Summary report on the Meeting of the Eastern Mediterranean Regional Technical Advisory Group (RTAG) on Immunization

Virtual meeting
13–14 April 2020
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Document WHO-EM/EPI/358/E
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1. Introduction

The World Health Organization (WHO) Regional Office for the Eastern Mediterranean held a meeting of the Regional Technical Advisory Group (RTAG) on Immunization on 13–14 April 2020. The meeting was conducted virtually due to the COVID-19 pandemic and the measures needed to prevent spread of the disease.

The objectives of the meeting were to:

- review regional progress, challenges and constraints facing the achievement of the goals of the Eastern Mediterranean Vaccine Action Plan (EMVAP) and provide advice on the way forward;
- brief RTAG members on the progress in verification of elimination of measles and rubella and hepatitis B control in the Region;
- review the standard operating procedures of the RTAG;
- discuss the impact of the COVID-19 pandemic on immunization programmes in the Region and measures to mitigate it.

Eight of the 10 members of the RTAG attended the meeting, along with staff from the UNICEF Middle East and North Africa Regional Office, UNICEF Regional Office for South Asia and WHO Regional Office.

Dr Yvan Hutin, Director, Department of Universal Health Coverage/Communicable Diseases, WHO Regional Office, welcomed attendees and thanked RTAG members for their participation, underlining the importance of the RTAG in guiding the implementation of vaccination services in the Region, especially during the COVID-19 pandemic. He provided a brief overview of the epidemiology of COVID-19 in the WHO Eastern Mediterranean Region and its potential impact on immunization programmes, emphasizing the need for the continuity of essential health services. Dr Ziad Memish, RTAG
chairperson, also welcomed participants and affirmed the role of the RTAG in supporting immunization programmes in the Region.

The meeting was chaired by Dr Ziad Memish and Dr Ezzeddine Mohsni, RTAG vice-chairperson.

2. Summary of discussions

2.1 Reviewing the standard operating procedures of the RTAG

The Secretariat proposed amendments to the standard operating procedures (SOPs) of the RTAG, including the terms of references (TORs). These had been shared with RTAG members in advance of the meeting. The feedback received from RTAG members was collated by the Secretariat for discussion during the meeting.

The key amendments to the SOPs were:

- Adding two TORs:
  - “Provide a platform for discussion between the Strategic Advisory Group of Experts (SAGE) on Immunization and national immunization technical advisory groups (NITAGs) in both directions”; and
  - “Serve as a forum to discuss implementation of SAGE and other global recommendations in the Region”.

- Adding text on “quorum of RTAG meetings” under the parts on the composition and mode of functioning.
- Adding text on “appointment of vice-chairperson” to the part on the nomination process.
- Adding a section on the “Role of the chairperson”.

RTAG members agreed to provide any further input by 16 April 2020. The Secretariat subsequently compiled these and shared a version by email, which was subsequently endorsed the RTAG members.

2.2 Immunization programmes in the Region in the context of the COVID-19 pandemic

The Secretariat shared with RTAG members the recently published *Guiding principles for immunization activities during the COVID-19 pandemic: interim guidance, 26 March 2020* (WHO, 2020). Dr Nadia Teleb, Regional Adviser, Vaccine Preventable Diseases/Polio Transition, WHO Regional Office, briefed RTAG members on the initial impact of the COVID-19 pandemic on immunization programmes in the Region, based on information received from 14 countries, as of early April 2020. All vaccination campaigns had been suspended in countries and outreach and mobile routine service delivery strategies had been significantly reduced in many of them. Routine immunization service delivery through fixed sites had also been negatively affected. The main reasons include the inadequate availability of personal protective equipment (PPE), fear of infection in health care workers, lock-downs and reduced working hours, lack of public transportation facilities in some countries and fear of infection among parents. The negative effect on vaccine supply included the imminent expiry of some vaccine stocks due to suspension of vaccination campaigns and imminent stock-out of other vaccines because of the suspension of international transport.

