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Eastern Mediterranean Vaccine Action Plan 2016–2020

A framework for implementation of the Global Vaccine Action Plan

World Health Organization
REGIONAL OFFICE FOR THE Eastern Mediterranean

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Executive summary

In May 2012, the Sixty-fifth World Health Assembly endorsed the Global Vaccine Action Plan 2011–2020 (GVAP), in resolution WHA65.17, as the operational framework for implementation of the vision of the Decade of Vaccines 2011–2020. The ultimate success of GVAP depends on the commitment of Member States and partners. In this context, the Sixty-fifth World Health Assembly requested the World Health Organization (WHO) regional offices to translate GVAP into regional vaccine action plans.

The Eastern Mediterranean Vaccine Action Plan 2016–2020 (EMVAP) has been developed as a framework for implementation of GVAP in Member States of the Eastern Mediterranean Region, to guide prevention and control of vaccine-preventable diseases from 2016 to 2020 and beyond by defining objectives, priority actions and programme indicators, taking into account the specific needs and challenges of Member States in the Region.

This document outlines the goals and strategic objectives of the EMVAP, and the priority action areas under each of the five EMVAP strategic objectives.

EMVAP goals

Goal 1: Attain interruption of wild poliovirus transmission and sustain polio-free status.
Goal 2: Meet regional routine vaccination coverage targets at all administrative levels.
Goal 3: Meet regional elimination and control targets for vaccine-preventable diseases.
Goal 4: Introduce new and underutilized vaccines of regional and national priority.

EMVAP strategic objectives

- All countries commit to immunization as a priority.
- Individuals and communities understand the value of vaccines and demand vaccination as their right and responsibility.
- The benefits of vaccination are equitably extended to all people through tailored, innovative strategies.
- Strong immunization systems are an integral part of a well-functioning health system.
- Immunization programmes have sustainable access to long-term funding and high-quality supply.

The EMVAP also includes a monitoring and evaluation framework, with indicators to monitor implementation of the priority actions under the strategic objectives as well as progress towards achieving EMVAP goals and targets.

The EMVAP 2016–2020 was endorsed by the Sixty-second session of the WHO Regional Committee for the Eastern Mediterranean in October 2015 (resolution EM/RC62/R.1). As per resolution EM/RC62/R.1, a report on progress towards achieving EMVAP goals, as well as remaining challenges, is to be submitted every 2 years to the Regional Committee.

1. Background

1.1 Situation of vaccine-preventable diseases and immunization in the Eastern Mediterranean Region

Immunization is one of the safest, most efficacious and cost-effective public health interventions in history. It is a key element in preventing childhood illness and has brought about a significant reduction in child morbidity and mortality in the Eastern Mediterranean Region over the past three decades.

Countries of the Region have achieved remarkable improvement in routine vaccination coverage during the past two decades. Based on WHO/UNICEF estimates for 2016, coverage with the third dose of diphtheria-tetanus-pertussis (DTP3)-containing vaccine is at least 90% or more in 14 countries (Fig. 1). However, due to the prevailing geopolitical situation in the Region, vaccination coverage has decreased either slightly or substantially in some countries. As a result, the regional average of DTP3 coverage dropped from 85% in 2010 to 80% in 2016, and 3.7 million infants missed receiving their third dose of DTP-containing vaccine in the same year; the majority of these infants are in seven countries of the Region (Fig. 2).

