Rapid Response Mobile Laboratories (RRML) Network: at a glance





Introduction to RRMLs

Rapid Response Mobile Laboratories — or RRMLs — is an inclusive, partner-driven network by the Global Outbreak Alert and Response Network (GOARN), serving communities by providing surge capacity to public health systems.

Mobile laboratories are a core part of the World Health Organization (WHO) global emergency workforce across all phases of the emergency management cycle.

We go wherever we are needed, bringing critical laboratory resources on location. Since the launch of the RRML Network, mobile laboratories have been rapidly deployed in a variety of settings such as outbreaks, mass gatherings, humanitarian missions, migrant and refugee crises, and in the aftermath of natural disasters.

Mobile laboratories build on existing health systems in developed and developing countries alike, able to operate in hard-to-reach, remote areas, and bring reliable diagnostic services to the doorstep of affected, vulnerable communities.

RRMLs are invaluable in boosting mobile diagnostic capacities in public health emergencies, and in clinical and research settings. Mobile laboratories have played a crucial role during past deployments in locations such as Greece, Guinea, Italy, Liberia, Moldova, Sierra Leone and Tajikistan.

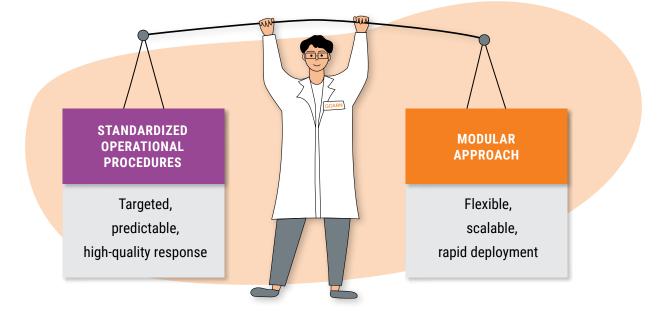
RRMLs strengthen national health systems by increasing preparedness, readiness and response capacities, and by providing vital training to laboratory experts in host countries. Mobile laboratories have so far been successfully deployed in the WHO African, Eastern Mediterranean and European regions.

Our goal is to continue strengthening public health systems worldwide with safe, scalable diagnostic procedures.

A balanced approach

RRMLs provide a balanced approach to boosting the preparedness, readiness and response capacities of public health systems.

On the one hand, mobile laboratories apply standardized operational procedures to diagnostics on the field to ensure a targeted, predictable, high-quality response. On the other hand, its modular approach means that RRMLs are flexible, scalable and can be rapidly deployed, tailored to the specific response context.



RRML Network: timeline

Ebola response **First meeting of GOARN GOARN Rapid Response** partner institutions **Capacities Partners** First coordinated action in the WHO European Workshop hosted of RRMLs in the field to Region in St Petersburg, by the Robert Koch support host communities **Russian Federation** Institute (RKI) in Berlin, Germany Establishment of GOARN Establishment of the 2.0, with a strong focus on regionalization Public Health Rapid **Response** Capacities (PHRRC) area of work to guide further development of rapid response capacities

GOARN 2.0 Planning Workshop for the WHO European Region in Belgrade, Serbia

Identification of RRMLs as a key component of GOARN PHRRC and expansion of the Network within the European Region

Meeting of the GOARN Rapid Mobile Laboratory Response Capacity in the WHO European Region held in Saratov, Russian Federation

Agreement on how the RRML Network would be developed with the introduction of the RRML Framework

2014/2015

2016

2017

2021

2018

2022

2019

First Stakeholder Meeting on Classification and Minimum Standards of the RRML/ GOARN Capacity in Munich, Germany

Adoption of the RRML classification system and initiation of the standards development process

Deployment to the WHO African Region

RRMLs engaged in the WHO African Region for identifying and responding to haemorrhagic fever

2020

COVID-19 response

RRML deployments to support national COVID-19 diagnostics e.g. in Greece, Italy, Tajikistan

RRML minimum standards development

Guided by the WHO Regional Office for Europe, over 30 technical experts including representatives from nine GOARN institutions collaborated to develop minimum operational standards for RRML

RRML Simulation Exercise (SimEx) Programme

Implementation of two exercise packages from the RRML SimEx programme, to test review the newly developed minimum standards

• virtual table-top exercise

functional exercise

RRML minimum standards developm^a

standards development (continued)

Development of indicators for a forthcoming recognition process for RRML based on minimum standards

RRML SimEx Programme (continued)