The Secretariat shared with RTAG members a draft data collection tool for the periodic collection of information from countries on the impact of the pandemic on immunization programmes. The RTAG expressed appreciation of the initiative, highlighting that the information would help in the timely provision of the needed support. RTAG members also
noted that the information to be collected may vary depending on the stage of pandemic and other characteristics, such as for Gavi-supported and not supported countries, and agreed to provide additional input by 16 April 2020.

2.3 Progress and challenges in achieving the goals of the Eastern Mediterranean Vaccine Action Plan (EMVAP)

The Secretariat briefed RTAG members on progress towards achieving the goals of the EMVAP and the challenges in the Region. Poliomyelitis eradication was not discussed as there is a dedicated RTAG for this goal.

Routine immunization

Dr Nadia Teleb briefed RTAG members on routine vaccination coverage in the Region. Based on WHO-UNICEF estimates for national immunization coverage (WUENIC) for 2018, regional DTP3-containing vaccine coverage has remained at 82% for the last three years. Fourteen countries have achieved and maintained 90% coverage of DTP3-containing vaccine at national level and three countries (Djibouti, Iraq and Lebanon) are progressing towards achieving this target.

However, achieving the target coverage is a challenge in the remaining five countries who face various degrees of humanitarian emergency. Of these five countries, Somalia and Syrian Arab Republic have a coverage of less than 50% at the national level. In addition, half of the countries of the Region have yet to achieve the equity benchmark of at least 80% DTP3 coverage in all districts and 90% of children who have not received DPT3 live in just six countries: Afghanistan, Iraq, Pakistan, Somalia, Syrian Arab Republic and Yemen. The key challenges faced by national immunization programmes in the Region include insecurity,
weak health systems, competing priorities, and inadequate programme management capacity and domestic resource allocation.

The RTAG expressed concern about the large number of unvaccinated children in the Region and the low vaccination coverage, especially in Somalia and Syrian Arab Republic. The members emphasized the need to map who and where the unvaccinated children are, and why they are not reached, and to adopt strategies suitable for the local context to reach them. They highlighted the need for the WHO Regional Office to retain the absolute number of unvaccinated children as a key immunization monitoring and programme performance indicator at both regional and country levels, and to use it together with other coverage indicators and information for more targeted evidence-based regional and country strategies and plans to achieve universal immunization targets.

The RTAG also encouraged countries to use life-course vaccination platforms to expand opportunities to reach the unreached children at a later age. Strategies for reaching the unreached should be customized according to local challenges and may vary from country to country and from community to community.

Disease elimination and control

Dr Nasrin Musa and Dr Quamrul Hasan, Medical Officers, Vaccine Preventable Diseases/Polio Transition, WHO Regional Office, briefed RTAG members on regional progress towards achieving the regional elimination and control targets for vaccine-preventable diseases (VPDs). All countries in the Region, except Somalia, are offering two doses of measles-containing vaccine (MCV) through the national immunization schedule, and 17 countries are offering two doses of rubella-containing vaccine (RCV) as well. Only half the countries have achieved the routine
vaccination coverage required for measles elimination (> 95% coverage with both doses of MCV). Supplementary immunization activities (SIAs) are being implemented by several countries in the Region to close the gap in population immunity. SIAs during 2018–2019 reached over 85 million children in the Region with one dose of MCV.

Regional incidence of indigenous measles virus transmission dropped from 54.2 per million in 2017 to 22.5 per million in 2019. The Regional Verification Commission for Measles and Rubella Elimination (RVC-MR) has declared the elimination of the two diseases in Bahrain, Islamic Republic of Iran and Oman based on 2018 data and three more countries are close to achieving this goal. However, outbreaks of measles continue to happen periodically, especially in conflict-affected areas, and 12 countries reporting measles incidence exceeding 5 per million population in 2019. Seventeen countries in the Region have achieved the elimination of maternal and neonatal tetanus (MNT) goal. Of the 12 countries yet to achieve this goal globally, five are in the Region (Afghanistan, Pakistan, Somalia, Sudan and Yemen). The key challenges for achieving these goals in the Region include insecurity, low visibility of the elimination goals, weak health systems and resource constraints.

