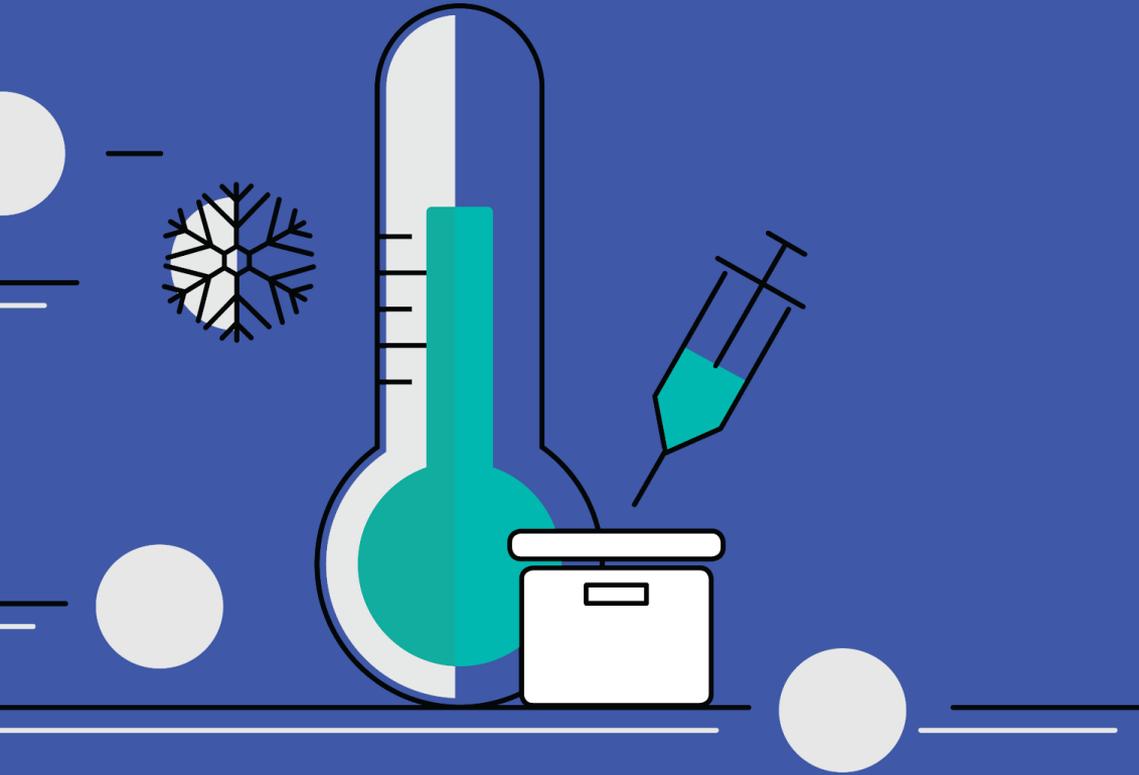


EVM Training Modules

Module 3: The EVM Framework



Agenda

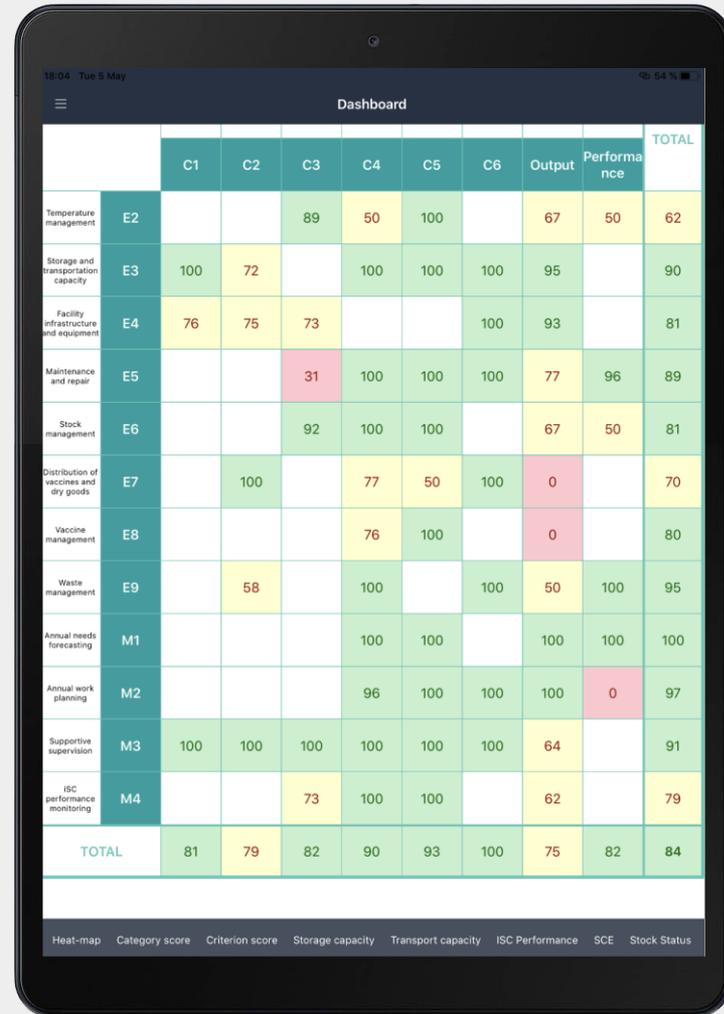
1. iSC Requirements
1. The EVM criteria
1. Inputs, output and performance categories
1. What assessors see: the questions
2. Assessment scoring