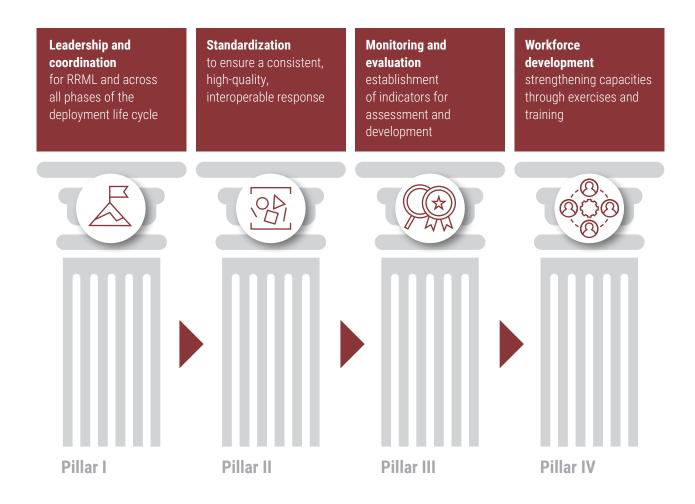
Technical drills and a fullscale field exercise to test RRML minimum standards, interoperability and coordination mechanisms

Development of a reusable, adaptable simulation exercise programme for RRMLs

Expansion of the RRML Network from regional to global level

Framework of the RRML Network

Experts from WHO, European GOARN partner institutions and Member States of the WHO European Region established a conceptual framework for RRMLs. Within the framework, the development of the RRML Network is based on four pillars, each one being a prerequisite for the next.

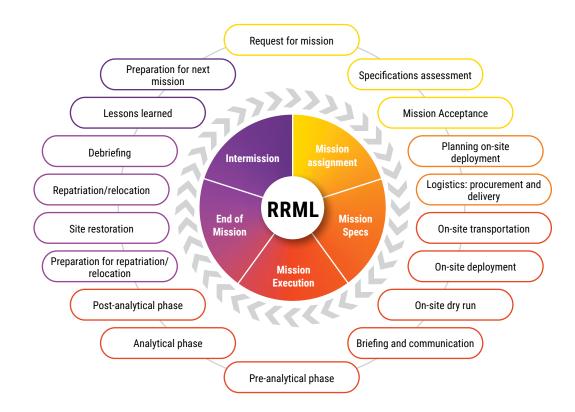




RRML deployment life-cycle¹

The RRML deployment life-cycle covers the various stages of operational, tactical and strategic decision-making throughout RRML deployment, from the initial request for support to the end of the mission and return or transition of the laboratory and further preparation.

The RRML Network aims to develop minimum standards, indicators and customizable training programmes, strengthening operations across all phases of the mobile laboratory's life-cycle.



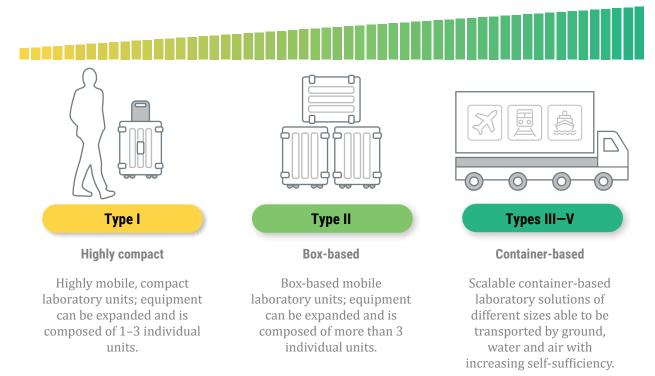
¹ Source: Vybornova O, Gala JL. Structured decision-making for the management of a biological fieldable laboratory during outbreaks: a case for European Union Civil Protection Mechanism (EUCPM). Environ Syst Decis. March 2019;39(1):65–76.



Classification of the RRML²

The guidance document for RRML classification was produced to map, define and systematize existing mobile laboratories into various categories based on their capabilities and capacities. This classification also served as the foundation for the development of minimum standards for RRMLs.

Increase in capability and self-sufficiency

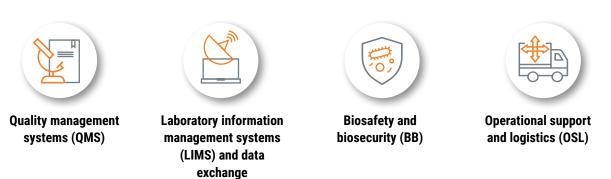


RRML minimum standards

GOARN partners jointly developed minimum standards across the four workstreams of the RRML Framework.

These standards will ensure a targeted, quality response, providing the foundation for a comprehensive monitoring and evaluation system and development of indicators, as well as a forthcoming WHO recognition process for RRML.

