

FREO2 Foundation

Q4 2021/22

Impact Report





About FREO2 Foundation

FREO2 Foundation (FREO2) is a global not-for-profit organisation that aims to reduce the number of deaths of babies and children suffering from pneumonia in low-and-middle-income countries.

We envision a world where every child can breathe, live and thrive. Our mission is to improve access to oxygen to save lives and reduce inequalities in health.

The FREO2 team is committed to saving lives by developing and deploying our novel medical oxygen technologies to improve access to oxygen and patient care at the under-resourced periphery of health services. FREO2 oxygen innovations are affordable, developed specifically to be installed in the most remote parts of the world and can provide a constant supply of oxygen, even during a power outage.

How we work

The key differentiator of our approach is our focus on oxygen as the delivery of a service, not just the provision of technology.

Product

We develop fit-for-purpose oxygen systems and innovations to increase oxygen access at the under-resourced periphery of health services. Our Oxylink concentrator provides a continuous flow of oxygen to children, even during a power outage.

Clinical Training

We train local healthcare workers in pulse oximetry and medical oxygen delivery to improve clinical outcomes.

Installation and Maintenance

We install FREO2 oxygen systems in remote health facilities and up-skill local car mechanics, plumbers and electricians to install and maintain FREO2 technology.

Social Enterprise

Our affordable "fee for service" model nurtures locally run enterprises. All funds earned are reinvested back into employment, education and supporting under resourced health facilities.





A note from our Chief Executive Officer



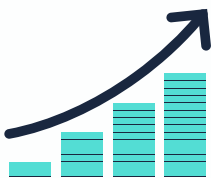
Welcome! It is so exciting to announce that we have now successfully completed the Grand Challenges Canada TTS2 (Transition-to-Scale) program in Uganda. This is a huge milestone for FREO2 and an amazing accomplishment for our Uganda team.

It is important to acknowledge that the impact of all of this work is underpinned by the tireless efforts of our in-country staff, strengthened through the support of our partners and amplified by the generosity of our donors. Collectively across Uganda and Tanzania we have now treated more than 3,800 children with oxygen from FREO2's OxyLink.

In the coming year, FREO2 will continue to focus on expanding our efforts to provide medical oxygen for babies and children suffering with pneumonia where it is most needed. There is clearly strong enthusiasm for our work and we look forward to sustainably scaling throughout East Africa and the Pacific. As we embrace these new challenges, we will ensure that we occasionally pause, reflect and celebrate our successes.




On behalf of the board and our entire global team, we extend our renewed thanks for your generous support of FREO2 Foundation.


With gratitude,




Milestones achieved to date

*for lessons learned on our target projections, go to p3

	To date	FY 21/22 target
 Children treated with FREO2 enabled oxygen.	3,784 (860 this quarter)	4,600
 Health workers trained in pulse oximetry and oxygen therapy delivery.	833 (209 this quarter)	552
 Remote health facilities with FREO2 systems installed.	41 (3 this quarter)	40

 Catchment population for FREO2 oxygen	1,088,500
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 Local FREO2 staff employed	22 (6 this quarter)
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Quarterly update

Highlights

- We've exceeded our target for health workers trained globally by over 50% and beat our target for health facilities with FREO2 systems installed!
- FREO2's Australia team visited 13 facilities across Uganda and Tanzania implementing our Oxygen as a Service model. This enabled us to witness first-hand the incredible impact of increased access to FREO2 oxygen and strategise with our in-country teams on what the next 5 years might look like at FREO2 Uganda and Tanzania.
- We are thrilled to announce a new collaboration with Tanzania's Ministry of Health and a strategic partnership with the Doris Mollel Foundation. Together we will improve oxygen access across the country with a focus on oxygen support for premature babies in Tanzania.
- Congratulations to the Uganda team which has recently completed all site installations and clinical trainings' for the TTS2 (Transition to Scale) program.
- Our Country Manager of the Solomon Islands Dr Divi Ogaoga was [interviewed by SBS](#) alongside Mark Cubit, calling on the Australian Government to invest in oxygen in the Pacific! With the financial support of the Oxygen CoLab/UKAID and the Bowden Marstan Foundation, we have sent 20 Oxylink systems and 50 pulse oximeters this quarter to be deployed with the assistance of the Ministry of Health.
- FREO2's Gender Equity Strategy has been selected by [Kore Global](#) to be an exemplary case study for gender strategy designs for purpose-driven organisations.