Introducing the heatmap

The heatmap visualization is the best way to understand the EVM framework and scoring. It will be referenced throughout this section.

Note: this is ONE WAY to visualize the data, and the easiest way to understand scoring.



Based on facility operations (E1-9) and facility management (M1-4) criteria scores, a **composite score** is formed. It is **the ultimate assessment of vaccine management at a facility.**

84

		C1	C2	C3	C4	C5	C6	Output	Performance	TOTAL
Temperature management	E2			89	50	100		67	50	62
Storage and transportation capacity	E3	100	72		100	100	100	95		90
		76	75	73			100	93		81
				31	100	100	100	77	96	89
				92	100	100		67	50	81
		100			77	50	100	0		70
					76	100		0		80
		58			100		100	50	100	95
					100	100		100	100	100
					96	100	100	100	0	97
Supportive supervision	M3	100	100	100	100	100	100	64		91
ISC performance monitoring	M4			73	100	100		62		79
TOTAL		81	79	82	90	93	100	75	82	84



Where do these scores
come from?



1

iSC Requirements



A **requirement** is a minimum standard for immunization supply chains.

The standard set by EVM is defined by requirements

Requirements set the minimum standard of performance for every system and component of the iSC.

300+

requirements

500+

sub-requirements

Requirements are applicable based on the facility level

Not all requirements apply to all facility levels (PR, SN, LD, SP).

R0001

The facility has functional means of communication.

PR	SN	LD	SP
			

R0015

There is a secure perimeter fence or wall around the compound.

PR	SN	LD	SP
			

Requirements are applicable based on questionnaire answers

Requirements are also applicable or not depending on answers to previous questions in the questionnaire .

For example, if I answer No to the question asking if the facility has an electricity generator, then all the requirements relating to generators will become inapplicable.

14. Does the facility have an electricity generator?

Yes

No

R0066: The facility has a suitable standby generator.

R0067: The generator can run all of the facility's refrigeration equipment.

R0068: There is adequate fuel reserve for the generator.

R0069: The generator can auto-start.

R0070: The generator housing is secure.

R0071: The generator housing is well ventilated.

Requirement example: The storage of vaccines

To the right are 3 requirements that define standards for the means of communication during vaccine storage.

Example: Means of communication

R1 The facility has a reliable means of communication.

R1

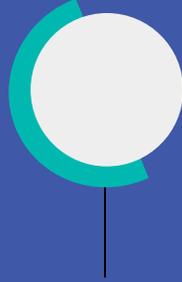
R2 The facility has a functional landline telephone.

R3 The facility has reliable mobile phone reception.

R4 The facility has a reliable internet connection.

What is the purpose of a requirement?

- a) To highlight an important task
- b) To set a minimum standard
- c) To create rules for facilities managers
- d) All of the above



How are these
requirements organized?



