Access to oxygen—critical to respiratory care

In many low- and middle-income countries, hundreds of thousands of people—including many newborns, children, and pregnant women—die needlessly each year from hypoxemia, or a low concentration of oxygen in the blood. Hypoxemia can be caused by a range of illnesses and complications, including pneumonia, neonatal infections, premature birth, obstetric emergencies, and respiratory infections like COVID-19.

The COVID-19 pandemic has pointedly highlighted the lack of access to oxygen in lower-resource settings. The biggest barriers to oxygen therapy access include inadequate supply and human resource capacity, funding constraints, and the inability to deploy resources in countries rapidly in a way that ensures maximum impact while not overwhelming existing health care systems.

The oxygen landscape is at a pivotal point where short-term pandemic-response efforts require continued support while transitioning to long-term, sustained strategies for ensuring access—at both the global and national levels.

Strengthening Oxygen Utilization and Respiratory Care Ecosystems project

PATH, together with the Every Breath Counts Coalition and with support from the Bill & Melinda Gates Foundation, is leading the Strengthening Oxygen Utilization and Respiratory Care Ecosystems (SOURCE) project—which builds from previous initiatives under the COVID-19 Respiratory Care Response Coordination project. With a vision to provide all patients with access to the lifesaving medical oxygen they need, this project seeks to reduce maternal, child, and overall mortality from hypoxemia-related causes through improved access to high-quality oxygen services at all levels of the health care system. To do so, PATH will incorporate near-term pandemic-response work into a robust set of both global and country-level implementation, advocacy, and research activities that will ensure long-term access to medical oxygen and resilient systems for future pandemic-response efforts.

Project snapshot

Key outcomes:

1. Increased sustainable financing for oxygen access.
2. Effective planning and strategies to manage oxygen systems.
3. Affordable, efficient, and high-quality oxygen procurement and distribution systems.
4. Improved clinical administration and technical management of oxygen.
5. Improved data, information systems, and monitoring for oxygen access.

Key objectives:

1. Support global and country efforts in respiratory care capacity-building and implementation.
2. Strengthen advocacy and communications to elevate oxygen to global and national agendas.
3. Enhance research and monitoring, evaluation, and learning on oxygen.

Partner: The Every Breath Counts Coalition
Focus countries: Burkina Faso, the Democratic Republic of the Congo, India (Bihar, Maharashtra, Jharkhand, and Uttar Pradesh), Indonesia, Kenya, Malawi, Senegal, Tanzania, Vietnam, and Zambia

Duration: June 2022—May 2025

Key objectives and activities

Capacity-building and implementation support

Despite concerted efforts at both global and country levels, there is a continued need to develop robust market interventions to transition from a short-term pandemic response to a long-term, sustainable, and reliable supply. PATH will work to better match supply and demand for respiratory care equipment, supporting continued operation of and financing for respiratory care services and training for improved clinical administration and management of oxygen therapy in focus countries.

Key activities include:

- **Supply and demand**: Create forecasts to effectively assess country-specific oxygen needs and advise on manufacturing, supply chain, and purchasing strategies to meet demand.

- **Financing**: Mobilize adequate financing to deploy resources, including supply of oxygen and respiratory care equipment, and explore business models and innovative financing solutions for widespread access to oxygen.

- **Operations**: Support day-to-day operations to ensure the durability of oxygen investments, including procurement and distribution processes as well as after-sales service planning and delivery.

- **Use and training**: Equip officials, technicians, and health care workers with the skills needed to provide oxygen safely, including supporting national training programs and institutionalizing oxygen support.

Advocacy and communications

PATH and Every Breath Counts Coalition will build on and expand their work to engage regional, national, and global stakeholders to prioritize oxygen delivery as one of the most effective ways to strengthen health systems and save lives, especially among newborns, children, and women.

Key activities include:

- **Stakeholder engagement and global advocacy**: Leverage engagement and use of evidence-based advocacy to improve resource mobilization and effective planning.

- **Strengthening national policy and financing**: Support development of oxygen road maps and inclusion of oxygen in relevant policies, guidelines, and budgets in priority countries to ensure long-term pandemic preparedness and adequate respiratory care services.

- **Communications and knowledge management**: Contribute to evidence, tools, and tactics that reach target audiences to improve information systems, decision-making processes, and issue prioritization, including an update to our Access to Oxygen (A2O2) Resource Library, development of supplemental resources for the Oxygen Delivery Toolkit, and continued targeted dissemination through articles, webinars, and other communication tools.

Research and monitoring, evaluation, and learning

Research and monitoring, evaluation, and learning activities will build out an evidence base to support effective planning and management of oxygen systems and related policies. Efforts will focus on a learning agenda that improves strategic and operational decision-making at the global, regional, and national levels through (1) the study of oxygen demand and use, (2) exploratory work testing the viability of new innovations in oxygen delivery/equipment design, and (3) establishing metrics and new efforts to collect data and track progress in improving access to medical oxygen.

Key activities include:

- **Research**: Conduct pivotal research—such as oxygen requirements in both low-resource and high-resource settings and device-specific and business practice–related innovations—and build evidence for continued investment in respiratory care.

- **Monitoring, evaluation, and learning**: Work with key stakeholders to establish indicators—through both national and global platforms—and support increased learning through their routine tracking in-country.

Additional resources


The Every Breath Counts Coalition: https://stoppneumonia.org/every-breath-counts/.

For questions or additional information: oxygen@path.org.