Update on the UNICEF response to COVID-19, with a focus on vaccine roll-out

INFORMATION NOTE

UNICEF Executive Board – Informal briefing – 21 May 2021

I. Background: The COVID-19 outbreak, and the formation of ACT-A and COVAX

In the span of a few weeks, in late 2019 and early 2020, COVID-19 escalated from a localized outbreak into a global pandemic affecting nearly the entire world. On 31 January 2020, the World Health Organization (WHO) declared COVID-19 a public health emergency of international concern. At that point, the toll stood at around 200 deaths and 9,800 confirmed cases. Just over 15 months later, the disease has taken around 3.2 million lives worldwide, and caused at least 150 million infections. During the intervening period, UNICEF, along with its partners, has been on a journey to protect those at highest risk – and to make COVID-19 vaccines a reality providing a glimmer of hope at a bleak time.

As the outbreak unfolded in China in early 2020, it became clear that supplies were a central component of the response – especially personal protective equipment (PPE) to safeguard the health of frontline workers many of whom are critical UNICEF’s core child health, education, and protection programmes. Widespread global competition for PPE led to further shortages and market fragmentation. Throughout this period, UNICEF supply operations navigated turbulent market conditions to secure and delivery PPE around the world. After the first year of pandemic, UNICEF Supply had shipped more than US$ 313 million dollars of (non-immunization) COVID-19 supplies 222 million medical masks and almost 19,000 oxygen concentrators. These efforts were facilitated, in part by the expansion of UNICEF’s VII Revolving Fund following US$ 50 million guarantees from each of MedAccess and The Bill & Melinda Gates Foundation (BMGF).

To hasten an end the pandemic, the Access to COVID-19 Tools (ACT) Accelerator partnership was launched by WHO, the European Commission, the Government of France, and BMGF in April 2020. The goals of ACT-A were to reduce COVID-19 mortality and severe disease through the accelerated development, equitable allocation, and scaled-up delivery of COVID-19 vaccines, therapeutics and diagnostics.

UNICEF experts were invited by Gavi, the Vaccine Alliance (Gavi) to support the conceptual design of one of the pillars of the ACT-A partnership that focused on the research, development, manufacturing, allocation and delivery of COVID-19 Vaccines. In parallel and in anticipation WHO and UNICEF established a working group to prepare countries for the introduction of COVID-19 vaccines ‘Country Readiness and Delivery’ (CRD). The effort resulted in the launch of the COVID-19 Vaccine Access (COVAX) Facility in July 2020. Coordinated by Gavi, the Coalition for Epidemic Preparedness Innovations (CEPI) and the WHO, COVAX serves as a platform to make 2 billion doses available by the end of 2021 – enough doses to protect high risk and vulnerable people, as well as frontline healthcare workers in all participating countries and territories. UNICEF and Gavi Board members approved the creation of an Advance Market Commitment (AMC) to subsidize the purchase and secure access to COVID-19 vaccines for the 92 low- and lower- middle income countries. Donors contributed significant funding to capitalize the Facility helping to turn the concept into a reality.

As the largest single vaccine buyer in the world with unique and longstanding expertise in procurement and logistics efforts, UNICEF was asked to serve as the ‘Procurement Coordinator’ for COVAX, and to lead the procurement and supply COVID-19 vaccines on behalf of the Facility along with the Pan American Health Organization (PAHO).
II. Supply response for COVID-19 vaccines

UNICEF conducted a market assessment to characterize the market landscape of COVID-19 vaccines in the second half of 2020. In addition, UNICEF launched its COVID-19 Vaccine Market Dashboard to monitor rapidly evolving COVID-19 vaccine market and the efforts of the COVAX Facility to ensure fair and equitable access for every country in the world. All of this helped inform a joint tender with PAHO on behalf of the COVAX Facility – which remains ongoing, but thus far has resulted in UNICEF signing of four supply agreements with Serum Institute of India (SII), Pfizer, AstraZeneca, and Moderna and with several more expected in soon including with J&J, and Novavax.

In parallel, UNICEF stockpiled more than half a billion syringes in its warehouses, part of a larger plan to help ensure that syringes arrive in countries in time to deliver COVID-19 vaccines.

