Increasing access to health products for children and families

An investment opportunity for the private and public sectors
AN INVESTMENT OPPORTUNITY FOR THE PRIVATE AND PUBLIC SECTORS

The opportunity

At UNICEF, we are humbled by the impact that our work has on children. Children’s immunization rates have soared. Polio is close to being eradicated. Women are much more likely to have pre-natal care. And pregnant women with HIV are now likely to receive the necessary therapy so that they don’t pass on the virus to their children.

But there is a part of that impact on children’s health and wellbeing that exists ‘under the radar’. It is often overlooked, definitely undervalued, but absolutely critical: the supply chain. Without effective national supply chains, we are simply unable to provide sustainable access to the vital supplies and services needed by pregnant women, mothers, newborns, children and adolescents. Supply chains literally deliver the impact that we all celebrate. Strong national health supply chains are lifesaving, critical cornerstones of child and family wellbeing. They enable public welfare systems to function well, and are a driving force toward achievement of the Sustainable Development Goals.

At UNICEF’s Supply Division, we work with governments to make their supply chains better. And right now, there is an opportunity to help us transform supply chains around the world. How can we do this? In large part because of our unique expertise and reach. We operate and support full end-to-end supply chains, from point of production to children. This helps us to understand the weak links and where to invest to save lives. This means that donors’ funds are used where they are most needed, and will make the most difference. For example, for some countries, we strengthen primary health-care systems by addressing issues like procurement, international transport or customs clearance. In other countries, the issues to be addressed may be product selection, forecasting, transport, or warehousing. To complete the picture we also build and support systems to generate data that will make our interventions even more effective. Taken together, this gives us unparalleled reach and ability to make change.

The COVID-19 outbreak has shed light on the importance of empowering governments to build and manage efficient supply chains that are resilient to shocks and able to respond to surging needs as quick as possible. With your support, will help to ensure that quality health products reach every beneficiary at the right time and the right place. Together, we can transform supply chains around the world and truly deliver exceptional impact.

Health supply chain and UNICEF: five key messages

1. Strong national health supply chains are lifesaving, critical cornerstones of child and family wellbeing, helping to ensure that all children and their families can be treated in the best way possible, at the right time and in the right place.

2. Limited coordination, human and financial resources, or data keeps some life-saving medicines and products far from the children they are meant to protect.

3. UNICEF is the leading agency globally for procurement and delivery for comprehensive primary health care for children, their families and their communities, procuring a record $7.2 billion worth of supplies and services in 2021. We also play a leadership role in work with governments and partners to strengthen national supply chains, focusing on people, operations and processes, policy and regulatory frameworks, and financing and resource mobilization.

4. UNICEF works with GAVI, the Global Fund, USAID, FCDO and other partners to drive evidence-informed supply chain management decision-making capacity to ensure higher levels of equitable access to health products and services.

5. UNICEF is 100 per cent voluntarily funded and is seeking your support to deliver against a set of ambitious health targets and ensure the world can reach Sustainable Development Goal 3 by 2030.
INCREASING ACCESS TO HEALTH PRODUCTS
FOR CHILDREN AND FAMILIES

The challenge

Supply chains that enable the flow of urgently needed medicine and health products can face significant hurdles. As a global organization with decades of experience in advancing children’s health, UNICEF and our experts around the world have the in-depth knowledge in supply chains. We have identified four specific challenges that must be addressed so that health systems have access to, and deliver, all the supplies they need for children.

1. Government decision-makers lack data analytics capability and efficient information systems to inform strategic decisions

Data analytics is the collection, exploitation, harnessing and management of data to transform them into actionable evidence. This transformation enables governments to make informed decisions that will affect policy, strategy and tactical level endeavours. However, currently 86 per cent of reported supply chain data are not utilized to inform decisions or monitor performance.1 In this context, 40 per cent of global health resources are lost owing to preventable strategic and operational inefficiencies.2 That 86 per cent of unused data must be harnessed if we are to develop supply chains that are driven by need, centred on beneficiaries and that are cost efficient. With those features, supply chains can increase access to all required health products and services for children in need.