RTAG members congratulated the WHO Regional Office for launching regional measles elimination verification activities and the verification of measles and rubella elimination in the three countries. They expressed concern about the recurrent measles outbreaks in some countries and emphasized the importance of conducting measles susceptibility analysis for different population groups (by age, geography, ethnicity, etc.) for the development and implementation of better-informed measles outbreak prevention interventions through the closing of identified immunity gaps. RTAG members emphasized the need to accelerate the introduction of MCV2 in Somalia and highlighted
the need to monitor the sustainability of MNT elimination in countries that achieved elimination several years ago.

Outbreaks of VPDs and outbreak response

Dr Eltayeb El Fakki, Medical Officer, Vaccine Preventable Diseases/Polio Transition, WHO Regional Office, briefed RTAG members on the outbreaks of VPDs in the Region during the past three years and the activities undertaken for prevention and control. Afghanistan, Jordan, Libya, Pakistan, Palestine, Saudi Arabia, Syrian Arab Republic, Tunisia and Yemen have suffered from measles outbreaks. Severe outbreaks of cholera have hit Somalia and Yemen for three successive years and Sudan reported a cholera outbreak in late 2019. Diphtheria outbreaks have been ongoing in countries that have not introduced a booster dose of DTP in the second year of life and that have low coverage of the primary series of DTP vaccine (i.e. Pakistan, Somalia, Sudan and Yemen). Pakistan also faced an outbreak of extensively drug-resistant (XDR) typhoid fever that accounted for 70% of typhoid cases reported in Sindh province. Conflicts, acute and protracted emergencies, mass population displacements and broken health systems leading to low population immunity explain many of these outbreaks.

Affected countries have responded to these outbreaks with the support of partners. Measles outbreak response and follow up vaccination campaigns covered over 85 million people in 2018–2019. Somalia, Sudan and Yemen implemented campaigns for oral cholera vaccine (OCV), while Pakistan, Sudan and Yemen implemented targeted vaccination campaigns against diphtheria. To respond to the typhoid fever outbreak, Pakistan implemented a vaccination campaign with typhoid conjugate vaccine (TCV) in the urban areas of Sindh province, followed by the introduction of TCV in the routine immunization programme across the whole
province. These outbreak response activities had variable degrees of success due to multiple challenges, including access issues, weak monitoring and supervision, insecurity and vaccine hesitancy.

The RTAG expressed concern over the occurrence of the different VPD outbreaks in countries of the Region, including the increasing number of viral hepatitis A outbreaks. The members also expressed concern over the failure to introduce a booster dose of DTP in six countries of the Region. They felt that expanding vaccination beyond infancy and using a life-course vaccination approach will help in mitigating the immunity gap in the broader population. They were also concerned about the limited laboratory diagnostic capacity for confirmation and delays in intervention, as well as the expected increase in susceptible populations due to compromised vaccination services during the COVID-19 pandemic and the likelihood of further VPD outbreaks.

New and underutilized vaccine introduction

Dr Quamrul Hasan reported that the introduction of new and underutilized vaccines had gained momentum in the Region during the past few years. All countries in the Region have introduced inactivated polio vaccine (IPV), Haemophilus influenzae type b (Hib) vaccine and hepatitis B vaccine. Pneumococcal conjugate vaccine (PCV) is in use in 17 countries (all countries in the Region except Egypt, Islamic Republic of Iran, Jordan, Somalia and Syrian Arab Republic) and rotavirus vaccine in 15 countries (all countries except Egypt, Islamic Republic of Iran, Lebanon, Oman, Somalia, Syrian Arab Republic and Tunisia). While high-income countries and Gavi-supported countries can afford the price of these vaccines, middle-income countries that were never eligible for Gavi support continue to lag behind, particularly for PCV and rotavirus vaccines. Two countries in the Region, Libya and United Arab Emirates, have introduced human papillomavirus (HPV) vaccine.
The RTAG, while acknowledging the remarkable progress in the introduction of new vaccines in the Region, expressed concern over the delay in the introduction of some life-saving vaccines, especially in middle-income countries. The members emphasized the role of the NITAGs in priority-setting and decision-making, and discussed the need for optimizing vaccine procurement in countries and the potential role of a pooled vaccine procurement system.

