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SUPPLY CHAINS SAVE LIVES

Unlocking access for children,
their families and communities

CASE STUDIES







THE LIFE-SAVING POWER OF DATA IN NIGERIA

Volunteer health workers and data prove the key to eradicating polio

Since being trained by UNICEF and Nigerian Government to become volunteer community mobilizer (VCM), Zahariyya Hamza, a 31-year-old mother of six, has a new-found purpose in life.

“I hold my head high and feel so much pride when young mothers call out to me as I pass by and ask me to visit their homes,” she says. For more than eight years, she has been vaccinating children and counselling families on childcare practices.

Zahariyya is one of the more than 20,000 UNICEF-trained VCMs – of whom over 90 per cent are women – working within their own neighbourhoods in pockets of northern Nigeria vulnerable to the poliovirus outbreaks.

She and other trained VCMs ensure that children receive vaccines against polio and other preventable childhood diseases. And VCMs in northern Nigeria have the greatest tool at their disposal: data. Until recently, manual data collection and analysis had resulted in thousands of children missing vaccination campaigns. But since 2016, VCM network supervisors have been using the Open Data Kit to collect detailed information on newborns, mothers and children under the age of 5.

The real-time data provided by the software alerts the VCMs to every child who still requires vaccinations. Crucially, the Open Data Kit enables the VCM network to forecast future vaccination needs, ensuring that vaccines are available when they are needed.

The network has been instrumental in polio eradication and strengthening community health systems by ensuring equitable and timely distribution of vaccines. Real-time data reporting of operational and logistical challenges and close case-by-case follow-up with vaccine-hesitant families and children who missed vaccination helped ensure that no-one is left behind.

The network is deployed in some of the hardest to reach, conflict-affected, urban poor and remote rural areas and has played a significant role in reaching zero-dose, under-served and displaced children and families.

Reassessing the vaccination strategy

Wherever Zahariyya goes she is welcomed with open arms. However, this hasn't always been the case. In the past, members of her own community in Katsina State's Keita local government area used to chase away health workers who would come to their homes to vaccinate their children against polio.

The negative perceptions of volunteers like Zahariyya were just part of the problem; the eradication of wild polio faced a number of other key obstacles, including false perceptions of the potential side effects of vaccination and the risks posed by polio. The VCMs, though, gradually earned the trust of caregivers and were eventually able to address their concerns.





Aware of which communities to target and equipped with up-to-date digital records, the VCMs have been able to capitalize on existing community events and cultural activities to develop relationships with parents and children and educate them on the importance of vaccination.

A polio-free future

Owing to this approach, over 4 million newborns have received their first dose of the oral polio vaccine, in addition to more than the 12 million doses given to children under 5 years of age present at the ceremonies over the past four years.

Supported by fit-for-purpose data systems, the mission of the VCMs is to keep Nigeria polio-free, although their role goes far beyond simply vaccinating children against polio. “I try to address their fears or misconceptions, encourage [pregnant women] to go for antenatal care and convince them to make sure their children follow the full immunization schedule.”

“It is not easy at first, but over time they see the benefits of our maternal and neonatal and child health services and become change agents themselves, encouraging others,” says Zahariyya who gradually developed the trust of parents in the area .

On top of the polio success, over the last five years Nigeria has achieved a 13 per cent increase in its vaccination coverage of a key indicative vaccine – DTP3 – which has shot up from 44 per cent in 2015 to 57 per cent in 2020.

The success of this project has led to the development of an even more ambitious programme: under the community health influencers, promoters and services (CHIPS) programme (community health influencers, promoters and services), 100,000 health workers are planned for deployment across Nigeria in low-performing districts in the coming years.

Open Data Kit

Open Data Kit is as an open-source software for collecting, managing and using real-time data. In Nigeria it has allowed for medical records to be digitalized and has helped to strengthen information health systems, enabling the VCM network to identify which children have not been vaccinated.

Key stats

UNICEF trained over 20,000 VCMs

- Polio has been eradicated in the country
- 4 million newborns have received their first dose of the oral polio vaccine

“ I hold my head high and feel so much pride when young mothers call out to me as I am passing by and ask me to come over to their homes.

Zahariyya Hamza, volunteer community mobilizer in Nigeria

Find more information [here](#)



DRONES: THE MISSING LINK IN MALAWI

How drones are increasing the availability of health commodities

UNICEF and the Government of Malawi set up a drone corridor in Malawi in 2017, and since then, uncrewed aircraft systems – or drones – have been improving the lives of people who live in hard-to-reach areas in the country with the help of partners, including the United Kingdom’s Foreign, Commonwealth & Development Office (FCDO), the German Development Agency (GIZ) and USAID.

Drones are being used to transport medical supplies to the last mile, granting patients quicker access to the treatment they require. Before drones were introduced, it took up to 13 weeks to get results when blood samples were transported to diagnostic centres to test for HIV or tuberculosis. With drones in place, test results became available to patients within two weeks. Following the introduction of drones, however, test results were consistently returned to patients. Drones enabled faster diagnosis and as patients were able to begin treatment regimens sooner.

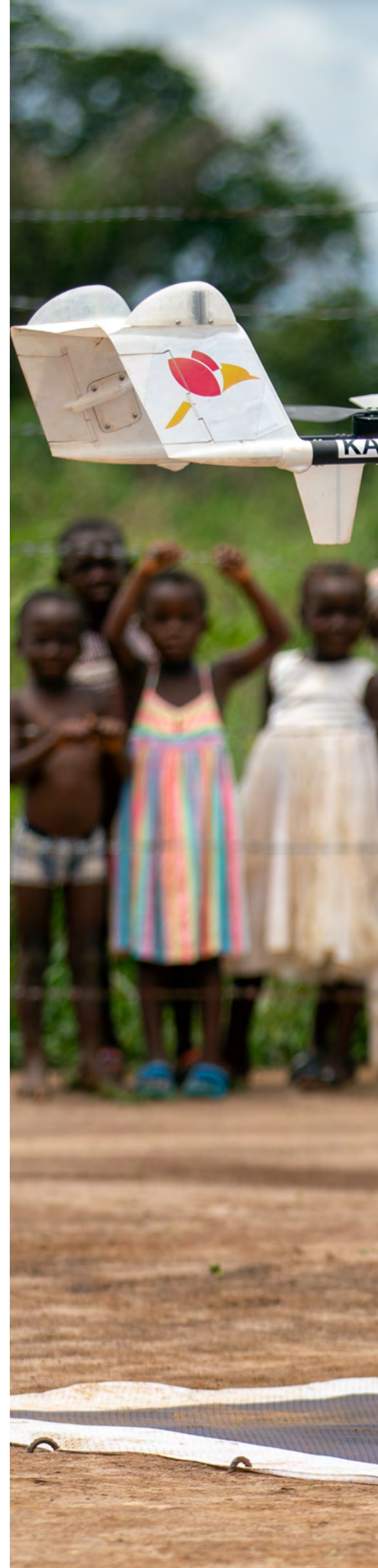
Many heads are better than one

The drone corridor – an area reserved for the trialling of drones – serves as a gateway for all drone delivery projects in Malawi. Drone organizations can showcase in the corridor that they are able to operate safely before obtaining regulatory approvals to fly in an integrated airspace.

