



World Health
Organization



**Global Covid-19
Vaccination Strategy
in a Changing World**
July 2022 update



Global Covid-19 Vaccination Strategy in a Changing World

July 2022 update

Context and purpose

Two and a half years after the WHO Director-General declared a Public Health Emergency of International Concern¹, COVID-19 continues to be a global threat to health and society.

In light of the continual evolution of the pandemic, **WHO is issuing an update of the Strategy to Achieve Global Covid-19 Vaccination²** (released in October 2021) **to provide future direction.** This update is designed to reflect epidemiological changes, advancements in vaccine development and evidence, and alterations in the global vaccine program and geopolitical landscape at the time of the mid-2022 milestone data for achieving strategy targets.

Significant progress has been made against three of the strategy goals laid out in 2021 to: (1) minimize deaths, severe disease, and overall disease burden; (2) curtail the health system impact; and (3) fully resume socio-economic activity. Notwithstanding the fact that these goals have not yet been fully achieved, the positive trajectory is largely a result of vaccination, public health and social measures (PHSMs), and to some degree infection-induced immunity.

The 4th strategy goal of **transmission reduction through vaccination has been difficult to attain.** Both vaccine and viral characteristics have contributed to the challenges in achieving this goal, in addition to incomplete vaccination. Current COVID-19 vaccines provide modest protection of limited duration against SARS-CoV-2 infection. Furthermore, increasingly transmissible variants have emerged (resulting in part from immune evasion), thus reinforcing the relevance of PHSMs.

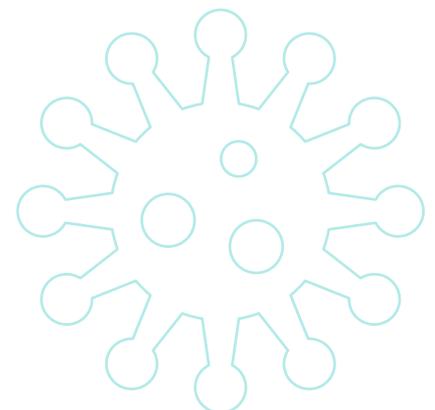
In 2021 failures of commitments to vaccine equity have been plainly evident, impeding the necessary global response to the pandemic and causing epidemiological, socio-economic, and ethical challenges. Today, despite remaining impediments to vaccination delivery, **opportunities for all countries to achieve global vaccine coverage goals are largely being achieved.** This is the result of substantial commitments and investments toward ensuring ample vaccine supply, programme funding and technical assistance along with the catalyzation of political will, including through international coordination and partnerships.

There is still a long road ahead and the future direction of the pandemic remains uncertain. Many of the most at-risk populations remain unvaccinated in many countries, leading to unnecessary deaths and suffering with ethical and socio-economic consequences that reverberate around the world. Estimates show that approximately 600,000 deaths could have been averted globally if all countries had reached 40% primary series vaccination coverage by the end of 2021, a target for which there was sufficient supply if COVID-19 vaccines had been equitably distributed.³ **It is therefore crucial to sustain and enhance the momentum for vaccination** in the face of widespread lower disease risk perception, lower demand for COVID-19 vaccines from populations, and emerging shifts in political priorities.

1 On 30 January 2020.

2 <https://www.who.int/publications/m/item/strategy-to-achieve-global-covid-19-vaccination-by-mid-2022>

3 Watson, Oliver J., et al. "Global impact of the first year of COVID-19 vaccination: a mathematical modelling study." *The Lancet Infectious Diseases* (2022), [https://doi.org/10.1016/S1473-3099\(22\)00320-6](https://doi.org/10.1016/S1473-3099(22)00320-6)



This sustained momentum includes urgently delivering current vaccine products to protect especially all those in highest and high-priority use groups through primary and booster schedules, in the context of ongoing waves of disease and risks regarding new variants of concern (VoCs).

The 'Global Covid-19 Vaccination Strategy in a Changing World', lays out updated global goals, steps, targets, and operational priorities to guide countries, policy makers, civil society, manufacturers, and international organizations in their ongoing efforts through 2022.