**Immunization data quality**

Dr Kamal Fahmy, Medical Officer, Vaccine Preventable Diseases/Polio Transition, WHO Regional Office, briefed the RTAG on the situation of immunization data in the Region and efforts to improve it. Immunization programmes in many countries continue to face challenges in achieving adequate immunization data quality. Quality issues include discrepancies between national data from different sources, reported data and WHO-UNICEF coverage estimates, suboptimal completeness and timeliness of reporting, missing data and inconsistencies in vaccination coverage and disease surveillance.

The WHO Regional Office and country offices, in collaboration with national programmes and other partners, have taken action to improve immunization data quality. This has included capacity-building workshops, in-country missions for in-depth programme reviews, data quality assessments, data quality improvement plans, bottleneck analysis of low vaccination coverage, regular reviews of reported data with feedback and support for establishing electronic data management systems, among other things.

The RTAG emphasized that accurate immunization data is a cornerstone for the formulation of evidence-based policy and operational planning for immunization programmes and allows the
monitoring of progress towards achieving immunization goals. The RTAG members underlined the need to stratify countries according to level of data quality and to tailor WHO and partner support. They highlighted the need to ensure the availability of accurate subnational immunization data to identify pockets of low immunization coverage and facilitate timely targeted interventions. They also highlighted the urgent need in several countries to develop adequate national capacities in data management (including for analysis and triangulation) and use of data for more evidence-based and targeted strategic planning.

**Verification of VPD elimination and control targets**

Dr Hyam Bashour, chairperson of both the RVC-MR and the RVC for hepatitis B control, briefed RTAG members on regional progress towards achieving measles elimination and hepatitis B control goals. She provided a brief description of the RVCs, their membership, missions and TORs, and outlined the process for verification of achievement of each goal. Progress in constituting national verification committees for measles and rubella elimination in countries and capacity-building of selected countries was also described. The observations of the RVCs regarding country capacities and the challenges in documenting the evidence for a successful verification were highlighted.

The RTAG recognized the achievement of the Region in measles and rubella elimination. The RTAG members enquired about the reintroduction of measles and rubella from neighbouring countries and the system adopted by the RVC to ensure the sustainability of elimination. The members acknowledged the importance of submitting an annual report on verification of elimination by all countries, including measles-endemic countries, in order to understand the process and improve performance.
3. Conclusions

The RTAG noted the following conclusions.

- The current COVID-19 pandemic may result in a substantial negative impact on immunization programmes in the Region. Initial information from many countries indicates a postponement of vaccination campaigns and underutilization of routine immunization services. An accumulation of susceptible populations may have serious consequences for VPD morbidity and mortality.

- Regional routine vaccination coverage has increased in recent years despite the challenges facing the Region. However, 3 million children still miss routine vaccination, with 90% of them living in six countries that are facing humanitarian emergency situations.

- Commendable progress has taken place towards measles and rubella elimination in the Region, with half the countries having either achieved elimination or having progressed well towards it. However, the occurrence of measles outbreaks in several countries and the failure of five countries to achieve MNT elimination are a persistent problem.

- Several outbreaks of VPDs have occurred recently in the Region, mainly affecting countries with low routine coverage. Improving immunization coverage, introducing booster doses and improving regional and national capacity for early detection and rapid response are required.

- While commendable efforts to improve immunization data quality are ongoing in several countries, the current overall situation of immunization data quality hampers optimal decision-making.

- Remarkable progress has taken place in establishing processes for verification of elimination and control goals at the regional level and in several countries. However, there is still a need to establish a national verification process in the remaining countries, including in endemic countries.
4. Recommendations

Proposed amendment of the standard operating procedures (SOPs) of the RTAG

1. RTAG members are to provide feedback, by close of business on 16 April 2020, on the proposed amendments of the RTAG SOPs. The Secretariat will compile the comments and share with the RTAG for endorsement. (Note: the SOPs were finalized as planned)

Immunization programmes in the Eastern Mediterranean Region in the context of the COVID-19 pandemic