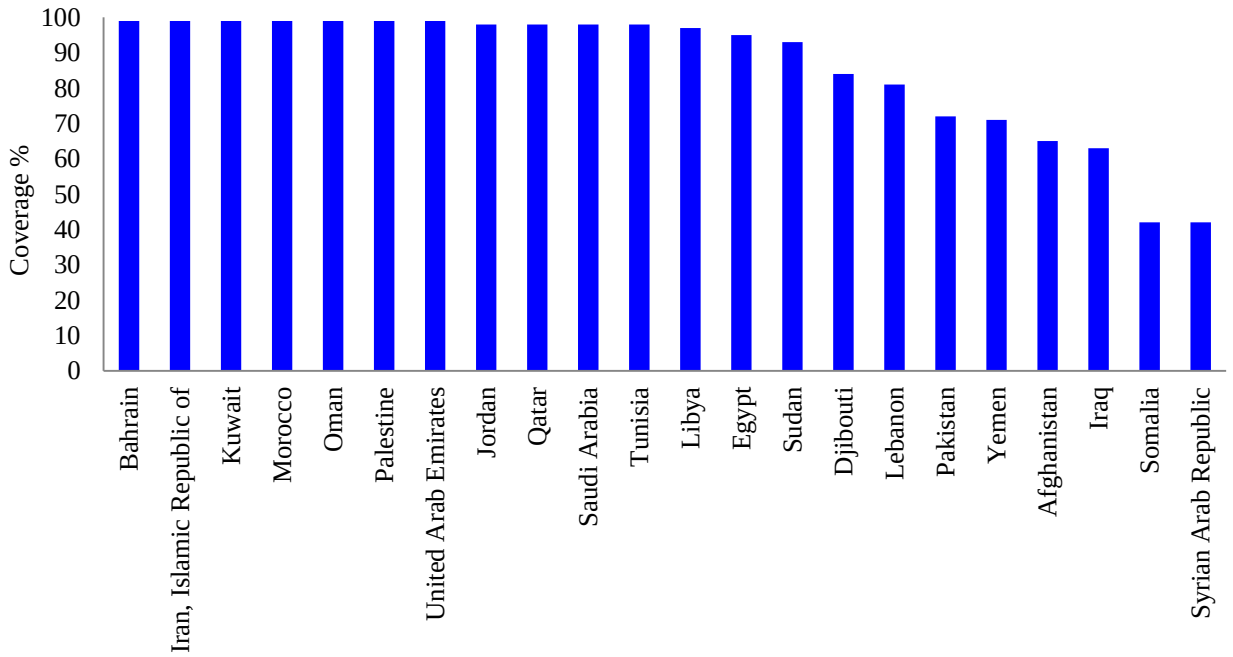

Fig. 1. Coverage of third dose of DTP-containing vaccine in the Region, 2016

Source: WHO/UNICEF estimates for national immunization coverage

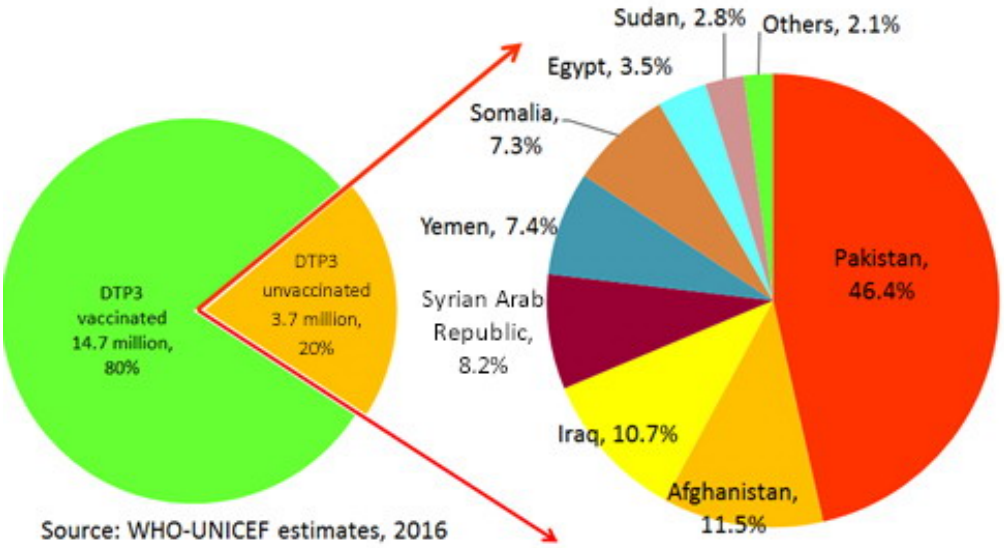

Fig. 2. Percentage of infants unvaccinated with third dose of DTP-containing vaccine in the Region, 2016

In 1997, Member States of the Eastern Mediterranean Region adopted the goal of measles elimination by 2010 (resolution EM/RC44/R.6). Although significant progress has been made, the measles elimination goal was not achieved and therefore, in 2011, the target date was postponed to 2015 (resolution EM/RC58/R.5).

Countries of the Region have been implementing the regional strategy for measles elimination with variable levels of success. Based on WHO/UNICEF estimates of national vaccination coverage for 2016, 12 countries have achieved coverage of at least 95% with two doses of measles-containing vaccine. Measles case-based surveillance is implemented in 20 countries, supported by a well-established global and regional laboratory network, and the majority of countries are meeting the targets of most of the surveillance system performance indicators.

During 1998–2010, the Region witnessed significant progress towards interruption of measles virus transmission: the number of reported suspected measles cases decreased by 89%, from 89 478 cases in 1998 to 10 072 cases in 2010.[1] However, due to the geopolitical situation in several countries of the Region since 2011 – and a significant decrease in donor funding for measles supplementary immunization activities – regional progress slowed down, and the number of reported suspected cases doubled between 2010 and 2015 (10 072 and 21 418 cases, respectively).[1] However, the number of cases decreased to 6272 in 2016, a reduction of 70% from 2015. Reported data for 2017 indicates the occurrence of 33 943 suspected measles cases in the Region, the vast majority in Somalia (70%) and Pakistan (20%). However, in the same year, 10 countries (45.5%) reported indigenous measles incidence of less than 5 cases per million population; two of these countries have not reported any indigenous measles cases for at least 3 years (Fig. 3).

[1] Country-reported data through WHO/UNICEF Joint Reporting Form

The longstanding goal of maternal and neonatal tetanus elimination is not yet achieved in six countries of the Region: Afghanistan, Djibouti, Pakistan, Somalia, Sudan and Yemen. Maternal and neonatal tetanus elimination has been documented in Punjab, Pakistan.

In October 2009, the Regional Committee for the Eastern Mediterranean adopted a regional target of reduction in the prevalence of chronic hepatitis B virus infection to less than 1% among children under 5 years of age by 2015 (resolution EM/RC56/R.5). While available information indicates that this target has already been achieved in several countries, verification through the implementation of hepatitis B serosurveys is yet to be done in most of the countries. The WHO Regional Office for the Eastern Mediterranean has developed guidelines for verifying achievement of the hepatitis B control target in the Region.