Since UNICEF worked with the government to establish the drone corridor, and invited public and private sector organizations to test their drone-related solutions, the number drone activities in the country has rocketed. There are currently more drone companies in the country than ever before, from abroad and from Malawi.

Now, in 2022, drones are an integral part of the health supply chain in remote areas of Malawi, as are the private drone companies that have thrived in the innovative climate the corridor provided.

Drones are now also used to support the transportation of HIV specimens and compliment emergency obstetrics procedures.





The availability of local personnel can also greatly improve the financial sustainability of drone delivery. Further, ensuring their permanent integration into health supply chains will require more drone specialists. This is why UNICEF established the first [African Drone and Data Academy \(ADDA\)](#) in 2020, alongside its partner Virginia Tech university: to build the capacity of youth in Malawi and the region more broadly.

Phyllis Chibisa, a recent graduate of ADDA, learned a variety of skills during her course, including emergency response, mapping, and search and rescue and surveillance. Having known little about drones previously, she now works for drone operator Wingcopter and sees them as indispensable.

“A lot of our work involves transferring health commodities from district hospitals to smaller health facilities, which are often difficult to reach. If roads are unusable, you can always send a drone and we’ve seen how useful they can be, especially in emergency situations.”

She emphasizes the value of the academy in ensuring the longevity of drone projects in the country: “After graduating from ADDA, I was offered a job with Wingcopter, and it’s been the case for many other graduates.”

“It’s easier to sustain these programmes if there are trained professionals within the country. That’s why the academy and the developing drone industry are so important.”

“And it’s not just in the health sector that drones are being used,” she says.

“They’re playing a role in agriculture, urban planning and disaster response, and in each area, these drone projects are benefiting Malawians.”

Such has been the success of the academy, the development of a new academy in Niger is currently being planned, while academies in Ethiopia and Sierra Leone are also in the pipeline.

As for the ADDA in Malawi, in 2022, it is launching a social enterprise incubator to develop and support local entrepreneurs in the drone and data sector as well as a technical and vocational education and training programme in partnership with the Government of Malawi. And from 2023, ADDA Malawi is even planning to offer a Master’s degree programme.

Drones can quickly travel and land close to health facilities to collect lab samples and pick up and deliver other health commodities.

“ Owing to the country’s lack of infrastructure and the weather-induced transportation challenges, UNICEF identified drones as key to reducing lengthy turnaround times for testing and increasing the availability of medical commodities at health facilities, including blood products, vaccines and emergency medicines.

Fredrick Sheshe, Supply Manager, UNICEF Malawi

Key stats

Following a USAID and UNICEF-funded activity between July 2019 and February 2020 in the north of Malawi:

- There was a 65 per cent reduction in the time it took for diagnostic samples to be analyzed
- The number of these samples collected and analyzed increased by 130 per cent





BEATING MALNUTRITION IN AFRICA

Procurement, finance and technical expertise: The lubricant helping health supply chains to shine

UNICEF and partners reached over 5.4 million children with life-saving treatment for severe wasting in 2021, a 10 per cent increase from 2020 and are championing innovative ways to reach millions more.¹ Using a multi-pronged approach that includes local procurement, market-shaping, innovative financing and technical assistance, UNICEF is working with governments to build sustainable nutrition programmes.

RUTF is an important weapon in the fight against severe wasting. One sachet of RUTF provides children with 500 calories and a mix of vitamins, minerals and micronutrients that help malnourished children to quickly gain weight. It has a two-year shelf life, making it convenient to pre-position in a warehouse, and it does not need to be cooked or mixed with water: children eat it directly from the packet, making it microbiologically safer than food prepared with water. It also tastes good and is easily digestible.

Procuring RUTF

In 2021, UNICEF procured 48,554 MT of RUTF, 67 per cent of which was sourced in countries in which UNICEF supports country programmes. Local procurement of RUTF increased from 6 per cent to 71 per cent between 2006 and 2021, with the average price of RUTF decreasing by 20 per cent.

Supporting local RUTF production

Working with and procuring RUTF from local manufacturers, UNICEF is able to achieve a lower price, allowing the organization to buy larger quantities to feed more children. This is more important than ever, as the number of children with wasting admitted for RUTF treatment has continued to increase. Buying locally also reduces lead times; being situated closer to countries in need often means that products such as RUTF arrive at distribution centres – and therefore to children

¹ UNICEF, "Global Annual Results Report 2021: Every child survives and thrives", <https://www.unicef.org/reports/global-annual-results-2021-goal-area-1>

– more quickly. Procuring locally also helps to boost local employment, stimulating the local economy.

Supporting RUTF procurement

Despite the effectiveness of RUTF in treating malnutrition, every year 10 million children suffering from severe wasting go untreated owing to a lack of resources.² Although severe wasting remains one of the top threats to children under 5 and contributes to nearly half of child deaths, the global response to the COVID-19 pandemic has diverted donor commitment away from national nutrition programmes.

The cost of treatment is increasing as a result of the global crisis; recent data shows that the price of RUTF has increased by 16% in 2022 resulting in a potential 660,000 fewer children treated globally with available resources³.

UNICEF launched the Nutrition Match Instrument (NMI) in 2020 with support from the FCDO and the Children's Investment Fund Foundation. A further commitment has also been made by the Bill & Melinda Gates Foundation.

By matching the financial value dedicated to nutrition products by countries, the NMI aims to make financing for RUTF and other critical nutrition supplies more predictable and incentivizes governments to make more robust allocations of their domestic resources towards preventing and treating malnutrition.

In 2021, four countries – Mauritania, Nigeria, Uganda and Senegal – signed up to the initiative, and between them, initiated procurement for nearly 78,000 cartons of RUTF in 2021, totalling \$3.5 million. Under the agreement, the NMI provided the same quantity of RUTF, meaning that in total, more than 155,000 cartons were delivered to these four countries, enough to treat 155,000 children.

In 2022, Kenya and Sierra Leone also subscribed to the NMI, while additional countries are at different stages in the subscription process.

² United Nations Children's Fund, 'Self-financing sustainability by governments is crucial for the prevention of malnutrition', UNICEF, 24 May 2022, <<https://www.unicef.org/supply/stories/self-financing-sustainability-governments-crucial-prevention-malnutrition>>.

