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 a Decade of Vaccines. The ultimate success of GVAP depends on the commitment of Member States and partners. In this context, the Sixty-fifth World Health Assembly requested WHO regional offices to translate GVAP into regional plans.

The “European Vaccine Action Plan 2015–2020” (EVAP) – the plan that was drafted to complement, regionally interpret and adapt GVAP in harmony with Health 2020 and other key regional health strategies and polices – sets a course through a regional vision and goals for the immunization and control of vaccine-preventable diseases from 2015 to 2020 and beyond by defining objectives, priority action areas and indicators and taking into account specific needs and challenges of Member States in the WHO European Region. These, including region-specific actions, are presented in the full EVAP available online at www.euro.who.int/EVAP.

The overview presented in this working document outlines the objectives and priority action areas under each of the following five EVAP objectives:

1. all countries commit to immunization as a priority;
2. individuals understand the value of immunization services and vaccines and demand vaccination;
3. the benefits of vaccination are extended equitably to all people through tailored, innovative strategies;
4. strong immunization systems are an integral part of a well-functioning health system;
5. immunization programmes have sustainable access to predictable funding and high-quality supply.

At its 63rd session in Çeşme Izmir, Turkey, in September 2013, the Regional Committee for Europe requested that a regional vaccine action plan be presented at its 64th session. A draft EVAP was formulated through a consultative process, reviewed by Member States and major partners and pre-endorsed by the European Technical Advisory Group of Experts on Immunization (ETAGE) in March 2014.

After consideration and guidance from the Twenty-first Standing Committee of the Regional Committee for Europe in May 2014, the draft EVAP was finalized and endorsed by ETAGE before its submission to the Regional Committee in September 2014.
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Background

1. Immunization has brought about a remarkable reduction in child mortality in the WHO European Region over the past few decades. Today, nine of every 10 children in the Region receive at least a basic set of vaccinations during infancy and as a result lead healthier, more productive lives. Furthermore, significant advances have been made in developing and introducing new vaccines and expanding the reach of immunization programmes. More people than ever before are being vaccinated and access to and reception of vaccines by people other than infants is increasing.

2. 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. This policy envisions a world in which all individuals enjoy lives free from vaccine-preventable diseases. The aim of the policy is to ensure that the full benefit of vaccination is available to all people, regardless of where they are born, who they are or where they live.

3. The ultimate success of GVAP depends on the commitment of Member States and partners. In this context, the Sixty-fifth World Health Assembly requested WHO regional offices to translate GVAP into regional plans.

4. The “European Vaccine Action Plan 2015–2020” (EVAP) was drafted to complement, regionally interpret and adapt GVAP.

5. Despite the wide diversity of health systems in the European Region, national immunization programmes are generally strong and routine national vaccination coverage is high. Strong demand for immunization services has clearly had beneficial effects, increasing individual and social ability to protect infants and children and progress continues with the introduction of new vaccines to protect more people in more areas from more diseases. Nevertheless, the gains and commitment of the Region continue to be tested.

6. Of the 11.2 million children born in the European Region in 2012, nearly 554 150 did not receive the complete three-dose series of diphtheria, pertussis and tetanus vaccine by the age of one year. In 2013 alone, Member States reported 31 685 cases of measles, 39 367 cases of rubella, and wild poliovirus circulation was detected in the Region.

7. Vaccines are available to the vast majority of the population of the European Region; however, variable commitment to action is impeding further progress and the innovative solutions and extension of services necessary to fulfil the rights of underserved, marginalized, migrant and disadvantaged children and families. The monitoring of vaccination and disease knowledge and attitudes and health-seeking behaviours are limited in the Region, which compromises the ability of authorities to respond adequately to the specific service delivery and information needs of susceptible and vulnerable populations, to successfully counter anti-vaccination sentiment and to tackle vaccine hesitancy. The capacity to manage and respond effectively to public concern about events related to vaccine safety also needs strengthening.

8. The number of countries in the European Region with coherent, implemented legislation on vaccination is currently unknown and multiyear financial commitment to vaccination

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through a structured, fully integrated plan is highly variable. Regionally, the overall share of total domestic expenditure for vaccination is increasing relative to countries’ economic growth. This is largely due to the introduction of new, more expensive vaccines, which require further investment in both vaccine and associated delivery costs. Procurement practices are also variable and vaccine pricing has been identified as one of the key obstacles to the use of new vaccines in middle-income countries that do not have donor support.

9. The increasing complexity of immunization service delivery requires that a larger volume of different types of data be collected, processed, analysed and shared for decision-making at various levels. The quality of data on administrative coverage is suboptimal in many countries, as is the quality of surveillance for vaccine-preventable diseases. The higher demands on immunization programmes are testing whether investment in building human resources capacity is adequate.

10. An inclusive, integrated approach to immunization requires the engagement of a wide range of stakeholders and opinion leaders from within the health sector and, more broadly, from sectors affected by the economic and social burden of vaccine-preventable disease. Strategic intra- and intercountry partnerships must be strengthened and maintained to support immunization programmes, to raise the profile of immunization and to gain wide-ranging commitment.

