Strategic framework for implementation of the Immunization Agenda 2030 in the Eastern Mediterranean Region

World Health Organization
Eastern Mediterranean Region

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Message from the WHO Regional Director for the Eastern Mediterranean

As the Expanded Programme on Immunization (EPI) celebrates its 50th anniversary in 2024, it is with immense pride that we reflect on the remarkable achievements in our Region and its commitment to safeguarding public health through vaccines and immunization.

Over the past half-century, the EPI has been a cornerstone of regional efforts to prevent and control vaccine-preventable diseases. Through the tireless dedication of health care workers and EPI managers and with the unwavering support of Member States and partners, smallpox has been eradicated in the Region, significant strides have been made towards the eradication of polio, and several countries have been verified for elimination of measles, rubella, and maternal and neonatal tetanus.

These accomplishments are a testament to the transformative power of immunization. Vaccination has not only saved millions of lives and contributed to a significant reduction in infant mortality, but has also improved health outcomes for people across the life course. Looking ahead, we must remain steadfast in our commitment to ensuring that every individual in the Eastern Mediterranean Region has access to life-saving vaccines.

This strategic framework for implementation of the Immunization Agenda 2030 in the Eastern Mediterranean Region has been developed through an extensive consultative process with countries, immunization advisory groups, partners and other stakeholders. The framework provides a road map for achieving the goals of the Immunization Agenda 2030, through a tailored approach to the specific context of each country of the Region. This is also in alignment with the regional flagship initiative on expanding equitable access to medical products, including vaccines, which will help to create a healthier future for all.

I encourage all Member States and stakeholders to embrace this regional framework and work together to implement its strategic objectives and targets. By doing so, we can ensure that immunization remains a cornerstone of our public health efforts and a catalyst for sustainable development in the Eastern Mediterranean Region.

Hanan Balkhy

WHO Regional Director for the Eastern Mediterranean

Message from UNICEF's Regional Director for the Middle East and North Africa

The Immunization Agenda 2030 (IA2030) sets out ambitious targets to ensure people are protected from vaccine-preventable diseases. The achievement of these targets is dependent on the close coordination and collaboration of key national, regional and global stakeholders, including communities, governments, donors, partners, civil society, academia, and the private sector. We at UNICEF's Regional Office for the Middle East and North Africa (MENARO) stand committed to the health and well-being of children, safeguarding, and promoting their rights by working in close collaboration with our colleagues in the WHO's Regional Office for the Eastern Mediterranean and other key stakeholders to bring the Region back on track for achieving IA2030 targets.

There are wide disparities in immunization coverages among and within the countries of the Region, particularly at the subnational level. The COVID-19 pandemic coupled with aggravating conflicts and fragile contexts in the Region has led to an increase in the number of zero-dose children to 1.6 million in 2023 – almost double the number compared to 2022. Weakened health systems, damaged infrastructure, and compromised security situations with access issues and massive population displacement, remain the key drivers of low coverage rates and multiple vaccine-preventable disease outbreaks, including measles, polio, diphtheria and cholera. Similarly, lower middle-income countries are lagging with respect to introducing new vaccines because of political, economic and health systems issues, hence missing an opportunity to further protect populations.

Equity in immunization coverage continues to be at the forefront of UNICEF's programming. Ensuring continuity of services in fragile and conflict situations through integrated service delivery, strengthening community-based primary health care systems, leveraging data and innovation, and strengthening the immunization supply chain to ensure high quality, gender-sensitive service delivery to the last mile remains UNICEF's priority. UNICEF MENARO is closely working with WHO Regional Office for the Eastern Mediterranean and partners to build local capacities, ensuring that high-quality life saving vaccines reach children wherever they are so that no child dies from vaccine-preventable diseases.

In conjunction with eliminating vaccine-preventable diseases, and as a critical commitment under IA2030, the introduction of new vaccines in MICs is another important area of collaboration where UNICEF is supporting governments in making evidence-based decisions on new vaccine introduction, with better vaccine choices and value for money. New vaccine introduction in MICs ensures that every child in these countries has an equal opportunity to reach their full potential.

With the evolving geopolitical and economic landscape of the Region, all partners and stakeholders must work together to strengthen health systems to ensure equitable improvement in immunization coverage, expediting the progress on disease elimination targets – polio, measles, and maternal and neonatal tetanus – strengthening primary health care, promoting demand-driven services, harnessing data and innovation, and using integrated multisectoral approaches to reach all children.

For UNICEF MENARO, our unwavering commitment to IA2030's guiding principles – people-centred, country owned, partnership based, data guided – is vital for the successful realization of our joint goals. Together, let us ensure that every child in the Region can receive the vaccinations they need to survive and thrive and realize their right to health and survival.

Adele Khodr

UNICEF Regional Director for the Middle East and North Africa

Message from the Director, Department of Immunization, Vaccines and Biologicals, WHO headquarters

The strategy for achieving ambitious goals during the current decade, laid out in Immunization Agenda 2030 (IA2030), represents the collective commitments from every country, in every region around the world. The Strategic Framework for Implementation of the Immunization Agenda 2030 in the Eastern Mediterranean Region reflects the deep commitment of one of the most diverse and critical regions for achieving the vaccine and immunization goals of the decade. And this decade is one of the most crucial for turning the corner on longstanding ambitions, yet to be realized, to stamp out vaccine-preventable diseases.

The IA2030 decade is one of opportunity and threat. Seizing opportunity would mean that by the end of this decade the world has ended polio once and for all. It would also mean the assurance that no child ever dies from measles, that every adolescent girl becomes an adult without the fear of cervical cancer, and that preventable serious diseases like meningitis, pneumonia and diarrhoea are a rarity.

Recovery of immunization programme capacity from the secondary impacts of the COVID-19 pandemic is still underway. Significant commitments and actions from government leaders, communities and families will drive the acceleration needed more than ever to assure that 2030 arrives with celebration of historic achievements in the Eastern Mediterranean Region. Vaccine coverage, new vaccine introduction and rapid outbreak response, when needed, all depend on resilient immunization programmes whose strength in the Region is growing. The resolve of every country to never slip back and to build from strength to strength, especially in the communities most vulnerable to being left out, is at the heart of this regional strategy. This includes especially settings of conflict, vulnerability, and fragility, which harbour some of the most at-risk children, adolescents, and adults.

The Eastern Mediterranean Region has shown time and again the power of its immunization programmes. The know-how, expertise, resilience, and innovation has saved millions of lives over the past 50 years of EPI programmes in the Region and driven improved health and well-being across the full life-course. Now is the time to press even further on those opportunities. This will assure that everyone, at every age and everywhere in the Eastern Mediterranean Region has access to life-saving vaccines and benefits from them for health and well-being.

Kate O'Brien

Director, Department of Immunization, Vaccines and Biologicals, WHO headquarters

Message from the Associate Director, Health and Global Head for Immunization, UNICEF Headquarters

Immunization is one of the world's most effective public health interventions, averting 2 to 3 million child deaths every year. Yet, millions of children miss out on the full benefits of vaccines each year, and these numbers increased over the course of the COVID-19 pandemic. As a leading advocate for equity in child survival and development, UNICEF is well placed to support countries in accelerating equitable access to vaccination and other primary health care for children, adolescents, women and their families in the lead-up to 2030.

At the global level, the Immunization Agenda 2030 (IA2030), jointly with the UNICEF Immunization Roadmap 2022–2030, have been developed as essential guidance to respond to existing challenges, supporting countries to define clear vision, priorities and objectives in immunization for the years up to 2030, contributing to overarching strategic goals for health systems strengthening, including pandemic preparedness.

In the WHO Eastern Mediterranean Region, the challenges are particularly severe, with conflict and fragility as the biggest causes of zero dose, with suboptimal health system capacity, low coverages, and vaccine preventable disease outbreaks. The regional strategic framework for implementation of the IA2030 in the Eastern Mediterranean Region represents a crucial instrument within the Region to promote, lead and support immunization, providing the foundations for strengthening national health system and working towards further integration of primary health care services.

The regional strategic framework will also become an invaluable advocacy tool at regional and country levels, holding stakeholders, partners, and donors accountable for the commitments they made towards immunization and IA2030 goals. It will additionally prepare countries for internal or external alterations, such as reduction of funding, political changes, decentralization, and public health crises.

UNICEF will continue to support the implementation of the regional strategic framework through accompanying countries in the Region to reach every child with vaccination.

Ephrem Tekle Lemango

Associate Director, Health and Global Head for Immunization, UNICEF Headquarters

Message from the Director of Immunization, Gates Foundation

Ensuring that everyone, everywhere has equal access to good health and lifesaving vaccines is a priority for the Gates Foundation.

We know strong partnerships make achieving this possible. Whether it's eradicating polio, eliminating measles, reducing pneumonia and diarrhoeal diseases, controlling outbreaks, or eliminating cervical cancer, each region and each partner has a unique role to play.

Nobody can do this alone, and that is why the Gates Foundation is proud to collaborate with the WHO Regional Office for the Eastern Mediterranean, other WHO offices, UNICEF, Gavi, the Vaccine Alliance, the Global Polio Eradication Initiative, academia, civil society, the private sector, and many more, to ensure better health for all. Combining our strengths and resources – across global, regional, country, and subnational levels – amplifies our collective impact and creates lasting change.

The Immunization Agenda 2030 is a powerful example of vision and partnership in action. Alongside our partners, governments, and national and regional immunization advisory bodies, the Gates Foundation is proud to support the strategic framework for its implementation in the Eastern Mediterranean Region.

While our primary focus is on low-income countries, the health and immunization research and development initiatives we fund benefit countries throughout the world, including this region. We remain committed to investing in immunization programmes that protect vulnerable populations around the world.

Together, we can ensure that everyone has access to the vaccines and better health that they provide.

Violaine Mitchell

Director of Immunization
Gates Foundation

Message from the Chief Country Delivery Officer, Gavi, the Vaccine Alliance

The new regional framework for implementation of the Immunization Agenda 2030 in the Eastern Mediterranean Region could not be launched at a more critical time. Now more than ever we need to amplify our efforts to protect immunization programme gains and ensure resiliency, whilst making ourselves accountable to new indicators and ambitious targets.

While several countries in the Eastern Mediterranean Region are demonstrating strong and sustained gains, instability and conflict in some areas are severely impacting immunization services. This means more children are left vulnerable to vaccine-preventable diseases, contributing to deeper health inequities and threats to regional and global health security.

We know that immunization is one of the most successful and cost-effective health interventions, especially for protecting children from deadly diseases, yet some countries in the Region still lack key vaccines in their routine immunisation schedules.

Gavi is working with countries in the Region that are eligible for traditional Gavi support, many of which have some of the highest numbers of zero dose children in the Region, to ensure all children are fully protected with lifesaving vaccines, as well as closing the vaccine introduction gap. In addition, through the new Middle-Income Country Approach, Gavi is providing catalytic support to five lower-middle income countries to introduce high-impact vaccines that will see improved health outcomes for children and adolescents and protecting immunization programmes in conflict situations.

The Gavi Alliance is proud to support the launch of a new regional framework that will help us get us closer to our mission, to ensure that no child is left behind with lifesaving vaccinations. And especially to ensure that children facing humanitarian crises are given every opportunity to access their basic right to a healthy start in life. Gavi stands ready to support countries to achieve these ambitious regional targets.

Thabani Maphosa

Chief Country Delivery Officer,
Gavi, the Vaccine Alliance

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- The chairs and members of the National Immunization Technical Advisory Groups (NITAGs) and the Regional Immunization Technical Advisory Group (RITAG), for their technical and advisory insights, participation in working groups and final review of the framework.
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- Technical staff from the WHO Regional Office for the Eastern Mediterranean, for their technical expertise throughout the process, compiling the inputs and preparing the final framework.
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The collective expertise, dedication and collaborative spirit of all those involved has been instrumental in shaping this strategic framework and advancing the Immunization Agenda 2030 in the Eastern Mediterranean Region.

Acronyms and abbreviations

AEFI	Adverse event following immunization
cMYP	Comprehensive multi-year plan
cVDPV	Circulating vaccine-derived poliovirus
DTP	Diphtheria, tetanus toxoid and pertussis
GNI	Gross national income
HPV	Human papillomavirus
IA2030	Immunization Agenda 2030
IDPs	Internally displaced persons
IVP	Immunization, Vaccine-Preventable Diseases and Polio Transition unit
MCV	Measles-containing vaccine
MeaNS2	Measles Virus Nucleotide Surveillance 2
NITAG	National Immunization Technical Advisory Committee
PCV	Pneumococcal conjugate vaccine
PHC	Primary health care
RITAG	Regional Immunization Technical Advisory Group
SP	Strategic Priority
UHC	Universal health coverage
VPD	Vaccine-preventable disease

Executive summary

The Immunization Agenda 2030 (IA2030) defines the global vision and strategy for vaccines and immunization from 2021 to 2030. It aims to reduce mortality and morbidity from vaccine-preventable diseases (VPDs) for everyone, leaving no one behind, by increasing equitable access and use of new and existing vaccines and, by so doing, ensure better health and well-being for all. WHO regions and Member States are expected to contextualize the IA2030 guidance, taking into consideration their local realities, to sustain hard-won gains and ensure immunization services are an essential part of primary health care (PHC) and contribute towards universal health coverage (UHC).

This strategic framework for the implementation of IA2030 in the Eastern Mediterranean Region has been developed to guide countries in implementing and monitoring their immunization programmes through the current decade. It received the support of Member States in resolution EM/RC71/R.2 of the 71st WHO Regional Committee for the Eastern Mediterranean in October 2024.