³ UNICEF, No Time to Waste, www.unicef.org/media/127646/file/No%20Time%20to%20Waste.pdf





“ The Ministry of Health sees the NMI by UNICEF as an opportunity to accelerate efforts to address wasting in children by creating a more sustainable funding mechanism for treatment.

Uganda’s Permanent Secretary at the Ministry of Health, Diana Atwine

Nutrition in Malawi and Burkina Faso

By using its technical expertise, UNICEF is often in a position to help countries boost the performance of their health supply chains.

In 2017, a joint evaluation spearheaded by UNICEF and the Government of Malawi highlighted that critical gaps in national capacity and systems were obstructing the accessibility and delivery of quality nutrition services to affected communities. Critically, more than half of the surveyed health facilities receiving UNICEF supplies faced stock shortages.

UNICEF worked with the Government and partners to launch several initiatives to strengthen national capacity. First, RUTF was added to the national essential medicines list – a critical step in prioritizing the product and committing the Government to routinely finance and procure it. Further, nationally-owned logistics management and reporting systems were rolled out.

The national capacity-strengthening initiatives in Malawi were implemented in partnership with USAID, FCDO and the World Bank.

In Burkina Faso, UNICEF employed its [Supply Chain Maturity Model](#) to identify the supply chain related challenges behind the limited access to and uptake of RUTF in the country, which had led to high levels of wasting among children under 5.

This was further compounded by commercial exploitation and misuse of the product, which had commonly been used as an aphrodisiac. In addition, only 4 per cent of the beneficiaries interviewed reported knowing how to administer the right dosage of RUTF.

Armed with this information, which was provided by community health workers through end-user monitoring surveys, the government and partners were able to redesign the last-mile distribution of nutrition commodities. This has already led to supply chain improvements. A recent assessment found that on average, there were fewer than two stock-out days in 2022 (1.8 days), compared with the 2020 average of 11.

A call to action

Despite the effectiveness of RUTF, in 2020 nearly 10 million children who needed the treatment went without.⁴ Globally, at least 13.6 million children under the age of 5 suffer from severe wasting.⁵

While UNICEF procures an estimated 75 to 80 per cent of the global RUTF demand annually, the available supply only covers 25 per cent of the estimated needs of children suffering from severe wasting.⁶ And even when RUTF is in plentiful supply, there can be problems with storage, delivery, acceptance and dosage.

Solid supply chains supported by strong financing mechanisms will play a significant role in eradicating severe wasting.

4 United Nations Children’s Fund, ‘UNICEF Child Alert: Severe wasting: An overlooked child survival emergency’, UNICEF, May 2022, <www.unicef.org/media/121891/file/English.pdf>.

5 United Nations Children’s Fund (UNICEF), the World Health Organization, and the International Bank for Reconstruction and Development/The World Bank, ‘Joint Malnutrition Estimates’, 2021 edition, UNICEF, 2021.

6 United Nations Children’s Fund, ‘Market outlook: Ready-to-use therapeutic food’, UNICEF, March 2021, <<https://www.unicef.org/supply/media/7256/file/RUTF-Supply-Update-March-2021.pdf>>.

ONE UN FOR HEALTH SUPPLY CHAINS IN MADAGASCAR

UNICEF is driving a sustainable national supply chain transformation in Madagascar, bringing together the health authorities and the development community

A strong and resilient public health supply chain saves lives and is the cornerstone of efficient health care systems. It is also a driving force in improving equity, quality and access to essential services and products.

In Madagascar, however, not everyone has access to critical medicines and health products, with nearly one out of every three children unimmunized.⁷

The country's supply chain challenges, which include product stock-outs and a lack of fit-for-purpose infrastructure distribution networks and trained health care workers, have been long-standing barriers in providing the highest standard of routine interventions and reaching all under-served communities. Recurrent climate shocks, nutrition crises and other health emergencies, such as the COVID-19 pandemic, have added to the strain on health care delivery and have undermined the national response capacity to address rising requirements.

A uniting process

Recognizing these challenges, UNICEF made use of its convening power to launch the 'UN Delivering as One for Supply Chains' initiative, which began with a comprehensive performance assessment from 30 May to 2 June 2022. The initiative looked into four areas of Madagascar's health supply chain – essential medicines, reproductive health, vaccines and nutrition – and identified investment needs. With the support of the UN Resident Coordinator Office and cooperation of other civil society and donor partners, the Ministry of Health, WHO, the United Nations Population Fund (UNFPA), and USAID co-led the initiative.

The [UNICEF Supply Chain Maturity Model](#) served as the guiding framework for this inclusive review process, laying the foundation for a shared understanding and common vision of the country's supply chain priorities. Thirteen critical operational and technical supply chain functions were qualitatively assessed as part of multi-stakeholder consultations and rated on a scale of one to five, with level one indicating minimum development and level five reflecting a sustainable and financially- and technically-independent supply chain.

“ We are grateful to UNICEF and partners for uniting their strengths and promoting a comprehensive system strengthening approach to help us achieve the health-related Sustainable Development Goals.

*Dr. Fanjamboloniaina Dominique Rasamoelina,
Secretary-General at the Ministry of Health, Madagascar*

A shared vision

The findings of the evaluation highlighted the potential for more supply chain integration and opportunities for synergies across health programmes. They highlighted the importance of streamlining resources, sharing knowledge and expertise, capitalizing on achievements and leveraging partnerships to replicate and institutionalize best supply chain management practices. They also noted that increased investments and technical cooperation are required to bring the worst-performing areas to a higher maturity level.

⁷ United Nations Children's Fund, 'Immunization country profile', UNICEF, <<https://www.unicef.org/supply/immunization-country-profile>>.

Find more information [here](#)





Following the consultations, all stakeholders agreed to work together towards the establishment of a national, multi-partner and evidence-driven systems-strengthening action plan, with ambitious targets and objectives. The plan will provide a harmonized framework for all health supply chain stakeholders, including UN agencies, development agencies, donors and private sector partners, to lend their technical expertise, innovation capacity and resources to bridge the gap in health products and services.

The role of the donor community is also critical in providing catalytic investments to support the implementation of nationally-owned systems-strengthening strategies.

“ These systems-strengthening investments are critical to advance our humanitarian-development continuum efforts, as well as to better prepare for health disasters, absorbing shocks and fostering a faster return to normalcy. By pooling our assets and competencies, we can strengthen our coordination and achieve better results.

Issa Sanogo, UN Resident Coordinator, Madagascar

“ UNICEF is proud to serve as a trusted adviser to the Malagasy Government on systems-strengthening. The results of the Maturity Model are a call to action for all areas of the supply chain; a supply chain is always as strong as its weakest link.

