



Hewatele

Saving Lives, One Breath at a Time

ADDRESSING THE OXYGEN GAP — Replicable PSE Model for LMIC

Why is Oxygen Important?



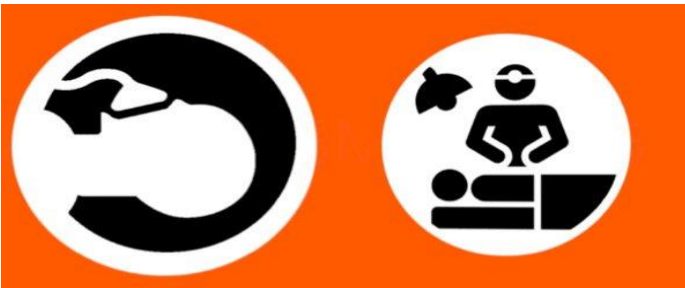
An estimated 830 women die every day - 99% from LMIC's - from preventable causes related to pregnancy and childbirth.



Obstructed labor contributes to **9%** of all **maternal deaths**

Added to the 2017 WHO Essential Medicines List

>2500 children die each day before their 5th birthday due to Pneumonia. Oxygen can reduce this by >30%



~30 Million people are at risk of developing surgical complications due to unsafe anesthesia, where Oxygen is critical



**COVID-19
RESPONSE**

Estimated Need



COVID 19 Oxygen Need Projection				
Projected COVID 19 Cases	Critical Care/Non Critical care split	Critical Care Oxygen Need	Non-Critical Care Oxygen Need	Total Oxygen Need in Lts
10,000	500/1500	453,600,000	30,240,000	483,840,000
20,000	1000/3000	907,200,000	60,480,000	967,680,000
30,000	1500/4500	1,360,800,000	90,720,000	1,451,520,000
40,000	2000/6000	1,814,400,000	120,960,000	1,935,360,000
50,000	2500/7500	2,268,000,000	151,200,000	2,419,200,000
60,000	3000/9000	2,721,600,000	181,440,000	2,903,040,000
70,000	3500/10500	3,175,200,000	211,680,000	3,386,880,000
80,000	4000/12000	3,628,800,000	241,920,000	3,870,720,000
90,000	4500/13500	4,082,400,000	272,160,000	4,354,560,000
100,000	5000/15000	4,536,000,000	302,400,000	4,838,400,000
Consumption (in Lts) Projections for the duration of Tx				
Critical Care - 21 days		907,200		
Non-Critical but Hypoxemic - 7 days		20,160		

Background



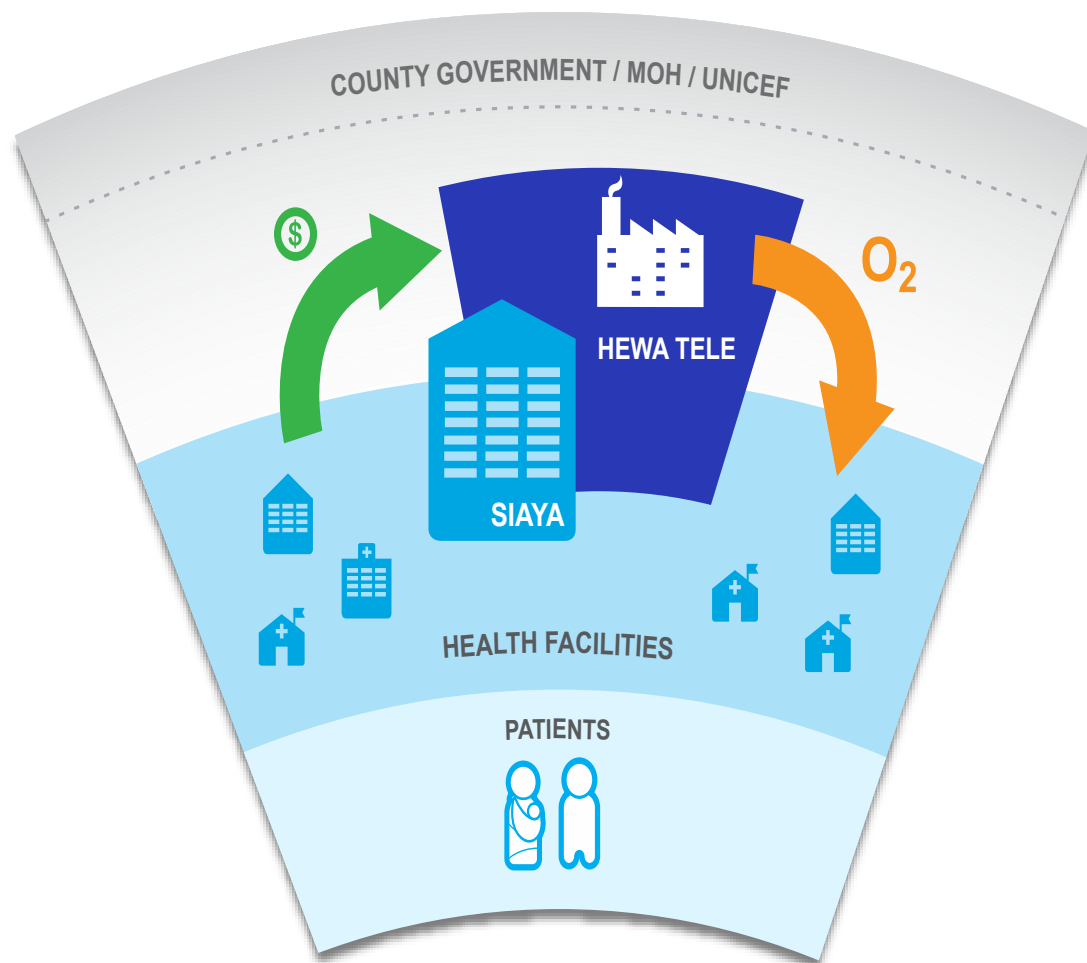
Hewa Tele – Swahili for ‘plentiful air’