The RTAG requests WHO to guide and support countries to minimize as much as possible the impact of the COVID-19 pandemic on immunization activities. The RTAG further stresses the importance of promoting WHO’s Guiding principles for immunization activities during the COVID-19 pandemic in countries of the Region: interim guidance, 26 March 2020 to guide implementation of immunization programmes during the COVID-19 pandemic. Immediate mitigation measures need to be undertaken wherever possible. The RTAG recommends the following:

2. RTAG members should provide feedback, by close of business on 16 April 2020, on the questionnaire on implementation of national immunization activities during the COVID-19 pandemic. The Secretariat should compile the comments, amend the questionnaire and share with the relevant countries for response, and with RTAG members for information. (Note: the questionnaire was finalized as planned)

3. WHO should communicate the questionnaire to national immunization programmes for a response, copying in NITAG
chairpersons, and WHO and UNICEF country offices, for information and to provide support to national EPI programmes.

4. Countries of the Region should document the impact of the COVID-19 pandemic on national immunization programmes, monitor vaccine availability and take the necessary action to ensure that records are kept of children who have missed vaccination during the pandemic. All countries should make plans for catch-up vaccination of missed children, using appropriate strategies, as soon as possible when the COVID-19 pandemic situation allows.

5. Countries of the Region should involve the NITAG, relevant partners and stakeholders in decision-making on the implementation of immunization activities during the COVID-19 pandemic and in planning for catch-up vaccination of missed children as soon as possible.

6. Countries of the Region should design appropriate strategies for the integrated delivery of essential services during the pandemic where possible, and in the post-pandemic period.

7. In the context of COVID-19 and the possible reduction of routine vaccination coverage, delayed implementation of preventive vaccination campaigns and potential increase in incidence of VPDs, countries of the Region should maintain high quality VPD surveillance and alert functions to ensure the early detection of VPD outbreaks and a timely response to them.

Progress and challenges in achieving goals of the Eastern Mediterranean Vaccine Action Plan 2016–2020

Routine immunization

The RTAG acknowledges the efforts made by countries of the Region, despite the serious hurdles caused by conflict and emergencies, and commends the achievement of sustained high routine vaccination
coverage in 14 countries of the Region. The RTAG is concerned about the very low coverage in two countries (Somalia and Syrian Arab Republic) and the high number of unvaccinated children in six countries (Afghanistan, Iraq, Pakistan, Somalia, Syrian Arab Republic and Yemen). The RTAG recommends the following:

8. Countries of the Region should map the location of unvaccinated children at subnational level, identify the reasons for why they are not being vaccinated and adopt suitable strategies to reach them for vaccination.

9. Countries of the Region facing humanitarian crises should work in collaboration with all stakeholders on the ground to design suitable strategies to overcome local challenges in reaching unvaccinated children, including planning targeted interventions for resettled communities in transition zones.

10. WHO should use absolute numbers of unvaccinated children along with vaccination coverage to monitor programme performance, especially in countries with high numbers of unvaccinated children.

11. WHO should use the demand of populations and decision-makers for a vaccine against COVID-19 as an opportunity to promote the unique importance of vaccination as a tool to prevent and control disease outbreaks, epidemics and pandemics.

**Elimination and control of VPDs**

The RTAG commends the countries of the Region with low measles incidence (less than 1 per million population). The RTAG further congratulates Bahrain, Islamic Republic of Iran and Oman for achieving measles and rubella elimination in 2018. The RTAG notes with appreciation the significant reduction in the regional incidence of measles in 2019 compared to the previous two years. However, the RTAG expresses high concern over recurrent major outbreaks in several countries of the Region. The RTAG also commends the efforts of WHO,
UNICEF and other partners to support the remaining countries to achieve MNT elimination. The RTAG recommends the following:

12. Countries of the Region should monitor susceptibility to measles and close the immunity gap among all population groups, including refugees, immigrants, health care workers and other high-risk groups.

13. Countries of the Region should enforce the vaccination of health care workers (and other relevant groups) with measles and rubella vaccine as an infection prevention measure and not only as an occupational health protection measure.