Introduction of new life-saving vaccines has witnessed remarkable progress in the Region during the past few years. *Haemophilus influenzae* type B vaccine has been introduced in the national immunization programme in all countries. Pneumococcal conjugate vaccine has been introduced in 16 countries and rotavirus vaccine in 12 countries. Inactivated poliovirus vaccine has been introduced in 21 countries and is expected to be introduced in the remaining country, Egypt, soon. Sudan has completed a national campaign with meningococcal A conjugate vaccine (MenAfriVac), and introduced the vaccine in the routine immunization programme in 2017. The support of Gavi, the Vaccine Alliance, has been pivotal in facilitating introduction of new life-saving vaccines in Gavi-eligible countries. However, middle-income countries continue to face difficulties in introducing the new vaccines due to the combined effect of high vaccine costs, inadequate allocation of necessary domestic resources and inadequate vaccine procurement systems.

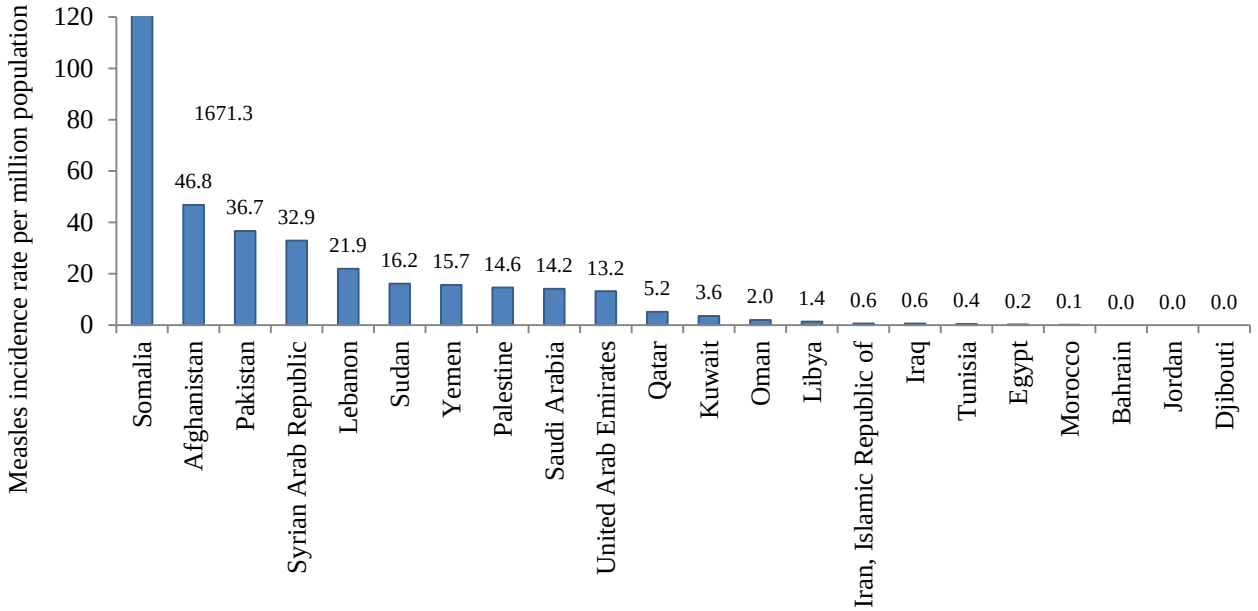

Fig. 3. Incidence rate of indigenous measles cases per million population in the Region, 2017

The overall share of total domestic expenditure has relatively increased for vaccination programmes in the majority of countries with introduction of the new vaccines and implementation of disease eradication and elimination strategies. However, expenditure has not reached the level sufficient for ensuring adequate and sustainable finance for implementation of the strategies and activities necessary for achieving the global and regional immunization goals.

1.2 Global Vaccine Action Plan 2011–2020 (GVAP)

The Sixty-fifth World Health Assembly endorsed the Global Vaccine Action Plan 2011–2020 (GVAP) in resolution WHA65.17 as the operational framework for implementation of the vision of the Decade of Vaccines. The Decade of Vaccines envisions a world in which all individuals enjoy lives free from vaccine-preventable diseases. GVAP defines what the immunization community wants to achieve over the decade 2011–2020. It describes a wide range of strategies and activities to achieve the Decade of Vaccine's mission of ensuring that the full benefit of vaccination is available to all people, regardless of where they are born, who they are or where they live.

The ultimate success of GVAP in achieving the Decade of Vaccine's vision and goals will be possible only if all Member States and partners involved in immunization commit and take actions to achieve its six strategic objectives, uphold the Decade of Vaccine's guiding principles when implementing all the actions, and regularly monitor and evaluate progress towards achieving both the goals and strategic objectives using a set of key indicators. In this context, the Sixty-fifth World Health Assembly requested WHO regional offices to translate GVAP into regional vaccine action plans.

2. Eastern Mediterranean Vaccine Action Plan 2016–2020 (EMVAP)

2.1 Purpose

The Eastern Mediterranean Vaccine Action Plan 2016–2020 (EMVAP) provides a framework for implementation of the GVAP while taking into account the context of countries in the Region. The EMVAP provides an opportunity for Member States and partners, together with the WHO Regional Office for the Eastern Mediterranean, to re-define their immunization vision for the Region in the context of the Decade of Vaccines and GVAP 2011–2020. The EMVAP, therefore, sets a course for eradication, elimination and control of vaccine-preventable diseases through immunization from 2016 to 2020 and beyond. This can be achieved through defining goals, targets and indicators, proposing a set of priority actions for each of the EMVAP strategic objectives, and defining key components of the monitoring and evaluation framework.