During February 2021, Ghana became the recipient of the historic first shipment of COVAX vaccine, a little over 12 months after WHO declared COVID-19 a public health emergency of international concern and less than 3 months after the first country with a stringent regulatory authority started rolling out the first COVID-19 vaccines. Since then, UNICEF and COVAX procurement partners have delivered almost 50m doses of COVID-19 vaccines on behalf of COVAX to more than 120 countries and territories around the world. These deliveries have been built on a complex logistical operation – the largest of its kind, and one that has already required hundreds of flights around the world.

To support the efforts to ship vaccine doses from factory gates to recipient countries, UNICEF has taken advantage of private sector partnerships. The UNICEF and World Economic Forum (WEF) Charter signed in December 2020, prioritizes use of assets by leading logistics and supply chain companies for COVAX deliveries. The Humanitarian Airfreight Initiative, launched in February 2020, with over 10 key airlines, gives UNICEF access to prioritized bookings, fair pricing and other measures to support logistics for COVAX (and other supplies). And the UNICEF-DP World Partnership gives UNICEF pro bono warehousing space and services in the free zone Dubai Jebel Ali port, as well as support for UNICEF’s COVAX operation especially in Africa and Asia.

In March 2021, UNICEF signed a memorandum of Understanding with the African Union (AU) COVID-19 African Vaccine Acquisition Task Team (AVATT) and the Afreximbank to support their efforts to turn their deals into deliveries. This broadened UNICEF’s procurement and logistics engagement beyond support for COVAX alone.

III. Programmatic response for COVID-19 vaccines

UNICEF, in partnership with WHO, has co-led the global working group on Country Readiness and Delivery that has had three distinct priorities to date. First, the work focused on developing high quality guidance and tools for countries to prepare themselves for the introduction of vaccines. This included the Vaccine Introduction Readiness Assessment tool (VIRAT) that was deployed in collaboration with the World Bank to over 100 countries as well as the Guidance for countries on how to develop National Deployment and Vaccination Plans (NDVPs). Country stakeholder have access to a comprehensive toolbox that includes trainings, job aids and explainers in multiple languages and covers aspects from supply chain management, managing vaccine hesitancy, surveillance and monitoring. Capacity building focused from the start on scaleable e-learning and to date over 75,000 have completed some of the flagship modules.

The second priority was to support countries in preparing their NDVPs. For AMC countries having an NDVP that was reviewed and approved was a precondition to receive shipments of vaccine doses. UNICEF country offices worked in collaboration with partners to support the governments in preparing and refining these
documents. UNICEF’s regional offices supported the review process as part of the review committees and provided feedback and support to countries to improve their plans. By mid-February, over 82 countries’ NDVPs were approved, and now 88 have been approved.

The third priority has been the shift from preparation to implementation and monitoring progress on the ground, proactively identify implementation bottlenecks and managing risks. See section V.

IV. Supply challenges and UNICEF plans

COVAX secured at least 1-1.5 billion doses in formalized advance purchase agreements. When combined with negotiated commitments from manufacturers (i.e., the full mix of legally binding contracts, MOUs and first rights of refusals), it’s suggested that COVAX could have access to 3 billion doses of COVID-19 vaccines (subject to manufacturers achieving regulatory milestones etc.). These should – in theory – enable the Facility to meet its objectives, however there are several challenges that have hindered progress to date and raise questions about what might be achievable in 2021. While the scope of the COVAX supply operation – reaching more than 120 countries and territories with COVID vaccines in the first two months has kept pace with ambition -- the scale of the operation (doses delivered) has been hampered by severe shortages in vaccines. COVAX had allocated around 252m doses of AZ, SII and Pfizer vaccines to be delivered to COVAX participating countries between February and May 2021. Due to the worsening COVID-19 crisis in India and increased demand of COVID vaccines in the country, deliveries of doses from SII have been delayed since March and aren’t expected to resume in May. This will mean that 131m doses of SII’s COVID-19 vaccine -- half of all initial COVAX allocations through May -- won’t be delivered before June 2021 at the earliest. This shortfall will impact the lower income countries hardest since these countries are currently more reliant on the SII product and have fewer alternative sources of COVID-19 vaccines supply (e.g., from bilateral deals).