Jean Francois Basse, UNICEF Representative, Madagascar

“ Through our Improving Market Partnership and Access to Commodities (IMPACT) project, USAID expresses its commitment to providing its financial and technical resources to advance the government’s objectives and continue transforming the lives of millions of Malagasy people throughout the country. USAID invests over \$72 million annually in integrated health activities.

Hajarijaona Razafindrafito, Health, Population and Nutrition Acting Deputy Director, USAID

ROLLING OUT VACCINES IN MOZAMBIQUE, NEPAL AND UZBEKISTAN

Coordinating the experience and expertise of National Logistics Working Groups has saved lives during the COVID-19 pandemic

The potential of bringing together multiple stakeholders cannot be underestimated. Governments, UN agencies, NGOs and other development partners all have vast experience and expertise to share; convening them to solve a particular problem benefits all stakeholders. Through the UNICEF- and WHO-led COVAX Facility, for example, more than 1 billion doses of COVID-19 vaccines have been delivered to 144 countries and territories: a shining example of collaboration.

This achievement would not have been possible without coordination in countries. Through National Logistics Working Groups (NLWGs), UNICEF has played a pivotal role in bringing together numerous development partners, including ministries of health. Such groups been crucial in ensuring the continuation of routine immunization programmes during the COVID-19 pandemic, and in helping countries receive and distribute COVID-19 vaccines.

These coordination mechanisms were established long before the pandemic with the support of UNICEF. UNICEF often plays an advisory role in these groups, offering technical assistance and working with key partners, such as WHO, other UN agencies and donors, to build the capacity of countries to receive, store and distribute vaccines, forecast needs and analyze data, even beyond vaccines.

An example of this assistance is the 83 vaccine management specialists deployed by UNICEF to 38 high-risk countries at the beginning of 2022 to support the NLWGs in rolling out the COVID-19 vaccine. These specialists worked with their

national counterparts in the planning and implementation of campaigns, redistribution of vaccines and supportive supervision. As well as providing on-the-job training to national staff, they also they managed to ensure that no vaccines were wasted owing to expiry.

Why are NLWGs so important?

Essentially these working groups coordinate the implementation of the supply and logistics component of national vaccine deployment plans for the COVID-19 vaccine roll out. They play a critical role in ensuring that supply chain interventions are well coordinated and inclusive. This helps to identify the resources needed to store and distribute health commodities, as well as define supply chain processes for the introduction of the COVID-19 vaccine with partners.

As COVID-19 vaccine distribution began in countries, the value of the working groups became apparent.

In Nepal the National Committee for Vaccine and Cold Chain Management is a working group supported by UNICEF that convenes partners to forecast needs and develop supply plans for the procurement of vaccines and ancillary supplies. This group, which convened partners to support the rollout of almost 45 million doses of COVID-19 vaccines thus far, helping Nepal fully vaccinate 52 per cent of its target population.

In Uzbekistan, a similar group managed to speed up vaccine deployment. Since the inception of the NLWG in Uzbekistan, supplies have been distributed from national

Find more information [here](#)





vaccine stores to vaccination points at the primary health care level within five days of arrival at the port of entry, whereas this had previously taken 30 days.

The support provided by the NLWG, which involved bringing together immunization and COVID-19 vaccine roll out partners to discuss the actions required to accelerate the vaccine roll out, has also helped Uzbekistan administer more than 80 per cent of the almost 48 million doses provided through COVAX and bilateral procurement.

Mozambique has also capitalized on the power of partnerships through the convening power of the NLWG. Facing challenges related to cold chain capacity, the group convened partners to assess supply chain capacity needs, including the funding requirements for the COVID-19 vaccine roll out.

Led by UNICEF, the NLWG was instrumental in mobilizing around \$2 million to procure and install cold chain equipment in Cabo Delgado, Niassa and Nampula provinces, and it plans to install more in Maputo, Sofala and Zambezia.

Having the capacity to store vaccines closer to communities allows for improved vaccine uptake. In 2022, the country is able to store more than 25 million doses and more-easily reach its target of 40 per cent vaccination coverage.

NLWG members

Nepal's National Committee for Vaccine and Cold Chain Management is led by the Ministry of Health and Population and the Expanded Programme on Immunization, with support from partners including UNICEF, WHO, USAID, KfW Development Bank, the United Kingdom Foreign, Commonwealth & Development Office and FHI-360.

The NLWG in Mozambique brought together the Expanded Programme on Immunization, National Medical Stores, WHO, UNICEF, United Nations Development Programme, Clinton Health Access Initiative and VillageReach.

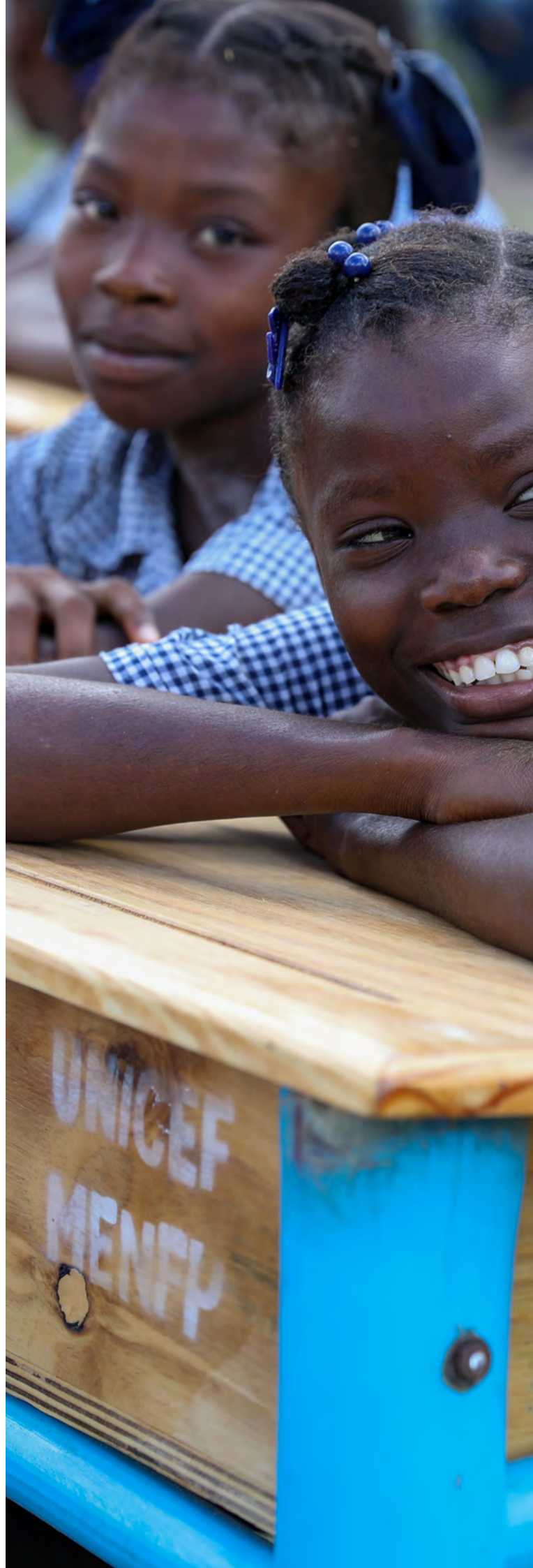
“ The working group in Nepal has been instrumental in not only rolling out the COVID-19 vaccinations, but also in ensuring the continuation of our routine vaccination programmes. By working alongside partners, like UNICEF, through the National Committee for Vaccine and Cold Chain Management, we’ve been able to learn from the expertise and experiences of others. In the end what this means is that the people of Nepal have greater access to the vaccines that can save their lives.