2.2 Vision and mission

EMVAP envisions a Region in which all individuals enjoy lives free from vaccine-preventable diseases. The EMVAP mission is to ensure equitable and sustainable access for all communities and individuals, especially the marginalized and those in hard-to-reach areas, to vaccines of assured quality.

The EMVAP vision incorporates regional principles and directions for immunization programmes for the period 2016–2020 and beyond. This vision reflects joint commitment to a common objective by Member States, partners and stakeholders, with a long-term collective effort towards achieving the goals of EMVAP 2016–2020.

2.3 Structure of EMVAP

Within EMVAP, four goals have been set, aligned with the Decade of Vaccines and GVAP goals and within the context of the Eastern Mediterranean Region. To attain these goals, five strategic objectives incorporating priority action areas have been developed. Progress towards achieving both the goals and the strategic objectives will be monitored through the proposed monitoring and evaluation framework.

2.4 Goals and targets of EMVAP 2016–2020

Achievement of the vision and mission of EMVAP will be measured against the following goals.

Goal 1: Attain interruption of wild poliovirus transmission and sustain polio-free status.
Goal 2: Meet regional routine vaccination coverage targets at all administrative levels.
Goal 3: Meet regional elimination and control targets for vaccine-preventable diseases.
Goal 4: Introduce new and underutilized vaccines of regional and national priority.

Achieving these immunization goals will avert thousands of cases and future deaths from vaccine-preventable diseases, and, accordingly, result in millions of dollars in gained productivity.

Goal 1: Attain interruption of wild poliovirus transmission and sustain polio-free status

Polio eradication is addressed in other documents, under the Polio Eradication Initiative.

Goal 2: Meet regional routine vaccination coverage targets at all administrative levels

Achieving high routine vaccination coverage is the gateway for achieving all targets of the immunization programmes.

The following target is adopted:

- reach at least 90% coverage with third dose of DTP-containing vaccine among children under 1 year of age at national level and at least 80% coverage in every district through routine immunization by 2020.

Rationale

As of 2016, eight Member States of the Region have not reached the target of 90% coverage with the third dose of DTP-containing vaccine at the national level. Consequently, 3.7 million infants in the Region missed their third dose of DTP-containing vaccine in 2016.

Based on country-reported data for 2016, district-level coverage with third dose of DTP-containing vaccine increased significantly in several countries; however, 12 countries have not yet achieved the target of at least 80% coverage in every district.

Goal 3: Meet regional elimination and control targets for vaccine-preventable diseases

The regional elimination and control targets for vaccine-preventable diseases include: measles elimination; maternal and neonatal tetanus elimination; and reduction of chronic hepatitis B virus infection.

Goal 3.1: Achieve measles elimination

The following target is adopted:

- interruption of indigenous measles virus transmission by the earliest possible date.

Member States of the Region will strive to achieve measles elimination at the earliest possible date. Verification of measles elimination in any country that fulfils the elimination criteria will be conducted by the Regional Verification Commission for measles and rubella immediately, without waiting for regional verification.

Rationale

In 1997, the Regional Committee for the Eastern Mediterranean adopted a resolution on achieving measles elimination in countries of the Region by 2010 (resolution EM/RC44/R.6). In 2011, due to the delay in achieving the measles elimination target, the Regional Committee revised the target date to 2015 (resolution EM/RC58/R.5).

Member States have been implementing the regional strategy for measles elimination with variable levels of success. Reported data for 2017 indicates the occurrence of 33 943 cases of suspected measles in the Region, 90% of which are in two countries only: Somalia (70%) and Pakistan (20%). However, in the same year, 10 countries (45.5%) reported indigenous measles incidence of less than 5 cases per million population; two of these countries have not reported any indigenous measles cases for at least 3 years.

Goal 3.2: Achieve and sustain elimination of maternal and neonatal tetanus

The following target is adopted:

- achieve and sustain incidence of neonatal tetanus of less than 1 case per 1000 live births in every district in all countries.

Rationale

In 1989, the Forty-second World Health Assembly called for elimination of neonatal tetanus by 1995. In 1999, the goal was expanded to include elimination of maternal tetanus. However, due to slow implementation of the recommended strategies, the target date was postponed to 2000, and then to 2005. As part of GVAP, Member States endorsed a target year of 2015.

So far, 16 Member States of the Region, and Punjab in Pakistan, have documented maternal and neonatal tetanus elimination. The current incidence of maternal and neonatal tetanus in the remaining six countries (Afghanistan, Djibouti, Pakistan, Somalia, Sudan and Yemen) and routine tetanus toxoid vaccine coverage denote that serious action needs to be undertaken to achieve this goal.

Goal 3.3: Achieve the regional hepatitis B reduction goal

The following target is adopted:

- reduce prevalence of chronic hepatitis B virus infection to less than 1% among children under 5 years of age and verification of achieving the target by 2020.

Member States of the Region will strive to document achieving the hepatitis B reduction goal at the earliest possible date. Verification of achieving the goal in any country that fulfils the criteria will be conducted by the Regional Verification Commission for hepatitis B control immediately, without waiting until 2020.

Rationale

In October 2009, the Regional Committee for the Eastern Mediterranean adopted resolution EM/RC56/R.5 on reducing the prevalence of chronic hepatitis B virus infection to less than 1% among children below 5 years of age by 2015. However, no countries in the Region documented achieving the target by that date.

Available information indicates that the hepatitis B control target has been achieved in several Member States. However, hepatitis B serosurveys have yet to be conducted in the vast majority of countries to document achievement of the target.