Purpose

11. The intention of EVAP is to set a course through a regional vision and goals for immunization and control of vaccine-preventable diseases from 2015 to 2020 and beyond, by defining priority action areas, indicators and targets and proposing a set of actions for each EVAP objective, taking into account the specific needs and challenges of Member States in the European Region.

Development

12. At its 63rd session in Çeşme Izmir, Turkey, in September 2013, the Regional Committee requested that a regional vaccine action plan be presented at its 64th session.

13. The Vaccine-preventable Diseases and Immunization Programme of the Regional Office consulted the European Technical Advisory Group of Experts on Immunization (ETAGE) in October 2013 on the scope of EVAP and the regional priorities and challenges that should be addressed. These were presented with a development plan and timeline to the Standing Committee of the Regional Committee for Europe (SCRC) in December 2013. The partners consulted include the United Nations Children’s Fund (UNICEF), the European Centre for Disease Prevention and Control, the United States Centers for Disease Control and Prevention, the United States Agency for International Development, the GAVI Alliance and the European Commission Directorate-General for Health and Consumers. Member States were consulted at the WHO European Regional Meeting of National Immunization Programme Managers from 18–20 March 2014 in Antalya, Turkey, and feedback from dedicated review sessions contributed to further revision of the draft EVAP. In late March, the draft was pre-endorsed by ETAGE.

14. On the basis of feedback from the SCRC in May 2014 and in line with input from Member States and partners during an online consultation in May 2014, the draft EVAP was finalized and endorsed by ETAGE before its submission to the Regional Committee in September 2014.
15. This working document provides a summary of EVAP’s goals, objectives, priority action areas and key components of its monitoring and evaluation framework. The full EVAP includes region-specific actions and is available online at www.euro.who.int/EVAP.

Guiding principles

16. The objectives of EVAP, expanding on GVAP, echo the policy priorities of Health 2020, through which the Region is committed to reduce inequities and thus significantly improve the health and well-being of populations, strengthen public health and ensure people-centred health systems that are equitable, sustainable and of high quality. Additionally, EVAP takes into consideration the guidance and directions of The Tallinn Charter: Health Systems for Health and Wealth\(^3\) (EVAP objective 1), “Investing in children: the European child and adolescent health strategy 2015–2020”\(^4\) (EVAP objectives 2 and 3), the European Action Plan for Strengthening Public Health Capacities and Services\(^5\) (EVAP objectives 4 and 5) and Ending preventable child deaths from pneumonia and diarrhoea by 2025: the integrated global action plan for pneumonia and diarrhoea (GAPPD)\(^6\) (EVAP objectives 1 and 4). Furthermore, EVAP will contribute significantly to meeting the “Renewed commitment to elimination of measles and rubella and prevention of congenital rubella syndrome by 2015 and sustained support for polio-free status in the WHO European Region” endorsed in resolution EUR/RC60/R12.

Structure

17. Within the aspirational vision of EVAP, six regional goals have been set, aligned with the Decade of Vaccines and the Global Vaccine Action Plan and in the context of the European Region.

18. To attain these six goals, five objectives incorporating priority action areas and indicators have been developed. Progress towards achieving both the goals and the objectives will be monitored within a monitoring and evaluation framework (Annex).

Vision

19. The EVAP vision incorporates regional principles and directions for immunization programmes during the period covered by EVAP and beyond. The vision reflects joint

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commitment to a common purpose by Member States, stakeholders and partners, with a long-term collective goal:

A European Region free of vaccine-preventable diseases, where all countries provide equitable access to high-quality, safe, affordable vaccines and immunization services throughout the life-course.

Goals

20. Achievement of the vision and the outcomes of the actions undertaken within EVAP will be measured against the following six goals.

- Sustain polio-free status.
- Eliminate measles and rubella.
- Control hepatitis B infection.
- Meet regional vaccination coverage targets at all administrative levels throughout the Region.
- Make evidence-based decisions on the introduction of new vaccines.
- Achieve financial sustainability of national immunization programmes.

Goal 1: Sustain polio-free status

21. The European Region achieved certification of polio-free status in 2002 and has maintained this status. In line with the Global Polio Eradication Initiative, sustaining polio-free status depends largely on high vaccination coverage (EVAP objectives 2 and 3), high-quality surveillance (EVAP objective 4) and shifting to bivalent oral poliovirus vaccine and introducing inactivated poliovirus vaccine in line with the Polio Eradication & Endgame Strategic Plan 2013–20187 (EVAP objective 5).

Goal 2: Eliminate measles and rubella

22. The Region has set 2015 as the target for interrupting transmission of measles and rubella. Once this target has been met, certification will follow in 2018, after three years of confirmed interrupted transmission. Elimination of measles and rubella will depend largely on obtaining political commitment (EVAP objective 1), achieving high coverage and closing immunity gaps (EVAP objectives 2 and 3) and ensuring high-quality, case-based surveillance (EVAP objective 4).