2

The EVM criteria

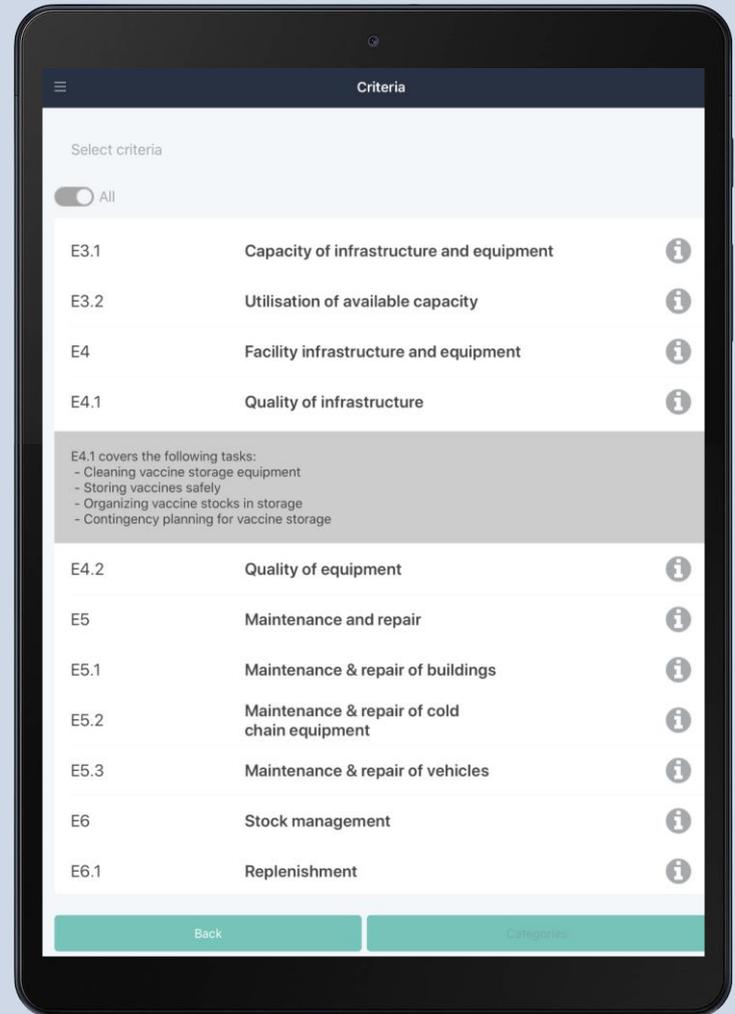


Criteria are the operational and management functions each location must perform.

EVM assesses criteria.

Criteria are supply chain functions standards by which the effectiveness of a facility's vaccine management are judged.

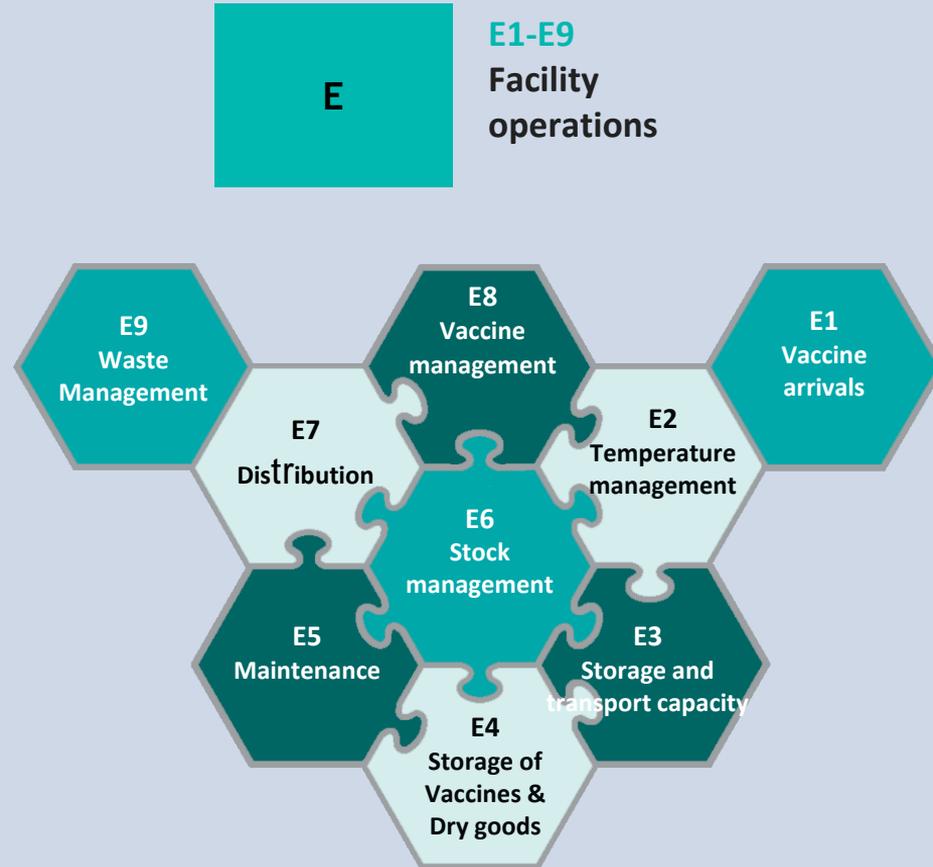
They represent the functional areas (tasks) to managing and moving vaccines through the supply chain.



