The official ACT-A/COVAX target is to reach 2 billion people based on a 20% coverage of people low- and middle-income (LMIC) countries with COVID-19 vaccines. To reflect an increase in population coverage, UNICEF revised this target upwards from 2 billion to 3 billion to achieve a population coverage of 30 per cent in LMIC with COVID-19 vaccines.

ACT-A targets for 2021

- 3 billion* vaccine doses to be delivered via COVAX and 2.3 billion doses to AMC countries via ACT-A partners, including UNICEF
- 900 million diagnostic tests to be delivered via ACT-A partners, including UNICEF
- 165 million therapeutic treatment courses to be delivered via ACT-A partners, including UNICEF

UNICEF response and funding status against targets

<table>
<thead>
<tr>
<th>Category</th>
<th>Received</th>
<th>Gap</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMC economies ready to administer COVID-19 vaccines</td>
<td>98%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>% of people in low-income countries vaccinated</td>
<td>14%</td>
<td>86%</td>
<td></td>
</tr>
<tr>
<td>COVID-19 diagnostic tests delivered in LMIC</td>
<td>40%</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>LMIC implementing ACT-A RCCE activities</td>
<td>113%</td>
<td>87%</td>
<td></td>
</tr>
<tr>
<td>LMIC that scaled up oxygen treatment</td>
<td>100%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>LMIC that received quality PPE</td>
<td>88%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Funding status</td>
<td></td>
<td></td>
<td>90%</td>
</tr>
</tbody>
</table>

UNICEF ACT-A appeal 2021

US$969 million

* The official ACT-A/COVAX target is to reach 2 billion people based on a 20% coverage of people low- and middle-income (LMIC) countries with COVID-19 vaccines. To reflect an increase in population coverage, UNICEF revised this target upwards from 2 billion to 3 billion to achieve a population coverage of 30 per cent in LMIC with COVID-19 vaccines.
Funding overview and partnerships
UNICEF’s ACT-A HAC fundraising target was US$969 million in 2021. This was revised upwards in September 2021 as the pandemic evolved, and UNICEF increased its ambition to support ACT-A partners and national governments in the equitable scale-up of vaccines, tests, treatments, and PPE. UNICEF’s ACT-A programmatic actions and appeal were aligned with the WHO COVID-19 Strategic Preparedness and Response Plan and complemented the Rapid ACT-Accelerator Delta response (RADAR) urgent appeal to curb the COVID-19 pandemic in more than 130 low- and middle-income countries (LMICs).

As of 31 December 2021, UNICEF received $776.8 million against the 2021 ACT-A appeal, leaving a funding gap of $194.9 million in the vaccine, diagnostics, and therapeutics pillars. UNICEF would like to thank all donors, especially those who contributed flexible and timely contributions against this appeal, which helped accelerate the scale of UNICEF’s support to ensure ACT-A interventions and tools were rolled out in countries with the highest needs throughout 2021.

The funding received for UNICEF’s ACT-A HAC appeal comprised a portion of the organization’s total funding requirements to carry out its role as part of the ACT-A global collaboration in 2021.

<table>
<thead>
<tr>
<th>Pillar</th>
<th>2021 HAC requirement (US$)</th>
<th>Funds available (US$)</th>
<th>Funding gap (US$)</th>
<th>Funding gap (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccine delivery, including Humanitarian Buffer</td>
<td>$719.0 M</td>
<td>$661.0 M</td>
<td>$58.0 M</td>
<td>8%</td>
</tr>
<tr>
<td>Diagnostics</td>
<td>$70.5 M</td>
<td>$12.7 M</td>
<td>$57.8 M</td>
<td>82%</td>
</tr>
<tr>
<td>Therapeutics</td>
<td>$54.5 M</td>
<td>$4.7 M</td>
<td>$49.8 M</td>
<td>91%</td>
</tr>
<tr>
<td>Health Systems Response and Connector: Risk Communication and Community Engagement</td>
<td>$28.0 M</td>
<td>$30.7 M</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>Health Systems Response and Connector: Personal protective equipment</td>
<td>$97.0 M</td>
<td>$67.7 M</td>
<td>$29.3 M</td>
<td>30%</td>
</tr>
<tr>
<td>Total</td>
<td>$969.0 M</td>
<td>$776.8 M</td>
<td>$194.9 M</td>
<td>20%</td>
</tr>
</tbody>
</table>

Situation overview and humanitarian needs
The COVID-19 pandemic continues, with 280 million confirmed cases and 5.4 million deaths reported globally at the start of 2022.\(^2\) Between October and December 2021, the number of new cases gradually increased, with a sharper increase in cases noted at the end of 2021.

Figure 1. COVID-19 cases reported weekly by WHO Region, and global deaths, as of 2 January 2022**

Source: WHO, January 2022*\(^1\)

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A new COVID-19 variant (Omicron) spreading at a rapid rate (with a doubling time of 2–3 days) was discovered in November and quickly became one of the dominant variants in several countries by the end of 2021. Although the number of Omicron cases increased substantially by the end of 2021, globally, Omicron has not led to significant increases in COVID-19 related deaths, which is a new phenomenon in the pandemic. Until late 2021, previous surges in cases were followed by relatively stable proportions of hospitalizations and deaths. This is likely to be due to several factors, including that Omicron is showing to be more transmissible but less severe (especially among high-risk groups that were previously infected and/or vaccinated) than other variants of concern, such as Delta. However, with very high levels of COVID-19 cases, significant increases in hospitalization, severe disease and death are still occurring (especially among unvaccinated high-risk individuals) and are expected to continue in the coming weeks, increasing the pressure on health systems and the potential for disruptions in health services. The high level of community transmission is also resulting in the poor use of public health measures (such as the closure of schools). It is also disrupting essential community services, as the essential workforce (those in health care, social work, education, public transport, waste management, agricultural and food sector, justice systems, etc.) become infected and are in quarantine following public health control measures.

