

# Effective Vaccine Management (EVM)

## Global Data Analysis

### 2010-2013

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Update: WHO EVM database, December 2014

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## What does EVM assess?

- EVM assesses each level of the supply chain

### Primary level (PR):

Vaccine stores that receive vaccine direct from an international vaccine manufacturer or distributors or a local vaccine manufacturer.

### Sub-national level (SN):

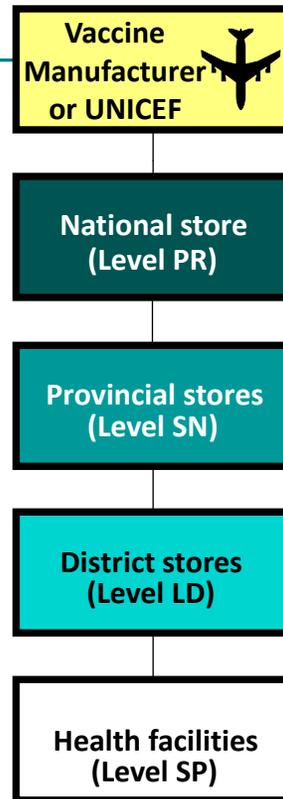
Vaccine stores that receive vaccine from a primary store or higher level sub-national store. There may be 0, 1, or more SN levels.

### Lowest distribution level (LD):

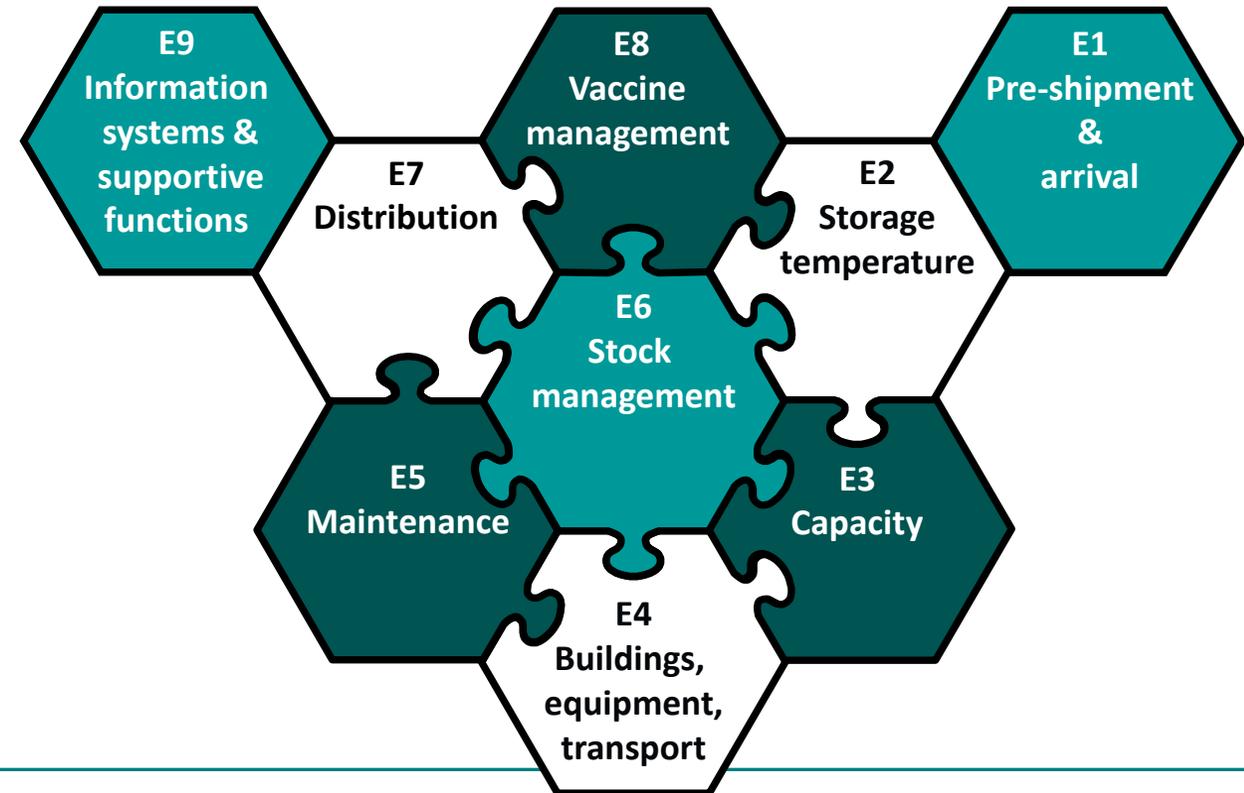
Vaccine stores that receive vaccine from a primary level or a sub-national store and supply vaccine to one or more health facilities.

### Service point level (SP):

Facilities that receive vaccine from any higher level store and supply immunization services.



- EVM assesses 9 areas of vaccine management – the 9 EVM “Criteria”