Goal 3: Control hepatitis B infection

23. The Region has the opportunity to establish and commit to controlling hepatitis B and achieving further progress in controlling infection. Through EVAP, the Regional Office commits to preparing a programme and action plan for the control of hepatitis B infection and to identify targets for 2020. The action plan for hepatitis B will benefit from the strategic direction

and objectives of EVAP and is expected to be discussed at the 65th session of the Regional Committee in 2015.

**Goal 4: Meet regional vaccination coverage targets at all administrative levels throughout the Region**

24. Member States in the WHO European Region are committed to further reducing health inequalities through Health 2020 by taking action on the determinants of health. EVAP frames this commitment within immunization by establishing regional vaccination coverage targets that are higher than those of GVAP. It promotes a change in the way of working, by tailoring immunization programmes to address inequities (EVAP objectives 2 and 3) and strengthening commitment to and the sustainability and functionality of national immunization programmes (EVAP objectives 1, 4 and 5).

**Goal 5: Make evidence-based decisions on the introduction of new vaccines**

25. EVAP stresses the importance of evidence-based immunization policies in further improving good governance of immunization programmes. Establishing and strengthening independent advisory mechanisms at the national level (national immunization technical advisory groups) is critical for improving leadership and participatory governance (EVAP objective 1).

26. EVAP recommends that countries review the evidence and make informed decisions, particularly with regard to the introduction of new vaccines, using all the available information, including disease burden and cost-effectiveness.

**Goal 6: Achieve financial sustainability of national immunization programmes**

27. Most countries in the Region have achieved financial self-sufficiency for vaccines and donor support is limited mainly to technical and financial assistance for operational components of immunization programmes, except in countries currently eligible for support from the GAVI Alliance. In the European Region, the remaining challenge in most countries is allocation of additional financial resources to expand immunization programmes. This will require increased commitment to immunization and sustainable access to long-term domestic funding (EVAP objectives 1 and 5).

**Objectives**

28. The objectives of EVAP and the priority action areas thereunder are the technical and operational components required to achieve its six goals. EVAP incorporates the strategic objectives of GVAP that are relevant to the Region; priority action areas are defined to address regional priorities and challenges.

29. Priority action areas have been set for each of the five EVAP objectives (Fig. 1), with proposed actions that add further specificity and provide a framework for the Regional Office, Member States and partners to achieve the objectives (see the EVAP online at www.euro.who.int/EVAP).
**Objective 1: All countries commit to immunization as a priority**

30. Political commitment to immunization as a priority is essential for optimizing the performance and impact of any immunization programme. Through such commitment, countries recognize the importance of vaccination as a critical public health intervention and a public good and acknowledge the value that immunization represents in terms of health, social and economic returns.

31. Introducing and implementing an appropriate legislative framework is a tangible output, which allows ministries and public health agencies to define national priorities and to make a sustainable commitment to immunization. Engaging with stakeholders and establishing formal, accountable, credible, transparent structures based on evidence-based decisions are required.

32. The integration of immunization plans into broader health plans provides a platform for sustainable financial investment. Integration and commitment can be further enhanced by using immunization performance as one measure of the functionality of an integrated health system.

33. Developing and disseminating advocacy tools and materials to enhance the profile of immunization and increase knowledge about its value and benefits will strengthen commitment to immunization.
Priority action areas

- Enhance governance of national immunization programmes with legislative and managerial tools.
- Inform and engage opinion leaders and stakeholders with regard to the value of immunization to enhance commitment to immunization as a priority.
- Strengthen the national immunization technical advisory mechanism to formulate and implement evidence-based policies.

Objective 2: Individuals understand the value of immunization services and vaccines and demand vaccination

34. Protecting public health gains made by immunization programmes and improving their impact depend on individuals understanding the benefits and risks of vaccination and the diseases it prevents, demanding vaccination as both their right and their responsibility, making evidence-informed choices, being encouraged to seek immunization services, taking responsibility to protect children, adolescents and adults throughout the life-course and being sufficiently engaged and empowered to influence health service provision and overcome barriers to vaccination.

35. EVAP positions immunization as a right and a responsibility, thus recognizing vaccination as a responsible public health measure and prompting countries to view the immunization gap not as a burden but as an opportunity to advocate for commitment. It also presents a basis for which countries, partners and stakeholders can hold each other accountable. Generating and maintaining demand for immunization services and addressing vaccine hesitancy in the European Region will require use of traditional and new social communication platforms, optimizing the role of front-line health care workers, identifying and leveraging immunization champions and agents of change, tailoring immunization programme advocacy and communication to susceptible populations, including mobile, marginalized and migrant populations, and communicating the benefits of immunization and the risks presented by vaccine-preventable diseases.

36. The barriers to vaccine demand are complex and context-specific. They include social, cultural and other behavioural determinants and programmes must therefore monitor and assess general public and subgroup attitudes, knowledge and behaviour more frequently, to inform and tailor programme delivery and response. Success in countering anti-vaccination sentiment and safety concerns, in particular, will depend on this.

