## GIZ INNOVATION FUND 2018





## Mum's Vaccination Tool

## The problem we want to solve:

Vaccination plays a crucial role in children's health and development, but there are still 19 million children that do not get their basic vaccines on a regular basis - or at all. A high percentage of these children live in developing countries and rural areas. Reliable health infrastructure, supply of vaccines and awareness about immunization are missing, which makes essential vaccinations a huge challenge. Simultaneously, for every US\$1 spent on immunization, US\$18 are saved in healthcare costs and lost income due to illness. This is for example the case in Naikarra, a remote village in Kenya. It is 100km by dust road from the next city, so the health center serves more than 10,000 people, including many

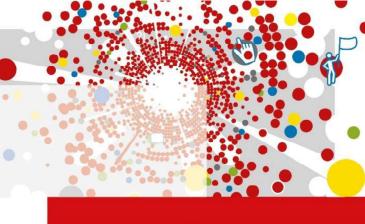


children. They are the only health facility providing immunization in the area, so it's hard for the staff to get an overview of the patients and their vaccination schedules.

The low awareness of parents leads to many children not receiving important basic vaccines, or not getting follow-up

immunization. And even if they do, the availability and quality of the vaccines is not guaranteed, because many medicine products should be continuously cooled to remain effective. But in remote areas without electricity grid, refrigeration remains a challenge. Due to the SolarChill project, there is now the opportunity to cool a minimum of vaccines and other medicine using solar powered coolers. Still, the availability of vaccines and staff, the storage capacity as well as the attendance of parents to the medical appointments are hard to coordinate.

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### Idea:

We want to develop a mobile application "Vaccination Check" for parents. This app would serve both as calendar and as vaccination record card, setting off notifications when the next vaccination of a child is due. Notifications would be short, easy to understand and didactic, so parents understand the importance of vaccination.

The data of the electronic vaccination record will be sent to the health center, informing it about upcoming immunization. This way, the vaccines could be supplied on-demand, reducing the risk of storage and cold-chain related problems, and enough staff will be planned for the vaccination appointments. As immunization schedules have a bit of flexibility, the appointments will be pooled so that vaccines would only need to be supplied a few times a year in bulk and storage periods would decrease. This would reduce the number of times a refrigerated transport is needed and reduce stress for the staff. It could even allow the health center to make vaccination appointments via the app. Moreover, pooling the appointments result in concrete costs and material savings. Through the unique identification of vaccines, tracking of each unit will be possible, misuse will be minimized and the immunization effectiveness will be guaranteed.

A prototype of the application would start in the area of Naikarra, Kenya, as the infrastructure is already known to the GIZ and would then be scaled up.

The app would both gather, process and provide data to parents and health centers, creating a better environment for continuous immunization and saving lives.

### Our team:

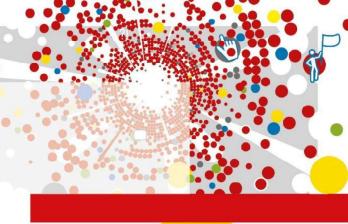
Our team comes from different backgrounds, but we are all convinced about the relevance of our idea. We link different perspectives to develop a real and practical solution to many bottlenecks within this problem.

Nika Greger (Project Manager GIZ)

Nika is working with Proklima in the Africa context, and enjoys teaching yoga to GIZ colleagues every single Monday. – nika.greger@giz.de

Sofia Nürnberger (Advisor GIZ)

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Sofia is Colombian and has one son. She loves working on environmental topics in development cooperation. She met Tatiana Görhardt in 2009 and both are good friends since then. – sofia.nuernberger@giz.de

Dr. Leonard Loontaye (Health Practioner in Naikarra, Kenya)

Leonard serves as the clinical doctor at the Naikarra Dispensary. The difficult working conditions are no barrier for him when offering medical services such as outpatient, immunization, family planning, or mobile outreach. - leonardloontaye@yahoo.com

Simon Mischel (Project Manager, Steering Committee of SolarChill consisting of Greenpeace International, SKAT, UNEP, UNICEF and WHO)

Simon is a convinced SolarChiller and wants to equip as many hospitals as possible with the new technology. - simon.mischel@heat-international.de

Rebekka Oelze (Christian Health Facility (CHAK) Kenya)

Rebecca is very passionate about improving the situation of women and children in Kenyan rural areas and travels to remote areas as often as she can. - rebekka@chak.or.ke

Dr. med. Tatiana Görhardt (Pediatrician in Offenbach, Germany)

Tatiana is a pediatrician, she works in the Hospital Sana Klinikum Offenbach since 2010. She is originally from São-Paulo, Brazil. She has two little children who are also friends with Sofia's son. tatianagorhardt@gmx.de