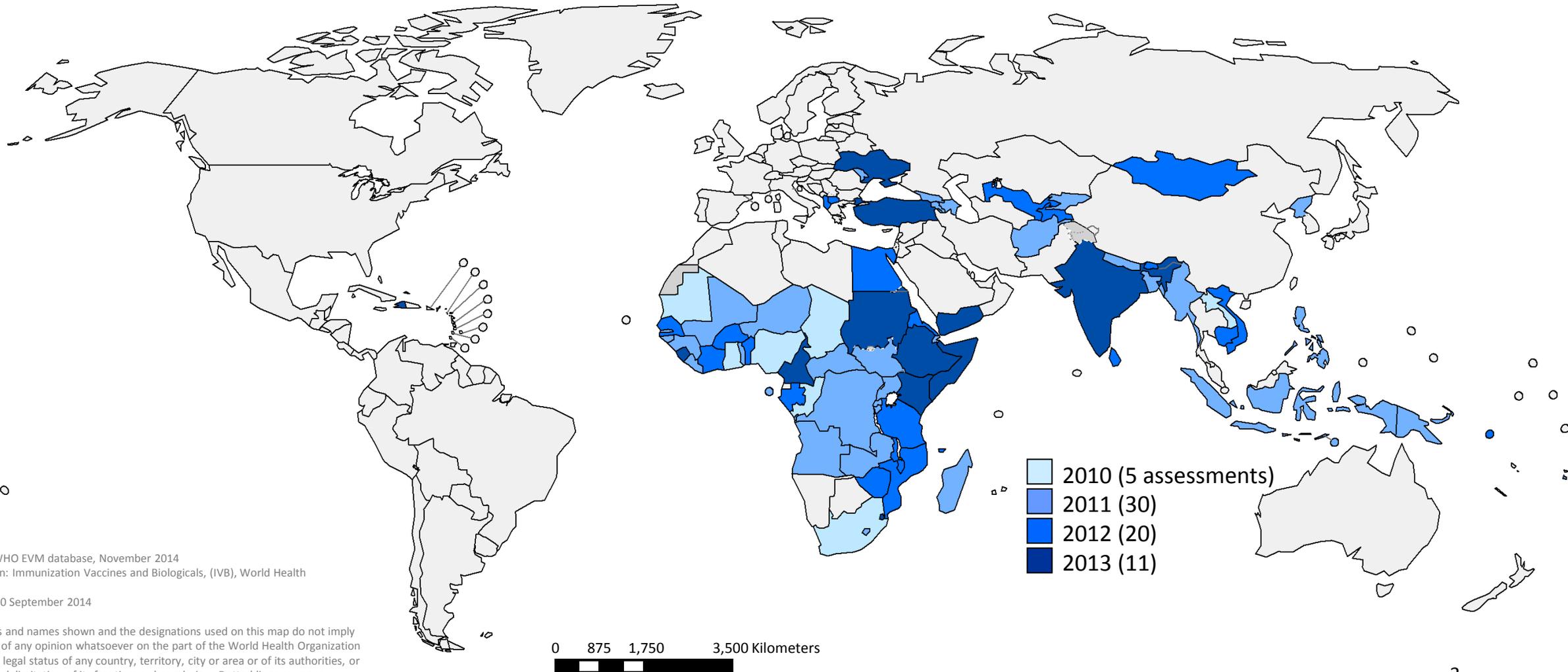


## How does EVM assess?

- A representative sample of sites is selected at each level of the supply chain.
- Each of the 9 EVM Criteria is assessed at each supply chain level by observation, inspection of infrastructure and records, and by interview of staff.
- Process and performance indicators are evaluated in each of the 9 areas at each level.
- Indicator scores are combined to give criterion scores for each area at each level.
- An area of vaccine management is considered “Effective” if its criterion score is greater than or equal to 80% - the EVM standard.

# Assessments (2010-2013)

- 75 countries have conducted at least one EVM assessment between 2010 and 2013.
- 4 countries, Senegal, Vietnam, Cameroon and Sierra Leone, have conducted 2 assessments.
- For those countries that have conducted 2 assessments, only the years of the most recent assessments are shown.



Data Source: WHO EVM database, November 2014  
Map production: Immunization Vaccines and Biologicals, (IVB), World Health Organization  
Date of slide: 10 September 2014

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# EVM Criterion Scores

## 2010-2013

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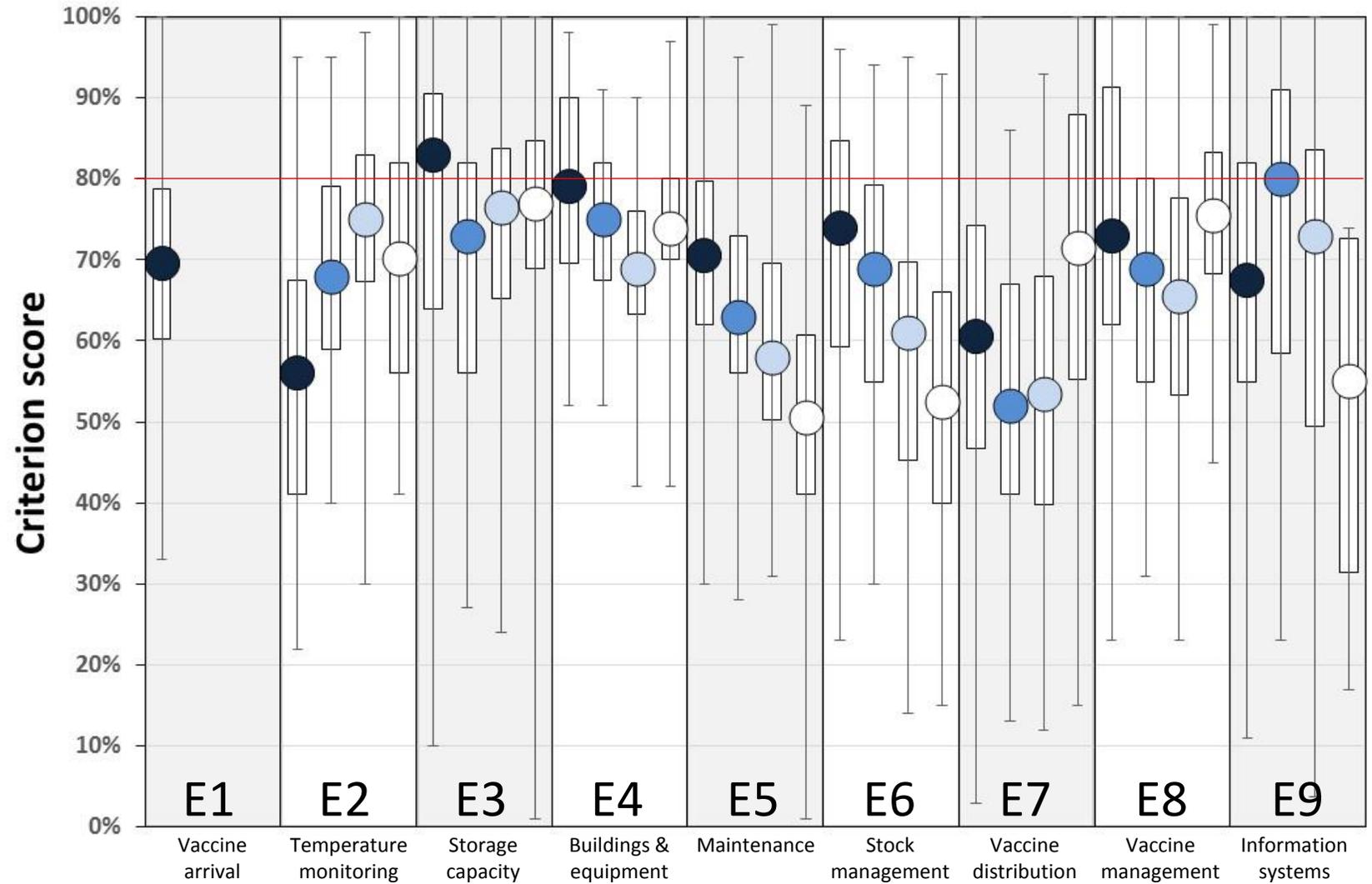
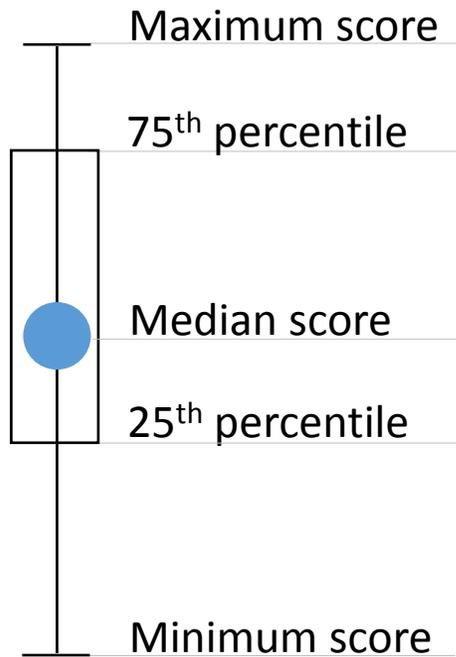
Update: WHO EVM database, December 2014

