and action.		
27. Immunization systems design	The competencies required to create plans, or blueprints, for how an immunization supply chain should run and how all of the components of the supply chain system fit together and interact towards higher vaccine availability, increased supply chain efficiency and improved vaccine potency.		

### F. Professional & Personal

The competencies required by a worker to manage his/her day-to-day responsibilities and create a path for future career development. This includes competencies such as communication, stress management and time management skills.

Competency Area	Definition	
28. Introduction to Vaccines Management (for new recruits and refresher)	The competencies required to appreciate and understand vaccines and their history, as well as the role of the supply chain in ensuring the uninterrupted availability of quality vaccines from manufacturer to service-delivery levels.	
29. Computing and Data Skills	The competencies required to use computers and related technology efficiently. This includes acquiring adequate knowledge of standard office software packages and awareness of and adherence to data protection and security measures, as well as a basic understanding of EPI-related data systems.	
30. Communication and Interpersonal Skills	The competencies required to convey information to others effectively and efficiently while choosing a communication style that is both appropriate and effective for a given situation.	
31. Problem Solving and Decision Making	The competencies required to resolve difficult or complicated challenges and make timely, informed decisions that take into account the facts, goals, constraints, and risks.	
32. Teamwork and Team Building	The competencies required to work and engage constructively with colleagues in order to effectively work together towards the same goals.	
33. Presentation Skills and Public Speaking	The competencies required to speak effectively to audiences and become a more skilful public speaker who is able to present with power and to captivate, motivate, inspire and persuade.	
34. Fundraising and proposal writing	The competencies required to identify potential funding partners, compose written proposals and engage in follow-up correspondence.	
35. Conflict Management	The competencies required to resolves complex or sensitive disagreements and conflicts in a sensible, fair and efficient manner.	
36. Training of Trainers	The competencies required to train and mentor staff in specialized subjects related to ISCM.	

### 4.3 WHO Standard Competencies for the Immunization Technical Workforce

A taskforce led by the World Health Organization is in the process of drafting a list of immunization supply chain related competencies, with a focus on the national level<sup>7</sup>. The latest draft of this document is available via <u>this link</u> (Ctrl+Click). The proposed framework distinguishes between foundational and managerial competencies.

Foundational Competencies

- Management and Leadership
- Vaccine Preventable Diseases and Program

Managerial Competencies

- Advocacy and Communications
- Disease Surveillance, Investigation and Response
- Human Resources and Performance Management
- Immunization Service Delivery: Routine and Supplemental Activities
- Monitoring, Evaluation and Data Use
- Policy, Planning and Finance
- Safety of Vaccines and Immunization
- Vaccine Supplies and Logistics

A successful EPI Program requires a workforce competent in these areas.

<sup>&</sup>lt;sup>7</sup> February 2018

### 5 TRAINING MODALITIES

### 5.1 Overview

There are many ways in which training can be implemented. Depending on whether the predominant objective of the training concerns '**knowledge**', '**attitudes**', or '**skills**', a suitable training method may be selected.

These methodologies are best suited for teaching 'knowledge':

- 1. Formal lecture (unidirectional monologue)
- 2. Mini lecture
- 3. Interactive lecture with active breaks (bilateral exchange)
- 4. Reading
- 5. Audiovisual materials (e.g. online videos)
- 6. Case studies
- 7. Individual research (e.g. internet libraries, literature review)
- 8. Group discussion
- 9. Field work (observations, discussions, etc.)

These are suitable for teaching 'skills':

- 1. Practical exercises with evaluation
- 2. On-the-job training
- 3. Mentoring and coaching
- 4. Simulations (role plays, games, etc.)
- 5. Study guidelines for good practice (including check lists and handouts)
- 6. Group discussion
- 7. Field work (observations, discussions with experts, etc.)

These may be used for learning about 'attitudes':

- 1. Group discussion
- 2. Exploration of personal attitudes
- 3. Mentoring and coaching
- 4. Focus groups
- 5. Field work (observations, discussions, etc.)