Priority action areas

- Ensure that individuals receive information about the risks of vaccine-preventable diseases and the benefits and risks of vaccination and enhance trust in vaccines, immunization services and health authorities.
- Engage new partners, advocates, champions and ambassadors to convey messages and maintain a positive media environment.
- Build the risk communication capacity of authorities, so that they can prepare and implement communication strategies and campaigns based on reliable research and evidence in order to stimulate demand for routine childhood vaccination and for inclusion of new and underused vaccines in the national immunization schedule.
Objective 3: The benefits of vaccination are equitably extended to all people through tailored, innovative strategies

37. National immunization programmes should provide services to everyone to ensure that every individual can benefit from good health throughout the life-course without the negative consequences of vaccine-preventable diseases. Every individual in society should be eligible to receive all appropriate vaccines, irrespective of their geographical location, age, gender, educational level, socioeconomic status, ethnicity, nationality or religious or philosophical affiliation. Member States should ensure that immunization policies are non-discriminatory and that services are fully inclusive and user-friendly, particularly for marginalized communities and minorities.

38. While some underserved groups have been identified in the Region, operational research, including social research, is needed to identify other such populations and to determine the causes of their inadequate access. Tools and approaches to identify susceptible populations, determine barriers to vaccination and implement new, evidence-based strategies or service components should be applied to meet the needs of underserved populations, including adolescents and adults not usually targeted by immunization programmes. Research is required to identify the main causes of the low coverage of vaccination, assess systematic and programmatic issues and socioeconomic and cultural barriers, determine the best approaches for vaccinating individuals at various ages and assess the most effective interventions for reaching different groups. In humanitarian crises, outbreaks and emergencies, equitable access must be assured for all affected groups.

39. Integrated electronic immunization registries are a powerful tool for identifying unvaccinated and undervaccinated individuals and groups and for monitoring the success of immunization programmes. The development and extension of such registries and their integration into broader health and social registries should be actively encouraged. The extent of implementation and appropriate use of electronic immunization registries in the European Region is not yet known. A baseline assessment will be conducted in 2015 to permit measurement of improvement during the period covered by EVAP.

40. Strategies that successfully reach and improve coverage of underserved populations should be documented and shared to ensure best practice throughout the Region.

Priority action areas

- Identify underserved populations (groups) and the causes of inequities on a regular basis.
- Design and implement tailored, innovative strategies to address identified causes of inequity.
- Create a system and capacity to ensure equitable delivery.

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

41. The relationship between a strong national immunization programme and a well-functioning health system is mutually beneficial. National immunization programmes benefit from integration in strong health systems by coordination with other programmes, the private sector, partners and communities to deliver existing and introduce new vaccines, ensure vaccination throughout the life-course and attain quality, equity and coverage goals.

42. Integration of immunization into broader health systems policy is essential for a coordinated, multidisciplinary approach to building cohesive, non-fragmented, well-functioning
immunization services, working in synergy with other public health and individual care programmes and linked to national health policy values, priorities and strategies. Immunization service delivery can support other public health priorities, and other health programmes should support immunization. Particularly when new vaccines are being introduced and during campaigns and emergencies, vaccination is one component of a wider public health effort and should be integral to comprehensive disease control strategies and plans.

43. A strong immunization programme requires well-trained, competent staff, high-quality data and information, laboratory-based surveillance of vaccine-preventable disease, coordinated systems management and effective monitoring, evaluation and communication. Sufficient human resources with adequate knowledge and skills are the most important element for ensuring the success of increasingly complex immunization programmes and increasingly ambitious goals. Continuous medical education and structured learning systems within the broader health context are required.

44. The functionality of national regulatory authorities is critical in assuring vaccine quality. Post-marketing surveillance is of particular importance for informing decision-making on risk mitigation and responding to vaccine safety concerns.

45. Strategies are required to ensure that sufficient supplies (for example, of vaccines and safe injection materials) are available at the right time, at the right place and in the right condition in order to reach vaccination coverage goals.

**Priority action areas**

- Develop comprehensive, coordinated approaches within immunization programmes and health systems.
- Strengthen monitoring and surveillance systems.
- Strengthen the capacity of managers and front-line workers.
- Strengthen infrastructure and logistics.

**Objective 5: Immunization programmes have sustainable access to predictable funding and high-quality supply**

46. The financial sustainability of a national immunization programme is crucial to its continued impact and performance in achieving national, regional and global disease prevention goals. Financial sustainability includes secured long-term domestic funding to meet programme objectives and efficient use of available resources. In view of the investment required, strong decision-making processes must be based on economic evaluation to support and justify investment in vaccines and vaccination. Promoting the benefits of immunization among decision-makers is important for increasing investment.

47. Strengthening immunization financing, finding new, innovative financing mechanisms and enhancing resource mobilization to sustain financial resources are necessary to achieve the expanding objectives of national immunization programmes. Evidence-based justification for greater investment will require strengthened national immunization technical advisory groups. A planned approach is required to move towards greater financial self-sufficiency in the funding of both vaccines and essential services of national immunization programmes, especially in low- and middle-income countries.

48. Access to quality-assured vaccines at affordable prices is a major component of efficient use of funds. This requires an efficient procurement system and a fully functional regulatory authority.
49. Predictable, transparent pricing and innovative procurement mechanisms are needed to alleviate funding pressure and scale up the use of existing vaccines at affordable prices. Exploring the best procurement options to meet country needs and better understanding of the vaccine market will empower self-procuring countries to operate appropriately in the global vaccine market to secure a sustainable, affordable supply.