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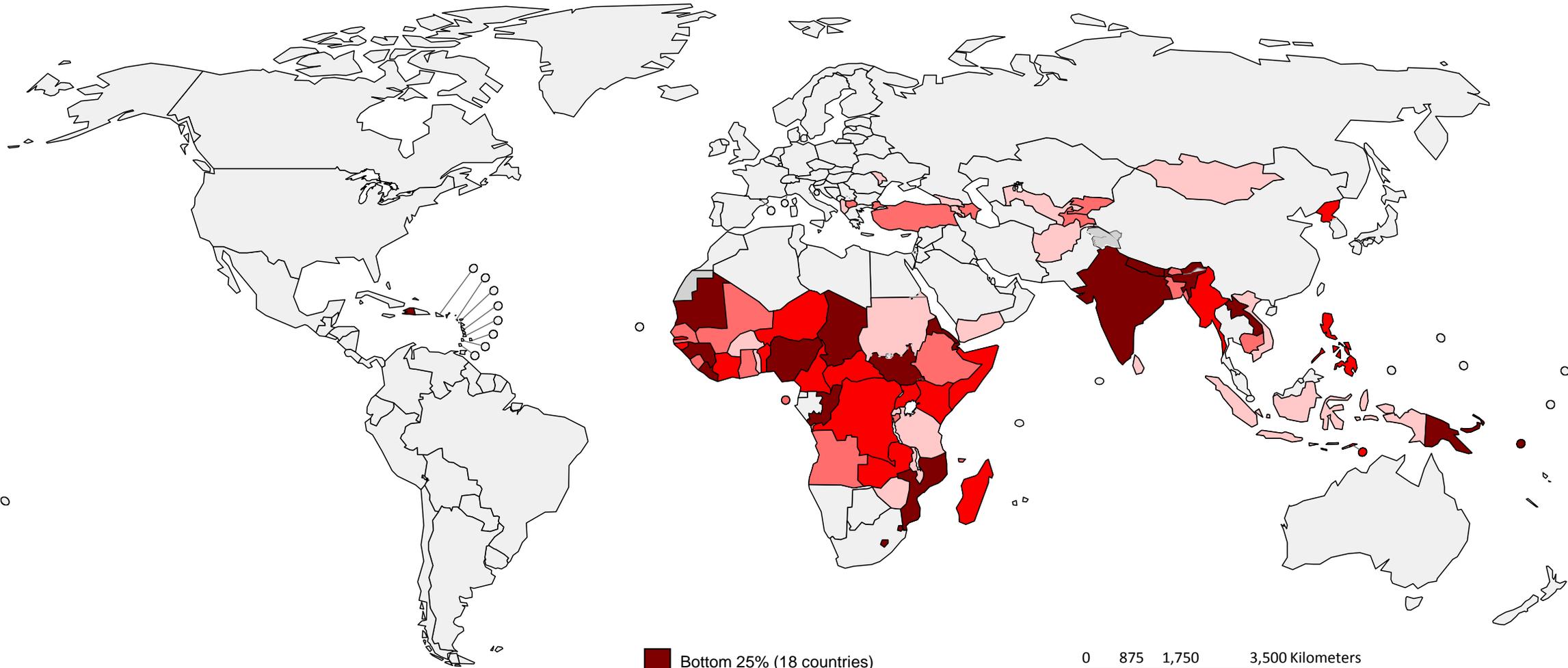
# EVM Criterion Scores (2010-2013)

- Primary (70 assessments)
- Sub-national (53)
- Lowest distribution (70)
- Service point (70)



- Globally, there is a broad range of performance in each criterion at each level; only E3 at the primary level has a median score above 80%.
- **E3 Storage and transport capacity** and **E4 buildings and equipment** are relatively strong at each level of the supply chain.
- Among the weakest areas are **E2 Temperature monitoring** at the national level, **E5 Maintenance** at the lower levels, **E6 Stock management** at the lower levels, and **E7 Distribution** to the lower levels.

# EVM Country Composite Scores (2010-2013)



- Bottom 25% (18 countries)
- Percentiles 26 to 50 (17 countries)
- Percentiles 51 to 75 (17 countries)
- Top 25% (18 countries)

Data Source: WHO EVM database. November 2014  
Map production: Immunization Vaccines and Biologicals, (IVB), World Health Organization  
Date of slide: 23 February 2015

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# EVM Criterion Scores by Region

## 2010-2013

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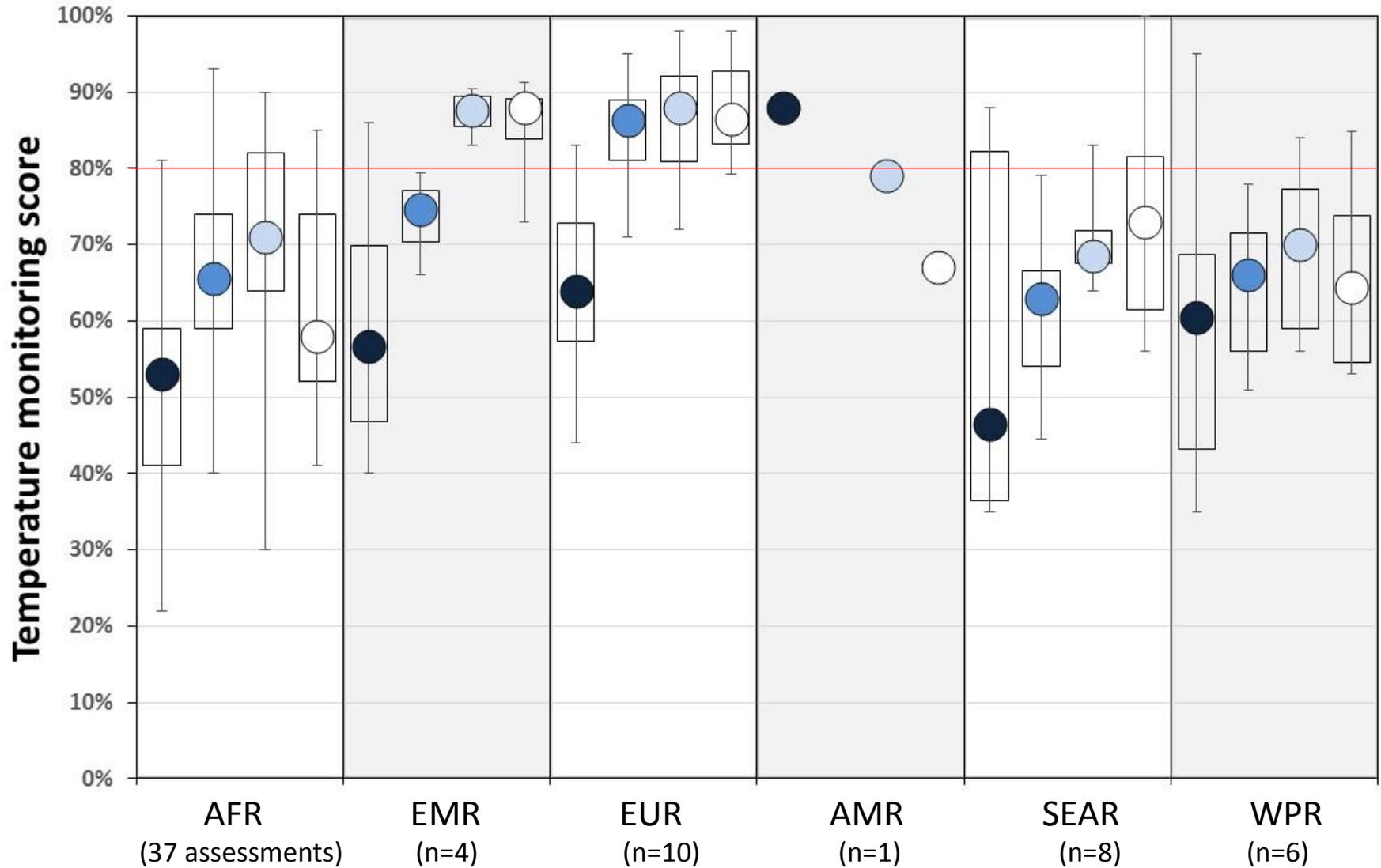
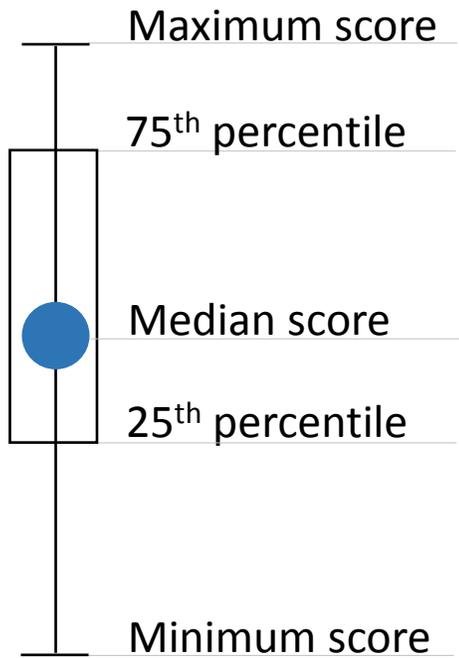