Towards the end of the year, as more scientific uncertainties get resolved and more data becomes available, WHO will embark on a consultative process to develop a global Covid-19 vaccination strategy for 2023 and beyond.

Achievements and challenges

Every country has been affected by COVID-19, with excess mortality estimated at approximately 15 million lives lost.⁴ **Significant progress has been made on the vaccination front:** nearly every country has implemented COVID-19 vaccines and 12 billion doses have been administered globally resulting in WHO Member States reaching on average 60% of their populations.⁵ **This massive and unprecedented COVID-19 vaccine deployment has led to major reductions in severe disease, hospitalization and deaths** (so-called de-coupling of cases and deaths), **allowing societies to re-open** and averting an estimated 19.8 million deaths in 2021.⁶

Global COVID-19 vaccine supply is now abundant with yearly manufacturing capacity of 11-16 billion vaccine doses,⁷ and ample volumes available for lower income countries through contracts and donations via the COVAX Facility, regional mechanisms, and bilateral approaches. For these countries, over 3 billion USD in external financing⁸ has been allocated to support vaccine delivery including through substantial multi-partner technical support. **Countries around the world have taken up the opportunity to protect ever larger shares of their populations using safe and highly effective vaccines. That protection includes booster doses, which are a critical part of sustaining protection,** including against VoCs. Some countries are achieving high coverage of populations most at risk and prioritized. As of June 2022, 68 WHO Member States have vaccinated more than 80% of their healthcare workers⁹ and 57 Member States have vaccinated more than 80% of older adults (60+)¹⁰ - including 13 Member States from the Western Pacific Region, 11 from the Region of the Americas, and 9 from the WHO African Region. Importantly substantial progress has also been made in the 34 countries with lowest coverage in January 2022, with their coverage increasing by three-fold as of June resulting in over half of these countries reaching or surpassing 10% population coverage threshold.

4 <https://www.who.int/news/item/05-05-2022-14.9-million-excess-deaths-were-associated-with-the-covid-19-pandemic-in-2020-and-2021>

5 With primary series.

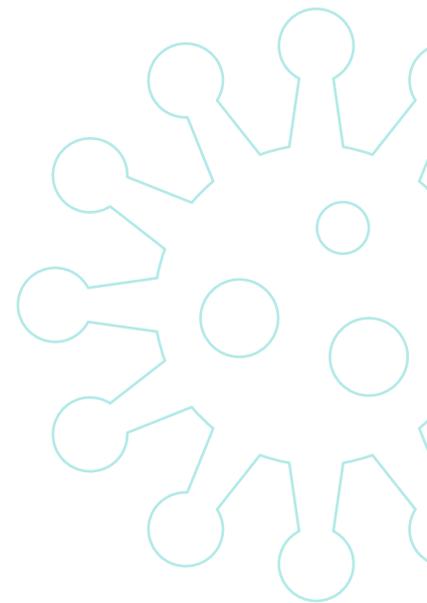
6 Watson, Oliver J., et al. "Global impact of the first year of COVID-19 vaccination: a mathematical modelling study." *The Lancet Infectious Diseases* (2022), [https://doi.org/10.1016/S1473-3099\(22\)00320-6](https://doi.org/10.1016/S1473-3099(22)00320-6)

7 Global Market Assessment, a collaboration by health and immunization partners including BMGF, CEPI, Gavi, UNICEF, WHO.

8 UNICEF estimate - June 2022.

9 Out of 138 reporting WHO Member States (as of June 27).

10 Out of 139 reporting WHO Member States (as of June 27).



Notwithstanding achievements to date, **COVID-19 vaccine and immunization progress needs to be sustained and momentum enhanced.** Continued use of currently licensed vaccines based on the index virus confers high levels of protection against severe disease outcomes for all variants, however **vaccine coverage of the most at-risk populations is not adequate.** Specifically, only 25% of older populations have received a complete primary series of COVID-19 vaccines in lower income countries, the very places where healthcare access is more limited. Compounding the impact of COVID-19 disease waves with influenza and other respiratory diseases has the potential to overwhelm health systems of every capacity, including in high-income countries. This has important health-related consequences and socio-economic implications at national and global levels, including broad supply chain disruptions. **Complete vaccine schedules, including booster doses as recommended by WHO, are an essential part of building immunity against virus strains circulating in communities worldwide.** In the future, additional doses with current or updated vaccine products may be recommended if these are shown to meaningfully enhance protection. Timely policy making will thus be needed to account for new evidence on vaccine effectiveness and optimal approaches to protection.^{11,12,13}