EVM1 assessed 9 criteria

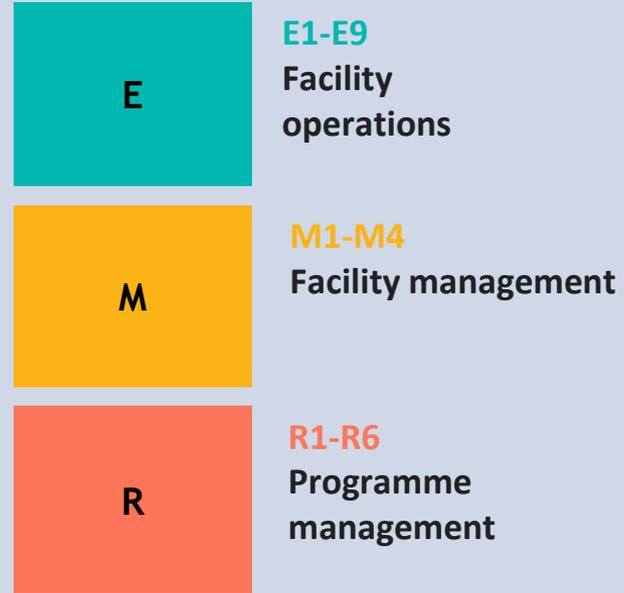
- E1** Vaccine arrivals
- E2** Temperature management
- E3** Storage and transport capacity
- E4** Storage of vaccines and dry goods
- E5** Maintenance
- E6** Stock management
- E7** Distribution of vaccines and dry goods
- E8** Vaccine management
- E9** Waste management*

*added at a later date



EVM2 assesses 19 criteria.

The added criteria provide necessary details to **identify and address root problems to supply chain management.**



Facility management

These criteria are important to assess the working processes of the facility.



M1-M4
Facility management

- M1** Annual needs forecasting
- M2** Annual work planning
- M3** Supportive supervision
- M4** iSC performance monitoring

Programme management

These criteria are important to assess the resource management functions.

Note: these criteria are applicable at national programme level only. Not applicable at location level.



R1-R6
Programme
management

- R1** Infrastructure management
- R2** Equipment management
- R3** IT systems management
- R4** Human resources management
- R5** Knowledge management
- R6** Financial resources management

Criteria example: Measures the storage of vaccines



E4: Storage of vaccines and dry goods

E4.1: Measure the storage of vaccines

This includes 4 tasks:

1. Clean vaccine storage equipment
2. Safe storage of vaccines
3. Organized vaccine stocks in storage
4. Existence of a contingency plan for vaccine storage

There are 19 criteria. Name
4.



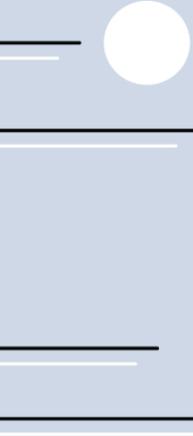
E1-E9
**Facility
operations**



M1-M4
Facility management



R1-R6
**Programme
management**



3

Inputs, output &
performance
categories



All criteria are assessed through
inputs, output and performance
(category)

3 categories determine if a requirement is met

Input: what is required

Output: what is done

Performance: key outcomes of the input and output

	C1	C2	C3	...	OUTPUT	PERFORM
E1				✓		
E2	✓	✗	✗	✓		✗
E3		✓			✓	
E4				✗		✓
E5			✓			
E6	✗			✓	✗	
E7		✓			✗	✓
E8						
E9	✗		✓			

Inputs include 6 subcategories

Inputs include 6 subcategories.