Dr. Rudra Prasad Marasini, Director, Management Division, Nepal’s Department of Health Services

Key stats

- 60,475,558 doses of COVID-19 vaccines have been administered in Nepal
- 71,888,007 doses of COVID-19 vaccines have been administered in Uzbekistan
- 29,140,427 doses of COVID-19 vaccines have been administered in Mozambique

**As of 31 December 2022, UNICEF and WHO*



DELIVERING ON MULTIPLE FRONTS IN HAITI

Acting swiftly to reach more than 2 million children in need of health, nutrition and WASH assistance

In 2021, 4.1 million people needed humanitarian assistance in Haiti. More than half were children.

Following the President's assassination on 7 July 2021, gang violence in Port-au-Prince and other metropolitan centres forced an estimated 19,000 people to leave their homes. Then, on 14 August, a magnitude-7.2 earthquake struck southwest Haiti, intensifying suffering in a country already reeling from political instability, deteriorating socioeconomic conditions, rising food insecurity and malnutrition.

The earthquake killed more than 2,200 people. Some 115,000 homes, 1,250 schools and 60 per cent of the health facilities in three departments were damaged or destroyed. In total 800,000 people were affected, including 340,000 children.

UNICEF emergency supply hubs

UNICEF Supply Division's global hub in Copenhagen and its subsidiary hubs in Accra, Brindisi, Dubai Guangzhou, and Panama, together contain sufficient emergency supplies to meet the needs of 250,000 people for three months.

When an emergency occurs, deliveries are completed within 72 hours after orders are placed by county offices.

Immediate action

Health and nutrition supplies, WASH kits and flexible water storage tanks pre-positioned in UNICEF's Port-au-Prince warehouse enabled the first consignment to reach the hardest-hit areas within 48 hours. While waiting for donor funds to materialize, Supply Division provided \$1.7 million in bridge funding to avoid delays in dispatching life-saving supplies.

The first supplies, shipped from UNICEF's global warehouse, reached Haiti on 20 August 2021, six days after the earthquake, and included medicines, surgical

equipment, nutritional supplements and over half a million masks. Thirty tents were temporarily installed in 27 damaged health facilities while 135 medical health kits enabled 30,000 people to access primary health care for three months. On top of this, UNICEF deployed 24 mobile clinics to 18 earthquake-affected municipalities, providing child vaccines, antenatal care, nutrition and other vital services to 52,000 people.

UNICEF also repositioned emergency supplies to care for over 27,000 children under 5 suffering from wasting: nearly 22,000 were screened and 4,800 were treated. Moreover, UNICEF provided 23,198 hygiene kits (including soap, water purification tablets, menstrual hygiene products and other critical supplies) for 121,000 people, as well as an emergency supply of water to 419,000 people.

Other flights containing 30 MT of life-saving supplies landed soon after, before being delivered to the southern departments worst hit by the earthquake and tropical storm.

Vaccinating against COVID-19

Haiti was the last country in the Americas to receive COVID-19 vaccines. Before a donation of 500,000 doses from the United States arrived on 14 July, UNICEF worked around the clock to strengthen in-country logistics and cold chain capacity. In some parts of Haiti, however, electricity is available for less than two hours a day, meaning that strengthening the country cold chain system was essential to ensure children's access to vaccines during and beyond the pandemic.

UNICEF worked alongside the Ministry of Public Health and Population to install over 960 solar-powered refrigerators and two cold rooms. And as of August 2022, almost 1.2 million doses have been shipped to Haiti through the COVAX Facility.⁸

Find more information [here](#)



8 United Nations Children's Fund, 'COVID-19 Market Dashboard', UNICEF, <<https://www.unicef.org/supply/covid-19-vaccine-market-dashboard>>.

Making a trying situation even harder

Around the same time of the earthquake and the COVID-19 pandemic, shootings, kidnappings and fuel shortages threatened supply lines to vulnerable communities and health facilities. Partnerships with community-based civil society organizations were critical to delivering high impact health interventions and medical supplies – in part through mobile clinics – to internally displaced persons and seven health facilities.

In November, UNICEF warned that schools were increasingly at the mercy of gangs, with children being kidnapped and school directors becoming targets of robbery or ransom. In response, UNICEF, alongside the Ministry of Education and local private sector partners, built or rehabilitated seven schools in areas where displaced families had fled, while UNICEF and partners distributed school kits to 70,000 children of families affected by social unrest and the pandemic.

In addition, UNICEF has been working with the Ministry of Education and has so far built 38 schools in southwestern Haiti. When the earthquake hit 1,250 schools were either damaged or destroyed.

Humanitarian services in the Syrian Arab Republic

In the Syrian Arab Republic in 2021, the number of people in need of humanitarian assistance and protection grew 21 per cent to 13.4 million people, including 6.08 million children. This increase from 2020 was largely due to the ongoing economic crisis as well as violence in the northwest and other parts of the country, mass displacement, the devastation of public services and the exacerbating impact of COVID-19.

Humanitarian services supported by UNICEF reached 11.3 million people in the country, including 7.3 million children, prioritizing 276,000 people in difficult-to-reach areas and 1.8 million in moderately accessible areas.⁹

⁹ United Nations Children's Fund, 'Whole of Syria Humanitarian Situation Report for January- December 2021' <





A NEW, CLEANER NORMAL IN PAKISTAN

UNICEF worked with the Government to increase the supply of clean water and welcome children back into classrooms

The lack of clean water and hygiene facilities is an ongoing problem in Pakistan. The country's main water source increasingly suffers from pollution, open defecation and growing saltwater intrusion. Even before the COVID-19 pandemic, the country was already one of the most water-stressed on the planet and groundwater was being dangerously depleted.