**Vaccines:** More than 9 billion\(^1\) vaccine doses have been administered worldwide and although enough vaccines have been produced to protect the world’s most vulnerable and at-risk populations, many are still unprotected, including health workers, especially in low-income (LIC) countries. Stark inequalities in access to COVID-19 vaccines still exist, with 76 per cent of people in high-income countries (HIC) having received at least one dose of COVID-19 vaccine, while only 8 per cent of people in LIC have received one dose at the end of 2021\(^6\). This inequity is unjust. Moreover, it puts everyone at greater risk of being exposed to new variants as they evolve, which could potentially jeopardize progress made so far and render current ACT-A tools less effective. It could also result in re-introduction of more stringent public health measures that have far-reaching consequences, especially for children who have already lost out on education and life-saving services.\(^7\)

The COVAX Facility, which aims to accelerate the development and manufacture of COVID-19 vaccines and to ensure fair and equitable access for every country, faced extreme supply constraints in the first half of 2021. However, by the end of 2021, COVAX had delivered 941 million doses to 144 countries, including 824 million doses to AMC countries,\(^6\) falling short of its global target mainly due to the limited availability of vaccines on the global market (in some cases due to overstocking of vaccines in wealthy countries).

Several countries struggled throughout 2021 to get their vaccine campaigns off the ground. Some factors contributing to this were: unpredictable and/or limited supply, weak health care infrastructure, inadequate funding, short vaccine expiration dates, and vaccine hesitancy among the population. The WHO target of vaccinating at least 70 per cent of people for COVID-19 in every country by mid-2022 is ambitious. At the end of 2021, 37 countries had achieved COVID-19 vaccine coverage for at least 70 per cent of their population, 28 countries were on track to reach WHO’s vaccination target in 2022, and more than 100 countries were not on track.\(^8\) UNICEF is committed to supporting attainment of this goal, focusing on equitable access to vaccines in LMICs and humanitarian settings; reaching priority groups first (as per the recommendations of the WHO Strategic Advisory Group of Experts on Immunizations); and providing adequate, timely support for the rollout.

Ensuring fair access to COVID-19 vaccines is an essential part of the world’s response to the pandemic. But getting vaccine doses to the countries that need them is only the first step in a longer journey: equitable access also means supporting countries’ capacity to get vaccines into arms. Without adequate funding and support for in-country delivery costs — including equipment such as cold chain, supplies, human resources, and logistics needed to move

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\(^{3}\) Ibid

\(^{4}\) There was a 43 per cent decrease in antenatal care visits between March 2020 and September 2021. Malnutrition triggered by COVID-19 is predicted to lead to the death of 283,000 additional children under five, leave 13.6 million more children wasted and 3.6 million more stunted, and make 4.8 million more women anaemic over the next three years. At its peak, more than 1.6 billion students were out of school due to nationwide shutdowns. Schools were closed worldwide for almost 80 per cent of in-person instruction in the first year of the crisis. Around 27 per cent of countries continue to have schools fully or partially closed. Due to COVID-19 related impacts an additional 150 million people are living in multidimensional poverty and there has been an increase in the global numbers of children experiencing violence, neglect or abuse.

\(^{5}\) Our World in Data, “COVID-19: Which countries are on track to have fully vaccinated 70% of their population by mid-2022”, [https://ourworldindata.org/grapher/covid-vaccination-global-projections?country=OWID_WRL](https://ourworldindata.org/grapher/covid-vaccination-global-projections?country=OWID_WRL). For each country it is assumed that their recent vaccination rate remains constant for the next year. By adding this expected share to the share of the population that have already been vaccinated, we project what share of people will have received at least one dose in 2022. This method means that projections do not take into account future increases or decreases in the speed of vaccination, which could result from changes in eligibility criteria, vaccine deliveries or shortages, or new government policies.
vaccines from entry ports to be safely administered – countries already facing spiralling health and social sector costs will struggle to find the resources needed to reach priority populations. It is also essential that LICs are given additional support where needed to cover activities associated with COVID-19 vaccine rollouts, without having to make cuts in other life-saving primary health care programmes and essential social services.

Syringes are critical to ensure that vaccine doses can be administered. UNICEF managed to meet country syringe needs in 2021, despite market constraints linked to routine immunization needs and COVID-19. This involved procurement and delivery of 2.2 billion syringes in 2021, which is almost double the number of syringes procured by UNICEF in 2020, and 1,175 country shipments, which is triple the number of shipments undertaken in 2020. The demand for syringes is expected to continue to grow in 2022, and, combined with disruptions to international freight and supply chains, this could lead to a temporary shortage of supplies. The COVID-19 situation is unique in the sheer scope, scale, and speed at which syringes, safety boxes and vaccines are moving globally. Going into 2022, UNICEF will continue to work with key partners to increase syringe supplies from existing partners and look to sign new agreements with syringe suppliers that are able to step up to the challenge in 2022.

In 2021, the COVAX Facility established the Humanitarian Buffer to support vaccination of extremely vulnerable populations living in high-risk environments (including those living in areas affected by conflict, stateless persons, migrants, refugees, or those living under areas controlled by non-state actors) who may not be reached by national COVID-19 vaccination campaigns. The Humanitarian Buffer has also been moving towards providing COVID-19 vaccination for people living in humanitarian settings. Five per cent of the total COVAX vaccine doses received were intended to be allocated to the Humanitarian Buffer as needed, to ensure, as a last resort, access to vaccines for these populations. In June 2021, the Humanitarian Buffer application site was launched, which allowed countries, humanitarian groups, Red Cross and Red Crescent societies, local and international NGOs, and civil society groups to apply for vaccines for at-risk groups. Applicants can also request related equipment, such as syringes and funding for delivery costs. By the end of 2021, six applications had been approved.

One significant challenge that arose with the Humanitarian Buffer in 2021 was the legal risk. Manufacturers usually assume the risk of having to provide compensation for adverse events linked to the use of their fully licensed products. However, with COVID-19 vaccines that are approved under emergency provisions due to the global pandemic, manufacturers require buyers and recipients of doses, including countries and humanitarian agencies, to take on this risk. In 2021, four manufacturers agreed to work with COVAX to waive indemnification requirements for humanitarian agencies delivering doses to humanitarian populations, paving the way for the humanitarian agencies to fully engage in this undertaking. Moving into 2022, UNICEF and partners will continue to work with manufacturers to have the indemnification requirements for humanitarian agencies waived.