unicef 

The UNICEF logo, which consists of a globe with a mother and child, surrounded by a laurel wreath.

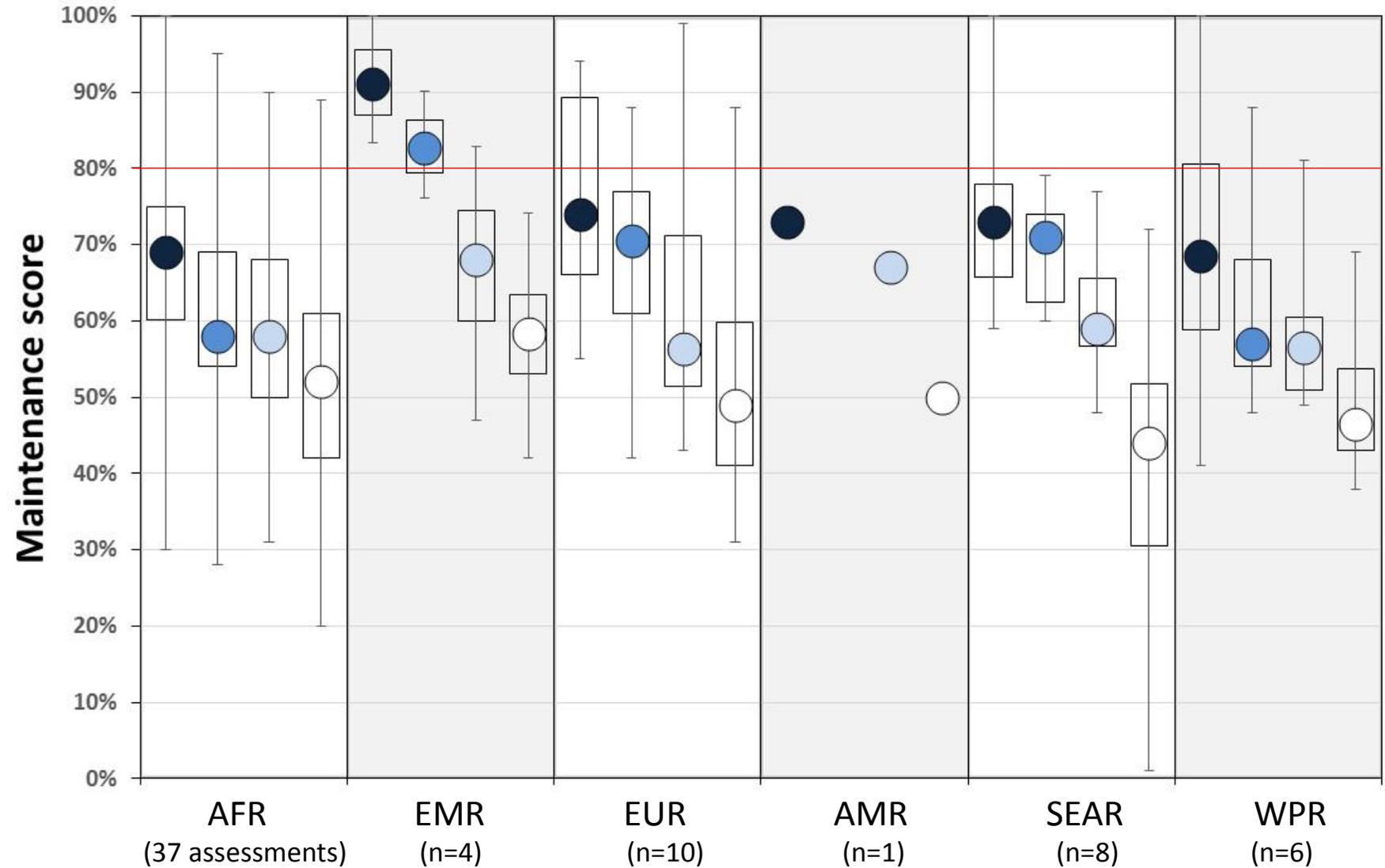
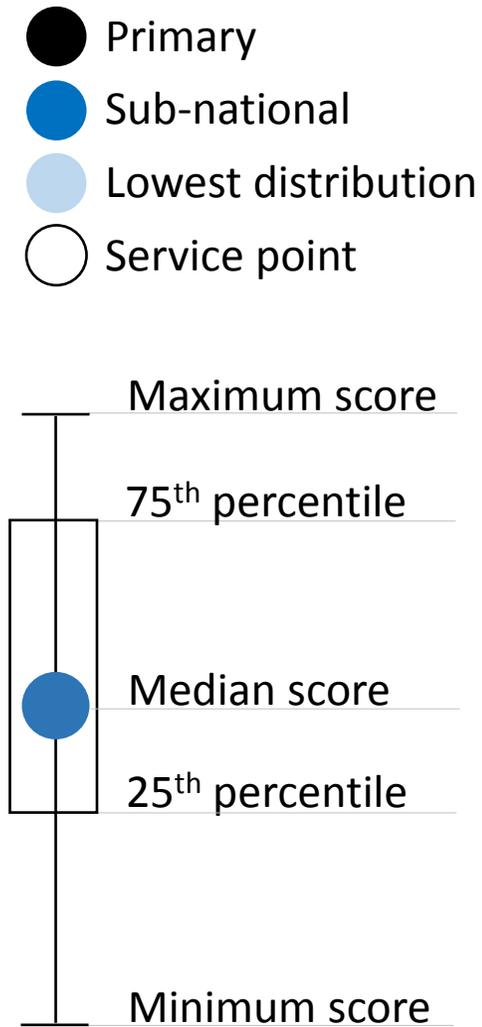
# E2 Temperature monitoring (2010-2013)

- Primary (PR)
- Sub-national (SN)
- Lowest distribution (LD)
- Service point (SP)



- ☐ More than 75% of countries in EMR & EUR meet the standard at LD & SP; more that 75% of EUR countries also meet the standard at SN.
- ☐ Otherwise, with very few exceptions, temperature monitoring is below the EVM standard of  $\geq 80\%$ .
- ☐ The PR E2 scores are low in all countries in all regions.