### 5.2 In-Service Training

Training employees on-the-job, or in-service, has distinct advantages. In-service training may be defined as any training that is held within the premises of the agency in order to educate, develop or improve employees' competence. Internal training uses real life examples, problems and challenges that participants encounter at work. Successful internal training identifies the exact skills and knowledge that participants need in order to succeed in their jobs. A distinction is made between mentoring and coaching (Heathfield, 2016).

### 5.3 Long Term vs. Short Term Training

Within the scope of the Training Strategy (Module III) and Training Plan (Module IV), short term training is typically up to one month in length, while long term training has a minimum duration of three months. A training strategy may recommend that training of ISCM employees should be two-pronged, whereby the workforce will be developed through both short and long term training courses. Some individuals will benefit more from long-term training for the purpose of re-professionalization.

### 5.4 Training of Trainers

### 5.4.1 The ToT Concept

Each department within the organization may identify one or two staff members with training and mentoring skills. These trainers and mentors will be subjected to a preparatory Training of Trainers (ToT) course, so as to ensure that quality training will be delivered. For example, subject experts will need to prepare lesson plans, trainee evaluation forms and ensure that the aims and objectives of the training are well-defined.

Typically a two-day training course (one day for theory and one day for practical) will be instituted for selected experts drawn from different departments within the organization (or from elsewhere if necessary). The training will cover basic teaching methodologies which are relevant and appropriate to the main areas or modules within the Training Plan. The goal of the preparatory training is to create a pool of in-house trainers and mentors who will be available as and when necessary to deliver training and mentoring. The ToT course may cover the following topics:

- Principles of teaching and learning
- Key concepts used in adult (andragogy) learning
- Setting clear objectives for learners
- Suitable teaching methods
- How to prepare training materials

### 5.4.2 Financial Incentives

The organization may consider financial compensation for trainers and mentors. Mentoring with a financial compensation aims to encourage the development of a training and mentoring culture among senior staff. The financial incentive will be in the form of a 'Facilitator Fee', or 'Training Allowance', the amount of which is to be agreed upon and standardised for all in-house trainers. The allowance will be reviewed on an annual basis. The organization will endeavour to engage in-house trainers from different functions and cadres, in a transparent manner, so as to promote equal opportunities and fairness among their staff.

### 5.5 On-Boarding of New Recruits

Each organization has its own method of introducing new recruits. For example, new employees may, during a so-called induction period, be attached for some time to different sections of the organization, in order to get familiar with the scope of activities of the various departments of the organization.

### 5.6 Mentorship Programmes

Mentoring requires a trusted environment where the mentee shares whatever issues affect his or her professional and personal success. Although specific learning goals or competencies may be used as a basis for creating the relationship, its focus goes beyond these areas to include work/life balance, self-confidence, self-perception, and how personal well-being influences professional performance. Mentoring is typically long term. For mentoring to be successful, it requires time during which both parties learn about one another and build a climate of trust that creates an environment in which the mentee feels secure in sharing the real issues that impact his or her performance.

Mentorship programmes will strengthen the on-boarding of new recruits. A mentorship programme can also apply to existing staff members who are in need of in-service training or refreshment of knowledge and skills. The term 'buddy system' is sometimes used to describe the relationship between mentor and mentee.

Mentoring, or coaching, is done by senior and/or experienced staff, or by experts employed by partner agencies. Mentoring engages in-house expertise to promote cost-effectiveness and sustainability of in-service training. The organization may draw on experience from its development partners in order to establish the necessary procedures for mentorship programmes.

For mentees, the benefits of mentoring can be huge. They receive focused coaching from a skilled, knowledgeable and experienced individual, and they also obtain assistance and advice in navigating tricky situations that can arise in the workplace. This can help them work more effectively, overcome obstacles, and break through blockages that would otherwise preclude them from attaining their work goals and objectives.