**Diagnostics:** Testing for COVID-19 is a key part of the global response to the pandemic. It allows countries to identify infections and put measures in place to limit transmission. Developments in diagnostic capacity are also crucial to monitor how the virus is mutating and ensure emerging variants are detected. However, testing remains inadequate in many LMICs, which hampers their ability to contain outbreaks. The impact of limited testing has other, far-reaching consequences that extend beyond the challenges it poses to public health systems. Without testing, there is no way of knowing who has contracted COVID-19 and where it is spreading, which may increase the severity and length of movement restrictions leading to potentially devastating social and economic effects.

Over the last year, a lack of testing, in many cases due to the lack of available COVID-19 test kits, left numerous countries at high risk as they did not know the extent of the virus spread within their borders. The target for an adequate response is one test per 1,000 people per day. While most high-middle-income countries have been testing above this threshold, most LMICs are not testing enough, with Africa showing the lowest level of testing among all regions. Indeed, 80 times more COVID-19 tests were carried out in HICs than in LICs in 2021. Additional testing capacity is urgently needed in 2022, especially in LICs, to: identify disease hotspots and track the emergence of new, dangerous variants; enable those who are severely ill to be referred to appropriate treatment; and ensure public health and safety measures are put in place to prevent further transmission.

**Therapeutics:** Globally, demand for medical oxygen increased significantly in 2021. Medical oxygen is an essential component in the treatment of approximately 20 per cent of COVID-19 patients who present with severe or critical
illness. The pandemic exposed and worsened a pre-existing oxygen gap in many countries that were already struggling to meet basic needs to manage the oxygen requirements of sick newborns, children with pneumonia and many other critical conditions. Governments in many countries where UNICEF works expanded oxygen systems during the pandemic. This was achieved through installation of oxygen plants, purchasing, and distributing oxygen concentrators and other equipment, and through training engineers and health staff on diagnosing respiratory illnesses and safely administering oxygen. It is estimated that LMICs require 46 million cubic metres of medical oxygen per day (which would cost approximately $9.7 billion per year) to treat COVID-19 patients with severe disease. A patient with severe COVID-19 requires about 11 times more medical oxygen than a child with severe pneumonia, and a patient with critical COVID-19 requires even more.9

Risk Communication and Community Engagement (RCCE): Low COVID-19 vaccine uptake was evident in many countries throughout 2021. In some settings, the low demand for vaccine was due to personal, family or community beliefs and distrust in vaccines, while in others it was due to a lack of accurate information (i.e., rumours, misinformation, gaps in information), lack of confidence in government and authorities, and lack of communication on the risks, benefits, efficacy, and safety of the newly developed vaccines. Consequently, RCCE interventions played a significant role in breaking the chains of COVID-19 transmission and mitigating the impact of the pandemic. While 69 per cent of unvaccinated populations surveyed by the RCCE Collective Service in more than 150 countries were willing to get the COVID-19 vaccine in January 2021, this number had increased to 91 per cent by December 2021.10 RCCE interventions were supported through the investment in social listening platforms established in 70 countries in 2021 to track concerns, questions and priority topics among communities and identify learning barriers to healthy behaviours.

PPE: Global demand for PPE (masks, gowns, goggles, gloves, face shields and other items that are used by frontline health care and other essential workers) grew significantly since the pandemic started, estimated to have increased by 300-400% between 2019 and 2020.11 ACT-A estimated a need to supply US$ 6.3 billion worth of PPE in 2021 to meet the needs of health care workers in LMICs as part of countries’ COVID-19 response.12 To meet the surge in demand for PPE, UNICEF has been working closely with other United Nations organizations, governments, and industry throughout the pandemic to forecast PPE demand, procure and stockpile supplies and preposition them in warehouses globally, ensure adequate quality standards of supplied PPE and increase equitable access, particularly to LMICs. Providing access to quality PPE helps to protect frontline healthcare workers and support the continuity of health services for COVID-19 and beyond and strengthens preparedness and response against other potentially fatal communicable diseases, like the Ebola virus.

Humanitarian leadership, coordination, and strategy
UNICEF has a holistic response strategy to the COVID-19 pandemic, which is supported through global, regional, and country plans and appeals, including the COVID-19 Strategic Preparedness and Response Plan for 2021. The strategy uses existing control and treatment measures, introduces new tools, including COVID-19 vaccines, diagnostics, and therapeutics, and ensures health and social services for children and women continue during the pandemic, with a focus on marginalized populations and those in humanitarian settings.

UNICEF’s 2021 public health emergency and socioeconomic COVID-19 response, including programme activities, targets, and funding requirements, has been integrated into country-level plans and stand-alone country, multi-country and regional HAC appeals, allowing the response to be adapted to specific needs in different country contexts. These plans are driven by a strategy that aims to protect children and their communities from exposure to COVID-19 and the impacts of the pandemic by supporting a community-driven public health response to ensuring the continuity of health, social and humanitarian services. Within country-level COVID-19 response plans and appeals, UNICEF interventions include integrated outbreak analytics to inform decision-making, psychosocial support, community engagement, infection prevention and control programmes with the provision of PPE for non-health front-line workers, and adaptations to the delivery of health and social services (e.g., integrating aspects of remote support services for gender-based violence to make them safer and ensure they continue during COVID-19 case surges that overwhelm existing health and social systems). Details of regional and country programming priorities and funding requirements are available in regional and country HAC appeals.

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At the global level, UNICEF has been coordinating with and supporting the Access to COVID-19 Tools Accelerator (ACT-A), which is a global collaboration to accelerate development, production and equitable access to COVID-19 tests, treatments, vaccines and PPE. UNICEF remains a key ACT-A global partner, helping to shape strategic and technical issues across all pillars.

UNICEF is a co-convenor of the vaccine pillar. As the lead implementation agency for COVAX, UNICEF supports the procurement and supply of COVID-19 vaccines, in collaboration with the Pan American Health Organization (PAHO). In addition, UNICEF co-leads the Country Readiness and Delivery Working Group, providing guidance, technical assistance, and operational support for in-country delivery to turn vaccines into vaccinations. Building on our existing experience and work in strengthening health systems and supporting immunization programmes, UNICEF brings its expertise to support: the delivery of commodities needed for safe vaccine administration; provision of equipment and training to strengthen cold chain in countries; vaccine logistics management; activities to create demand and increase uptake of vaccines; and operational costs for vaccine delivery, including planning, budgeting, coordination, trainings and technical assistance.