Progress made towards eradication, elimination and control of VPDs has been negatively affected by the COVID-19 pandemic. Despite signs of post-pandemic recovery in 2022, there was a decline in immunization coverage across the Eastern Mediterranean Region in 2023. At the end of 2023, there were more than 2.85 million zero-dose children (that is, children who received no vaccines through immunization programmes) in the Region, almost 90% of whom live in five countries. Another 1.13 million children were under-immunized and 4.04 million children did not receive a single dose of measles-containing vaccine.

Some priority vaccines are yet to be fully introduced in a number of countries in the Region, including human papillomavirus vaccine (15 countries), rotavirus vaccine (five countries), pneumococcal conjugate vaccine (five countries), diphtheria-tetanus-pertussis-containing vaccine booster dose (five countries), rubella vaccine (four countries) and hepatitis B birth dose (four countries).

Most countries in the Eastern Mediterranean Region are delivering vaccines under extremely challenging circumstances. Insecurity and/or humanitarian crises are affecting more than 50% of the Region's population, creating fragile, conflict-affected and vulnerable situations and large numbers of internally displaced persons (IDPs). In addition, vaccine hesitancy has been heightened by the COVID-19 pandemic.

This strategic framework for implementation of the IA2030 in the Eastern Mediterranean Region aims to ensure that all individuals at all ages enjoy healthy lives free of VPDs. It is built on the four core principles of the global IA2030 (people-centred, country-owned, partnership-based and data-guided) and includes tailored country support. It adopts the seven strategic priorities (SPs) of the IA2030: SP1 on immunization programmes for PHC and UHC; SP2 on commitment and demand; SP3 on coverage and equity; SP4 on life course and integration; SP5 on outbreaks and emergencies; SP6 on supply and sustainability; and SP7 on research and innovation. Each strategic priority has specific objectives and key areas of focus.

The strategic priorities and key focus areas of the global IA2030 framework have been contextualized to the Region

and prioritized – through a consultative process – to provide tailored guidance according to the capacity of each country's national immunization programme.

Three groups of countries (Gavi-eligible countries, non-Gavi-eligible middle-income countries and high-income countries) reviewed the relative importance of the IA2030 strategic priorities, the key focus areas and a list of pre-selected indicators to monitor progress up to 2030, with respect to their contexts. Although high-income countries in the Region identified SP4 (life course and integration) and SP7 (research and innovation) as their most important priorities, these were the least important for Gavi-eligible countries and non-Gavi-eligible middle-income countries. Non-Gavi-eligible middle-income countries were unique in identifying SP6 (supply and sustainability) as their most important priority, reflecting their concerns about access to vaccines and sustainable financing. Gavi-eligible countries unanimously identified SP1 (immunization programmes for PHC and UHC), SP3 (coverage and equity) and SP5 (outbreaks and emergencies) as their most important priorities.

Bearing in mind that implementation will take place at the country level, high-impact strategic interventions are proposed under the prioritized key focus areas, from which countries can select when developing their national immunization strategic plans. Potential levers to drive implementation are also suggested, including: subnational strengthening of immunization services, leveraging Gavi resources in eligible countries; differentiated technical assistance to countries irrespective of income level, based on a maturity grid; transitioning polio infrastructure to achieve broader immunization goals and targets; and systematic efforts to support post-COVID-19 recovery.

To assess the progress in the Region towards achieving the strategic priority objectives of the IA2030, 20 indicators have been selected for a regional scorecard. IA2030 impact goal indicators will be used to measure impact and specific indicators have also been selected to monitor progress in the three groups of countries – Gavi-eligible countries, non-Gavi-eligible middle-income countries and high-income countries – using an annual country scorecard. The scorecard for each country will be shared with health ministers during the WHO Regional Committee for the Eastern Mediterranean every year. Partners will also be able to access the country and regional scorecards. Countries will develop their detailed monitoring and evaluation framework when developing their national immunization strategic plans.

Coordination, governance and accountability are key, given the multiple stakeholders involved in vaccination efforts at all levels. While the Regional Working Group for Immunization will serve as the main platform for technical coordination across all partners at the regional level, countries are encouraged to use existing coordination mechanisms (as defined in their national immunization strategies) at national and subnational levels. Existing regional and national bodies and committees will also participate in governance. The Regional Immunization Technical Advisory Group and national immunization technical advisory groups will conduct independent reviews at regional and national levels, respectively, on the progress made to achieve the IA2030 impact goals in the Region.

1. Background

1.1 Situation analysis

The *Eastern Mediterranean vaccine action plan 2016–2020* provided the strategic framework to guide actions towards the regional immunization goals and targets over the last decade. The plan was a regional adaptation of the Global vaccine action plan 2011–2020, and had the vision that all individuals and communities should be able to enjoy lives free from vaccine-preventable diseases (VPDs). Since 2010, progress has been made towards the regional immunization goals and VPD control and elimination targets. Coverage with the third dose of diphtheria, tetanus toxoid and pertussis-containing vaccine (DTP3) increased from 74% in 2010 to an all-time high of 84% in 2019. However, this progress was negatively impacted by the COVID-19 pandemic and DTP3 coverage decreased to 80% in 2020 and 79% in 2023. During the height of the pandemic (2020–2021), approximately 7.3 million children did not receive DTP3 and around 5 million children were zero-dose (that is, they did not receive the first dose of DTP-containing vaccine). Coverage of the first dose of measles-containing vaccine (MCV1) increased from 76% in 2010 to 79% in 2023. Coverage of the second dose (MCV2) increased from 51% in 2010 to 75% in 2022, but then reduced to 73% in 2023. Around 4 million children in the Eastern Mediterranean Region did not receive a single dose of measles vaccine in 2023.

Despite progress towards polio eradication over the past two years, wild poliovirus is still circulating in Afghanistan and Pakistan in 2024. It is essential to maintain high levels of immunity to wild poliovirus types 1 and 3 in anticipation of the eventual withdrawal of bivalent polio vaccine once eradication has been achieved.

In the Region, four countries have been certified for measles and rubella elimination and 17 countries have been certified for maternal and neonatal tetanus elimination. A Regional Verification Commission has been established for hepatitis B control, with a target to reduce the prevalence of hepatitis B surface antigen to less than 1%.

There has been good progress in the introduction of new vaccines in the Region. All countries and territories have added *Haemophilus influenzae* type B vaccine and 17 have introduced pneumococcal conjugate vaccine (PCV) in their national immunization programmes. Rotavirus vaccine has been introduced in 16 countries and territories, and human papillomavirus (HPV) vaccine in seven. New vaccine introduction has progressed remarkably in countries that are eligible for support from Gavi, the Vaccine Alliance, but is lagging in middle-income countries.

Table 1 shows the status of new vaccine introduction in the Region in 2023 by country income level. There is wide diversity in the gross national income (GNI) per capita in countries and territories of the Region, as shown by their allocation to the World Bank income groups (Table 1). Six countries are classified as high-income and two as upper-middle-income; these eight countries account for 14% of the population of the Region. Nine countries and territories (65% of the population of the Region) are classified as lower-middle-income and five countries are classified as low-income (21% of the population). Seven countries are Gavi-eligible and account for 51% of the population of the Region. Countries in the different income categories face unique challenges that require tailored approaches.

Table 1. Countries/territories in the Region yet to introduce priority vaccines, by income level, 2023

Income group (GNI 2022)[1]	No. of countries	% of Region's population[2]	Countries/ territories	Not yet introduced vaccines		
				PCV	Rotavirus	HPV
High income	6	7%	Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates		Oman	Oman
Upper-middle income	2	7%	Iraq, Libya			Iraq
Lower-middle income	9	65%	Djibouti, Egypt, Islamic Republic of Iran, Jordan, Lebanon, Morocco, occupied Palestinian territory, Pakistan, Tunisia	Egypt, Islamic Republic of Iran (partial introduction), Jordan	Egypt, Islamic Republic of Iran (partial introduction), Tunisia	Djibouti, Egypt, Islamic Republic of Iran, Jordan, Lebanon, occupied Palestinian territory, Pakistan, Tunisia
Low income	5	21%	Afghanistan, Somalia, Sudan, Syrian Arab Republic, Yemen	Somalia, Syrian Arab Republic	Somalia, Syrian Arab Republic	Afghanistan Somalia, Sudan, Syrian Arab Republic, Yemen

NB: Gavi-eligible countries (Afghanistan, Djibouti, Pakistan, Somalia, Sudan, Syrian Arab Republic, Yemen) constitute 51% of the population.

[1] See historical classification by income in XLSX format, from: World Bank country and lending groups [webpage]. World Bank; 2024 (https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups, accessed 4 September 2024).

[2] World population prospects 2024 [webpage]. United Nations; 2024 (https://population.un.org/wpp/, accessed 4 September 2024).

1.2. Challenges and opportunities

1.2.1 Challenges

The Eastern Mediterranean Region is affected by multiple challenges that are limiting the capacity of immunization programmes to meet the VPD eradication, elimination and control targets by 2030. The magnitude of these challenges varies greatly by country and geography. The following list of challenges in the Region draws upon a synthesis of recent assessments, evaluations and surveillance data.

- **Insecurity:** In the past decade, many countries in the Region have experienced armed conflict which has negatively affected their capacity to deliver health services. Ongoing conflicts are leading to large VPD outbreaks and exacerbating their spread to neighbouring countries. About two thirds of the Region's population live in fragile, conflict-affected or vulnerable settings and half of the world's internally displaced persons (IDPs) are found in the Region, overstretching already fragile health systems in several countries.
- **Competing priorities:** COVID-19 pandemic recovery, natural/manmade humanitarian crises, global/regional health priorities, globalization and the impact of climate change continue to divert financial and human resources from immunization programmes.
- **Vaccine hesitancy:** Vaccine hesitancy has been increasing since the COVID-19 pandemic and is one of the main barriers to immunization in many countries of the Region.
- **Outbreaks:** The number of outbreaks in the Region is rising, including measles, circulating vaccine-derived poliovirus (cVDPV), diphtheria and other epidemic-prone diseases. Rapid and effective response is needed in countries experiencing multiple simultaneous outbreaks, where health services – including immunization programmes – are becoming overwhelmed; this comes with the additional challenge of implementing repeated vaccination response campaigns to control recurrent outbreaks.
- **Climate change:** Global warming has caused droughts in several countries of the Region and massive flooding in others, leading to severe social, environmental and epidemiological disruptions. These climate-related events also create service delivery challenges and negatively impact health workforce capacity.
- **Weak health systems:** In many countries of the Region, immunization programmes are impacted by weaknesses in the areas described below.

    a. *Data management*: Outdated/ absent national statistics, lack of consensus on denominators and difficulties in properly assessing coverage are issues in priority countries, worsened by the existence of parallel reporting systems. There is limited use of technology in data management and lack of technical capacity in data analysis, interpretation and use in most priority countries.

    b. *Vaccine supply, cold chain and logistics*: With the support of Gavi's Cold Chain Equipment

and Optimization Platform and through significant investments made during the COVID-19 pandemic, countries were able to secure standard cold chain equipment and increase their storge capacity significantly. Although these efforts are vital for new vaccine introduction and large-scale mass vaccination campaigns, the overall supply chain management is not yet up to the required standard. Electronic inventory of all cold chain equipment, remote continuous temperature monitoring, electronic automated systems to record storage, supply and distribution of vaccines, and logistics, are not yet in place in most countries.

c. *Financing*: Given the difficulties outlined above, programme managers often face challenges in mobilizing resources to support the national immunization programme, whether in terms of new vaccine introduction or routine vaccine delivery, especially to underserved communities. Financial sustainability is a key challenge in low-income countries that are dependent on donor support for vaccine procurement and programme operations.

d. *Migration*: The exodus of experienced health workers leads to so-called brain drain and a shortage in skilled health workforce.

e. *Governance*: Programme structure, coordination among different tiers, management capacity, accountability and regular monitoring and evaluation are not optimal in most priority countries. The national immunization policy is often outdated or not followed, or in some cases, policy is lacking. A national operational plan derived from a multi-year national immunization strategic plan is essential.

f. *Limited programme capacity*: Many immunization programmes have limited capacity, especially in the areas of management, leadership and community engagement.

1.2.2 Opportunities

While recognizing the challenges the Eastern Mediterranean Region is facing, there are also the following opportunities that can be leveraged to move the immunization agenda forward.

- **COVID-19 response:** Many countries in the Region invested significant resources in their national immunization programmes in response to COVID-19. These resources can be leveraged to support key strategic interventions outlined in this framework; for example, digital vaccine registration and reporting, life-course immunization, workforce development, community engagement and cold chain upgrades.

- **Universal health coverage (UHC) and investments in primary health care (PHC)**: Government commitments to UHC and investments in PHC provide an opportunity for national immunization programmes to serve as the cornerstone on which to build a systems-based approach to provide integrated packages of PHC services.
- **Partnerships and global interdependency/collaboration:** The multiple partnerships within and across the Region can be leveraged for the common good of the immunization programme.

1.3. The global IA2030 framework

The Immunization Agenda 2030 (IA2030) defines the global vision and strategy for vaccines and immunization from 2021 to 2030. It aims to reduce mortality and morbidity from VPDs for everyone, leaving no one behind, by increasing equitable access and use of new and existing vaccines and, by so doing, ensure good health and well-being for all.

The IA2030 has three impact goals, with seven associated impact goal indicators and targets. The impact goals are to:

- reduce mortality and morbidity from VPDs for everyone throughout the life course;
- leave no one behind, by increasing equitable access and use of new and existing vaccines; and
- ensure good health and well-being for everyone by strengthening immunization within PHC and contributing to UHC and sustainable development.

The IA2030 is based on a conceptual framework of seven strategic priorities: Strategic Priority 1 (SP1) on immunization programmes for PHC and UHC; Strategic Priority 2 (SP2) on commitment and demand; Strategic Priority 3 (SP3) on coverage and equity; Strategic Priority 4 (SP4) on life course and integration; Strategic Priority 5 (SP5) on outbreaks and emergencies; Strategic Priority 6 (SP6) on supply and sustainability; and Strategic Priority 7 (SP7) on research and innovation. Each strategic priority has specific objectives and key focus areas.

