

IMPLEMENTING THE IMMUNIZATION AGENDA 2030:

Draft Framework for Action through Coordinated Planning, Monitoring & Evaluation, and Ownership & Accountability

A Briefing Paper for discussion with the WHO Member States on 2 December 2020

25 November 2020

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1. Introduction

1.1. In August 2020, the Seventy-Third World Health Assembly endorsed **the Immunization Agenda 2030: A Global Strategy to Leave No One Behind (IA2030)** in resolution WHA73/(9). IA2030 defines what needs to happen to achieve the IA2030 vision of a world where everyone, everywhere, at every age fully benefits from vaccines for good health and well-being.

1.2. IA2030 states that it will become operational through regional and national strategies (operational planning), a mechanism to ensure ownership and accountability (O&A), and a monitoring and evaluation (M&E) framework to guide country implementation.

Purpose

1.3. The purpose of this document is to describe how each of these three critical elements will be integrated to enable a successful translation of the strategy into its implementation phase to achieve the IA2030 vision.

1.4. The document first summarizes a set of overarching considerations, and then addresses the following aspects:

- How each of the three critical elements work together as a **“Framework for Action”** (Section 2);
- How these are further **translated into implementation** at country, regional and global levels (Section 3);
- Additional considerations given the current context of **COVID-19** (Section 4); and
- How a **Learning Agenda** (Section 5) will help inform the path ahead.

1.5. An Annex provides a more detailed description of the M&E component.

1.6. This document has been prepared to facilitate the IA2030 presentation and discussion with the **WHO Member States** ahead of the Executive Board session to take place in the first quarter of 2021 and subsequently at the World Health Assembly in May 2021.

1.7. After incorporating feedback from Member States, the document will be available on the IA2030 website by April 2021. It is intended to be a **living document** that is available as guidance at all levels to operationalize IA2030, and will be updated based on new priorities, challenges and needs during the next decade. For example, IA2030 indicators will require critical review and adaptation in light of the evolving COVID-19 pandemic and its effect on immunization programmes.

IA2030 Co-development

1.8. During 2019, the IA2030 Strategy and Vision core document was co-developed with Member States and partners throughout the international community. This co-development approach has

been carried forward into 2020 and underpins development of the operational elements described in this paper.

1.9. Implementation planning also draws on the lessons learned from the implementation of the Global Vaccine Action Plan (GVAP) so that elements that worked well are retained; others seen as less effective have been rethought.

1.10. Each of the three operational elements has been shaped by broad stakeholder inputs:

- The **Ownership & Accountability** design and **operational planning** guidance have been led by the core team of IA2030 partners¹ and included extensive consultations in July and August 2020 with a diverse range of stakeholders, including senior government officials, national immunization programme managers, and representatives from National Immunization Technical Advisory Groups (NITAGs), academia, non-health sectors, civil society organizations (CSOs) and development partners from 26 low-, middle- and high-income countries.
- The **Monitoring & Evaluation** approach was developed by a taskforce with representatives from countries and regions, in collaboration with core IA2030 partners, the seven IA2030 strategic priority content working groups, and in consultation with a “sounding board” that included additional representatives from countries, WHO Regional Offices, the WHO Strategic Advisory Group of Experts (SAGE), academia and CSOs.

1.11. Draft design options for O&A and M&E were reviewed at the October 2020 meeting of SAGE. This document incorporates revisions recommended by SAGE as well as additional input from development partners.

1.12. In addition, options for **Communications and Advocacy (C&A)**, including an IA2030 launch in 2021 and continuous engagement throughout the decade, are being developed with input from development partners, Member States and CSOs.

Guiding principles

1.13. The development of the Framework for Action draws on the following principles:

- **Invite broad ownership to achieve the IA2030 vision** by all immunization and non-immunization stakeholders, including both health system strengthening and disease-specific initiatives. Country ownership is key to achieving the IA2030 vision because the most important actions will be the responsibility of individual countries.
- **Leverage and strengthen existing mechanisms** at country, regional and global levels that provide coordinated ownership and accountability, operational planning, M&E, and communications and advocacy.

¹ IA2030 Core Team has been co-led by WHO and UNICEF, with representation from the Wellcome Trust, Bill and Melinda Gates Foundation, Gavi, US Centers for Disease Control and Prevention, and civil society.

- **Promote continuous quality improvement cycles** for immunization programmes using reliable, timely, high-quality and fit-for-purpose data to focus actions where immunization programme improvement decisions are made and resources are allocated.
- **Build and strengthen** stakeholder accountability and technical alignment to address country needs for IA2030 strategic priorities.
- **Align and harmonize** with existing regional and national plans and global strategies, including the Sustainable Development Goals (SDGs), Universal Health Coverage (UHC) and Gavi 5.0.

2. IA2030 Framework for Action

2.1. Three key operational elements will be integrated to **empower and drive actions** to advance the implementation of IA2030 (Figure 1).

Figure 1: IA2030 Framework for Action with three operational elements to drive implementation



2.2. Each of these elements is seen as critical for continuous quality improvement of immunization programmes to achieve the IA2030 vision:

1. **Coordinated Operational Planning** with prioritized actions for implementation by countries, regions and partners and supported by guidance provided in technical annexes for each of the seven IA2030 strategic priorities.
2. **Monitoring & Evaluation (M&E)** with action-based indicators to monitor and evaluate progress toward IA2030 goals and strategic priority objectives, and to inform corrective actions when needed.
3. **Ownership & Accountability (O&A)** with structures and platforms to ensure commitments by stakeholders are captured, technical dialogue is facilitated and aligned, and progress is tracked.

2.3. **Communication and Advocacy (C&A)** is an important cross-cutting enabler for these operational elements, by helping to create the messaging to stimulate and reinforce the required actions by stakeholders.

Coordinated Operational Planning

2.4. Operational planning by Member States, development partners and civil society will translate the vision of IA2030 into concrete actions over the coming decade. Member States will build upon national context and expertise to incorporate tailored aspects of IA2030 into their national strategies and plans as they are updated.

2.5. The operational planning of IA2030 is fully coordinated within existing mechanisms used by Member States as they set national priorities and develop implementation plans to deliver on health-related SDG targets. While these processes will vary across countries and regions, they aim to follow similar key steps to ensure that immunization needs are fully understood, gaps are covered, realistic and meaningful targets are set, and resources are committed.

2.6. These key planning steps include assembling relevant stakeholders from within and beyond immunization and health, reviewing evidence and lessons learned, understanding root causes and improvement needs, referring to best practice, applying up-to-date technical guidance as provided in the IA2030 technical annexes, and shaping the programme according to national priorities. To support country planning, WHO is releasing updated guidance on developing National Immunization Strategies. It will also be essential that CSOs and development partners (where they are present) align their contributions to achieving these goals and targets.

2.7. IA2030 operational planning will also reinforce integration across disease control initiatives, such as those for polio and measles and rubella. As it defines its new endgame strategy, the Global Polio Eradication Initiative (GPEI) should articulate its commitments to IA2030 and demonstrate how the integration of polio eradication and essential immunization activities will contribute to IA2030 strategic priorities. The Measles & Rubella Initiative has released its ten-year Measles and Rubella Strategic Framework, which explicitly identifies contributions to each IA2030 strategic priority, facilitating integration into national and regional planning processes. Regional planning processes should reflect commitments to disease control, elimination and eradication targets endorsed by regional and global bodies.

Monitoring & Evaluation

2.8. The IA2030 **Monitoring & Evaluation (M&E) Framework** has action-based indicators intended to empower implementation of monitoring, evaluation, and action (ME&A) cycles, including effective feedback loops at country, regional and global levels.

2.9. These ME&A cycles encourage immunization programme stakeholders to continuously ask the questions:

- *How are we doing?* (**Monitor**)
- *How can we do it better?* (**Evaluate**)
- *Who is responsible for doing what to make improvements?* (**Act**)

2.10. The M&E Framework includes **tailored indicators** to ensure the use of data for action to continuously improve immunization programmes at all levels and it provides indicators to monitor progress to achieve the three IA2030 impact goals and the 21 objectives within its seven strategic priority areas (Figure 2).

Figure 2. IA2030 Monitoring & Evaluation Framework Overview



Impact Goal Indicators

2.11. There are six proposed impact goal indicators (Table 1) that are outcome and impact measures common across all levels (global, regional, and country) and designed to track progress toward achieving the three IA2030 impact goals. Progress in impact goal indicators will be evaluated against pre-determined global targets and will be defined by WHA in 2021. A detailed description of each impact goal indicator, including target-setting methods and key uses of the indicator for monitoring, evaluation and action, is provided in Annex 1.

Table 1. Proposed IA2030 Impact Goal Indicators and Targets

Impact Goals	Proposed Indicators		Proposed Targets
1	Save lives	1.1 Number of deaths from vaccine-preventable diseases averted	TBD (based on coverage targets & ongoing modelling)
	Control, eliminate & eradicate VPDs	1.2 Number of countries that have achieved global or regional VPD control, elimination and eradication targets	TBD (based on updated regional & global commitments)
	Reduce VPD outbreaks	1.3 Number of large outbreaks of vaccine-preventable diseases	Annual improvement
2	Leave no child behind	2.1 Number of zero dose children	Reduce by 50%
	Deliver across the life course	2.2 Coverage of vaccines included in national immunization schedules (DTP3, MCV2, HPVc, PCV3)	Global target: 90% Country target: limit drop-out from DTP1 to <5%; introduce vaccines not included in national schedule
3	Strengthen PHC/UHC coverage	3.1 Difference between DTP3 coverage and Universal Health Coverage Service Coverage index	TBD (based on analysis of historical trends for UHC index of service coverage)

Strategic Priority Objective Indicators

2.12. Strategic priority objective indicators are designed to track performance towards achieving the IA2030 21 SP Objectives and to help identify potential root causes of success and failure so that actions to improve programme performance can be recommended and implemented. These indicators are input, process, output and outcome measures reflecting the need for performance monitoring at global, regional and country levels. Targets are not provided for strategic priority objective indicators, due to wide country and regional variations. Regions and countries are encouraged to assess the baseline for each indicator and to consider setting targets for these indicators that reflect local context.

- **Global strategic priority objective indicators** are intended to assess progress, and to recommend actions for performance improvement at the global level, and to highlight critical performance gaps that need to be addressed at regional and country levels (Table 2). A detailed description of each indicator is provided in **Annex 1**.
- **Regional strategic priority objective indicators**² are intended for use by regional bodies to assess progress, recommend actions for performance improvement and to inform tailored technical support to countries.² To supplement global indicators, WHO and UNICEF Regional Offices are encouraged to select additional strategic priority objective indicators that are tailored to regional needs and context.
- **Country strategic priority objective indicators**² are intended to be used by country bodies to assess progress, recommend actions for immunization performance improvement, and to inform prioritization and allocation of resources and policy development at facility, sub-national and national levels. To supplement global and regional indicators, WHO and UNICEF Country and Regional Offices are encouraged to support Member States to select additional strategic priority objective indicators for country M&E of National Health or Immunization Plans and Strategies that are tailored to local needs and context.