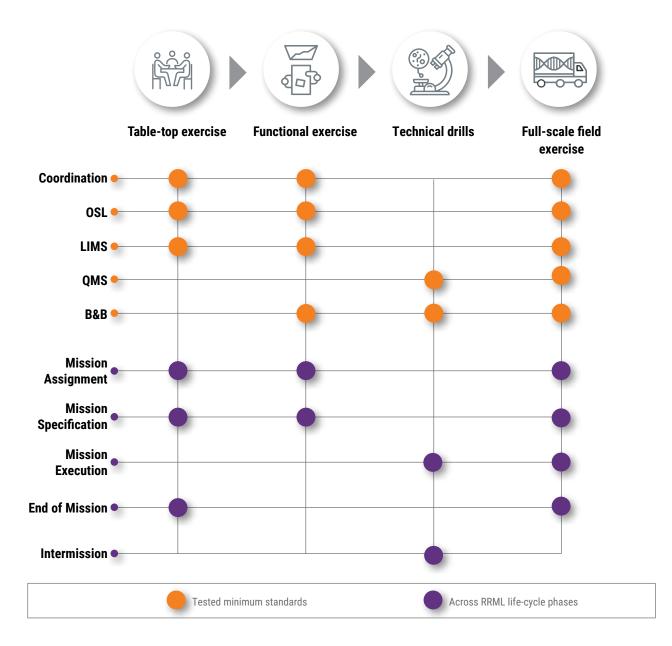
Minimum standards contribute to the overall interoperability of mobile laboratories with other rapid response capacities, such as Emergency Medical Teams and Emergency Operations Centres.



² Source: Guidance for rapid response mobile laboratory (RRML) classification. WHO Regional Office for Europe; 2021 (https://apps.who.int/iris/handle/10665/339845, accessed 19 May 2022).

Customizable RRML training programmes

The WHO Regional Office for Europe, with support from GOARN and WHO headquarters, developed an RRML simulation exercise programme for 2021–2023 to strengthen response capacities and support the development of the global health emergency workforce. These customizable training programmes include a series of exercises of increasing complexity, from discussion-based table-top exercises to a large-scale field exercise. The programme allows for the integration of exercises developed by Member States, which serve as the main structure into which additional modules can be plugged.



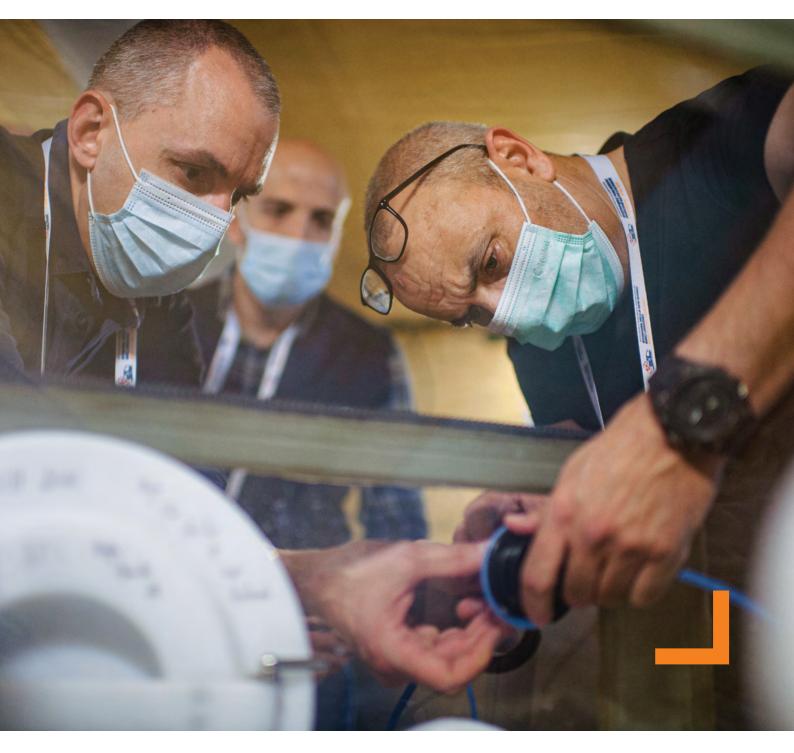
Abbreviations (footnote)

B&B	biosafety and biosecurity	PHRRC	Public Health Rapid Response Capacities
GOARN	Global Outbreak Alert and Response Network	QMS	quality management systems
LIMS	laboratory information management systems	RRML	Rapid Response Mobile Laboratory
OSL	operational support and logistics	SimEx	simulation exercise

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RRML Network: At a glance (YouTube)



Guidance on RRML Classification

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