No stringent conditions are attached to the educational background of in-house trainers and mentors. However, the prerequisite for anyone acting as such is two-fold: (i) Have the appropriate knowledge and skill in a specific subject area, relevant to the trainees and mentees, and (ii) Have attended a Training of Trainer course prior to any training and/or mentoring being delivered. The organization will facilitate that in-house trainers are given relevant instruction, to ensure that training is delivered according to acceptable pedagogical standards.

An example of a 'Mentorship Assessment Form' is included in Module V. The form can include a section on 'number of hours mentored', as a basis for determining a financial incentive.

### 5.7 Coaching

Coaching is typically short term and focuses on concrete issues, such as managing more effectively, speaking more articulately, and learning how to think strategically. Coaching requires a content expert (a coach) who is capable of teaching the coachee how to develop these skills. The coaching lasts for as long as is needed, depending on the specific purpose of the coaching relationship.

### 5.8 Training Management

In order to plan, coordinate and monitor training-related information and activities, a professional Training Management System may be used. Often, insufficient analysis of training-related data is undertaken for the purpose of forecasting training needs, monitoring training history of employees, etc. It is imperative that a suitable Training Management System is identified and adopted. Such a system will have a minimum set of features, which includes:

- Keep employee details
- Maintain training records
- Training Provider records
- Completed training records
- Schedule trainings in advance
- Exams and tests
- Standard and customized reports
- User access levels

Annex 2 gives an example of technical specifications for a Training Management System.

### 6 TNA METHODOLOGY

### 6.1 Five Steps of TNA

The TNA process can be seen as consisting of five distinct steps.



FIGURE 5 FIVE STEPS OF TRAINING NEEDS ANALYSIS

Step 1. Identify Problem and Needs

The first step in undertaking a TNA is to identify problems and needs. We need to ask ourselves whether the lack of training is really an important causal factor for poor organizational performance. Will the problems be solved by training? Before a TNA is considered and conducted, we need to make sure that training is actually needed. We also need to take in consideration the broader context in terms of policy, goal, roles and responsibilities.

### Step 2. Design of the Assessment

The second step in a TNA is to determine the design of the assessment. The design, or type of assessment, will depend, among other factors, on the subject area and on the target groups to be trained. The preferred assessment or survey method becomes the basis for a training analysis designer to either create a new assessment or identify an existing one that can fulfil the need.

### Step 3. Collect Data

The third step in conducting a TNA is to collect data from the target group of interviewees. Depending on the survey method chosen, this may be done through conducting the survey, including the filling in of questionnaires, either manual or online, or through interviews or another method. Regardless of what method is used, data capturing should be done concurrent with data collection if at all possible, or soon afterwards, so that no data gets lost or forgotten.

### Step 4. Analyse Data

Provided that the design and preparations have been done well, the analysis of the data is usually fairly straightforward. We distinguish between qualitative and quantitative data. Unlike

numbers or 'hard' data, qualitative information tends to be 'soft', meaning that it can't always be reduced to something definite. That is in some ways a weakness, but it's also a strength. Most surveys collect a combination of both types of data. Recording and organizing data may take different forms, depending on the kind of information collected. Analyzing information involves examining it in ways that reveal relationships, patterns and trends.

#### Step 5. Provide Feedback

Providing feedback to those who took part in the survey is important, yet often overlooked. Feedback may include the results from the survey after the analysis has been carried out or, alternatively if that is not possible, a simple message to acknowledge their contribution and investment of time.

### 6.2 Data Collection Methods

The method in which the survey is conducted can have a significant impact on the feedback received from interviewees. Some questions may draw different respondent answers if asked in a paper survey, in an online survey or mobile survey, or in a telephone or face-to-face interview. It is therefore important to choose the right survey method.

Observation

Making direct observations about competency in the workplace may sound like a good way of collecting information, but there are several disadvantages. One is that observation is time-consuming. Then there is the problem that the observer may influence the behaviour of the respondent, simply by being there. In addition, there is a reliance on experts who must know what to observe and how to interpret the observations. There is the possibility of missing out on the complete picture due to the lack of direct interaction with the person(s) observed.

