A conversation with Felix Brooks-church, June 14, 2018

Participants

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Note: These notes were compiled by GiveWell and give an overview of the major points made by Mr. Brooks-church.

Summary

GiveWell spoke with Mr. Brooks-church of Project Healthy Children/Sanku (PHC/Sanku) to learn about PHC/Sanku's progress and future plans. Conversation topics included PHC/Sanku's work introducing fortification to small mills, a pilot program fortifying flour for a refugee camp in Rwanda, plans for a research project on folic acid intake, overall plans for scale-up, and budget and room for more funding.

Fortification at small mills to reach the general population

Within the fortification space, PHC/Sanku has been working to identify how it can have the largest impact. PHC/Sanku has chosen to focus primarily on reaching the general population that does not eat centrally-processed foods that have been fortified via large-scale fortification efforts, which it sees as a particularly at-risk group for micronutrient deficiency.

The majority of PHC/Sanku's fortification work is currently in Tanzania. Only about 5% of maize flour in Tanzania (the most consumed staple food) is being fortified through large-scale fortification. For this reason, PHC/Sanku has built a business model around introducing fortification to small-scale, rural mills. It currently works with about 100 mills in Tanzania (reaching about 500,000 people) and hopes to scale-up to about 200 mills (reaching between 1 and 1.5 million people) this year.

Planned expansion and scale-up

PHC/Sanku's main priority is to scale up its current model to reach more of the general population. PHC/Sanku currently works with about 120 mills total: 100 in Tanzania, five in Rwanda, and several in Kenya and Malawi where it plans to install fortification machinery soon.

PHC/Sanku expects the majority of its budget to go towards scaling up its work in Tanzania (which has a population of about 56 million). It also plans to begin scaling up its work in Rwanda to reach the general population, i.e. expand beyond its refugee program (see below). It plans to begin targeting the general population in Kenya next year as well.

By 2025, PHC/Sanku aims to be operating at full scale in Tanzania, Rwanda, Kenya, Malawi, and Mozambique. PHC/Sanku plans to use the same micronutrient premix in all five countries (these countries all fall under an East African standard for food

fortification specifically designed to address the key micronutrient deficiencies that have been documented in the region).

Two key components that will allow PHC/Sanku to scale up successfully are 1) enabling technologies (e.g. remote monitoring devices), and 2) a sustainable business model (see "Cost-neutralization model" below).

Remote monitoring devices

PHC/Sanku has partnered with Vodafone and Oracle to install remote monitoring devices on fortification machines. These devices transmit real-time data on what the machines are producing, what nutrients are being added to the flour, the machines' hours of operation, and technical problems (e.g. malfunctioning sensors, motor jams, overheating, etc.), and enable PHC/Sanku to automate deliveries of the nutrient powders and servicing of the machinery. This allows PHC/Sanku to have a single staff member in charge of monitoring around 100 mills, each of which reaches about 5,000 people; that kind of efficient staffing model will be essential for scale-up.

Cost-neutralization model

Over the last six to eight months, PHC/Sanku has refined its business model to ensure that purchasing premix is cost-neutral for flour producers in order to incentivize and ensure compliance. PHC/Sanku now accomplishes this by purchasing empty flour bags and selling them to millers every two to four weeks in combination with premix at the same price millers would pay to purchase empty flour bags alone. PHC/Sanku uses the lower price it attains by purchasing bags in bulk to offset the cost of the premix. PHC/Sanku currently uses this model for every mill it is partnered with in Tanzania.

About a year ago, prior to PHC/Sanku implementing this model, compliance by mills was about 25%. Under this cost-neutralizing model, compliance is essentially 100% (when PHC has detected potential deviations in compliance, it has been a technical issue related to the fortification machinery).

In early 2016, Helen Keller International (HKI) did a baseline survey in Tanzania which found that 63% of households had fortified maize available, up from 0% when PHC/Sanku started in 2014. Soon afterwards, PHC/Sanku launched its cost-neutralizing model in an effort to increase compliance. HKI's endline survey a year later found 94% of households had fortified maize available.

This model also gives PHC/Sanku an additional method for monitoring compliance. If a mill's fortification machine is turned off, producers could in principle produce unfortified flour (and PHC/Sanku's remote monitoring devices would not report this). However, because PHC/Sanku sells mills bags, it is able check how many bags a mill has remaining at the end of the month to know how much flour it has sold, and then cross-check that with its remote monitoring data to get a good picture of compliance.