² Guidance for selection of regional and country strategic priority objective indicators is provided in Annex 1.

Table 2 Proposed IA2030 Global Strategic Priority Objective Indicators

SP 1: Immunization Programmes for PHC/UHC	SP 2: Commitment & Demand	SP 4: Life course & Integration	SP 6: Supply & Sustainability
<p>1.1 Number of countries with a mechanism for monitoring, evaluation and action at national and sub-nation levels</p> <p>1.2 Number of nursing and midwifery personnel per 10,000 population (by country)</p> <p>1.3 Proportion of countries with on-time reporting from districts with suspected cases of all priority vaccine-preventable diseases included in nationwide surveillance (including reporting of zero cases)*</p> <p>1.4 Percentage of health facilities that have full availability of DTP-containing vaccines (by country)*</p> <p>1.5 Percentage of population with access to personal immunization records (by country)*</p> <p>1.6 Proportion of countries with at least 1 documented individual serious AEFI case safety report per million total population</p>	<p>2.1 Proportion of countries with legislation in place that is supportive of immunization, and that commits the government to finance immunization programme functions at all level</p> <p>2.2 Percentage of countries that have implemented behavioural or social strategies to address under-vaccination</p>	<p>4.1 Breadth of protection (average coverage for all vaccine antigens recommended by WHO)</p>	<p>6.1 Level of health of the vaccine market, disaggregated by vaccines antigen and country typology</p> <p>6.2 Domestic government's and donors' expenditure on primary health care per capita (by country)</p> <p>6.3 Percentage of total expenditure on vaccines in the national immunization schedule financed with domestic government funds</p>
	SP 3: Coverage & Equity	SP 5: Outbreaks & Emergencies	SP 7: Research & Innovation
	<p>3.2 DTP3, MCV1, and MCV2 coverage in the 20% of districts with the lowest coverage</p>	<p>5.1 % of polio, measles, meningococcal disease, yellow fever, cholera, and Ebola outbreaks* with timely detection and response (*outbreaks with an outbreak response vaccination campaign)</p>	<p>7.1 Countries with an immunization research agenda</p> <p>7.2 Short list of global research and development targets</p>

*Selection of indicator as a global level indicator is under discussion

2.13. Monitoring of strategic priority objective indicators will signal areas for further in-depth evaluation (e.g. root cause analysis) and facilitate evaluation of immunization programme performance that leads to recommendations for quality improvement. Evaluation of strategic priority objective indicators will focus on monitoring trends through data dashboards. Mechanisms for analysis and interpretation of indicator data (e.g. use of data visualization and scorecards to track progress) will be developed, and platforms for regular evaluation (e.g. SAGE meetings, RITAG meetings, NITAG meetings) will need to be identified. IA2030 technical annexes (under publication at IA2030 website and in Vaccine Supplement) provide guidance for actions needed when M&E identifies areas for improvement.

2.14. Some strategic priority objective indicators identified as “critical but not yet available” are included in the learning agenda and could be included in M&E Framework updates and to inform capacity building at the country level. In addition, indicators will be reviewed and updated during the decade to make sure they continue to be useful for informing action in a changing environment.

Ownership & Accountability

2.15. The vision laid out in the ten-year IA2030 strategy is dependent on numerous and varied stakeholders, each taking on agreed responsibilities to achieve the stated goals (**ownership**). To ensure these contributions are understood, executed and monitored, a process for checking the responsibilities across stakeholders (**accountability**) will ensure partners remain on track.

2.16. As such, the O&A model for IA2030 makes visible the commitments made by different stakeholders and ensures accountability by regular monitoring. Supported by the IA2030 M&E Framework, partners at all levels will have the data to review progress and performance against milestones so that they can take remedial actions when required.

2.17. As highlighted by the UN’s Independent Accountability Panel’s 2020 Report³, an effective accountability framework relies on four interconnected pillars, prompting the following questions:

- **Commit:** Have we committed to specific goals, defined responsibilities and required resources?
- **Justify:** Have our decisions and actions to strengthen the achievement of goals and rights been justified by evidence, rights and rule of law?
- **Implement:** Will we monitor and review data, including through independent review, enact remedies, and take necessary action?
- **Progress:** Will we continuously make effective, efficient and equitable progress toward agreed rights and goals?

2.18. This “good practice” framework guides the design of an O&A approach, integrating the necessary tools, structures and information systems. The information flow and use of structures and tools is presented below in Figure 3.

2.19. In creating the approach to O&A, Member States and development partners have called for more systematic and coordinated use of existing structures across country, regional and global levels. In addition, the shared contributions of development partners (including the private sector) and CSOs should be tailored to specific country and regional contexts, with increased visibility and consolidation of vaccine-preventable disease-specific initiatives.

Figure 3. IA2030 Information flow, supported by three operational elements



A Partnership Council for IA2030

2.20. The **Partnership Council**, with membership from a diverse and representative group of stakeholders from across the immunization community, is designed as a new accountability mechanism (or governance structure) put in place to jump start the IA2030 decade with three key objectives:

³ UN Secretary-General’s Independent Accountability Panel (IAP) for Every Woman Every Child. 2020 Report. Geneva: World Health Organization; 2020

- To develop, coordinate and advocate for additional technical support in IA2030 strategic priority areas;
- To mobilize global partner action to achieve IA2030 targets through global-level agenda setting – to focus on and prioritize identified gaps; and
- To monitor global partner support against commitments.

2.21. The IA2030 Partnership Council addresses the current lack of an ‘umbrella’ forum for all countries regardless of income levels and covering all vaccine-preventable diseases. The design of the Partnership Council will retain many aspects established during collaborative development of the IA2030 vision and strategy.

2.22. Partners involved in development of IA2030 also recognize the complex and ever-evolving global health landscape, with its myriad of initiatives and numerous partner mechanisms. For that reason, the Partnership Council will have a limited term of 3 years, followed by a full review to assess its efficacy and determine its future.

2.23. The following principles are regarded as critical to the functioning of the Partnership Council:

- **Offer stakeholders something different** – to avoid duplication, the Partnership Council should maintain a focus on immunization, while also ensuring close engagement with broader health agendas, such as UHC or maternal, neonatal and child health.
- **Give voice to all countries, regions and communities** – ensure that all stakeholder groups can engage meaningfully as representative members in the council.
- **Leverage country and regional structures** – as fora for reviewing development partner, CSO and Member State progress against pledges and targets, as captured in scorecards
- **Focus on priorities** – ensure that dialogue and resulting actions target priority countries and priority topics.
- **Keep a technical focus** – content working groups, seen as valuable collaborations in the development of IA2030 strategic priorities, will meet routinely to facilitate technical alignment in key strategic priority areas.
- **Meet on an annual basis** – maintain momentum at the start of decade by convening each year, before considering any changes to meeting frequency.

2.24. Co-chaired by WHO and UNICEF, the Partnership Council will comprise approximately 30-35 members (with 2-year appointments made on a rotating basis), including:

- Member State representatives (Ministry of Health or ministry lead for EPI);
- Senior technical/immunization leads from key development partners (e.g. Gavi, BMGF, CDC, Wellcome)
- Civil society representatives, including from a youth constituency
- Private sector representatives
- Content Working Group leads (ensuring roles are filled by non-UN technical experts)
- Directors of disease-specific initiatives (GPEI, M&RI, YF etc.)
- SAGE/RITAG representatives

2.25. A small Secretariat team will be established on a rotating basis between partners, led by a small management committee.

2.26. Content working groups used to develop IA2030 strategic priorities will continue to convene partners on a regular basis. In addition, working groups for M&E, resource mobilization, and communications and advocacy will be established, each to be led by different partners and coordinated by the Secretariat team.

Public Pledging

2.27. Development partners and CSOs will pledge contributions, aligned to their technical roles and the IA2030 strategic priorities to ensure greater transparency and facilitate monitoring of development partner and CSO contributions as well as accountability for the achievement of IA2030 goals.

2.28. Pledging can take the form of financial, human resource or time commitments (e.g. the management of the Partnership Council Secretariat), commitments to take the technical lead on specific IA2030 strategic priority areas at the global, regional or Member State level, or commitments towards regional communication and advocacy mechanisms.

2.29. At the global level, development partners and CSOs will pledge multiyear commitments in advance of the first IA2030 Partnership Council. The pledges will be collected and made available on the IA2030 public website. Each year the Partnership Council will review progress against these pledges, with updates expected every 3-5 years. At the regional and Member State level, the frequency of pledging will be adjusted to regional and Member State planning cycles and will take place within existing coordination mechanisms.

Tailored Scorecards

2.30. Scorecards will be used to track progress as reported against pledged commitments and IA2030 targets. IA2030 scorecards have two distinct objectives:

- To measure progress against publicly pledged commitments by development partners and CSOs at the global, regional and Member State levels; and
- To measure progress against targets from the IA2030 M&E Framework at the global, regional and Member State levels.

2.31. The scorecards will be tailored for use by Member States, regions and global-level actors to inform decision-making and focus attention on priorities to drive remedial action. The tailored approach will support greater accountability of Member States, development partners and CSOs.

2.32. WHO will facilitate the development of global and regional scorecards annually, using triangulated data from routine M&E, primary and complementary sources. Scorecards will be reviewed at the global level by the IA2030 Partnership Council and by existing coordination mechanisms at the Member State and regional level.

2.33. Scorecards will be used to support and strengthen accountability of key actors at all levels, as well as being a management tool for regular progress monitoring, planning and collaboration, for example between ministries of health and partners at the Member State level.

Communications & Advocacy as a cross-cutting enabler

2.34. **Communications and Advocacy (C&A)** will drive political commitment, country ownership and awareness of IA2030. With input from Member States, development partners and CSOs, a set of options is currently being developed for the launch of IA2030 and to strengthen continuous engagement throughout the decade.

2.35. The key objectives guiding the development of the C&A strategy are to:

- Ensure that immunization remains high on the global health agenda and integrated with broad themes such as SDGs and PHC/UHC.
- Ensure strong Member State ownership of IA2030 to drive prioritization and progress on immunization.
- Reinforce accountability for progress on immunization goals and recognition of success.
- Develop an approach that is acceptable, both technically and culturally, in different regional and Member State contexts and useful in support of a broad social movement for immunization.

