



Overview

The Challenge

Pneumonia is the leading cause of death from infectious disease in children worldwide, claiming the lives of over [800,000 children under five](#) each year. Yet, it is preventable and treatable with two key products: *Antibiotics*, to treat pneumonia, and *Oxygen*, to support the recovery of children with severe pneumonia.

However, ensuring these products are accessible to children is challenging, with many countries facing obstacles at different levels within and outside of the health system. For example, one country may have antibiotics on the market, but in formulations that require refrigeration which many families do not have. In another country, oxygen may be available, however, the needed equipment for delivering oxygen may not be available in sizes appropriate for children.

The Response

In 2018 UNICEF launched the *Innovations to Scale Initiative* to invest in proven life-saving interventions. This was the start of SPRINT - UNICEF's systematic response to expanding access to essential pneumonia treatment.

With the understanding that both antibiotics and oxygen are vital to treat pneumonia, the project focuses on building and applying the SPRINT model, a country-level triaging tool for the scale up of oxygen therapy and amoxicillin dispersible tablets. The model analyzes country specific bottlenecks and recommends appropriate solutions to accelerate the scale up of these essential commodities and strengthen the systems needed to deliver them.

Since the end of 2019 the SPRINT model has been applied by experts in Senegal and Ghana. For oxygen, this means ensuring all needed pieces of the oxygen system are in place, for example, by using UNICEF's [oxygen system planning tool](#) and [technical specification and guidance manual](#) for procuring oxygen devices. For amoxicillin, this means high level advocacy to ensure the dispersible tablet (the recommended pediatric formulation) is available at the community level, as this has been proven highly effective to prevent child pneumonia deaths.

COVID-19 and SPRINT

As COVID-19 causes pneumonia, SPRINT is directly linked to the response. UNICEF has been an active and leading player in the global response efforts and is currently providing oxygen equipment to over 90 countries globally.

Governments are facing urgent challenges in successfully expanding access to oxygen. Through SPRINT, countries can better understand what is required for a rapid and sustainable implementation of oxygen systems. In Senegal and Ghana SPRINT has helped lay the groundwork for the COVID-19 response, where oxygen equipment has been purchased through UNICEF and delivered to locations to treat patients.

Expanding access to both oxygen and amoxicillin during COVID-19 also helps maintain operations of essential health programmes for childhood pneumonia and maternal & newborn care, thereby reducing the risk of deaths that occur when critical programmes fall by the wayside during a pandemic.

The Impact

The ministries of health in Senegal and Ghana are currently introducing SPRINT in targeted districts together with UNICEF, with plans to use the model for continued national expansion beyond the targeted regions and districts. In the coming years, UNICEF hopes to continue to replicate the model in additional countries with high numbers of children dying from pneumonia.

With over 70 years as a global leader in fighting for children's rights, UNICEF has gained a high level of trust by governments which places the organization in a unique position for facilitating implementation of the model and creating systematic change.



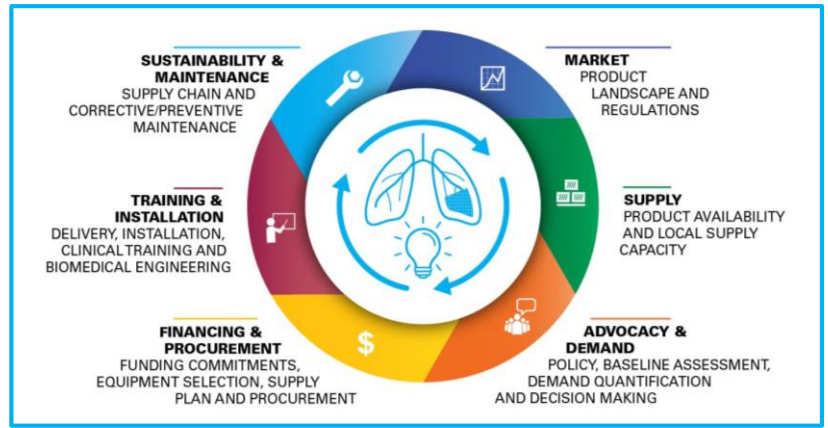
Image: Map of SPRINT countries. The information displayed does not imply official recognition or endorsement of any physical, political boundaries or feature names by the United Nations or other collaborative organizations.