UNICEF leads the ACT-A Diagnostics Country Support Working Group (CSWG), in coordination with WHO and the Foundation for Innovative New Diagnostics, which is supporting countries to scale up equitable access to COVID-19 testing, particularly in LMICs. UNICEF hosts the CSWG knowledge management hub, which aims to increase visibility, transparency, coordination, and collaboration among the working group partners. UNICEF also leads the CSWG Task Force on Advocacy, Communications and Community Engagement, which is tasked with addressing some of the main bottlenecks in the adoption of COVID-19 diagnostics at the country level; namely, the lack of commitment by national governments and local partners to support COVID-19 diagnostics and the lack of awareness of and demand for testing in communities. UNICEF is represented in three of the four other ACT-A diagnostics working groups: Research and Development and Digital Tools, Market Readiness and Supply.

In the Therapeutics Pillar, UNICEF supports the procurement and delivery of novel and repurposed therapeutics, including antivirals and monoclonal antibody treatments, and technical assistance to assure their safe introduction and use for maximum benefit. Together with industry, UNICEF is working to ensure early, timely and equitable access to COVID-19 therapeutics for LMICs. UNICEF’s key focus has been on expanding oxygen systems through the pandemic, noting that these systems will continue to improve essential newborn and maternal care and the management of children pneumonia long after this pandemic is over. UNICEF procures oxygen equipment and provides technical assistance to governments to plan and sustain oxygen systems, including building the capacities of engineers and health workers to maintain equipment and safely administer oxygen therapy.

In September 2021, UNICEF joined the Global Fund to Fight AIDS, Tuberculosis and Malaria, the World Bank and WHO to co-convene the Health Systems and Response Connector (HSRC). The priorities of the HSRC are to provide coordinated support to countries in planning, financing, and operational and technical support to ensure the delivery and uptake of COVID-19 tools and to protect the health system and workforce. UNICEF’s key areas of focus within the HSRC are to help remove critical bottlenecks in support of more equitable delivery of COVID-19 tools—which includes ramping up our work to engage communities to build trust in health systems and promote the uptake of COVID tools, and support to maintain essential health services, with a special focus on high-risk population groups. UNICEF seeks to promote integrated service delivery with a focus on the most vulnerable communities, to boost care seeking and vaccine uptake; engage communities through multiple platforms for RCCE; provide infection prevention and control supplies such as soap, hand sanitizer and cleaning materials for primary health care centres; and ensure that water, sanitation, and waste management infrastructure are in place and operational. Through provision of quality PPE, UNICEF will help ensure the safety of health and other front-line workers. UNICEF intends to seize this opportunity to not only increase equitable access to COVID-19 tools, but to support the need to build back better, investing in stronger, more resilient health care systems.

UNICEF co-leads the global RCCE Sub-group that works to include the most vulnerable populations, such as migrants, refugees, people with disabilities and host communities, in global and country-level RCCE efforts. Launched in June 2020, the RCCE Collective Service is a partnership between UNICEF, the International Federation of Red Cross and Red Crescent Societies and WHO, that leverages active support from the Global Outbreak Alert and Response
Network and key stakeholders from the public health and humanitarian sectors. It aims to build the capacity of governments and partners to prioritize, structure and coordinate their work – ensuring a lasting impact and improving both the quality and the consistency of RCCE. UNICEF also co-leads the global RCCE and Youth Engagement Sub-group to promote inclusion of the priorities and perspectives of youth organizations in the COVID-19 response.

Summary analysis of programme response

Vaccine Pillar

In collaboration with the PAHO Revolving Fund, UNICEF led efforts to procure and supply doses of COVID-19 vaccines for the COVAX Facility, which delivered 941 million doses to 144 LMICs in 2021. UNICEF teams also supported LMICs to scale up COVID-19 vaccine campaigns by providing the supplies needed for safe vaccine administration and delivery, including the provision of cold chain equipment, PPE for vaccinators and hand hygiene supplies (soap and hand sanitizer). Moreover, UNICEF helped cover operational costs for vaccine delivery, such as training health workers, setting up vaccination centres, strengthening data systems and addressing vaccine hesitancy. UNICEF also engaged with countries to identify challenges in costing, domestic budgeting, and financing, and mobilized technical assistance to provide support where needed.

Despite efforts, we continued to struggle to close the equity gap in access to COVID-19 vaccination. This was due to different context-specific challenges that constrained absorption, including limited political will and support; ineffective coordination and lack of capacity; insufficient funding; supply and logistics-related challenges, lack of demand and low vaccine confidence; and last-mile service delivery challenges and bottlenecks.

Additionally, UNICEF provided technical assistance to governments in updating and rolling out their National Deployment and Vaccination Plans (NDVP). In situations where a particular group or population could not be included in the NDVP, UNICEF supported vaccine delivery via the COVAX Facility Humanitarian Buffer, with 1.6 million doses delivered to Iran for Afghan refugee populations in 2021.

UNICEF partnered with the African Union and the African Vaccine Acquisition Trust (AVAT) in July 2021 to procure and deliver COVID-19 vaccines to African Union Member States. The trust aims to secure vaccine doses to complement initiatives such as COVAX and attain a target immunization of 60 per cent of Africa’s population. As of 12 January 2022, UNICEF has delivered more than 36 million COVID-19 vaccine doses in 41 countries for the AVAT initiative.

Procurement and delivery of vaccine supplies

The shipping industry has been in turmoil due to lack of transport capacity, reduced flights, congested ports and soaring freight costs, meaning the competition for air and sea cargo is at an all-time high. Navigating the complex web of logistics to ensure vaccines and supplies reach their destination on time and without compromising quality has been a challenge in 2021 and each day brings new obstacles. UNICEF’s transport and logistics teams have been working to overcome new export bans that could impact the movement of essential components for COVID-19 vaccination campaigns, such as syringes, PPE, and ultra-cold chain units. As new supplies become available from manufacturers, they must be shipped immediately to avoid disruption to vaccination plans. At the same time, vaccine shipment schedules frequently change, flights may be cancelled, and so the shipping schedules for vaccines and related supplies change in real-time, with new routes and transport negotiations required – all within a volatile market and escalating transport costs. Although the focus on COVID-19 vaccine doses is paramount, equally important are the supplies and equipment that make vaccine roll out possible, and the transport of this critical cargo.

