

Progress report on implementation of the Eastern Mediterranean vaccine action plan and the regional malaria action plan 2016–2020

Introduction

1. This progress report provides an update on the progress made in implementation of the Eastern Mediterranean vaccine action plan and the regional malaria action plan 2016–2020, both endorsed by the 62nd session of the WHO Regional Committee for the Eastern Mediterranean in October 2015 in resolution EM/RC62/R.1.

Eastern Mediterranean vaccine action plan

2. The Eastern Mediterranean vaccine action plan 2016–2020 envisions a Region in which all individuals enjoy lives free from vaccine-preventable diseases. This vision reflects a joint commitment by Member States, partners and stakeholders to a long-term collective effort towards achieving the goals of the action plan.

3. In accordance with resolution EM/RC62/R.1, a report on progress in implementing the Eastern Mediterranean vaccine action plan 2016–2020 is to be submitted to the Regional Committee every two years starting from 2017. This report is the second in that series of reports.

Current situation in the Eastern Mediterranean Region

Goal 1: Routine immunization coverage

4. In 2018, 64% (14/22) of the countries of the Region maintained the Eastern Mediterranean vaccine action plan's coverage target of reaching at least 90% of children under the age of 1 year at the national level with a third dose of diphtheria-tetanus-pertussis (DTP3)-containing vaccine.

5. The regional average for DTP3 coverage reached 82% in 2018, with 14 countries of the Region achieving and sustaining the target of 90% routine DTP3 vaccination coverage (range 94–99%). However, eight countries had a DTP3 coverage of less than 80% at the national level (range 42–79%). Somalia and the Syrian Arab Republic continued to have a DTP3 coverage of less than 50% according to WHO/UNICEF estimates.

6. About 2.9 million infants did not receive their third dose of DTP vaccine in 2018. The vast majority of these children were in countries suffering from acute or protracted emergency situations.

7. Despite the significant challenges facing several countries, efforts are continuing to reach every child with life-saving vaccines, especially in countries facing health emergencies. Routine vaccination coverage was resumed in northern Syrian Arab Republic through revitalization of 98 health facilities in areas accessible through Gaziantep, Turkey. Outreach activities are continuing in Yemen, as are efforts to strengthen outreach activities in Afghanistan and Pakistan. Countries neighbouring the Syrian Arab Republic have continued to provide all immunization antigens to Syrian refugees.

Goal 2: Disease elimination and control

Measles elimination

8. Countries of the Region are at different stages of progress towards achieving measles elimination, and have been implementing the regional strategy for measles elimination with variable levels of success. Based on WHO/UNICEF estimates of national immunization coverage for 2018, out of the 22 countries of the

Region, estimated measles-containing vaccine first dose (MCV1) coverage was $\geq 95\%$ in 11 countries, 90–94% in two and $< 90\%$ (range 46–88%) in nine.

9. Five countries reported a measles incidence of less than one per million in 2018 and are likely to achieve measles elimination soon. In addition, in May 2019 the Regional Verification Commission for Measles and Rubella Elimination (RVC-MR) in the Eastern Mediterranean Region declared that measles and rubella had been eliminated from both Bahrain and Oman, and that the Islamic Republic of Iran had eliminated rubella and is about to eliminate measles. However, 12 countries continue to suffer from outbreaks resulting from relatively low routine vaccination coverage.

10. Countries suffering from outbreaks of measles have made great efforts to implement measles supplementary immunization activities (SIAs). During 2017–2018, more than 75 million people were vaccinated with measles-containing vaccines through SIAs.

11. Inadequate visibility of the measles elimination target, weak managerial capacity, crises and competing public health priorities are the major challenges in countries.

Maternal and neonatal tetanus elimination

12. In 2018, maternal and neonatal tetanus (MNT) elimination in Djibouti was validated by WHO. Currently, five out of the 22 countries of the Region (Afghanistan, Pakistan, Somalia, Sudan and Yemen) have not achieved this goal. In Pakistan, Punjab province was validated as having achieved elimination in 2016 and the remaining provinces in the country are making efforts towards MNT elimination. Financial constraints and the inability to allocate/mobilize required resources for implementation of the required SIAs in high-risk districts are the main factors behind the failure to achieve this long-delayed goal in the remaining countries.

Hepatitis B control

13. In October 2009, the WHO Regional Committee for the Eastern Mediterranean passed resolution EM/RC56/R.5 adopting a regional target of reduction in prevalence of chronic hepatitis B virus infection to less than 1% among children below 5 years of age by 2015. A regional strategy has been developed to achieve the hepatitis B control target and countries of the Region have been supported to develop and implement national strategies to achieve the regional hepatitis B control goal. The number of countries that are implementing the hepatitis B birth dose has increased from 13 in 2009 to 18 countries in 2018, including three countries (Afghanistan, Egypt and Pakistan) that have partially introduced the birth dose vaccination. The main reason for the delayed introduction in countries supported by Gavi, the Vaccine Alliance (Gavi), is financial, as the birth dose is not supported by Gavi.