The SPRINT Model

The SPRINT model uses a three-step approach to ensuring the accessibility of oxygen therapy and amoxicillin DT:

1. Defining scaling activities to deliver the two commodities
2. Identifying challenges and solutions when conducting those activities.
3. Applying the identified solutions.

The model looks at key sectors of a country's health and financial systems (i.e. national & local markets, supply chains, advocacy & demand, etc.) when delivering oxygen therapy and amoxicillin DT to ensure sustainability.



Timeline

WHAT HAS ALREADY HAPPENED?

- Amoxicillin Dispersible Tablet (DT) formulation developed **2010**
- Key data from Lancet series identify Amoxicillin and Oxygen as key components for ending preventable child deaths from pneumonia **2013**
- WHO recommends Amoxicillin DT as the formulation of choice for treatment of pneumonia in children **2014**
- UNICEF commits funds for SPRINT **2018**
- UNICEF and countries co-create SPRINT work plans **2019**

WHAT IS HAPPENING NOW?

- SPRINT launches in Senegal and Ghana to scale up Amoxicillin DT and Oxygen **2020**

WHAT WILL HAPPEN IN THE COMING YEARS?

- SPRINT fully implemented in Ghana & Senegal **2020 & beyond**
- SPRINT introduced in other countries with high burden of pneumonia

Expected Results

SPRINT began in Ghana and Senegal in early 2020 where the model was introduced by UNICEF, government and partners working in the health sector. The chart to the right illustrates some of the expected results SPRINT aims to achieve in three targeted districts in Ghana and three districts in Senegal, ultimately leading to an improved quality of care for children receiving treatment for pneumonia.

- Registering pneumonia treatment as essential drugs/care to allow for importation into a country
- Developing/sharing evidence-based clinical protocol for maintaining oxygen therapy and amoxicillin DT at facilities
- Training healthcare workers on *Integrated Management of Childhoods Illnesses*, including treatment for pneumonia
- Ensuring an adequate supply of antibiotics are available with no stock-outs
- Ensuring an adequate supply of pulse oximeters are available with no stock-outs
- Ensuring maintenance is incorporated into the lifecycle of all equipment for delivering oxygen therapy
- Budgeting for oxygen equipment and operating expenses for health facilities over a set time period

Partner with UNICEF

UNICEF is seeking funding to continue its efforts in expanding SPRINT to other countries. The support would enable UNICEF to respond to the surge in demand from programming countries to provide oxygen during COVID-19 and increase access to proven life-saving commodities that prevent childhood pneumonia deaths. With the investment of US\$ one million (per country), UNICEF can introduce SPRINT into a new country, benefitting approximately 100,000 children and up to half a million adults in targeted districts, as well as build a plan for continued national expansion of SPRINT.

Estimated cost (in USD) for operationalizing SPRINT in one country

Project Management and Planning Analysis of country specific bottlenecks and application of solutions*	\$250,000
Country level Procurement and Project Management • Procurement of equipment for delivery of oxygen (including follow-up, contracting, maintenance) • Implementing partner for accelerated roll out of oxygen • National monitoring, evaluation & implementation research • Amoxicillin DT procurement • Country office level resources, focal point & coordination • Advocacy & communications	\$750,000
Total	\$1,000,000

*estimated cost based on the percentage of global SPRINT teams working across multiple countries

With your support, UNICEF can create systematic change through SPRINT to ensure children with pneumonia receive life saving treatment.

For more information contact:

UNICEF Product Innovation Website:

<https://www.unicef.org/innovation/productinnovation>

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