One of the main challenges to achieving the target is delayed introduction of the hepatitis B birth dose in national immunization programmes in nine Member States. Implementation of the birth dose within 24 hours of life is not consistent in several of the countries that have introduced the vaccine. In addition, routine vaccination coverage with the third dose of hepatitis B vaccine has not reached the targeted minimum of 90% coverage in eight countries of the Region.

Goal 4: Introduce new and underutilized vaccines of regional and national priority

The following target is adopted:

- introduce new and underutilized vaccines (rubella, pneumococcal conjugate, rotavirus and human papillomavirus (HPV) vaccines) in all countries with demonstrated disease burden.

Rationale

Vaccine-preventable diseases account for more than 20% of deaths among children and, hence, immunization is one of the main tools for prevention of childhood mortality. Deaths due to pneumococcal and rotavirus diseases account for up to 16% of deaths among children under 5 years of age in countries of the Region that have not yet introduced the vaccines.

As of 2016, pneumococcal conjugate vaccine has not been introduced in eight countries of the Region, and half of Member States have not yet introduced rotavirus vaccine. Rubella vaccine is still not in use in five countries, and HPV vaccine has been introduced in the national immunization programme in only one Member State of the Region.

Member States are encouraged to establish appropriate surveillance systems and conduct cost-effectiveness analysis in order to strengthen their evidence-based decision-making on introduction of these new vaccines. Strengthening of national immunization technical advisory groups in order to make evidence-based decisions on introduction of the new vaccines is also required.

3. Challenges to achieving the regional goals

- The security situation in many countries of the Region affects implementation of planned activities, especially outreach and mobile activities for delivering vaccines and implementation of supplementary immunization activities. It also significantly increases the cost of operations.
- Inadequate managerial capacity and the multiple competing priorities in some countries.
- Inadequate attention to or visibility of the immunization goals and lower priority given by the respective authorities to routine immunization in some countries.
- Uncertainty about the target population (denominator) in many countries due to inadequate civil registration systems and poor/old census data.
- Poor disease surveillance and inadequate immunization data quality, often linked with unreliable and inconsistent denominators, which hinders use of Expanded Programme on Immunization (EPI) data and surveillance data for action.
- Inadequate financial resources coupled with non-judicious use of resources to implement the planned activities, especially those related to measles and tetanus supplementary immunization activities, new vaccines introduction in middle-income countries and co-financing in GAVI-eligible countries.
- Occasional global vaccine shortage and rigidity of some countries in procuring only from specific manufacturers and not accessing alternative, globally available, WHO prequalified vaccines.
- Inadequate social mobilization and failure to create adequate community demand for vaccination in low coverage countries.

4. Strategic objectives and priority actions for achieving the regional goals

The EMVAP strategic objectives and their priority action areas are the technical and operational components required to achieve the regional immunization goals. The EMVAP incorporates the strategic objectives of GVAP that are relevant to the Eastern Mediterranean Region; priority action areas are defined to address regional priorities and the challenges faced by Member States.

Strategic objective 1: All countries commit to immunization as a priority

Political commitment and country ownership of immunization programmes, allocation of adequate national resources and monitoring of progress are crucial for achieving the immunization goals. The international community has recognized that children are people who have the right to vaccination and that countries should recognize the importance of vaccination as a critical public health intervention and a public good. Therefore, the value that immunization represents in terms of health, social and economic returns should be acknowledged.

An appropriate legislative framework that allows concerned national authorities to define country priorities and make sustainable commitments to immunization should be in place. Immunization plans need to be aligned with the broader national health strategic plans. Integration of the immunization plans into broader health plans provides a platform for sustainable financial investment. Strengthening the national decision-making capacity and establishing a formal, credible and independent structure for evidence-based decisions are also crucial.

Priority action areas

- Strengthening governance of the immunization programme and developing and updating policies, legislation and regulations to commit the country to immunization as a priority. Legislation should cover the vaccine hesitancy/refusal issues that are increasingly noticed in the Eastern Mediterranean Region, especially regarding vaccination of adolescents and adult age groups, as well as implementation of supplementary immunization activities for measles-containing vaccines. Vaccination policies and related legislation should also address the specific needs of Member States hosting expatriate populations or witnessing special events (e.g. mass gatherings) that require specific vaccination programmes. Appropriate policy and legislation concerning the adequacy of immunization activities provided by the expanding private sector should be ensured.

- Developing and endorsing comprehensive multi-year plans for the national immunization programme and annual immunization work plan, aligned with the national health plan, including accurate estimates of costs and necessary financial commitments and with a framework for monitoring and reporting on progress towards achieving national immunization goals.

- Engaging and involving decision-makers, opinion leaders, private sector and stakeholders to advocate systematically and continuously regarding the value of vaccines to increase visibility of the immunization goals and enhance commitment to immunization as a priority.

- Establishing and strengthening independent national immunization technical advisory groups to help formulate evidence-based immunization policies within the country context.

Strategic objective 2: Individuals and communities understand the value of vaccines and demand vaccination as their right and responsibility

Significant improvements in vaccination coverage, sustainability of immunization programmes and achievement of the immunization goals are possible if individuals and communities are aware of the availability of immunization services, understand the benefits and risks (albeit insignificant) of vaccination, are encouraged to seek immunization services, and have ownership of the planning and implementation of immunization programmes within their local communities.