WHO regions and Member States have contextualized the global IA2030 guidance, taking into consideration their local realities. This strategic framework for the Eastern Mediterranean has been developed to guide the implementation, monitoring and evaluation of IA2030 goals and targets in countries and territories of the Region. It received the support of Member States in resolution EM/RC71/R.2 of the 71st WHO Regional Committee for the Eastern Mediterranean in October 2024.

2. Strategic framework for implementation of the IA2030 in the Eastern Mediterranean Region

2.1 Vision, mission and guiding principles

Vision: All individuals at all ages in the Eastern Mediterranean Region enjoy healthy lives free of vaccine-preventable diseases.

Mission: To ensure equitable access for all individuals to benefit from existing and new vaccines.

Guiding principles: The strategic framework for implementation of the IA2030 in the Eastern Mediterranean Region is built on the four core principles of the global IA2030 (people-centred, country-owned, partnership-based and data-guided) and includes tailored country support according to the capacity of each country's national immunization programme.

2.2 Regional strategic priorities: tailoring the IA2030 to the local context

The strategic framework for implementation of the IA2030 in the Eastern Mediterranean Region was developed to address the challenges and opportunities in the Region (as outlined in section 1.2). The seven global IA2030 strategic priorities were contextualized and prioritized, through regional consultation, based on their relative importance in the Region. The relative importance of the strategic priorities and strategic priority objectives for each Member State may vary from the regional picture, but country-specific priorities will be reflected accordingly in their national immunization strategies.

The consultative process with countries and other stakeholders used a four-step approach.

1. Development of a draft document by the WHO Regional Office for the Eastern Mediterranean.
2. Region-wide in-person consultation on goals, priorities and indicators (completed November 2022).
3. Presentation of consolidated documents to the Regional Immunization Technical Advisory Group (RITAG) (September 2023 and February 2024).
4. Consolidation of inputs from steps 2 and 3, followed by Region-wide in-person presentation of the regional strategic framework and scorecards for final review and consensus (July 2024).

During a one-day consultation in November 2022, country teams worked on the prioritization process individually and in three groups: Gavi-eligible countries; non-Gavi-eligible middle-income countries; and high-income countries. The non-Gavi-eligible middle-income group comprised all middle-income countries in the Region – except for Djibouti and Pakistan, which are Gavi-eligible. This group will henceforth be referred to as "middle income" throughout the regional IA2030 strategic framework.

Each group of countries reviewed the relative importance of the global IA2030 strategic priorities, the key focus areas and a list of pre-selected indicators to monitor

progress up to 2030, with respect to their country contexts. The key focus areas will be reviewed in mid-2026.

Strategic priorities and their key focus areas were scored, receiving 3 points if a country team identified it as "very important", 2 points for "moderately important" and 1 point for "least important". The scores for each country and group of countries were then weighted and normalized onto a scale relative to 100 possible points. Strategic priorities and key focus areas with 80 or more points were identified as very important, 60–79 as moderately important, and less than 60 as least important.

Overall, from the regional synthesis, SP1 (immunization programmes for PHC and UHC) and SP5 (outbreaks and emergencies) were rated as very important and SP7 (research and innovation) as the least important. SP2 (commitment and demand) was the only strategic priority rated consistently across all country groups as moderately important (Table 2).

The regional synthesis highlights critical differences between country groups which must be considered to better understand regional priorities.

Table 2. Prioritization of the IA2030 strategic priorities

Priority level	Region	Gavi-eligible	Middle-income	High-income
Very important	• SP1: Immunization for PHC and UHC	• SP1: Immunization for PHC and UHC	• SP6: Supply and sustainability	• SP4: Life course and integration
	• SP5: Outbreaks and emergencies	• SP5: Outbreaks and emergencies	• SP5: Outbreaks and emergencies	• SP7: Research and innovation
		• SP3: Coverage and equity		
Moderately important	• SP2: Commitment and demand	• SP2: Commitment and demand	• SP1: Immunization for PHC and UHC	• SP1: Immunization for PHC and UHC
	• SP3: Coverage and equity	• SP6: Supply and sustainability	• SP2: Commitment and demand	• SP2: Commitment and demand
	• SP4: Life course and integration		• SP3: Coverage and equity	• SP5: Outbreaks and emergencies
	• SP6: Supply and sustainability			
Least important	• SP7: Research and innovation	• SP7: Research and innovation	• SP7: Research and innovation	• SP3: Coverage and equity
		• SP4: Life course and integration	• SP4: Life course and integration	• SP6: Supply and sustainability

For example:

- although high-income countries identified SP4 (life course and integration) and SP7 (research and innovation) as very important, these were the least important priorities for Gavi-eligible countries and middle-income countries;
- middle-income countries identified SP6 (supply and sustainability) as very important, reflecting their concerns about access to vaccines and sustainable financing; and
- Gavi-eligible countries unanimously identified SP1 (immunization programmes for PHC and UHC), SP3 (coverage and equity) and SP5 (outbreaks and emergencies) as very important.

These country-defined prioritizations provide important context for the subsequent sections, where short-term (2–3 years) key focus areas are identified for each strategic priority. Countries have prioritized the key focus areas through to 2026. Under each key focus area, there are selected main interventions to address the regional priorities.

2.2.1 SP1: Immunization programmes for PHC and UHC

As shown in Table 2, SP1 was prioritized as very important by Gavi-eligible countries and moderately important by middle-income and high-income countries. SP1 aims to increase the efficiency and acceptability of immunization services by integrating the delivery of vaccines with other PHC services, towards achieving UHC.

SP1 objectives

- Reinforce and sustain strong leadership, management and coordination of immunization programmes at all levels.
- Ensure the availability of an adequate, effective, sustainable health workforce.
- Build and strengthen comprehensive VPD surveillance as a component of the national public health surveillance system, supported by strong, reliable laboratory networks.[1]
- Secure high-quality supply chains for vaccines and related commodities and effective vaccine management, within the PHC supply system.
- Strengthen immunization information within a robust health information system, and promote use of high-quality, "fit-for-purpose" data for action at all levels.
- Establish and maintain a well-functioning vaccine safety system involving all stakeholders.

SP1 key focus areas

Table 3 summarizes the prioritization of each key focus area for SP1, with VPD surveillance and health information systems identified as top priorities for all three groups. Health workforce was also prioritized by both Gavi-eligible and middle-income countries.

[1] See the Global strategy on comprehensive vaccine-preventable disease surveillance. Geneva: World Health Organization; 2020 (https://www.who.int/publications/m/item/global-strategy-for-comprehensive-vaccine-preventable-disease-(vpd)-surveillance, accessed 1 September 2024).

Table 3. Prioritization of key focus areas for SP1

Categories	Region	Gavi-eligible	Middle-income	High-income
Very important	• Health workforce • VPD surveillance • Health information systems	• Immunization in PHC • Leadership, governance and management • Health workforce • VPD surveillance • Health information systems	• Health workforce • Supply chain and logistics • VPD surveillance • Health information systems • Monitoring vaccine safety	• VPD surveillance • Health information systems
Moderately important	• Immunization in PHC • Leadership, governance and management • Supply chain and logistics • Monitoring vaccine safety • Disease control initiatives	• Supply chain and logistics • Disease control initiatives	• Immunization in PHC • Leadership, governance and management	• Leadership, governance and management • Health workforce • Monitoring vaccine safety • Disease control initiatives
Least important		• Monitoring vaccine safety		

Proposed interventions under SP1 key focus areas

- VPD surveillance was considered very important by all countries.
  - Integrate VPD surveillance systems into the broader national disease surveillance system, including the laboratory network.
  - Build national public health laboratory capacity to ensure diagnosis of all viral and bacterial VPDs.
  - Build capacity for timely detection, investigation and reporting of VPDs at community and service delivery level.
  - Engage the private sector in the VPD surveillance network.
  - Monitor progress in VPD eradication, elimination and control targets.
- Health information systems was considered very important by all countries.
  - Integrate all components of the immunization system into the national health information system.
  - Leverage electronic systems and digital solutions to support the national immunization programme.
  - Ensure that the health information system allows health workers and

decision-makers to generate timely and high-quality immunization data to implement and manage national immunization programmes effectively at all levels.

  - Utilize interoperability with the civil registration and vital statistics system to help to identify zero-dose children.

  - Expand digitalization and use of real-time monitoring technologies.

- Health workforce was considered very important by Gavi-eligible countries and middle-income countries.

  - Ensure the availability of adequate numbers and equitable distribution of health workers who are trained and appropriately resourced to plan, manage, implement and monitor the performance of immunization programmes at all levels.

  - Ensure that health workers are motivated and have the required skills and competencies to deliver immunization service in an integrated manner as part of PHC.

- Monitoring vaccine safety was considered very important by middle-income countries, moderately important by high-income countries and least important by Gavi-eligible countries.

  - Ensure that the national adverse event following immunization (AEFI) surveillance system is capable of detecting and responding to any concerns about vaccine safety by continuous monitoring and coordination with the National Regulatory Authority and other relevant stakeholders.

- Immunization in PHC was considered very important by Gavi-eligible countries, moderately important by middle-income countries and least important by high-income countries.

  - Ensure that sustainable immunization programmes are an integral part of national PHC strategies and operations, and of national strategies for UHC.

  - Expand the network of fixed sites with integrated health services to include public facilities, tertiary hospitals and private sector facilities to provide sustainable and convenient access to immunization and PHC services.

  - Ensure cross-programmatic efficiency in delivering PHC services, synergizing with other disease-specific investments.

- Leadership, governance and management was considered very important by Gavi-eligible countries and moderately important by middle-income and high-income countries.

  - Ensure the national immunization strategy and plan is integrated into the national health strategy.

  - Strengthen the management capacity of national and operational level (mid-level) managers, with clear delineation of roles and responsibilities at all levels.

  - Create an environment for effective coordination, financial management, performance monitoring and oversight of the immunization programme at all levels.

- Supply chain and logistics were considered very important by middle-income countries, moderately important by Gavi-eligible countries and least important by high-income countries.
  - Ensure increased visibility and transparency for logistics, vaccine management and cold chain equipment inventory through use of technology.
  - Ensure timely and accurate vaccine forecasting to avoid stockouts, and take measures to monitor and minimize closed vial wastage of vaccines.
  - Conduct Effective Vaccine Management assessments and use findings to improve vaccine supply management.
  - Secure high-quality supply chains for vaccines and related commodities.
  - Promote integration with other supply chains for more effective delivery of PHC.
  - Invest in systems and infrastructure to safely manage, treat and dispose of vaccine waste to help to reduce their environmental footprint.
- Disease control initiatives were considered moderately important by all three groups.
  - Use disease control programmes to strengthen PHC delivery systems.
  - Use lessons learned from disease control programmes to improve the quality of planning, supervision, micro-planning and communication strategies.
  - Offer integrated services during supplementary immunization activities.
  - Achieve eradication, elimination and disease reduction global and regional targets.

2.2.2 SP2: Commitment and demand

As shown in Table 2, SP2 was consistently rated by the three groups of countries as moderately important. There was a clear consensus on the need to ensure that immunization be actively sought by all people, as well as a common understanding that health authorities should commit to ensuring that immunization is available to all as a fundamental right and key contributor to the enjoyment of the highest attainable standard of health.

SP2 objectives

- Build and sustain strong political commitment for immunization at all levels.
- Ensure that all people and communities value, actively support and demand immunization services.

SP2 key focus areas

Table 4 summarizes the prioritization of each key focus area for SP2. Gavi-eligible countries prioritized accountability and subnational support as the most important key focus areas, which reflects their relatively weak health systems and need for greater coordination and targeted support at the operational level (most are large countries that are in need of stronger coordination). Middle-income countries highlighted emerging vaccine hesitancy and the issue of demand as the main barriers that need to be addressed, in addition to health authority commitment.

Table 4. Regional prioritization of key focus areas for SP2

Categories	Region	Gavi-eligible	Middle-income	High-income
Very important		• Subnational support • Accountability	• Commitment • Public trust and confidence • Public knowledge and understanding	
Moderately important	• Commitment • Subnational support • Accountability • Public trust and confidence • Public knowledge and understanding • Acceptance and value of vaccination • Addressing reluctance to vaccinate	• Commitment • Public trust and confidence • Public knowledge and understanding • Acceptance and value of vaccination • Addressing reluctance to vaccinate	• Subnational support • Accountability • Acceptance and value of vaccination • Addressing reluctance to vaccinate	• Public trust and confidence • Public knowledge and understanding • Acceptance and value of vaccination
Least important				• Commitment • Subnational support • Accountability • Addressing reluctance to vaccinate

Proposed interventions under SP2 key focus areas

- Public knowledge and understanding was considered very important by middle-income countries and moderately important by Gavi-eligible and high-income countries.
  - Regularly communicate on the benefits of immunization for all, using well-identified channels with respect to context. Do not wait until there is a crisis before communicating with the public.
  - Promptly and consistently address rumours and mistrust.
- Accountability was considered very important by Gavi-eligible countries, moderately important by middle-income countries and least important by high-income countries.
  - Establish accountability frameworks for all aspects of the national immunization programme at all levels, involving key stakeholders.
  - Ensure that communities and civil society organizations are equipped to hold national and subnational

authorities accountable for equitable delivery and the quality of immunization services.

  - Establish mechanisms to ensure that civil society organizations and national/international nongovernmental organizations who deliver immunization services with donor support are accountable to beneficiary communities and local health authorities.

  - Ensure access to data and information and develop frameworks for joint monitoring.

- Public trust and confidence was considered very important by middle-income countries and moderately important by Gavi-eligible and high-income countries.