2.36. The launch of IA2030, planned for the first half of 2021, will signal to the global health and development community and Member States the beginning of the new immunization decade. The key objectives of the launch will be to drive Member State and global political commitment and create public awareness around continued commitment to immunization. The launch will account for the reduced ability for face-to-face interaction by relying on a variety of media platforms.

2.37. Key to successful ongoing commitment will be maintaining momentum beyond the launch. The C&A Strategy lays out options for continuous engagement that will ensure that immunization remains high on global and regional health agendas. Flexible, adaptable initiatives, tailored to a range of audiences, will also help regions and Member States to contextualize data and evidence, and advance messages across a variety of platforms to maintain a national drumbeat of support and accountability for immunization.

3. IA2030 Implementation by Level

3.1. The IA2030 Framework for Action will be taken forward at country, regional and global levels, supported by the following key tools, structures and processes.

Country-level implementation

3.2. Member States are ultimately responsible for implementing IA2030 through commitments to achieve and sustain national immunization targets and goals contributing to the shared IA2030 vision.




3.3. Member States will prioritize elements in IA2030 according to their national and regional contexts. For example, some countries with high coverage and well-resourced programmes may focus primarily on managing international disease outbreaks (COVID-19, flu) or rebutting efforts to undermine confidence in vaccines on social media platforms. Other countries may also prioritize access to affordable, quality-assured vaccine supplies or strategies to target children being missed by

integrated health services. Each country working to address its respective priorities within IA2030 will contribute to achieving shared global impact.

3.4. Member State implementation of IA2030 through their respective national strategies and plans (Table 3) will build upon:

- **Technical input from experts:** National and regional technical advisory groups (e.g., NITAGs, RITAGs) will build upon guidance from SAGE to help Ministries of Health prioritize programmatic areas. Technical annexes for each IA2030 Strategic Priority assist Member States to identify actions to address programmatic priorities.
- **Updated national immunization strategies and operational plans.** Member States will progressively update national strategies and operational plans reflecting their emerging priorities in the context of IA2030.
- **Monitoring, evaluation and action (ME&A) cycles:** Member States will be encouraged to implement ME&A cycles (including effective feedback loops) at all levels to: (1) measure and review IA2030 impact goal and strategic priority objective indicator data on a regular basis; (2) assess national/subnational and partner/CSO progress using tailored indicator scorecards or dashboards, identify potential root causes of success and failure, and identify areas for improvement; and (3) recommend, plan and implement and review actions to improve programme performance.
- **Strengthened, tangible contributions of different in-country stakeholders:** Some countries may establish formal national accountability frameworks or build on independent health observatories that monitor progress on UHC. Other countries may build on existing and strengthened mechanisms such as inter-agency or health sector coordinating committees (ICCs, HSCCs), NITAGs or the Gavi Joint Appraisal process. Whether through new or existing platforms, partners will need renewed focus on holding each other accountable. This increased accountability for contributions across different in-country partners will support more effective and coordinated implementation of national priorities. CSOs play a growing role, for example connecting national strategies to communities, to strengthen confidence in immunization and identify marginalized populations with low immunization rates. Countries are encouraged to include CSOs in accountability mechanisms.

Table 3. Country Implementation of IA2030

Country Implementation of IA2030		
Commitment	To achieve and sustain national and regional immunization goals & targets	
Differentiated IA2030 Priorities	According to country context (e.g.. coverage & equity, hesitancy, integration of services, outbreaks, quality assured vaccine supply, sustainability)	
Advocacy & Communications	National communication and advocacy platforms	
 Coordinated Operational Planning	 Monitoring & Evaluation	 Ownership & Accountability
Tools & Structures		
<ul style="list-style-type: none"> National Health Strategy National Immunization Strategy Prioritized operational plans informed by experts (e.g., SAGE, RITAGs) 	<ul style="list-style-type: none"> IA2030 IG indicators, Global and Regional SP Objective indicators, and additional SP Objective indicators selected by countries tailored to needs and context Scorecards or dashboards to measure national/subnational & partner/CSO progress Monitoring frameworks (e.g., National Health Observatory; WHO-UNICEF JRF) 	<ul style="list-style-type: none"> WHA representation Regional Committee representation NITAGs ICCs/ HSCCs Civil Society platforms
Processes		
<ul style="list-style-type: none"> Coordination through country structures with inclusion of CSOs (e.g. Stakeholder engagement groups, Gavi Joint Appraisal process, Health Sector Coordinating Committee) 	<ul style="list-style-type: none"> Monitoring, Evaluation cycles (including effective feedback loops) at all levels: <ul style="list-style-type: none"> Monitor: measure and review IA2030 indicator data on a regular basis Evaluate: assess progress using tailored indicator scorecards and identify potential root causes of success and failure Act: recommend actions for implementation, resource allocation and policy development 	<ul style="list-style-type: none"> Processes to increase accountability of government, partners & CSOs (e.g., Joint Appraisal in Gavi countries, National Accountability Frameworks)

Regional collaboration and support




3.5. Member States, development partners and civil society will work together to advance coordinated IA2030 implementation through regional technical and political fora. They will work together to optimize cooperation to drive results and ensure country programmes meet regional goals and targets. Communication and advocacy focal points will contribute to generating and maintaining support for immunization and IA2030's goals.

3.6. Regional cooperation and support (Table 4) will be implemented by:

- Tailoring IA2030 strategic priorities to regional priorities.** Regional public health experts (e.g. RITAGs facilitated by development partners) will recommend key technical areas for focus across Member States and means to strengthen integration of immunization across disease control initiatives and within UHC/PHC. Regional priorities will be reflected in strategies, operational plans and M&E frameworks, contributing to global impact goals. Regional structures will assist Member States, development partners and CSOs to regularly monitor progress and systematically identify emerging priorities.
- Member States determining regional priorities.** Member states will review and decide on the recommendations from various regional structures (e.g., RITAG) through Regional Committees.
- Monitoring, evaluation and action (ME&A) cycles:** Regions will be encouraged to implement ME&A cycles to: (1) measure and review IA2030 indicator data from countries on a regular basis; (2) assess regional/national and partner/CSO progress using tailored indicator scorecards, identify potential root causes of success and failure, and identify areas for improvement; and (3) recommend actions for improvement of regional performance and identify technical support needed for countries to plan and implement actions to improve programme performance

- **Development partner coordination.** Regional priorities will be reflected in 3-5 year operational plans with key focus areas for support across Member States. Development partners will pledge their commitments (e.g. support for specific technical functions) to IA2030, contributing to efficient and effective and coordinated support to Member States. Strengthened Regional Interagency Coordinating Committees can align development partner strategies to regional IA2030 priorities. Regional working groups coordinating development partner operational support to countries can be strengthened with expanded remits and more systematic inclusion of CSOs.
- **CSO commitments.** CSOs will increase the transparency of commitments, roles and contributions to immunization, and its ability to protect the lives of family and neighbours. They will reflect their commitments in pledges.
- **Shared commitments through regional political and economic mechanisms.** Member States will guide the process of seeking commitments and monitoring progress through mechanisms at regional (e.g. African Union, European Union, Association of South-East Asian Nations) or sub-regional (e.g. Southern African Development Community) levels. These will strengthen the impact of technical commitments and contribute to wider ownership and accountability by partners beyond immunization and health.

Table 4. Regional Implementation of IA2030

Regional Implementation of IA2030		
Commitment	To achieve and sustain national and regional immunization goals & targets	
Differentiated IA2030 Priorities	According to country context (e.g.. coverage & equity, hesitancy, integration of services, outbreaks, quality assured vaccine supply, sustainability)	
Advocacy & Communications	National communication and advocacy platforms	
 Coordinated Operational Planning	 Monitoring & Evaluation	 Ownership & Accountability
Tools & Structures		
<ul style="list-style-type: none"> Regional Strategic Plans 3-5 year regional operational plans with selected programmatic key focus areas for support across Member States Regional Working Groups (e.g., strengthening of existing Gavi groups to include CSOs and coordinate support to non-Gavi countries) Regional Interagency Coordinating Committees 	<ul style="list-style-type: none"> IA2030 Impact Goal indicators, Global and Regional SP Objective indicators, and additional SP Objective indicators selected by regions tailored to needs and context Scorecards with country and regional progress Scorecards for partner/CSO progress WHO-UNICEF Joint Reporting Form WHO Immunization Information System 	<ul style="list-style-type: none"> RITAGs Regional Committees Regional Working Groups Other Regionally tailored structures (e.g., Regional Cooperation Organizations, Regional Accountability Councils)
Processes		
<ul style="list-style-type: none"> RITAGs facilitated by development partners recommend key technical areas for focus across Member States Coordination with UHC and PHC Coordination with disease-specific initiatives 	<ul style="list-style-type: none"> Monitor: compile country data to report on indicators Evaluate: assess regional/national & partner/CSO progress using tailored indicator scorecards and identify potential root causes of success and failure Act: Recommend actions for regional performance improvement and identify technical support needed for countries 	<ul style="list-style-type: none"> Multi-year pledges from Partners/CSOs




Global commitments

3.7. Member States, development partners and civil society will work together at the global level to ensure the highest level of financial, technical and political commitment to IA2030 and to coordinate responses to priority areas with a global reach, such as advocacy, vaccine supply, innovation and technical guidance. Global-level stakeholders will monitor global partner support to the implementation of IA2030 and progress towards IA2030 global impact goals and indicators.

3.8. As presented above in Section 2 on O&A, global cooperation and monitoring (**Table 5**) will be implemented through:

- **Global coordination through a Partnership Council** established to support technical alignment in IA2030 strategic priority areas, monitor targets and progress globally, and to mobilize and monitor partner commitments and pledges to IA2030.
- **Public pledging** of development partner and CSO commitments aligned to IA2030 strategic priorities. Pledging of multiyear commitments to the achievement of IA2030 goals will ensure greater transparency and monitoring of development partner and CSO accountabilities and contributions.
- **Monitoring, evaluation and action (ME&A) cycles:** Global partners and CSOs will be encouraged to implement regular ME&A cycles to: (1) measure and review IA2030 indicator data from countries and regions on a regular basis; (2) assess regional/national and partner/CSO progress using tailored indicator scorecards, identify potential root causes of success and failure, and identify areas for improvement; and (3) inform actions for performance improvement at the global level and identify performance gaps at regional and country levels.
- **Strengthened links to non-immunization sectors and actors** will be achieved by establishing links to structures and processes associated with PHC/UHC. A proposal is under consideration for the IA2030 Partnership Council to contribute to the UHC2030 agenda and governing bodies by targeted contributions in the Steering Committee and integration of immunization into thematic task teams..