For vaccine delivery, efforts need to continue and increasingly emphasize delivery approaches to implement vaccination for adults, making vaccination for the life course a reality. In the immediate-term vaccination campaigns, designed and targeted at priority populations, are the most important among various approaches being used to accelerate coverage. It is also important for countries to integrate COVID-19 vaccination efforts in all available delivery platforms, especially for adults through a primary health care approach. Opportunities include leveraging services for communicable and non-communicable diseases, and reproductive care, along with using established maternal, newborn and child health services, or creating new delivery platforms. Furthermore, with the risk of increases in numbers of displaced people, serving humanitarian settings has become ever more important.¹⁴ The second half of 2022 also stands as a defining moment to restore and catch-up essential immunization services which have been heavily impacted by COVID-19. An urgent recovery effort from the backsliding in immunization coverage may avoid otherwise inevitable outbreaks of vaccine preventable diseases, such as measles, yellow fever, meningitis, and others, whose substantial excess morbidity and mortality could be attributable to COVID-19.

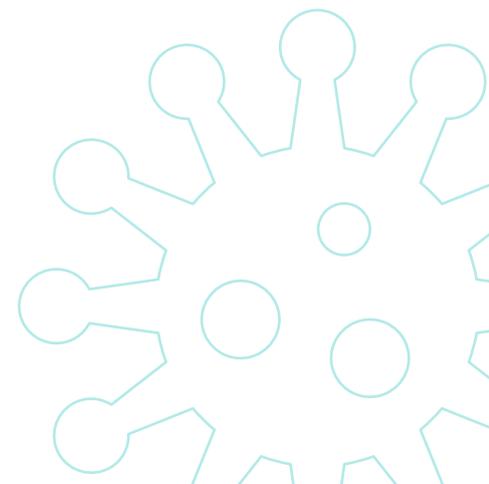
On COVID-19 vaccine products, fundamental innovation and development is needed to achieve durable, broadly protective immunity, including mucosal immunity, **to substantially reduce SARS-CoV-2 transmission.** Accumulated evidence indicates that existing vaccines provide only modest and relatively limited duration of protection against infection. Reduced transmission will help safeguard against emergence of new variants of concern and their global waves of disease with related health and economic consequences. **It is key for such innovations to be accessible in a timely way to all countries for equity as well as global health and economic security reasons.**

11 <https://www.who.int/news/item/17-06-2022-interim-statement-on-the-composition-of-current-COVID-19-vaccines>

12 <https://www.who.int/news/item/17-06-2022-interim-statement-on-decision-making-considerations-for-the-use-of-variant-updated-covid-19-vaccines>

13 <https://www.who.int/news/item/17-05-2022-interim-statement-on-the-use-of-additional-booster-doses-of-emergency-use-listed-mrna-vaccines-against-covid-19>

14 <https://healthcluster.who.int/publications/m/item/covid-19-task-team-covid-19-vaccination-in-humanitarian-settings>



Updated goals and tactics of the vaccination strategy

The WHO base-case COVID-19 pandemic scenario, as described in the 2022 COVID-19 strategic preparedness, readiness and response plan is the foundation for the updated strategy.¹⁵ It envisions that the virus continues to evolve and that its severity is significantly reduced over time. This base case scenario also envisions periodic spikes in transmission and disease.¹⁶ However, the updated vaccination strategy also recognizes the uncertainty of the SARS-CoV-2 virus evolutionary trajectory and the need for the strategy to also be relevant for the best- and worst-case scenarios laid out in the 2022 strategic preparedness, readiness and response plan.