  - Establish an ongoing understanding of the behavioural and social drivers of vaccine uptake (including social processes, gender-related barriers, practical factors and social media) to better engage communities and encourage greater utilization of immunization services (refer to WHO's 2022 position paper).[1]

- Commitment was considered very important by middle-income countries, moderately important by Gavi-eligible countries and least important by high-income countries.

  - Ensure key groups, champions and stakeholders advocate for greater commitment to and ownership of immunization programmes.

  - Encourage national health authorities and political leaders to prioritize immunization in strategic and operational planning and in policy, fiscal and legislative instruments.

- Subnational support was considered very important by Gavi-eligible countries, moderately important by middle-income countries and least important by high-income countries.

  - Build support for subnational leadership, management and coordination, especially in large countries and countries with decentralized health systems where mechanisms for stakeholder coordination, planning, implementation and monitoring are needed at this operational level.

- Acceptance and value of vaccination was considered moderately important by all three groups.

  - Use local data to understand and devise tailored solutions to address the underlying causes of low vaccination rates.

  - Proactively develop and implement strategies to prevent and respond to AEFI and vaccine hesitancy.

- Addressing reluctance to vaccinate was considered moderately important by Gavi-eligible and middle-income countries and least important by high-income countries.

  - Design people-centred and tailored strategies based on context- and community-specific barriers to and drivers of vaccination.

  - Equip the health workforce, particularly frontline workers, with

[1] Understanding the behavioural and social drivers of vaccine uptake: WHO position paper – May 2022. Geneva: World Health Organization; 2022 (https://iris.who.int/bitstream/handle/10665/354458/WER9720-eng-fre.pdf?sequence=1, accessed 1 September 2024).

the skills and confidence to meet the immunization needs of all those seeking health care in general.

- Identify and equip trusted community leaders and members to mitigate vaccine hesitancy and interrupt the spread of misinformation, particularly through social media.

2.2.3 SP3: Coverage and equity

As shown in Table 2, the higher the income of countries, the lower the importance given to this strategic priority. Gavi-eligible countries considered SP3 as very important, while middle-income countries rated it as moderately important and high-income countries as least important. This correlates with the fragility/vulnerability status and population size of the countries: fragile, conflict-affected and vulnerable settings with large populations are either Gavi-eligible or middle-income countries and give a greater weight to SP3.

SP3 objectives

- Identify sustainable resources to extend immunization services to regularly reach zero-dose and under-immunized children/communities.
- Advance and sustain high and equitable immunization coverage nationally and in all districts.

SP3 key focus areas

Table 5 summarizes the prioritization of key focus area for SP3. Gavi-eligible and middle-income countries both prioritized measles as a tracer and disadvantaged populations as the most important areas, while high-income groups rated implementation research as most important.

Proposed interventions under SP3 key focus areas

- Measles as a tracer was considered very important by Gavi-eligible countries and middle-income countries and moderately important by high-income countries.
  - Strengthen VPD surveillance and use measles cases and outbreaks as a tracer to identify areas with low coverage and immunity gaps.
  - Identify all missed and partially vaccinated children in areas reporting measles cases and outbreaks and implement mop-up vaccination.
- Disadvantaged populations were considered very important by Gavi-eligible countries and middle-income countries and least important by high-income countries.
  - Ensure equitable access to services, including adequate resources to reach underserved communities/areas such as urban informal settlements, remote rural areas, migrants, IDPs and refugee populations in a sustainable and integrated manner.
  - Engage civil society organizations and community leaders to address concerns among non-compliant caregivers/communities.
- Context-specific interventions were considered very important by middle-income countries and moderately important by Gavi-eligible countries and high-income countries.
  - Develop, evaluate and scale up innovative, locally-tailored, evidence-based, people-centred

Table 5. Regional prioritization of key focus areas for SP3

Categories	Region	Gavi-eligible	Middle-income	High-income
Very important	• Disadvantaged populations • Measles as a tracer	• Disadvantaged populations • Measles as a tracer	• Disadvantaged populations • Measles as a tracer • Context-specific interventions	• Implementation research
Moderately important	• Barriers to vaccination • Learning from disease-specific initiatives • Context-specific interventions • Implementation research	• Barriers to vaccination • Learning from disease-specific initiatives • Context-specific interventions	• Barriers to vaccination • Learning from disease-specific initiatives • Implementation research	• Measles as a tracer • Learning from disease-specific initiatives • Context-specific interventions
Least important	• Gender-responsive strategies	• Gender-responsive strategies • Implementation research	• Gender-responsive strategies	• Disadvantaged populations • Barriers to vaccination • Gender-responsive strategies

approaches to reach poorly served populations.

  - Engage communities in planning and delivery of services.

- Barriers to vaccination were considered moderately important by Gavi-eligible countries and middle-income countries and least important by high-income countries.

  - Map and understand the broader social and environmental determinants of under-vaccinated status, then develop tailored interventions to address the root causes.

  - Implement multi-pronged context-specific approaches to address barriers to vaccination.

  - Garner political and community engagement to ensure both national and community leadership are in alignment to sustain commitment and acceptance of vaccination.

- Implementation research was considered very important by high-income countries, moderately important by middle-income countries and least important by Gavi-eligible countries.

  - Strengthen local capacity to conduct implementation research to identify behavioural and social drivers of vaccination, root causes for low vaccine uptake, including access to services, mistrust and non-compliant communities, geographic isolation, and social, cultural and gender-related factors that influence coverage and equity.

  - Promote use of the results to plan and implement locally-tailored, context-specific interventions and innovations to address inequities.
  - Translate research findings into policy and practical interventions.
- Learning from disease-specific initiatives was considered moderately important by all groups.
  - Use tools, capacity and human resources support from disease eradication and elimination initiatives to reach the most marginalized populations, including sharing of microplans, settlement lists and information on zero-dose households and communities.
  - Integrate successful strategies for delivery of services to these communities.
  - Use surveillance data and geospatial mapping done by disease-specific initiatives to identify and map zero-dose children and ensure their inclusion in routine immunization microplans.
- Gender-responsive strategies were considered least important by all groups.
  - Where necessary, make adjustments to service provision based on community perspectives of quality and needs.
  - Actively address gender and equity issues as immunization is expanded across the life course.

2.2.4 SP4: Life course and integration

In general, SP4 is considered moderately important at the regional level (see Table 2). High-income countries considered this strategic priority as very important, while Gavi-eligible and middle-income countries considered it as least important. As new vaccines and technologies become more available, SP4 aims to expand the benefits of immunization throughout the life course in an integrated manner with other essential health interventions.

SP4 objectives

- Strengthen immunization policies and service delivery throughout the life course, including for appropriate catch-up vaccinations and booster doses.
- Establish integrated delivery points of contact between immunization and other public health interventions for different target age groups.

SP4 key focus areas

Table 6 summarizes the prioritization of each key focus area for SP4. Gavi-eligible countries and high-income countries considered missed opportunities as very important, while middle-income countries rated this area as moderately important.

Proposed interventions under SP4 key focus areas

- Missed opportunities was considered very important by Gavi-eligible countries and high-income countries and moderately important by middle-income countries.
  - Implement proven approaches to reduce the number of missed opportunities by offering vaccines beyond the second year of life.

Table 6. Regional prioritization of key focus areas for SP4

Categories	Region	Gavi-eligible	Middle-income	High-income
Very important		• Missed opportunities		• Evidence-based delivery practices • Missed opportunities • Cross-sector collaboration • Tracking vaccination status • Vaccine development
Moderately important	• Mobilizing support • Evidence-based delivery practices • Missed opportunities • Cross-sector collaboration • Policy environment • Tracking vaccination status • Vaccine development	• Mobilizing support • Cross-sector collaboration • Policy environment • Tracking vaccination status	• Mobilizing support • Evidence-based delivery practices • Missed opportunities • Cross-sector collaboration • Policy environment • Tracking vaccination status • Vaccine development	• Mobilizing support • Policy environment
Least important		• Evidence-based delivery practices • Vaccine development		

- Tracking vaccination status was considered very important by high-income countries, and moderately important by middle-income countries and Gavi-eligible countries.
  - Periodically monitor coverage of vaccine for all ages and all groups and provide feedback.
  - Monitor new vaccine introduction, including booster doses.
- Mobilizing support was considered moderately important by all groups.
  - Raise awareness of the benefits of vaccination beyond early childhood, through adolescence and in priority adult groups such as pregnant women, health workers and older adults.
  - Create demand for vaccination services and increase vaccine uptake among all people across the life course.

- Evidence-based delivery practices were considered very important by high-income countries, moderately important by middle-income countries and least important by Gavi-eligible countries.
  - Identify and evaluate new vaccine delivery strategies to increase coverage of recommended vaccines throughout the life course.
  - Ensure vaccination services are integrated to support PHC delivery and UHC.
- Cross-sector collaboration was considered very important by high-income countries, and moderately important by middle-income countries and Gavi-eligible countries.
  - Establish collaboration within the health sector (e.g. maternal and child health, school health, occupational health, noncommunicable diseases) and beyond, including the private sector, to ensure wider access through integration of immunization into context-specific programmes such as for education, nutrition, water, sanitation and hygiene (WASH), care of older people and women's health.
- Policy environment was considered moderately important by all groups.
  - Develop policies and guidelines for vaccination of priority groups such as older persons, health care workers, people with comorbidities and so on.
  - NITAGs should take the lead on development of policies in favour of life-course immunization, including new vaccine introduction and health worker vaccination policies.
- Vaccine development was considered very important by high-income countries, moderately important by middle-income countries and least important by Gavi-eligible countries.
  - Support vaccine development in countries that have the necessary capacity and resources.

2.2.5 SP5: Outbreaks and emergencies

As expected, SP5 was considered very important by Gavi-eligible countries and middle-income countries but was moderately important for high-income countries (see Table 2). Many countries in the Region are experiencing humanitarian emergencies, conflict and natural disasters, as well as repeated outbreaks of VPDs. This can create a vicious cycle of low vaccination coverage and inequity.

SP5 objectives

- Ensure preparation for, detection of and rapid, high-quality response to VPD outbreaks.
- Establish timely and appropriate vaccination response during emergencies, and in communities affected by conflict, disaster, and humanitarian crisis.

SP5 key focus areas

Table 7 summarizes the prioritization of each key focus area for SP5. All three country groups highlighted community engagement as very important. Gavi-eligible and middle-income countries also considered local capacity, coordination and integration, and integrated surveillance as very important, while high-income countries rated these three areas as moderately important.

Table 7. Regional prioritization of key focus areas for SP5

Categories	Region	Gavi-eligible	Middle-income	High-income
Very important	• Coordination and integration • Local capacity • Integrated surveillance • Community engagement	• Coordination and integration • Local capacity • Integrated surveillance • Community engagement	• Coordination and integration • Local capacity • Comprehensive health response • Integrated surveillance • Community engagement	• Tailored approaches and innovation • Community engagement
Moderately important	• Comprehensive health response • Tailored approaches and innovation	• Comprehensive health response • Tailored approaches and innovation	• Tailored approaches and innovation	• Coordination and integration • Local capacity • Comprehensive health response • Integrated surveillance
Least important				

Proposed interventions under SP5 key focus areas

- Community engagement was considered very important by all groups.
  - Prioritize two-way communication and engagement between communities and health workers during outbreaks and health emergencies to effectively limit adverse impacts and promote participation in decision-making.
  - Ensure access to and use of services to address unmet health needs.
- Local capacity was considered very important by Gavi-eligible countries and middle-income countries, and moderately important by high-income countries.
  - Invest in and sustain local capacity and health systems to ensure preparedness for timely detection and response to VPD outbreaks.
  - Identify and address the underlying causes of outbreaks.
  - Ensure that communities affected by outbreaks, other emergencies and humanitarian crises have continual access to a package of essential health services that include immunization.
  - Ensure that immunization recovery is embedded into outbreak and emergency response plans.
- Coordination and integration were considered very important by Gavi-eligible and middle-income countries,

and moderately important by high-income countries.

  - Strengthen coordination of local actors (including the private sector and civil society organizations) in outbreak detection and response during overall humanitarian response and in alignment with the International Health Regulations (2005) and health systems development programming.

- Integrated surveillance was considered very important by Gavi-eligible countries and middle-income countries, and moderately important by high-income countries.

  - Develop and strengthen rapid detection and response through integrated surveillance systems.

  - Responding to outbreaks should be integral. Immunization services should support case management coupled with other preventive approaches such as WASH, nutrition support, vector control and others.

- Comprehensive health response was considered very important by middle-income countries, and moderately important by high-income countries and Gavi-eligible countries.

  - Ensure that global, regional, national and subnational coordination and governance mechanisms effectively support equitable, transparent and timely decision-making on the allocation of financial resources and essential supplies to allow for a comprehensive health response.

- Tailored approaches and innovation were considered very important by high-income countries, and moderately important by middle-income countries and Gavi-eligible countries.

  - Build on past experience of service delivery strategies to provide services that are adapted to the local context.

  - Properly document and share innovations.

2.2.6 SP6: Supply and sustainability

Only middle-income countries identified this as a very important strategic priority (see Table 2). This may be explained by the fact that most of the middle-income countries in the Region are experiencing different types of economic constraint, such as burden of refugees, IDPs, conflict or geopolitical sanctions, but at the same time do not have access to Gavi support or other global health initiatives. High-income countries did not consider this as a challenge and Gavi-eligible countries may feel comparatively secure with sustained external support from Gavi and other donors.

SP6 objectives

- Build and maintain healthy global markets across all vaccine antigens.

- Ensure sufficient financial resources for immunization programmes in all countries.

- Increase immunization expenditure from domestic resources in donor-dependent countries and, when transitioning away from aid, secure government funding to achieve and sustain high coverage of all vaccines.