Table 5. Global Commitments of IA2030

Global Implementation of IA2030		
Commitment	<i>To sustain the highest level of technical and financial commitment to IA2030</i>	
Differentiated IA2030 Priorities	According to global function (e.g., coordination, vaccine supply, normative guidance, research & innovation, financing)	
Advocacy and communication	Global Communication and Advocacy Focal Points	
 Coordinated Operational Planning	 Monitoring & Evaluation	 Ownership & Accountability
Tools & Structures		
Partnership Council IA2030 Content Working Groups Disease-specific strategies and road maps (e.g., GPEI, MRI) Partner strategies (e.g., Gavi 5.0)	<ul style="list-style-type: none"> • IA2030 IG indicators and Global SP Objective indicators • WHO-UNICEF JRF • WHO Immunization Information System • Scorecards with country and regional progress • Scorecards for partner/CSO progress 	<ul style="list-style-type: none"> • Partnership Council • UHC2030 (exploring) • WHO Strategic Advisory Group of Experts • World Health Assembly
Processes		
Operational plans by topics or SP as need arises	<ul style="list-style-type: none"> • Monitor: compile country and regional data to report on IG and SP Objective indicators; compile partner/CSO data to report on progress • Evaluate: assess regional and national progress using tailored indicator scorecards and identify potential root causes of success and failure • Act: inform actions for performance improvement at global level and identify performance gaps at regional & country levels 	<ul style="list-style-type: none"> • Multi-year pledges from Partners/CSOs

4. IA2030 in the context of COVID-19

4.1. Emerging global health challenges, such as the COVID-19 pandemic, reinforce the value of immunization and the need for a flexible and sustainable approach to build country, regional and global immunization capacity.

4.2. IA2030 was written to anticipate pandemics and regional outbreaks while maintaining a focus on progressive improvement in immunization programmes over a decade. The IA2030 Strategy's **technical annexes**⁴ provide guidance that can be applied to COVID-19 responses, such as:

IA2030 strategic priorities in light of the COVID-19 pandemic:

- **Outbreaks & Emergencies (SP5):** Guidance on the immediate responses needed, including aspects of surveillance, maintaining immunization and other primary health care services, and engaging communities.
- **Vaccine Supply & Sustainability (SP6):** Guidance on the innovative incentives needed to engage manufacturers to develop products for an emerging pathogen.

Recovery and ongoing prevention:

- **Immunization within PHC/UHC(SP1):** Guidance on vaccine safety monitoring, supply chain and logistics, and availability of skilled health workforce.
- **Life Course & Integration (SP4):** Guidance on implementation of vaccination strategies for older age groups, including adults.
- **Research & Innovation (SP7):** Guidance on implementation and operational research supporting immunization services in the context of emerging challenges.

4.3. In particular, COVID-19 is impacting on regional planning to operationalize IA2030 and M&E processes. A number of plans for 2020 have been postponed until 2021 as development partners in each region revise schedules in the context of COVID-19 for engaging technical experts and Regional Committees.

4.4. COVID-19 is also likely to impact the development of M&E Frameworks of countries and regions. For example, baseline data and targets are likely to need adjustment as more is learned about the impact of COVID-19 on services and how quickly services recover.

5. Learning Agenda for the Path Ahead

5.1. IA2030 is a living and evolving strategy for the decade ahead. Member States, development partners and CSOs will need to build from the initial operationalization of elements outlined in this document to address emerging challenges and contextual changes.

⁴ To be released on the IA2030 website shortly

5.2. In particular, the IA2030 M&E Framework should remain fit for purpose for the new decade. Thus, the Framework should be reviewed and updated at least once every three years in response to changing needs and improvements in M&E methods to ensure it delivers the data required to improve programme performance. Similarly, the IA2030 technical annexes will also require regular updates over the decade. This need for flexibility is highlighted by the uncertainty associated with recovery from the COVID-19 pandemic.

5.3. Mechanisms will need to be created (for example with support from the Partnership Council) to capture the learning and associated recommendations. Specific elements for learning during IA2030 are likely to include:

Ownership & Accountability

- Implications of changing political and financial commitments to immunization, and IA2030 more broadly, in the context of COVID-19 and implementation of COVID-19 vaccines.
- Most efficient means to engage diverse CSOs to strengthen community-level ownership and accountability for immunization.
- Added value of strengthened fora (e.g. Regional Working Groups) or new mechanisms (e.g. IA2030 Partnership Council) and tools designed to secure and sustain stronger ownership and improve accountability (e.g., public pledges and tailored scorecards).

Operational Planning

- Planning and review processes that extend beyond the traditional WHO/UN mechanisms and engage diverse development partners and CSOs.
- Opportunities for more efficient, timely and reliable data collection and use through digital innovations.

Monitoring & Evaluation

- Means to strengthen capacity on an on-going basis to implement ME&A cycles at country, regional and global levels.
- Strengthening both the quality and the use of data, including creation of data visualization dashboards for M&E Framework indicators at global, regional and country levels.
- Ways to link the JRF process and other data sources to IA2030 ME&A cycles, including use of the WHO Immunization Information System (WIISE) (add link to website). These efforts should ideally include identifying owners and actions for all M&E indicators and decreasing the data-reporting burden for countries by having only relevant indicators which drive improvement action.
- Need for any additional indicators to identify and track severe gaps in health system performance so support is provided to countries with the biggest needs.

Communication & Advocacy

- Responsiveness to changing attitudes to immunization and adaptation of strategies as appropriate
- Ways to solicit and secure greater community-driven commitment to immunization through CSOs and the subsequent translation into increased national and regional commitments.
- Means to respond to misinformation about vaccines disseminated through changing social media platform.

List of Acronyms

BMGF	Bill and Melinda Gates Foundation
C&A	Communications and Advocacy
CDC	Centers for Disease Control
CSO	Civil Society Organisation
EPI	Expanded Programme for Immunisation
GPEI	Global Polio Eradication Initiative
GVAP	Global Vaccine Action Plan
HSCC	Health Sector Coordinating Committee
ICC	Inter-agency Coordinating Committee
IG	Impact Goal
JRF	Joint Reporting Form
ME&A	Monitoring, Evaluation and Action
M&RI	Measles and Rubella Initiative
NITAG	National Immunization Technical Advisory Groups
O&A	Ownership and Accountability
PHC	Primary Health Care
RITAG	Regional Immunization Technical Advisory Group
SAGE	WHO Strategic Advisory Group of Experts
SDGs	Strategic Development Goals
SP	Strategic Priority
UHC	Universal Health Coverage
WIISE	WHO Immunization Information System
YF	Yellow Fever

Annex 1 – Monitoring and Evaluation Framework

Impact Goal (IG) Indicators:

This section is under development.

INDICATOR 1.1 Number of deaths from vaccine-preventable diseases averted		
MONITOR <i>How will progress be monitored?</i>	EVALUATE <i>How will results of monitoring be evaluated?</i>	ACT <i>How will evaluation be used for action?</i>
<p>Definition: (1) Deaths that would have occurred without the achieved immunization coverage and (2) potential deaths that could be averted due to scale-up of coverage additional to (1).</p> <p>Measurement approach: A modelling approach is used, with immunization coverage as key input, to estimate the number of deaths averted for achieved coverage compared to baseline scenarios. Calibration of impact parameters is done using the cohort component method of population projection, which allows calculation of deaths averted at any point in vaccine's lifetime. Measurement is at global and regional levels.</p> <p>Calculation: Number of deaths due to vaccine-preventable diseases (VPDs) occurring at defined baseline – number of deaths occurring due to VPDs at achieved level of immunization coverage.</p> $\mu_{c,t} = f_c(cov_t, prev_t, \eta_t, \gamma_t)$ <p>Calibration of the cohort component projection model (CCPM) using various input data.</p> <p>$\mu_{c,t}$ = VPD mortality for some antigen related cause-of-death cov_t = function of coverage $prev_t$ = prevalence of the condition η_t = case-fatality rate γ_t = mortality reduction due to vaccination</p> <p>Data source: WUENIC coverage estimates, VIMC model outputs, and other sources as relevant.</p> <p>Stakeholder(s) responsible for measurement: WHO Immunization, Vaccines and Biologicals (IVB) and DDI project team, stakeholder committee for vaccine impact estimates for IA2030, and Vaccines-related Implementation Research Advisory Committee (IVIR-AC).</p>	<p>Baseline: Deaths occurring according to 2019 coverage level the most recent year for which WUENIC estimates are available extended to the time period 2020-2030 (the remaining years until 2030)</p> <p>Target: Estimated deaths averted relative to the baseline: (1) No vaccination scenario, (2) aspirational coverage target scenario by vaccine; initial set of targets for the VIMC 10 pathogens, diphtheria, tetanus, pertussis, and TB (BCG) are used as the primary targets for IA2030 time period. Targets for other diseases are set as models are available.</p> <p>Analysis and interpretation:</p> <ul style="list-style-type: none"> • Analysis conducted by modelling team; results displayed on shared dashboard; reviewed at global, and regional level • Results disaggregated by vaccine and cohort year for investigation of specific diseases or year where progress is not achieved. • Disaggregation by country considered <p>Frequency of evaluation: Annual.</p>	<p>Global, regional, and country partners can use evaluation findings for <u>advocacy</u> in securing commitment and resources for immunization programmes.</p> <p>Specific recommendations by vaccine highlighted in evaluation may be used to plan <u>disease specific interventions</u> at global, regional, or country level</p>

<p>Frequency of reporting: Annual, with different diseases to be phased in across several years:</p> <p>2021-2030: VIMC 10 pathogens (hepatitis B, Hib, HPV, JE, measles, MenA, <i>Streptococcus pneumoniae</i>, rotavirus, rubella, yellow fever), diphtheria, tetanus, pertussis, TB (BCG)</p> <p>2022-2030: Polio, typhoid, influenza, cholera, multivalent meningitis, COVID-19</p> <p>2023-2030: Varicella, dengue, mumps, rabies, hepatitis A, hepatitis E, other new vaccines.</p> <p>2024-2030: Other new vaccines</p>		
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INDICATOR 1.2 Number of countries that have achieved global or regional VPD control, elimination and eradication targets

MONITOR <i>How will progress be monitored?</i>	EVALUATE <i>How will results of monitoring be evaluated?</i>	ACT <i>How will evaluation be used for action?</i>
<p>Definition: Achievement of VPD control, elimination and eradication targets that have been endorsed by a global or regional body of WHO Member States.</p> <p>Measurement approach: WHO Regional Offices will: (1) conduct an annual assessment to identify all VPDs with established control, elimination or eradication targets (i.e. endorsed and up-to-date); and (2) establish a process to assess achievement of all established VPD control, elimination and eradication targets by countries (e.g. verification/certification commissions).</p> <p>Calculation: Number of countries that achieve targets for VPD control, elimination and eradication that have been endorsed by global or regional body.</p> <p>Data Source: Verification and certification commission reports.</p> <p>Stakeholder(s) responsible for measurement: Verification and certification commissions established by WHO Regional Offices with technical assistance from VPD control, elimination and eradication initiatives.⁵</p> <p>Frequency of reporting: Annual.</p>	<p>Baseline: The baseline will be the number of countries that have achieved each VPD control, elimination or eradication target by the end of 2021.</p> <p>Targets: VPD control, elimination and eradication target definitions as described when they are set by regional or global bodies of Member States.</p> <p>Analysis and interpretation: The achievement status of each VPD control, elimination and eradication target will be monitored annually for each country.</p> <p>Cumulative progress will be tracked over the decade by monitoring annual trends in the number of countries that have achieved each VPD control, elimination and eradication target.</p> <p>Frequency of evaluation: Annual.</p>	<p>Global, regional, and country partners can use evaluation findings for operational planning, and for communication and advocacy to:</p> <ul style="list-style-type: none"> • ensure needed support to countries to achieve VPD control, elimination and eradication initiatives; • highlight and reinforce coordination of strategies to link VPD control, elimination and eradication initiatives with health system strengthening initiatives.