Fortification in refugee camps

Because refugees living in camps typically do not have access to fortified flour or staple goods from outside the camp, reaching them with fortified foods requires a more targeted approach. PHC/Sanku is currently running a pilot program in Rwanda aimed at reaching refugees, working with five mills that provide flour to the Mahama Camp (one of the largest refugee camps in Rwanda, which hosts around 70,000 Burundian refugees).

The only reliable food source for refugees in the camp is a monthly delivery of raw maize from the World Food Programme (WFP). This maize accounts for 80-90% of the refugees' calorie intake. Refugees bring the raw maize to local mills to turn into flour. Prior to PHC/Sanku's involvement, there had been no fortification at these mills, and the camp's population was highly micronutrient deficient. WFP provides raw maize rather than fortified flour because the maize is farmed near the remote camp, and it is therefore more cost-effective to bring it to the camp directly than to transport the grain to large-scale mills in the capital to grind and fortify, and then transport it all the way back to the remote camp, which would be much more expensive.

PHC/Sanku did a survey to identify the local mills to which refugees are bringing grain. PHC/Sanku now provides these mills with fortification equipment and premix. PHC/Sanku staff also visit periodically to ensure the machines are calibrated and the product is reaching the population, to explain the purpose and importance of fortification to the population, and to engage with other local stakeholders (e.g. the Rwandan government, the UN Refugee Agency, WFP).

PHC/Sanku currently has two staff in Rwanda working on this program. The program accounts for about 15% to 20% of PHC/Sanku's time and had a budget of about $70,000 in 2018.

Monitoring

PHC/Sanku has three levels of monitoring for this program:

1. Remote monitoring devices (described above) that stream monitoring information from mills in roughly real time.
2. PHC/Sanku has hired a trusted community member from within the camp (President of the Refugee Association) to monitor mills with visits twice a day.
3. PHC/Sanku's country director in Rwanda visits mills once per week to ensure fortification is being done correctly and sustainably and to do re-training if needed.

Scale-up

Within the next few months, PHC/Sanku expects this pilot program to have enough of a track record and evidence base for it to begin scaling up the program, at which point refugee work will take up more of PHC/Sanku's capacity and funding.

PHC/Sanku estimates it would cost about $1 million over three years (roughly 10% of its total projected budget) to build a sustainable program that provides fortification to all six major refugee camps in Rwanda (almost 200,000 refugees total). PHC/Sanku does not yet have a fully-tested business model for neutralizing costs for its refugee program (as it does for its work in the general population).

Research

PHC/Sanku is partnering with the Centers for Disease Control (CDC) for a surveillance study in Tanzania with the goal of observing the effect of folic acid intake on neural tube defects in a population. PHC/Sanku is looking to bring on a full-time research manager to lead that work.

PHC/Sanku has already started conducting some baseline surveys in areas that have not received fortified products in the past. Its key criteria for choosing areas to work in include a) a population which has not already been saturated with fortified foods, b) presence of small mills, and c) high rates of micronutrient deficiencies. After collecting baseline data, PHC/Sanku will equip mills to do fortification, and then after a period of time do endline surveys. It expects to have some preliminary data at the beginning of next year.

PHC/Sanku expects this project to cost between $100,000 and $200,000.

Partner projects

PHC/Sanku is currently partnered with other groups (but is not the lead implementer) on fortification projects in Malawi, Kenya, and Mozambique. For instance, WFP contracted PHC/Sanku to help install equipment and do some of the remote monitoring for a fortification program feeding 70 refugee children that WFP is implementing at one of the largest refugee camps in Kenya.

Budget and room for more funding

PHC/Sanku expects its spending in 2018 to be around $1 million and to reach about 1.4 million people. PHC/Sanku's fiscal year ends in October 2018. PHC's donors in 2018 included the CDC, the Mulago Foundation, The Life You Can Save, the Centre for Effective Altruism, and WFP.

PHC/Sanku is working to get recommitments from some of these donors and has also applied for larger grants from the Gates Foundation and Grand Challenges Canada which, if PHC/Sanku is successful, would begin in 2019.

PHC/Sanku's cost-neutralization model (i.e. selling bags and premix to mills) produced about $100,000 in revenue in 2018. PHC/Sanku expects that to increase to about $500,000 next year.

In 2019, PHC/Sanku has a planned budget of $3.4 million and aims to reach 5.3 million people. Mr. Brooks-church estimates that, as an upper limit, PHC/Sanku could absorb and use effectively between $5 million and $6 million next year.

PHC/Sanku is aiming for its operations to begin breaking even in about 2022 and to be able to sustain its own growth by 2025. It expects to need roughly $25 million total in philanthropic support over the next seven years to become self-sustaining and free of philanthropy.

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