The high demand for immunization has been a main reason for sustained high vaccination coverage in several Member States of the Region in the past few years, despite the difficult geopolitical situation that those countries have faced. In contrast, the low population demand for immunization in other Member States, despite continuous availability of vaccines and partner support, has been a main factor behind the low vaccination coverage and continued outbreaks of vaccine-preventable diseases in those countries. Accessing hard-to-reach populations, attaining higher vaccination coverage levels and ensuring equity in access to vaccination services require additional approaches to stimulate higher population demand for vaccination.

As more new vaccines become available, improving their usage and their impact on disease incidence depends on individuals understanding the benefits of vaccination and the spectrum of diseases prevented. Therefore, demanding vaccination as an individual right and responsibility, making evidence-informed choices, being encouraged to seek immunization services, and taking responsibility to protect children, adolescents and adults throughout the life course are essential to maximize benefits from the immunization programmes.

Maintaining population demand for immunization services and addressing vaccine hesitancy will require: use of traditional communication platforms and new social media platforms; optimizing the role of front-line health care workers; identifying and leveraging immunization champions; tailoring immunization programme

advocacy and communication messages to the populations in need; reaching mobile, marginalized and migrant populations with the appropriate messages; and communicating the benefits of immunization and the risks presented by vaccine-preventable diseases.

Priority action areas

- Developing and implementing comprehensive communication and social mobilization strategies to increase individual and community awareness about the risk of vaccine-preventable diseases, the benefits of vaccines and relative minimal risks of vaccination, and to enhance trust in vaccines and immunization.
- Creating partnerships and continuously and proactively engaging with the media, social media and other communication routes to inform the public on the benefits of vaccines and vaccination.
- Studying, with individuals and community groups, the best community-based communication approaches to provide vaccination-related information. Engaging civil society, religious leaders, partners, advocates and champions to convey messages on the value of vaccines and the responsibility of individuals, parents and the community to ensure that everyone is protected by vaccination throughout the life course.
- Identifying anti-vaccination, vaccine hesitancy and vaccine refusal groups, and addressing their concerns using traditional and new social media communication platforms, and then transmitting relevant information and responses to people's concerns.
- Conducting social research and risk communication activities to identify the vaccination barriers based on reliable research and evidence.

Strategic objective 3: The benefits of vaccination are equitably extended to all people through tailored, innovative strategies

To achieve the immunization goals of eradication, elimination and control of vaccine-preventable diseases, all individuals, especially the vulnerable, should have equitable access to immunization services. In 2016, one out of every five children in the Region was not reached with basic immunization and 3.7 million children missed their third dose of DTP-containing vaccine. Most of these children are in low-income countries of the Region (Fig. 2). In addition, six countries in the Region have not extended their national vaccination programmes beyond 2 years of age.

Achieving this strategic objective requires that every eligible individual be immunized with all appropriate vaccines, irrespective of geographic location, age, gender, disability, educational level, socioeconomic level, ethnic group or work condition, thereby reaching underserved populations and reducing disparities in immunization coverage both within and between countries. Because disease burden tends to be disproportionately concentrated in marginalized populations, reaching

these populations will not only achieve a greater degree of equity, but will achieve a greater health impact and contribute to economic development as well.

Priority action areas

- Developing suitable systems for identifying underserved and marginalized groups on a regular basis and conducting research studies to determine barriers to accessing immunization in the low coverage communities.
- Developing district-based/community-based microplans to reach every community and population group and implementing tailored country- and community-specific strategies to address identified causes of inequity in delivery of and access to immunization.
- Extending the scope of national immunization programmes to provide vaccination services to all age groups as part of national immunization policy and legislation, and identification of necessary resources.
- Enhancing coordination with disaster/emergency entities and identifying mechanisms to ensure that vaccination programmes are included in national emergency plans. Ensuring immunization is included as one of the main elements in any resource mobilization activity for provision of services during humanitarian emergency situations.
- Monitoring progress in reducing disparities and improving equity in access to immunization services.

Strategic objective 4: Strong immunization systems are an integral part of a well-functioning health system

Successful implementation of the national immunization programme and its financial sustainability depends, to a great extent, on the presence of a well-functioning health system. The various components of an immunization programme require multidisciplinary attention in order to build a cohesive, non-fragmented and well-functioning programme that coordinates and works in synergy with other primary health care programmes.

Health systems encompass a range of functions, from policy and regulation to information and supply chain systems, human resources, and overall programme management and financing, which are all fundamental for a successful immunization programme. Health systems include both the public and private sectors, and in some countries of the Eastern Mediterranean Region the private sector plays a major role in vaccine delivery.

Integration of immunization into the broader health sector plan is essential for a coordinated, multidisciplinary approach to building well-functioning immunization services, focusing on equitable approaches and reaching underserved populations, while working in synergy with other public health programmes.

Well-trained, sufficient and competent human resources, with adequate knowledge and skills, are the most important element for ensuring the success of increasingly complex immunization programmes. High-quality immunization data, laboratory-based surveillance of vaccine-preventable diseases, effective monitoring, evaluation and supportive supervision – besides availability of sufficient financial resources – are elements of a successful immunization programme. A strong and functional national regulatory authority is a critical component in assuring vaccine quality and security.