SP6 key focus areas

Table 8 summarizes the prioritization of each key focus area for SP6. All three country groups considered supply for emergency situations as very important. Gavi-eligible and middle-income countries also highlighted immunization for financing as very important, while high-income countries ranked it as least important.

Proposed interventions under SP6 key focus areas

- Supply for emergency situations was considered very important by all three groups.
  - Build capacity of national teams to promptly prepare requests for vaccines from global stockpiles

Table 8. Regional prioritization of key focus areas for SP6

Categories	Region	Gavi-eligible	Middle-income	High-income
Very important	• Supply for emergency situations • Immunization financing	• Supply for emergency situations • Sufficient, predictable resources • Immunization financing	• Vaccine forecasting, procurement and supply • Supply for emergency situations • Sufficient, predictable resources • Immunization financing	• Supply for emergency situations
Moderately important	• Innovation and affordability • Vaccine forecasting, procurement and supply • Sufficient, predictable resources • Partner alignment	• Vaccine forecasting, procurement and supply • Partner alignment	• Innovation and affordability • Sources of assured quality vaccines • Partner alignment • Sustainable transitions	• Innovation and affordability
Least important	• Sources of assured quality vaccines • Sustainable transitions	• Innovation and affordability • Sources of assured quality vaccines • Sustainable transitions		• Vaccine forecasting, procurement and supply • Sources of assured quality vaccines • Sufficient, predictable resources • Immunization financing • Partner alignment • Sustainable transitions

post-risk assessment, in case of humanitarian emergencies.

  - Establish in-country mechanisms to fast-track national regulatory authorization for vaccines not yet used in-country in case of emergency.

  - Develop all-hazard/multi-hazard response plans (including VPDs) and conduct simulation exercises at regular intervals.

- Immunization financing was considered very important by Gavi-eligible countries and middle-income countries, and least important by high-income countries.

  - Ensure that funding from all sources is sufficient to procure and deliver recommended vaccines.

  - Gradually increase public funding for vaccines and operations for immunization services delivery to reduce donor dependence.

- Sufficient predictable resources were considered very important by Gavi-eligible countries and middle-income countries, and least important by high-income countries.

  - Increase domestic resource mobilization for health, especially in low-income countries and middle-income countries.

  - Use external assistance to invest in public health goods, strengthen prioritization of PHC, reduce financial barriers and leverage domestic financing.

- Vaccine forecasting, procurement and supply was considered very important by middle-income countries, moderately important by Gavi-eligible countries and least important by high-income countries.

  - Encourage the production of prequalified vaccines in the Region to minimize reliance on the global market which might, for different reasons, not prioritize the vaccine supply to the Region.

  - Improve national and regional forecasting and procurement capability to safeguard affordable, sustainable supplies and avoid risk of stockouts.

  - Establish or improve the national logistics information system and leverage available technologies to provide timely reliable logistics data that can be used for accurate forecasting and procurement of vaccines, logistics management and cold chain equipment inventory.

  - Encourage and strengthen pooled procurement mechanisms for vaccines to ensure sustainable access to vaccines at a competitive price.

- Innovation and affordability were considered moderately important by high-income and middle-income countries and least important by Gavi-eligible countries.

  - Ensure that vaccines of public health importance are introduced in a timely manner, regardless of a country's wealth, and at an affordable price.

- Partner alignment was considered moderately important by Gavi-eligible and middle-income countries and least important by high-income countries.

  - Streamline and align partnerships for immunization, PHC or integrated

financing, and ensure effective global and regional collaboration in which the roles, responsibilities and accountability of all partners are clearly defined, transparent and monitored.

- Sustainable transitions were considered moderately important by middle-income countries and least important by high-income countries and Gavi-eligible countries.
  - Conduct in-country dialogue with multiple stakeholders, including ministries of finance and health, on the transition process and domestic funding requirements.
  - Develop transition plans owned and piloted by national governments and with clear milestones.
- Sources of assured quality vaccines were considered moderately important by middle-income countries and least important by high-income and Gavi-eligible countries.
  - Strengthen regulatory capacity in all countries to improve timely access to vaccines of assured quality and to allow diversification of sources to secure competitive pricing of vaccines.
  - Strengthen relations with manufacturers, including support for regional manufacturing, to ensure that vaccine production and supplies are timely and available to meet routine and emergency needs in all countries.
  - Strengthen relations with manufacturers, including support for regional manufacturing, to ensure that vaccine production and supplies are timely available to meet the national routine and emergency needs in all countries.
  - Ensure regulatory approval by the national regulatory authority for all WHO prequalified vaccines to ensure availability of vaccines at a competitive price.
  - Ensure that vaccines and supplies procured by the national immunization programme are WHO-prequalified.

2.2.7 SP7: Research and innovation

Understandably, only high-income countries identified SP7 as a very important priority (see Table 2). The other two country groups considered SP7 as least important.

SP7 objectives

- Establish and strengthen capacity at all levels to identify priorities for innovation, and to create and manage innovation.
- Develop new vaccines and technologies, and improve existing products and services for immunization programmes.
- Evaluate promising innovations and scale up support for the use of innovations, as appropriate, based on the best available evidence.

SP7 key focus areas

Table 9 summarizes the prioritization of each key focus area for SP7.

Table 9. Regional prioritization of key focus areas for SP7

Categories	Region	Gavi-eligible	Middle-income	High-income
Very important				• Needs-based innovation • New and improved products, services and practices • Evidence for Implementation • Local innovation
Moderately important	• Needs-based innovation • New and improved products, services and practices • Evidence for Implementation • Local innovation	• Evidence for Implementation	• New and improved products, services and practices • Evidence for Implementation • Local innovation	
Least important		• Needs-based innovation • New and improved products, services and practices • Local innovation	• Needs-based innovation	

Proposed interventions under SP7 key focus areas

- Evidence for implementation was considered very important by high-income countries, and moderately important by middle-income countries and Gavi-eligible countries.
  - Conduct operational research and use findings to improve programme performance.
  - Strengthen capacity in health technology assessment.
- Needs-based innovation was considered very important by high-income countries, and least important by middle-income countries and Gavi-eligible countries.
  - Establish strong linkages between the national immunization programme and innovators, the health system, civil society organizations and communities to ensure that innovations are responsive to community needs.
- Local innovation was considered very important by high-income countries, moderately important by middle-

income countries and least important by Gavi-eligible countries.

  - Use technology to improve service delivery, data management, logistics, laboratory performance and other aspects of programme management and performance.

- New and improved products, services and practices were considered very important by high-income countries, moderately important by middle-income countries and least important by Gavi-eligible countries.

  - Generate evidence of disease burden among different priority population groups to guide new vaccine development.

  - Support countries in the Region to engage in vaccine trials to generate local data.

3. Proposed accelerators

The regional framework includes a limited number of "accelerators" to drive implementation of the key focus areas. The accelerators do not recap all technical guidance but instead emphasize specific, innovative technical strategies, generally identified through their use in one or more countries and with the potential to be introduced or scaled up in other countries

Proposed accelerators include:

- subnational strengthening of immunization services, leveraging Gavi resources in eligible countries;
- differentiated technical assistance to countries irrespective of income group, based on a maturity grid;
- transitioning polio infrastructure to achieve broader immunization goals and targets; and systematic efforts to support post-COVID-19 recovery efforts.

Application of accelerators will draw on guidance provided in global IA2030 resources[1], as well as regional expertise.

4. Operational elements to drive implementation

To ensure the regional strategy is implemented, progress tracked and corrective actions carried out, with the full participation of all immunization partners, the IA2030 has four operational elements:

- communication and advocacy
- coordinated operational planning
- ownership and accountability
- monitoring and evaluation.

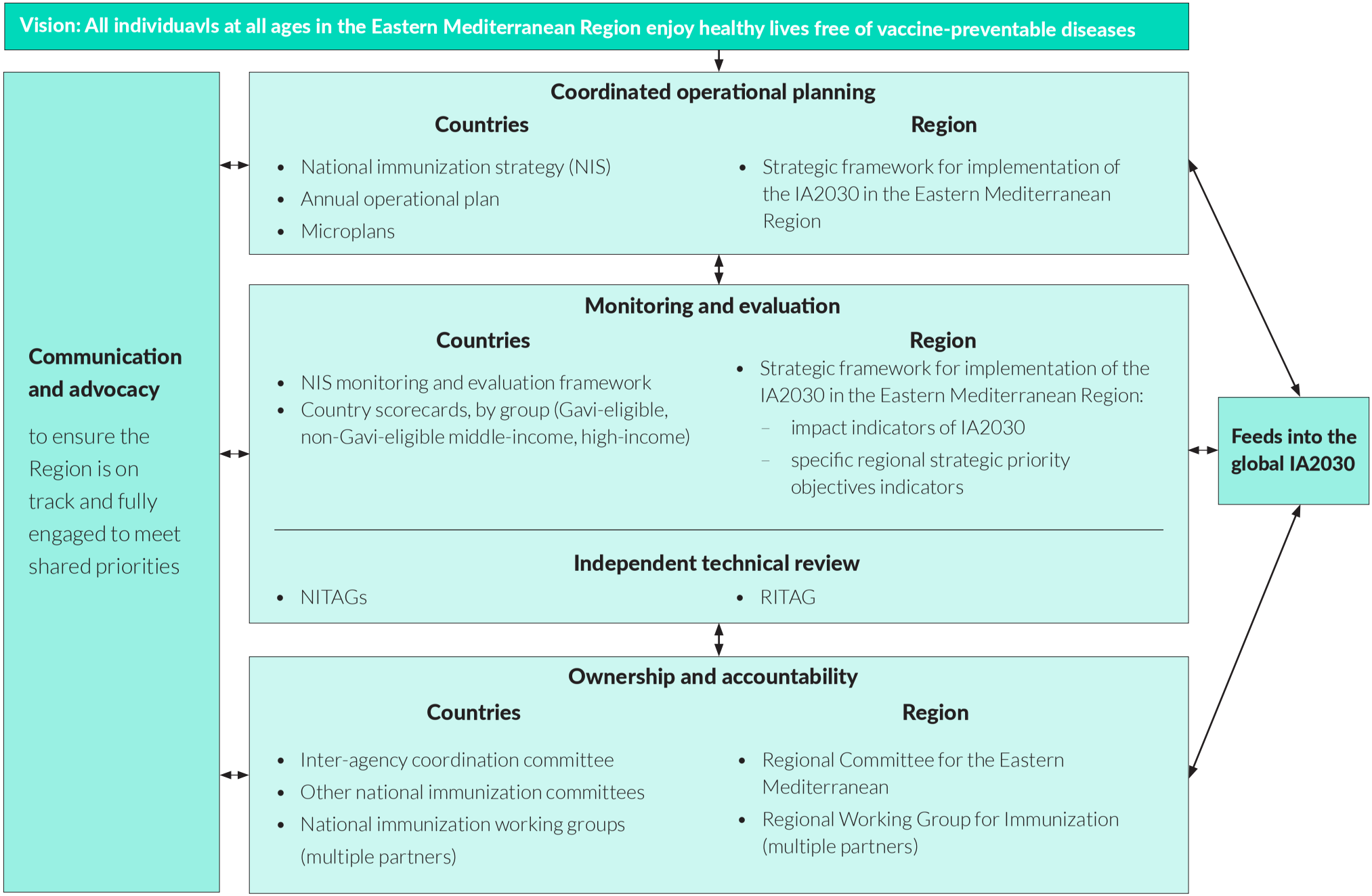
Fig. 1 shows the four operational elements at both the country and regional levels to drive actions and empower governance to advance the implementation of the IA2030.

4.1 Communication and advocacy

Communication and advocacy is as a cross-cutting enabler across all the operational elements and will ensure regional immunization partners remain engaged in the IA2030 vision, goals and objectives. Communication will be proactive and will use existing platforms or opportunities to ensure Member States remain engaged, beginning with the launch of the strategy during the 71st session of the Regional Committee for the Eastern Mediterranean in 2024. The regional and country scorecards, to be shared with Member States annually, will constitute an important communication tool.

[1] Immunization Agenda 2023 Resources [website]. Immunization Agenda 2024 ;2023 (https://www.immunizationagenda2030.org/resources).

Fig. 1. Operational elements to drive implementation of the regional IA2030 strategic framework



4.2 Coordinated operational planning

The strategic framework for implementation of the IA2030 in the Eastern Mediterranean Region constitutes a regional road map to meet the IA2030 vision. It was developed through a collaborative and consultative process involving Member States and regional and global partners. The regional strategic framework will act as a guiding document for collaboration and coordination. Activities will be planned across existing stakeholders at regional, national and subnational levels. Countries can pursue their planning cycle by developing their national immunization strategy, followed by annual operational plans, taking into consideration their specific country context in line with the regional and global IA2030 frameworks. Countries should mobilize the necessary resources to ensure that plans are implemented and monitored, and status will be shared with stakeholders and the WHO Regional Office.

Learnings gathered from annual reports will be used to update the following year's workplans, helping to embed continuous quality improvement cycles. For large countries and those with highly decentralized health systems, equivalent subnational mechanisms can be established to ensure that continuous quality improvement cycles operate at the subnational level. Regional efforts to support countries in implementation of the framework will be a coordinated effort between various global and regional partners. Coherent coordination of support will ensure optimized response and enhance service delivery at the country level.

4.3 Ownership and accountability

Endorsement of the framework by the WHO Regional Committee for the Eastern Mediterranean will ensure the commitment of Member States at the highest level, as well as the buy-in of all immunization partners operating in the Region. Through the Regional Committee (at the regional level) and the inter-agency committees (at the country level), ministers of health can demonstrate their ownership of the regional framework and their accountability for ensuring that the stated goals and objectives are achieved.