2. The systems used for managing supply chains do not sufficiently take advantage of modern technology

Many countries lack strong health supply chain information systems that could inform the development of social protection and welfare policies. Two systems are particularly important. First, national information systems identify the number of beneficiaries that need access to health services and the associated financial needs. Second, product traceability systems enable the tracking and tracing of products, improve controls against substandard, falsified labelling, diversion and counterfeit medicines, and protect patient safety.

Currently, on average, each developing country has 34 different supply chain-related information systems.3 They tend to be poorly connected, which makes it hard to take informed decisions. This lack of insight contributes directly to wastage in health-care spending and high numbers of stockouts in low and middle-income countries. But if there was more investment in digital solutions, it would strengthen partners’ ability to plan, coordinate and invest effectively. Digital solutions encourage collaboration, stop duplication, and ensure resources are used efficiently.

Product quality verification and traceability are also crucial, particularly in low- and middle-income country (LMIC)

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1 Data collected by UNICEF experts in the field, 2020.

Central African Republic
In August 2018 in the Central African Republic, Pierre returns with his father for his follow up outpatient treatment at the Centre de Santé Saint Joseph, on the outskirts of Bangui. Lack of funding means that many children in the Central African Republic are unable to receive the health-care supplies they need for their emergency care.
national supply chains. Falsified vaccines and medicines cost LMICs $30 billion – and the world over $200 billion – a year. That is because governance structures, tools, and technical capacity to actively monitor for falsification are limited. And also because vital traceability systems are either non-existent or in the early stages of development. This wastage is avoidable if the right systems are put in place.

3 The supply chain workforce lacks required skills and capacities

Though hundreds of millions of dollars in commodities may flow through a country’s health supply chain system, little investment may have been made in supply chain staff. The supply chain workforce and their managers often lack either the technical and managerial competencies to perform at their best, or the empowerment to affect supply decisions and policies. Many LMICs have insufficient adequately trained staff – particularly logistics staff – to manage health supply chains. Managers also face challenges adequately planning and utilizing the limited resources including the workforce. The technical capacity and knowledge of existing health staff are constrained by lack of experience or formal training, either through supply chain and logistics degree programmes or in-service training for staff. Meanwhile, salaries are inequitable, staff lack job descriptions, tools and working conditions are inadequate, there are no career plans nor regular performance reviews and recognition, and there is duplication of roles and chain of command, resulting in poor attraction and retention of capable and motivated staff. Many LMICs lack a professionalized supply chain occupational category, formed through formal education or the civil service structure, with clear roles and responsibilities and desirable career path throughout different cadres of the profession.

4 Challenges in ensuring that supplies reach the last mile

It is important to ensure that health supplies reach the final users in primary health care centres. However, this can sometimes be difficult. In some cases, this is because of poor transport systems or road infrastructure, or inadequate involvement of local private sector partners. It can also arise because of a shortage of trained and dedicated personnel with knowledge of the local area.

Why is it crucial to invest in last-mile delivery systems

- 72 per cent of countries could reduce their supply chain operating costs through simplified structures and operations
- 29 per cent of the population of sub-Saharan Africa lives more than 2 hours from the nearest public hospital

Why is it important to invest in the supply chain workforce?

- 80 million health workers will be required by 2030 to ensure the world’s population has equitable access to medicines
- 40 per cent of logistics professionals in emerging countries lack logistics skills at operative, administrative and supervisory levels
- The workload will continue to increase due to changing disease profiles and accelerated efforts to achieve universal access to health. Medicine spending in emerging economies, including low- and middle-income countries, is expected to increase by 22-57 per cent by 2023

Falsified vaccines and medicines cost LMICs $30 billion – and the world over $200 billion – a year

INCREASING ACCESS TO HEALTH PRODUCTS FOR CHILDREN AND FAMILIES

UNICEF’s sustainable response

UNICEF is the leading agency globally for procurement and delivery for comprehensive primary health care for children, their families and their communities. In 2021, UNICEF procured a record $7.2 billion worth of supplies and services, delivering to over 193 countries and territories; and spending around $320 million on supply chain international transportation and in-country logistics. We work to support governments in their efforts to set up and manage agile, cost-effective, and sustainable end-to-end supply chains – from suppliers to recipients and beneficiaries, and to ensure that all children, adolescent and nursing mothers benefit from unrestricted access to quality, safe, equitable and affordable healthcare and other essential services.