Our Vision: Make oxygen an essential part of emergency healthcare at all levels of facilities in Sub-Saharan Africa



COMPONENTS OF THE ECOSYSTEM



GENERATION

- Raw material is oxygen from the air
- Pressure Swing Adsorption (PSA) systems are affordable to install closer to end users
- Cylinder filling and refilling systems are more efficient

DISTRIBUTION

- Last mile delivery ensures access
- Milk-man delivery model proven
- Removal of cylinder related costs like deposit reduces cost by at least 30%

UTILIZATION

- **Capacity:** Oxygen administration training for healthcare workers
- **Safety:** Minimal piping to optimize safe administration
- **Quality of care:** Pulse oximetry for early diagnosis of hypoxemia and monitoring of oxygen therapy

Why is Hewatele unique?



PROVEN CAPACITY

Successful oxygen plants currently providing access to safe oxygen for more than **5 million** people



SUSTAINABLE

Model enables local hospitals to access affordable oxygen, **break even** is faster and is easily scalable model for public health good



TEAM EXPERTISE

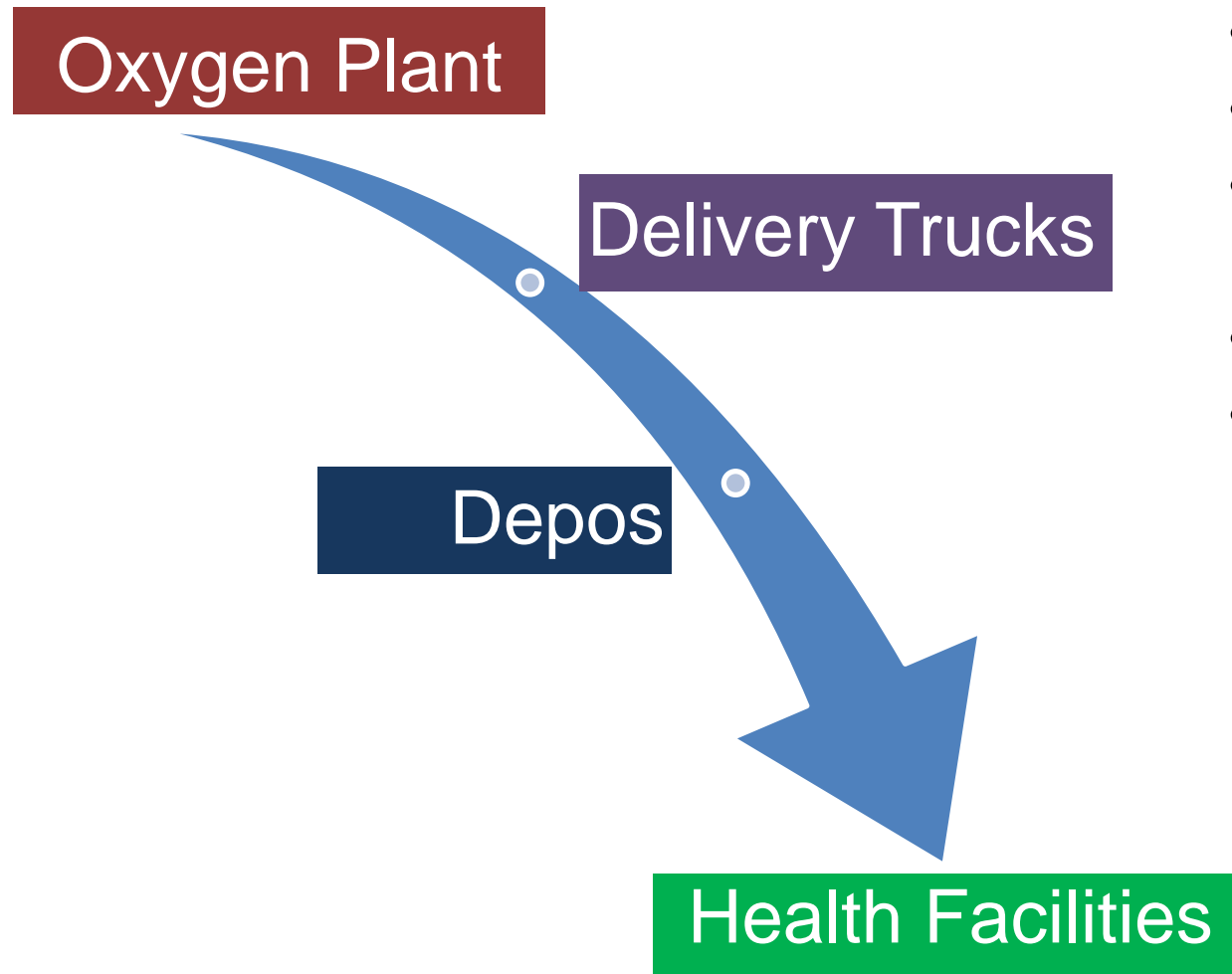
Partners bring **> 30 years** clinical, technical, and business expertise to implement best practices in the public healthcare system