With the arrival of COVID-19, schools closed, children could no longer receive an education, and dropout rates threatened to increase. UNICEF supported the government's decision to re-open schools with special measures to prevent the spread of COVID-19; however, a third of all schools in Pakistan did not have access to drinking water or handwashing services, which were critical to limiting the transmission of the COVID-19 virus and safely welcoming children back into classrooms.

Key stat

44 per cent of 5 – 16-year-olds in Pakistan do not attend school and boys outnumber girls at every stage of education.

Access to running water

With support from a number of partners including the United Kingdom's Foreign, Commonwealth & Development Office and Unilever, UNICEF helped to provide safe water and handwashing stations, with appropriate gender segregation and facilities to assist disabled children and adults across the country. Not only did this help to usher children back into schools, but it has also established functioning sanitation facilities that will help to keep both children, teachers and school staff healthy for years to come.

At Hashimabad school, UNICEF installed a new water supply system, four solar-powered water chillers and three handwashing stations with running water and soap, making it possible for the 700 students to access clean water.

According to the principal of the school, Mr. Abdul Rehman, "With all the washrooms in the school now equipped with running hot and cold water, students have found it easier to adhere to hygienic practices. We are proud that we managed to retain all our students – not a single child has dropped out. Moreover, no COVID-19 case has been reported in this school among the students and staff."

Learning to manage during a pandemic

Disseminating information to children and adults during the COVID-19 pandemic was crucial to limiting virus transmission.

Ten-year-old Sara lives in Chupriyal, a village in the Swat district of Pakistan's Khyber Pakhtunkhwa (KP) province. Limited internet connectivity in the district made it more difficult to access information on the virus and prevented children from attending online classes while schools were closed.

But information was on its way. The village was visited by hygiene promoters aiming to improve infection prevention and control practices. Supported by UNICEF and implemented by SABAWON, a civil society organization, in four hilly districts of KP, hygiene promoters visited health care facilities, schools and communities.

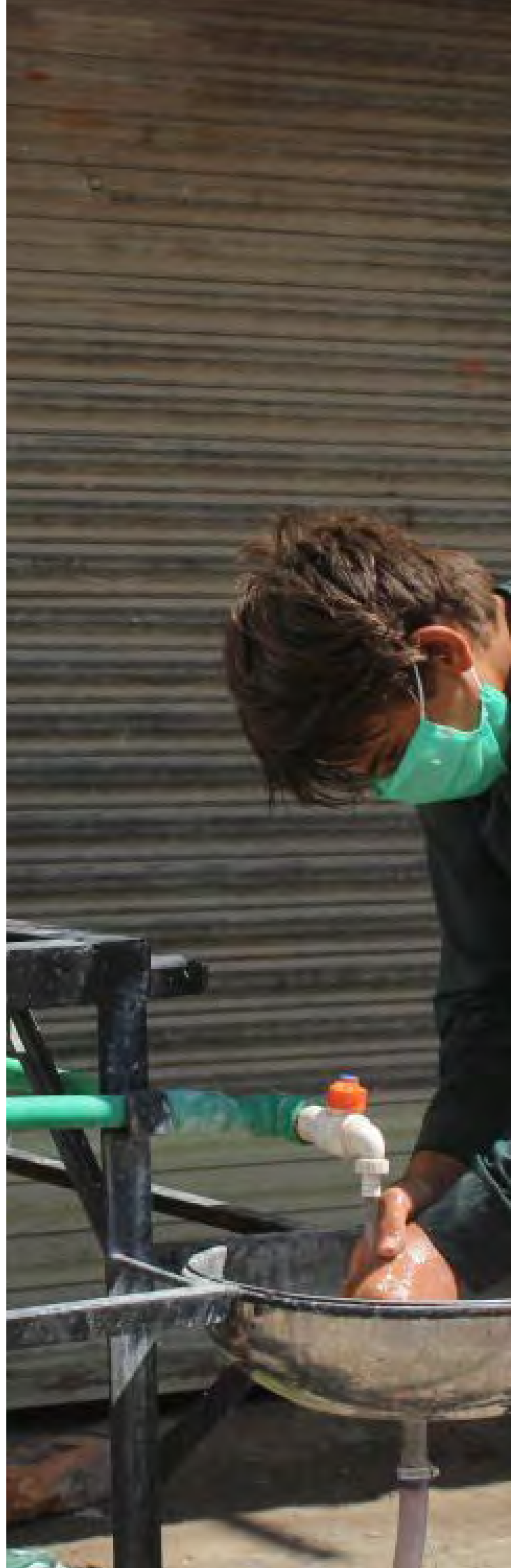
In Swat district, Jannat Bibi conducted door-to-door visits to educate women and children on key COVID-19 preventive behaviours. Girls are less likely to be enrolled in school than boys, twice as likely to be out of school and face greater barriers to continuing their education.

One of the houses she visited was Sara's. "When Jannat visited our compound, I was able to learn more about the virus at last. In particular, I learned the measures I could take to protect myself, my family and others from catching the virus," Sara says.

"Moreover, Jannat taught us how to manage our emotions when confronted with a new and rapidly changing situation."

More than 100,000 people benefited from the project in four districts of KP that were particularly affected by COVID-19: Swat, Malakand, Upper Dir and Lower Dir.

UNICEF has agreements with Procter & Gamble and Unilever to provide soap to Pakistan in emergencies in emergencies, all types of which are locally produced in the country.





Giving advice to everyone

19-year-old Naseeb Gul would only wash his hands once a day, when he got home after work. He would use water but no soap, as his family did not have any.

“From sunrise to sunset, I search through roadside garbage dumps looking for metal scraps or any other item that could fetch me some money at the end of the day. This is my livelihood and my family depends on it.”

“Now I wash my hands with soap many times a day, including each time after I touch garbage. I hope that these water drums and soap will stay, even after the virus is gone,” says Naseeb.

“I noticed the large number of water drums being placed all over the city, but I didn’t know their purpose,” he says, putting on a mask. “But once I saw a banner with pictures on it, I understood that they were here to help us wash our hands with soap.”

UNICEF and Abbottabad’s Water and Sanitation Services Company have installed 54 handwashing stations at different locations in the city of Abbottabad. Equipped with running water and soap, these stations encourage citizens to wash their hands with soap more frequently in a bid to slow the spread of the virus and improve hygiene conditions. Now, over 300,000 people can access handwashing stations every day.

Perhaps most importantly, the new facilities are in the hands of local schools and government and are here to stay, providing access to clean water and reducing bacterial contamination for years to come.