UNICEF’s Supply Division works to inform, shape and enable the global health agenda by matching evidence-driven country needs with our global technical resources and donor funding. We complement our operational supply chain management efforts by lending our technical expertise and strengthen the capacity of governments. In particular, we help them to: assess performance gaps and identifying priority investment areas; support domestic resource mobilization for supplies; deploy cutting-edge innovation to reach the last mile; improve product visibility from manufacturer to child; digitalizing supply chains; and transferring supply chain technical and managerial skills to ensure long-term ownership and sustainability.

UNICEF supports the procurement and delivery of multiple supplies for health systems. Operating and supporting full end-to-end supply chains, from point of production to beneficiaries, gives UNICEF an understanding of the weakest links - and where to invest to save lives. On the capacity-building front, UNICEF strengthens primary health-care systems, and monitors supplies, the supply chain and results for children.

Partnership for health supply chain strengthening
UNICEF works with WHO, GAVI, the Global Fund, USAID, UK Foreign, Commonwealth & Development Office and other partners to drive evidence-informed supply chain management decision making. The UNICEF Supply Chain Maturity Model provides the evidence to develop context-specific strengthening roadmaps that identify and address supply-related barriers across all levels of the health system. The UNICEF Children Service Outcome assesses whether last-mile available services and products are reaching the intended recipients and having the intended impact on their well-being. Meanwhile, the UNICEF’s systems strengthening management interface provides an overview of all system strengthening activities that have been led by UNICEF with the support of partners at global, regional and country levels.

Uganda
Oneka Alfred, a health worker in Kikuube District, Uganda starts door-to-door vaccination sessions. To support static and outreach vaccination sessions, UNICEF funds are also contributing to cold chain strengthening in health facilities.

$7.2 billion worth of supplies and services, were procured by UNICEF in 2021
More specifically, UNICEF works in the following areas to strengthen the capacity of governments to build and manage their supply chains:

1. **Leveraging the power of evidence to drive supply chain transformation plans**

UNICEF has a wealth of data analysis tools, techniques and methodologies that can be deployed to support countries to improve their information-systems and decision-making capacity. In particular, the **UNICEF Supply Chain Maturity Model** allows countries and partners to identify supply chain gaps and investment needs, build evidence-driven improvement plans and strategies. The findings of the Maturity Model, which has been deployed in 35 countries since 2019 across multiple health programmes, have enabled countries to guide investment needs and shape evidence-driven improvement plans.

UNICEF has been leading efforts to develop cross-partner health systems strengthening and coordination mechanisms to increase the investment planning capacity of development partners and inform their technical assistance as they support countries in upgrading their health systems.

In addition, **UNICEF’s Child Service Outcome Evaluation (CSO) tool** assesses whether last-mile available services and products are reaching the intended recipients and having the intended impact on their well-being. It will engage health facility workers and beneficiaries and ensure that they help in improving accountability and take ownership of the supply chain at the community level. This ensures that supplies are fit for purpose, effectively distributed and utilized by those who need them most.

UNICEF’s supports governments’ coordination efforts with all development partners. We can do this thanks to our global presence, technical leadership and convening power. UNICEF has developed an internal cross-partner coordination platform that enhances the visibility of planned and ongoing system strengthening efforts to guide the investments of, and foster cross-programme synergies by, technical partners and donors.

Denmark
The UNICEF Global Supply and Logistics hub is the world’s largest humanitarian warehouse for children and is situated in Copenhagen’s north harbour. Supply Division moved into this facility, a gift from the Government of Denmark, in 2012.
Digitalizing the supply chain

UNICEF’s digital transformation approach is ensuring that national information systems provide end-to-end product visibility, enhanced levels of digital dexterity and improved capacity to make evidence-driven policy, strategic and operational decisions. It does this by focusing on four key areas: processes, data, organizational change and technology.