		C1	C2	C3	C4	C5	C6	Output	Performance	TOTAL
Temperature management	E2			89	50	100		67	50	62
Storage and transportation capacity	E3	100	72		100	100	100	95		90
Facility infrastructure and equipment	E4	76	75	73			100	93		81
Maintenance and repair	E5			31	100	100	100	77	96	89
Stock management	E6			92	100	100		67	50	81
Distribution of vaccines and dry goods	E7		100		77	50	100	0		70

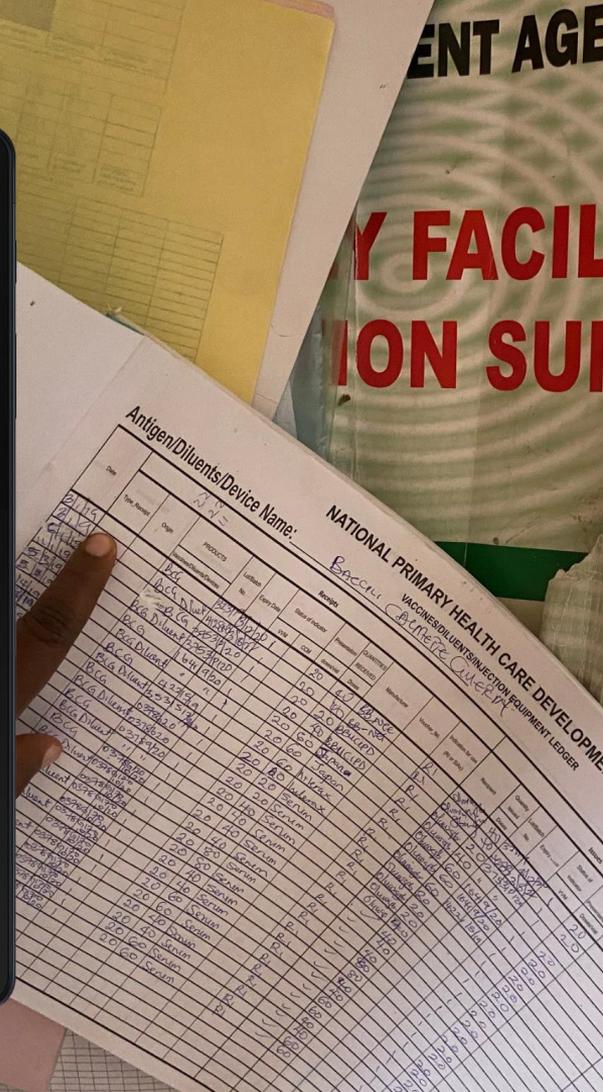
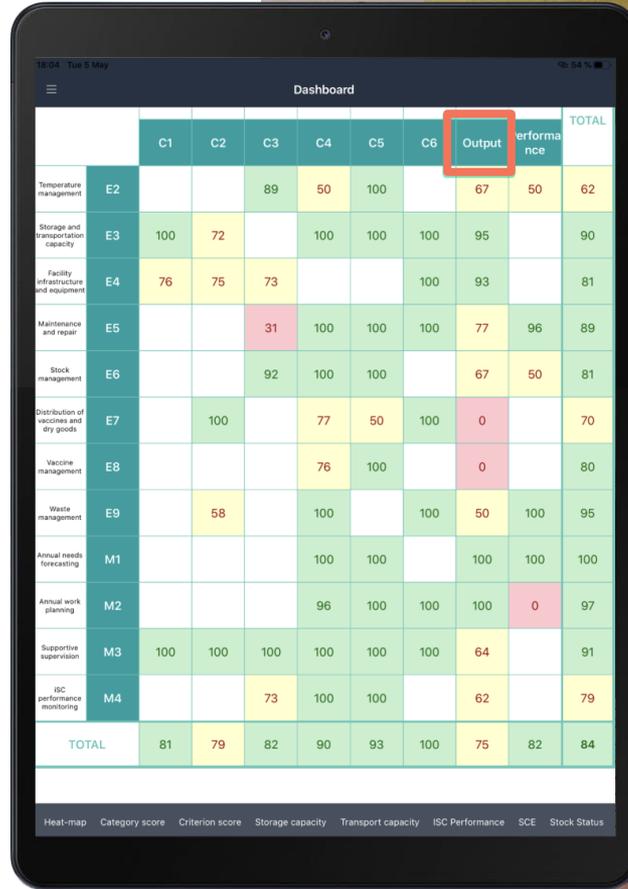
- C1 Infrastructure:** Utilities and services as well as buildings and amenities
- C2 Equipment:** Cold chain equipment (storage and transportation) and vehicles (refrigerated, non-refrigerated)
- C3 Information and/or technology:** General IT equipment (telephone, computers, printers) and data management technologies (standard data collection forms, software, reporting forms)
- C4 Human resources:** Staffing (availability and quality), training, knowledge and understanding
- C5 Policies and/or procedures:** Evidence generation (official studies, program reviews and assessments), formal documents of policies and strategies, SOPs/guidance, contact details of service providers
- C6 Financial resources:** Salaries, for operations and for development activities