Key stats

- UNICEF rehabilitated or installed ultraviolet water filters, toilets and handwashing stations in 111 health care facilities, meaning that in 2021, more than 686,551 people gained access to safe drinking water and sanitation facilities.
- UNICEF supported the installation of 1,070 handwashing stations placed at strategic points in cities and communities granting over 2.39 million people access to handwashing facilities.
- UNICEF supported the training of 5,101 frontline sanitary and health workers and worked with high-risk communities, reaching 405,384 children in 762 schools.
- Using multiple platforms including social media, religious leaders and billboards, UNICEF managed to engage 2.2 million people to adopt effective WASH practices.

HELPING CHILDREN TO HEAR IN RWANDA

UNICEF supplies hundreds of children with low-cost hearing aids

Imagine hearing the voices of your parents, friends or teachers for the first time.

With the help of UNICEF, this is exactly the situation a great number of children were in this year, as a shipment of 1,200 hearing aids arrived in Rwanda.

Pascaline, 13, was diagnosed with moderate-to-severe hearing loss. “In order to communicate with my child at home, I had to shout. Otherwise, she couldn’t hear me and would make me repeat what I just said,” says her mother, Uwimana. However, within moments of being fitted with two UNICEF-supplied hearing aids, Pascaline and her mother could communicate with ease.

The hearing aids were provided to children in four districts, Nyagatare, Huye, Nyabihu and Nyarugenge, as part of a pilot programme in partnership with the Government of Rwanda and support from the Norwegian Agency for Development Cooperation (NORAD).

Negotiating a price reduction

In 2022, one of these hearing aids can cost as much as \$2,000 if bought commercially in Rwanda. UNICEF, however, was able to significantly reduce the price of the devices and provide them to the Government of Rwanda for \$118. This 94 per cent price reduction means the government can reach many more children with these life-changing products.

UNICEF was able to negotiate a low price owing to strategic supplier engagement and comprehensive and transparent industry consultations. By making the process competitive and launching a tender alongside numerous suppliers and partners, including WHO, as well as stating its long-term commitment to supplying hearing aids, UNICEF was able to achieve a massive price reduction.

Long-term agreements were then awarded to the most competitive suppliers, ensuring that UNICEF is now able to offer low-cost high-quality products to governments.

Learning to use new technology

As new technology is delivered to patients, help must also be on hand to train local communities on correct usage. UNICEF worked with the supplier to arrange screenings, test children’s hearing, organize hearing aid fittings, and train local staff. Transferring knowledge and skills to local general practitioners, audiological technicians, nurses, and speech and language therapists helps to build local capacity, building a stronger health system for the future.

In Nyagatare province, 300 children previously identified as having hearing difficulties have now been screened through a series of tests at a local school. Most of those examined were found to have severe to profound loss of hearing.

They were then referred to the on-site audiologist who measured their exact degree of hearing loss. Using this data, hearing aids were programmed specifically for each child.

The gold standard of hearing aids

Programmable hearing aids are considered the gold standard as they can be tailored to an individual’s needs. However, this requires the availability of a trained audiologist, which is not always feasible in some countries. UNICEF has side-stepped this problem by making pre-programmed hearing aids available for procurement, which come with three inbuilt channels.

In late 2021, five different types of hearing aids were added to the UNICEF Supply Catalogue as part of the organization’s work to increase the availability and

Find more information [here](#)





affordability of quality assistive products and services in low- and middle-income countries. All of these products have been reviewed against WHO technical specifications to ensure they are high-quality and robust.

UNICEF is fundraising to enable the pilot to be scaled up in Rwanda, while the organization is in dialogue with Zimbabwe to understand the conditions necessary for successful implementation. Hearing aids are also part of UNICEF's emergency response in Ukraine.

Beyond hearing aids

UNICEF teams are working to ensure a range of assistive products that makes life more comfortable for children with disabilities. Recently, eight different types of wheelchairs were added to the organization's Supply Catalogue. UNICEF also worked with industry to develop an innovative add-on which makes the latrine slabs deployed in emergencies accessible for people with disabilities.

Future initiatives will include the development of a disability hygiene kit for emergencies, with products that support individuals with incontinence, a condition that disproportionately affects persons with disabilities. UNICEF also plans to introduce quality assistive vision products to the Supply Catalogue, including glasses, which will ensure children with vision challenges have an equal chance to reach their full potential.

ENSURING CONTINUITY OF CARE IN LEBANON

UNICEF's multi-pronged approach during the COVID-19 pandemic

Over the last decade, the Middle East and North Africa (MENA) region has been facing multiple and complex humanitarian crises characterized by protracted armed conflicts, natural disasters, social unrest, cholera outbreaks and economic turmoil, damaging vital health care, education and water infrastructure.

The onset of the COVID-19 pandemic exacerbated the vulnerabilities of an already fragile population, further compromising the health and education of the region's 185 million children. In 2020, UNICEF estimated that over 38 million of them needed humanitarian assistance, 6 million of these refugees.

Children's access to education was severely hampered by the COVID-19 outbreak, leading to a fear of generational loss and regression in learning and skills region-wide. By mid-March 2020, each of the 20 countries in which UNICEF was running operations in the region had temporarily closed all educational institutions for every age group.

But as schools closed to prevent further spread of the coronavirus, UNICEF continued to reach almost six million children with alternative solutions including online learning.

To ensure the safe opening of schools and continuity of learning, UNICEF intervened with an integrated and multisectoral approach that relied on the procurement and delivery of essential health, education, hygiene and sanitation, supplies, such as school kits, textbooks, IT equipment, soap, hand sanitizer, disinfectant, vaccines and personal protective equipment. In conjunction, strong in-country supply chain management partnerships and technical cooperation were maximized to strengthen countries' health and supply chain systems capacity to leave no one behind.

Enhancing health care and education services across Lebanon

Lebanon's economic, social and security situation had rapidly deteriorated since protests in October 2019. The COVID-19 pandemic hit at a time of great distress, damaging the livelihoods of the Lebanese and non-Lebanese populations, exacerbating pre-existing employment and education disparities and reducing opportunities for many of the most vulnerable communities.





To tackle these challenges, UNICEF's response had numerous dimensions, combining the delivery of supplies, protecting and training health workers, community sensitization on best health and hygiene practices, and technical support to strengthen health systems.

Throughout 2020, UNICEF played a critical role in accelerating the promotion of vaccine awareness, boosting vaccine uptake and promoting trust in the treatments and measures required. UNICEF worked with the Ministry of Public Health, partners and experts to promote facts over fear, bringing reliable guidance to parents, caregivers and educators, and partnering with health workers to ensure they had the information and resources they needed to keep children healthy and learning.

Continued emphasis was placed on behaviour-focused messaging to break the chains of transmission, promote vaccine uptake and mitigate the impacts of the pandemic. Responding to misinformation and promoting awareness and healthy hygiene practices was central to ensuring children and their families knew how to protect themselves and seek assistance.