50. Networking and information exchange among national regulatory authorities in the Region will result in effective standardization, alignment and compatibility of normative and regulatory processes. Capacity in licensing and registration, particularly in middle-income countries, should be developed in a planned, systematic way to enhance competition and ensure vaccine quality.

Priority action areas

- Allocate adequate financial resources to national immunization programmes to achieve their objectives in the context of financial self-sufficiency.
- Increase access to quality-assured vaccines at affordable prices.
- Strengthen regulatory mechanisms to ensure access to and use of quality-assured vaccines in national immunization programmes.

Monitoring and evaluation framework

51. In resolution WHA65.17, the World Health Assembly urged Member States to report every year to the regional offices on lessons learnt, progress made, remaining challenges and updated actions to reach the national immunization targets and requested the WHO Secretariat to monitor progress and report annually to the Health Assembly on progress towards achievement of global immunization targets, using the proposed monitoring and evaluation framework.

52. On the basis of guidance from ETAGE, a regional monitoring and evaluation framework, aligned with the global framework, has been developed to monitor progress in the implementation of EVAP (Annex).

53. In order not to overburden Member States, they may use the existing WHO/UNICEF Joint Reporting Form (JRF) to report data for EVAP monitoring and evaluation. To use the JRF for this purpose, the Secretariat of the Regional Office suggests minor changes to some indicators, with no new indicators or variables. It is proposed that the same timelines for reporting will be used.

54. The Secretariat will prepare annual progress reports on the implementation of EVAP (including reporting on GVAP indicators) in the Region on the basis of these data, which will be reviewed by the ETAGE and submitted to the World Health Assembly through the Executive Board.

Monitoring results

55. Progress towards achieving the EVAP goals and objectives, as measured by the respective indicators, will serve as the basis for monitoring throughout the decade. It is therefore essential that reporting on the JRF by Member States be timely and complete.
Action plan development and implementation at the national level

56. Developing effective national policies and strategies on vaccine-preventable diseases and immunization and setting up mechanisms for their implementation and monitoring require the active involvement of all stakeholders, guided by national immunization programmes. Therefore, the starting point for action must be shared recognition by all stakeholders of the need for a national immunization plan that addresses national priorities and challenges and provides clear strategic and operational guidance on meeting national targets aligned with regional and global ones. Member States should consider taking the following steps to ensure successful outcomes.

- Review, prepare or update national immunization plans in line with the strategic guidance provided by EVAP and national priorities, with the engagement of all stakeholders.
- Develop or update actions on the basis of lessons learnt and target remaining challenges.
- Cost the national immunization plan and identify any funding gaps.
- Ensure that adequate financial resources are allocated to meet the objectives.
- Ensure that accountable monitoring and evaluation mechanisms are in place to monitor implementation.

57. EVAP provides guidance to Member States in formulating national immunization plans that reflect key issues and challenges in the Region. It thus orients all stakeholders towards a unified regional vision and provides strategic and operational guidance for policy-makers and planners for addressing priorities and challenges most efficiently and effectively through the proposed strategies and actions.

58. The WHO Regional Office for Europe will continue to support Member States in protecting their populations against vaccine-preventable diseases.

The role of partners

59. The contributions of national and regional partners ensure adoption of a shared approach and optimized efforts to protect the health of individuals. Country actions and initiatives to reach EVAP objectives should be technically supported and complemented by the activities of the Region’s immunization partners and donors. Important partners for Member States include UNICEF, agencies and institutions of the European Union (such as the European Centre for Disease Prevention and Control), partners and donors of the Measles & Rubella Initiative and the Global Polio Eradication Initiative (including the United States Centers for Disease Control and Prevention), the United States Agency for International Development, the GAVI Alliance, Rotary International, European bilateral development agencies, academic institutions, WHO collaborating centres, professional associations, nongovernmental organizations and civil society.