UNICEF’s leadership in the digital transformation sector enables the linking of global-level investments with primary health care transformation through a system-wide strengthening lens. This ensures that global resources address technical and infrastructural needs at the level of primary health care. At primary health-care level, our technical advice helps to streamline data processes, improve data integrity and increase capacity to make informed decisions, while mitigating the level of effort and developing the foundation to better exploit the advantages of digital solutions.

In this context, UNICEF has leveraged the intelligence of development partners to understand the current status of the digital ecosystem in countries. Through this work we can identify the best approach to building an inter-operable digital ecosystem that binds together health, logistics, and other info systems together. The System Digitalization and Investment Portal maps the digital solutions for health, behaviour change and supply chain management currently in use in developing countries. The tool has been designed to help development partners, donors and recipient countries to join forces to better understand country digitalization needs and identify synergies across countries and health programmes. Based on the evidence generated, UNICEF has identified a potential way forward to digitalize health and immunization supply chains while considering the already existing investments in other programmes and made by other partners.

UNICEF sees a need for coordinated and cross-programme digital investments to provide government decision makers with a holistic overview of their social protection needs, coverage rates and priorities across all components of the public system, including supply chains.

UNICEF and other global development partners are supporting countries to adopt product traceability systems that provide greater product visibility, from manufacturers to the final beneficiaries, and improve controls against substandard, falsified labelling, diversion and counterfeit medicines. UNICEF and partners (including the World Bank, Global Fund, Gavi and USAID) have launched the Verification & Traceability Initiative to support countries to reduce the urgent risk of falsified and diverted COVID-19 products in national supply chains with a vision toward national traceability of all vaccines, medicines, and health products. The initiative is establishing a global repository of trusted health product information that can verify the authenticity of health product information sent to its application programming interface (API) or scanned using a complementary, off-the-shelf verification application. The Traceability & Verification System (TRVST) will serve as a platform for discussions on traceability and as a catalyst for the digitization of health product supply chain systems over the next three-to-five years.
Building workforce capacity and supply chain leaders

Universal health coverage requires efficient and well-performing health systems that provide the entire population with access to good quality services, health workers, medicines and technologies. To achieve universal health care coverage, well trained and motivated health workers and leaders are required to provide the services patients need. For any supply chains, capable and dedicated people are required to achieve the intended results. UNICEF supports effective and equitable progress towards universal health care coverage by focusing on primary health care – in order to ensure equity of access to most essential interventions.

UNICEF advocates for greater staffing and supports interventions to build the capacity of supply chain professionals and their leaders and to enhance both their technical and managerial knowledge, and the skills and attitudes needed for effective and efficient supply chains. UNICEF is working with WHO and other partners to facilitate the development of a workforce that is fit-for-purpose in key areas such as procurement and supply chain management, with skills to forecast needs, develop procurement processes, manage warehousing and distribution, stock management, maintenance, and more.

One way we deliver this is by People that Deliver (PtD). This is a global coalition hosted by UNICEF Supply Division. PtD oversees and coordinates the Strategic Training Executive Programme (STEP), a professional development tool specifically tailored to the needs of health supply chain leaders and managers. Crucially, STEP blends elements of self-paced learning, facilitator-led training, on-the-job application of leadership skills and coaching support. Uniquely, it pairs public sector supply chain managers (the delegates) with private sector supply experts (the coaches). It is jointly offered with Gavi, the Vaccine Alliance, the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) and the United States Agency for International Development (USAID).

UNICEF is also well positioned to establish accreditation programmes in collaboration with renown academia and other training institutions and to influence the introduction of better tools and other working conditions improvements, particularly for women in supply chains and to inspire supply chain leaders to establish motivation mechanisms for their staff.

Optimizing the supply chain network to reach the last mile and leave no one behind

UNICEF has a wide network of global, regional and local warehouses, distribution centres, civil society organizations and third-party logistics providers. These assets have proved instrumental in supporting countries to plan and execute the efficient flow and storage of supplies from ports of entry to their final destinations, while supporting regular health and primary health care programmes. By applying innovative and tested approaches to reinforce national supply systems, UNICEF is supporting governments to be better prepared to withstand future pandemics and ensure commodity security and continuity of supply to beneficiaries.

