

APRIL 15, 2021

ONE WORLD PROTECTED

The Gavi COVAX AMC
Investment Opportunity



GAVI THE VACCINE ALLIANCE

GAVI COVAX AMC

The great merit of COVAX is guaranteeing the distribution of vaccines according to the actual needs of recipient countries, and not on the basis of the economic, political or geopolitical interests.

Mario Draghi

Prime Minister of Italy,
G20 President

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FOREWORD



// Vaccine policy is economic policy. Faster progress in ending the health crisis could add almost US \$9 trillion to global GDP by 2025. The scientists have given us vaccines in record time—now governments must show the same sense of urgency and collaboration to provide vaccines to everyone—everywhere.

Kristalina Georgieva
Managing Director, IMF

As the COVID-19 virus emerged at the end of 2019 and spread to every continent, governments around the world have locked down and restricted movement. As a result, 2020 saw the worst global economic contraction in peacetime since the Great Depression. It is estimated that the direct and indirect impacts of the virus will put between 143-163 million more people into poverty and reverse critical gains in health, education, and nutrition. Progress towards the Sustainable Development Goals has stalled and lower income countries experienced an estimated reduction in their GDP of 2.6%. For sub-Saharan Africa, 2020 was the first year in over three decades that economic growth was negative.

Higher income countries have sped ahead in the race to vaccinate their populations, with introductions starting as early as the end of 2020. However, given the rising number of variants, the progress achieved by higher income countries will remain in jeopardy as long as the COVID-19 virus thrives in other parts of the world. The global economy stands to lose as much as US \$9 trillion if governments fail to ensure lower income economy access to COVID-19 vaccines¹.



The World Bank estimates that the pandemic will push an additional 143-163 million additional people into extreme poverty in 2020 and 2021

At the international community's request, Gavi, the Vaccine Alliance (hereafter referred to as Gavi) is co-leading the global effort to ensure equitable access to COVID-19 vaccines – our best hope for mitigating the public health and economic impacts of the pandemic. For its part, Gavi has been working with governments, manufacturers, civil society, and fellow agencies to develop COVAX, the Vaccine Pillar of the Access to COVID-19 Tools Accelerator (ACT-A) (see Annex I). This extraordinary multilateral approach to vaccine procurement is backed by 190 participating economies. Within COVAX, Gavi is administering the COVAX Advance Market Commitment (COVAX AMC), the innovative financing mechanism already supporting the participation of 92 eligible lower income countries in the COVAX Facility (see Annex II) by frontloading funding through a fair and equitable mechanism to deliver billions of early doses.

Launched in June 2020, the COVAX AMC was built in record time, while clinical trials were still ongoing and before any vaccines had been licensed for use anywhere, to ensure investment risks were shared. The mechanism responds to the barriers to access and financing faced by lower income countries, to make sure that the most vulnerable in all countries can receive safe and efficacious COVID-19 vaccines. This is in the global self-interest: health security knows no borders. No dose should go idle, nor should any country ready to receive a vaccine have to wait.

In what is one of the biggest and fastest international efforts in decades, around 1.8 billion doses of COVID-19 vaccines have been reserved, but not yet locked in, through the COVAX AMC from a range of manufacturers. Global solidarity from governments, corporations, and philanthropies has helped raise US \$6.3 billion towards the cost of securing a proportion of these life-saving vaccines (see Annex III).

1.8BN

Around 1.8 billion doses of COVID-19 vaccine have been reserved through the AMC



As a result, first deliveries of vaccines to more than 65% of all AMC-eligible economies have taken place, with supply from the first allocation anticipated to cover an average of 2.5% of the AMC population by May. Based on progress so far, COVAX partners are drawing key lessons around delivering in an environment characterised by supply constraints and intense competition for doses.

The world has taken a major step towards protecting everyone. A concerted global approach offers the prospect of sparing lower income countries from a costly race for access. We should celebrate this early success but also build on it as new challenges emerge.

In the past months, new strains of the virus have started spreading and pose a fresh international threat. We must remember we are only five months into the COVID-19 vaccine era, and scientific and delivery challenges remain: we don't yet know for certain whether vaccines block transmission, how long they provide protection for, or what protection existing vaccines will provide against the new virus variants.

At the same time, over 93% of AMC-eligible countries have requested more vaccines from COVAX than it can supply in 2021. AMC countries with a combined population of nearly 4 billion people, around half of the world population, are demanding greater vaccine coverage. Information from Vaccine Request Forms submitted in December 2020 showed that among the 45 countries seeking higher population coverage than 20% with COVID-19 vaccines, the average target coverage was almost half of their entire population. Developing robust immunisation programmes will make a significant early impact on the pandemic and on the global economy – as well as clearing the path for countries to reinforce their routine immunisation programmes.

It is to this end that leaders around the world have called for a further acceleration of vaccination coverage and for the development of a new generation of vaccines that offer protection against new strains of COVID-19.

To get there, we urgently need to secure up to US \$2 billion of donor funding and US \$1 billion in cost sharing in addition to the US \$6.3 billion already pledged, to further raise vaccination rates, further diversify our vaccine portfolio and prepare to fight variants. In parallel, AMC-eligible economies need to mobilise domestic resources for additional doses and delivery, and fully harness support from the World Bank and other multilateral development banks (MDBs).

If donors and implementing countries through cost sharing supported by MDBs act together, the COVAX AMC could lock in up to 1.8 billion doses into 2022, to protect nearly 30% of the population - and pivot together to planning for 2022 and beyond. This figure could be further boosted by dose donations from those countries which have purchased more vaccines than their population requires.

In June 2021, Gavi will hold a critical conference to take stock of progress so far, to ensure the much needed funding is secured, and to prepare for the road ahead. As the virus and its variants continue to spread, we do not have the luxury of time. **We urgently need to see one world, protected.**



José Manuel Barroso
Chairman of the
Board, Gavi



Dr Seth Berkley
Chief Executive
Officer, Gavi

THE ROAD SO FAR



// The world has rallied behind Covax to ensure equitable access to vaccines. We have to continue this remarkable and unprecedented global effort to protect millions of lives and restart the global economy.

Dr Lia Tadesse
Minister of Health, Ethiopia

Set up in a record 6 months, the Gavi COVAX Advance Market Commitment (AMC) is already delivering on the ground to benefit **92 lower income economies**. Recognising that early vaccine markets would be characterised by far greater demand than supply, the aspiration of the COVAX AMC in the initial phase of operations was to provide vaccines for all high risk populations and frontline health workers in lower income countries, as part of the first phase to bring an end to the acute phase of the pandemic.

To realise these aspirations, a broad portfolio of vaccine candidates and vaccines has been assembled by the COVAX Facility. With deals with six manufacturers and more to come, **up to 1.8 billion life-saving vaccines could be locked in through the COVAX AMC before the end of this year, and delivered into 2022 - in this first phase meeting the original objective of ending the acute phase of the pandemic with vaccines. Nearly half a billion doses are contracted to be shipped through the middle of 2021**, sufficient to provide protection to roughly 5% of the population. This hinges on supply outcomes as manufacturers are facing increased



Nearly half a billion doses are contracted to be shipped through the middle of 2021

demand pressure as countries around the world scale up their vaccination programmes. Another variable is the extent to which self-financing participants take up vaccines offered to them (see Figure 1, which illustrates total COVAX volumes locked in and reserved by manufacturer).

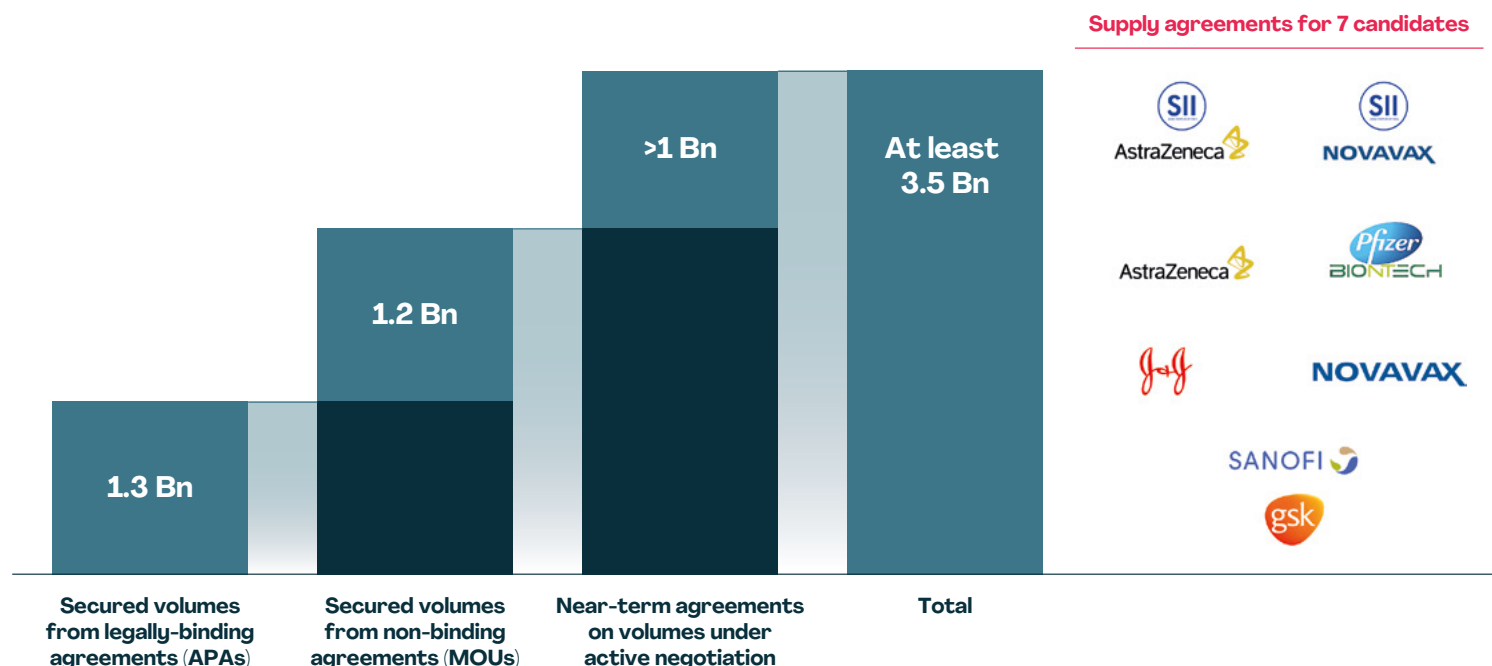
The first doses arrived in Gavi COVAX AMC-supported economies on 20 January, 2021 in Asia and 24 February in Africa – **less than three months after the first higher income countries** started their own immunisation programmes. In the first 6 weeks of operations, thanks to funding commitments made in 2020, more than 30 million doses of COVID-19 vaccines were shipped to AMC-eligible countries. By early April, 60 AMC-eligible countries had received their first shipments as the momentum in first deliveries built up. The timing is crucial, as economies like Kenya, Côte d'Ivoire and West Bank and Gaza face third waves of COVID-19. South Sudan was among a number of AMC countries to receive its first COVAX shipment of 132,000 vaccines in late March and has already been able to start vaccinating healthcare workers. With support from COVAX partners, South Sudan had stockpiled syringes to safely administer COVID-19 doses, as well as safety boxes for disposal after use, so that the national rollout was ready to launch once doses had arrived. The government of South Sudan is targeting 40% coverage with COVID-19 vaccines overall, with vaccines being offered to priority populations for free.