Outputs provide traceability to root causes

Outputs are deliverables due from the staff in the implementation of supply chain functions - and allow assessors to trace performance issues to the root cause.

Output examples:

- Records
- Charts
- Reports

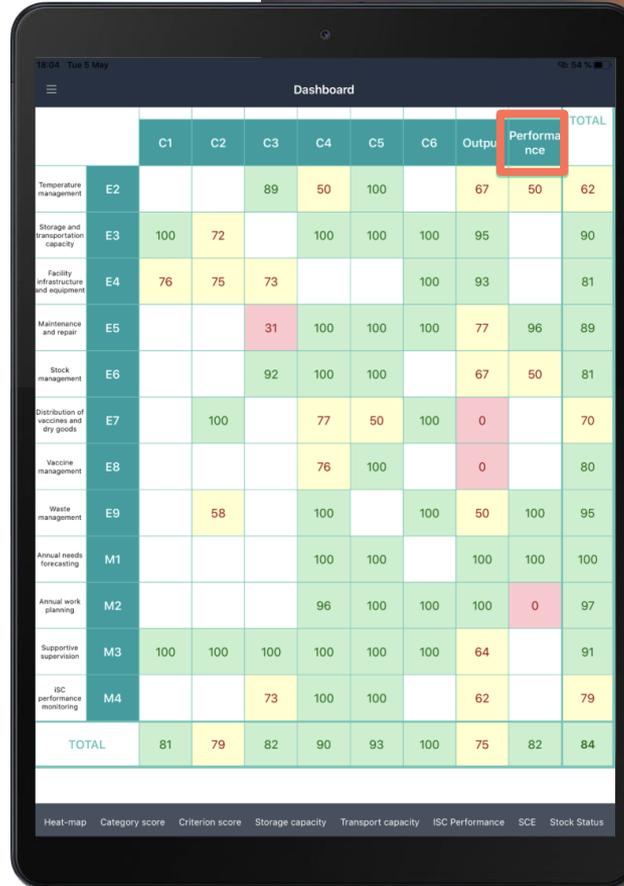


Performance covers proper implementation

Performance covers the outcome from proper implementation of supply chain functions.

Performance examples:

- No stock out
- No close vial wastage
- Full functionality of the CCE
- No injury from immunization waste



What if, instead of
vaccine management,
we were talking about
football?



Our goal

In Football

Win the world cup

In EVM

Deliver life-saving
vaccines

How to measure if we'll achieve our goal

In Football: To win the world cup we need to **win a match**

criteria

Infrastructure	Equipment	Information technology	Human resources	Policies & procedures	Financial resources		
C1	C2	C3	C4	C5	C6	OUTPUTS	PERFORMANCE
Stadium, pitch, lighting, team bus	Football, kit, boots, gloves	Player details, measurement technologies, analytics software	Players, manager, physios, supporters, ballboys, groundkeepers, security	Team strategy	Salaries and expenses	# goals scored, # goals conceded, # red cards, # yellow cards, # player injuries # passes complete	Match won (goals scored > goals conceded)

How to measure if we'll achieve our goal

In EVM: To deliver life-saving vaccines we need to properly store vaccines

criteria

Infrastructure	Equipment	Information technology	Human resources	Policies & procedures	Financial resources		
C1	C2	C3	C4	C5	C6	OUTPUTS	PERFORMANCE
Lighting, Ventilation, Storage of damaged and returned vaccines, Communications	Cold storage equipment, Vehicles, Insulated containers, Other equipment	General IT equipment, Data management technology	Staff availability and quality, Training, Staff knowledge and understanding of functions such as: temperature monitoring, stock management	Evidence (studies, reviews,...), Policy & strategy, SOPs, Contracts	Salaries, Funds for operations, Funds for development	Stock records are complete, accurate, well organised; Store is secure, clean, dry and pest-free	No stock-outs; All requests met in full and on time

Category example:

The storage of vaccines

The inputs, output and performance categories on the right measure if the criteria [storage of vaccines] meets the standard requirements.