For more information, see: [https://www.rcce-collective.net/data/behavioural-indicators/](https://www.rcce-collective.net/data/behavioural-indicators/)

For more information, see: [https://www.rcce-collective.net/rcce-and-youth-engagement/](https://www.rcce-collective.net/rcce-and-youth-engagement/)
Maintaining the cold chain
UNICEF has been investing in cold chain infrastructure for years, including throughout the pandemic, to help ensure storage facilities are in place from the moment COVID-19 vaccines leave the manufacturer to the moment they are administered. Thousands of cold chain units, including fridges, cold rooms, and cold boxes, have been procured, distributed, and installed in health facilities around the world as part of regular UNICEF vaccination programmes – and this is benefiting the world now.

COVID-19 vaccines are distributed to some of the most remote corners of the globe by cargo plane, truck, or foot, and throughout the entire journey the vaccines must remain at a stable temperature to ensure they remain effective when used. There are many different COVID-19 vaccines available that require different cold chain and storage temperatures; some of the COVID-19 vaccines require storage at up to -70 degrees Celsius, which is a challenge for existing cold chain infrastructure in countries. There is a lot of scenario planning that needs to happen when a new vaccine is to be delivered regarding the type of cold chain required and the temperature at which each vaccine needs to be kept, and this planning needs to fit with the receiving country’s existing cold chain capacity. An important challenge for UNICEF in 2021 was ensuring the appropriate cold chain was in place in countries before vaccines arrived. Not only did demand for cold chain increase significantly in 2021 (by 150 per cent compared to 2020) but the complexity of demand for specific products also increased. For example, there was an 8–9-times increase in the demand for complex walk-in-cold-rooms in 2021, reflecting a need to expand central level storage capacity.

Addressing the ultra-cold chain (UCC) challenge (storing some COVID-19 vaccines at -70 degrees Celsius or less) UNICEF procured more than 500 UCC units to over 52 countries in 2021 using HAC bridge funds. Each freezer can store up to 336,000 vaccine doses. In the initial stages, where fast infrastructure installation was required, UCCs were delivered and installed in less than four months after order placement. This is unprecedented and required airlifting and very tight coordination between internal and external stakeholders. As part of the process, UNICEF was in very close contact with the involved countries to ensure site readiness, which among many other things, includes installation, contracting and funds distribution for local procurement of UCC ancillaries, such as air conditioners and generators.

Bhutan

In 2021, Bhutan rolled out one of its most successful vaccination campaigns, aiming to vaccinate all people above 18 years of age against COVID-19. Led by the Ministry of Health, United Nations agencies including UNICEF were engaged in developing the vaccine deployment plan, planning logistics, determining population eligibility for vaccination, training health workers and providing cold chain support. More than 4,800 health workers were trained and supported to vaccinate the population, while 1,200 vaccination sites comprising community offices, health centres and schools were opened across the country to ensure easy access. UNICEF installed eight walk-in coolers and two ultra-cold chain fridges and supported RCCE activities throughout the country to prepare the population for the vaccination campaign. In recognition of the difficult terrain and long journey, vaccines were air-lifted by helicopters and domestic flights to eight districts to
reach rural communities. Refrigerated vans were used to transport vaccines to the remaining districts. People with mobility issues, such as the visually impaired and the elderly, were provided with home-based vaccination services. By the end of the campaign, 90 per cent of the eligible population in the country were vaccinated against COVID-19.

The Pacific Islands
In the Pacific Islands, UNICEF and WHO have been supporting countries in their readiness efforts to receive and administer COVID-19 vaccines. This means assisting them in the development of national vaccine plans, regulatory approvals to get the vaccines in the country and assessment of their cold chain infrastructure. These readiness efforts are crucial: unless confirmed and cleared by the country, the vaccines will not be put on a plane. Logistics have been the greatest challenge in the Pacific Islands due to the remoteness of the island countries, which are small and are hard to reach. These countries are home to approximately 2.5 million people who live scattered over an area equivalent to 15 per cent of the planet’s surface. Further, there have been significant reductions in flights in the Pacific and some countries have closed their borders entirely. To address these challenges, UNICEF contacted governments that were organizing repatriation flights to transport their citizens back home and arranged for these flights to also carry COVID-19 vaccines, for example, to Tuvalu.

Diagnostics Pillar

In 2021, UNICEF’s strategy to scale up equitable access to COVID-19 diagnostics (tests) targeted LMICs and included country support through purchasing and procurement of COVID-19 tests and technical assistance on diagnostic testing. UNICEF HAC ACT-A support enabled deliveries of more than 0.6 million COVID-19 molecular and Antigen Rapid Diagnostic Tests, with the largest allocations going to Bolivia, Myanmar, Nepal, Rwanda, and Viet Nam. UNICEF also provided technical support to Malawi to improve country workforce capacity for genomic surveillance through training in laboratory genomic sequencing and bioinformatics.

UNICEF worked to integrate diagnostics into existing social listening mechanisms and behavioural surveys (in collaboration with the RCCE sector) to monitor conversations, track rumours and identify trends and influencers related to COVID-19 diagnostics. This information helped strengthen advocacy and communication aimed at counteracting barriers to the adoption and scale-up of COVID-19 diagnostics in LMICs.

Figure 2: Types of COVID-19

Types of COVID-19 tests

<table>
<thead>
<tr>
<th>Test Type</th>
<th>What does it detect?</th>
<th>How does it work?</th>
<th>Time for result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual Molecular PCR Test</td>
<td>Detects virus genetic material in the human respiratory specimen</td>
<td>The sample is processed and analysed using extraction and amplification methods</td>
<td>3-4 hours</td>
</tr>
<tr>
<td>Automatic Molecular PCR Test</td>
<td>Detects virus genetic material in the human respiratory specimen</td>
<td>The sample is processed and analysed on a real-time platform</td>
<td>45 minutes–3 hours</td>
</tr>
<tr>
<td>Antigen Rapid Test</td>
<td>Detects viral antigen in respiratory samples</td>
<td>The sample is processed and analysed on the point of care</td>
<td>15-30 minutes</td>
</tr>
</tbody>
</table>
Alongside partners such as the Global Fund, the Bill & Melinda Gates Foundation, WHO and Unitaid, UNICEF brought its technical expertise to working groups on the research and development of diagnostics and digital tools, market shaping, procurement, and country support. Under UNICEF leadership in the ACT-A Diagnostics Country Support Working Group, in-depth discussions were held with several countries in Africa and Southeast Asia to understand the testing challenges faced by public health systems. This was an important step in identifying and planning for the technical and financial support needs of these countries. UNICEF led the development of an advocacy and communications framework, advocacy messages and communication assets to address the barriers identified and target key stakeholders to increase the uptake of testing in LMICs.

