

## No Child Should Die for Lack of Oxygen – the Fiji Oxygen Project

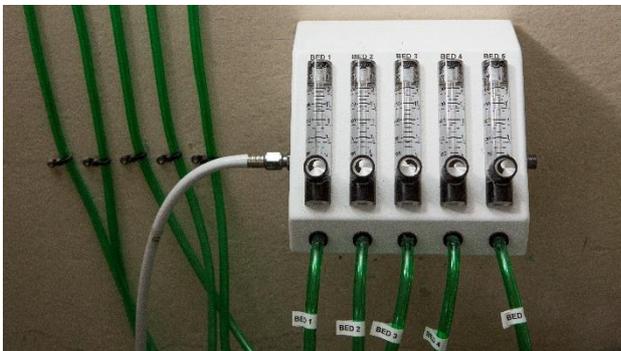
No child, no person, should die for lack of oxygen. Severe pneumonia in children and severe newborn illnesses, for which oxygen is a life-saving treatment, are leading causes of death in the Pacific and worldwide. This project addresses the pressing and challenging need in the Pacific to ensure that those needing oxygen, those with severe hypoxic (oxygen-starved) illnesses, get it.

Work done in Africa by our team and partners is currently being translated to Fiji. The project will meet the need through carefully tested technology, using robust oxygen concentrators in hospitals and health centres, to get oxygen to those who do not have it. The project will also ensure that an improved supply of oxygen translates into better clinical outcomes through enhanced detection and case management of hypoxic illnesses.

### The Challenge Facing Children in Fiji

Oxygen is a vital commodity across the health service but is expensive and logistically difficult to provide. Severe pneumonia in children, anaesthetics for surgery and care of newborns are instances in which oxygen is needed. **For pneumonia, the biggest killer of children worldwide, oxygen reduces death by 35% and is a ‘must-have’ according to WHO treatment guidelines.** Improving the availability, affordability and clinical use of oxygen is a high priority for the Fiji Ministry of Health, with whom Cure Kids is partnering in this work.

In Fiji, oxygen is typically supplied in cylinders, which are very expensive, difficult to move and require a reliable supply chain. While hospitals in larger centres may have reliable oxygen supplies, smaller facilities often do not and this leaves the people they serve vulnerable, both children and adults. Pacific countries need a solution that saves lives by getting oxygen to those who need it without adding a burden to stretched health budgets.



### The Oxygen Solution

Oxygen concentrators, machines which filter nitrogen from air to supply >90% pure oxygen, are much more cost effective than cylinder oxygen, and do not require transport back and forth. If the right equipment is used, they can work well in tropical countries. However, oxygen concentrators require reliable power, which is a barrier to their use in Fiji. We are using carefully specified 24/7 oxygen systems incorporating oxygen concentrators, with solar power where needed, and batteries for power storage.

The goal is that **no child in Fiji dies for lack of oxygen.** The long-term outcome is to reduce death and sickness from hypoxic illnesses in the population; the medium term outcomes are to reduce case fatality and morbidity in health facilities. The short-term outcomes are:

1. Improve **availability of oxygen** in health facilities in Fiji
2. Improve detection and **case management** of hypoxic illnesses
3. Improve community awareness of and **care seeking** for hypoxic illnesses
4. Improve documentation and **burden measurement** of hypoxic illnesses



### **How Will Cure Kids Use Your Donation?**

This programme draws on successful work carried out in Africa (by Dr Stephen Howie and colleagues), and current pilot work in Fiji at Nausori Health Centre (pictured above), providing proof of principle. The solutions being used in this project are highly scalable, and the ultimate goal is national coverage to ensure that no communities are left unprotected. Ultimately we want every health centre and every child in Fiji to have access to a reliable oxygen supply.

Funds raised in partnership with PDL will help realise the next stage of this vision that will form the bridge between the pilot phase and the successful implementation of a full-scale national programme.

We are aiming to raise NZD\$45,000 to provide an additional health centre with a reliable, uninterrupted and sustainable supply of oxygen, so that young lives can be saved. Your donation will contribute to the cost of providing the health centre with:

- Full solar system for unreliable power supply
- 2 oxygen concentrators and associated equipment to get the oxygen to the bedside
- Training of health workers and biomedical engineers
- Local data collection to evaluate use and outcomes

**Thank you for your interest in working in partnership, and with the communities of Fiji, to ensure that no child dies from a lack of oxygen.**