Fig. 1

COVAX facility portfolio overview

COVAX available supply, doses, 2021 and 2022

Data as per 07 April 2021



Note: total includes volumes of 3 additional candidates which COVAX is currently negotiating for.

Equitable access is at the heart of COVAX. The World Health Organisation (WHO) has led the establishment of a [fair allocation mechanism](#) which is designed to ensure a fair and equal distribution of COVID-19 vaccines, and is overseen by an independent group.

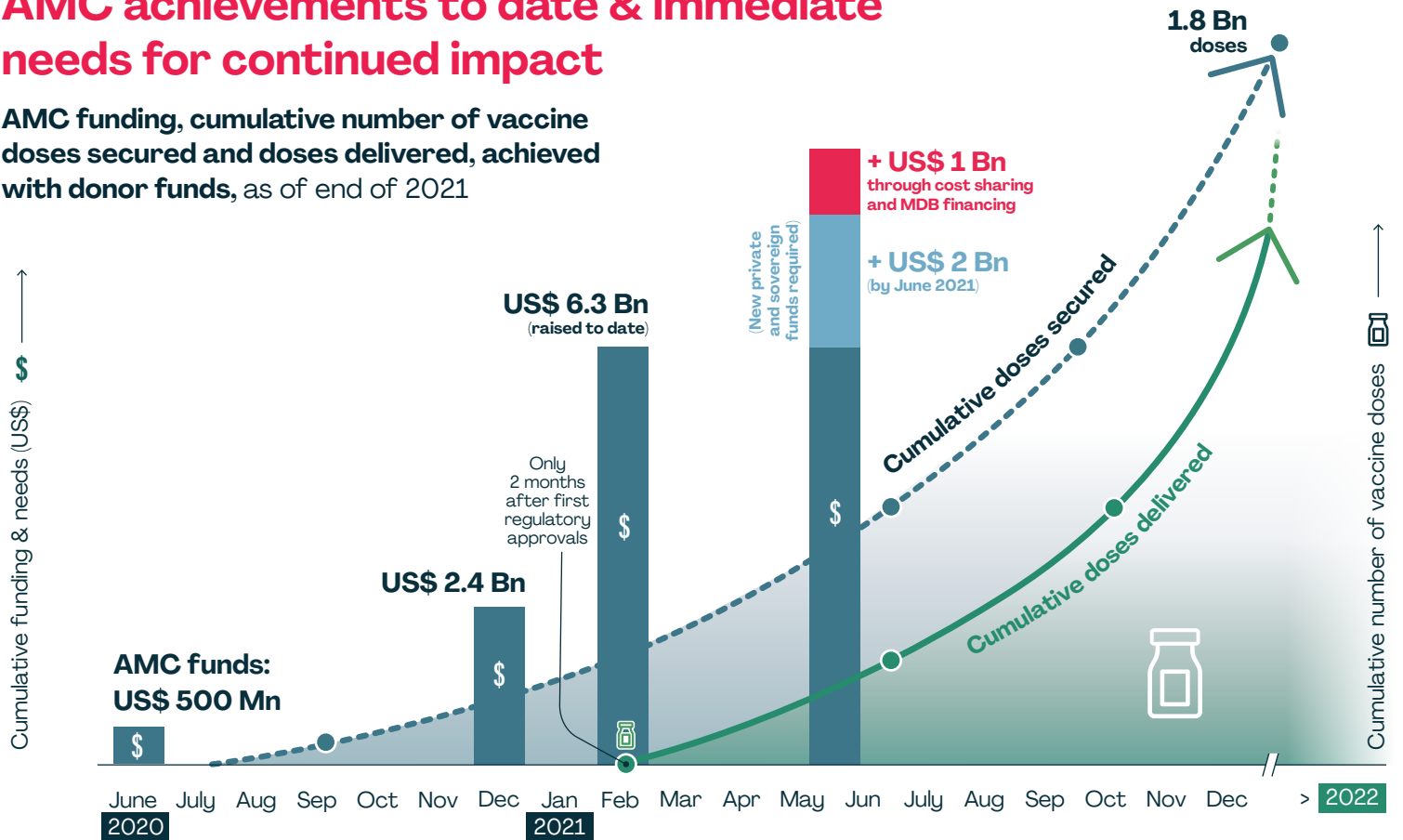
While COVAX will encourage all countries to include populations of concern² in their vaccine deployment plans, it will ensure that any missed groups living in humanitarian settings are not left out. To this end, an emergency humanitarian buffer of up to 5% of COVAX doses and valued at US \$415 million has been created.

As a vital adjunct to the supply of vaccines in a pandemic, the AMC has provided funding worth US \$105 million for a **No Fault Compensation Scheme** (NFCS) to ensure that people have access to compensation in the event of severe adverse events following immunisation with the new COVID-19 vaccines.

Fig. 2

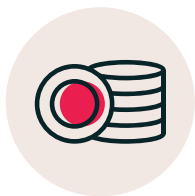
AMC achievements to date & immediate needs for continued impact

AMC funding, cumulative number of vaccine doses secured and doses delivered, achieved with donor funds, as of end of 2021



The compensation scheme – administered by Chubb, the world’s largest publicly traded insurance firm, managed by WHO, and financed by Gavi – ensures any instances of adverse events following immunisation are rapidly investigated and any compensation paid to individuals or their families. Together with standard contractual indemnification and liability language developed by Gavi and COVAX partners, **this bespoke insurance policy** ensures that doses get to countries rapidly, without waiting until manufacturers are able to use standard insurance products for indemnification and liability.

The early success of the COVAX AMC was underpinned by strong early support from the international community. Since its launch in June 2020 at the UK-hosted Global Vaccine



Since its launch, the COVAX AMC has benefitted from funding from more than 40 governments, corporations, & philanthropists

Summit until the G7 Early Leaders' Summit in February 2021, the COVAX AMC has benefitted from funding from more than 40 governments, corporations, and philanthropists. By December 2020 Gavi had received US \$400 million, which allowed Advance Purchase Agreements (APAs) to be signed and upfront payments made to manufacturers to lock in 600 million doses. Pledges of US \$2.4 billion by this time gave Gavi confidence that the balancing payments for the doses could be met. By March 2021, an additional payment to Gavi of US \$3 billion allowed Gavi to sign new APAs and make payments for additional doses to reach a total of at least 1.3 billion doses. These doses cost within the target average price of US \$5.20/dose. Pledges of US \$6.3 billion by this time gave Gavi confidence that the balancing payments for these doses could also be met.

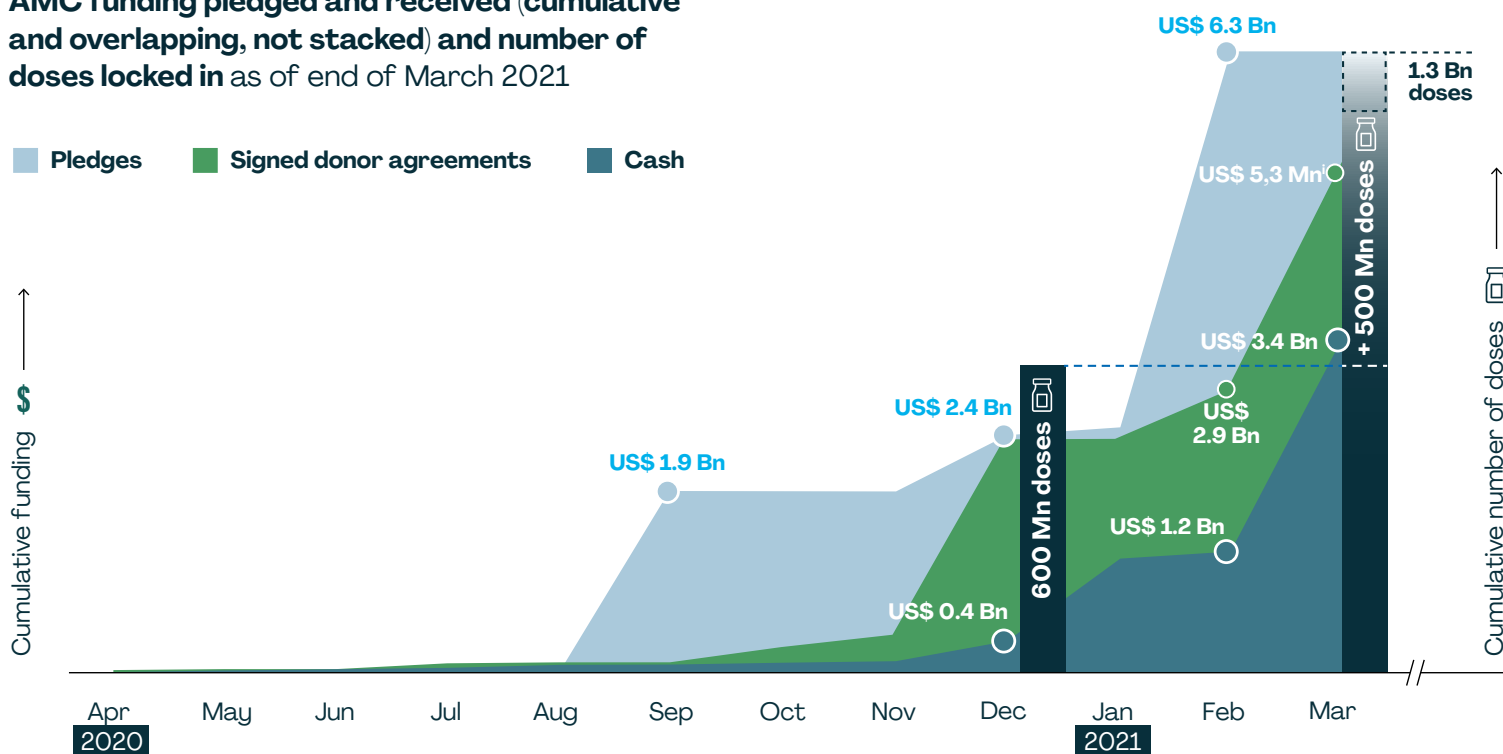




Fig. 3

Cumulative COVAX AMC pledges, cash and signed donor agreements

AMC funding pledged and received (cumulative and overlapping, not stacked) and number of doses locked in as of end of March 2021