UNICEF also collaborated across other pillars, particularly with the Therapeutics Pillar, as new antiviral drugs became available. This was important to identify synergies and coordinate a test-and-treat strategy in 2022 to increase the uptake of testing and safeguard new antivirals from drug resistance.

**Therapeutics Pillar**

Within ACT-A’s Therapeutics Pillar, UNICEF purchased and delivered treatments for COVID-19, with a special focus on oxygen therapy. UNICEF also provided associated technical assistance for country preparedness and response interventions, including planning for oxygen needs, monitoring, and training medical engineers and health care workers. Using ACT-A HAC funds, UNICEF established a global oxygen technical team across UNICEF’s global Supply Division and Health Programme, which provided continuous capacity building across regions to enable UNICEF offices to better respond to government requests and needs for oxygen systems scale-up.

![A health worker takes a nasal swab sample to test for COVID-19 in Assam, India.](image)

**Outcomes**

- Strengthened Primary Health Care (PHC) with:
  - efficient and effective supply planning
  - safe use of oxygen in maternal, newborn and child health programming.

**Impact**

- Improved maternal, newborn and child survival
- Improved pandemic preparedness and response.

Targeted technical support was provided to more than 45 countries building UNICEF’s capacity in oxygen systems and supporting governments in their pandemic response – with the aim to ensure rapid access while strengthening the oxygen system for long-term sustainability and use. Examples of country support included the application of the UNICEF oxygen systems planning tool to inform national, subnational and facility-level oxygen planning in 32 countries, including Bangladesh, Ghana, Malawi and Somalia. Support was also provided to 39 governments to identify optimal procurement solutions for a total of $36.9 million in funding mobilized for these countries via the
UNICEF Supply Financing Facility in 2021. The global oxygen technical team also worked to develop multiple country support tools, including a resource library, assessment tools, planning guides and oxygen strategy templates to help UNICEF offices and government partners streamline oxygen programmes.

Through a global long-term agreement in 2021, the technical team made the UNICEF Plant in a Box available – a series of 12 standardized packages of oxygen generating plants of different sizes and cylinder-filling options, as well as a two-year maintenance contract and introductory training to engineers to ensure long-term functioning of oxygen plants. The first plant was installed in Uganda in December 2021, and 32 additional plants are lined up for installation across 20 countries in early 2022. UNICEF is working on expanding opportunities for countries to scale up liquid oxygen as an alternative source and provide solutions for pressure swing adsorption oxygen plant repair work and other biomedical engineering services, to ensure long-term sustainability of oxygen systems.

In 2021, through the ACT-A HAC fund, UNICEF provided $4.1 million in direct funding to 22 countries to support oxygen systems scale-up and implementation. In Mongolia and Zambia, these funds were used to strengthen country capacity in the management and maintenance of oxygen systems. In the other countries, most funds were disbursed in late 2021 and will be implemented in 2022, focusing on technical implementation support for oxygen, especially biomedical and clinical capacity building, as well as sustainable planning, monitoring and implementation of oxygen systems.

**Health Systems Response and Connector**

**RCCE**

UNICEF and partners worked in 106 countries in 2021 implementing people-centred behaviour change interventions to build local capacities and create dialogues. Moreover, UNICEF worked with influencers and local leaders, youth, and other networks to build community trust in basic services, promote public health and social measures aimed at stopping COVID-19 transmission, and tackle misinformation and rumours around COVID-19 vaccines. As an example, during the first phase of COVID-19 vaccinations in South Sudan, an estimated 48,461 people received their first jab (and 3,387 received their second); however, only 25 per cent of those vaccinated were women. UNICEF responded to this low uptake by women by holding focus group meetings to identify barriers that women faced to accessing COVID-19 vaccines. Following RCCE efforts and evidence-based advocacy, there was an increase in women getting their COVID-19 vaccinations, and by the end of November, 43 per cent of COVID-19 vaccines were going to women in the country.

Capacity building webinars were rolled out in collaboration with WHO, covering RCCE capacity and skills development and sharing best practices across different regions. These webinars targeted governments, United Nations agencies, NGOs and other partners to help them prepare and update RCCE strategies and interventions to be rolled out in their own countries and jurisdictions. Some of the key topics covered in the webinars included: working with religious leaders and engaging adolescents and youth; strengthening tracking, reporting, monitoring and evaluation of RCCE initiatives; planning for COVID-19 vaccine communication and community engagement; communicating vaccine-related crises and adverse events following immunization; social listening and evidence use for decision-making; community engagement for COVID-19 vaccines; addressing COVID-19 vaccine rumors and misinformation; and vaccine demand management.

UNICEF also established social listening mechanisms in four regions to help provide regular updates on key public concerns, rumours and misinformation that needed to be addressed with appropriate and accurate information through engagement activities.
Syrian Arab Republic
Parallel to the rollout of COVID-19 vaccine in Dara’a, Syrian Arab Republic, UNICEF, WHO and the Department of Health supported vaccine demand generation through an RCCE campaign in September 2021. The campaign aimed to encourage 19,000 people above 18 years of age to get vaccinated against COVID-19 and worked to fight the spread of misinformation, relay accurate information about the safety of the vaccine and advise on the locations of vaccination centres. More than 100 health workers from the Department of Health in Dara’a and 85 health centres across the governorate took part in the campaign. Health workers engaged daily with community leaders, influencers, and doctors to get their support on the campaign and encourage vaccination. The campaign reached 5,500 people through door-to-door visits and 4,200 women were reached through organized group awareness sessions. By the end of the campaign in Dara’a governorate, 14,000 people had received their first jab against COVID-19 and more than 800 had received their second.