Against this backdrop, the updated goals of the 'Global Covid-19 Vaccination Strategy in a Changing World' are two-fold (see Figure 1):

- **Goal 1 - Sustain and enhance momentum to reduce mortality and morbidity, protect the health systems, and resume socio-economic activities with existing vaccines.**
- **Goal 2 - Accelerate development and access to improved vaccines to achieve durable, broadly protective immunity, and reduce transmission.**

The following sequential steps progressively address Goal 1 along a trajectory from greater to lower relative gains:

- **Step 1 - Leverage currently authorized vaccines to urgently vaccinate all those in highest and high-priority use groups with effective vaccine schedules, including boosters,** according to the WHO Roadmap¹⁷ (using future versions when issued) as the main driver of sustaining progress and momentum vis a vis reduced mortality and disease burden. It should be noted that currently there is a wide range in vaccine coverage of at-risk populations across countries and there is a need to introduce and achieve high booster dose coverage.
- **Step 2 - Countries should sustain and enhance momentum for achieving coverage of medium-priority use groups** (i.e., remaining adults, and those adolescents and children with co-morbidities). This is needed despite estimated high levels of infection-induced immunity: hybrid immunity provides better protection than infection-induced immunity alone, which highlights the benefit of vaccinating even in populations with high infection-induced seroprevalence.¹⁸ Furthermore, all adult vaccination provides further 'risk reduction and insurance' in populations where co-morbidities and risk factors for COVID-19 may be under-diagnosed as well as against post-COVID-19 conditions and potential long-term consequences of infection that may yet be characterized.

¹⁵ The WHO 'worst case' and 'best case' scenarios have also been considered in the development of the strategy.

¹⁶ <https://www.who.int/publications/i/item/WHO-WHE-SPP-2022.1>

¹⁷ <https://www.who.int/publications/i/item/WHO-2019-nCoV-Vaccines-SAGE-Prioritization-2022.1>

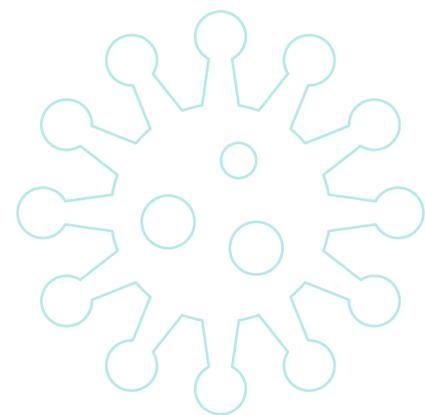
¹⁸ <https://www.who.int/news/item/01-06-2022-interim-statement-on-hybrid-immunity-and-increasing-population-seroprevalence-rates>

- **Step 3 - All countries should have the opportunity to extend the coverage further and build population immunity.** Vaccinating low-priority use groups (healthy adolescents and children), leveraging existing and future vaccination approaches, may be considered by countries primarily to reduce the health impact in these groups due to the current circulating virus (including post-COVID-19 conditions). It may also be considered as a risk mitigation approach in case future VoCs pose a greater threat to the health of younger populations than current circulating strains do. The contribution of vaccinating low-priority groups to disease reduction, health system protection, and social and economic recovery goals is substantially less than of other groups and specific to countries' contexts, due to the limited impact of current vaccines on transmission, the lower COVID-19 burden in these groups, and other health priorities which vary across countries.

The following objectives address Goal 2:

- **Objective 1 - Increased financial and technical investment in fundamental innovation** towards achieving more durable, broadly protective and transmission reducing vaccines, with guidance provided by WHO through updated Target Product Profiles and Vaccine Composition recommendations.^{19,20,21} Substantially reducing SARS-CoV-2 transmission will help safeguard against emergence of new variants of concern and risk of repeated large global waves of disease resulting from immune escape.
- **Objective 2 - Distributed manufacturing and access agreements targeting early availability of vaccine products with improved attributes for all countries** in alignment with WHO recommendations, including through regional collaboration and greater manufacturing autonomy in regions. It is essential that the commitment to vaccine equity is realised and repeats of past failures with their ethical, health, economic, global security implications avoided. Timely availability in all countries is needed for equitable progress in pandemic control everywhere.