Providing locally-sourced, life-saving supplies

In addition to COVID-19 vaccines, UNICEF leveraged its procurement power to provide essential medical supplies to 194 primary health care (PHC) centres to support frontline health workers and populations at risk. Over 2020 and 2021, this included 9.2 million pairs of gloves, 8.5 million surgical masks, 2.5 million N95 respirator masks, as well as gowns, infra-red thermometers, protective goggles, face shields and hand sanitizer. More than 80 percent of these supplies were sourced locally from Lebanese vendors, ensuring quick on-site delivery and minimizing transport lead times amid challenging supply chain disruptions marked by the lockdown and travel restrictions. UNICEF had contracts in place with third-party logistics companies to distribute the supplies and equipment to dispensaries, clinics and hospitals.

More than 1,000 schools were also supplied with critical health and sanitation supplies equipment thus

creating a safe space for learning. Personal protective equipment and hygiene kits were distributed to teachers and students who needed to be kept healthy to pursue their learning. These supplies were used in line with safe school protocols promoting regular handwashing, face mask wearing and the cleaning and disinfecting of school premises.

Boosting the public health system


At the same time UNICEF supported the public health system and other frontline entities assisting at-risk populations by recruiting registered nurses and providing screening, surveillance, case detection, isolation and referral services throughout Lebanon. UNICEF supported the training of more than 2,250 non-health staff from governmental institutions, NGOs, syndicates and unions, security forces and scouts to strengthen their knowledge of the prevention measures, self-isolation and protection of sick people.


UNICEF also provided critical technical support to strengthen cold chain operations and ensure the timely and safe management of COVID-19 vaccines, including ultra-low temperature storage, stock management and transportation to 61 vaccination sites in governmental and private hospitals. To achieve this, UNICEF trained key health personnel on supply inventory management, as well as on maintenance, disinfection and rehabilitation of vaccine fridges. In addition, UNICEF supported the Ministry of Public Health to conduct an effective vaccine management assessment and develop a comprehensive improvement plan for sustainable immunization supply chain strengthening, even beyond the pandemic.


Strengthening the capacity of public health and education institutions proved to be a fundamental driving force in protecting and ensuring continuity of care for all Lebanese and refugee populations affected by the COVID-19 pandemic. These investments were pivotal to the success of the country's immunization campaign and to ensuring the fair, equitable and uninterrupted access to vaccines and other essential services.





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OXYGEN: SAVING CHILDREN'S LIVES IN CAMBODIA

The supply of oxygen plants to remote areas is already helping children to overcome infectious diseases

Two-year-old Rothana is restless. He's bored of being in 16 Makara Provincial Hospital and keeps running away from his bed to the small children's library on his ward, grabbing picture books. Far from being annoyed, his parents – mother Sreyhahk and father Sounoun – are delighted by his energy. Just 24 hours ago they rushed through the doors of this same hospital in distress carrying a barely conscious Rothana. Given that Rothana's temperature had soared over 40 degrees and he was struggling to breathe, nurses came running, fearing the worst.

The first thing the healthcare staff did was to supply Rothana with oxygen, piped directly from the new oxygen plant that had been installed, with support from UNICEF, just two months earlier. At the same time, they administered intravenous antibiotics to treat his severe throat infection, which had been triggering his symptoms. Within one hour Rothana was breathing easily again thanks to the oxygen, while his temperature had dropped considerably.

"If he hadn't received help straight away, we feared his condition would have worsened and he might have died," said Dr. Suy Kearsa, who was overseeing the children's ward. "He was at grave risk of developing pneumonia if he didn't get oxygen right away."

The pneumonia problem

Dr. Suy had good reason to be concerned about pneumonia; he estimates that it is responsible for 1 in 20 of the child deaths in his province. Globally, infectious diseases, including pneumonia, diarrhoea and malaria remain the leading causes of death in children under 5.¹⁰

Historically, Preah Vihear's child mortality rates (79 per 1,000) have been higher than Cambodia's national average (16 per 1,000). One underlying reason is that Preah Vihear is a remote region with relatively poor infrastructure and limited access to basic services. What's more, pneumonia risk factors like malnutrition and indoor air pollution are high.

¹⁰ United Nations Children's Fund, 'Under-five mortality', UNICEF, <<https://data.unicef.org/topic/child-survival/under-five-mortality/#>>.





Making oxygen accessible

Until UNICEF installed the new oxygen plant, with funding support of \$230,000 from USAID, the province of Preah Vihear had no oxygen plant and the nearest facility with onsite lifesaving oxygen therapy was four hours away in Siem Reap.

“I really want to thank UNICEF and USAID for helping our patients with this oxygen plant,” smiles Sok Veasna, the hospital director at 16 Makara. “Now, whenever there is a critical case, such as pulmonary disease, suspected COVID-19, or asthma, I know our team can help them right away and not only relieve symptoms but reduce deaths. Going forward, we will save more lives from strokes, pulmonary diseases, and pneumonia. I also know our patients will feel much more confident in the care we provide.”

That is certainly true for 65-year-old Vong Bobta and her children and grandchildren, who recently gathered around Mrs. Vong’s bed on another ward. Mrs. Vong was already living with diabetes and hypertension but when her family found her unconscious at her home it was clear that her condition had worsened.

They rushed her to hospital, where she was immediately diagnosed with pneumonia and provided with oxygen, without which the chances of death would have been high. Instead, by the next morning she had returned to consciousness and has now almost recovered.

“I have more peace of mind knowing that they have oxygen ready here,” she said.

“It was quite frightening waking up in the hospital, but I’m grateful to the staff for the care they have provided and making me feel better,” she added.

Teaching staff to administer oxygen

Not only did UNICEF work closely with the Ministry of Health, the Provincial Health Department and the 16 Makara hospital staff to support the procurement, logistics and installation of the Preah Vihear oxygen plant, but UNICEF also supported the training of hospital staff in its use. In addition, UNICEF has mobilized \$5.7 million USD through ACT SFF to support the procurement and distribution of additional oxygen therapy supplies for all 35 oxygen plants in public hospitals in Cambodia, including oxygen concentrators, patient monitors and other essential accessories: this will strengthen the nation’s healthcare system for the future and support its pandemic preparedness.

Kan Phirun, a nurse at 16 Makara and a new oxygen plant operator, has benefited from UNICEF’s training: “I think we will see much better outcomes, particularly in situations where we have to intervene, as with some caesarean sections. Every second can count when it comes to oxygen so I’m certain this oxygen plant will save lives.”

We’ve already seen this in the case of Rothana. “I’m just so happy in my heart,” says Sreyhahk.”

She added, “I’m just so relieved they could help him straight away, especially with the oxygen. Seeing him not being able to breathe was so frightening. But now we will be taking him home well again.”

Find more information [here](#)









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