Gavi had sufficient funds remaining in early April to make the upfront payments to reserve, but not make full payment for, at least an additional 500 million doses. Additional pledges of US \$2 billion and country cost sharing of US \$1 billion will allow these doses to be fully paid for. **A total of at least 1.8 billion doses could be purchased with additional donor and country funding.**

In addition to vaccine procurement, Gavi and UNICEF are actively working with implementing countries to ensure effective roll out of COVID-19 vaccination programmes. Building on its two-decade-long experience in **vaccine demand forecasting**, Gavi's engagement has fostered manufacturers' confidence in the demand scenarios and related supply and financial needs.



Harnessing the power of the Advance Market Commitment

The COVAX AMC builds on the experience of the US \$1.5 billion Pneumococcal Conjugate Vaccine (PCV) AMC launched in 2009, which successfully reduced prices and diversified supply for a complex vaccine against a major killer of infants and young children in lower income settings. Thanks to the PCV AMC, the infant PCV vaccine was introduced in lower income settings within a year of its introduction in higher income economies. 60 of 73 PCV AMC-eligible countries have now introduced PCV, with 3 further countries approved for the AMC price in 2020, and introductions planned in 2021 and 2022 – a total of 86% of eligible countries. 215 million children³ have been vaccinated with PCV since the programme started; a record low ‘tail price’ of US \$2/dose for a 5 dose vial was achieved in 2020; and the continued scale-up has averted over 570,000 deaths. Like the PCV AMC before it, the COVAX AMC is accelerating access to COVID-19 vaccines by addressing market failures. It uses Advance Purchase Agreements to secure options from manufacturers after review by independent experts in the Independent Product Group, in advance of approval by the WHO. This ensures that, once these vaccines are licensed, the COVAX AMC has accelerated access to doses on behalf of countries.



86%

A total of 86% of eligible countries have now introduced PCV.

The Alliance has now mobilised an additional US \$778 million from donors for delivery support

In September 2020, Gavi made available US \$150 million from its core resources for cold chain equipment and technical assistance to support countries' planning, recognising these were investments with long lead times that needed to be made immediately. This support is already being deployed with approximately 400 staff being recruited by core and expanded partners to provide technical assistance and thousands of units of cold chain equipment which is now being procured by UNICEF using Gavi resources.

Gavi has now mobilised an additional US \$778 million from donors to provide COVID-19 vaccine delivery support to complement the funding being provided by MDBs, bilateral donors and domestic budgets. This will support countries to roll out the vaccine and strengthen their vaccine delivery systems by ensuring their full cold chain equipment and Technical Assistance needs are met, to scale up high-impact innovations (such as vaccine traceability) and address critical delivery funding gaps. A portion of the funding will also be used to help provide greater assurance and oversight of COVID-19 vaccine delivery to mitigate key risks.

These investments overall will reduce the risk of unnecessary wastage of precious vaccines against COVID-19 and assist countries in making optimal use of doses supplied through the COVAX AMC. By mid-March 2021, Gavi had received 50 applications from AMC-eligible countries for Cold Chain Equipment (CCE) funding support worth over US \$39 million. Gavi and the Alliance aim to deliver within 4 months of receiving applications, meaning cold chain products such as walk-in cold rooms, freeze-free cold boxes and remote temperature monitoring will be in place on the same urgent timeline as COVID-19 vaccines are being rolled out.



LESSONS FROM 10 MONTHS OF COVAX AMC OPERATIONS



// Equitable access to COVID-19 vaccines is the fastest and fairest way to end the global pandemic.

Bill and Melinda Gates
Co-Founders of the Bill and Melinda Gates Foundation



WHO declared COVID-19 a pandemic on 11 March, 2020, at which point CEPI and Gavi had already begun initial discussions on a vaccine programme

WHO declared COVID-19 a pandemic on 11 March, 2020, at which point the Coalition for Epidemic Preparedness Innovations (CEPI) and Gavi had already begun initial discussions on a vaccine programme. The Access to COVID-19 Tools (ACT) Accelerator was launched on 24 April 2020, with a vaccine pillar being led by CEPI, Gavi, and WHO. This pillar became COVAX, and the first [COVAX AMC Investment Opportunity](#) was launched on 4 June 2020 at the Global Vaccine Summit (see Annex I).

From the first 10 months of operation, we have drawn some valuable lessons – about the importance of deal-structuring, partnership, about supply chains, and about regulatory needs. These lessons will help shape the way Gavi and COVAX work with partners to help protect everyone, everywhere from the impacts of COVID-19:

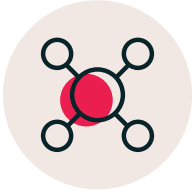
Deal strategy & financing

Building on 2 decades of market-shaping activity and operations with industry, as well as CEPI's early research &

development (R&D) investments in candidate vaccines against COVID-19, Gavi entered the market early with Memorandums of Understanding (MOUs), **non-legally binding instruments** to signal intent between particular manufacturers and COVAX on behalf of AMC-eligible countries and of self-financing participants in the COVAX Facility. An early significant rate limiting factor in respect of converting MOUs into APAs was **limited availability of cash** at hand and **legally binding pledges from donors**, as well as **low risk tolerance** in respect of recoverability of funding in the event of non-success of candidates and eventual licensure. The early and current strategy therefore focused on options negotiation, as well as firm order commitments.

This early strategy successfully optimised available resources and the limits of risk tolerance. As we pivot to end 2021 and early 2022 - and the strategy for 2022 and beyond - a critical lesson learned from the above is the trade-off between speed, price, secured volume and diversification. Negotiating global discounted prices for lower income economies is essential for long term value for money but takes time and early increases in supply are also a priority; diversifying the supply base will require earlier investment and higher risk tolerance to secure volumes early for prompt deliveries later; and calculated scientific estimates of success to justify not only APAs earlier, but also firm commitments in advance of licensure. We have learned that insufficient cash and risk tolerance can be major impediments, particularly as other major purchasers are not as constrained.

As we seek to diversify and expand the portfolio to lower concentration effects, to respond to elevated and urgent demand, and to better address variants of concern, Gavi will need to adjust its risk tolerance as well as to ensure faster resources for investment. But we cannot do this alone: on the



R&D success exceeded all expectations, which has meant that we have been able to go beyond the original COVAX aspiration of 1bn vaccine doses

industry side this requires significant commitment also; as well as global collaboration amongst the major vaccine-producing economies to balance domestic and international demand, volumes and pricing.

The reinforced vaccine portfolio strategy has taken lessons learned to date as described above, to emphasise the importance of the following key parameters outlined below:

- The benefits of significant upfront payments to lock in doses.
- Diversity of supply (geography, facility, company, technology).
- An emphasis on greater early volumes rather than lowest price.
- Adapting to evolving epidemiology.



Trust & partnership

Partnership is critical to building on existing architecture and systems to deliver the biggest global rollout of vaccines in history. Faced with a rapidly evolving pandemic, and few ‘off the shelf’ templates, global health partners had to be flexible and ready to adapt existing mechanisms, knowledge and platforms. The Gavi Alliance structure provided an immediate operational partnership to urgently address the pandemic.

Building on 20 years of experience assisting countries with vaccine procurement and delivery, AMC-eligible economies proved to be highly motivated to work with Gavi and its COVAX partners to gain access to COVID-19 vaccines. 88 countries have signed up to the COVAX AMC and already developed National Deployment and Vaccination Plans with technical assistance funding from Gavi.

Communication about COVAX has been challenging, as a result of the complexity of the partnership and the mechanism – incorporating self-financing as well as funded participants – the speed at which it has been established, limited staffing particularly in COVAX’s early days, the need to avoid prejudicing COVAX’s ability to get the best deals with manufacturers, and the inherent uncertainty of whether vaccines would be successful and what commitments could be made about supply given intense competition for doses. Some of these conditions are likely to continue as the virus evolves and interruptions to supply continue during early scale up.

COVAX is also developing new partnerships and new approaches to build on its strong existing trusted partnerships with the Africa Union’s Africa Vaccines Acquisition Task Team (AVATT); with the European Union and its novel approach to deploying instruments that support Member States interests in international action through vaccines against the COVID-19

pandemic via COVAX; and with commercial financiers, insurers and International Financing Institutions (IFIs) to unlock capital through new approaches.

Regulatory issues & operationalisation

WHO regulatory approval is rigorous – and necessarily so. The goal of COVAX is to deliver safe and efficacious vaccines with the same high standard of scientific approval as the vaccines Gavi usually procures, and at a minimum by a Stringent Regulatory Authority.

We have learned that regulatory approval and regulatory advice is critical to vaccine confidence, but also potentially a constraint on pace without adjusting the deal strategy.

Governance of a novel mechanism like COVAX required new oversight bodies to be established; this takes time, as does the necessary due diligence process. The question of indemnification and liability has been another substantial bottleneck. However, with AMC funding, this issue is being resolved not just for now but also as a global public good for the future.