Niger
To raise awareness about COVID-19 vaccinations and debunk myths, UNICEF initiated a COVID-19 Vaccination Awareness Campaign in the Niger with USAID and partners. This drive was held in collaboration with the Scouts Association. Aboubacar Bizo Rachida (in the photo to the right) of the Scouts Association reaches communities through a door-to-door RCCE campaign to raise awareness about vaccine safety, inform residents where to get vaccinated, discuss COVID-19 prevention measures, and emphasize the importance of vaccination to protect individual and community health. This community did not believe that the pandemic existed and many rumours about the vaccines were circulating widely. Following the roll out of the RCCE campaign, there was a marked increase in the numbers of people getting vaccinated at local clinics.
Nigeria
In collaboration with UNICEF and other United Nations agencies, the Nigerian Centre for Disease Control (NCDC) built on the strong technical experience and coordination mechanisms developed during decades of polio eradication work, to bolster coordination efforts for the COVID-19 response. UNICEF contributed to strengthening the coordination capacity of the NCDC’s National Risk Communication Working Group. The RCCE Working Group is a multi-sectoral and multi-partner technical action group responsible for the design and implementation of evidence based RCCE in Nigeria. A special coordination and planning event supported by UNICEF was held in Lagos from 28–30 June 2021. Fifty participants from 36 different organizations including the NCDC collaborated in the sessions to update and further develop RCCE action plans with community leaders, academic associations, and civil society organizations. The coordination and planning event resulted in a revised “One Health Risk Communication” training module, a validated “Multi-Hazard” Risk Communication Strategy, and the development of a preparedness plan for a possible third wave of COVID-19 in Nigeria. UNICEF continues to co-lead and coordinate knowledge management aspects of the RCCE Working Group in the country.

Nicaragua
Misinformation on social media is an important threat to vaccination in Nicaragua. This includes messages that undermine the population’s confidence in vaccines against COVID-19 and generate confusion about the value of vaccination to end the pandemic. In Nicaragua, COVID-19 cases increased exponentially in 2021, while rumours and misinformation circulated widely in communities. To tackle this challenge, UNICEF, the Ministry of Health, and key partners worked to develop and implement the national RCCE plan entitled ‘Communication Strategy Cut the Contagion’.

To develop the strategy, UNICEF, together with the Ministry of Health and 10 civil society organizations, carried out community surveys in eight departments of the country to learn about attitudes and practices regarding COVID-19. During this exercise, emphasis was placed on knowing the needs of indigenous communities of the north Caribbean coast, including understanding the barriers to change, identifying common communication channels, and understanding the cultural and religious practices that were affecting people’s confidence in COVID-19 vaccines. This study provided a cultural sensitivity perspective, and the findings highlighted the importance of generating communication and educational materials in multiple languages, including Spanish, Miskito, and Creole. The study also showed that key RCCE messages needed to be produced in the communities themselves where local customs and practices could be considered to generate a sense of identification and belonging to the strategy. The RCCE strategy included training sessions that were rolled out within community networks, including faith-based organizations and youth volunteers, reaching more than 11,000 people working to promote positive behaviour changes in their communities and fight misinformation around COVID-19 vaccines. Nicaragua’s RCCE strategy has a strong component of community engagement that is saving lives and shaping new behaviours and habits that will help curb the spread of COVID-19 and promote vaccination of high-risk groups.
Côte d’Ivoire
Following a resurgence of COVID-19 cases in the second half of 2021, Côte d’Ivoire updated its RCCE strategy using new data related to COVID-19 vaccination efforts across the country. Some of the key updates to the plan included expanding youth engagement, tackling misinformation more directly and improving community feedback collection, analysis, and use to inform future interventions. To meet these new plans, UNICEF’s U-Report mechanism was used to encourage and expand youth engagement efforts. Videos were produced with young people acting as change agents promoting COVID-19 vaccines. A series of short videos featured U-Report members who worked to debunk various rumours about vaccines. To further strengthen digital community engagement for COVID-19 prevention and vaccine promotion, members of 32 civil society organizations were trained in communication in humanitarian and public health emergency settings. Using their newly acquired skills, the civil society organizations contributed their time and peer networks to help promote vaccination during the national COVID-19 vaccination campaign organized across the country from 10–20 December 2021. Organizations collaborating on the campaign were equipped with a range of digital assets.

PPE
In 2021, UNICEF contributed to the global ACT-A urgent PPE funding ask of US$1.7 billion by procuring quality PPE for 89 LMICs (using HAC funds) for essential health care workers and other front-line workers, enabling them to deliver care safely and to protect themselves.

The need for countries to access quality-assured PPE (medical masks, medical gowns, examination gloves and other items that are commonly used in health care systems) remains crucial to ensure those on the front lines of the COVID-19 response, especially health workers who are at the highest risk of infection, are protected. Without proper PPE, health workers run the risk of contracting COVID-19 and potentially spreading it to their families and communities. The lack of quality PPE also puts pressure on health systems, as the more health workers test positive for COVID-19 and fewer essential care services are available for patients. As the Omicron variant brings new waves of COVID-19 infection across many parts of the world, it is likely to lead to increased demands on national health systems. This means we will continue to rely on PPE to protect health care workers, particularly in regions with low vaccination coverage.

WHO issued guidance on the technical specifications and standards for quality PPE, and UNICEF only procures and delivers PPE that complies with these standards. UNICEF procures N95, FFP2 and KN95 respirators. Respirators are masks used to reduce exposure to hazardous airborne particles, including dust particles and infectious agents, as well as gases and vapours. UNICEF also procures Type I and Type IIR surgical masks that are recommended for health workers.13

UNICEF has been working closely with other United Nations organizations, governments, and industry to forecast demand, procure quality PPE at an acceptable price, and ensure fair distribution, particularly to LMICs. In 2020, through a joint tender, 11 United Nations agencies and two international non-governmental organizations worked together to establish long-term supply agreements with PPE manufacturers. Aside from affordability and access,

13 In the context of COVID-19, respirators are reserved for use by health workers performing aerosol-generating procedures or providing direct care to COVID-19 patients. While the N95 meets the U.S. National Institute for Occupational Safety and Health NIOSH-42CFR84, the FFP2 is certified by the European Union conforming to EN 149:2001 and the KN95 meets the Chinese National Medical Products Administration standard (GB2626-2006). Type I masks have a bacterial filtration efficiency of 95, Type IIR can filter 98 per cent of particles of 3 micrometre.
quality was a non-negotiable element. Today, the agreements ensure we can prevent PPE stockouts in the event of a future health crisis.