⁵ Disease-specific initiatives include: Polio Endgame Strategy 2019–2023; Measles and Rubella Strategic Plan 2012–2020; Ending Cholera – A Global Roadmap to 2030; Global Health Sector Strategy on Viral Hepatitis 2016–2021; Defeating Meningitis by 2030 Roadmap; Global Influenza Strategy 2019–2030; Zero deaths from dog-mediated rabies by 2030 (Zero by 30: The Global Strategic Plan); Achieving and sustaining maternal and neonatal tetanus elimination: Strategic Plan 2012–2015; Global Vector Control Response 2017–2030; Eliminate Yellow Fever Epidemics

INDICATOR 1.3 Number of large outbreaks of vaccine-preventable diseases

MONITOR <i>How will progress be monitored?</i>	EVALUATE <i>How will results of monitoring be evaluated?</i>	ACT <i>How will evaluation be used for action?</i>
<p>Definition: A VPD outbreak* meeting at least one criterion from Annex 2 of the International Health Regulations (https://www.who.int/ihr/annex_2/en/) and with national spread into multiple regions, or with spread into multiple countries.</p> <p>*including cholera, Ebola, meningococcus, measles, polio, rubella, typhoid, yellow fever; the list could be revised as additional diseases become vaccine preventable.</p> <p>Measurement approach: Large VPD outbreaks will be identified using data from the WHO World Health Emergencies Event Based Surveillance system and from VPD-specific outbreak data. Different criteria will be applied for each disease. For multi-country outbreaks, each country's portion of the outbreak will be counted separately. The overall indicator will function as a composite combining data across the different diseases.</p> <p>Calculation: A count of outbreaks of epidemic prone diseases that meet set criteria in terms of number of cases and geographic extent.</p> <p>Data Source: WHO World Health Emergencies Event Based Surveillance system and VPD-specific outbreak data.</p> <p>Stakeholder(s) responsible for measurement: International Coordinating Group for Vaccine Provision</p>	<p>Baseline: The proposed baseline year for measurement of large VPD outbreaks is 2021.</p> <p>Target: An initial proposed target is an annual reduction in the number of "large VPD outbreaks" for each VPD; an aspirational target of decreasing the number of large VPD outbreaks to zero might be considered during the decade.</p> <p>Analysis and interpretation: Annual trends in the number and size of outbreaks of each VPD assess progress of country, regional, and global efforts to prevent and control VPD outbreaks</p> <p>Frequency of evaluation: Annual</p>	<p>Global, regional, and country partners can use evaluation findings for operational planning, and for communication and advocacy to:</p> <ul style="list-style-type: none"> • ensure timely availability and strategic allocation of vaccines and supplies, mobilization of trained human resources for outbreak response • ensure capacity of immunization programmes to anticipate, prepare for, detect and rapidly respond to VPD and emerging disease outbreaks • ensure capacity of immunization programmes to establish timely and appropriate immunization service delivery during emergencies and in communities affected by conflict, disaster and humanitarian crisis • ensure vaccine introduction and scale up of coverage to prevent newly emerging VPDs • use measles cases and outbreaks as a tracer to identify weaknesses in immunization programmes, and to guide programmatic planning in identifying and addressing these weaknesses.

WHO Headquarters and WHO Regional Offices with technical assistance from VPD control, elimination and eradication initiatives ⁶ Frequency of reporting: Annual		
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⁶ Disease-specific initiatives include: Polio Endgame Strategy 2019–2023; Measles and Rubella Strategic Plan 2012–2020; Ending Cholera – A Global Roadmap to 2030; Global Health Sector Strategy on Viral Hepatitis 2016–2021; Defeating Meningitis by 2030 Roadmap; Global Influenza Strategy 2019–2030; Zero deaths from dog-mediated rabies by 2030 (Zero by 30: The Global Strategic Plan); Achieving and sustaining maternal and neonatal tetanus elimination: Strategic Plan 2012–2015; Global Vector Control Response 2017–2030; Eliminate Yellow Fever Epidemics

INDICATOR 2.1. Number of zero dose children

MONITOR <i>How will progress be monitored?</i>	EVALUATE <i>How will results of monitoring be evaluated?</i>	ACT <i>How will evaluation be used for action?</i>
<p>Definition: Zero-dose children are defined as those that lack access to or are never reached by routine immunization services. They are operationally measured as those who lack a first dose of a DTP-containing vaccine.</p> <p>Measurement Approach: This indicator is calculated as the difference between the estimated number of surviving infants and the estimated number of children vaccinated with DTPcv-1.</p> <p>The number of zero-dose children will be determined at country, region and global level using WHO and UNICEF estimates of national immunization coverage (WUENIC) and UNPD population estimates of birth cohorts, adjusted for surviving infants.</p> <p>At the national and subnational level, administrative reporting systems can also be used, together with any in-country survey results and other information sources that can help countries establish estimates for zero-dose children.</p> <p>Calculation: This indicator is calculated as the difference between the estimated number of surviving infants and the estimated number of children vaccinated with DTPcv-1.</p> <p>Data Source: WUENIC, UNPD population estimates</p> <p>Stakeholder(s) responsible for measurement: WHO IVB, National Immunization programmes</p> <p>Frequency of reporting: Annual at regional and global level, monthly at national and subnational levels</p>	<p>Baseline: 14 million children (2019)</p> <p>Target: Reduction in the number of zero-dose children by 50% (all levels). In countries where DTP1 coverage already reaches 99%, the target is to maintain coverage.</p> <p>Analysis and interpretation: The level and trend of the number of zero-dose children needs to be analysed with an equity lens, aiming to find out where inequalities might point to barriers to immunization across specific populations and geographies. This requires disaggregation by subnational levels and other dimensions (socio-economic, language group, ethnicity) as available.</p> <p>In this context, the number of zero-dose children needs to be used to identify underserved, undervaccinated communities.</p> <p>Frequency of evaluation: Annual at global and regional level. Ideally quarterly at national and subnational level.</p>	<p>At the global and regional level, the number of zero dose children by region and country will lead to a prioritization of efforts, and can be used to create accountability for countries that do not reach targets, or backslide from previously attained targets. Furthermore, it can be used to communicate about immunization gaps that exist in the world, and advocate for concerted efforts to bridge them.</p> <p>At the country and subnational level, identifying zero-dose children and underserved communities should facilitate a root cause analysis of the reasons for under-vaccination, and identification of the barriers that exist for certain communities and geographies. From a communication perspective, the importance of this indicator will highlight the need to focus on equity in immunization.</p>

INDICATOR 2.2. SDG 3.b.1 - Coverage of vaccines included in national immunization schedules (DTP3, MCV2, HPVc, PCV3)

MONITOR <i>How will progress be monitored?</i>	EVALUATE <i>How will results of monitoring be evaluated?</i>	ACT <i>How will evaluation be used for action?</i>
<p>Definition: Immunization coverage for DTPcv-3, MCV-2, PCV3 and HPVc</p> <p>Measurement approach: Immunization coverage for a certain year is defined as the proportion of the targeted population that received the relevant vaccine and dose in that year.</p> <p>Coverage will be determined at country, region and global level, using WHO and UNICEF estimates of national immunization coverage (WUENIC). Note that for WUENIC, the annually targeted population for globally recommended vaccines comprises the entire global cohort of surviving infants, regardless of whether the vaccine was introduced in their country.</p> <p>At the national and subnational level, administrative reporting systems can also be used, together with any in-country survey results and other information sources that can help countries establish coverage estimates.</p> <p>Calculation: Denominator is estimated population of target group of children that should receive DTPcv-3, MCV-2, PCV3 and HPVc. Numerator consists of target population who have received DTPcv-3, MCV-2, PCV3 and HPVc. Target population of children and their appropriate age for last dose is determined by national immunization schedule.</p> <p>Data Source: WHO and UNICEF estimates of national immunization coverage (WUENIC)</p> <p>Stakeholder(s) responsible for measurement: WHO IVB, National Immunization programmes</p> <p>Frequency of reporting: Annual at regional and global levels, monthly at national and subnational levels.</p>	<p>Baseline: 85% DTPcv-3, 71% MCV-2, 48% PCV3 and 15% HPVc (2019)</p> <p>Target:</p> <p>Global level: 90% coverage for all by 2030</p> <p>Country level:</p> <ul style="list-style-type: none"> Plan introduction of all globally recommended vaccines by 2030 Ensure coverage for each vaccine reaches levels within a 5% range from DTPcv-1 <p>Analysis and interpretation: Level and trend, disaggregated by geography and other dimensions (socio-economic, language group, ethnicity) as available.</p> <p>Frequency of evaluation: Annual at global and regional levels. Ideally quarterly at national and subnational levels.</p>	<p>At the global and regional level, coverage estimates will be used for prioritization, and to create accountability for countries that don't reach targets, or backslide from previously attained targets.</p> <p>Furthermore, coverage estimates can be used to communicate about immunization gaps that exist in the world, and advocate for concerted efforts to bridge them.</p> <p>At the country and subnational level, measuring the level and trend of coverage, as well as estimates of vaccinated people (numerators), can help establish whether:</p> <ul style="list-style-type: none"> Immunization programmes are showing desired progress overall, by geography, and by population group. Immunization platforms for the different age groups perform adequately. Vaccine-specific barriers exist. <p>Immunization programmes can then implement any corrective action.</p>

INDICATOR 3.1. Difference between national DTP3 coverage & Universal Health Coverage Service Coverage index