14. WHO has been supporting countries to implement serosurveys to document achievement of the regional target. Available information, through serosurveys and monitoring of programme performance, indicates that this target might have already been achieved in many countries, although verification is still to be done. WHO has developed regional guidelines for countries on hepatitis B control verification, and a regional verification commission has been notified by the Regional Director and will start verification in 2019.

Goal 3: Introducing new vaccines of regional and national priority

15. Countries of the Region have made remarkable progress in introducing new life-saving vaccines in the last few years. *Haemophilus influenzae* type B vaccine has been introduced in the national immunization programmes of all countries, while pneumococcal conjugate vaccine has been introduced in 17 countries and rotavirus vaccine in 14 countries. Inactivated poliovirus vaccine has been introduced in all countries and human papillomavirus (HPV) vaccine has been introduced in Libya and United Arab Emirates.

16. The support of Gavi to eligible countries and the commitment of governments to fulfil co-financing components has been pivotal in facilitating the introduction of new vaccines in those countries. The exceptional commitment of governments of middle-income countries to fully finance the introduction of new vaccines is commendable. Nevertheless, middle-income countries, particularly lower middle-income countries, continue to face difficulty in introducing the new vaccines due to the combined effects of the high cost of the vaccine and inadequate allocation of necessary domestic resources.

Challenges in achieving immunization goals

17. Some of the challenges preventing the achievement of immunization goals in the Region include:

- insecurity, humanitarian emergencies and competing public health priorities;
- weak managerial capacity and rapid turnover of national staff;
- inadequate attention given to immunization goals and lower priority accorded to routine immunization, given the more pressing needs in some countries;
- uncertainty about the target population in several countries due to inadequate civil registration systems, poor/old census data and continuous internal and/or external population movement; and
- inadequate financial resources, both domestic and external, leading to suboptimal implementation of immunization programmes in many low-resource countries and countries affected by emergencies.

18. To overcome these challenges, alternate immunization strategies, suitable for the local situation, are designed to reach children in security-compromised and hard-to-reach areas. Action includes, among other things: enhanced outreach activities in Pakistan; implementing multi-antigens immunization campaigns in the Syrian Arab Republic and resuming routine immunization in the north of the country; strengthening outreach activities in Yemen; implementing periodic intensification of routine immunization (PIRI) in Afghanistan and Sudan; improving the procurement system and ensuring the regular supply and availability of vaccines in Iraq; and improving district microplanning in all countries. Other activities include capacity-building of human resources, especially training mid-level managers (MLMs), and improving monitoring and supervision. Work is ongoing to improve immunization data quality and validating coverage figures by improving denominators and conducting coverage surveys.

19. More high-level attention and advocacy is required to make immunization goals more visible and allocate the resources needed to implement related activities.

Regional malaria action plan 2016–2020

20. The Eastern Mediterranean regional malaria action plan 2016–2020 was endorsed by the 62nd session of the WHO Regional Committee for the Eastern Mediterranean in October 2015 in resolution EM/RC62/R.1. The regional action plan was developed in consultation with Member States for implementation of the global technical strategy and targets for malaria 2016–2030.

21. The objectives of the regional malaria action plan 2016–2020 include: reduction in malaria case incidence and mortality rates of at least 40% and 75%, respectively; 50% of endemic districts prepared for pre-elimination (incidence of less than 1 case per 1000); malaria transmission interrupted in 25% of endemic districts with incidence of less than 1 case per 1000; elimination of falciparum malaria from two countries (Islamic Republic of Iran and Saudi Arabia); and prevention of the re-establishment of malaria transmission in countries/areas that have eliminated malaria.

22. In accordance with resolution EM/RC62/R.1, a report on the progress made in implementing the Eastern Mediterranean regional malaria action plan 2016–2020 is to be submitted to the Regional Committee every two years starting from 2017. This report is the second in that series of reports.

Current situation

23. Progress in reducing the malaria burden is stalling, as reported in *World malaria report 2018*. It is predicted that without increases in investment, reaching global and regional milestones for 2020, 2025 and 2030 will not be possible.

24. More than 85 million people of the Eastern Mediterranean Region live in areas at high risk of malaria transmission. The estimated number of malaria cases in the Region increased from 3.9 million in 2015 to 4.4 (3.6–5.5) million in 2017, the latest year for which data has been finalized. The estimated number of deaths in 2017 was 8300, compared with 8600 in 2015. The incidence of confirmed malaria cases has remained at the level of 2015, with 14.8 per 1000 population at risk. While 70% of reported confirmed cases in the Region are falciparum malaria, in recent years the proportion of *Plasmodium vivax* malaria has increased in the countries of the Region in the Horn of Africa (Djibouti and Somalia) to around 30% of cases in comparison to less than 10% in previous years. Six countries (Afghanistan, Djibouti, Pakistan, Somalia, Sudan and Yemen) account for more than 99% of confirmed cases in the Region, with Sudan (51%), Pakistan (25%) and Afghanistan (11%) having the highest number. The number of malaria cases has reached an alarming level in Djibouti in recent years, particularly in 2018 and 2019, due to population movement from neighbouring countries, the presence of invasive *Anopheles stephensi*, and an inefficient control programme.

