Background

Purpose of the tools
Oxygen consumed within a healthy facility is often supplied using a variety of sources, such as gas cylinders of various sizes, concentrators, or pressure swing adsorption plants. This can make consistent and centralized record keeping difficult. Different units of measurements and frequency of use across sources further complicates tracking of oxygen use. The Consumption Tracking Tool:

- Provides a clear template for users to log oxygen usage daily either on paper forms or directly into the tool.
- Automatically standardizes different units of measurements and calculates total consumption.

When used consistently, the tool would allow implementers to better understand how oxygen is procured and consumed within a health facility or, if aggregated, across a health system. These data may highlight opportunities to reduce costs through more optimal procurement strategies (e.g., replacing routine procurement of gas cylinders with in-facility oxygen-generation devices). It may also illuminate barriers to consistent oxygen availability.

Consumption tracking overview
The need for oxygen and its availability at the health facility level may vary greatly day by day. Consistent record keeping may help better predict need and determine the optimal strategy to sustainably meet it. Users of the tool would first audit the various oxygen sources within the health facility and the measurement units used to describe volume/mass of oxygen procured or used. Next, every month, users would use the corresponding tabs or paper forms to document daily changes in oxygen stock across all sources. If using paper forms, collected data would need to be inputted into the Excel tool at the end of the data collection period. A summary of oxygen consumption within each source and in total is automatically calculated and shown in the Monthly Summary tab.

At a glance

Tool: Consumption Tracking Tool

Who are these tools for:
Implementers

What is this tool for: Better tracking of oxygen consumption at the health facility level to ensure that consistent data are used to monitor current oxygen usage, estimate future need, and determine if the current device mix in the facility is optimal.

How can this tool be used: This Excel-based tool facilitates collection of monthly consumption data across five common oxygen delivery sources and simplifies calculation of total consumption even when different units of measurements are used across sources. The tool can be used by itself or in conjunction with provided Word-based paper forms.

Takeaways

Impact
Understanding patterns of oxygen consumption in a health facility is a critical step in planning effective short- and long-term strategies for oxygen infrastructure and procurement. It enables implementers to tailor the mix of oxygen-generation and oxygen-delivery sources to match the needs of the facility, while understanding and weighing unique cost and operational considerations for each option. Ultimately, better planning can lead to increased access to oxygen and improved quality of care.
### PATH Oxygen Consumption Tracking Tool: Monthly summary

**Facility information**
- County: Kenya
- County/district/state: County 1
- Subcounty/subdistrict name: Subcounty 1
- Facility: District Hospital 1

**Data collection period**
- Start date: 2020-03-01
- End date: 2020-03-31
- Number of days: 30

**Bed information**
- Total number of beds: 500
- Number of emergency beds: 10
- Number of critical care beds: 50
- Number of general inpatient beds: 340
- Number of beds with added services: 100

**Summary of oxygen use**

<table>
<thead>
<tr>
<th>Cylinder use</th>
<th>Size in Litters</th>
<th>Number used</th>
<th>Volume used in Litters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1 size</td>
<td>1300</td>
<td>50</td>
<td>66000</td>
</tr>
<tr>
<td>Type 2 size</td>
<td>3408</td>
<td>50</td>
<td>170400</td>
</tr>
<tr>
<td>Type 3 size</td>
<td>6600</td>
<td>50</td>
<td>330000</td>
</tr>
<tr>
<td>Type 4 size</td>
<td>8500</td>
<td>50</td>
<td>425000</td>
</tr>
<tr>
<td>Type 5 size</td>
<td>9000</td>
<td>50</td>
<td>450000</td>
</tr>
<tr>
<td><strong>Total volume used in Litters:</strong></td>
<td></td>
<td></td>
<td><strong>471000</strong></td>
</tr>
</tbody>
</table>

**Concentrator use**
- Total volume used (in liters): 84,000
- Max potential use (as liters): 138,000

**PSA plant use**
- Total volume used (Custom unit): 0

**Total Oxygen Consumption (reported in thousands of previous volume):**
- 84,000
- 0 cubic meters (m³)

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**For more information**

[www.path.org/oxygen-delivery-toolkit](http://www.path.org/oxygen-delivery-toolkit)

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