Agenda

01  The Oxygen Colab
02  Product v service
03  Oxygen Concentrator Target Product Profile (TPP)
04  Oxygen Concentrator Usability Study
05  We invite you to be Oxygen Colabers!
Oxygen CoLab: working together to get oxygen concentrators to market
How can we accelerate global access to oxygen in low-resource-settings through working on market readiness and technology issues concurrently?
**Commitment**

*How high is their commitment level to this challenge?*

**Capability**

*How mature is their current capability?*

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**Catalyse market traction:** Test the O2aaS business model and prove the market through an Oxygen Bond to stimulate the demand and supply side.

**Accelerate product Innovation:** Accelerate R&D through seed funding, lab and field testing with rapid iteration, learning networks and partnerships, generation and packaging of evidence.

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**Enable a collective response and anticipatory action:** Generate momentum through gatherings, bringing new innovators into the CoLab in line with need.
In a nutshell

**IF** we experiment with new oxygen concentrator products that are more fit for purpose in underserved health centres

**AND** we experiment with new business models for oxygen concentrators that enable sustained access to oxygen in different contexts

**AND** those experimenting come together to share learning about how to make products and services work in different contexts

**AND** additional evidence corroborates and complements that learning to prove the model

**THEN** we can demonstrate the value of innovative products and models in improving access to oxygen and prove the market

**AND** we can collectively advocate for the manufacture and production of innovative oxygen concentrators, and changes to the national and global policy environment

**SO WE CAN** stimulate supply and increase access to life-saving oxygen in underserved areas beyond the lifetime of this programme
# What are we grant funding?

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Product versus Service

Getting the balance right for cost effectiveness

- The oxygen concentrator is an invaluable source of oxygen in low resource settings
  - There will always be a role for this product in these settings
  - There is interest in innovating the product to ensure it is fit for purpose
  - Innovators are doing amazing work in this space
  - This is expensive if there is no clear market

- The wrap around service is vital for the sustained use of oxygen concentrators
  - It is more than a product
  - Education: diagnosis, treatment and after care
  - Maintenance: regular & preventative, reactive to breakdowns
  - Business model: needs to fund the operational expenditure in addition to cost of the product
  - Costly if the product is not fit for purpose

How can we ensure the most cost effective balance between product innovation and the wrap around service?
UNICEF Target Product Profile (TPP) for Oxygen Concentrators

● What is the TPP?
  ○ A SET OF DESIRED PERFORMANCE CHARACTERISTICS (minimum and optimum) of an oxygen concentrator that is fit-for-purpose in low-resource settings
  ○ KEY DESIGN CONSIDERATIONS include robustness to environmental and poor power conditions, energy efficiency, and usability
  ○ Result of interviews and workshops with over 100 clinical and technical experts including BME(T)s to iterate its development

● What is the objective?
  ○ To achieve consensus among users, buyers, and implementers on the ideal product requirements and communicate these to product developers to support innovation
  ○ In doing so, TO STIMULATE THE INVENTION OF MORE RESILIENT OXYGEN CONCENTRATORS that can operate in challenging environments

● How will it stimulate innovation?
  ○ Products that meet the TPP standard have the opportunity to be listed in the UNICEF procurement catalogue
  ○ If listed, a product is essentially fast-tracked into the UNICEF procurement process
  ○ This creates a commercial incentive for innovators to develop and design their products to meet the TPP standards
Guide for **Oxygen Concentrator Usability** in Under-Resourced Healthcare Settings

- **Why a usability study?**
  - Oxygen concentrators were originally designed for use in the home setting. But they’ve found new purpose in under-resourced healthcare settings, but the intended uses, users, and use environments are different.
  - **EXPLORE FIRST-HAND EXPERIENCES** of nurses and BME(T)s using oxygen concentrators and accessories in healthcare facilities in LMICs
  - **PROVIDE INSPIRATION** for new innovators and existing manufacturers when designing fit-for-purpose concentrators

- **Who undertook the study?**
  - Spark Health Design led this process in partnership with Oxygen for Life Initiative (OLI) in Nigeria, and the Center for Public Health and Development (CPHD) in Kenya
  - **HUMAN-CENTRED DESIGN** and usability engineering approach

- **What is the output**
  - An evidence-based guide to designing oxygen concentrators, bubble humidifier bottles, and flow splitters so they are better fit-for-use in healthcare settings in low and middle-income countries
  - Twelve opportunities to guide manufacturers in improving the use, maintenance, and repair of oxygen concentrator systems
AirSep NewLife Intensity 10

Longfian Jay-10, Dual flow

Nidek Nuvo 10

Canta V8-WN-NS, Dual Flow

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We invite you to be Oxygen Colabers

- Sign up to attend our learning networks
- Offer to run a session with our network
- Chat to our storytelling team..... A day in the life of....
- Do you have any other ideas?
- Contact us: harry@hellobrink.co lynne@hellobrink.co

The Oxygen CoLab

- Oxygen Concentrator product innovation
- Biomedical Engineers & Biomedical Engineer Technicians
- Oxygen-as-a-Service (02aaS)
- Healthcare clinicians
- Enabling Network
  - NGOs
  - funders
  - oxygen networks
  - governments
Thank You