25. The Islamic Republic of Iran and Saudi Arabia are aiming to eliminate malaria. Local cases in the Islamic Republic of Iran declined to 18 in 2018, with no local transmission of falciparum malaria. In Saudi Arabia, the number of local cases remained below 100 between 2010 and 2015, but has risen in recent years to reach 194 in 2018, mainly due to an increase in population movement and difficulty in accessing border areas with Yemen.

26. Fourteen countries in the Region are free from indigenous malaria transmission and are at the stage of prevention of the re-establishment of local malaria transmission. Egypt and Oman have reported zero indigenous cases for more than three years and have expressed an interest in certification of malaria-free status.

27. The first pillar of the regional malaria action plan is to ensure universal access to malaria prevention, diagnosis, and treatment. Sleeping under an insecticide-treated net and the use of indoor residual spraying are the two primary vector control methods. Long-lasting insecticidal net (LLIN) operational coverage has increased from 41 million people protected in 2015 to more than 52 million in 2017, but has not yet reached the target for 2020 of at least 80% of household members in targeted areas using insecticide-treated nets. Indoor residual spraying protection in the Region has increased in comparison with 2015, but countries are facing major challenges in funding the cost of operations and shifting to the new generation of insecticides, which is vital given the high level of insecticide resistance in some countries. WHO has developed a regional plan of action (2019–2023) for implementation of WHO's *Global vector control response 2017–2030* to strengthen vector control through increased capacity, improved surveillance, better coordination and integrated action across sectors and diseases.

28. Prompt diagnosis and treatment are critical to preventing a mild case of malaria from developing into severe disease and death. The proportion of reported malaria cases that are confirmed either by microscopy or rapid diagnostic tests (RDTs) has increased to more than 37% in 2017, compared with only 18% in 2015, yet remains far from the target of confirmation of 90% of reported suspected malaria cases. All endemic countries have updated national treatment policy and are providing antimalarials free of charge in public health facilities. However, in 2017–2018 there were reports of stockouts of medicines and RDTs in Djibouti, Sudan and Yemen.

29. Transforming surveillance into a core intervention constitutes one of the main pillars of the regional action plan. WHO's recent *Malaria surveillance, monitoring & evaluation: a reference manual* (2018) has been translated into Arabic and Farsi as a valuable resource for malaria-endemic countries. WHO is also supporting malaria-endemic countries that are implementing or planning to implement the District Health

Information System 2 (DHIS2) to adopt the standard integrated WHO malaria module. Data generated from surveillance will help countries to identify their unique context and overcome the barriers to scaling up the appropriate combination of interventions for maximum impact.

30. Countries are also being supported to closely monitor mosquito resistance to the insecticides used in core vector control tools, including parasite resistance to antimalarials and histidine-rich protein 2/3 gene deletions in *P. falciparum* parasites (pfhrp-2/3).

Key challenges

31. The achievements of the countries of the Region in malaria control and elimination are at risk. The political unrest and instability in the Region has led to the displacement of populations and interrupted health service provision, resulting in setbacks in malaria control and the emergence of other vector-borne diseases such as dengue and chikungunya, putting further strain on already weak human and financial resources.

32. The main challenges for malaria burden reduction in the Region are the lack of or decrease in national allocation of funds for malaria control in some countries, including Yemen, Somalia and Sudan, and a dependency on external funding, along with decreasing human resource capacity in WHO to provide much-needed technical support to priority countries with weak health systems and/or experiencing humanitarian emergencies. Moreover, environmental changes, global warming, unplanned urbanization and invasive vectors have created new challenges for countries in the Region in controlling malaria and other vector-borne diseases.

Priorities and the way forward

33. To respond to this situation, and given the expected further reduction in available funding, collaboration with partners should be intensified in support of endemic countries for the optimal use of resources. There is an urgent need for high-level advocacy for increased investment and resource mobilization, particularly from regional donors. Further investment is needed to develop the capacity of local health staff for integrated control of vector-borne diseases, along with strengthening WHO capacity to deliver the required support. More work is needed to support countries experiencing humanitarian emergencies and to harmonize technical support to ensure that programme capacity is sustained for the continuation of interventions with the involvement of all stakeholders. Promoting strong community participation and establishing partnerships between the public and private sectors as part of a multisectoral approach will be crucial to ensure there is a sustainable path towards burden reduction and malaria elimination.