#### Structured Interview

In the personal interview, the interviewer works directly with the respondent. This is a quantitative data collection method commonly used in survey methods where it is important that each interviewee is presented with exactly the same list of questions. It that way, answers can be easily aggregated and comparisons made. Interviewers read the questions from the standard survey questionnaire. The choice of answers to the questions is fixed, so that a choice of several possible options must be made. Alternatively, multiple set answers are allowed to one question. Open-ended questions can be added to obtain additional, less structured, information.

#### Semi-Structured Interview

Also quantitative, but here the questions are more general and typically open-ended. The interviewer has a tentative list of question to ask his/her task is to guide the interviewee with probing questions, with the objective of obtaining relevant information. New questions can be added during the assessment as a result of what the respondent answers, so the interview flows more like a conversation.

#### Focus Group Discussion

For a Focus Group Session, a carefully chosen small group of respondents is brought together for a moderated discussion on the subject of the survey. Having several relevant people together at the same time can encourage the group to engage in a healthy discussion which produces valuable information for the facilitator. The task of the facilitator is to guide the discussion. One disadvantage is the lack of confidentiality, depending on the nature of the discussion and the composition of the group.

### Workshop

Workshops can have a large number of attendants and ensure focused attention of participants. They can start with a structure lecture, after which questionnaires are distributed to respondents. One advantage is a guaranteed high response rate. A disadvantage is the time and effort it takes to organize the workshop and the typically high cost.

### Using Questionnaires

Questionnaires are stand-alone instruments for data collection that are administered to the interviewees either through mail, phone or online. They have long been one of the most popular data collection techniques. They provide the opportunity to carefully structure and formulate the data collection plan. Questionnaires are less personal than interviews. Respondents can fill in the questionnaires at a convenient time and think about the answers at their own pace. Response rates can be quite low, but questionnaires can be designed well by choosing the right question types to optimize response rates. Respondents can be reminded of the due-date by telephone call or follow-up email or message. Questionnaire-based surveys are typically low cost.

### 6.3 TNA for ISCM: Recommended Methods

Any of the above techniques may, in principle, be used to conduct TNAs with the objective of gathering information of the training needs of individual workers. Some methods, however, are more practical and less costly than others.

Observation of the person(s) who needs training is time-consuming and subjective. How do we assess a person's competence to forecast vaccine requirements, or how well does s/he prepare immunization reports? Observation must be regarded as an ideal method, in theory at least, but in reality not very practical. Focus Group Discussions and workshops are not ideal either. They can be costly and both take much effort to organize and facilitate. Besides, discussing training needs in a group is not likely to produce insight into individual training needs.

That leaves us with interviews and questionnaires as methods most suited to conduction TNAs. As for interviews, both structured and semi-structured have their advantages. Both require a comprehensive list of training topics as the basis for discussion. To ask the respondent "what type of training do you need?" is not likely to produce a comprehensive answer. Furthermore, the respondent may not be aware of the range of competencies relevant to the vaccine supply chain.

For this reason, whether opting for interviews or questionnaires, we need a comprehensive competency framework as the basis for a TNA. The framework informs the questionnaire that is the basis for both interview and questionnaire-type surveys. The types of surveys elaborated on in this toolkit are the employee self-assessment and the employee proficiency test.

Whereas, in the past, questionnaires were usually paper-and-pencil instruments that were manually distributed, completed and collected, this has now been replaced by a variety of online survey techniques.

Employee self-assessments (Module II), or self-evaluations, engage them in the process of looking closely at their abilities and performance. Self-assessment asks the employee to review and self-appraise his or her competence or job performance in specific functional areas of the company or organization. Self-assessment is best done by way of dialogue between employee and supervisor.