Given historical rates of just 20% of candidate vaccines passing the phase 3 trial stage, COVAX planned for the worst-case scenarios and developed a broad portfolio of candidate COVID-19 vaccines. However, the R&D success exceeded all expectations, which has meant that we have been able to go beyond the original COVAX aspiration of 1 billion vaccine doses for lower income countries by the end of 2021.

On the downside, R&D success has led to large volume demand, adding significantly to complexity and challenges posed by rolling out new vaccines on an unprecedented scale. This means the deal strategy and financing approach will need to be flexible to current and future challenges, and adjusted based on lessons learned to date.

Country planning & cold chain

The R&D success has meant that higher income countries which had reserved vaccine doses bilaterally were able to introduce quickly, raising anxiety in other parts of the world and increasing pressure on COVAX to deliver doses. That is why speed and advance planning were – and continue to be – so critical. COVAX AMC-eligible countries recognised this, and submitted Vaccine Request Forms and National Deployment and Vaccination Plans at pace. By mid-March, over 80% of the preparedness requirements prior to shipment had been completed across AMC countries with Gavi support.

Given the unparalleled speed and scale of the COVID-19 vaccination programme, it is critical to ensure countries have access to the right technical assistance. Adequate support to plan and implement early roll out represents a key challenge for COVAX partners and Gavi's expanded partner networks but an important one that will ensure proper use of donor-funded vaccines.

Continuing to invest in expansion of cold chain capacity in implementing countries will need to be done in parallel with the scale-up in vaccine production and supply so that no dose is left idle as countries put in place the necessary infrastructure, and no dose is wasted due to inefficient cold chains.

Manufacturing scale up

The expansion in manufacturing is unprecedented in history and has led to shortages in critical materials. In pre-pandemic times, the industry would normally produce around 5 billion doses per year, including around 1.5 billion doses of seasonal flu vaccines.

The demand for COVID-19 vaccines will potentially cause supply issues for other critical vaccines. Manufacturing

expansion in 2021 will double the existing global aggregate volumes which nevertheless will fail to meet global demand. Export restrictions can aggravate already complex and stretched supply chains, leading to suboptimal outcomes.

COVAX is providing manufacturers with the certainty to invest in rapid scale-up, and a new COVAX working group is being established to try to resolve issues early on in the complex international supply chain, to the mutual benefit of countries and industry.

Innovative financing

Early funding at scale and advance payments are fundamental to reserving vaccine doses for future procurement and delivery. The existence of IFFIm will be key to early funding at scale: donors make long dated future pledges and through capital markets bond issuances IFFIm can frontload donor resources for immediate financing needs at Gavi and early impact. Beyond IFFIm, new coalitions are being built to expand flexible capital availability. For example, Gavi and the European Investment Bank (EIB) structured a novel approach to address cash constraints that donor budgets might face. Gavi and MDBs are collaborating to design modalities to unlock resources for the benefit of countries wishing to accelerate coverage. Commercial capital providers are in discussion with Gavi to design low-cost debt instruments and bond issuances at scale that may create a paradigm shift in the flexibility and cost of financing for the future.

A critical lesson: contingent financing at volume and standby supply chains for essential commodities are necessary to prepare for future pandemics.



Equity at heart

Equitable access is a founding principle of COVAX. That does not just mean ensuring that all countries get fair access to COVID-19 vaccines, it also means having an allocation mechanism, driven by the WHO, with independent oversight to guide how vaccines are distributed fairly between participants, and in a manner consistent with current scientific evidence.

Based on the recommendations of SAGE and WHO, the Fair Allocation Framework provides guidance on which groups should be vaccinated first. The recommendations identify three groups of people as high risk and who therefore should get priority access to COVID-19 vaccines: frontline health and social care workers; people over the age of 65; and people under 65 who have underlying health conditions that put them at greater risk of serious disease.

SAGE guidance recommends the initial prioritisation of frontline health and social care workers, who are not just at risk of being infected and pose a higher risk of transmitting the virus but are also critical to the COVID-19 response, including vaccine rollout. If COVID-19 vaccines were to be equally distributed so that all countries have enough to immunise at least 3% of their population in the first half of 2021, this will be sufficient to protect every health and social care worker on the planet. Then, as vaccine availability increases, distribution should continue equally until all countries have enough to protect at least 20% of their population, including all three of the high risk groups.



20%

Distribution should continue equally until all countries have enough to protect at least 20% of their population.

THE ROAD AHEAD



|| To overcome coronavirus, vaccines must reach all corners of the planet, as soon as possible. COVAX is our best vehicle to ensure universal and equitable access to COVID-19 vaccines.

Ursula von der Leyen

President of the European Commission

The first priority of the COVAX AMC was to ensure access to safe and efficacious vaccines against COVID-19 for lower income countries. Thanks to continued global solidarity and investments, this goal is now within reach.

The **emergence of new variants of the COVID-19 virus has brought a new dimension** to the fight to end the acute phase of the pandemic. The B.1.1.7 strain first identified in the UK may transmit 70% faster than the original variant⁴. The emergence of two other strains, the B.1.351 strain first identified in South Africa, and the P1 strain first identified in Brazil, has also raised concerns about increased transmissibility and reduced immune response to existing vaccines.

Faced with these new threats, AMC-eligible economies have upped their requests for vaccines from COVAX. Gavi will request updated demand information from those AMC-eligible economies seeking to finance coverage beyond doses secured with donors funds. Vaccine Request Forms in late 2020 in aggregate showed demand at 37% coverage from AMC participants.

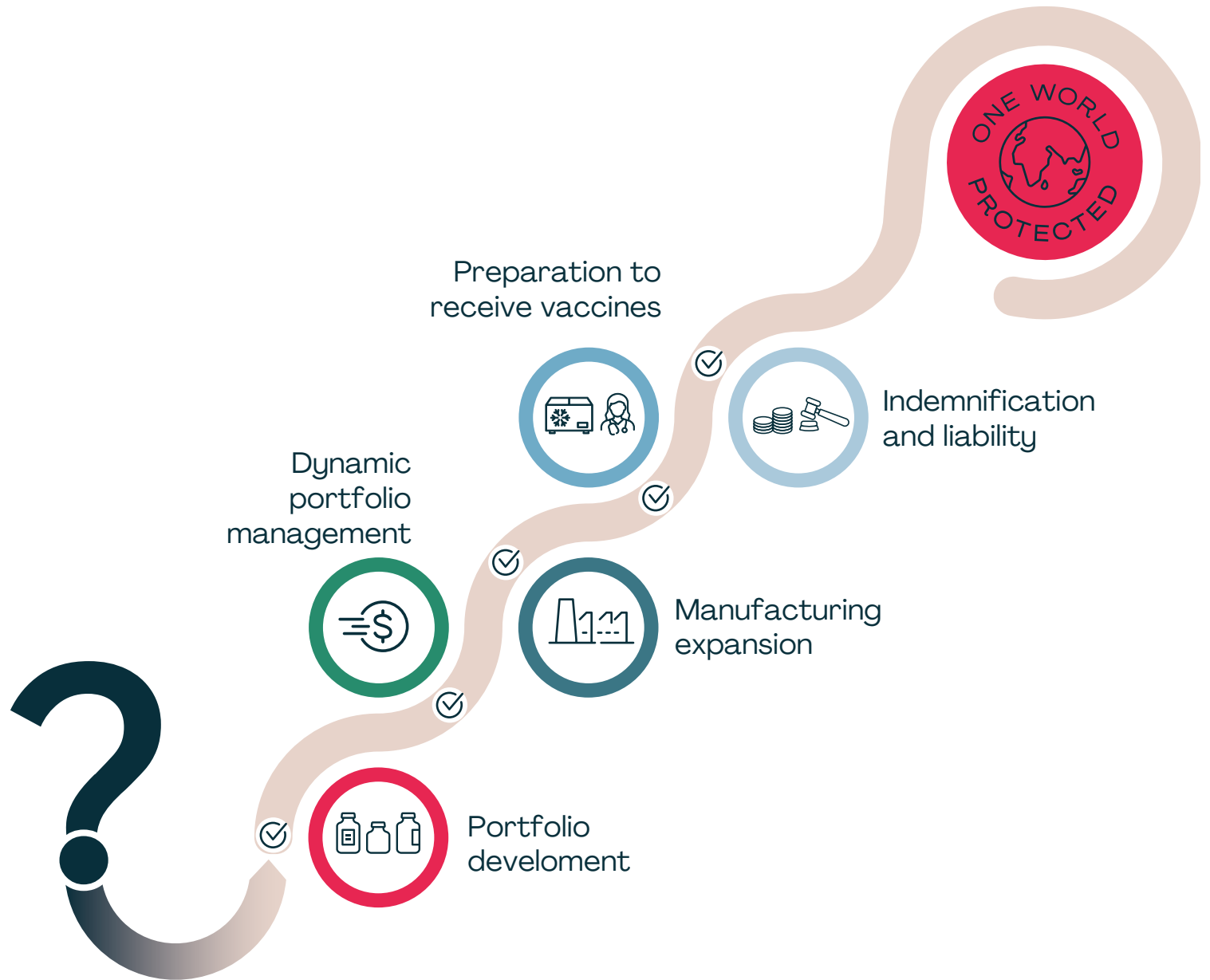
70%

The B.1.1.7 strain may transmit 70% faster than the original variant

In short – COVAX AMC-eligible countries are urgently demanding greater vaccine coverage, to protect against new variants and to keep pace with the rapid rollout underway in higher income economies.

Fig. 4

How COVAX is mitigating uncertainty





| **In 2021**

The COVAX AMC is close to its initial target of securing at least 1.3 billion doses in 2021 and we can secure an additional 500 million doses with sufficient donor and domestic funding routed via COVAX. This would allow AMC countries to achieve almost 30% coverage by early 2022; as well as allow the AMC to diversify the product mix, meet demand on an accelerated timeline, and ensure a consistent flow of doses to early 2022.

Several higher income countries have committed to sharing their surplus doses with COVAX. This will provide an important additional route to further accelerate the impact of the COVAX AMC.

The rise of new variants means that COVAX will need to continue to manage its COVID-19 vaccine portfolio dynamically. Gavi will continue to work closely with vaccine manufacturers, and with CEPI, which invests in R&D for new vaccine candidates.