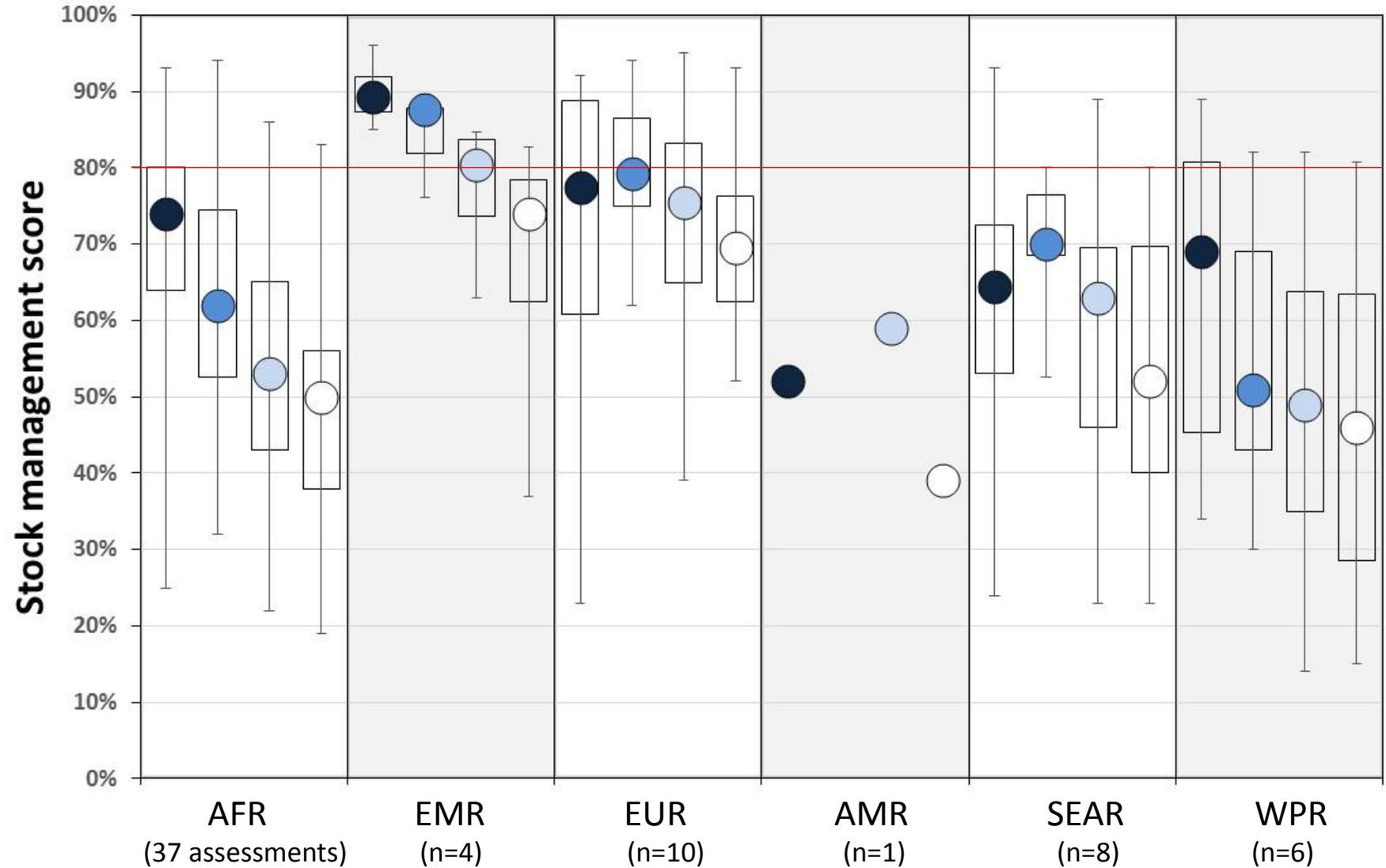
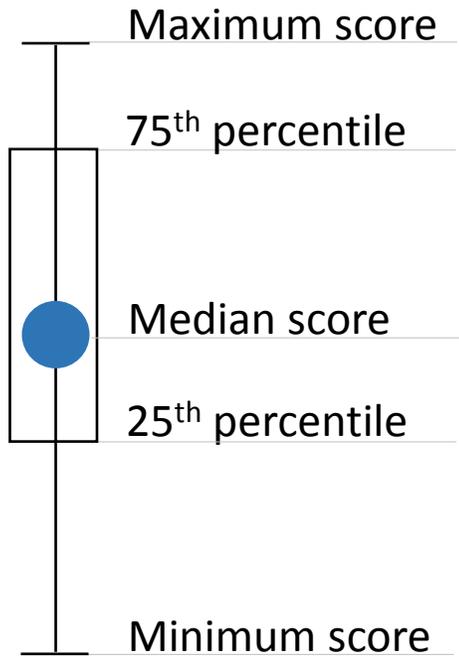
# E5 Maintenance (2010-2013)



- Only the PR and SN median scores in EMR exceed the 80% EVM standard for preventive maintenance of equipment and buildings; all 4 PR stores and 3 of the 4 SN levels assessed meet the EVM standard.
- The maintenance of cold chain infrastructure gets progressively weaker as vaccine flows through the supply chain from PR to SP.