One element of this support is leveraging the strengths, competencies and proven technologies already adopted by the private sector and applying them in LMIC countries to improve health-care supply chain systems. UNICEF supports efforts to ensure that national supply chain systems led by governments have capabilities to provide a predictable, sustainable and efficient logistics/delivery service to beneficiaries up to the final mile while maintaining product safety and efficacy. In order to build this capability, UNICEF leverages technologies such as drones to deliver life-saving commodities to hard-to-reach areas; network optimization software to construct efficient logistics network structures; and renewable energy to power equipment. UNICEF deploys innovative business models that promote environmental and social sustainability while delivering positive health outcomes for children.

With the help and support of the private sector, UNICEF will continue to support the improvement and transformation of national supply chains focusing on key strategic elements that will drive change. These include: (1) beneficiary-centred supply chain design; (2) metrics and measurement capability; (3) supply chain and enterprise systems; (4) processes and process capability; and (5) people development and competency.
Results

Since UNICEF’s foundation in 1946, we have been working to uphold the right of every child to survive and thrive. Adapting to emerging government demands, in the last decade UNICEF has increasingly focused on strengthening national supply chains for health care. UNICEF has built partnerships with – and leveraged the competencies, technological assets and innovation capacity of – civil society, private sector development partners. This has enabled us to provide a coordinated response to national needs, develop quality medicines, vaccines and nutritional products, keep prices affordable and reach the last mile to leave no-one behind.

UNICEF’s work on health supply chain strengthening directly supports implementation of Sustainable Development Goal (SDG) 3: Health and wellbeing. It also contributes to many other SDGs: reducing poverty, driving sustainable economic growth, and preventing inequality and injustice. UNICEF includes robust measurement of access to and quality of primary health care in countries around the world, and reports on these against our Strategic Plan for 2022-2025 and upwards to the global SDGs. The key indicators include:

- **SDG Target 3.8**
  Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all

- **SDG Indicator 3.8.1**
  Proportion of the target population covered by essential health services

Cambodia

The COVID-19 vaccine rollout in Battambang Province, Cambodia was made possible through the principle of country-to-country dose sharing through the COVAX Facility, and delivered by UNICEF.
With over 75 years’ experience we know what it takes to use resources to achieve the greatest impact for children.

Why partner with UNICEF

As donors, you make deliberate choices to use your resources in a way that can create the best results. At UNICEF, we do the same. With over 75 years’ experience, we know what it takes to use resources to achieve the greatest impact for children. This impact rests on five key comparative advantages, all made possible by donor support: expert staff; we lead and pioneer; we take work to scale; we meet children’s needs throughout childhood and adolescence; and we are there for them before, during and after emergencies.

This way of working means we tackle the challenges that matter, with the right responses, in ways that benefit the greatest numbers of children. When you partner with us for national health supply chains, you help us strengthen health-care systems which pay dividends for whole communities long into the future. As a result, your contribution goes even further and helps to ensure that all children have continuous access to the right amount of life-saving, quality vaccines and medicines in their own districts and communities.

Key comparative advantages of partnership with UNICEF

- Our expert staff: We are immensely proud of our staff. Working around the world, they have deep expertise and a catalogue of contacts and relationships which are the lifeblood of the impact we deliver for children day in day out. We cherish the hard-earned trust placed in them by donors, governments, partners and of course, children and their families.

- Leading and pioneering: Your support allows us to lead and innovate for children. Our reliable presence in a country gives our staff the deep insights they need to understand the root causes of problems and find effective solutions. Your trust gives us the flexibility to take risks and innovate, which is how we create new ideas to benefit children now and into the future.

- Taking the work to scale: UNICEF achieves impact for children because we have a footprint in over 190 countries. You amplify our impact by pooling your funds with other donors and helping us scale up innovations, proven best practices and programming. What that means is that UNICEF can promote adoption of global best practices, then tailor them for each country’s contexts and the needs of children, and then roll-out policies or programmes to reach scale around the world.

- Meeting needs across sectors: UNICEF complements its work on health care with key interventions from across all the social sectors – from nutrition and education, to protection, to clean water and sanitation. This means we meet all the needs of children.