Two key enablers are worthy of note among others: i) the development and integration of COVID-19 **vaccination delivery approaches across the life course** including to safeguard country health systems, societies, and economies against the impacts of future pandemics and other health emergencies; and ii) **sustained political engagement and investments** for both delivery of current vaccines, and research, development and equitable distribution of new vaccine products.

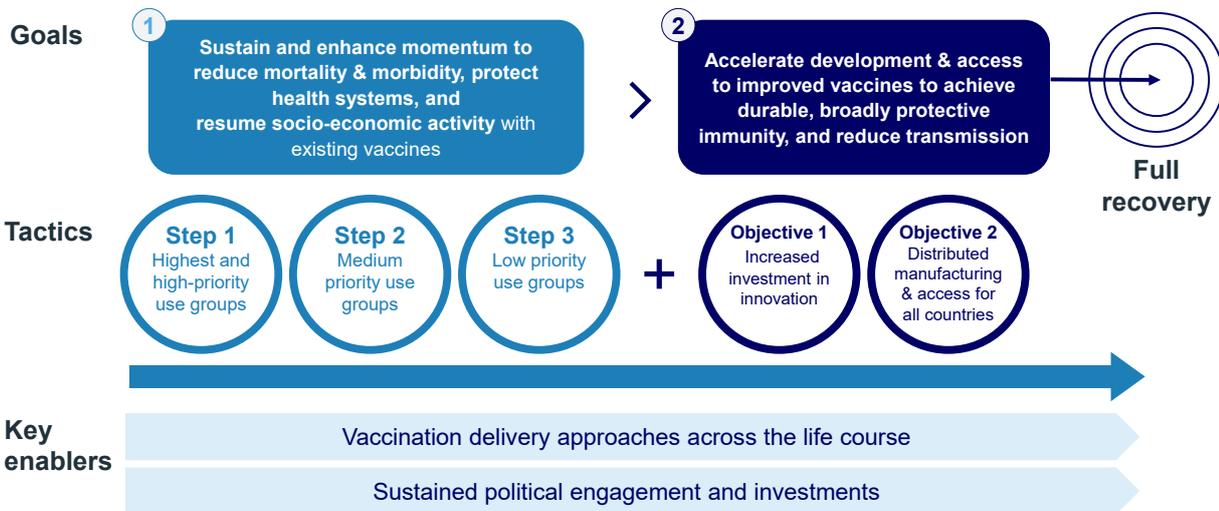


19 <https://www.who.int/publications/m/item/who-target-product-profiles-for-covid-19-vaccines>

20 <https://www.who.int/news/item/17-06-2022-interim-statement-on-decision-making-considerations-for-the-use-of-variant-updated-covid-19-vaccines>

21 <https://www.who.int/news/item/17-06-2022-interim-statement-on--the-composition-of-current-COVID-19-vaccines>

Figure 1. Health and socio-economic goals drive the global COVID-19 vaccination strategy



Monitoring framework

As the updated strategy is implemented over the months leading to the end of 2022, it will be critical to regularly monitor and acknowledge progress made by countries, product developers, manufacturers, civil society and international agencies - building on the following metrics:

- **Goal 1:**

- **Progress towards reaching an aspirational target of 100% of health care workers and 100% of older populations (60+) and other priority risk groups with primary series and booster doses, recognising that:** (i) the highest and high-priority use groups specified in the WHO Roadmap represent various groups for which population and coverage data availability is weak and requires strengthening; (ii) data limitations on delivery of booster doses are widespread; booster doses are of utmost importance for optimal protection and must be delivered, with considerations of local epidemiology for appropriate timing.²²
- **Countries' trajectory towards broader population immunity, measured as progress against a 70% of total population target** for international benchmarking, and against context-specific country targets. This acknowledges that countries will determine the breadth of their COVID-19 national vaccination programmes considering factors such as: local COVID-19 epidemiology, demographics, opportunities to leverage COVID-19 to strengthen primary health care systems, other health priorities, socio-economic risks from future waves of disease, population demand for breadth of vaccination, and sustainability of vaccination efforts.