# E6 Stock management (2010-2013)

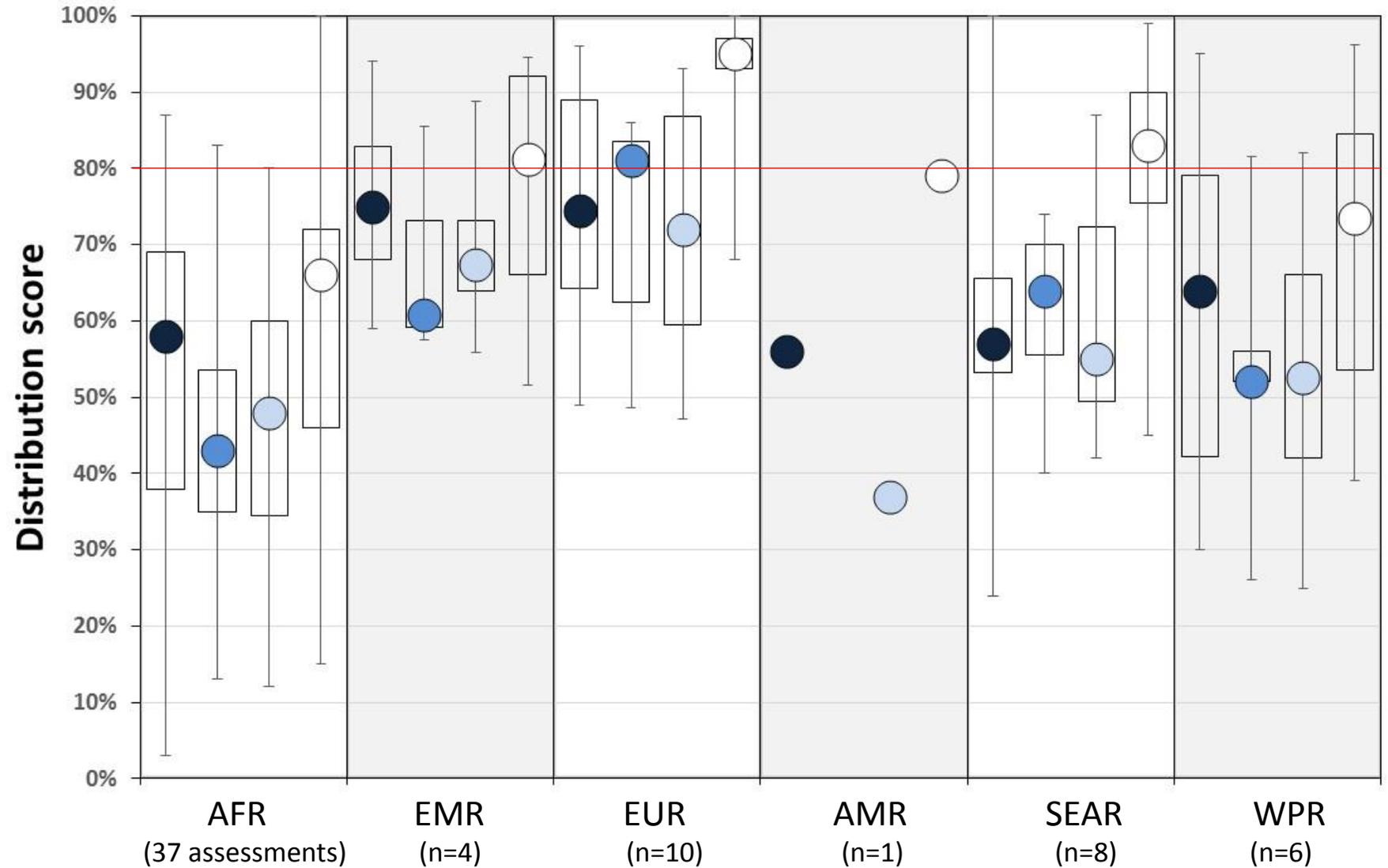
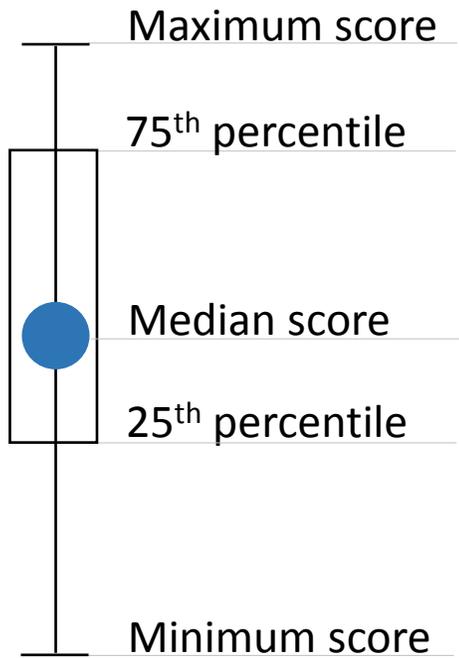
- Primary
- Sub-national
- Lowest distribution
- Service point



- ❑ With a couple of exceptions, none of the regions meet the EVM standard of  $\geq 80\%$  in stock management.
- ❑ The exceptions are the PR, SN and LD levels in EMR; all 4 PR stores and 3 of the 4 SN and LD levels assessed score above 80%.
- ❑ Stock management procedures and performance gets progressively weaker as vaccines flow through the supply chain from PR to SP.

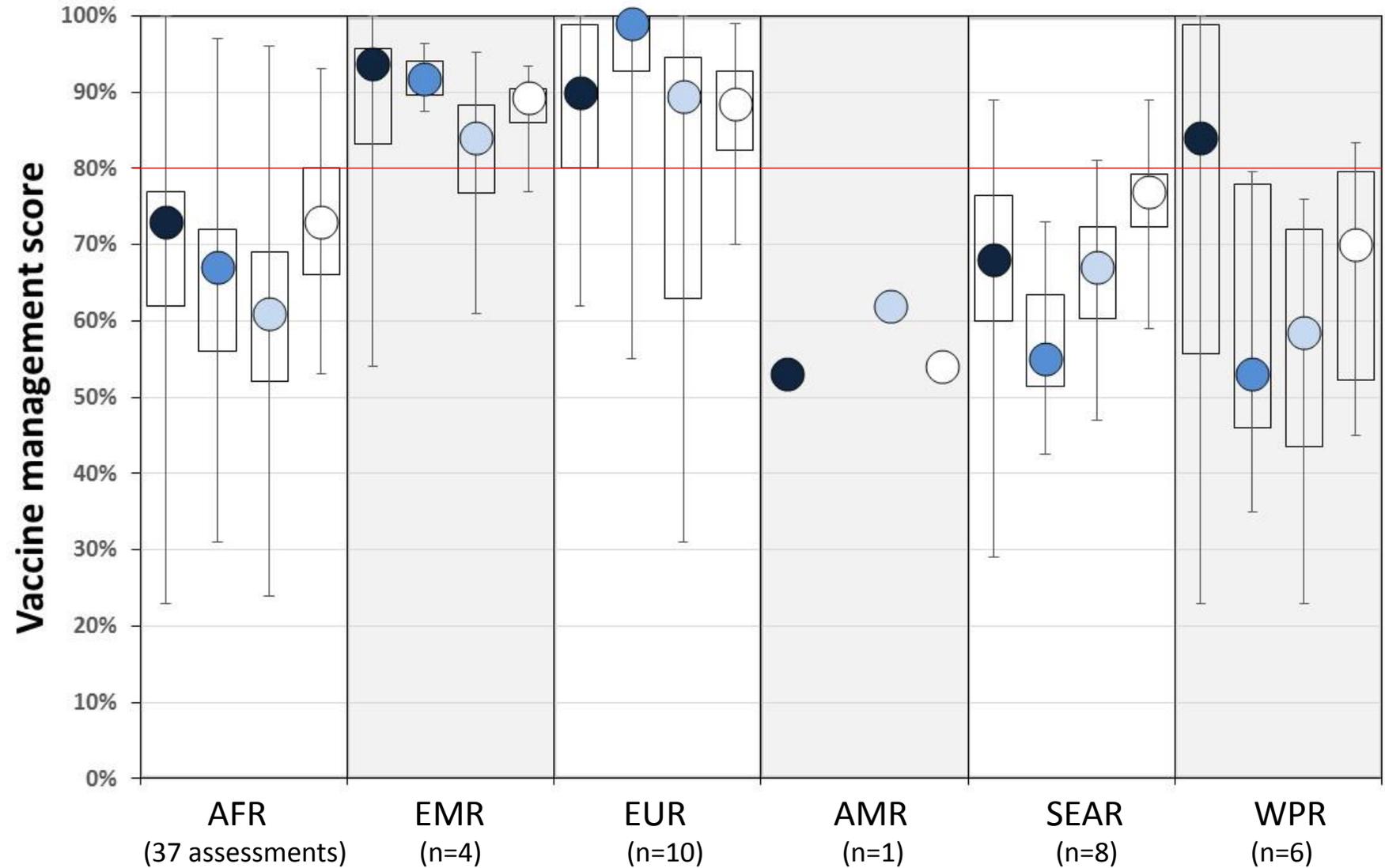
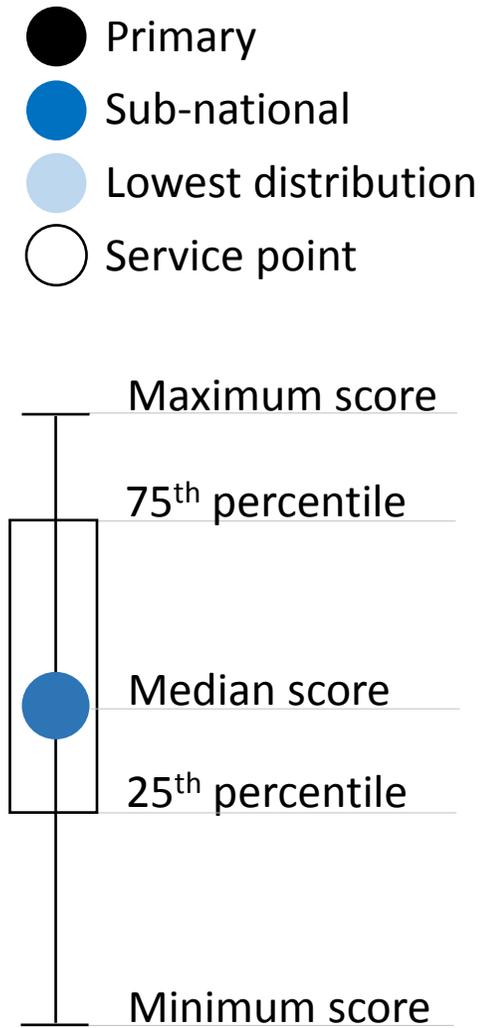
# E7 Distribution (2010-2013)