In 2022 and beyond

While the future of the pandemic is uncertain, we can draw a number of scenarios which vary based on the epidemiology of the pandemic in the coming months.

The cost of immunisation will change as the vaccine portfolio evolves. This will be driven by two forces acting in opposite directions. On the one hand, the new generations of vaccines are likely to be easier to use, have less stringent cold chain requirements, and will likely be optimised for use at scale, perhaps with single dose regimens, all of which have the potential to reduce the costs of procurement and domestic delivery. At the same time, the threat of new variants may well lead to the need to develop and introduce booster doses or multi-strain vaccines, factors which will increase costs.

Supply security is likely to be enhanced as more production sites are activated around the world, production becomes more robust and supply chains are diversified geographically and across products.

Regulatory cooperation should continue to improve, so that if it is necessary to approve a new vaccine against new variants, this can be achieved safely, rapidly, and in a way that ensures doses can be deployed globally.

In an age of vaccines, lockdowns and non-pharmaceutical interventions may be less tolerated but will still be necessary to control spikes in transmission rates while we grow vaccination coverage. Assuming restrictions are not immediately lifted, the latest impact models suggest that 200,000 – 800,000 deaths may be averted with delivery of 1.8 billion doses of vaccines⁵. It is harder to project further into 2022 but if societies were to fully open and the counterfactual scenario was no vaccines, the



The latest impact models suggest that 200,000 – 800,000 deaths may be averted with delivery of 1.8 billion doses of vaccines



impact of the vaccines on the number of deaths averted would run into the millions.

In terms of the next phase of Gavi's COVAX AMC support to lower income countries, there are **three possible scenarios**:

- 1 The pandemic is finally contained**, and no significant additional effort is needed.
- 2 Countries further expand coverage**, so that a greater proportion of the at-risk population is protected from severe disease and transmission is reduced.
- 3 Those most at risk need to be prioritised for re-immunisation using boosters or existing and new vaccines**, to extend the duration of protection against severe disease and new variants.

Whichever scenario emerges, the COVAX AMC is designed to be flexible. **Under scenarios 2 and 3, the COVID-19 pandemic could evolve** into a long-standing illness which regularly comes back in parts of the world, joining a long list of other vaccine-preventable diseases. Studies are underway to understand the immunogenicity, safety and utility of vaccines in children; the Alliance will carefully follow the results.

If this were to be the case, Gavi would work with implementing countries to integrate COVID-19 vaccines into routine immunisation plans, set up **co-financing arrangements**, and help with demand forecasting and government preparedness, in much the same way as is already done for other vaccines in Gavi's portfolio.

The COVAX AMC would then play the role of a **long-term market-shaping mechanism, to ensure millions of doses are available to lower income countries** at an affordable price.

Gavi would also seek to work hand in hand with MDBs and IFIs, who would be expected to play an increasingly significant role in financing countries' COVID-19 pandemic preparedness contingent financing mechanisms to ease the burden on global development budgets.

Various scenarios and forecasts have been developed to better understand the quantum of funding that might be necessary for 2022 based on a range of parameters including **demand for coverage**, requirements for **boosters**, **pricing** variables and estimates of duration of protection. These early estimates are hypothetical but range from US \$9.5 billion to achieve 50% coverage across AMC countries and supply one booster for 20% of the at-risk population (at a cost per fully-loaded dose of US \$4.20, the lowest estimated average price), up to US \$23 billion to reach 60% of the AMC population with two doses and one booster each (at a cost per dose of US \$7, the highest estimated average price of the portfolio).

Global health security

Gavi's core mission supports countries in developing equitable and sustainable immunisation programmes, central to meeting their obligations under the International Health Regulations (2005). Routine immunisation contributes to health security by preventing diseases, supporting disease surveillance, and directing human resources towards health and community outreach, thereby strengthening country preparedness and response capacities for health emergencies.

Gavi has also for many years contributed to global health security through the management of vaccine stockpiles that protect against diseases of epidemic potential. These stockpiles are available to any country in the world that faces an outbreak of vaccine preventable disease. Higher income countries refund Gavi for the deployment of doses from the stockpile, while Gavi pays for lower income countries to ensure that outbreaks are addressed transparently and swiftly. Gavi works with industry to hold buffer stockpiles for highly transmissible and deadly diseases such as meningitis, yellow fever, cholera and most recently Ebola. Working in collaboration with its partners, Gavi also funds the operational costs of deployment to ensure vaccines reach communities as rapidly as possible to slow transmission, reduce deaths and disability, and eventually to stop an outbreak.

Outbreaks of diseases of epidemic potential compound the risk for other diseases: during the 2019–2020 Ebola outbreak in the eastern region of the Democratic Republic of the Congo, 2.5 times the number of people who died from measles as from Ebola as an already stretched health system diverted resources from contact tracing and preventive vaccination campaigns. Ensuring health systems are robust and sufficiently strong to address multiple scenarios is an investment in our global health and economic security.



A group of healthcare workers, primarily women, are shown in a line. They are wearing blue protective gowns, blue hairnets, and white face masks. The woman in the foreground is wearing a white lab coat with some text on it. The background is dark and indistinct.

2.5X

During the 2019–2020 Ebola outbreak in the eastern region of the Democratic Republic of the Congo, 2.5 times the number of people who died from measles as from Ebola.

WHAT IS NEEDED NOW?



|| In times like these, global solidarity is key. We call on governments, manufacturers and the private sector to ensure equitable access to supply and distribution of vaccines through COVAX so that no one is left behind.

Retno Marsudi

Minister for Foreign Affairs,
Indonesia

The clock is ticking – the world now needs to come together to maximise the power of the COVAX AMC so that our one world is protected.

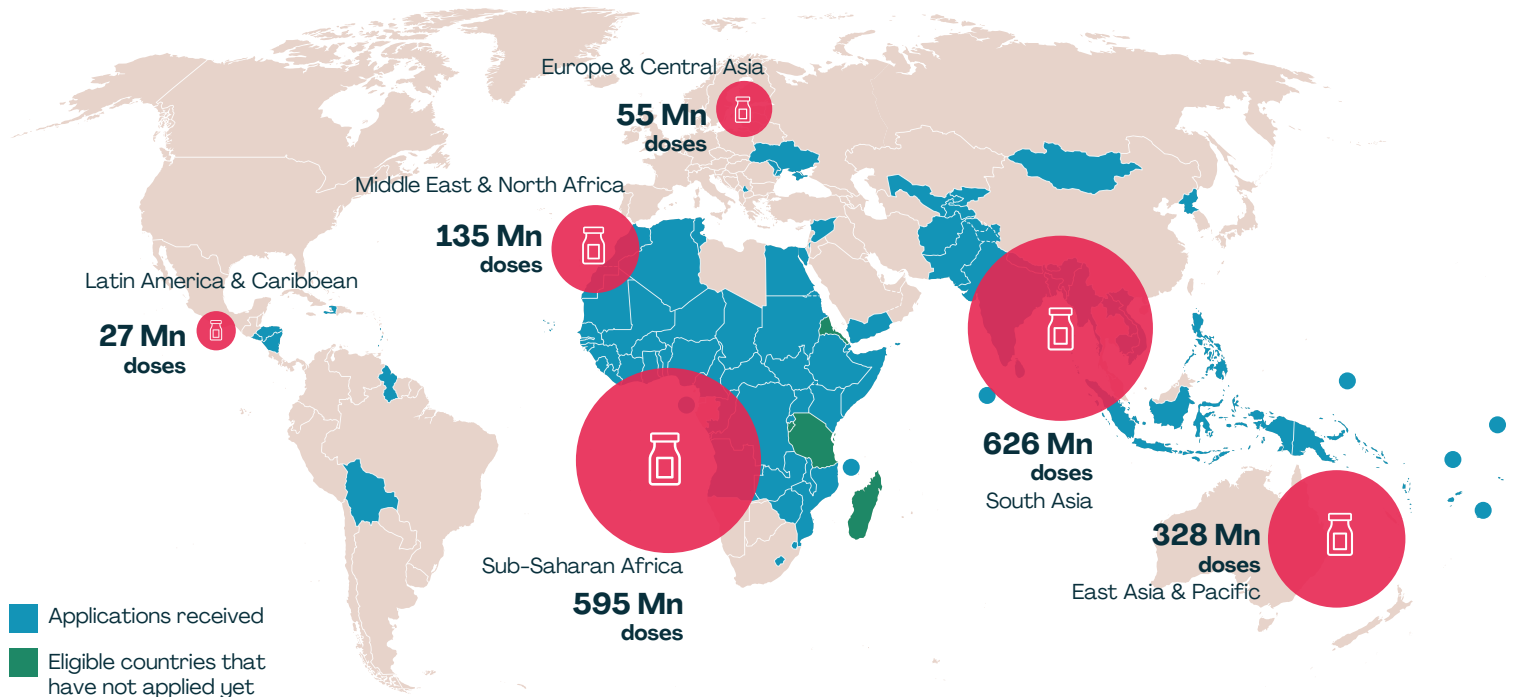
Commitments to date have allowed the COVAX AMC to reserve, but not yet lock in, around 1.8 billion life-saving vaccines. This has raised hopes that we can at last begin to get the pandemic under control. However, surges in case numbers around the world because of the emergence of new variants threaten what has been achieved so far. Additional funding is needed to maximise the capacity of COVAX to secure as many vaccines as possible to make them available in 2021 (including via pre-financing at risk), and to ensure a smooth transition into 2022 where high uncertainties around virus variance and market dynamics are likely to continue.

If 1.8 billion doses could be deployed by early 2022, nearly 30% of the population living in the lowest income countries would be protected from COVID-19.

This goal is within reach, but we need to act fast.

Fig. 5

Projected COVAX AMC vaccine supply by region



To make this happen, the COVAX AMC needs to secure the remaining funding to lock in these doses in 2021.

Gavi has already received commitments worth US\$ 6.3 billion from donor governments, but funding gaps remain. Early payments by June 2021 are necessary to lock in the full manufacturing capacity needed. Options need to be converted into firm commitments, so that pharmaceutical companies are in a position to commit to manufacturing doses for AMC-eligible economies. As we have learned, we now need to move rapidly to lock in the available options **now** for delivery later. This requires additional financing and adjusted risk tolerance.