MONITOR <i>How will progress be monitored?</i>	EVALUATE <i>How will results of monitoring be evaluated?</i>	ACT <i>How will evaluation be used for action?</i>
<p>Definition: The gap between national DTP3 coverage and the Universal Health Coverage Service Coverage Index (UHC SCI).</p> <p>Measurement Approach: National DTP3 coverage is available through WHO UNICEF Immunization Coverage estimates.</p> <p>The UHC SCI is indicator 3.8.1 for the Sustainable Development Goals. The indicator is constructed from four categories of tracer indicators: 1) reproductive, maternal, newborn and child health; 2) infectious diseases; 3) non-communicable diseases; and 4) service capacity and access.</p> <p>For each country, narrowing of the gap between DTP3 coverage and the UHC SCI will be calculated by comparing changes in both measures independently:</p> <ul style="list-style-type: none"> • DTP3 coverage will be required to be ≥90% • UHC SCI annual improvement will be required to be equal to or greater than historic performance (From 2015 to 2017, 75% of countries had an average increase of 1% per year). <p>In addition, differences between the two indices will be calculated.</p> <p>Stakeholder(s) responsible for measurement:</p> <ul style="list-style-type: none"> • Primary Health Care Performance Initiative • WHO Department of Service Delivery and Safety • WHO Department of Immunization, Vaccines and Biologicals <p>Data Sources: WHO UNICEF Immunization Coverage Estimates and Universal Health Coverage Service Coverage Index.</p> <p>Frequency of reporting: Annual.</p>	<p>Baseline: Baseline and targets are based on data from 2015 to 2017. During this period:</p> <ul style="list-style-type: none"> • 67% (123 of 183) countries had ≥90% national DTP3 coverage (maximum value from 2015 and 2017) • 75% (138 of 183) countries had an average increase of 1% per year improvement in the UHC SCI • 51% (93 of 183) countries had both national DTP3 coverage ≥90% and an average increase of 1% per year improvement in the UHC SCI <p>Target: TBD; a target for the indicator would be considered when the target for the Sustainable Development Goal indicator 3.8.1 is determined.</p> <p>Analysis and interpretation: Progress against the global DTP3 target of 90% will be evaluated for all countries annually. Annual (or as frequent the UHC SCI is published) improvement in the SCI will be evaluated against the expected 1% increase per year. The threshold of 90% will be applied to both measures. Therefore, for countries which have national DTP3 coverage of ≥90% the UHC SCI is the driving factor for reducing the gap.</p> <p>Frequency of evaluation: Annual</p>	<p>Global, regional, and country partners can use evaluation findings for communication and advocacy to:</p> <ul style="list-style-type: none"> • promote alignment of IA2030 & UHC/PHC system strengthening efforts • promote efforts to integrate delivery of immunization & other UHC/PHC services

Strategic Priority Objective Indicators Summary

This section is under development. Additional regional and country indicators for monitoring SP Objectives will be developed by regions and countries for inclusion in their IA2030 M&E plans.

SP Objective	Global monitoring	Options for regional monitoring	Options for country monitoring
1.1 Leadership, Management, and Coordination	Number of countries with a mechanism for monitoring, evaluation and action at national and sub-national levels	Number of countries with a mechanism in place for evaluating immunization programme performance at least once/yr	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> Mechanism in place for monitoring, evaluation and action at national, sub-national levels <p>Additional action-based indicators:</p> <ul style="list-style-type: none"> % districts (or equivalent at subnational level) with a process in place to monitor, evaluate and drive action cycles to continuously improve immunization programme quality % of district health management committees (or equivalent at subnational level) that review immunization performance as part of primary health care performance at least annually
1.2 Health Workforce	Number of nursing and midwifery personnel per 10,000 population (by country)	Number of nursing and midwifery personnel per 10,000 population (by country)	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> Number of nursing and midwifery personnel per 10,000 population (by country) <p>Additional action-based indicators:</p> <ul style="list-style-type: none"> Vaccinators per 10,000 population per region PHC team members per 10,000 population per region Positions filled vs vacant (% vacant positions of nursing and frontline health workers) Percentage of facilities that are led by a manager(s) who has official management training (for example, a certification, diploma, or degree) Health workforce competencies are established

SP Objective	Global monitoring	Options for regional monitoring	Options for country monitoring
1.3 Surveillance	Proportion of countries with on-time reporting from districts with suspected cases of all priority vaccine-preventable diseases included in nationwide surveillance (including reporting of zero cases)	Proportion of countries with on-time reporting from districts with suspected cases of all priority vaccine-preventable diseases included in nationwide surveillance (including reporting of zero cases)	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> % of districts not reporting any suspected vaccine-preventable diseases (i.e., “silent” districts) in a 12-month period <p>Additional possible action-based indicators:</p> <ul style="list-style-type: none"> % of districts reporting at least 90% on time during a one-year period for suspected cases for all priority VPDs under nationwide surveillance, including reporting of zero cases. Non-polio acute flaccid paralysis rate of >1/100,000 among <15 years population in a 12-month period Non-measles/non-rubella discard rate of ≥2/100,000 persons_
1.4 Supply chains	Percentage of health facilities that have full availability of DTP containing vaccine (by country)	Percentage of health facilities that have full availability of DTP containing vaccine (by country) EVMA score	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> % of health facilities that have full availability of DTP containing vaccine <p>Additional possible action-based indicators:</p> <ul style="list-style-type: none"> All 7 DISC indicators % districts reporting stock availability (vaccines and supplies) at a service delivery level % districts having electronic vaccine and supply stock management system in place
1.5 Information systems	Percentage of population with access to personal immunization records (by country)	Percentage of population with access to personal immunization records (by country) Evaluation score (e.g. EISQ)	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> % of population with access to personal immunization records <p>Additional possible action-based indicators:</p> <ul style="list-style-type: none"> Availability of sustainable and effective immunization information system integrated within a robust national health information system (HIS) % of districts with on-line access to HMIS Completeness and timeliness of reporting

SP Objective	Global monitoring	Options for regional monitoring	Options for country monitoring
			<ul style="list-style-type: none"> Micro plans based on evidence
1.6 Vaccine safety	Proportion of countries with at least 1 documented (with reporting form and/or line listed individual serious AEFI case safety reports per million total population	Proportion of countries with at least 1 documented (with reporting form and/or line listed) individual serious AEFI case safety reports per million total population	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> Individual AEFI case safety reports above threshold per million total population <p>Additional possible action-based indicators:</p> <ul style="list-style-type: none"> Functional AEFI system exists
2.1 Political and financial commitment	Proportion of countries with legislation in place that is supportive of immunization, and that commits the government to finance immunization programme functions at all levels	Proportion of countries with legislation in place that is supportive of immunization, and that commits the government to finance immunization programme functions at all levels	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> Legislation is in place that is supportive of immunization, and that commits the government to finance immunization programme functions at all levels <p>Additional possible action-based indicators:</p> <ul style="list-style-type: none"> High-level document (e.g. national policy, law, decree) making childhood immunizations a national priority/child right Commitment tracking and accountability frameworks used at country and subnational levels
2.2 Demand for immunization	Percentage of countries that have implemented behavioural or social strategies (i.e., demand generation strategies) to address under-vaccination	Percentage of countries that have implemented behavioural or social strategies (i.e., demand generation strategies) to address under-vaccination	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> Implementation of behavioural or social strategies (i.e., demand generation strategies) to address under-vaccination in the previous year <p>Additional possible action-based indicators:</p> <ul style="list-style-type: none"> Civil societies, private sector, and communities actively participating to ensure high immunization uptake Existence of immunization-specific regulation to address hesitancy Percentage of schools teaching the importance of vaccination

SP Objective	Global monitoring	Options for regional monitoring	Options for country monitoring
			<ul style="list-style-type: none"> Percentage of population affirming confidence in vaccination (E.g., Wellcome Global Monitor data on trust in vaccines) All Health Facility microplans include flexible service delivery strategy with monitored engagement with community and private sector stakeholders
3.1 Reach of Immunization services	None	Number of countries with evidence-based and funded plan to address coverage of high-risk communities	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> Evidence-based and funded plan to address coverage of high-risk communities exists <p>Additional possible action-based indicators:</p> <ul style="list-style-type: none"> % of districts with (micro) plans that specifically target under-immunized communities % of districts in which at least 80% of planned (outreach) sessions are also held >90% of eligible children in the disadvantaged population are reached and vaccinated according to national schedule.
3.2 High & equitable coverage	DTP3, MCV1, and MCV2 coverage in the 20% of districts with the lowest coverage (by country)	DTP3, MCV1, and MCV2 coverage in the 20% of districts with the lowest coverage (by country)	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> DTP3, MCV1, and MCV2 coverage in the 20% of districts with lowest coverage <p>Additional possible action-based indicators:</p> <ul style="list-style-type: none"> Dropout rates between first dose (DTP1) and third dose (DTP3) of DTP-containing vaccine
4.1 Life-course vaccination	Breadth of protection (mean coverage for all vaccine antigens recommended by WHO by country)	Breadth of protection (mean coverage for all vaccine antigens recommended by WHO by country)	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> Proportion of WHO recommended vaccines present within their national immunization schedule.

SP Objective	Global monitoring	Options for regional monitoring	Options for country monitoring
			Additional possible action-based indicators: <ul style="list-style-type: none"> • Available policies and laws for mandatory vaccination throughout life course • Activate adult vaccination in patients who have NCDs and are at risk of dying from vaccine preventable diseases including influenza and PCV
4.2 Integrated delivery points	None	Number of countries with national policies or standard operating procedures in place to strengthen delivery of immunization services integrated with primary health care, across the life course	Needed for reporting up: <ul style="list-style-type: none"> • National policies or standard operating procedures in place to strengthen delivery of immunization services integrated with primary health care, across the life course Additional possible action-based indicators: <ul style="list-style-type: none"> • % of PHC Centers integrating immunization services with other PHC services • % of Tertiary health care providing daily immunization service • Countries have formal engagement of vaccination services with the following health and development sectors/services to strengthen provision of vaccinations throughout the life course: schools, antenatal care services, labor & delivery care services, and private healthcare providers • Use of birth registration boost via immunization services
4.3 New vaccine introduction	None	Number of countries with all newly recommended vaccine antigens by WHO in the national immunization schedule	Needed for reporting up: <ul style="list-style-type: none"> • Proportion of all newly recommended WHO vaccines within their national immunization schedule within X years of WHO policy recommendation. Additional possible action-based indicators: <ul style="list-style-type: none"> • Proportion reached with the last dose of WHO recommended vaccines