At the regional level, the regional working group for COVID-19 vaccination has been reformed to encompass the broader immunization agenda, and acts as a platform for coordination with immunization partners and countries. Additional efforts will be made to build alliances with a wider range of actors, including those involved in disease-specific initiatives, HIV, tuberculosis and malaria control, maternal and child health, noncommunicable diseases and health systems strengthening, as well as other ministries, civil society organizations and private sector partners at all levels. At the country level, national immunization working groups will serve as the technical entity for in-country partner coordination and accountability, and will report to the inter-agency committee. The working groups will accept inputs from other key national bodies including national regulatory authorities, national committees for certification of polio eradication, national committees for validation of measles and rubella elimination, national vaccine safety surveillance committees and civil society organizations.

The RITAG (for the regional level) and NITAGs (for the country level) will both have an important role to play as independent review bodies. Close alignment will also be maintained with related global initiatives, such as the Gavi strategy (Gavi 5.0 and subsequently Gavi 6.0). The WHO Regional Office for the Eastern Mediterranean will take a leadership role in the coordination of these bodies and workplans. In line with the global IA2030 framework for action, this regional framework envisages that stakeholders will commit to agreed responsibilities, with accountability mechanisms established to track commitments. These will be incorporated into the annual workplans of countries and partners.

4.4 Monitoring and evaluation

Progress will be dependent on monitoring, evaluation and action cycles to drive continuous improvement. It is therefore essential that monitoring and evaluation activities are embedded within planning and reporting cycles. To assess the progress in the Region towards achieving the strategic priority objectives of the IA2030, indicators have been contextualized as follows.

- For the Region: to monitor the IA2030 impact goals (Table 10) and 20 specific regional strategic priority objective indicators (Tables 11–17).
- For countries: to monitor 12 to 13 indicators for the three groups of countries (Gavi-eligible countries, non-Gavi-eligible middle-income countries and high-income countries) with respect to their prioritization of the strategic priorities (Tables 18–20). Of these indicators, seven are common to all 22 countries and territories, while five/six are specific to each group of countries.

4.4.1 Country monitoring and evaluation

Countries will develop their monitoring and evaluation framework when developing their national immunization strategic plans. Their indicators will be selected with respect to their specificities, bearing in mind the regional indicators during implementation, monitoring and evaluation of their respective national immunization programme. The WHO Regional Office will use the 12 to 13 indicators for each group of countries to prepare country-specific scorecards (Tables 18–20).

4.4.2 Regional monitoring and evaluation process

The Immunization, Vaccine-Preventable Diseases and Polio Transition unit (IVP) of the Department of Communicable Disease at the WHO Regional Office for the Eastern Mediterranean is responsible for monitoring the strategic framework for implementation of the IA2030 in the Eastern Mediterranean Region. Each year, by September at the latest, a scorecard on progress over the previous year by the Region and for each country will be developed and shared with health ministers during the WHO Regional Committee for the Eastern Mediterranean.

4.4.3 Regional impact indicators and targets

The global IA2030 monitoring and evaluation framework uses impact indicators to track progress towards the three IA2030 impact goals. Table 10 shows the IA2030 impact indicators and the targets for the Eastern Mediterranean Region for 2026 and 2030.

Table 10. Impact indicators and regional targets

Impact goals		Impact indicators		Regional baseline (2019)	2026 regional target	2030 regional target
Prevent disease	Save lives	Number of future deaths averted through immunization		NA	TBD	TBD
	Control, eliminate and eradicate VPDs	Number and % of countries achieving endorsed regional or global VPD control, elimination and eradication targets	Polio	20	22	22
			Measles	3	7	15
			MNT	17	20	22
			Hepatitis B	Nil	Nil	17
	Reduce VPD outbreaks	Number of large or disruptive VPD outbreaks		cVDPV2, diphtheria, measles, meningitis		Declining trend
Promote equity	Leave no one behind	Number of zero-dose children		1.8 million	1.5 million	1 million
	Provide access to all vaccines	Introduction of new or underutilized vaccines		102	130	155
Build strong immunization programmes	Deliver across the life course	Vaccination coverage across the life course (DTP3, MCV2, PCV3, HPV)	DPT3	84%	85%	90%
			MCV2	75%	80%	95%
			PCV3	56%	75%	90%
			HPV	–	35%	55%
	Contribute to PHC/UHC	UHC service coverage index		57	TBD	TBD

MNT: maternal and neonatal tetanus; NA: not applicable; TBD: to be determined.

4.4.4 Regional strategic priority objective indicators

Tables 11–17 present the list of indicators which will be used to monitor regional progress in each strategic priority and strategic priority objective. Countries will be required to report on these indicators as well as on the impact indicators. Details on the definition and calculations for each indicator are presented in Annex 1 (for the Region) and Annex 2 (for countries).

Table 11. Indicators for SP1 (immunization programmes for PHC and UHC)

Strategic priority objectives	Regional indicators	Prioritization of key focus areas
1.1 Reinforce and sustain strong leadership, management and coordination of immunization programmes at all levels	1.1.1 Proportion of countries with a functional NITAG 1.1.2 Proportion of countries with a valid national immunization strategy/comprehensive multi-year plan (cMYP) in line with the principles of the IA2030 with a functional NITAG	**Very important** • Health workforce • VPD surveillance • Health information systems **Moderately important** • Monitoring vaccine safety • Immunization in PHC • Leadership, governance and management • Supply chain and logistics • Disease control initiatives
1.2 Ensure the availability of an adequate, effective, sustainable health workforce	None	
1.3 Build and strengthen comprehensive VPD surveillance as a component of the national public health surveillance system, supported by strong, reliable laboratory networks	1.3.1 Proportion of countries achieving the non-measles and non-rubella case discard rate of ≥ 2 per 100 000 population at national level in a 12-month period 1.3.2 Proportion of countries reporting measles genotype data 1.3.3 Proportion of countries implementing integrated disease surveillance	
1.4 Secure high-quality supply chains for vaccines and related commodities and effective vaccine management, within the PHC supply system	1.4.1 Proportion of countries having electronic vaccine and supply stock management system to monitor vaccine stock at national and subnational levels	
1.5 Strengthen immunization information within a robust health information system, and promote use of high-quality, "fit-for-purpose" data for action at all levels	1.5.1 Proportion of countries sharing subnational immunization coverage data monthly with the WHO Regional Office	
1.6 Establish and maintain a well-functioning vaccine safety system involving all stakeholders	1.6.1 Proportion of countries that report AEFI data in WHO's VigiBase	

Table 12. Indicators for SP2 (commitment and demand)

Strategic priority objectives	Regional indicators	Prioritization of key focus areas
2.1 Build and sustain strong political and financial commitment for immunization at all levels	2.1.1 Proportion of countries with legislation in place that is supportive of immunization as a public good	**Moderately important** • Public knowledge and understanding • Accountability • Public trust and confidence • Commitment • Subnational support • Acceptance and value of vaccination • Addressing reluctance to vaccinate
2.2 Ensure that all people and communities value, actively support and seek out immunization services	2.2.2 Proportion of countries that have implemented behavioural or social strategies (i.e. demand generation strategies) to address under-immunization	

Table 13. Indicators for SP3 (coverage and equity)

Strategic priority objectives	Regional indicators	Prioritization of key focus areas
3.1 Extend immunization services to regularly reach zero-dose and under-immunized children and communities	None	**Very important** • Measles as a tracer • Disadvantaged populations **Moderately important** • Context-specific interventions • Barriers to vaccination • Implementation research • Learning from disease-specific initiatives **Least important** • Gender-responsive strategies
3.2 Ensure that all people and communities value, actively support and seek out immunization services	3.2.1 Proportion of countries with ≥ 90% of districts having an annual DTP3 ≥ 90% 3.2.2 Proportion of countries with 100% of districts having an annual MCV1 and MCV2 coverage ≥ 95% 3.2.3 Proportion of countries with annual national dropout rate MCV1/MCV2 < 5 percentage points 3.2.4 Proportion of countries with annual national dropout rate for DTP1/DTP3 < 5 percentage points	

Table 14. Indicators for SP4 (life course and integration)

Strategic priority objectives	Regional indicators	Prioritization of key focus areas
4.1 Strengthen immunization policies and service delivery throughout the life course, including for appropriate catch-up vaccinations and booster doses	4.1.1 Proportion of countries with at least one DTP-containing vaccine booster dose in the national immunization schedule 4.1.2 Proportion of countries with HPV vaccine in the national immunization schedule	**Moderately important** • Missed opportunities • Tracking vaccination status • Mobilizing support • Evidence-based delivery practices • Cross-sector collaboration • Policy environment • Vaccine development
4.2 Establish integrated delivery points of contact between immunization and other public health interventions for different target age groups	None	

Table 15. Indicators for SP5 (outbreaks and emergencies)

Strategic priority objectives	Regional indicators	Prioritization of key focus areas
5.1 Ensure preparation for, detection of and rapid, high-quality response to VPD outbreaks	5.1.1 Proportion of measles outbreaks with timely detection 5.1.2 Proportion of measles outbreaks with timely vaccination response	**Very Important** • Coordination and integration • Local capacity • Integrated surveillance • Community engagement **Moderately important** • Comprehensive health response • Tailored approaches and innovation
5.2 Establish timely and appropriate immunization services during emergencies and in communities affected by conflict, disaster and humanitarian crisis	None	

Table 16. Indicators for SP6 (supply and sustainability)

Strategic priority objectives	Regional indicators	Prioritization of key focus areas
6.1 Build and maintain healthy global markets across all vaccine antigens	None	**Very important** • Supply for emergency situations • Immunization financing **Moderately important** • Sufficient, predictable resources • Vaccine forecasting, procurement and supply • Innovation and affordability • Partner alignment **Least important** • Sustainable transitions • Sources of assured quality vaccines
6.2 Ensure sufficient financial resources for immunization programmes in all countries	6.2.1 Proportion of countries with stable or increased domestic total expenditure on vaccines per surviving infant	
6.3 Increase immunization expenditure from domestic resources in aid-dependent countries and, when transitioning away from aid, secure government funding to achieve and sustain high coverage for all vaccines	None	

Table 17. Indicators for SP7 (research and renovation)

Strategic priority objectives	Regional indicators	Prioritization of key focus areas
7.1 Establish and strengthen capacity at all levels to identify priorities for innovation and to create and manage innovation	7.1.1 Proportion of countries that have a national agenda for research on immunization	**Moderately important** • Evidence for Implementation • Needs-based innovation • Local innovation • New and improved products, services and practices
7.2 Develop new vaccines and technologies and improve existing products and services for immunization programmes	None	
7.3 Evaluate promising innovations and scale up innovations, as appropriate, on the basis of the best available evidence	None	

Table 18. Country scorecard indicators for Gavi-eligible countries

Priority	Strategic priorities	Strategic priority objectives	Indicators
Common indicators	SP1: Immunization programmes for PHC and UHC	1.1 Reinforce and sustain strong leadership, management and coordination of immunization programmes at all levels	• Existence of a functional NITAG
		1.3 Build and strengthen comprehensive VPD surveillance as a component of national public health surveillance system, supported by strong, reliable laboratory networks	• Existence of an integrated disease surveillance system
	SP2: Commitment and demand	2.1 Build and sustain strong political and financial commitment for immunization at all levels	• Existence of a law or legislation that is supportive of immunization as a public good
	SP3: Coverage and equity	3.1 Extend immunization services to regularly reach zero-dose and under-immunized children and communities	• National DTP1 coverage
		3.2 Advance and sustain high and equitable immunization coverage nationally and in all districts	• Proportion of districts having an annual MCV1 and MCV2 coverage ≥ 95%
	SP4: Life course and integration	4.1 Strengthen immunization policies and service delivery throughout the life course, including for appropriate catch-up vaccinations and booster doses	• Presence of HPV vaccine in the national immunization schedule
	SP5: Outbreaks and emergencies	5.1 Ensure preparation for, detection of, and rapid high-quality response to VPD outbreaks	• Proportion of measles outbreaks with timely detection
Very important	SP1: Immunization programmes for PHC and UHC	1.2 Ensure the availability of an adequate, effective, sustainable health workforce	• Number of trained vaccinators delivering immunization per 10 000 population
		1.3 Build and strengthen comprehensive VPD surveillance as a component of national public health surveillance system, supported by strong, reliable laboratory networks	• Non-measles and non-rubella case discard rate (target ≥ 2 per 100 000 population) at national level
		1.4 Secure high-quality supply chains for vaccines and related commodities and effective vaccine management within the PHC supply system	• Proportion of health facilities that reported no stockout of routine immunization vaccines (MCV, DTP) for the reporting year (12 months)
	SP3: Coverage and equity	3.1 Extend immunization services to regularly reach zero-dose and under-immunized children and communities	• Percentage reduction in zero-dose and under-immunized children
	SP5: Outbreaks and emergencies	5.1 Ensure preparation for, detection of, and rapid high-quality response to VPD outbreaks	• Proportion of measles outbreaks with timely vaccination response
Moderately important	SP2: Commitment and demand	2.2 Ensure that all people and communities value, actively support and seek out immunization services	• Country implemented behavioural and/or social strategies (i.e. demand generation strategies) to address under-vaccination

4.4.5 Gavi-eligible countries: IA2030 scorecard indicators

Countries in this category: Afghanistan, Djibouti, Pakistan, Somalia, Sudan, Syrian Arab Republic and Yemen.