Input 1 (infrastructure) is measured through:

- Lighting
- Ventilation
- Storage of damaged and returned vaccines
- Communications abilities

Output is measured through:

- Stock records are complete, accurate, well organised
- Vaccines and commodities are properly stored
- Stock laid out in EEFO order
- Store is secure, clean, dry and pest-free

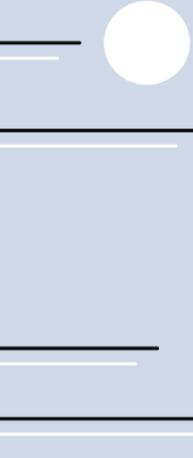
Performance is measured through:

- No stock-outs
- All requests met in full and on time

There are the three different measures to criteria (categories).

What are they?

	C1	C2	C3
E1				✓		
E2	✓	✗	✗	✓		✗
E3		✓			✓	
E4				✗		✓
E5			✓			
E6	✗			✓	✗	
E7		✓			✗	✓
E8						
E9	✗		✓			



4

What
assessors see:
the questions

	C4	C5	C6	Output	Performance	TOTAL
	100	100		67	50	62
	100	100	100	95		90
			100	93		81
	100	100	100	77	96	89
	100	100		67	50	81
	70	50	100	0		70
	60	100		0		80
	100		100	50	100	95
	100	100		100	100	100
	60	100	100	100	0	97
	100	100	100	64		91
	100	100		62		79
	0	93	100	75	82	84

Transport capacity ISC Performance SCE Stock Status

Criteria and **categories** are the framework to assess if a requirement has been met. Once the assessment is complete, they are the main components frame the **heatmap**.

But to fill out the heatmap boxes to fill out, **the tool we use is the questions.**

12:19 Fri 1 May L35.1 Vacc

Use this sub-section to describe how vaccines are

1. Is there an immunization session taking place?

Yes No

2. Where are vaccines stored during the immunization session that apply.

On the table

Inside an insulated container

In a sponge inserted inside an insulated container

In a refrigerator

Other

Back L35



A **question** is a tool to measure
a requirement through
observations, inspections and
interviews.



For each requirement, there could be 1 or 100 questions to judge if it is met.

If a requirements is not applicable there will be no question about it.

If a requirement is not applicable to the facility you are assessing no questions will be asked for it in the app.

R0015

There is a secure perimeter fence or wall around the compound.

PR	SN	LD	SP
			

Is there a secure perimeter fence or wall around the compound?

This question will only be part of the questionnaire if it is a PR or SN.

A question is a tool to assess whether a requirement is being met

EVM asks assessors to answer a question or questions by:

1. **Observation** of infrastructure and records
2. **Inspection** of infrastructure and records
3. **Interviewing** staff



Observe the facility and transport

For example, you will look at cold rooms and verify they are properly sealed. You will look to make sure the facility has hand washing or hand sanitizing.



Inspect records and equipment

For example, you may review vaccination arrival forms to determine if they came on time, with proper notification and accompanying documentation.



Interview health workers and facility managers

For example, you may ask staff to describe how they know when it's time to discard the tracer vaccine.



Question example:

The storage of vaccines

Requirements to measure R1:

The facility has a reliable means of communication.

L8.2 Information technology

7. Is the desktop computer connected to an uninterruptible power supply (UPS)?

Yes No

8. Does the office have a functional landline telephone?

Yes No

9. Does the office have mobile phone connectivity?

Yes No

10. Does the office have an internet connection?

Yes No

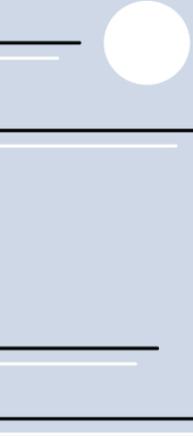
Back L8.1 Save Next L9



Quick quiz

What is the correlation between questions and requirements?

