Zambia oxygen systems do not adequately meet the population’s current needs. Surges in demand due to COVID-19 revealed shortfalls in oxygen production capacity, equipment and supply shortages, and an inability to quickly source oxygen.

As of 2020, the Zambia Ministry of Health, with support from PATH and other partners, carried out multiple initiatives to improve reliable supply of oxygen, including:

**Assessment**

- Conducted two biomedical equipment surveys across 41 health facilities:
  - The surveys highlighted an urgent need for procurement of medical equipment, monitoring devices, and consumables for safe oxygen delivery as well as additional critical care workers and supplemental staff training on COVID-19 respiratory care.
  - The survey estimated that, in the case of a severe COVID-19 surge, **3,610 liters per minute** would need to be made available to health facilities treating COVID-19 patients.

**Coordination & Strategic Planning**

- In collaboration with the Zambia National Public Health Institute, cohosted a virtual Zambia Oxygen Summit, resulting in stakeholder input and recommendations to improve the government’s oxygen escalation plan for acute respiratory care among COVID-19 patients.
- Through a national Oxygen Technical Working Group, collaborates on guidelines pertaining to medical oxygen, the development of a national oxygen strategy, and guidelines and capacity building for personnel on respiratory care management.
- Developed a National Medical Oxygen Strategic Plan, which aims to provide safe, affordable, and timely respiratory care services to all Zambians.

**Equipment Procurement & Repair & Capacity-Building**

- With support from PATH and Unitaid, **procured and distributed** equipment to 83 health facilities across the country:
  
<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxygen Cylinders</td>
<td>1,800</td>
</tr>
<tr>
<td>Pulse Oximeters</td>
<td>411</td>
</tr>
<tr>
<td>Oxygen Therapy Accessories</td>
<td>1,080</td>
</tr>
</tbody>
</table>

- Working with partners like PATH and Build Health International to install or repair oxygen piping, manifolds, and pressure swing adsorption (PSA) oxygen plants in select facilities.
- In coordination with Partners In Health and PATH, trained ten anesthesiologists, 30 nurses, ten critical care physicians on safe mechanical ventilation techniques and ventilator operation and trained 70 critical care staff in the use of biomedical equipment.

With efforts to establish a framework for oxygen scale-up and strengthen oxygen infrastructure across health facilities, Zambia is on track to ensure this lifesaving commodity is accessible across all levels of the health system.

Launching the oxygen strategic plan, improving data, information systems, and monitoring for oxygen access and improving clinical administration and technical management of oxygen will be critical priorities to sustain this progress.