Key Learnings

- The immediate and long-term consequences of COVID-19 continue to impact our work both in-country and in Australia. However, the pandemic has illuminated the long-ignored problem of oxygen inequality and we hope this awareness will increase bi-lateral and multi-lateral investment in oxygen provision.
- During FREO2 Australia's visit to our sites in Africa, we identified a need for more flexibility in the deployment of oxygen to accommodate both neonatal and paediatric care. Our program strategies have been revised and all existing FREO2 sites will be re-assessed and upgraded as required.
- As a geographically distributed organisation, communication is vital, so we have adjusted our working schedule to better facilitate regular communications between East Africa, Australia and the Solomon Islands with the introduction of a weekly Global Operations Meeting.
- During our baseline assessments in Tanzania, our teams noted significant variation in the clinical staff's capabilities in oxygen therapy administration, which was addressed. Crucially, FREO2 will continue to monitor adherence and ensure that this new standard is maintained and refresher training will be provided as required.
- With increased activity we have experienced a substantial increase in air freight expenditure. As FREO2 continues to grow, we will increasingly experience "growing pains" in our costs-base. However, freight expenses and logistics are being carefully monitored to ensure that the most cost-effective methods continue to be achieved.
- A key learning this year has been to reevaluate how we shape our annual targets for children treated. This past year, our target was derived from our baseline assessments. Although we did not achieve our annual target for children treated, we are confident that every child that was diagnosed and required oxygen in a FREO2 facility was supported and received oxygen.

Oxygen as a Service

By Lynne Ruddick, Oxygen CoLab Lead & Innovation Lead at Brink

The Oxygen CoLab, funded by the UK Government, connects innovators working to rethink and redesign Oxygen Concentrators to be fit-for-purpose in low-resource settings. They are bringing together innovators from across academia, non-governmental organizations, start-ups and technical experts to help understand and solve challenges with current concentrators available on the market.



The FREO2 team and the Oxygen CoLab gathered at Br George's family home.

Photography by Bony Kazi

In 2021, the Oxygen CoLab awarded a UKAid funded [oxygen-as-a-service_pilot](#) (O2aaS) grant to FREO2 to test the scaling of an innovative business model that ensures the sustained provision of medical grade oxygen in low-resource settings in Tanzania. We believe business model innovation is necessary to get fail safe medical devices to low-and-middle-income country (LMIC) markets. The O2aaS pilot is designed as a means to test an ecosystem oriented business model that addresses the challenges of providing them. Our aim is to create effective business models that send signals to manufacturers of a growing market opportunity for high quality products in LMICs, and lead to sustainable use of devices in the field.

On completion of the pilot, the Oxygen CoLab team were invited to Tanzania and we jumped at the chance to learn about the programme's impact in real life using all of our senses! We are most grateful to FREO2 for their generous invitation and for looking after us so well. Brother George, and the team in Tanzania gave us a very warm welcome and we feel like we have extended our family.

[Continue reading here...](#)

From Idea to Innovation

What's been happening at the FREO2 lab in the University of Melbourne



Our product team has been working hard to eliminate dust! Pictured above is the "FREO2 Snorkel" - a low-cost air filter for our OxyLink concentrators. This filter uses affordable and readily available car air filters to reduce dust and other hazardous airborne particles.

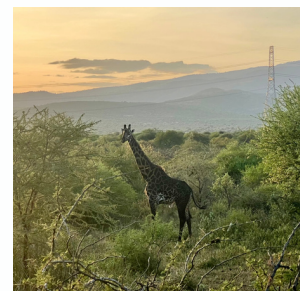


FREO2 Marketing Intern Vinnie Maharaj and Co-founder Dr Bryn Sobott are pictured here with our Solar innovation, which is undergoing testing prior to being shipped this July to the FREO2 Uganda Headquarters for a technical trial.



Fisher & Paykel Healthcare paid a visit to showcase their innovation 'Airvo2', a high-flow therapy device that can be utilised alongside oxygen concentrators to deliver oxygen for respiratory care patients.

Picture of the quarter!



Driving from Dongabesh Health Centre back to Arusha, Harry Sharp from the Oxygen CoLab jumped for joy as he took a dream shot of this giraffe, Tiga, along the side of the road.