<table>
<thead>
<tr>
<th>Goal or objective</th>
<th>Indicator</th>
<th>Operational definition</th>
<th>Data source and collection</th>
<th>Baseline</th>
<th>Target</th>
<th>Milestone</th>
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<tbody>
<tr>
<td><strong>Goal 1: Sustain polio-free status</strong></td>
<td>no wild poliovirus transmission re-established in the Region</td>
<td>confirmed absence of re-established transmission of wild poliovirus in the Region by RCC(^1) (based on review of annual country reports on population immunity level and quality of poliovirus surveillance submitted by the NCCs(^2))</td>
<td>annual country updates submitted by NCCs for review by RCC</td>
<td>2013: no wild poliovirus transmission re-established in the Region (confirmed by the RCC at meeting in June 2014)</td>
<td>2018: no wild poliovirus transmission re-established in the Region (to be confirmed by the RCC at meeting in 2019)</td>
<td>2015–2018: no wild poliovirus transmission re-established in the Region (to be confirmed by the RCC annually)</td>
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<tr>
<td><strong>Goal 2: Eliminate measles and rubella</strong></td>
<td>percentage of countries with interruption of endemic measles and rubella transmission</td>
<td>number of countries with interruption of endemic measles and rubella virus transmission for &gt; 12 months, with high-quality surveillance verified by RVC(^3)</td>
<td>annual country updates submitted by NVCs(^4) for review by RVC</td>
<td>2012: 16 countries interrupted endemic measles virus transmission and 19 countries interrupted rubella virus transmission</td>
<td>2015: interruption of endemic measles and rubella virus transmission for &gt; 12 months, with high-quality surveillance in all countries</td>
<td>2014–2015: monitoring of number of countries with verified interruption of endemic measles and rubella virus transmission by RVC</td>
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\(^1\) RCC: regional certification commission  
\(^2\) NCC: national certification commission  
\(^3\) RVC: regional verification commission  
\(^4\) NVC: national verification commission
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<tr>
<td><strong>Goal 3: Control hepatitis B infection</strong></td>
<td>percentage of countries that have achieved hepatitis B infection control</td>
<td>number of countries that have achieved hepatitis B infection control</td>
<td>JRF, annual</td>
<td>2014 or earlier: to be measured or estimated during establishment of regional control goal in 2015</td>
<td>2020: to be established</td>
<td>2016: establish regional hepatitis B control goal</td>
</tr>
<tr>
<td><strong>Goal 4: Meet regional vaccine coverage targets at all administrative levels throughout the Region</strong></td>
<td>percentage of countries with ≥95% coverage with three doses of DTP-containing vaccine at national level</td>
<td>number of countries with ≥95% coverage with three doses of DTP-containing vaccine at national level</td>
<td>JRF, annual</td>
<td>2013: 27 out of 53 countries (51%)</td>
<td>2020: 48 out of 53 countries (90%) with ≥95% coverage with three doses of DTP-containing vaccine at national level</td>
<td>2018: 42 out of 53 countries (80%) 2015–2020: monitor and report trend in number of countries meeting target annually at regional level</td>
</tr>
<tr>
<td><strong>Goal 5: Make evidence-based decision on introduction of new vaccines</strong></td>
<td>percentage of countries that have made an informed decision on new vaccines, following the review of the relevant evidence by their NITAGs</td>
<td>number of countries that have made an informed decision on a defined set of new vaccines, following the review of the relevant evidence by their NITAGs</td>
<td>JRF, annual</td>
<td>2014: to be measured in 2015</td>
<td>2020: at least 90% of all countries with NITAGs have made an informed decision on a defined set of new vaccines, following the review of the relevant evidence by their NITAGs</td>
<td>2018: to be determined after assessing baseline value in 2015 2015–2020: monitor and report trend in number of countries meeting the target on annual basis at regional level</td>
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5 Provisional indicator to be finalized after establishment of the regional hepatitis B control goal and endorsement by the Regional Committee in 2015.
6 The proposed operational definition of the indicator is “number of countries with prevalence of hepatitis B infection < 1% in a selected age cohort”, but this is subject to change or revision during establishment of the regional control goal.
7 JRF: WHO/UNICEF Joint Reporting Form
8 DTP: diphtheria-tetanus-pertussis
9 NITAG: national immunization technical advisory group
10 Provisional indicator to be finalized after identification of a defined set of new vaccines. The initial set of new vaccines will consist of rotavirus, pneumococcal and HPV vaccines, which could be extended by the Regional Office on the basis of consultations with countries.
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</table>
| **Goal 6: Achieve financial sustainability of national immunization programmes** | percentage of countries that are financially self-sufficient for procuring routine vaccines | number of countries that are financially self-sufficient for procuring routine vaccines (domestic resources) | JRF, annual | 2012: 46 out of 53 countries (87%) | 2020: at least 51 of 53 countries (96%) (except two low-income countries as of 2012) | 2016: 46 out of 53 countries (87%) 
2018: 48 out of 53 countries (91%) 
2015–2020: monitor and report on trend in number of countries meeting the target at regional level |

| Objective 1: All countries commit to immunization as a priority | presence of a NITAG | number of countries that have established a NITAG that meets all WHO criteria for functionality (written terms of reference; legislative basis; minimum expertise represented; at least one meeting per year; agenda and background documentation; disclosure of conflicts of interest) | JRF (status and functionality of NITAG as reported); annual | 2013: 23 out of 53 countries (76%) have a NITAG | 2020: 48 out of 53 countries (90%) have a NITAG | 2016: 30 out of 53 countries (57%) have a NITAG 
2018: 40 out of 53 countries (76%) have a NITAG 
2015–2020: monitor and report trend in establishment of NITAGs annually at regional level |

| Objective 1 (cont.) | domestic expenditure for routine vaccines per newborn | expenditure for routine vaccines from domestic resources, as reported in JRF | JRF; annual | 2014: to be measured in 2015 | 2020: to be determined after assessing baseline value in 2015 | 2016: to be determined after assessing baseline value in 2015 
2018: to be determined after assessing baseline value in 2015 
2015–2020: monitor and report annually on trend in government expenditure on vaccines at regional level |

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11 Proposed regional indicator. Required data for the indicator already exists in the current JRF, but its definition requires revision. No additional reporting by countries is required.