All this can be achieved if donors collectively provide US \$2 billion and implementing countries supported by MDBs invest an additional US \$1 billion through COVAX.

\$6.3BN

Gavi has already received commitments worth US\$ 6.3 billion from donor governments, but funding gaps remain

One attractive investment option for sovereign donors is Gavi's International Finance Facility for Immunisation (IFFIm), which frontloads funds (and impact) for immunisation by issuing bonds against longer dated commitments. This has already been used for over a decade to successfully fund other Gavi-supported vaccines and accelerate access to immunisation in lower income countries, and has also helped fund the development of COVID-19 vaccines through Gavi's COVAX partner organisation, CEPI.

IFFIm has already been pressed into service to meet the significant funding needs of the COVAX AMC. In October 2020, IFFIm issued a US\$ 500 million 3-year fixed rate benchmark Vaccine Bond for Gavi's core immunisation programmes and COVID-19 vaccine procurement through the AMC. As part of the initial fundraising for the AMC, Australia, Norway, Spain and the United Kingdom pledged a combined total of approximately US\$ 873 million in long-term commitments that IFFIm Vaccine Bonds will convert to funding immediately available to the COVAX AMC. Donors whose grant schedules could benefit from flexibility and frontloading are further encouraged to support the COVAX AMC through IFFIm.

In addition, the EUR 440 million EIB guarantee facility offers donors a zero interest, zero cost mechanism by which to advance signed grant agreements into early cash commitments where budgets might release monies to Gavi further into the future (up to 5 years). This facility complements IFFIm, allowing Gavi to bring forward capital against donor commitments, and thus secure industry deals within an earlier time frame than might otherwise be possible with donor budget cycles.

Gavi is working with Development Finance Institutions and commercial capital providers to further develop its suite of innovative financing mechanisms that address liquidity, balance

sheet and pre-financing risks for the benefit of accelerated access to capital for Gavi and AMC-eligible countries. Gavi calls on capital providers to continue to innovate with Gavi and the COVAX AMC to leverage donor funds, private capital and markets, and maximise efficiency of capital structures.

It will be key that countries are able to share costs of COVID-19 vaccines, and that MDBs and IFIs enable this through country operations in coordination with COVAX. Once country demand has been assessed, countries and MDBs need specific supply expectations to move to legally binding commitments to purchase additional doses. Gavi continues to work with MDB partners to support domestic funding and ensure they are integrated into the multilateral response to the pandemic for the benefit of AMC-eligible countries, both for vaccine procurement through COVAX and to fund vaccine delivery.

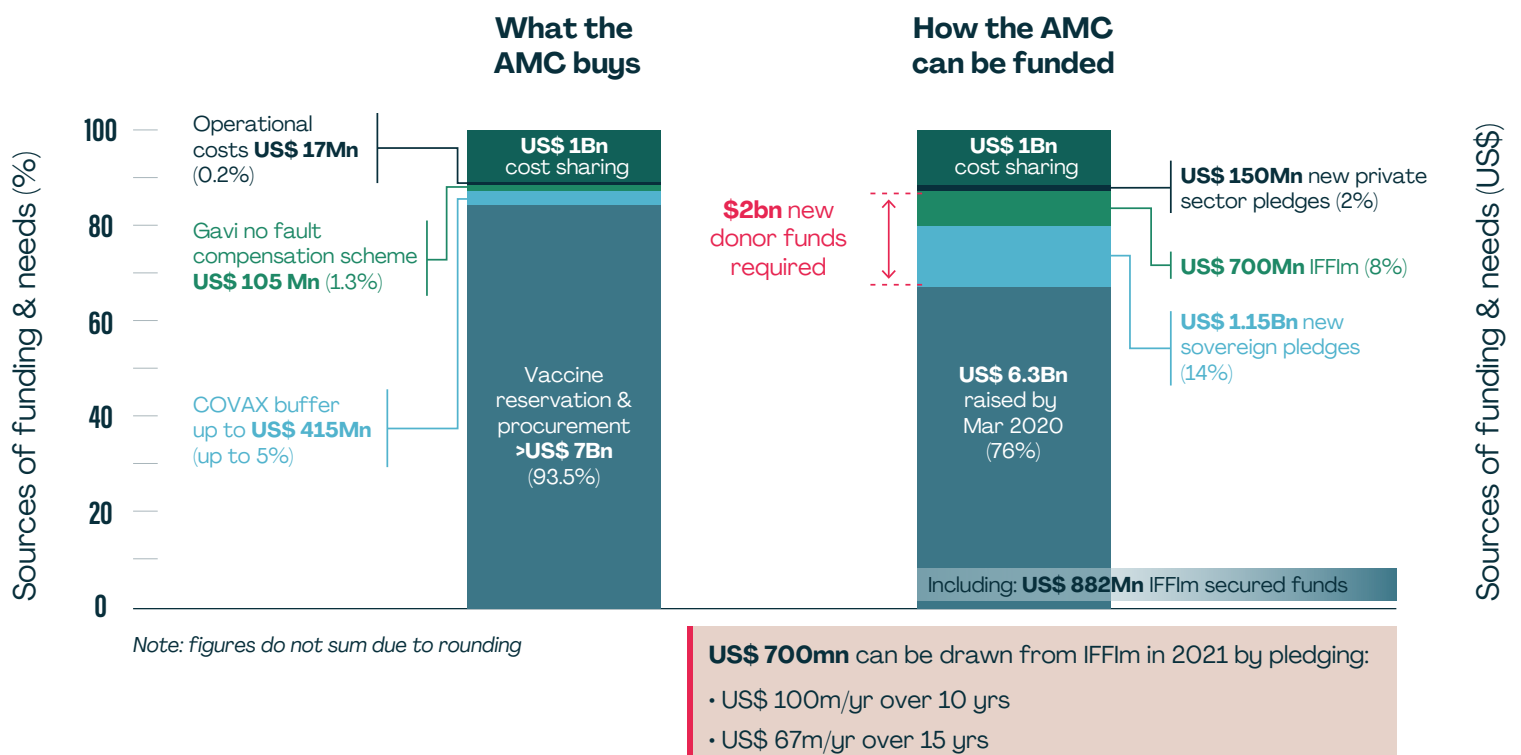
We also call on corporations, philanthropies, and foundations to provide direct financial contributions to accelerate the pooled buying of vaccines; to advocate for funding in support of global efforts; and to support governments and agencies on the ground with expertise and innovation to boost efficient and effective delivery of COVID-19 vaccines.

Our goal is to raise an additional US \$150 million from the private sector. Gavi's private sector partners have proved to be prompt donors in the past, and early funding is vital to securing vaccines in the current climate. Gavi is committing to providing regular updates to corporate and philanthropic supporters through a virtual forum. This forum will facilitate information sharing, to keep supporters informed on progress with COVAX AMC vaccine deliveries so they remain in a strong position to support countries with their roll outs and share their business know-how and expertise to identify effective solutions to bottlenecks in delivery.

Given the enormous impact that the pandemic has had on all our lives and livelihoods, private sector support of COVAX AMC is a moral imperative for those who can afford to contribute. There are, however, other more pragmatic reasons for supporting COVAX.

Fig. 6

The COVAX AMC: sources of funding and what it buys⁶



The pandemic has challenged many businesses. Bringing the pandemic to an end means saving lives, but it also means saving livelihoods and businesses. The COVAX AMC is the best tool at hand to avoid adding an economic crisis on top of the ongoing health crisis, and for ensuring a return to global economic growth as early as this year.

Finally, we call on donors to share their excess vaccines through COVAX, in line with the COVAX [dose-sharing principles](#). This will ensure that any donations of excess vaccines will achieve the maximum benefit for eligible countries.

In addition to funding, AMC-supported economies need to remain fully engaged in delivery.

Introducing and scaling up a new vaccine is a highly complex process, involving many steps including developing national regulatory pathways, human resources and training capacity, logistics systems and cold chain, designing service delivery to target priority populations, data collection and monitoring (to ensure coverage is adequate and safe), and social mobilisation and community engagement (so people stay informed and have confidence in COVID-19 vaccines).

Gavi together with key COVAX partners is working to ensure that no country risks receiving vaccines which it cannot then administer due to a lack of domestic funding or access to sufficiently rapid external financing. Vaccines against COVID-19 are a precious commodity, which means that Gavi and its COVAX partners are doubling down on efforts to ensure that these are being handled, stored and used properly, that there are no counterfeits, and that they are administered to the appropriate target groups.



Gavi's operating principles in respect of expanded delivery support are speed of delivery; speed of impact; risk mitigation; value for money; and long-term immunisation infrastructure strengthening. While we need to address the pandemic now, [Gavi support](#) will also be directed towards achieving equity, quality, efficiency and sustainability of broader immunisation programmes. Leaving no one behind with immunisation is the overarching goal of Gavi's new strategy for 2021-25. To reduce inequities in immunisation, the key focus of Gavi's support is to build and strengthen immunisation services that sustainably reach children and communities who are missed by immunisation and other critical health services, whether in slums, conflict settings or remote rural areas.

Gavi was established as a public-private partnership of all the major actors in immunisation, including the International Federation of Pharmaceutical and Manufacturers Association (IFPMA) and the Developing Countries Vaccine Manufacturing Network (DCVMN). Participation of vaccine industries in countries of all income levels will be essential to our success in ending the acute phase of the pandemic, as well as managing COVID-19 into the future. It is critical that industry work hand-in-hand with Gavi on the COVAX AMC, to ensure lower income countries can continue to access appropriate, safe and efficacious vaccines at volume.

UN agencies, International Financial Institutions, CSOs, country health teams and partners need to continue their joint work with Gavi.

Gavi will continue to work with existing partners to provide essential information and funding to plan and support vaccine delivery. Gavi and its procurement agent, UNICEF Supply Division, have a well-established system for vaccine procurement and delivery from manufacturers to country port. It is at this point that country systems take ownership of their vaccines. Ensuring countries allocate the human and financial resources needed for effective deployment together with Gavi and Alliance partners is an essential coordination exercise. The COVAX AMC will retain its accountability for the commodities it funds through reporting by countries.

The World Health Organisation must continue to pursue its review of new vaccines.

WHO provides expert review and prequalification or emergency use licensure for new vaccines. This essential analysis is needed at pace to enable the COVAX AMC to invest in and procure a broad set of candidates, across different technologies.

