Support the CHILD DEVELOPMENT study

Get involved in this pioneering project that uses artificial intelligence to create early-warning systems that can save lives and boost the future of children and youth’s in Malawi.

QUOTA: WEARABLE DEVICES
- Purchase of at least 2,500 child-specific data collecting devices
- Maintenance of devices during the first three years
- Generate inputs for building life-saving health systems
- Reduce morbidity and mortality in rural areas of Malawi

Fig. 1: Donor fund quotas in CHF

MOTIVATION

Can you imagine how the future in Malawi would look if real-time data could help prevent thousands of childhood deaths caused by malaria, diarrhea, anemia, pneumonia, and other diseases?

In this groundbreaking project, one of the first to use artificial intelligence in the developing world to enable real-time program design and evaluation, our research team aims to increase the volume of data collection about child and youth health conditions.

The Child Development Study uses wearable sensors to track contact patterns between caregivers and children, and between different children and different caregivers, to predict the spread of communicable diseases and to understand the diffusion of behaviors in social networks – the first application of this technology to study those questions in developing countries. We also adapt cutting edge technologies to track children brain waves (EEG), heart rate and variability (ECG), and facial expressions, which, combined with high-frequency data on symptoms and machine learning techniques, allows us to predict epidemics while there is still time to act. This data, processed through machine learning algorithms and feeding early-warning systems with the help of artificial intelligence, could empower community health workers to detect health problems while it is still early – especially when it comes to epidemics – and to implement immediate and preventive measures to address them.

Given the strong partnership already in place with the College of Medicine of the University of Malawi, UNICEF Malawi and the Ministry of Health and Planning of Malawi, real-time data will enable the design and implementation of evidence-based programs by Malawi’s public health system, taking informed decisions, cutting corners, and drastically improving the quality and cost-effectiveness of public health services.

The data collection, which specifically examines the mental and physical health of Malawian children and youth living in poverty, will be held across 180 villages, involving over 6,000 households. The most significant potential of this project lies in the sustainable and scalable interventions that digital health technology brings. Empowering government and health workers
thanks to machine learning and artificial intelligence will boost children and youth’s future opportunities.

**DONOR FUND FOR DATA COLLECTING DEVICES**

The Child Development Study aims to accompany the development of an entire generation of children and youth in Malawi. The project is divided into six phases of three years each. 3.2 Mio CHF is budgeted for the initial phase; **UNICEF Switzerland and Liechtenstein** and **UNICEF Malawi** have already committed to 1.7 Mio CHF. We have four donor quotas for the open budgetary needs, and your organization could support one or more of them.

These quotas will be branded after your institution (if desired) and will also grant you a seat on the project’s Advisory Board. Learn more: [www.ccwd.uzh.ch/cds](http://www.ccwd.uzh.ch/cds)

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