- Primary
- Sub-national
- Lowest distribution
- Service point



- In general, all regions perform poorly in the organization of vaccine distribution between the different levels of the supply chain.
- EMR and EUR countries score slightly higher in general than the countries of other regions.

# E8 Vaccine management (2010-2013)



- EMR and EUR score highly in vaccine management; at each level more than 75% of the countries meet the EVM standard of  $\geq 80\%$ .
- In AFR, PAH, SEAR and WPR, at each level of the supply chain, less than 25% of countries meet the EVM standard (exception WPR PR).

# Selected EVM Indicator Scores

## 2010-2013

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Update: WHO EVM database, December 2014

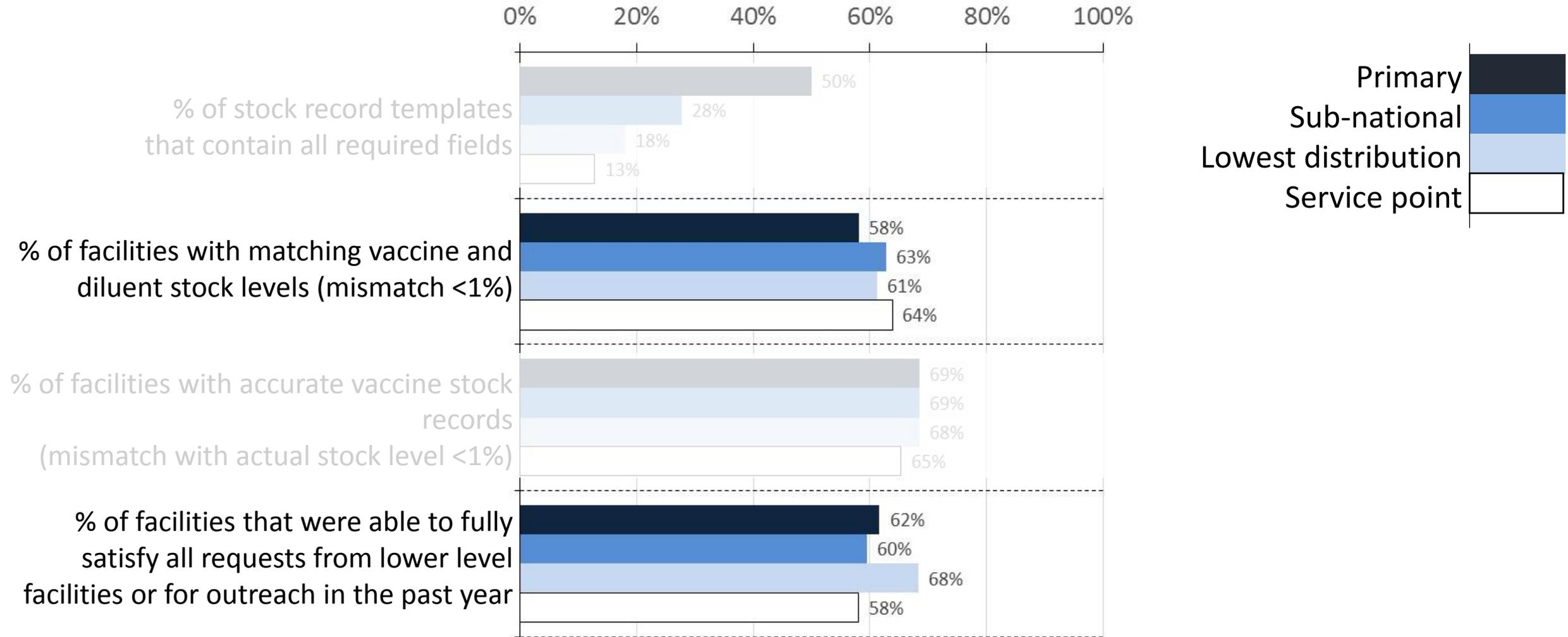
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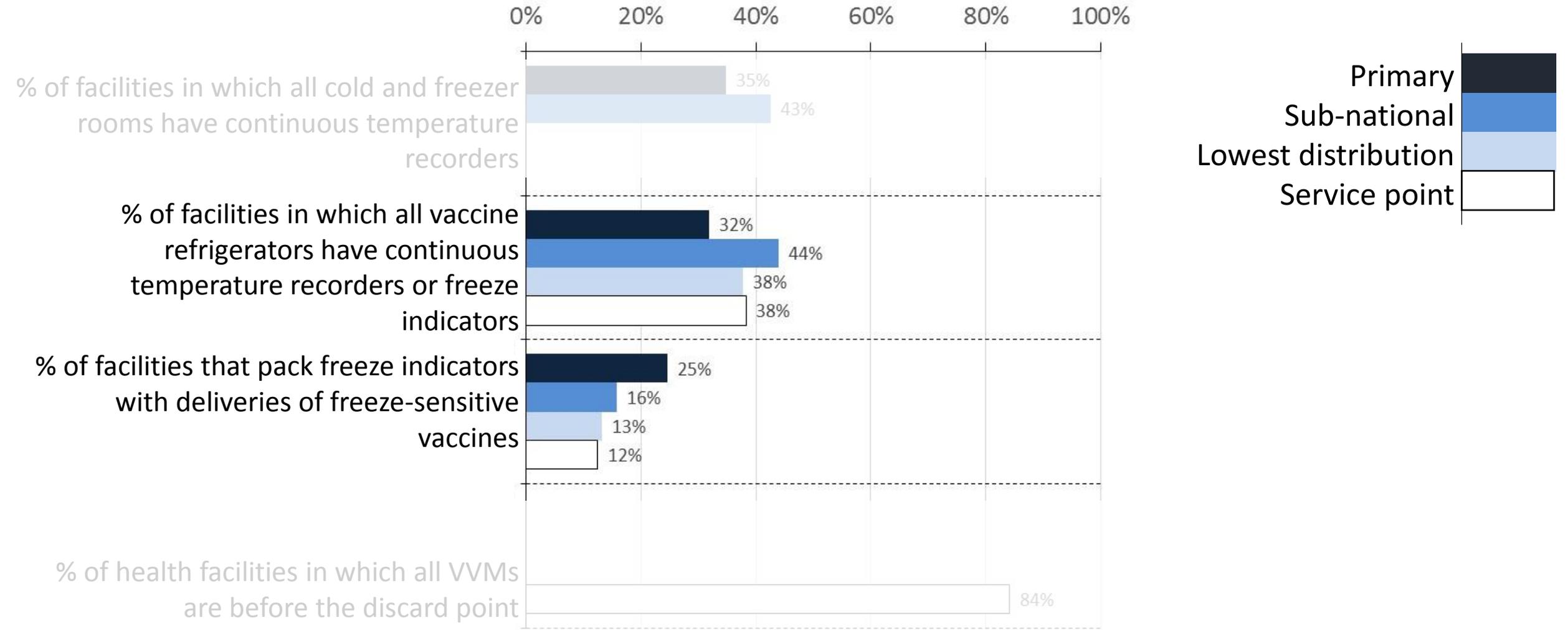