14. Countries of the Region that have not achieved MNT elimination should adopt appropriate strategies to address local challenges and overcome the delay in achieving elimination. This includes identifying high-risk districts, mobilizing required resources for implementation of risk mitigation activities (e.g. immunization campaigns) and collaborating with reproductive health departments to ensure high vaccination coverage among pregnant women and clean deliveries.

15. WHO and other partners should support countries of the Region in submitting high quality applications to Gavi to introduce second doses of measles and rubella vaccines.

16. WHO and concerned partners should regularly monitor performance in countries that have eliminated MNT in recent years and establish a system for reviewing the sustainability of elimination to maintain elimination status.

**Outbreaks of VPDs in the Eastern Mediterranean Region**

The RTAG expresses concern over the occurrence VPD outbreaks given the availability of affordable, potent vaccines and clear WHO recommendations. The RTAG congratulates Pakistan for implementation of the TCV campaign and introduction of the TCV vaccine in the routine immunization programme in Sindh in response to the XDR typhoid outbreak. The RTAG recommends the following:
17. Countries of the Region that have not introduced DTP booster doses should introduce diphtheria- and pertussis-containing vaccines through the life course, according to WHO recommendations.
18. Countries of the Region should strengthen their laboratory diagnostic capacities for the confirmation of outbreak-prone VPDs, including cholera, diphtheria, pertussis and typhoid fever.
19. The RTAG Secretariat should include hepatitis A outbreaks when discussing VPD outbreaks at future RTAG meetings.

Introduction of new vaccines of regional and national importance

The RTAG commends the progress in the introduction of new vaccines in countries of the Region. The RTAG is concerned about the delay in the introduction of some life-saving vaccines, especially in middle-income countries of the Region that are not eligible for Gavi funds. The RTAG recommends the following:

20. All countries should consider the introduction of PCV, rotavirus and other relevant new vaccines in their national routine immunization schedule in line with SAGE recommendations. NITAGs should guide the prioritization of the introduction of remaining vaccines according to the burden of the disease and the local context. The upcoming World Immunization Week (24 to 30 April) would be a good opportunity to highlight the importance of immunization across the life course.
21. Middle-income countries facing financial constraints in introducing new vaccines are encouraged to use available opportunities to enhance introduction of the new vaccines, including UNICEF pooled-procurement for middle-income countries. They should review their procurement procedures for compatibility with this system and consider potential facilitation by Gavi as part of Gavi’s 5.0 strategic plan.
Immunization data quality

The RTAG commends the improvement of immunization data monitoring in some countries of the Region and the support provided to achieve it. The RTAG recommends the following:

22. All countries of the Region are encouraged to regularly share their subnational immunization data to ensure identification of missed children and achieve national and regional immunization goals.
23. EPI managers should ensure consistency in the national immunization data reported to stakeholders.
24. WHO should categorize the countries of the Region according to their need for further support to improve their immunization data quality.
25. WHO and other partners should support EPI programmes to streamline the sources and flow of immunization data to ensure the coherence and standardization of immunization data reporting.

Verification of elimination and control goals of VPDs

The RTAG commends the WHO Regional Office for establishing the RVC-MR and RVC-HepB. The RTAG congratulates the RVC-MR for the progress achieved in verification of measles and rubella elimination in the Region and recommends the following:

26. Countries of the Region that have submitted their reports for verification of measles and rubella elimination but have not been granted the elimination status (Egypt, Jordan and Morocco) should revise their reports to address the comments of the RVC-MR and resubmit their reports as soon as possible.
27. Countries of the Region that have not established national committees for verification of measles and rubella should do so as soon as possible using relevant WHO guidelines.
28. All countries of the Region, including those experiencing high measles endemicity and periodic outbreaks (high incidence countries), should submit annual reports on progress towards measles elimination to the RVC-MR through their national measles verification committees. Reports from high incidence countries and subsequent feedback from the RVC-MR will enable these countries to critically review their performance regarding population immunity and surveillance system performance. This will identify gaps and facilitate corrective measures.

29. WHO should finalize, print and disseminate the regional guide for verification of the hepatitis B reduction target and conduct briefing sessions for countries on the verification process as soon as possible.