Making medical oxygen availability a national health priority

In Uganda, illnesses easily treatable with oxygen therapy take the lives of tens of thousands of newborns, children, and pregnant women each year. Oxygen therapy is required to treat a dangerous condition called hypoxemia—a severe shortage of oxygen in the blood—which can occur in childhood pneumonia, newborn conditions, and obstetric emergencies. To achieve the Ministry of Health’s priority of reduced hypoxemia-related morbidity and mortality, all stakeholders, including technical and political leaders, partners, and donors must commit to implement requirements for oxygen availability and utilization as called out in the scale-up plan.

To treat hypoxemia and save lives, oxygen delivery systems must be strengthened to ensure oxygen therapy, paired with pulse oximetry, is available in all the wards in health facilities.

Plan for National Scale Up

Scaling up access to oxygen is a multifaceted challenge that cuts across health areas and requires technical, financial, and political solutions. The National Scale-Up of Medical Oxygen Implementation Plan is the first policy of its kind to coordinate oxygen stakeholders and provide long-term guidance for scaling oxygen.

Plan objectives include:

- Providing a national strategic framework to guide scale-up of oxygen supply and utilisation.
- Securing maintenance and replacement of oxygen therapy and diagnostic equipment through the regional workshops and the National Medical Store.
- Providing a framework for training of staff in health facilities on rational use of oxygen and basic maintenance of equipment.
- Providing an advocacy instrument for resource mobilization to support implementation of oxygen scale-up interventions.
The Scale-Up Plan is a critical first step to increasing access to oxygen throughout Uganda. In order for the country to realize the benefits of oxygen, the Government of Uganda must:

Prioritize funding for implementation of oxygen delivery systems in all health facilities.

Improving oxygen delivery in every health facility is cost effective as it can help in the management of hypoxemia across many different population groups and reduce related mortality. Establishing and maintaining the system described in the Scale Up Plan is estimated to cost 16.9 billion UGX in the initial year and 5.7 billion UGX annually. The initial costs of oxygen technologies and supplies are quickly offset by the resulting health returns. Oxygen delivery systems have demonstrated a return of 50 USD per disability-adjusted life year averted, making investment in the provision of oxygen, worthwhile. A sustainable oxygen scale-up strategy must prioritize resource mobilization and reliable, long-term financing.

Strengthen health worker training and capacity for proper use and maintenance of oxygen technologies and supplies.

In order to ensure appropriate utilization and longevity of available equipment, it is essential to train health workers in the clinical use of oxygen and pulse oximetry and the day-to-day maintenance and care of oxygen equipment. The Scale Up Plan calls for training on the use of oxygen and pulse oximetry to be conducted at each health center IV and hospital as part of Continuing Medical Education. Prioritizing these trainings will ensure health workers have the clinical capacity to treat hypoxemia and will safeguard investments into oxygen equipment.

Oxygen delivery systems having demonstrated a return of 50 USD per disability-adjusted life year averted.

Ensure adequate procurement planning of oxygen technologies and supplies, improving oxygen quantification, and integrate oxygen delivery products throughout the public health supply chain.

Uganda has approximately 330 facilities that are supposed to have functioning oxygen supply with a total of approximately 24,000 beds. Understanding the oxygen needs throughout the country, predicting changes in demand as health worker clinical knowledge expands, and being able to meet that demand with the right equipment and oxygen production will be essential to ensuring the long-term success of the Scale Up Plan, and reducing morbidity and mortality from hypoxemia. Capturing patient and facility data, expanding oxygen production, improving oxygen logistics and building Ministry of Health technical expertise on procurement will be essential to achieving an optimal oxygen supply model.