Priority action areas

- Strengthening the different components of immunization programmes within the context of overall health system strengthening, including human resource capacity-building, procurement and logistics systems, vaccine-preventable disease surveillance, laboratory capacity, immunization data quality, and monitoring and supervision.
- Ensuring that immunization activities focus on eradication and elimination goals and are well incorporated into the overall national immunization programmes.
- Ensuring coordination between the public and private sectors for all aspects of EPI programmes including vaccine procurement, vaccine delivery, new vaccine introduction, reporting of vaccine-preventable diseases and immunization data.
- Developing and strengthening functional national regulatory authorities and ensuring optimum vaccine procurement systems.

Strategic objective 5: Immunization programmes have sustainable access to long-term funding and quality supplies

Increasing the total amount of available funding for immunization, including country allocations and partners' support, is important for implementing the activities pertaining to achievement of the goals. Countries should ensure financial sustainability of national immunization programmes through regular evaluation of resource needs, efficiency in service delivery, availability of adequate domestic financing and resource mobilization from development partners to meet any funding gaps. Governments also need to explore alternative and innovative financing mechanisms.

Although financing of immunization services is first and foremost a core responsibility of the governments, development partners should support, where needed, implementation of national immunization strategies through more predictable longer term financing. Emphasis needs to be placed on mutual accountability between countries and their development partners in terms of immunization financing.

As of 2016, 15 of the 22 Member States in the Eastern Mediterranean Region have been fully financing their immunization programmes (excluding the support

provided to some countries by the Global Polio Eradication Initiative for implementation of polio eradication-related activities). However, the allocated domestic funds in several of those countries is not enough to implement all the activities necessary to achieve the immunization goals, including those related to disease elimination and control as well as introduction of the new vaccines. Moreover, the immunization programme in some Member States is donor-driven and the domestic contribution to financing the programme, although critical for programme sustainability, is minimal.

The success of an immunization programme in reaching its goals is intimately tied to the efficiency of the national vaccine management and logistics system across the country (vaccine storage, delivery, assurance of regular supply and logistics capacity). Ensuring that sufficient vaccines and supplies of assured quality are available, at the right time and place, is essential in order to reach vaccination coverage goals across the country. Post-marketing surveillance is also of particular importance for informing decision-making on risk mitigation and responding to vaccine safety concerns whenever raised.

Priority action areas

- Raising government commitment to invest funds in vaccines and immunization programmes through development of appropriate policies and legislation, and developing long-term financial sustainability plans for immunization programmes that commit to sustaining national budget allocations for immunization (at all levels) as part of the national health system budget.

- Seeking alternative and innovative ways for immunization financing, such as establishing trust funds, using dedicated tax resources, engaging new potential domestic and development partners and diversifying sources of funding.

- Demonstrating the value of immunization, as a cost-effective public health intervention, and its impact in reducing disease morbidity and mortality and, hence, its economic return. Using the information generated for advocacy and mobilization of domestic and external resources.

- Developing fully functional national regulatory authorities and supporting other countries to build networks of regulators and suppliers to share best practices and improve quality assurance capabilities and quality control.

- Strengthening vaccine procurement and vaccine management systems. Sharing information, such as price of vaccines, with other Member States to improve procurement practices and negotiation power.

5. Monitoring and evaluation framework for EMVAP 2016–2020

As per resolution EM/RC62/R.1, a progress report on implementation of the EMVAP and on progress towards achievement of the immunization goals is to be submitted to the Regional Committee for the Eastern Mediterranean every 2 years.

Development of the progress report will be guided by the EMVAP monitoring and evaluation framework (Annex 1). The report will then be reviewed by the Regional Technical Advisory Group on immunization, before being submitted to the Regional Committee. In order to decrease reporting burden, data reported in the Joint Reporting Form and WHO/UNICEF estimates of national immunization coverage will also be used as data sources for EMVAP monitoring and evaluation.

6. Development and implementation of vaccine action plans at the national level

Developing effective national policies and strategies on vaccine-preventable diseases and immunization and setting up plans for their implementation and monitoring require active involvement of all partners and stakeholders, guided by national immunization programmes. The starting point should be the recognition, by all stakeholders, of the need for a national immunization plan that addresses country priorities and challenges and provides clear strategic and operational guidance for meeting national targets that are aligned with regional and global goals.

EMVAP 2016–2020 provides a framework for Member States of the Region to formulate short- and long-term national immunization plans that reflect key national and regional priorities, and addresses the specific issues and challenges. It thus orients governments, partners and other stakeholders towards a unified immunization vision. The EMVAP provides strategic guidance to policy-makers and planners for addressing national priorities and challenges more efficiently and effectively through the proposed strategic objectives and priority actions.

Member States are required to review, prepare or update their national immunization plans in line with the strategic framework provided by EMVAP, reflecting the national priorities and context, with the engagement of all partners and stakeholders.

Member States of the Region should consider taking the following steps for development of national vaccine action plans, in line with the framework provided by the EMVAP.

- Developing and regularly updating comprehensive multi-year immunization plans with annual integrated operational plans that fully reflect the specific challenges facing immunization services in the country, at all levels, and the corrective action needed.

- Costing the comprehensive multi-year immunization plan, allocating adequate domestic resources to implement the plan (within the context of the broader health system), identifying the funding gap and mobilizing partners' support to bridge the gap.

- Developing sustainable mechanisms to enhance multisectoral collaboration and partnerships. Promoting synergies between immunization and other health services as well as with other sectors such as education, economic development,

finance and the private sector, in development and implementation of priority interventions of the action plan.