- Before, during, and after an emergency: In a crisis, every hour matters. Our teams are first responders because your support has enabled us to be in a country long before a crisis, building the effective systems, relationships and plans that we need to ensure children’s health. And when emergencies strike, our experts are in place and can use their existing skills, equipment and relationships to make an impact wherever it matters most. We have close relationships with the partners that can deliver real change, fast: with ministries of health at national and sub-regional levels as well as individual health-care facilities and communities. Sadly, when a crisis first ends, the children’s suffering may not. Your support means we can stay long after the emergency and for as long as children need us to ensure their future thriving and wellbeing.
How you can invest with UNICEF

As a 100 per cent voluntarily funded organization, UNICEF has worked for over 75 years with donors and partners who, like us, want to be there for every child. We offer you partnership opportunities that are designed to meet your mission or passion, and also to achieve our shared ambition for children.

Sustainably transforming supply chains for millions of children around the world is a difficult and complex task. In order to ensure that our work is the most efficient and effective, you can invest in health supply chain system strengthening. This enables: predictability for our staff who are planning and implementing health system supply chain programming in changing contexts around the world, the maximum flexibility to decide how best to spend these valuable contributions to achieve the greatest impact, and efficiency. Investments could cover pilot projects to test new innovations, or risk capital to support UNICEF’s most ambitious and high-reward system strengthening activities. Portfolios would also include tried and tested solutions to strengthen supply chains. The flexibility gives UNICEF the opportunity to balance the needs against the immense challenges facing children today and our ambitious targets.

UNICEF has a long history of developing strategic partnerships to meet partners’ priorities and philanthropic goals. We also work with partners to complement financial investment with the technical expertise of their corporation or institution or by joining forces to advocate for health. These bespoke partnerships see donors build long-term relationships with our experts and country offices to develop lasting and powerful initiatives that endure and can be scaled up to benefit children in the long term.

The following are indicative examples of how health system supply chain funding could be used by UNICEF’s trusted supply chain experts to make a difference for every child:

**Evidence-driven decision-making capacity**

- **US$1 million** would enable UNICEF to support 20 countries to develop or update their supply chain strengthening roadmaps leveraging the UNICEF Maturity Model.

**Digitalization**

- **US$3 million** would enable UNICEF to create digital ecosystems that integrate health and logistics management information systems and provide government stakeholders with a holistic view of the performance, coverage, and challenges across all areas of their public system.

- **US$2 million** would support national regulatory agencies and ministries of health to adopt Global Standard 1 (GS1) capacity to identify falsified and sub-standard products in the local market and provides the foundation to create a product traceability platform.

The following are indicative examples of how health system supply chain funding could be used by UNICEF’s trusted supply chain experts to make a difference for every child:
3. **Workforce/people supply chains**

**US$1 million**

would enable UNICEF to support governments and partners to plan, recruit, and manage supply chain talent by strengthening the technical, managerial and leadership skills of 300 supply chain professionals and providing them with the tools and policies needed to professionally implement and monitor their work.

4. **Network optimization**

**US$600,000**

would enable UNICEF to develop and implement tested last-mile delivery business models with local ownership and operated transportation solution providers in rural remote settings in three countries, providing sustainable solutions for uninterrupted supply of commodities.

**US$400,000**

would enable UNICEF to develop and deploy open-source supply chain analysis and design tools that can be used by countries to conduct rapid analysis of their supply chains and emerge with efficient, sustainable alternate network structures and solutions.

See the Annex for a detailed framework of the projected results and the related budget required by UNICEF to strengthen health supply chains around the world. To learn more about UNICEF’s Supply Division full system strengthening portfolio, click here.
### Annex: Results Framework and Budget