INNOVATIVE MODEL

PPP model integrates public and private sector skills to deliver better public health services at lower risk

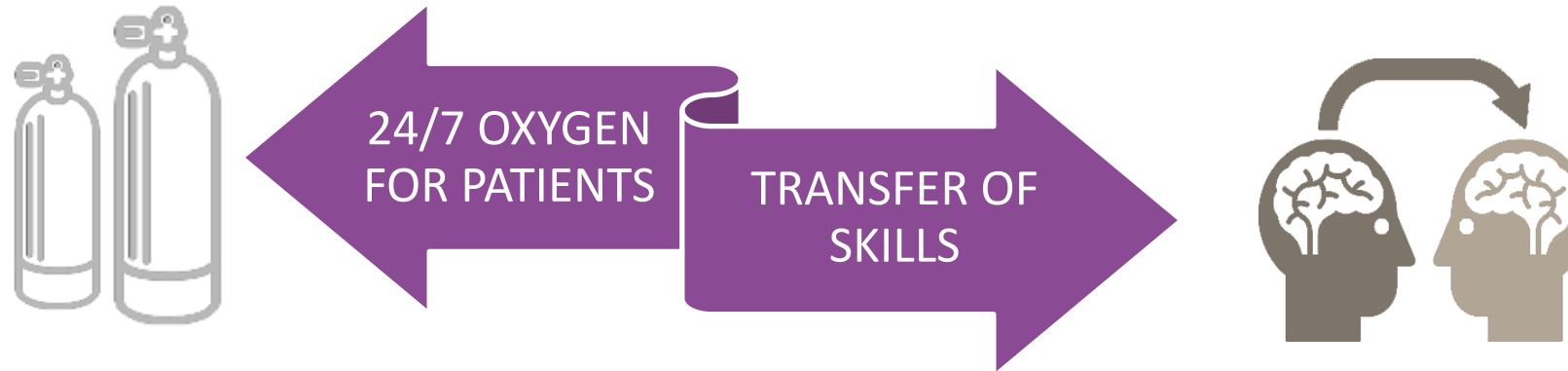
Supply Chain Resilience



Opportunities for PSE to increase access

- Push model Vs Pull model
- Centralized Vs Decentralized
- Market forces Vs Dual Market Approach
- At cost Vs Subsidized
- Bulk Vs Retail

Human Resource Resilience



HCW and BMET training is needed to ensure safe and effective administration of oxygen for COVID19 patients and maintenance of oxygen ecosystem

TRAINING COMPONENTS

- Infection prevention and control
- Oxygen Ecosystem Maintenance
- Oxygen therapy and pulse oximetry
- Intensive care

Return on Investment/Value for Money

- 14% for each plant with a Public Private Partnership model
- PSA is an open source technology therefore accessible
- Plants have a half life of at least 15 years
- Partnership de-risks high CAPEX needed
- Leasing or outright purchase models can be used
- Modular set up allows for upgrade in technology





Thank You

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www.Hewatele.org