An employee proficiency test (Module II) measures the degree of competence which the applicant possesses at the time of testing. Proficiency tests help to identify a candidates' or employee's

strengths and weaknesses and help determine if additional training may be needed or if there is another position within the organization they may be better suited for.

### REFERENCES

HEATHFIELD S (2016). The Power of Internal Training. Web-based article. October 2016. Web link.

MILLARD M (2014). Six Principles of the Continuous Improvement Model. Online Blog.

PEOPLE THAT DELIVER (2015a). Health Supply Chain Competency Framework for Managers & Leaders, Published by The Australian Institute for Sustainable Communities, University of Canberra, Bruce, ACT. February 2015.

PEOPLE THAT DELIVER (2015b). Health Supply Chain Case Studies. Unpublished. March 2015.

PINK DH (2013). To Sell Is Human: The Surprising Truth About Moving Others. Book by Daniel H. Pink.

PULAKOS ED (2004). Performance Management: A Roadmap for Developing, Implementing and Evaluating Performance Management Systems. SHRM Foundation.

UNICEF (2016). A Process Guide and Toolkit for Strengthening Public Health Supply Chains through Capacity Development.

USAID (2013). Human Resource Capacity Development in Public Health Supply Chain Management: Assessment Guide and Tool. June 2013.

VILLAGE REACH. (2014). Other Duties as Required: Efficient Use of Human Resources Vaccine Supply Chains: Reaching the Final 20. Policy Paper Series, May 2014.

### ANNEXES

### Annex 1: Glossary of Terms

### Accreditation

Formal procedure of gaining certification for a particular program or institution through the act of granting credit or recognition to maintain suitable standards that are aligned with prescribed quality assurance guidelines. Also referred to as a system or a process used to ensure that training activities meet acceptable educational standards and scientific merit.

### Adult learning

Education geared to individuals classified as adults, typically over the age of 18; includes education provided by institutions of higher education but may also include informal training of workers or others in the development of a specific skill set or knowledge. Compared to children and teens, adults have special needs and requirements as to how they learn.

### Coaching

Coaching is typically short term and focuses on concrete issues, such as managing more effectively, speaking more articulately, and learning how to think strategically. Requires a content expert (a coach) who is capable of teaching the coachee how to develop certain skills.

### Competencies

An observable behaviour supported by specific knowledge, skills, and attitudes. Each competency has a specific result or output. An individual's abilities as they relate to knowledge, understanding, skills and values; the quality of being adequately or well qualified physically and intellectually.

### **Continuing Professional Development (CPD)**

Opportunities for individuals to increase their current level of knowledge and skills through coursework or other means in order to keep up to date with current competencies required in the profession.

### **Creative thinking**

Thought processes designed to encourage originality in the construction and elaboration of original and diverse ideas.

### Curriculum

Broadly understood as an integrated course or map of academic studies or subjects and materials to be taught by an educational institution; typically it is listed as a set of subjects, but also may include the learning experiences, skills, and abilities students are expected to learn. Also understood to be the total learning experience prescribed for a programme leading to a qualification.

### **Curriculum mapping**

A process for organizing data reflecting the primary knowledge, skills, and assessments related to a subject area and used to facilitate communication and instruction.

### **Distance education**

Any format of education provided to students who do not need to be physically present at an institution; previously materials were sent to students but now materials are provided via computer conferencing, video, Internet or by other electronic means.

### **E-learning**

Learning activities based on any electronic format. E-learning is a flexible process for professional development, whereby the learning facilitator uses Information and Communication Technology (ICT)

to facilitate learning for the learner in the workplace through synchronous, asynchronous or a blended teaching and learning mode.

#### **Flexible learning**

Format of education where students are allowed to determine their own time for study and the topic(s) they will examine.

#### **Independent learning**

Self-directed learning completed by an individual with minimal or no assistance of an instructor.

#### **In-service training**

Also referred to as on-the-job training. Education for employees to help them develop their skills in a specific discipline or occupation. In-service training takes place after an individual begins work responsibilities. Most typically, in-service training is conducted during a break in the individual's work schedule.