- Documenting lessons learned from the implementation of past strategic plans and identifying best practices for replication and scale-up.
- Ensuring that the monitoring, evaluation and accountability framework is part of the action plan in order to monitor progress and apply corrective action on time.

7. Role of partners and stakeholders

Country actions and initiatives to reach EMVAP goals should be technically and, where appropriate, financially supported and complemented by the activities of regional and national immunization partners, donors and stakeholders. Partners should, therefore, support in the following ways:

- advocating for and providing technical support to promote country ownership and strengthen national capabilities and regional infrastructure;
- defining norms and developing guidelines to improve vaccine and immunization services;
- striving to achieve greater equity and sensitivity to inequity among population groups including the marginalized and hard-to-reach populations;
- promoting synergies between immunization and other health services, as well as with other sectors such as education, economic development and finance;
- bridging the gap in financing the multi-year plan, promoting sustainable national funding, pursuing innovative financing and engaging with rapidly emerging economies as potential funding partners;
- developing mechanisms for mutual accountability that hold governments and development partners responsible for the committed levels of support;
- promoting a dialogue between manufacturers and countries to align supply and demand, pursuing procurement mechanisms that reinforce country ownership and promoting equity in access to and affordability of vaccines for low- and middle-income countries.

Annex 1. Eastern Mediterranean Vaccine Action Plan 2016–2020: monitoring and evaluation framework

Goal/strategic objective	Target	Indicator	Baseline (2015)	Target (2020)
Goal 2: Meet regional routine vaccination coverage targets at all administrative levels	Reach at least 90% coverage with third dose of DTP-containing vaccine among children under 1 year of age at national level and at least 80% coverage in every district through routine immunization	Number of countries with at least 90% coverage at national level with third dose of DTP-containing vaccine among children under 1 year of age	14	18
		Number of countries with at least 80% coverage in each district or equivalent administrative level with third dose of DTP-containing vaccine among children under 1 year of age	11	18
Goal 3.1: Achieve measles elimination	Interruption of indigenous measles virus transmission by the earliest possible date	Number of countries that report zero cases of indigenous measles virus transmission for 12 or more consecutive months with presence of high-quality measles surveillance	4	18
Goal 3.2: Achieve and sustain elimination of maternal and neonatal tetanus	Achieve and sustain incidence of neonatal tetanus of less than 1 case per 1000 live births in every district in all countries	Number of countries that achieved and documented incidence of neonatal tetanus of less than 1 per case 1000 live births in each district or equivalent administrative level	16	20
Goal 3.3: Achieve the regional hepatitis B reduction goal	Reduce prevalence of chronic hepatitis B virus infection to less than 1% among children under 5 years of age	Number of countries that achieved and documented reduction of hepatitis B surface antigen prevalence of less than 1% among children under 5 years of age	4	21
Goal 4: Introduce new and underutilized vaccines of regional and national priority	Introduce pneumococcal conjugate vaccine in all countries with documented disease burden	Number of countries that have introduced pneumococcal conjugate vaccine in the national EPI	14	18
	Introduce rotavirus vaccine in all countries with documented disease burden	Number of countries that have introduced rotavirus vaccine in the national EPI	11	18
	Introduce rubella vaccine in countries	Number of countries that have introduced rubella-containing vaccine in the national EPI	17	20

Goal/strategic objective	Target	Indicator	Baseline (2015)	Target (2020)
Strategic objective 1: All countries commit to immunization as a priority	Presence of national mandate for EPI	Number of countries that have high-level document (e.g. national policy, law, decree) making childhood immunizations a national priority/child right	To be assessed	50% increase
	Presence of independent national immunization technical advisory group that meets defined criteria	Number of countries that established and maintained a functioning national immunization technical advisory group	17	20
Strategic objective 2: Individuals and communities understand the value of vaccines and demand vaccination as their right and responsibility	High individual and community acceptance to immunization	Percentage of unvaccinated and under-vaccinated children in whom lack of vaccine confidence was the reason	Low	Low
Strategic objective 3: The benefits of vaccination are equitably extended to all people through tailored, innovative strategies	Reach at least 80% coverage with third dose of DTP-containing vaccine among children under 1 year of age in every district and community through routine immunization	Number of countries with at least 80% coverage in each district or equivalent administrative level with third dose of DTP-containing vaccine among children under 1 year of age	11	18
Strategic objective 4: Strong immunization systems are an integral part of a well-functioning health system	Sustain high vaccination coverage	Number of countries that sustained coverage with third dose of DTP-containing vaccine at 90% or more nationally for 3 or more years	14	16
	Sustain drop-out rate of less than 10% between first and third dose of DTP-containing vaccine	Number of countries that sustained drop-out rate of less than 10% between first and third dose of DTP-containing vaccine for 3 or more years	18	20
	Immunization coverage data assessed as being of high quality by WHO and UNICEF	Number of countries with ≤5% difference between administrative coverage data for third dose of DTP-containing vaccine and that of WHO-UNICEF estimates of national immunization coverage	17	20
Strategic objective 5: Immunization programmes have sustainable access to long-term funding and quality supplies	Domestic expenditure on immunization	Number of countries that sustained 100% financing of the cost of routine immunization programme	15	16
		Number of Gavi-supported countries that fulfil the co-financing commitment on time	4	6
	Presence of strong vaccine procurement and management system	Number of countries reporting no stock-outs of any vaccine at national level during the calendar year	14	20
		Number of countries that have conducted effective vaccine management (EVM) assessment and are implementing EVM improvement plans	9	20