12 Proposed regional indicator to be introduced in 2015. Required data for the indicator already exist in the current JRF. No additional reporting by countries is required. Indicator to be calculated at regional level from data reported in the JRF.
<table>
<thead>
<tr>
<th>Goal or objective</th>
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<th>Data source and collection</th>
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<th>Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective 2: Individuals understand the value of immunization services and vaccines and demand vaccination</td>
<td>percentage of countries that have a communications plan in case of a VPD(^\text{13}) outbreak(^\text{14})</td>
<td>number of countries that have a communications plan in case of a VPD outbreak</td>
<td>JRF; annual</td>
<td>2014: to be measured in 2015</td>
<td>2020: all 53 countries have a communications plan in case of a VPD outbreak</td>
<td>2018: to be determined after assessing baseline value in 2015</td>
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<td>2015–2020: monitor and report trend annually at regional level</td>
</tr>
<tr>
<td>Objective 3: The benefits of vaccination are equitably extended to all people through tailored, innovative strategies</td>
<td>percentage of countries with ≥ 95% coverage with three doses of DTP-containing vaccine at national level(^\text{15})</td>
<td>number of countries with ≥95% coverage with three doses of DTP-containing vaccine at national level</td>
<td>JRF; annual</td>
<td>2013: 27 out of 53 countries (51%) coverage with three doses of DTP-containing vaccine at national level</td>
<td>2020: 48 out of 53 countries (90%) with ≥ 95% coverage with three doses of DTP-containing vaccine at national level</td>
<td>2018: 42 out of 53 countries (80%) coverage with three doses of DTP-containing vaccine at national level</td>
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<td></td>
<td>2015–2020: monitor and report annually on trend in number of countries meeting the target at regional level</td>
</tr>
<tr>
<td>Objective 3 (cont.)</td>
<td>percentage of countries with ≥ 90% of districts with ≥ 90% coverage with three doses of DTP-containing vaccine(^\text{16})</td>
<td>number of countries with ≥ 90% of districts with ≥ 90% coverage with three doses of DTP-containing vaccine</td>
<td>JRF; annual</td>
<td>2014: to be measured in 2015</td>
<td>2020: all countries with ≥ 90% of districts with ≥ 90% coverage with three doses of DTP-containing vaccine</td>
<td>2018: to be decided</td>
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<td>2015–2020: monitor and report annually on trend in number of countries meeting the target at regional level</td>
</tr>
</tbody>
</table>

\(^{13}\) VPD: vaccine-preventable disease

\(^{14}\) Proposed regional indicator to be introduced in 2015 from data already in the JRF. Proxy indicator for assessing communication planning capacity.

\(^{15}\) Percentage of countries with ≥95% coverage with three doses of DTP-containing vaccine at national level. (Same as the indicator of EVAP Goal 4.)

\(^{16}\) Proposed regional indicator to be introduced in 2015. The data required for the indicator are already in the current JRF. No additional reporting by countries is required.
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<tbody>
<tr>
<td>Objective 4: Strong immunization systems are an integral part of a well-functioning health system</td>
<td>percentage of countries with less than 5% drop-out rate between first and third dose of DTP-containing vaccine</td>
<td>number of countries with less than 5% drop-out rate between first and third dose of DTP-containing vaccine</td>
<td>JRF; annual</td>
<td>2013: 20 out of 53 countries (38%) with &lt; 5% drop-out rate between first and third dose of DTP-containing vaccines</td>
<td>2020: all 53 countries with &lt; 5% drop-out rate between first and third dose of DTP-containing vaccines</td>
<td>2018: 90% of countries with &lt; 5% drop-out rate for &lt; 5% dropout rate between first and third dose of DTP-containing vaccines at regional level</td>
</tr>
<tr>
<td>Objective 4 (cont.)</td>
<td>percentage of countries with sustained coverage with DTP-containing vaccines of ≥ 90% for three or more consecutive years</td>
<td>number of countries with sustained coverage with DTP-containing vaccines of ≥ 90% for three or more consecutive years</td>
<td>JRF; annual</td>
<td>2013: 25 out of 53 countries (47%) with sustained coverage with DTP-containing vaccines of ≥ 90% for three or more consecutive years</td>
<td>2020: all countries with sustained coverage with DTP-containing vaccines of ≥ 90% or greater for three or more consecutive years</td>
<td>2018: 40 out of 53 countries (76%) with sustained coverage with DTP-containing vaccines of ≥ 90% for three or more consecutive years</td>
</tr>
<tr>
<td>Objective 4 (cont.)</td>
<td>percentage of countries with immunization coverage data assessed as of high quality by WHO and UNICEF</td>
<td>number of countries with immunization coverage data assessed as of high quality by WHO and UNICEF</td>
<td>coverage as reported in JRF annually; and WHO and UNICEF estimate of national immunization coverage</td>
<td>2013: 50 out of 53 countries</td>
<td>2020: all countries with high-quality immunization coverage data</td>
<td>2018: 52 out of 53 countries</td>
</tr>
</tbody>
</table>

17 Global indicator to be calculated at regional level from data in JRF. No additional reporting by countries is required.
18 WHO and UNICEF estimates on national immunization coverage grade of confidence based on reported and survey coverage data.
### Objective 4 (cont.)