Finally, the world needs to join forces to bolster confidence in vaccines.



The fight against the pandemic risks being impeded by misinformation about the safety and benefits of vaccines

The fight against the pandemic risks being impeded by misinformation about the safety and benefits of vaccines. Gavi is actively seeking solutions to combat the spread of misinformation about vaccines and is developing a system for detecting, identifying, and responding to misinformation. As part of this effort, Gavi has established partnerships with major global social media platforms and will continue to leverage these for proactive distribution of vaccine confidence assets. Gavi's investments in health systems strengthening will support community health workers as they transition from infection control measures to vaccine distribution. In parallel, tailored communication strategies to engage local actors, influence behaviours and reinforce COVID-19 communications at the community level are being rolled out. Civil society's work will also be critical for building community confidence in the benefits of vaccination.

TIME TO ACT. NOW.

“ COVID-19 has changed the world. It has cost lives, battered health systems and damaged livelihoods. But, through these challenges, we have seen the best of humanity exemplified through strong multilateral cooperation.

Nana Akufo-Addo
President of Ghana



The risks of inaction and delayed response are significant. While there have been glimmers of hope – testing capacity has grown and promising treatments for severe cases have emerged – bereavement and physical isolation have been challenging for many. Lives and livelihoods have been pitted against each other.

If the most vulnerable populations in lower income countries cannot be protected, economies will continue to experience rising caseloads and loss of life, as well as increased pressure on primary health care services and other key social sectors. Pressure on tertiary and secondary facilities and staff risk putting real strain on government health budgets, with potentially devastating knock-on effects on primary and preventive healthcare, which are fundamental to health equity. The continued loss of economic growth could lead to economic, political and societal destabilisation.

The African continent alone saw GDP losses of around 5% in 2020. But the consequences are not only being felt by lower income economies. For higher income countries too, the inability to address the COVID-19 pandemic at a global level means increased risks of continued waves of virus and variants, difficult political choices, curtailed trade and lost economic opportunity. The global economy would remain fragile, risking any chance of building back better, and with the looming prospect of a prolonged, deep recession and unprecedented global debt levels, the outlook for the next and future generations looks increasingly bleak.

It is an economically efficient imperative: the International Monetary Fund estimates the pandemic will cost the global economy US \$28 trillion in lost output by 2025; the World Bank estimates that the pandemic will push an additional 143-163 million people into extreme poverty in 2020 and 2021. More than US \$13.8 trillion in emergency funding has already been

spent by G20 countries on dealing with the consequences of the pandemic⁷. These devastating economic consequences are causing major setbacks to human capital development and are jeopardising achievement of the Sustainable Development Goals.

Ending the acute phase of the pandemic is currently the best economic decision for any country. In a globalised economy, all economies are interdependent and require multilateralism and cooperation to thrive. It is now clear that no country will be able to fully recover until all countries recover. Contributing to the COVAX AMC is an investment in that recovery, and a prerequisite for building back better, together. It is an investment that requires immediate attention. Every day that passes allows the pandemic to grow stronger with more cases, and more variants. And every day that passes endangers more businesses, jobs and communities.

But it is also a moral imperative; if vaccines are distributed to high-income countries first, 33% of deaths would be averted, while if vaccines are distributed to all countries proportional to population, 61% of deaths would be averted – a doubling of health impact.⁸

Accelerated access to vaccines and their equitable distribution is in everyone's interest. A disorderly exit from this pandemic will cost the world many times over not only in dollars, but also in lost opportunity, especially for young people and for girls and women, in further exacerbation of inequalities that risks leading to further political instability, in overwhelmed health systems and health workers, in a failed multilateral response, and in needlessly lost lives.

We must win the fight against the virus everywhere. Because no one will be safe until everyone is.

ANNEX I: ACCESS TO COVID-19 TOOLS ACCELERATOR & COVAX

The Access to COVID-19 Tools Accelerator (ACT-A) is a time-limited collaboration designed to rapidly leverage existing global public health infrastructure and expertise to accelerate development, production, and equitable access to COVID-19 tests, treatments, and vaccines.

Each contributing organisation to ACT-A brings key components to the global COVID-19 response. The work of these organisations is organised into three product Pillars – vaccines, therapeutics and diagnostics – and is supported by the cross-cutting Health Systems Connector (HSC) and guided by the Access & Allocation workstream, all of which are fully empowered to develop and implement workplans through their own structures and processes. The Civil Society engagement workstream ensures civil society and community input across ACT-A.

Through ACT-A, leading organisations work in close partnership with governments, civil society, and industry to provide an integrated approach to develop the tools needed to end the pandemic. Each pillar is necessary: by protecting people against the disease; rapidly identifying new cases and stopping further transmission; treating those who become ill; and supporting the rapid deployment of tools, these combined interventions can limit COVID-19 transmission and severe disease and minimise the pandemic's economic impact.

The ACT-Accelerator's vaccine pillar

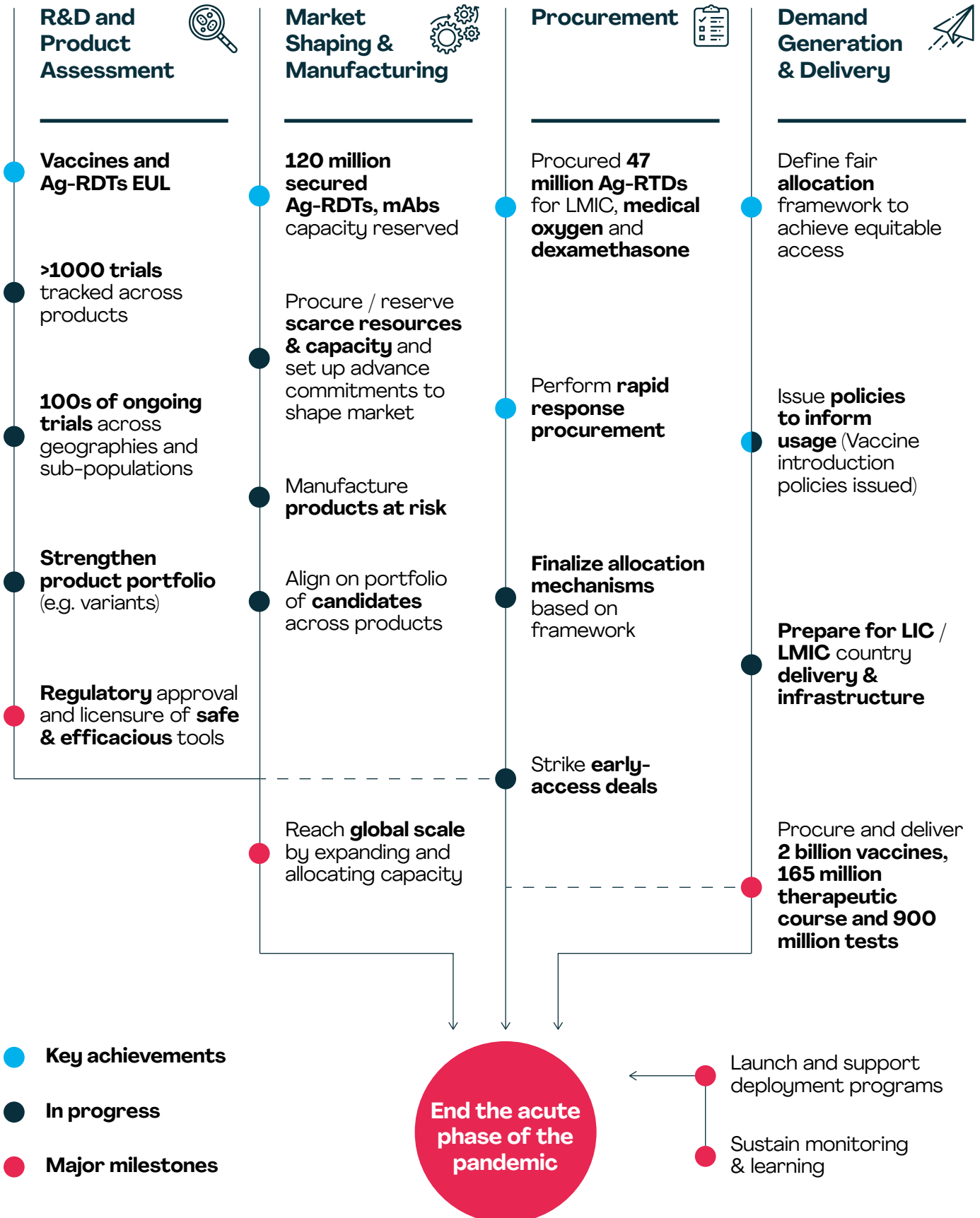
COVAX is the vaccines pillar of ACT-A, jointly convened by CEPI, Gavi and WHO, and working with UNICEF as a key delivery partner.

The Gavi-administered COVAX Facility is responsible for the procurement of safe and efficacious COVID-19 vaccines for use by its 190 participating countries in the Facility.

Each partner has a distinct role to play:

- **CEPI** manages a broad portfolio of COVID-19 vaccine candidates and evaluates promising candidates as they come online for addition to the COVAX portfolio.
- **Gavi** negotiates with manufacturers to secure initial doses of vaccine under supply constraints, works with UNICEF Supply Division and PAHO on procurement of vaccines and holds contracts and financing arrangements with participating governments, and mobilises resources on behalf of the 92 COVAX AMC-eligible countries.
- **WHO** convenes the allocation and regulatory processes for vaccine rollout, assesses country readiness to receive vaccines and provides technical assistance.
- **UNICEF** procures COVID-19 vaccine doses in collaboration with the Pan-American Health Organisation (PAHO) and manages the logistics of vaccine distribution, including freight and storage.

ACT-Accelerator’s critical path uses accelerated & parallel workstreams across the value chain to rapidly achieve its goals for 2021⁹



ANNEX II: LIST OF AMC-ELIGIBLE COUNTRIES

Gavi COVAX AMC supports 92 lower income economies.