Table 19. Country scorecard indicators for non-Gavi-eligible middle-income countries

Priority	Strategic priorities	Strategic priority objectives	Indicators
Common indicators	SP1: Immunization programmes for PHC and UHC	1.1 Reinforce and sustain strong leadership, management and coordination of immunization programmes at all levels	• Existence of a functional NITAG
		1.3 Build and strengthen comprehensive VPD surveillance as a component of national public health surveillance system, supported by strong, reliable laboratory networks	• Existence of an integrated disease surveillance system
	SP2: Commitment and demand	2.1 Build and sustain strong political and financial commitment for immunization at all levels	• Existence of a law or legislation that is supportive of immunization as a public good
	SP3: Coverage and equity	3.1 Extend immunization services to regularly reach zero-dose and under-immunized children and communities	• National DTP1 coverage
		3.2 Advance and sustain high and equitable immunization coverage nationally and in all districts	• Proportion of districts having an annual MCV1 and MCV2 coverage ≥ 95%
	SP4: Life course and integration	4.1 Strengthen immunization policies and service delivery throughout the life course, including for appropriate catch-up vaccinations and booster doses	• Presence of HPV vaccine in the national immunization schedule
	SP5: Outbreaks and emergencies	5.1 Ensure preparation for, detection of, and rapid high-quality response to VPD outbreaks	• Proportion of measles outbreaks with timely detection
Very important	SP5: Outbreaks and emergencies	5.1 Ensure preparation for, detection of, and rapid high-quality response to VPD outbreaks	• Proportion of measles outbreaks with timely vaccination response
	SP6: Supply and sustainability	6.2 Ensure sufficient financial resources for immunization programmes in all countries	• Country has a stable or increased domestic total expenditure on vaccines per surviving infant
Moderately important	SP1: Immunization programmes for PHC and UHC	1.4 Secure high-quality supply chains for vaccines and related commodities and effective vaccine management within the PHC supply system	• Proportion of health facilities that reported no stockout of routine immunization vaccines (MCV, DTP) for the reporting year (12 months)
	SP2: Commitment and demand	2.2 Ensure that all people and communities value, actively support and seek out immunization services	• Country implemented behavioural and/or social strategies (i.e. demand generation strategies) to address under-immunization
	SP3: Coverage and equity	3.2 Advance and sustain high and equitable immunization coverage nationally and in all districts	• Dropout rates between first dose and third dose of DTP-containing vaccines; and dropout rates between first dose and second dose of MCV

4.4.6 Non-Gavi-eligible middle-income countries: IA2030 scorecard indicators

Countries/territories in this category: Egypt, Iran (Islamic Republic of), Iraq, Jordan, Lebanon, Libya, Morocco, occupied Palestinian territory and Tunisia.

Table 20. Country scorecard indicators for high-income countries

Priority	Strategic priorities	Strategic priority objectives	Indicators
Common indicators	SP1: Immunization programmes for PHC and UHC	1.1 Reinforce and sustain strong leadership, management and coordination of immunization programmes at all levels	• Existence of a functional NITAG
		1.3 Build and strengthen comprehensive VPD surveillance as a component of national public health surveillance system, supported by strong, reliable laboratory networks	• Existence of an integrated disease surveillance system
	SP2: Commitment and demand	2.1 Build and sustain strong political and financial commitment for immunization at all levels	• Existence of a law or legislation that is supportive of immunization as a public good
	SP3: Coverage and equity	3.1 Extend immunization services to regularly reach zero-dose and under-immunized children and communities	• National DTP1 coverage
		3.2 Advance and sustain high and equitable immunization coverage nationally and in all districts	• Proportion of districts having an annual MCV1 and MCV2 coverage ≥ 95%
	SP4: Life-course and integration	4.1 Strengthen immunization policies and service delivery throughout the life course, including for appropriate catch-up vaccinations and booster doses	• Presence of HPV vaccine in the national immunization schedule
	SP5: Outbreaks and emergencies	5.1 Ensure preparation for, detection of, and rapid high-quality response to VPD outbreaks	• Proportion of measles outbreaks with timely detection
Very important	SP4: Life-course and integration	4.2 Establish integrated delivery points of contact between immunization and other public health interventions for different target age groups	• Linkage of home-based records with civil birth/adult registries through immunization services
		4.3 Accelerate new vaccine introductions to protect more people from more diseases in all countries	• Proportion of WHO-recommended life-course vaccines introduced in the national immunization programme
	SP7: Research and innovation	7.1 Establish and strengthen capacity at all levels to identify priorities for innovation, and to create and manage innovation	• Existence of a national agenda for research on immunization
		7.2 Develop new vaccines and technologies, and improve existing products and services for immunization programmes	• Number of research papers in the field of immunization
Moderately important	SP1: Immunization programmes for PHC and UHC	1.4 Ensure high-quality supply chains for vaccines and related commodities and effective vaccine management within the PHC supply system	• Proportion of districts having electronic vaccine and supply stock management system to monitor vaccine stock down to service delivery

4.4.7 High-income countries: IA2030 scorecard indicators

Countries in this category: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates.

Annex 1. Definitions and calculations for regional strategic priority objective indicators

SP1: Immunization programmes for primary health care (PHC) and universal health coverage (UHC)

Indicator 1.1.1 Proportion of countries with a functional national immunization technical advisory group (NITAG)

Definition	A functional NITAG is defined as one that meets all the six process indicators below (agreed upon in 2010, by WHO and partners involved with the strengthening of NITAGs): 1. Existence of a legislative or administrative basis for the advisory group 2. Has a formal written term of reference 3. At least five different areas of expertise represented among core members 4. Holds at least one meeting per year 5. Circulates agenda and background documents at least one week prior to meetings 6. Mandatory disclosure of any conflict of interest
Calculation	• Number of countries that meet the 6 criteria divided by total number of countries in the Region multiplied by 100
Data source (numerator)	• WHO/UNICEF electronic Joint Reporting Form (eJRF)
Data source (denominator)	• 22 (total number of countries in the Region)
Baseline	• 2020: 13 countries (59%)
Targets	• 2026: 22 countries (100%)
	• 2030: 22 countries (100%)

Indicator 1.1.2 Proportion of countries with a valid national immunization strategy/ comprehensive multi-year plan (cMYP) in line with the principles of IA2030

Definition	Countries with a national immunization strategy developed using the *Guidance for developing a national immunization strategy*[1] or a cMYP that covers the year of evaluation
Calculation	• Number of countries which reported "yes" for having a national immunization strategy/cMYP for immunization divided by total number of countries in the Region
Data source (numerator)	• eJRF, country cMYP at the WHO Regional Office
Data source (denominator)	• 22
Baseline	• 2020: 9 countries (41%)
Targets	• 2026: 13 countries (59%)
	• 2030: 16 countries (72%)

[1] Guidance for developing a national immunization strategy. Geneva: World Health Organization; 2021 (https://cdn.who.int/media/docs/default-source/immunization/mi4a/ia2030_nis_guidelines.pdf?sfvrsn=d49fb045_5). Licence: CC BY-NC-SA 3.0 IGO.

Indicator 1.3.1 Proportion of countries achieving the non-measles and non-rubella case discard rate of ≥ 2 per 100 000 population at national level in a 12-month period

Definition	Countries whose number of suspected measles cases that have been investigated and discarded as a non-measles and non-rubella case using (a) laboratory testing in a proficient laboratory or (b) epidemiological linkage to a laboratory confirmed outbreak of another communicable disease as neither measles nor rubella in a 12-month period at the national level ≥ 2 per 100 000 population
Calculation	Number of countries with non-measles and non-rubella discard case rate ≥ 2 per 100 000 population divided by total number of countries in the Region
Data source (numerator)	Measles case-based surveillance database at the WHO Regional Office
Data source (denominator)	22
Baseline	2020: 9 countries (41%)
Targets	2026: 10 countries (45%)
	2030: 15 countries (68%)

Indicator 1.3.2 Proportion of countries reporting measles genotype data

Definition	Yearly submission of genotype (sequencing) data in the Measles Virus Nucleotide Surveillance 2 (MeaNS2) database
Calculation	Number of countries with genotype data extracted from MeaNS2 divided by total number of countries in the Region
Data source (numerator)	MeaNS2 database
Data source (denominator)	22
Baseline	2020: 6 countries (27%)
Targets	2026: 12 countries (55%)
	2030: 22 countries (100%)

Indicator 1.3.3 Proportion of countries implementing integrated disease surveillance

Definition	Presence of a comprehensive public health surveillance and response system for priority diseases, conditions and events at all levels of the health system, with existence of the following: 1. A guideline for integrated disease surveillance and response 2. An annual surveillance report/bulletin for the preceding year showing output and/or outcome from the system 3. An integrated surveillance data platform for data collection, reporting and management from health facility/district to national level
Calculation	Number of countries implementing IDSR divided by total number of countries in the Region
Data source (numerator)	Regional mapping of integrated disease surveillance implementation (IDSR technical committee)

Data source (denominator)	22
Baseline	2020: 0
Targets	2026: 5 countries (23%)
	2030: 11 countries (50%)

Indicator 1.4.1 Proportion of countries having electronic vaccine and supply stock management systems to monitor vaccine stock at national and subnational levels

Definition	Countries reporting the use of electronic stock management systems (irrespective of type) at district, province/governorate, and national levels to monitor vaccine stocks
Calculation	Number of countries using an electronic stock management system to monitor vaccine stock at district, governorate and national levels divided by total number of countries multiplied by 100
Data source (numerator)	eJRF
Data source (denominator)	22
Baseline	2021: 8 countries (36%)
Targets	2026: 12 countries (55%)
	2026: 16 countries (73%))

Indicator 1.5.1 Proportion of countries sharing subnational immunization coverage data monthly with WHO

Definition	Country shares routine immunization data with the Regional Office by district/ province level every month for 12 months
Calculation	Number of countries sharing their monthly subnational routine immunization data for a period of 12 months divided by total number of countries in the Region
Data source (numerator)	IVP/WHO Regional Office routine immunization database
Data source (denominator)	22
Baseline	2020: 7 countries (32%)
Targets	2026: 11 countries (50%)
	2030: 16 countries (73%)

Indicator 1.6.1 Proportion of countries that report AEFI data in VigiBase

Definition	Annual reporting of AEFI data into WHO's global database of reported potential side-effects of medicinal products (VigiBase)
Calculation	Number of countries that report AEFI data in VigiBase each year divided by total number of countries in the Region
Data source (numerator)	VigiBase
Data source (denominator)	22
Baseline	2021: 14 countries (67%)
Targets	2026: 18 countries (82%)
	2030: 22 countries (100%)

SP2: Commitment and demand

Indicator 2.1.1 Proportion of countries with legislation in place that is supportive of immunization as a public good

Definition	Countries with a vaccination law or legislation in which the government commits to finance all aspects of the national immunization programme at all levels, ensuring vaccines of the EPI programme are free of charge and available to everyone and everywhere
Calculation	Number of countries with a vaccination law or other legislation that is supportive of immunization and commits the government to finance all aspects of the immunization programme at all levels divided by total number of countries in the Region *Note: the numerator is the number of countries that reported "yes" to: Do you have a vaccination law or other legislation that is supportive of immunization and commits the government to finance all aspects of the immunization programme at all levels?*
Data source (numerator)	eJRF
Data source (denominator)	22
Baseline	2021: 13 countries (59%)
Targets	2026: 18 countries (82%)
	2030: 22 countries (100%)

Indicator 2.2.1 Proportion of countries that have implemented behavioural or social strategies (i.e. demand generation strategies) to address under-immunization

Definition	Countries that have implemented at least two activities to address under-immunization in any of the following areas: • Community engagement • Digital or social listening • Behaviourally informed interventions • Public communications • Service quality intervention
Calculation	Proportion of countries with at least one activity in any of the areas (≥ 1 yes) in the reporting year divided by total number of countries in the Region
Data source (numerator)	eJRF
Data source (denominator)	22
Baseline	2020: 6 countries (27%)
Targets	• 2026: 18 countries (82%)
	• 2030: 22 countries (100%)

SP3: Coverage and equity

Indicator 3.2.1 Proportion of countries with ≥ 90% of districts having annual DTP3 coverage ≥ 90%

Definition	Countries with ≥ 90% of their districts having an annualized coverage of DTP3 ≥ 90%
Calculation	Number of countries with ≥ 90% of districts having an annualized coverage of DTP3 ≥ 90% divided by total number of countries in the Region *Note: country calculation (using data reported to the eJRF): numerator divided by denominator multiplied by 100* *Numerator: summing the count of districts which reported coverage of ≥ 90% (summing 90–94%, and ≥ 95% ranges)* *Denominator: summing the count of districts across all coverage ranges (including districts which did not report)*
Data source (numerator)	eJRF
Data source (denominator)	22
Baseline	2020: 6 countries (27%)
Targets	2026: 17 countries (77%)
	2026: 22 countries (100%)

Indicator 3.2.2 Proportion of countries with 100% of districts having an annual MCV1 and MCV2 coverage ≥ 95%

Definition	Countries with 100% of their districts having an annual MCV1 and MCV2 coverage ≥ 95%
Calculation	Number of countries with 100% of their districts having an annual MCV1 and MCV2 coverage ≥ 95% divided by total number of countries in the Region
Data source (numerator)	eJRF
Data source (denominator)	22
Baseline	2020: 4 countries (18%)
Targets	2026: 8 countries (36%)
	2030: 12 countries (55%)

Indicator 3.2.3 Proportion of countries with annual national dropout rate of MCV1/ MCV2 < 5 percentage points

Definition	Children of a given cohort who received MCV1 but missed MCV2 over a period of 12 months [(MCV1 minus MCV2) divided by MCV1]
Calculation	Number of countries with annualized national measles dropout rate < 5% divided by total number of countries in the Region
Data source (numerator)	WHO/UNICEF estimates of national immunization coverage (WEUNIC)
Data source (denominator)	22
Baseline	2020: 14 countries (64%)
Targets	2026: 18 countries (82%)
	2030: 22 countries (100%)

Indicator 3.2.4 Proportion of countries with annual national dropout rate of DTP1/ DTP3 < 5 percentage points

Definition	Number of countries with annualized national DTP dropout rate < 5% / total number of countries in the Region
Calculation	Children of a given cohort who received DTP1 but missed DTP3 over a period of 12 months [(DTP1 minus DPT3) divided by DTP1]
Data source (numerator)	WEUNIC
Data source (denominator)	22
Baseline	2020: 11 countries (50%)
Targets	2025: 16 countries (73%)
	2026: 22 countries (100%)