<table>
<thead>
<tr>
<th>RESULTS-BASED BUDGET</th>
<th>TOTAL PLANNED – AMOUNT IN US$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome area 1: Evidence-driven supply chain improvement plans</strong></td>
<td></td>
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<tr>
<td>Output 1.1: 20 countries develop or update supply chain strengthening roadmaps leveraging the UNICEF Supply Chain Maturity Model</td>
<td>350,000 350,000 350,000 1,050,000</td>
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<tr>
<td>Output 1.2: The Cross-Partner Coordination digital platform is built and operationalized</td>
<td>400,000 300,000 300,000 1,000,000</td>
</tr>
<tr>
<td>Output 1.3: Develop digital version, and expand utilization, of the Child Service Outcome evaluation tool across 20 countries</td>
<td>500,000 250,000 250,000 1,000,000</td>
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<tr>
<td><strong>Outcome Area 2: Digitalization</strong></td>
<td></td>
</tr>
<tr>
<td>Output 2.1.1: National information systems (LMIS and others) and broader ecosystem landscape assessed to develop and build digital roadmap to process-based digitalization (per year)</td>
<td>500,000 500,000 500,000 1,500,000</td>
</tr>
<tr>
<td>Output 2.1.2: Development and support for adoption of data triangulation methodologies and standards to influence and shape the reports available in digital solutions to support policy, strategic and operational decisions.</td>
<td>100,000 100,000 100,000 300,000</td>
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<td>Output 2.1.3: Deployment of country-level digital transformation</td>
<td>400,000 400,000 400,000 1,200,000</td>
</tr>
<tr>
<td>Output 2.2.1: Implementation of traceability and verification system and training of users, including operational support, in 3-5 African countries</td>
<td>425,000 275,000 300,000 1,000,000</td>
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<td>Output 2.2.2: Deployment package developed encompassing learning from 3-5 countries and enabling “self-service” access to TRVST</td>
<td>300,000 200,000 200,000 700,000</td>
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<td>Output 2.2.3: Data agreements established with 3-5 vaccine manufacturers; GS1 data twins for vaccines and pharmaceuticals uploaded into TRVST and accessed by countries using TRVST system.</td>
<td>150,000 150,000 0 300,000</td>
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<tr>
<td><strong>Outcome area 3: Workforce/people supply chains</strong></td>
<td></td>
</tr>
<tr>
<td>Output 3.1: 300 supply chain managers and leaders from 15 LMIC countries successfully graduate from the STEP 2.0 programme (5 countries per year)</td>
<td>200,000 200,000 200,000 600,000</td>
</tr>
<tr>
<td>Output 3.2: Impact evaluation of the STEP 2.0 programme measuring performance at the individual and organizational levels, including the programme monitoring dashboard</td>
<td>100,000 75,000 25,000 200,000</td>
</tr>
<tr>
<td>Output 3.3: Institutionalize the STEP 2.0 programme and the UNICEF humanitarian supply chain management accredited programme in two academic institutions in LMICs</td>
<td>200,000 50,000 50,000 300,000</td>
</tr>
<tr>
<td><strong>Outcome area 4: Supply Chain Network Optimization</strong></td>
<td></td>
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<tr>
<td>Output 4.1: Develop functional and non-functional software requirements for network optimisation tool and secure vendor</td>
<td>275,000 50,000 25,000 350,000</td>
</tr>
<tr>
<td>Output 4.1.1: Network optimization tool commissioned and disseminated across 6 countries, with user training and technical support for tool utilization</td>
<td>- 10,000 10,000 20,000</td>
</tr>
<tr>
<td>Output 4.1.2: Six countries operationalize new redesigned supply chain network structures/operating models and track progress using maturity models</td>
<td>- 15,000 15,000 30,000</td>
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<tr>
<td>Output 4.2: Develop sustainable business models for last mile delivery with local owner and operated solutions in 3 countries</td>
<td>50,000 - - 50,000</td>
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<tr>
<td>Output 4.2.1 Support the operationalization of last mile delivery solutions</td>
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<tr>
<td>Output 4.2.2 Progress monitoring and impact evaluation</td>
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<td><strong>Total programmable expenditure</strong></td>
<td>4,150,000 3,535,000 2,865,000 10,550,000</td>
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</tbody>
</table>
Malawi children in Malawi look on amazed in the community demonstration of Unmanned Aerial Vehicles (UAVs or drones) flying in Lilongwe. The Ministry of Health and UNICEF launched the first 10km auto programmed flight in a trial to speed up the testing and diagnosis of HIV in infants.