<table>
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<tr>
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<tbody>
<tr>
<td>Objective 4</td>
<td>percentage of countries with case-based surveillance for vaccine-preventable diseases</td>
<td>number of countries that have established country-wide surveillance for poliomyelitis, measles and rubella, number of countries that have sentinel site surveillance for IBDs and rotavirus</td>
<td>JRF; annual</td>
<td>2013: 27 out of 53 countries (50%) have country-wide surveillance for poliomyelitis, measles and rubella; 40 out of 53 countries (75%) have sentinel site surveillance for IBDs and rotavirus</td>
<td>2015: all 53 countries have country-wide surveillance for poliomyelitis, measles and rubella</td>
<td>2015–2020: monitor and report annually on trend in number of countries with case-based surveillance at regional level</td>
</tr>
<tr>
<td>Objective 4</td>
<td>percentage of countries with sustained access to WHO-accredited polio and measles-rubella laboratories</td>
<td>number of countries with both national polio and measles-rubella laboratories accredited by WHO or with access to WHO-accredited laboratories</td>
<td>JRF and WHO database on accreditation of laboratories; annual</td>
<td>2013: all 53 countries have sustained access to WHO-accredited polio and measles-rubella laboratories</td>
<td>2020: all 53 countries have sustained access to WHO-accredited polio and measles-rubella laboratories</td>
<td>2015–2020: monitor and report annually on sustained access at regional level</td>
</tr>
<tr>
<td>Objective 4</td>
<td>presence of an expert review committee to assess causality for AEFI</td>
<td>number of countries with an expert review committee to assess causality for cases and clusters of serious AEFI</td>
<td>JRF and WHO database on national regulatory authorities; annual</td>
<td>2013: 26 out of 53 countries (49%) have an expert review committee in place</td>
<td>2020: all 53 countries have an expert review committee in place</td>
<td>2018: 45 out of 53 countries (85%) have an expert review committee in place</td>
</tr>
</tbody>
</table>

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29 Global indicator. Required data already exist in the current JRF. No additional reporting by countries is required. Vaccine-preventable disease surveillance will consist at a minimum of country-wide surveillance for poliomyelitis, measles and rubella, and hospital-based sentinel surveillance for IBDs and rotavirus diarrhoea with laboratory confirmation of cases.

20 IBD: invasive bacterial disease

21 Proposed regional indicator. Required data already exist in the current JRF. No additional reporting by countries is required.

22 AEFI: adverse events following immunization

23 serious AEFI: a serious adverse event after vaccination is one that poses a potential threat to the health or life of a recipient leading to hospitalization, disability or incapacity, congenital abnormality or birth defect or death. A cluster is two or more cases of the same adverse event related in time, place or vaccine administered.
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</thead>
<tbody>
<tr>
<td><strong>Objective 4 (cont.)</strong></td>
<td>percentage of countries with no stock-outs for any routine vaccine at national level</td>
<td>number of countries with no stock-outs for any routine vaccine at national level</td>
<td>JRF; annual</td>
<td>2012: 41 out of 53 countries (77%) with no stock-outs for any routine vaccine at national level</td>
<td>2020: 50 out of 53 countries (95%) with no stock-outs for any routine vaccine at national level</td>
<td>2018: 48 out of 53 countries (90%) with no stock-outs for any routine vaccine at national level</td>
</tr>
<tr>
<td><strong>Objective 5:</strong> Immunization programmes have sustainable access to predictable funding and high-quality supply</td>
<td>percentage of countries with a fully functional national regulatory authority or that have access to regional quality assurance mechanisms to ensure quality of vaccines used in national immunization programmes</td>
<td>number of countries with a fully functional national regulatory authority (or that have access to regional quality assurance mechanisms)</td>
<td>JRF and WHO database on national regulatory authorities; annual</td>
<td>2013: 39 out of 53 countries (74%) have a fully functional national regulatory authority (or have access to regional quality assurance mechanisms)</td>
<td>2020: all countries have a fully functional national regulatory authority (or have access to regional quality assurance mechanisms)</td>
<td>2018: 48 out of 53 countries (90%) have a fully functional national regulatory authority (or have access to regional quality assurance mechanisms)</td>
</tr>
</tbody>
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24 Fully functional: for countries that produce vaccines, all functions (marketing authorization and licensing, post-marketing surveillance, lot release, laboratory access, regulatory inspections and supervision of clinical trials); for countries with self-procurement, at least marketing authorization and licensing, post-marketing surveillance, lot release and laboratory access; for countries that procure vaccines through United Nations agencies, at least marketing authorization and licensing and post-marketing surveillance.

25 Proposed regional indicator to be introduced in 2015. Data required for the indicator already exist in the current JRF, but the definition requires revision. No additional reporting by countries is required.