In 2021, UNICEF shipped PPE to 89 countries (PPE has been received in 53 countries and PPE is in the process of being procured and transported to the other 36 countries). This included medical masks, N95 respirators, goggles, gloves, medical gowns and more, with a significant percentage of these supplies delivered to LMICs. UNICEF has been sending PPE from its global supply hubs in Copenhagen, Dubai, Guangzhou, and Panama City, by the fastest, most cost-effective means possible over the past year. This is usually by sea-freight, but in some instances, for smaller quantities and urgent needs, we also use air transport.

UNICEF draws on its decades of experience delivering life-saving supplies for children in emergency settings so we can move supplies, including PPE, quickly from our warehouses or directly from manufacturers to countries without delay. As an example, in early December 2021, UNICEF shipped nearly 2 million items of PPE to the Syrian Arab Republic. These items first went to Beirut by plane and were then trucked to the Syrian Arab Republic from there. UNICEF has also delivered large quantities of PPE in 2021 to the Democratic Republic of the Congo, Ethiopia, Sierra Leone, and Zimbabwe to support health and other front-line workers. Custom transport solutions, such as charter cargo flights, are often needed. The logistical effort is immense because it is not as simple as just booking a flight: there are import licences, in-country transport needs and security issues we must deal with, all set against a backdrop of constrained global supply chains.

Beyond emergency settings, UNICEF is delivering PPE to hard-to-reach countries – and doing so in an innovative way. We have been bundling medical masks, gloves, medical gowns, coveralls, boots, and a range of other items together so that countries receive the right supplies at the right time as they respond to the pandemic. As an example, in August 2021, UNICEF chartered a plane to Timor-Leste that had ultra-cold chain vaccine freezers, routine vaccines, and PPE on board, bundling supplies to reduce the number and cost of flights needed.

Links
- For potential partners in the COVID-19 vaccination effort – https://www.unicef.org/coronavirus/deliver-history
- For further information on procurement of COVID-19 vaccines, tests and treatments, through the ACT-A Supplies Financing Facility – https://www.unicef.org/supply/unicef-creates-fund-support-low-and-middle-income-countries-access-covid-19-health-supplies

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### Annex A - Summary of programme results

<table>
<thead>
<tr>
<th>Sector/Pillar</th>
<th>2021 Target</th>
<th>Results(^{14})</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vaccines</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of AMC economies ready to administer COVID-19 vaccines(^{15})</td>
<td>92</td>
<td>90</td>
</tr>
<tr>
<td>Number of COVID-19 vaccine doses administered in AMC economies</td>
<td>2.3 billion</td>
<td>2.8 billion</td>
</tr>
<tr>
<td>Number of COVID-19 vaccines doses administered in LMICs</td>
<td>3 billion</td>
<td>3.2 billion</td>
</tr>
<tr>
<td>Per cent of the population in low-income countries fully vaccinated against COVID-19</td>
<td>30%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Number of Humanitarian Buffer COVID-19 vaccine doses administered</td>
<td>3 million</td>
<td>0(^{16})</td>
</tr>
<tr>
<td>Number of countries and/or humanitarian agencies that deliver COVID-19 vaccines through the Humanitarian Buffer</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td><strong>Diagnostics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of COVID-19 diagnostic tests procured and delivered in LMICs responding to acute outbreaks</td>
<td>5.6 million</td>
<td>0.6 million</td>
</tr>
<tr>
<td>Number of LMICs that have scaled up COVID-19 testing with technical assistance from UNICEF</td>
<td>10</td>
<td>1(^{17})</td>
</tr>
<tr>
<td><strong>Therapeutics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of COVID-19 treatment courses procured and delivered in LMICs</td>
<td>5.5 million</td>
<td>0(^{18})</td>
</tr>
<tr>
<td>Number of LMICs that have scaled up oxygen treatment systems with technical assistance from UNICEF</td>
<td>30</td>
<td>45</td>
</tr>
<tr>
<td><strong>RCCE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per cent of individuals who would get vaccinated once a vaccine is available and recommended</td>
<td>85%</td>
<td>91%(^{19})</td>
</tr>
<tr>
<td>Number of LMICs that implement ACT-A related RCCE interventions based on social and behavioural evidence</td>
<td>94</td>
<td>106</td>
</tr>
<tr>
<td><strong>PPE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of days’ worth of quality PPE delivered to protect health workers in LMICs as they support the roll out of new COVID-19 tools</td>
<td>57 million</td>
<td>6.7 million(^{20})</td>
</tr>
<tr>
<td>Number of low- and middle-income economies that receive quality PPE to enable the safe roll out of new COVID-19 tools</td>
<td>60</td>
<td>53</td>
</tr>
</tbody>
</table>

\(^{14}\) As of 31 December 2021.

\(^{15}\) Country readiness is assessed here by the development of National Deployment and Vaccination Plans (NDVP) which have been finalized and submitted and uploaded in the WHO Partner Portal. Only in a few cases, mostly due to challenging socio-political circumstances, has this not been achieved with other national plans being drawn up instead.

\(^{16}\) No doses were administered in 2021. Further information about the Humanitarian Buffer and process of applications is available here: [https://interagencystandingcommittee.org/inter-agency-standing-committee/covax-humanitarian-buffer](https://interagencystandingcommittee.org/inter-agency-standing-committee/covax-humanitarian-buffer)

\(^{17}\) UNICEF provided funding support for Malawi to improve country workforce capacity for genomic surveillance through training in laboratory genomic sequencing and bioinformatics.

\(^{18}\) In the Therapeutics Pillar, UNICEF focused on supporting oxygen systems in countries throughout 2021.

\(^{19}\) This number fluctuates regularly as new surveys continue to be rolled out and cover unvaccinated and people who were originally reluctant to be vaccinated. See: [https://www.rcce-collective.net/data/behavioural-indicators/](https://www.rcce-collective.net/data/behavioural-indicators/) accessed on 28 Jan 2022. Results are from 90 countries but very few LICs.

\(^{20}\) This only includes PPE delivered to countries in 2021 and does not include PPE procured and on route to countries. The approximate number of health workers reached each day with new PPE over a one-year period is 10,798 (calculated as $1.7 per PPE per day per health worker).