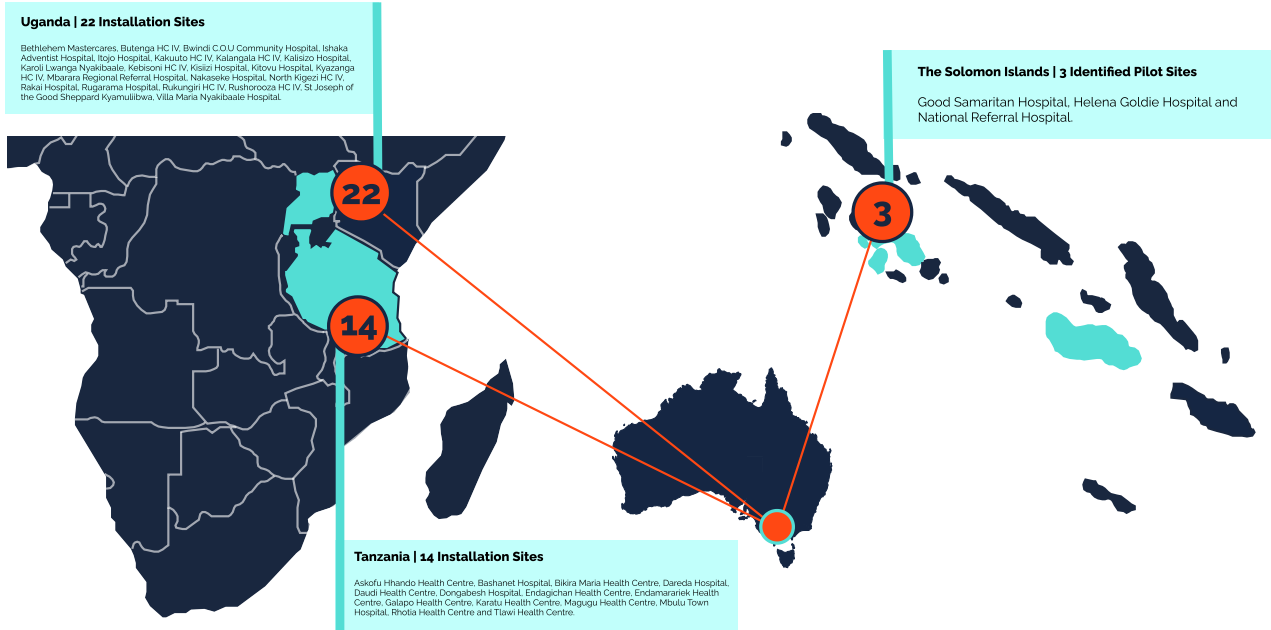
A close-up photograph of a person's hand holding a small child's hand. A white medical sensor is attached to the child's hand, connected to a blue cable. The person is wearing a blue and yellow checkered shirt. The child is wearing a patterned garment. The background is blurred, showing a yellow wall and a white railing.

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The FREO2 team... focussed on in-county resilience and capability. They were not afraid to go where people and the problem are, which has ensured they were solving the right problem.

Lynne Ruddick
The Oxygen CoLab

Program update



News from Uganda

This quarter, the Uganda team successfully completed our Transition to Scale 2 program in Uganda, supported by Grand Challenges Canada and are now in the data collection, monitoring and evaluation phase of the program. We now have installations across 22 facilities in Uganda, having treated 2,021 children, trained 756 health workers and employed 11 local staff. The team also held a strategic workshop with their colleagues from Australia planning and shaping FREQ2 Uganda's vision for the next 5 years, and hosted a neonatal webinar to provide insight on the challenges health workers face when delivering neonatal services.

We were delighted to host Tony Wheeler of the Planet Wheeler Foundation. Tony joined us on site visits to Itojo Hospital and Mbarara Regional Referral Hospital and witnessed first-hand FREQ2 systems delivering oxygen to babies who need it and its impact within the local community.



News from Tanzania

Over this quarter FREQ2 Tanzania successfully completed our Oxygen as a Service program, supported by the Oxygen CoLab. We now have installations across 14 facilities in Tanzania, having treated 1,763 children, trained 77 health workers and employed 11 local staff. In recognition of his leadership and technical skills, Anatoli Umbu has also recently been promoted to the position of FREQ2 Senior Technician - congratulations Anatoli!

During the Australian team's visit to Tanzania, FREQ2 and the Oxygen CoLab team were formally thanked and welcomed to parliament by Deputy Minister Goodwin Mollé and Minister of Health Hon. Umy Mwalimu. Here, we established a new collaboration with Tanzania's MOH and a strategic partnership with the Doris Mollé Foundation to expand FREQ2 systems across Tanzania. We look forward to entering this next stage of scaling our Tanzanian programs with our new partners next quarter.



News from the Solomon Islands

This quarter, Dr Divi and the team were thrilled with the arrival of 20 new Oxylink concentrators for installation and 50 pulse oximeters to support clinical training in the Solomon Islands. We are now in the process of shipping our ODS flowboxes and system auxiliary components. The team has also identified a third potential pilot site for FREQ2 systems and services - the National Referral Hospital in Honiara, the largest hospital in the Solomon Islands!

Our Country Manager Dr Divi Ogaoga has also begun engagements with the local MOH this quarter to support our pilot program in the Pacific and has identified 10 new sites to receive the donated Oxylink concentrators and pulse oximeters over the next quarter.

Coming up next quarter...



We are thrilled to announce this September 2022, FREO2 Uganda will be hosting the 'Breath of Life: Sustainably Scaling Novel Oxygen Innovations for Uganda's Healthcare Conference'. The conference will be bringing oxygen partners, funders, clinicians, academics, innovators, government institutions and the Uganda MOH together to address the need for increased access to reliable oxygen at the under-resourced periphery of Uganda's health services.

We warmly invite all of our partners, donors and supporters to attend.



If you would like to attend the **Breath of Life conference**, **register [here](#)** or scan the QR code.

(password: **Uganda02**)

Or contact Aminah Nanyondo at aminah@freo2.org

Proudly supported by



- We look forward to launching the installation and clinical training phase of our pilot program in the Solomon Islands. The clinical training program will be supported by our Uganda and Tanzania teams with technical support provided from Australia.
- The FREO2 Australia team will be returning to Tanzania and Uganda for the 'Breath of Life' conference in September and to further facilitate strategy design and strengthen our relationships with our partners on the ground.
- Our impact targets for financial year 2022/2023!

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