SP Objective	Global monitoring	Options for regional monitoring	Options for country monitoring
5.1 Outbreak detection and response	Percentage of polio, measles, meningococcal disease, yellow fever, cholera, and Ebola outbreaks with timely detection and response (includes outbreaks with an outbreak response vaccination campaign)	Percentage of polio, measles, meningococcal disease, yellow fever, cholera, and Ebola outbreaks with timely detection and response (includes outbreaks with an outbreak response vaccination campaign)	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> • % of polio, measles, meningococcal disease, yellow fever, cholera, and Ebola outbreaks with timely detection and response <p>Additional possible action-based indicators:</p> <ul style="list-style-type: none"> • Annual number of laboratory-confirmed epidemic-prone vaccine preventable disease outbreaks • Annual number of laboratory-confirmed epidemic-prone vaccine preventable disease outbreaks that have expanded geographic spread or number of cases • For epidemic-prone vaccine preventable diseases, average coverage achieved by outbreak response vaccination campaigns
5.2 Immunization services during emergencies	None	Percentage of children who have age-appropriate vaccination for DTP3, MCV (last dose), and PCV (last dose) in settings with humanitarian crises or emergencies	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> • Annual % of children who have age-appropriate vaccination coverage for DTP3, MCV (last dose), and PCV (last dose) in settings with humanitarian crises or emergencies <p>Additional possible action-based indicators:</p> <ul style="list-style-type: none"> • Annual % of children aged 12 to 24 months of life who have had three doses of DPT/Penta across countries which have experienced humanitarian crises in that year • Annual % of children aged 6mo to 15y who have received measles vaccination across countries which have experienced humanitarian crises in that year • SMART or equivalent vaccine surveys carried out during a year of crisis
6.1 Healthy global markets for vaccines	Level of health of the vaccine market, disaggregated by vaccines antigens and country typology	None	None

SP Objective	Global monitoring	Options for regional monitoring	Options for country monitoring
6.2 Financial resources for immunization programmes	Domestic government's and donors' expenditure on primary health care per capita	Domestic government and donor expenditure on primary health care per capita	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> Domestic government and donor expenditure on primary health care per capita <p>Additional possible action-based indicators:</p> <ul style="list-style-type: none"> Government expenditure on routine immunization per live birth (person targeted)
6.3 Immunization expenditure from domestic resources	Percentage of total expenditure on vaccines in the national immunization schedule financed with domestic government funds	Percentage of total expenditure on vaccines in the national immunization schedule financed with domestic government funds	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> Percentage of total expenditure on vaccines in the national immunization schedule financed with domestic government funds <p>Additional possible action-based indicators:</p>
7.1 Capacity for innovation	Number of countries with an immunization research agenda	Number of countries with an immunization research agenda	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> Immunization research agenda exists <p>Additional possible action-based indicators:</p>
7.2 New vaccine development	Short list of global R&D targets	None	None
7.3 Evaluation & and scale up of innovations	None	Proportion of countries with at least one implemented recommendation from a NITAG or other relevant independent technical advisory group	<p>Needed for reporting up:</p> <ul style="list-style-type: none"> At least one implemented recommendation from a NITAG or other relevant independent technical advisory group implemented <p>Additional possible action-based indicators:</p>

Strategic Priority Objective Indicators Metadata

Global Strategic Priority Objective Indicators

This section is under development. Each Global SP Objective Indicator will be defined with the following characteristics:

Indicator ID, Name	SP 1.1- Number of countries with a mechanism for monitoring, evaluation and action at national and sub-national levels
Definition	<p><u>Mechanism that drives monitoring, evaluation and action cycles at national and sub-national levels is defined according to the following criteria.</u></p> <p><u>Possible criteria include:</u></p> <ol style="list-style-type: none"> 1. Presence of NITAG or equivalent technical advisory group to provide guidance for monitoring, evaluation and action cycles 2. Indicators and targets are set at national and sub-national levels (based on needs and priorities) 3. Indicator results are available at all levels 4. Roles and responsibilities of stakeholders (government + others) to drive continuous quality improvement are defined 5. Feedback loop is in place to communicate assessments of progress, and recommendation actions from sub-national to national and from national to sub-national level 6. Schedules for performance review at sub-national and national level are defined and reviews conducted according to schedule
Calculation and operational considerations	<p>This data is currently not collected at the global level so will need to be added to the JRF in 2021. The indicator will be self-reported according to the available six criteria above. Meeting each criterion gives 1 point, with a maximum score of 6 points.</p> <p>Data-driven decision-making is an indication of strong leadership and management. The indicators set in each country should unite the key stakeholders to drive actions in an accountable manner. Information from ME&A exercises is reported to higher levels, recommendations to lower levels are fed back. Actions planned and being taken reported to higher levels and from higher to lower levels.</p>
Method of measurement	<ul style="list-style-type: none"> - Operational document describing the ME&A process at all levels - Evidence of implemented actions to strengthen immunization programme performance at all levels
Data source	To be proposed for JRF

Indicator ID, Name	SP 1.2- Density of nursing and midwifery personnel
Definition	Number of nursing and midwifery personnel per 10,000 population

Calculation and operational considerations	<p>Numerator: Number of nursing personnel and midwifery personnel, defined in headcounts</p> <p>Denominator: Total population</p> <p>Nursing and midwifery personnel comprise the following occupations: nursing professionals, nursing associate professionals, midwifery professionals, midwifery associate professionals and related occupations. The International Standard Classification of Occupations (ISCO) unit group codes included in this category are 2221, 2222, 3221 and 3222 of ISCO-08.</p>
Method of measurement	<p>In response to WHA resolution, WHA 69.19, an online National Health Workforce Accounts (NHWA) data platform was developed to facilitate reporting. Complementing national reporting through the NHWA data platform, additional sources such as the National Census, Labour Force Surveys and key administrative national and regional sources are also employed. In general, the denominator data for workforce density (i.e. national population estimates) are obtained from the United Nations Population Division's World Population Prospects database. In cases where the official health workforce report provides density indicators instead of counts, estimates of the stock were then calculated using the population estimated from the United Nations Population Division's World population prospects database.</p> <p>Further information: https://www.who.int/data/gho/data/indicators/indicator-details/GHO/nursing-and-midwifery-personnel-(per-10-000-population) https://www.who.int/activities/improving-health-workforce-data-and-evidence</p>
Data source	<p>Numerator: WHO National Health Workforce Accounts (NHWA)</p> <p>Denominator: United Nations Statistics Division population data</p>

Indicator ID, Name	SP 1.3- Proportion of countries with on time reporting from districts with suspected cases of all priority vaccine-preventable diseases included in nationwide surveillance (including reporting of zero cases)
Definition	<p>Countries with on time reporting from districts of suspected cases of all priority VPDs included in nationwide surveillance (including reporting of zero cases)</p> <p>*suspected cases for all priority VPDs under nationwide surveillance. Priority VPDs include at a minimum, polio, measles, rubella, neonatal tetanus, yellow fever (for endemic countries), meningitis (for endemic countries) and other diseases under nationwide surveillance.</p>
Calculation and operational considerations	<p>Denominator for country level is every secondary administrative unit (e.g. district or equivalent) in a country. Numerator consists of all districts that, for all vaccine preventable diseases mentioned above reported suspected cases on time at least 90% of the time</p> <ul style="list-style-type: none"> - Report the number of cases for all suspected cases of the predefined VPDs to the provincial or national level. The number of cases can be zero - Submit those reports in a timely manner as defined by the country's internal deadlines for reporting.

	<ul style="list-style-type: none"> - To achieve 90% reporting per year: If a country expects weekly reporting for a given disease then the district needs to report ≥ 47 times by the deadline set by the country. If they have monthly reporting for a disease, then reporting should be ≥ 11 times in a calendar year. <p>Districts will not count in the numerator if they:</p> <ul style="list-style-type: none"> - Report the number of suspected cases for some, but not all, of the predefined VPDs - Do not report on time - Report less than 90% of the time. <p>Countries that are small can use their primary administrative unit or health facilities as their unit of measure</p>
Method of measurement	This would monitor vaccine preventable disease designated by country for nationwide surveillance, including: polio, measles, rubella, neonatal tetanus, meningococcus, and yellow fever
Data source	To be proposed for JRF

Indicator ID, Name	SP 1.4- Percentage of health facilities that have full availability of DTP-containing vaccines (for example, pentavalent vaccines) (by country)
Definition	% of health facilities that have full availability of DTP-containing vaccine, for example pentavalent vaccines (by country)
Calculation and operational considerations	<p>Countries to report the % of facilities that had sufficient supply of DTP-containing vaccine to cover all the need for routine immunization service delivery over the year.</p> <p><u>Calculation:</u> No. of facilities with full availability of DTP over the year / total number of facilities x 100.</p> <p>Countries to consolidate facility level data and calculate yearly average % of facilities that had no DTP stock out over the year.</p>
Method of measurement	<p>Countries to monitor and collect facility-level data on DTP-containing vaccine stock availability over a year using existing information system (e.g. LMIS, HMIS, DHIS2, wVSSM or other available information management platforms).</p> <p>Countries that lack this data (e.g. no reporting of the indicator, no system to keep track of stock at service delivery level) indicate NA.</p>
Data source	Proposed to be collected using eJRF

Indicator ID, Name	SP 1.5 – Percentage of population with access to personal immunization records (by country)*
Definition	Percentage of population with access to personal records (by country) (paper or electronic)
Calculation and operational considerations	<p>Measured during household surveys. Several data points are collected during these surveys:</p> <ul style="list-style-type: none"> - % cards seen during survey - % of children for whom a HBR exists - % of children who ever got a HBR <p>Need to define for electronic records</p>
Method of measurement	Household surveys
Data source	Household surveys, JRF

Indicator ID, Name	SP 1.6- Proportion of countries with at least 1 documented (with reporting form and/or linelisted) individual serious AEFI* case safety reports per million total population
Definition	Countries with documented (with reporting form and/ or line-listed) individual serious AEFI case safety reports per million total population
Calculation and operational considerations	<p>Annual number of individual AEFI case safety reports available in the WHO global database for safety monitoring</p> <p>Threshold: All countries with at least 1 AEFI individual case safety report/1, 000 000 population</p> <p>Total population: UN Population Division's World Population Prospects for e.g. https://population.un.org/wpp/Publications/Files/WPP2019_Highlights.pdf</p> <p>* WHO global database – Vigibase: https://www.who-umc.org/vigibase/vigibase/</p>
Method of measurement	Individual serious AEFI reporting rate in million total population per year= Number of individually documented serious AEFI cases reported from country/sub-national area per year / Total population in the same country/sub-national area per year * 1,000,000

	$\frac{\text{Individual serious AEFI reporting rate in million total population per year}}{\text{Number of individually documented serious AEFI cases reported from a country/ sub-national area per year}} \times 1,000,000$
Data source	Primary data source: WHO global database Vigibase: https://www.who-umc.org/vigibase/vigibase/ . To be discussed for countries that don't have access to Vigibase.