### **Informal training**

Occurs in many organizations as a normal part of day-to-day work. Informal training is a valid approach to improving employee skills and motivation and can include, among others: (i) Ad hoc training sessions by staff members, (ii) Group briefings/guest speakers, (iii) Internal communications, (iv) Webbased training and computer tutorials, and (v) Books and references.

### Learning objectives

Describes a specific behaviour, conditions, level of achievement and is written from the learner's point of view.

### Learning outcomes

Statements indicating the end result for a learner following a learning activity; usually stated in what a person can observe the learner do at the end of a learning activity.

### Lifelong learning

Idea that learning can and does occur beyond the formal structure of an educational institution and occurs throughout one's lifetime.

### Mentoring

Activity of advising, teaching, counselling and guiding a person through a task.

#### **Minimal competencies**

Lowest level of knowledge, skill and value pre-determined for engaging in a task or admittance into a program.

### Pedagogy

The study of being a teacher. The term generally refers to strategies of instruction, or a style of instruction. Approach or process including activities of educating or instructing or teaching to facilitate competence.

#### Performance

How well a person, machine, etc. does a piece of work or an activity.

#### **Performance indicators**

Behavioural or quantitative measures of the performance of a skill, knowledge and value.

### Performance management

Performance management includes activities to ensure that goals are consistently being met in an effective and efficient manner. Performance management can focus on performance of the organization, a department, processes to build a product or service, employees, etc.

### **Pre-service training**

Training to individuals to prepare them to meet the requirements for a professional posting.

### Reflection

Activity of a person to consider a past experience or learning event (reflection before the action), current experience (reflection in action) or future outcome (reflection after the action) and the impact it had, has currently and will have in future.

### **Role play**

Learning process in which participants act out the roles of other individuals in order to develop particular competencies to meet particular learning objectives.

### Syllabus

The content or subject matter of an integrated course of academic studies in a subject field.

### Training

Interventions which through presentation, practices and feedback teach someone to do something their never taught, or never learned or forgot how to do. Training refers to imparting skills, attitude and knowledge for direct application to a task or job.

### **Training Needs Analysis**

The method of determining if a training need exists and, if it does, what training is required to fill the gap.

### Annex 2: Technical Specifications for a Training Management System

Features of a computerized system to monitor training interventions.

### TRAINING RECORDS

- Keep track of all training interventions for all staff
- Keep employee history of training received
- Track trainings needed, scheduled, completed, failed

### EMPLOYEE RECORDS

- Record employee names, ID numbers, dates of birth, contact details, job titles, department, supervisor, employee type, location, qualifications and notes
- Upload a photo of each employee
- Display a history of all trainings completed
- Add new job titles, departments, or employee types
- Track skills, education, qualifications and certificates

### TRAINING PROVIDER RECORDS

- Names, contact details of training institutions and individuals
- Details of agencies and organizations able to provide training
- Long term and short term training providers

### SCHEDULE TRAININGS IN ADVANCE

- Set up approved training providers and trainers
- Schedule training and enroll employees

### COMPLETED TRAINING RECORDS

- Insert training completion records for entire groups of employees at once
- Retain training history when an employee completes a training multiple times over the years

### EXAMS

- Store exam questions and answers
- Allow employees to take exams electronically
- Electronic exams are scored automatically

### STANDARD & CUSTOMISED REPORTS

- Extensive built-in standard reporting functions
- Select date ranges from pop-up calendars for selected reports
- Use the report wizard to design and save customized reports

### USER ACCESS LEVELS

- Authorized users are authenticated using usernames and passwords
- Supervisors generate reports for their employees
- Read-only users view but not edit records
- Administrators edit users and user access

### Annex 3: Record of Revisions

Date	Description	Author(s)
February 1, 2018	First draft of this Module, by UNICEF SD\Capacity Development Section	MK,AA,BR