Outside of COVAX, more than 1 billion doses of all COVID-19 vaccines have been administered to date. Vaccines mainly secured via bilateral deals are being rolled out quickly. In most G7 and higher income countries, 20-50% of the adult populations have received at least one dose of COVID-19 vaccines. In other words, these wealthier countries have already covered most of the populations at highest risk and are now vaccinating lower risk groups. By contrast, the stated COVAX goals of covering 20% of the populations of participating countries and territories seems insufficient – because ambitions and availability of vaccine elsewhere are outpacing financing for COVAX.

The combination of supply shortages and disruptions to COVAX supply, and the more modest goals of COVAX compared to the goals of individual countries have spurred many lower income countries to explore complementary sources of supply. Many countries are securing vaccines beyond what COVAX has promised by harnessing additional financing and credit, particularly from multilateral development banks (MBDs) such as the World Bank and the Asian Development Bank, or via vaccine donations. Just as higher income countries have sought to diversify their channels of procurement/access, (e.g., buying doses via bilateral deals as well as COVAX), lower income countries are exploring other complementary sourcing approaches. For example, many countries in the African region are signing up to AU-AVATT deals to pre-order COVID-19 vaccines on behalf of its members. Given UNICEF’s expertise in turning conceptual deals into physical deliveries, several actors including the AU, bilateral donors, MBDs, and individual lower income countries have approached UNICEF to source additional vaccines beyond COVAX and manage international transport and in country deliveries on their behalf.

Against this backdrop of both complementary and competing efforts to source vaccines, UNICEF has identified three mitigating actions and steps forward:
• A need for higher income countries to urgently share their doses, ideally via COVAX, with low-income countries in the short term to fill supply gaps, and to continue doing so with excess doses throughout the remainder of 2021 and 2022 [UNICEF will be on hand to manage these deliveries].
• A need to continue to diversify the vaccine portfolio [UNICEF sees opportunities to further diversify the geographic spread of manufacturing on which COVAX relies; reduce concentration in any one country/region; increase diversity of vaccine platforms; and increasingly focus on the most flexible and durable products given the evolving epidemiology and expectation for boosters/re-vaccination]
• A need for manufacturers to increase their production capacity, in the first instance, via voluntary licensing, and technology transfer

Accordingly, UNICEF is working on a market shaping strategy for 2022 and beyond to respond to the needs of COVAX but also requests beyond COVAX. UNICEF remains committed to responding to country needs, and to using the deep vaccine supply and procurement expertise to support the ambitions of global and regional partners, as well as individual lower income countries.

V. Programmatic challenges and UNICEF plans

It’s no secret that health systems in many low- and middle-income countries before the pandemic were already constrained and had limited resources and capacity to respond to a crisis of this magnitude. It is therefore no surprise that many countries are now facing several challenges as they are rolling out various COVID-19 vaccines:

• Insufficient operational funding remains one of the largest challenges and this has caused delays to the start of campaigns in several countries and has limited the speed and extent of roll-out to date.
• Countries face uncertainty about the availability of supply for a timely delivery of second dose. The situation is made more complicated as many countries are using more than one vaccine (sourcing products from outside of COVAX and UNICEF) and the shipments are not coordinated.
• With the evolving epidemiological situation and the emergence of new variants of concern, there is the need to continuously update guidance, share the latest evidence, and respond to questions on vaccine efficacy, effectiveness and safety and the programmatic implications.
• Limited monitoring and surveillance systems in place in some countries means that they are not reporting vaccination data and often what is reported, is not granular enough to monitor the extent that equitable distribution amongst different target groups is occurring.
• Delivering high quality vaccination services remains a challenge and there is evidence of delays in training of vaccinators in time to commence campaigns.
• Very local and context specific vaccine hesitancy, misinformation and rumors are a constant threat and UNICEF is observing hesitancy particularly among younger health workers. The suspension or reduced use of some COVID-19 vaccine products in high-income countries due to reports of AEFI have also had impacts on levels of hesitancy in the vaccination programmes of many low and low-middle-income countries.