- a) 1 question for 1 requirement
- b) Observe, inspect, interview for every requirement
- c) However many questions are necessary to assess the requirement



5

Assessment scoring

INTRODUCTION TO DATA COLLECTION

How do we arrive
at a score?





The answer to each question receives a **score** to determine if a requirement has been met.

The heatmap displays a multilayer aggregation.

Each answer helps determine if a requirement is being met.

Each requirement is weighted (1 or 5) depending the supply chain level then tallied into the overall score.



Scoring example: The storage of vaccines

Requirement to measure
(#2 of 3): The facility has a functional
landline telephone.

Scoring



1••

The facility has a functional
landline telephone..



0••

The facility does not have a functional
landline telephone.



BUT... not every requirement is
created equally

Not all requirement scores have the same weight.

Requirements that are more important are **weighted 5**, whereas less crucial requirements (nice-to-haves) are **weighted 1**.

R2 The facility has a functional landline telephone.

1

R3 The facility has reliable mobile phone reception.

5

R4 The facility has a reliable internet connection.

1

Overall health

The total column represents the health of each criteria and reveals the integrity of the systems and quality of the actions required for effective vaccine management.

		C1	C2	C3	C4	C5	C6	Output	Performance	TOTAL
Temperature management	E2			89	50	100		67	50	62
Storage and transportation capacity	E3	100	72		100	100	100	95		90
Facility infrastructure and equipment	E4	76	75	73			100	93		81
Maintenance and repair	E5			31	100	100	100	77	96	89
Stock management	E6			92	100	100		67	50	81
Distribution of vaccines and dry goods	E7		100		77	50	100	0		70
Vaccine management	E8				76	100		0		80
Waste management	E9		58		100		100	50	100	95
Annual needs forecasting	M1				100	100		100	100	100
Annual work planning	M2				96	100	100	100	0	97
Supportive supervision	M3	100	100	100	100	100	100	64		91
ISC performance monitoring	M4			73	100	100		62		79
TOTAL		81	79	82	90	93	100	75	82	84

Composite score

The composite score is the ultimate assessment of strength for the iSC.

This indicator is the simplest reflection of a location or assessment performance.

		C1	C2	C3	C4	C5	C6	Output	Performance	TOTAL
Temperature management	E2			89	50	100		67	50	62
Storage and transportation capacity	E3	100	72		100	100	100	95		90
Facility infrastructure and equipment	E4	76	75	73			100	93		81
Maintenance and repair	E5			31	100	100	100	77	96	89
Stock management	E6			92	100	100		67	50	81
Distribution of vaccines and dry goods	E7		100		77	50	100	0		70
Vaccine management	E8				76	100		0		80
Waste management	E9		58		100		100	50	100	95
Annual needs forecasting	M1				100	100		100	100	100
Annual work planning	M2				96	100	100	100	0	97
Supportive supervision	M3	100	100	100	100	100	100	64		91
iSC performance monitoring	M4			73	100	100		62		79
TOTAL		81	79	82	90	93	100	75	82	84



Example

Let's go back to that football example



If each statement represents a requirement, what would the overall score be?

In Football: To win the world cup we need to win a match

Infrastructure	Equipment	Information technology	Human resources	Policies & procedures	Financial resources		
C1	C2	C3	C4	C5	C6	OUTPUTS	PERFORMANCE
Lighting goes out during storms 	Football with 15.6 psi air pressure 	Historical record of shots created and quality of shots taken 	Groundskeepers on strike 	Playbook 	Salaries paid on time 	2 goals scored, 1 goal conceded, 1 red card, 0 player injuries 	Match won 

Overall score?

If each statement represents a requirement, what would the overall score be?

In Football: To win the world cup we need to win a match

Infrastructure	Equipment	Information technology	Human resources	Policies & procedures	Financial resources		
C1	C2	C3	C4	C5	C6	OUTPUTS	PERFORMANCE
Lighting goes out during storms	Football with 15.6 psi air pressure	Historical record of shots created and quality of shots taken	Groundskeepers on strike	Playbook	Salaries paid on time	2 goals scored, 1 goal conceded, 1 red card, 0 player injuries	Match won
							

0

1

1

0

1

1

1

1

75%

6 of 8

Share & Discuss

1. On a yellow post it write 1 concept that you are confident about.
2. On a pink post it write 1 concept that you find confusing.





Let's clarify the concepts that
are confusing.



Congratulations on completing module 3!

You are now ready to get started with the app.