²² 138 WHO Member States out of 194 report data on vaccination of healthcare workers, and 139 WHO Member States report data on vaccination of elderly (as of June 27). Most WHO Member States update this data less than once a month. It is key for countries to enhance data reporting to ensure progress for protection of these populations can be tracked and any challenge addressed through international collaboration.

- **Goal 2:**

- **Number of COVID-19 vaccine products with improved attributes in Phase II/III clinical trials and authorized**, with prospects to increase duration and breadth of protection, reduce transmission, and improve delivery.
- **Supply agreements** targeting availability of vaccine products with improved attributes, **for all countries**.

In consultation with countries and stakeholders, WHO will publish an accompanying document with a core set of monitoring metrics to guide progress toward the updated strategy.

Principles

The global COVID-19 vaccination goals and targets remain anchored in the following principles:

- **National & global equity:** all individuals, populations and countries should have equitable opportunities to access and distribute vaccines without incurring financial hardship.
- **Quality, safety & efficacy:** vaccines used should meet international standards through WHO authorization.
- **Integration:** vaccines should be deployed without undermining other primary health care priorities but rather leveraging and strengthening primary health care and other relevant communicable and non-communicable programmes. Vaccines should be considered as a key tool among a broader set for COVID-19 control measures (tests, treatment, and public health & social measures).

These three principles are aligned with the Health Emergency Preparedness and Response architecture's key principles of equity, coherence, and inclusion.²³

Operational priorities

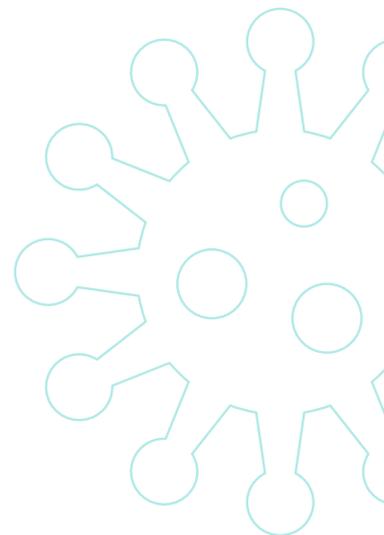
Based on experience gained to date and the updated goals and steps for the COVID-19 vaccination effort, the following operational priorities require urgent attention and reorientation before the end of 2022:

- Continued investments are needed for **rapid deployment of vaccinations to highest and high-priority use groups** in settings where coverage (including boosters) is incomplete, in part through:
 - **Demand generation work** - key to enhance momentum is to start with local behavioral and social data to understand barriers and drivers to uptake. A range of strategies may be needed which include engagement with community representatives to guide planning, design of tailored service delivery strategies, and targeted communications to fill information gaps and support informed decisions.



