

Current major event

EQAP for SARS-CoV-2 in the Eastern Mediterranean Region

Laboratory preparedness with quality-assured diagnostic assays is essential for controlling the current coronavirus disease (COVID-19) pandemic. WHO conducted an External Quality Assessment (EQA) for SARS-CoV-2 to support both the national and subnational laboratories with proficiency testing for molecular assays within the Eastern Mediterranean Region.

Editorial note

Broad and decentralized testing of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) is a WHO-recommended strategy to contain the SARS-CoV-2 pandemic by identifying cases to minimize onward transmission. To fulfil the need to increase testing capacities in the Region, all Member States expanded their testing capacities by establishing additional subnational testing centres. By early 2020, numerous national and sub-national laboratories were established and rapidly implemented assays for the molecular detection of SARS-CoV-2 based on real-time RT-PCR assays. Access to SARS-CoV-2 testing among the general public has increased significantly across the Region, but there were some limitations for countries with complex emergencies.

Due to the growing numbers of laboratories testing SARS-CoV-2, it is critical to monitor the quality and performance standards of individual laboratories through an EQA programme. The EQA was organized by the WHO Global Influenza Programme, WHO Health Emergencies Programme and coordinated by the WHO COVID-19 Reference Laboratory in the Public Health Laboratory Centre (PHLC), Hong Kong, SAR, with support from WHO Regional Offices. EQA usually evaluates testing competencies, the performance of laboratories, the reliability of testing procedures, and the accuracy of results, including the identification of analytical errors and making corrective actions as well as promoting good laboratory practices following an EQA cycle (see figure 1).

In an effort to support the global testing capacity and performance standards of laboratories in the Region, WHO organized the first round of proficiency testing in 2020 that targeted 27 national

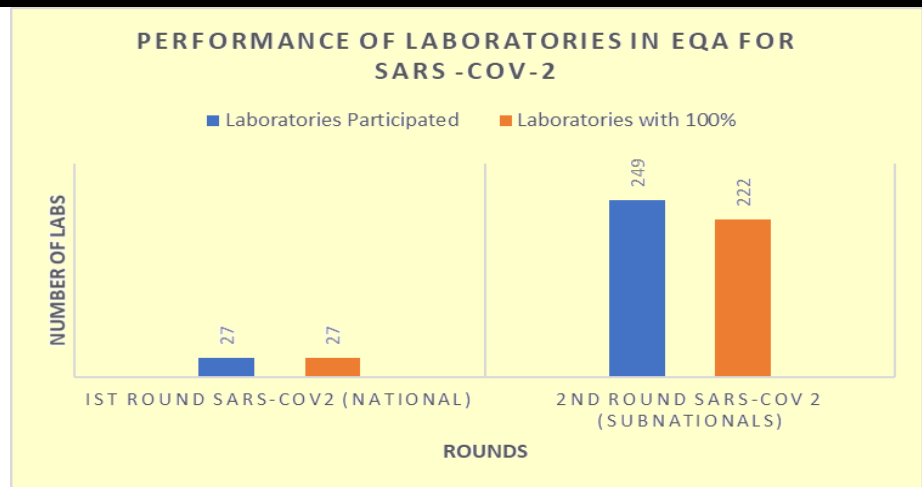
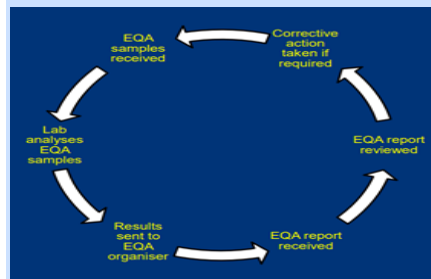


Figure 1. General Cycle of EQA



reference testing laboratories. The performance of those laboratories that participated in the EQA was excellent, with all 27 labs scoring 100%. With increased SARS-CoV-2 global testing demand, the number of labs detecting the virus increased but their quality capacity needed to be assessed.

WHO then organized a second round of EQA in 2020 with 249 sub-national labs participating from the Region. Overall, the performance of sub-national testing laboratories was satisfactory with 222 of those laboratories scoring 100%, and the labs that had deficiencies were supported to take corrective actions by re-evaluating their guidelines, competency and internal quality control processes.

The unprecedented COVID-19 pandemic has emphasized the need to scale up testing capacities for SARS-CoV-2 at both the national and sub-national levels to detect it earlier and limit its spread. However, EQA should be performed on a regular basis for all laboratories involved in COVID-19 diagnostic testing for the evaluation of potential weaknesses in SARS-CoV-2 molecular testing procedures, and to review and improve their protocols. WHO will continue to support and enrol more labs in the Region to participate in EQA for SARS-CoV-2 in 2021.

Update on outbreaks

in the Eastern Mediterranean Region

COVID-19 in 22 EMR countries

Current public health events of concern

[cumulative N° of cases (deaths), CFR %]

Coronavirus disease 2019 (COVID-19): 2019-2021

Afghanistan	[91 458 (3612), 3.9%]
Bahrain	[257 852 (1206), 0.5%]
Djibouti	[11 572 (154), 1.3%]
Egypt	[272 491 (15 582), 5.7%]
Iran (Islamic Republic of)	[3 020 522 (81 911), 2.7%]
Iraq	[1 250 691 (16 690), 1.3%]
Jordan	[742 831 (9582), 1.3%]
Kuwait	[326 451 (1817), 0.6%]
Lebanon	[542 523 (7794), 1.4%]
Libya	[189 059 (3161), 1.7%]
Morocco	[523 620 (9207), 1.8%]
occupied Palestinian territory (oPt)	[340 253 (3798), 1.1%]
Oman	[233 152 (2489), 1.1%]
Pakistan	[941 170 (21 686), 2.3%]
Qatar	[219 613 (576), 0.3%]
Saudi Arabia	[464 780 (7553), 1.6%]
Somalia	[14 779 (774), 5.2%]
Sudan	[36 304 (2732), 7.5%]
Syrian Arab Republic	[24 789 (1808), 7.3%]
Tunisia	[368 908 (13 515), 3.7%]
United Arab Emirates	[596 017 (1724), 0.3%]
Yemen	[6857 (1347), 19.6%]