Indicator ID, Name	2.1 Number of countries with legislation that is supportive of immunization, and that commits the government to finance immunization programme functions at all levels
Definition	Number of countries with legislation that is supportive of immunization, and that commits the government to finance immunization programme functions at all level
Calculation and operational considerations	This data is currently not systematically collected at the global level so will need to be added to the JRF in 2021. Calculation will be through self-report (Yes/No) by countries and request to upload a copy or link to the relevant legislation. Language will be a potential barrier to verification.
Method of measurement	The existence (or not) of a legislative basis underlying the commitment to provide government-funded immunization to the population. This will be measured through self-report (Yes/No) and a request to provide supporting documentation.
Data source	To be included in JRF

Indicator ID, Name	2.2 Percentage of countries that have implemented behavioural or social strategies (i.e. demand generation strategies) to address under-vaccination
Definition	Percentage of countries that have implemented behavioural or social strategies (i.e. demand generation strategies) to address under-vaccination

Calculation and operational considerations	<p>This data is currently not collected at the global level so will need to be added to the JRF in 2021. Calculation will be through self-report by countries to the following question:</p> <p>In [insert previous year] did the country implement any behavioural or social strategies (i.e., demand generation strategies) to address under-vaccination? Choose all that apply:</p> <ul style="list-style-type: none"> • Interventions to improve access to vaccination • Interventions to improve service quality • Interventions to build capacity among healthcare workers • Community engagement • Interventions to communicate or educate the public • Interventions to manage misinformation based on social or digital listening data • Interventions at the policy level (e.g. incentives) • Other, please specify:
Method of measurement	Indicator to be reported by countries through the JRF and will replace former demand questions in the JRF
Data source	To be included in JRF

Indicator ID, Name	3.2: DTP3, MCV1, and MCV2 coverage in the 20% of districts with lowest coverage (by country)
Definition	Immunization coverage for DTP3, MCV1, and MCV2 in the lowest 20% of districts with lowest coverage
Calculation and operational considerations	Average coverage in lowest performing quintile for each country that reports district level coverage.
Method of measurement	Analysis of district level coverage reported by member states.
Data source	Annual member state reporting of district level coverage data through the Joint Reporting Form process

Indicator ID, Name	4.1 Breadth of protection: mean coverage for all vaccine antigens recommended by WHO
Definition	Breadth of protection defined as mean coverage for all vaccine antigens recommended by WHO
Calculation and operational considerations	Analyse proportion of countries with WHO recommended vaccines within their national immunization schedules by life course stage. Aggregate proportion by regional and global level.
Method of measurement	Presence of all WHO recommended vaccines within country's national immunization schedule.
Data source	JRF

Indicator ID, Name	5.1 Percentage of polio, measles, meningococcal disease, yellow fever, cholera and Ebola outbreaks with timely detection and response (includes outbreaks with an outbreak response vaccination campaign)
Definition	<p>% of polio, measles, meningococcal disease, yellow fever, cholera, and Ebola outbreaks* with timely** detection and response</p> <p>*Only applies to outbreaks for which there is an outbreak response vaccination campaign.</p> <p>**Acceptable time from onset of outbreak to campaign implementation to be defined for each disease</p>
Calculation and operational considerations	<p>Time from onset of outbreak to implementation of vaccination campaign should be determined for each polio, measles, meningococcal disease, yellow fever, cholera, and Ebola outbreak for which there is an outbreak response vaccination campaign.</p> <p>Proposed percentage of outbreaks that get a vaccine response within the maximum designated time should be defined for each vaccine (timelines and criteria for determining onset of outbreak to be defined by disease experts)</p>
Method of measurement	National immunization and disease surveillance programs via the WHO/UNICEF Joint Reporting Form, supplemented by information from the International Coordinating Group on vaccine provision, Measles Rubella Initiative, Global Polio Eradication Initiative, and WHO World Health Emergencies group
Data source	<p>ICG, MRI, GPEI, WHO, national immunization and disease surveillance programs.</p> <p>Information would need to be systematically collected from national immunization disease surveillance programs to provide data for regional and global level data.</p>

Indicator ID, Name	6.1 Level of health of the vaccine market, disaggregated by antigen and country typology
Definition	Level of health of the market, disaggregated by antigen and country typology (Gavi-73, non-Gavi MICs, HICs)
Calculation and operational considerations	TBD
Method of measurement	<p>A number of criteria have been defined to determine the level of health of a market. The number of criteria met determines the health of the market for each vaccine.</p> <p>More specifically the following attributes are measured:</p> <ul style="list-style-type: none"> • supply meeting demand • country preferences are met • NRA diversification • individual supplier risk • buffer capacity • long term competition • innovation and total system effectiveness <p>Semi-quantitative assessment of individual market health, will be undertaken by partners [WHO, UNICEF, Gavi, BMGF]. Based on assessments of individual the above attributes and a wholistic overview of each market's programmatic context, markets will be assessed based on the following categories:</p> <ul style="list-style-type: none"> - Insufficient and requires further intervention: severe supply security challenges and risks exist, no improvement is expected without intervention - Insufficient with conditions for improvement: severe supply security challenges and risks exist, improvements possible but requiring further monitoring and lead time to materialize. - Sufficient with risks: limited supply security challenges with unacceptable risks of backsliding, interventions are required to mitigate risks. - Sufficient and sustainable: limited supply security challenges with acceptable risks, monitoring required to ensure risks do not increase.
Data source	TBD

Indicator ID, Name	6.2 Domestic government and donors expenditure on primary health care per capita (by country)
Definition	Domestic government's and donors' expenditure on primary health care (PHC) per capita (in constant prices) in US\$
Calculation and operational considerations	Domestic government's and donors' expenditures on PHC, divided by population in constant US\$ price
Method of measurement	See https://apps.who.int/nha/database/DocumentationCentre/GetFile/57752201/en
Data source	WHO GHED (health accounts data) https://apps.who.int/nha/database/Select/Indicators/en

Indicator ID, Name	6.3 Percentage of total expenditure on vaccines in the national immunization schedule financed with domestic government funds (by country)
Definition	Percentage of total expenditure on vaccines in the national immunization schedule financed with domestic government funds
Calculation and operational considerations	Total and domestic government public resources used to purchase vaccines consumed in a given year
Method of measurement	<p>Total value of vaccines used for the provision of immunization. All the materials and services are to be fully consumed during the production activity period.</p> <p>Domestic public resources spent on all vaccines used in conformity with the national immunization programme, including routine doses of vaccines, and following each country's vaccination schedule. Includes the international market price, as well as transport and handling expenditures. Vaccines used in Child Health Days are included in routine vaccine expenditures, but expenditures related to doses of vaccine given through supplemental immunization activities (SIAs) are excluded</p>

Data source	JRF
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Indicator ID, Name	SP 7.1- Number of countries with national agenda for research on immunization
Definition	Number of countries with national agenda for research on immunization in national immunization strategy or other national strategy document
Calculation and operational considerations	<p>The national agenda should identify priority research areas that increase the likelihood that the country will achieve its IA2030 targets. Research is defined as activities that span 5 areas:</p> <ul style="list-style-type: none"> • measuring the magnitude and distribution of a health problem; • understanding the diverse causes or the determinants of the problem, whether they are due to biological, behavioral, social or environmental factors; • identifying and developing solutions or interventions that will help to prevent or mitigate the problem; • implementing or delivering solutions through policies and programmes; and • evaluating the impact of these solutions on the magnitude, level and distribution of the problem. <p>Research agendas will vary depending on national context and priorities. Some countries may focus on disease burden and implementation/operational research to inform new product implementation, whereas others may have wider-ranging agendas.</p>
Method of measurement	Review of national immunization strategy or other national strategy document
Data source	TBD

Indicator ID, Name	SP 7.2- Short list of global research and development targets
Definition	<u>Short list</u> of global targets for R&D in vaccines, other products, and services at the start of the decade
Calculation and operational considerations	WHO Product Development for Vaccines Advisory Committee (PDVAC) to define targets and monitor and evaluate progress at the global and regional level. Suggested short list should be presented during SAGE Oct 2021

Method of measurement	Global: Measurement will require landscape analysis by technical experts.
Data source	TBD

Indicators that are critical but not yet available for reporting

Particular emphasis is made to strengthen availability of the metrics to monitor SP Objectives 1.1, 2.1, and 7.2.

SP Objective 1.1: Reinforce and sustain strong leadership, management and coordination of immunization programmes at all levels

- Monitoring & Evaluation focusing on actions to continuously improve quality of immunization services is vital to know the progress, gaps and drive actions to improve the immunization programme. In this way, functioning ME&A processes will be a proxy indicator for strong leadership, management and coordination that drives actions. Monitoring of this critical but not yet available indicator will require a new mechanism and capacity building should be considered for implementation of ME&A cycles at all levels.

SP Objective 2.2: Ensure that all people and communities value, actively support and seek out immunization services

- The indicator to monitor SPO 2.2 is intended to drive national immunization programmes to allocate dedicated resources to assess and address barriers to vaccination. However, in view of country differences, it is difficult to get a single demand creation indicator that is applicable to all countries to be used as a global indicator. Data availability for measuring this objective is also a challenge and should be addressed throughout the decade.

SP Objective 7.2: Develop new vaccines and associated technologies, and improve existing products and services for immunization programmes

- The current proposed indicator follows the GVAP precedent, which defined a short list of global priority R&D targets. This is intended to be an interim step that will give the global immunization community time to establish a strategic approach for global and regional stakeholders to jointly set goals based on country needs and priorities, and a system to monitor and evaluate progress. These priorities will include the development of new vaccines and technologies, and improvements of existing products and services for immunization programmes. The proposed approach reflects the IA2030 Research & Innovation strategy, which “focuses on needs-based innovation and aims to strengthen mechanisms to identify research and innovation priorities according to community needs, particularly for the under-served, and ensure these priorities inform innovations in immunization products, services and practices.” It aligns with the IA2030 core principles of being people-focused, partnership-based, and data-enabled. The proposed approach has the potential to catalyse transformative change through global and regional mechanisms to identify R&D priorities and targets. These mechanisms would consider national agendas for research in immunization (SPO 7.1); identify innovative solutions to vaccine and immunization challenges; and weigh the relative feasibility, impact, and equity benefits of potential products. Building off of these key activities that address IA2030 core principles, regional R&D agendas will necessarily focus on vaccines and delivery technologies that are more likely to have greater impact in the region. These regional mechanisms would feed into the global mechanism, ensuring that global R&D is similarly anchored in the needs of communities. Once these mechanisms are established, the global priority R&D targets will more closely and transparently reflect country and regional priorities and needs.