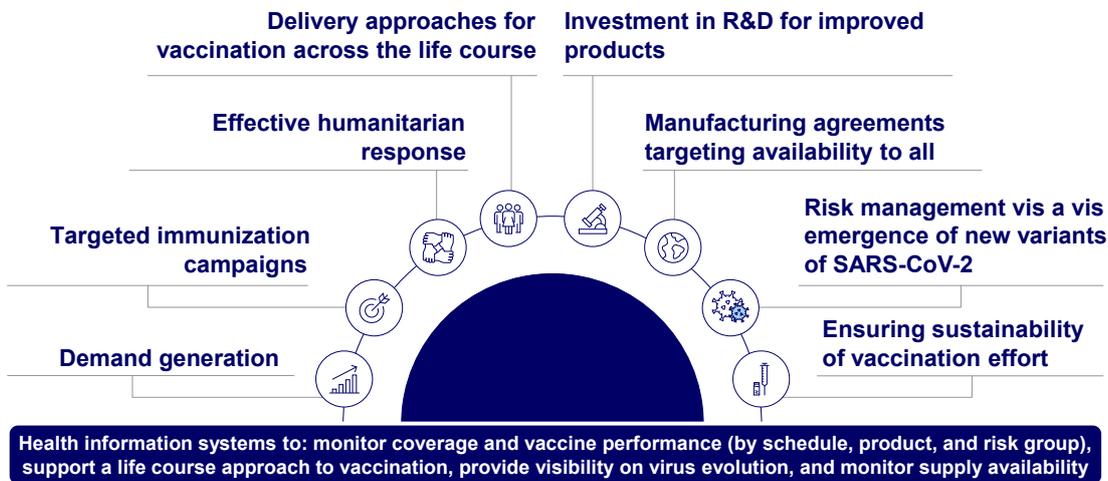
²³ <https://www.who.int/publications/m/item/white-paper-consultation-strengthening-the-global-architecture-for-health-emergency-preparedness-response-and-resilience>

- **Targeted immunization campaigns** designed and tailored to achieve vaccination of older adults, health workers and others in priority groups, as these groups are often not well served through general population campaign approaches.
- **Renewed and modified approaches to humanitarian response** to reach increasing numbers of displaced peoples, including by engaging additional partners.
- Emphasis should be put on the **opportunity to develop delivery approaches (i.e., platforms) for vaccination of adults**, which is a weak component of vaccination across the life course in many countries of all income levels. This platform development should include delivery, supply and logistics, finance, human resources, surveillance, monitoring and evaluation, and other elements. This will entail expanding the scope of adult primary health care services which currently do not offer vaccination and broadening the partnerships of immunization programmes. Strengthening vaccination across the life course will, among other benefits, strengthen country systems essential for safeguarding against future threats.
- **Strengthening health information systems is essential**, including to monitor coverage and vaccine effectiveness by schedule, product, age and risk groups, support a life course approach to vaccination, provide visibility on virus evolution, and monitor supply availability.
- **Investment in research and development of vaccine products with fundamentally improved attributes**, with inclusion of access provisions in funding agreements.
- **Manufacturing agreements targeting early availability of vaccine products with improved attributes for all countries** in alignment with WHO recommendations. This should include regional collaboration agreements towards greater manufacturing autonomy in regions, leveraging expanded global demand for vaccines from a life course approach. Timely availability in all countries is needed for equitable progress in pandemic control globally.
- **Managing risks associated with the emergence of new variants of SARS-CoV-2**, in alignment with the worst-case scenarios of the latest WHO Strategy Preparedness Response Plan.²⁴ While substantive, these risks and challenges can be addressed through the collective, concerted and coordinated actions of the global community.
- **Ensuring sustainability of the COVID-19 vaccination effort beyond 2022**, including securing of financial and other resources for programme implementation.



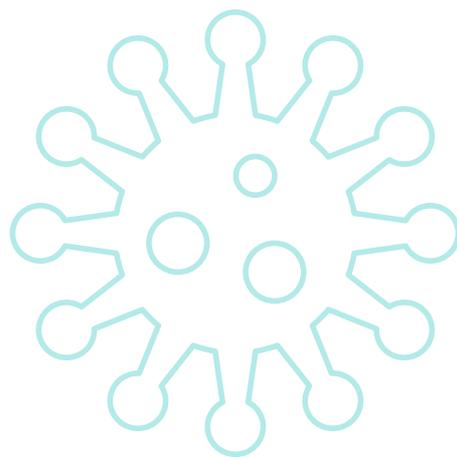
24 <https://www.who.int/publications/i/item/WHO-WHE-SPP-2022.1>

Figure 2. Aligned and coordinated action is needed to achieve the global COVID-19 vaccination targets



Timeline for review

Given the evolving epidemiology, vaccine product developments, advancements in programme implementation, and political landscape, the strategy will be assessed again in the last quarter of 2022 with a view to provide a revised global Covid-19 vaccination strategy for 2023 and beyond.





World Health
Organization