SP4: Life course and integration

Indicator 4.1.1 Proportion of countries with at least one DTP booster dose in the national immunization schedule

Definition	Proportion of countries that have at least one DTP booster (fourth dose) in their national immunization schedules administered at national or subnational level
Calculation	Number of countries with at least one DTP booster (fourth dose) in their national immunization schedule divided by total number of countries in the Region
Data source (numerator)	eJRF
Data Source (denominator)	22
Baseline	2021: 16 countries (73%)
Targets	2026: 22 countries (100%)
	2030: 22 countries (100%)

Indicator 4.1.2 Proportion of countries with HPV vaccine in the national immunization schedule

Definition	Proportion of countries that have HPV vaccine in their national immunization schedules administered at national or subnational level
Calculation	Number of countries with HPV vaccine in their national immunization schedule divided by total number of countries in the Region
Data source (numerator)	eJRF
Data source (denominator)	22
Baseline	2020: 2 countries (9%)
Targets	2026: 8 countries (36%)
	2026: 12 countries (55%)

SP5: Outbreaks and emergencies

Indicator 5.1.1 Proportion of measles outbreaks with timely detection

Definition	Percentage of measles outbreaks detected within 24–72 hours of date of onset of disease of index case and date of notification/reporting of index case
Calculation	Collective total number of known measles outbreaks with timely outbreak detection (within 24–72 hours from date of onset to date of notification of the first case) divided by collective total number of known measles outbreaks in the country
Data source (numerator)	Country outbreak investigation and/or final outbreak reports
Data source (denominator)	Country outbreak investigation and/or final outbreak reports
Baseline	2020: 0 countries (0%)
Targets	2026: 40%
	2030: 80%

Indicator 5.1.2 Proportion of measles outbreaks with timely vaccination response

Definition	Percentage of measle outbreaks for which there is an outbreak response vaccination campaign within 35 days from the date of confirmation of the outbreak to the first day of the response
Calculation	Collective total number of known measles outbreaks with timely outbreak response vaccination campaigns divided by collective total number of known measles outbreaks with outbreak response vaccination campaigns
Data source (numerator)	Country outbreak investigation and/or final outbreak reports
Data source (denominator)	Country outbreak investigation and/or final outbreak reports
Baseline	2020: 0 countries (0%)
Targets	2026: 40%
	2030: 80%

SP6: Supply and sustainability

Indicator 6.2.1 Proportion of countries with stable or increased domestic total expenditure on vaccines per surviving infant

Definition	Proportion of countries that spend an equal or larger amount of domestic funds on the procurement of routine immunization vaccines per surviving infant, compared to the previous year
Calculation	Number of countries with total domestic expenditure on procurement of routine immunization vaccines per surviving infant is greater or equal to the previous year divided by total number of countries in the Region
Data source (numerator)	eJRF
Data source (denominator)	22
Baseline	2019–2020 (2020 compared to 20219): 1 country (5%) *Note: 2 countries reported in 2020 and 2019*
Targets	2025–2026: 14 countries (64%)
	2029–2030: 18 countries (82%)

SP7: Research and innovation

Indicator 7.1.1 Proportion of countries that have a national agenda for research on immunization

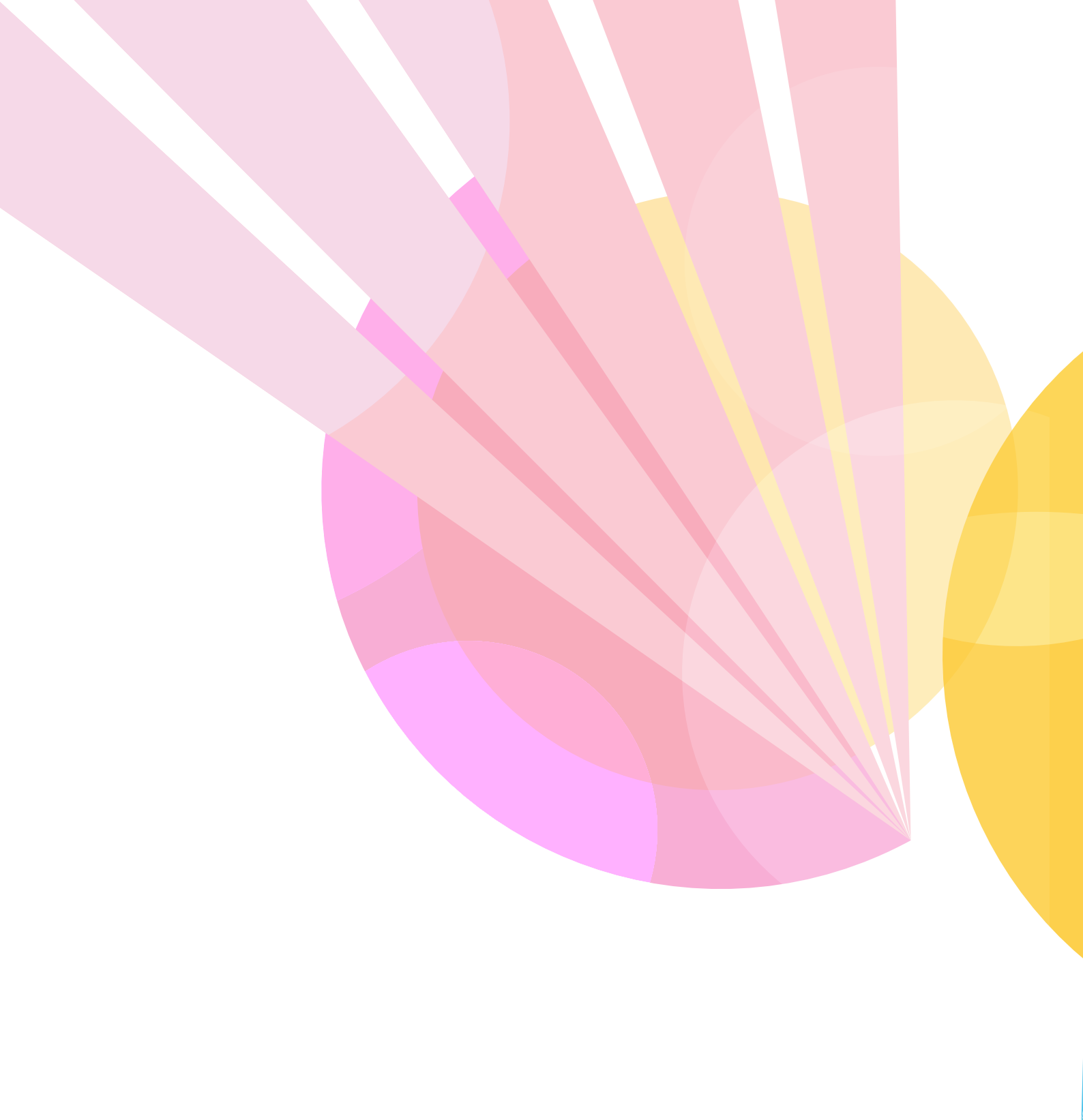
Definition	Countries with a national agenda for research on immunization
Calculation	Proportion of countries with a national agenda for research on immunization divided by total number of countries in the Region
Data source (numerator)	eJRF
Data source (denominator)	22
Baseline	2021: 2 countries (9%)
Targets	2026: 8 countries (36%)
	2030: 15 countries (68%)

Annex 2. Definitions and calculations for country scorecard indicators

Strategic priorities	Indicators	Definition/calculation	Potential country data sources
Common indicators			
SP1: Immunization programmes for PHC and UHC	Existence of a functional National Immunization Technical Advisory Group (NITAG)	A functional NITAG is defined as one that meets all the six process indicators below (agreed upon in 2010 by WHO and partners involved with the strengthening of NITAGs): 1. Existence of a legislative or administrative basis for the advisory group 2. Has a formal written term of reference 3. At least five different areas of expertise represented among core members 4. Holds at least one meeting per year 5. Circulates agenda and background documents at least one week prior to meetings 6. Mandatory disclosure of any conflict of interest	NMAT, NITAG meeting reports
	Existence of an integrated disease surveillance system	Presence of a comprehensive public health surveillance and response system for priority diseases, conditions and events at all levels of the health system, with existence of the following elements: 1. A guideline for integrated disease surveillance and response 2. An annual surveillance report/bulletin for the preceding year showing output and/or outcome from the system 3. An integrated surveillance data platform for data collection, reporting and management from health facility/district to national level	Directorate of disease surveillance or equivalent
SP2: Commitment and demand	Existence of a law or legislation that is supportive of immunization as a public good	Existence of a vaccination law or legislation in which the government commits to finance all aspects of the national immunization programme at all levels, ensuring EPI vaccines are free of charge and available to everyone and everywhere	EPI programme
SP3: Coverage and equity	National DTP1 coverage	Number of children for a given year/cohort who received DTP1 divided by the total number of surviving infants for the year/cohort multiplied by 100	EPI database
	Proportion of districts having annual MCV1 and MCV2 coverage ≥ 95%	Number of districts with MCV1 and MCV2 coverage ≥ 95% divided by total number of districts multiplied by 100	EPI database
SP4: Life course and integration	Presence of HPV vaccine in the national immunization schedule	Existence of HPV vaccine in the national immunization schedule and administered free nationwide	National EPI schedule
SP5: Outbreaks and emergencies	Proportion of measles outbreaks with timely detection	Total number of known measles outbreaks with timely outbreak detection (within 24–72 hours from date of onset of index case to date of notification of index case) divided by total number of known measles outbreaks in the country	Measles outbreak investigation/response report

Strategic priorities	Indicators	Definition/calculation	Potential country data sources
Specific indicators for different groups of countries based on income and Gavi eligibility			
SP1: Immunization programmes for PHC and UHC	Proportion of health facilities that reported no stockout of routine immunization vaccines (MCV, DTP) for the reporting year (12 months)	Number of health facilities that reported no stockout of routine immunization vaccines (MCV, DTPcv) for the reporting year (12 months) divided by total number of health facilities offering vaccination services multiplied by 100	EPI programme
	Number of trained vaccinators delivering immunization per 10 000 population	Number of health personnel delivering routine immunization (does not include supplementary immunization activities) per 10 000 population	EPI programme
	Non-measles/ non- rubella discard rate (target ≥ 2 per 100 000 population) at national level	Number of suspected measles cases that have been investigated and discarded as a non-measles and non-rubella case using (a) laboratory testing in a proficient laboratory or (b) epidemiological linkage to a laboratory confirmed outbreak of another communicable disease as neither measles nor rubella in a 12-month period at the national level ≥ 2 per 100 000 population	Measles case-based surveillance database
	Proportion of districts having electronic vaccine and supply stock management system to monitor vaccine stock down to service delivery	Existence and use of an electronic system (irrespective of type) at district and health facility levels to monitor vaccine stock management and supply	EPI programme
SP2: Commitment and demand	Country implemented behavioural and/or social strategies (i.e. demand generation strategies) to address under-immunization	Implemented at least two activities to address under-immunization and zero-dose children in any of the following areas: • Community engagement • Digital or social listening • Behaviourally informed interventions • Public communications • Service quality interventions	EPI programme

Strategic priorities	Indicators	Definition/calculation	Potential country data sources
Specific indicators for different groups of countries based on income and Gavi eligibility			
SP3: Coverage and equity	Dropout rates between first dose and third dose of DTP-containing vaccines; and dropout rates between first dose and second dose of MCV	Children of a given cohort who received MCV1 but missed MCV2 over a period of 12 months [(MCV1 minus MCV2) divided by MCV1] Children of a given cohort who received DTPcv1 but missed DTPcv3 over a period of 12 months [(DTPcv1 minus DTPcv3) divided by DTPcv1]	Routine immunization database
	Percentage reduction (change) in zero-dose and under-immunized children	[(Number of zero-dose children in year n-1) minus (number of zero-dose children in year n) divided by number of zero-dose children in year n-1] multiplied by 100 [(Number of under-immunized children in year n-1) minus (number of under-immunized children in year n) divided by number of under-immunized children in year n-1] multiplied by 100 *Note: n = reporting year*	Routine immunization database
SP4: Life course and integration	Linkage of home-based records with civil birth/ adult registration through immunization services	Existence of a system to triangulate data between EPI programme and civil birth/adult registries for action	EPI and other programmes, as applicable
	Proportion of WHO-recommended life-course vaccines introduced in the national immunization programme	[Number of WHO-recommended life-course vaccines introduced in the national immunization programme divided by number of WHO-recommended life-course vaccines as at reporting year] multiplied by 100	National EPI schedule (numerator) and WHO immunization recommendation on routine immunization (denominator)
SP5: Outbreaks and emergencies	Proportion of measles outbreaks with timely vaccination response	Total number of known measles outbreaks with timely outbreak response vaccination campaigns (measle outbreaks for which there is an outbreak response vaccination campaign within 35 days from the date of confirmation of the outbreak to the first day of the response) divided by total number of known measles outbreaks with outbreak response vaccination campaigns	Measles outbreak investigation/response report
SP6: Supply and sustainability	Country has a stable or increased domestic total expenditure on vaccines per surviving infant	Total domestic expenditure for the purchase of vaccines for a year divided by the number of surviving infants for same year is equal or greater than the previous year	EPI, Ministry of Finance, other programmes, departments or ministries, as applicable
SP7: Research and innovation	Existence of a national agenda for research on immunization	Country declares the existence of a national agenda for research on immunization	EPI programme
	Number of research papers in the field of immunization	Number of research papers in the field of immunization published in a peer-reviewed journal	EPI programme



World Health Organization
Eastern Mediterranean Region

Gavi
The Vaccine Alliance

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