While there are many more challenges, the Country Readiness and Delivery Working Group has identified three top risks (out of fourteen in total) for prioritized action: (I) programmatic strategies to respond to supply shortages; (ii) addressing low uptake of vaccines and (iii) countering vaccine hesitancy. To manage implementation risks a so called weekly ‘Red Flags Review’ that includes WHO, Gavi and UNICEF has been initiated focusing on monitoring risks and challenges across the 92 AMC countries with the objective of rapid response and provision of technical support or targeted resources if needed to resolve challenges.
VI. Funding needs

While COVAX has raised funds for the procurement of vaccines, to date there has not been a clear articulation of how the delivery of vaccines would be resourced. The Country Readiness and Delivery Working Group has estimated that the total funding needs for delivering doses via COVAX to up to 20% of the population to be at least USD 2 billion, and even more if there is a need to surge the health workforce and pay for additional staff and vaccinators. While the World Bank is providing important funding to many countries through their exceptional USD 12 billion window, UNICEF notes that five of the 92 AMC countries are not eligible for this support, and that funds may not be available in a timely manner to support vaccine roll-out. What’s more, UNICEF has indications that not all countries are pursuing an application. And of those that are pursuing an application, in many instances, only limited resources are prioritized to support operational costs needed for the rollout. For many AMC-eligible countries, domestic resources are unable to cover the residual needs. At least 8 countries have reduced their health budgets for 2021 and many countries are still suffering from an economic downturn. To this end UNICEF has launched an appeal, i.e., the ACT-A Humanitarian Action for Children (HAC) that includes US$510 million to support the delivery of COVID-19 vaccines to low and middle-income countries in 2021. This HAC is fully reflected and integrated in the updated ACT-A budget and investment case. In addition, UNICEF has launched a fund to support low- and middle-income countries access to COVID-19 health supplies through procurement services that include a call for US$1 billion for vaccines and associated immunization supplies not covered by the COVAX Facility (for countries to cover populations beyond the first 20% that are covered by COVAX) – thus covering needs that are over and above the current ACT-A budget.

VII. Looking to the future for pandemic preparedness

The crisis in India is a wakeup call for the world. It tells us that the pandemic is a long way from over. Not only is the situation there a tragedy for the people of India, but some of our worst fears are playing out – new variants of concern are emerging, with spillover effects to neighboring countries. This should serve as a ‘warning’ for everyone. The huge vaccine supply gap facing COVAX that has its roots in the outbreak in India, now presents a burning platform for urgent dose donations – so that other low- and middle-income countries can receive an adequate supply as soon as possible. Achieving equitable distribution at scale of effective and safe vaccines is the best chance we have of containing the spread of the virus and preventing the emergence of new variants – and the only way to achieve that in the immediate term is through dose donations. The world has enough vaccines to tackle the most acute crisis phase of the pandemic. But it isn’t getting them to where they are needed. Longer term, the world will need a diversified vaccine portfolio, expanded production spread across the world, and stronger and more resilient health systems to cope with spikes in demand.

We know that this won’t be the last pandemic, and we’ve known for some time that we need to invest in preparedness and to ensure the critical investments, structures, and ways of work created for COVAX can be leveraged for the future.

Renewed investment in vaccine manufacturing capacity will be critical, and doing so with an eye for geographic diversity, to ensure global health and supply security will be critical. With this in mind, UNICEF embraces the efforts of the AU, and will work with the likes of CEPI and manufacturers to push for expansion of vaccine and pharmaceutical manufacturing capacity on the African continent. Of course, these investments need to be sustainable and so we’ll need to be innovative in defining the structure, and throughput of new manufacturing such that it can both solve the problems of today and be primed and ready to solve tomorrow’s problems.
This requires an approach that goes well beyond vaccines. Indeed, we know that vaccines are not a silver bullet that alone with resolve the COVID-19 pandemic. While they do not garner the same attention and resources, there are important and complementary roles for diagnostics, therapeutics, PPE, IPC, behavioral change (distancing), tackling misinformation, and of course system strengthening. We must ensure that UNICEF’s efforts today allow us to build back better for the future.

Finally, as we look to the future and consider global health security, we need to explore the role of global stockpiles of pandemic preparedness products (easily adaptable vaccines, PPE, multiplex diagnostics and reagents, etc.). UNICEF in partnership with WHO have the expertise in creation, and management of complex supply including stockpiles. With support from a wider array of partners and funders, we should act now to create the global health security and pandemic response architecture to respond to the challenges that tomorrow will bring.