Low income: Afghanistan, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Congo Dem. Rep., Eritrea, Ethiopia, the Gambia, Guinea, Guinea-Bissau, Haiti, Korea, Dem. People's Rep., Liberia, Madagascar, Malawi, Mali, Mozambique, Nepal, Niger, Rwanda, Sierra Leone, Somalia, South Sudan, Syrian Arab Republic, Tajikistan, Tanzania, Togo, Uganda, Yemen, Rep.

Lower-middle income: Angola, Algeria, Bangladesh, Bhutan, Bolivia, Cabo Verde, Cambodia, Cameroon, Comoros, Congo Rep., Côte d'Ivoire, Djibouti, Egypt, Arab Rep., El Salvador, Eswatini, Ghana, Honduras, India, Indonesia, Kenya, Kiribati, Kyrgyz Republic, Lao PDR, Lesotho, Mauritania, Micronesia, Fed. Sts., Moldova, Mongolia, Morocco, Myanmar, Nicaragua, Nigeria, Pakistan, Papua New Guinea, Philippines, São Tomé and Príncipe, Senegal, Solomon Islands, Sri Lanka, Sudan, Timor-Leste, Tunisia, Ukraine, Uzbekistan, Vanuatu, Vietnam, West Bank and Gaza, Zambia, Zimbabwe.

Additional IDA eligible: Dominica, Fiji, Grenada, Guyana, Kosovo, Maldives, Marshall Islands, Samoa, St. Lucia, St. Vincent and the Grenadines, Tonga, Tuvalu.

Foundations, Corporations & Organisations	Direct Contributions				IFFIm (Contributions)				Total Contributions	
	Curr.	Direct Contribution LC	FX rate	Direct Contribution USD	Curr.	IFFIm (LC)	FX rate	IFFIm (USD)		
Anonymous Foundation	CHF	20.0	1.1300	21.8					22	
Anonymous Donor ⁹	USD	2.0	1.0000	2.0					2	
Anonymous Donor	SEK	1.5	0.1218	0.2					0.2	
Bill & Melinda Gates Foundation (BMGF) ¹⁰	USD	156.3	1.0000	156.3					156	
KS Relief/Gamers Without Borders	USD	26.3	1.0000	26.3					26	
Mastercard	GBP	1.0	1.3700	1.4					1	
Mc Hugh O'Donovan Foundation	USD	0.1	1.0000	0.1					0.1	
Medline International	EUR	0.02	1.2200	0.02					0.02	
Nikkei Inc.	USD	0.04	1.0000	0.04					0.04	
PPL	GBP	0.01	1.3700	0.01					0.01	
Reed Hastings and Patty Quillin	USD	30.0	1.0000	30.0					30	
Shell	USD	10.0	1.0000	10.0					10	
Soccer Aid	GBP	3.0	1.3700	4.1					4	
Thistledown Foundation ¹¹	CAD	5.0	0.7800	3.9					4	
TikTok ¹²	USD	10.0	1.0000	10.0					10	
Transferwise	USD	5.0	1.0000	5.0					5	
Vaccine Forward Initiative	SEK	2.0	0.1218	0.2					0.2	
Other Private Sector	EUR	1.2	1.2200	1.2					1	
TOTAL Foundations, Corporations and Organisations									272	
Total Pledged to date				5,408					882	6,290

Guarantees

Team Europe (European Commission/European Investment Bank) ¹³	EUR	600.00	1.2200	732
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\$6.3Bn

In addition to the previous table focusing on vaccine purchases, the following commitments have been made for vaccine delivery and/or logistics:

- **Canada:** CAD 75m for delivery of COVID-19 vaccines to AMC92
- **Germany:** EUR 180m to Gavi COVAX AMC for vaccines logistics (UNICEF)
- **United States:** US\$ 500m for COVID-19 vaccine delivery in 2021 and 2022

NOTES AND CAVEATS

Endnotes

- ¹ Source: The Economic Case for Global Vaccinations (January 2021)
- ² The COVAX buffer ensures access to COVID-19 vaccines for high-risk populations in humanitarian settings. This includes, but is not limited to, refugees, internally displaced persons and those living in areas controlled by non-state actors.
- ³ 2019 WUENIC
- ⁴ Source: The Lancet (5 January 2021)
([https://www.thelancet.com/journals/lanres/article/PIIS2213-2600\(21\)00005-9/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(21)00005-9/fulltext))
- ⁵ Range derived from initial modelling work conducted by Imperial College London and Institute of Health Metrics and Evaluation, University of Washington, Seattle, March 2021. NB: These estimates are preliminary and subject to change as we learn more about transmission dynamics and responses/strategies across different contexts etc.
- ⁶ US \$17.2 million is the cost of operating the AMC in 2021. Over the 3-yr life of COVAX, AMC Operational Costs are expected to be US \$44 million.
- ⁷ Source: The Economist/IMF (6 March 2021)
- ⁸ Data from Northeastern University's Laboratory for the Modeling of Biological and Socio-technical Systems (MOBS LAB), featured in 2020 Goalkeepers Report: <https://www.gatesfoundation.org/goalkeepers/report/2020-report/#CollaborativeResponse>
- ⁹ Source: ACT-Accelerator Prioritized Strategy & Budget for 2021 (March 2021)

¹⁰ Notes corresponding to Annex III:

- ¹ Fx Rates established as of December 31, 2020.
- ² Represents US\$ 25m of pro-rata share of un-allocated AMC-PCV funds.
- ³ Represents US\$ 60.6m of pro-rata share of un-allocated AMC-PCV funds.
- ⁴ Including GBP 500m contingent on others joining COVAX AMC
- ⁵ The United States approved US\$ 4bn for Gavi to procure and deliver COVID-19 vaccines for lower-income countries. Of this total, US\$ 2.5bn will be provided for the AMC in 2021 for vaccine procurement.
- ⁶ France will contribute EUR 100m to COVAX AMC as soon as a vaccine is available.
- ⁷ Germany pledged an additional EUR 980m on 19 February 2021 of which EUR 700m for purchase of vaccines supplies for LICs/LMICs via COVAX AMC, EUR 100m for obtaining vaccines for humanitarian purposes, via COVAX AMC humanitarian buffer, and EUR 180m for vaccines logistics (UNICEF).
- ⁸ Represents US\$ 79.4m of pro-rata share of un-allocated AMC-PCV funds.
- ⁹ Funding advised by anonymous donor in support of COVAX AMC Project, a CAF USA Project.
- ¹⁰ Represents US\$ 6.3m of pro-rata share of un-allocated AMC-PCV funds.
- ¹¹ Funding advised by The Thistledown Foundation in support of The Thistledown Foundation COVAX Project, a CAF Canada Project.
- ¹² Includes BMGF matching funds of US\$ 5m.
- ¹³ As part of Team Europe, towards purchasing future vaccines to the benefit of low and middle income countries.

Dose price calculation: As it is difficult to predict which vaccines will be successful, an estimated fully loaded cost of US \$5.20/dose is used, which is the weighted average price of the estimated portfolio Gavi and its partners have built for the AMC. Fully loaded includes the cost of syringes for administering the vaccines, as well as freight and insurance to ship the vaccine cargo to country ports, and provision for the no-fault compensation scheme. The average cost of the portfolio is projected to increase as vaccines to address new variants are brought into the portfolio. For 2022 scenarios a range of fully loaded costs is used from \$4.2/dose to \$7/dose.

Manufacturing expansion: The COVAX AMC is taking risk to ensure that manufacturers have the capital they need to expand and plan production. Not all these investments are refundable, and some investment may be lost in the event the vaccine is unsuccessful. The alternative would be only to strike deals when the vaccine is licensed, however according to internal analysis by the Bill & Melinda Gates Foundation, this would mean that the 92 economies supported by the COVAX AMC may need to wait as long as 3-4 years after other countries production targets have been fully met. The COVAX AMC is successfully keeping the value at risk at below 10% of the total estimated procurement cost, and dynamic vaccine portfolio management will ensure that the risk of financial impairment is constrained, and that oversupply risk is minimised.

Caveats for forecasts used to inform graphics: The forecasts used are based on the latest available information, as of 07 April 2021.

Contracts: Some of the supply included in the projections are linked to deals that are already concluded and some are currently being negotiated. Terms are subject to change.

Candidate attrition: Some candidates are still in clinical development. If they do not achieve positive clinical trial outcomes (safety and efficacy) and regulatory approval, these volumes will not be procured by COVAX.

Regulatory approval: Supply timing will depend on regulatory success and timelines, including reviews of individual batches (“batch release”).

Manufacturing: In many cases, manufacturing is yet to reach full scale. Manufacturing productivity will be influenced by multiple factors, which will in turn influence volume and timing of supply.

Delivery: Timing of delivery will depend on various factors, including export controls, local regulatory approval, country readiness, logistics, indemnification and liability in place, in-country distribution etc.

Allocation: These supply forecasts reflect a preliminary distribution of doses based on each participant’s share of available supply pro rata by demand and are to be treated as indicative. Final timing and volumes will be determined by the WHO Allocation Mechanism.

Funding availability: The high case reflects total potential supply; procurement of these doses will depend on COVAX AMC fundraising, AMC92 cost sharing beyond donor-funded doses, and the final prices and volumes of doses allocated to AMC92.

Through unprecedented partnerships among donors, manufacturers, and participating countries, COVAX has achieved extraordinary milestones in equitably distributing doses to the global community in record time.

Antony Blinken
Secretary of State,
United States

Photo credits

Cover Gavi/2020/Oriane Zerah; P.4 Gavi/2009/Olivier Asselin; P.7, 30, 32, 37 Gavi/2021/Benedikt V.Loebell; P.10 Gavi/2020/Isaac Griberg; P.15 UNICEF/UN0426487/COVAX/Edward; P.16 Gavi/2013/Evelyn Hockstein; P.17 Gavi/2020; P.21 Gavi//2009/Dan Thomas; P.21 Gavi//2013/Mithra Weerakone; P.21 Gavi//2013/Christ Stowers; P.22 UNICEF/UN0420496/Krishnan; P.25 Gavi/2020/Asad Zaidi; P.32 Gavi/2020/Maya Hautefeuille; P.35 Gavi/2013/Evelyn Hockstein; P.40 UNICEF/UNI323834/Abdou; P.42 Gavi//2017/Asad Zaidi; P.49 UNICEF/2020/Arimacs Wilander; P.52 UNICEF/UNI331376/Haro



CEPI