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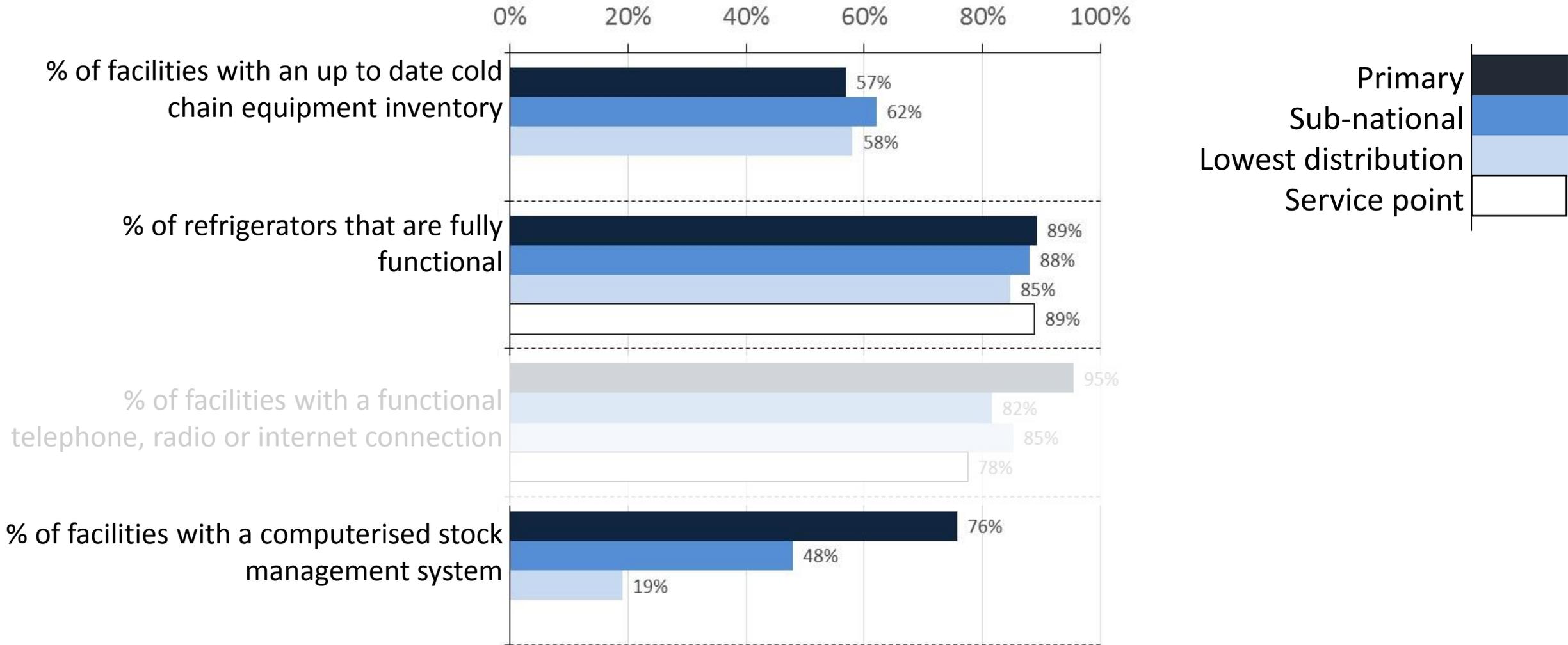


\*The data was collected between 2010 and 2013 in 58 countries across all 6 WHO regions.

# Quality indicators (2010-2013)



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**EVM public access website** ( [http://www.who.int/immunization/programmes\\_systems/supply\\_chain/evm/en/](http://www.who.int/immunization/programmes_systems/supply_chain/evm/en/) )

A one-stop shop for all things EVM:

Download EVM tools and user guides:

- Background EVM documents
- EVM assessor training materials
- EVM assessment report template
- **EVM site selection tool** and user guide
- **EVM Assistant tool** and user guide  
This tool facilitates the calculation of available and required storage and transport capacities.
- **EVM Analysis & Recommendations tool**  
This tool facilitates the identification of gaps and drafting of recommendations.

Link to **EVM Assessors website** ( <https://extranet.who.int/evm/> )

- Download latest versions of the offline assessment tool and questionnaire.
- Upload completed EVM assessment reports and datasets.
- This website is for registered EVM assessors only. To register you must first complete a WHO EVM assessor training course.

Link to **EVM e-learning website**

( [http://apps.who.int/immunization\\_delivery/systems\\_policy/logistics/evmlearning/index\\_0\\_1\\_1.php](http://apps.who.int/immunization_delivery/systems_policy/logistics/evmlearning/index_0_1_1.php) )

- An online training course on how to use the EVM assessment tools.
- This course compliments the formal WHO training course, it does not replace it.
- It is highly recommended that you complete this training BEFORE you start using the EVM tools.

# Thank you

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