

GIVING
what we can

PROJECT HEALTHY CHILDREN



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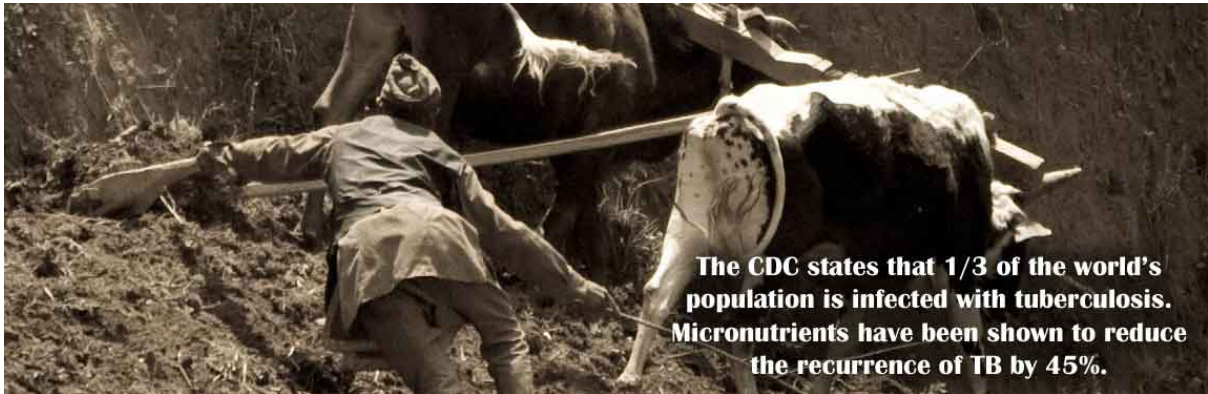
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GIVING
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Summary

SUMMARY



At Giving What We Can, we evaluate the cost effectiveness of charities fighting poverty in the developing world. Currently, our health team are investigating the charity Project Healthy Children (PHC), a not-for-profit organisation that works to help governments in low-income countries to implement food fortification programmes. We were interested to see whether PHC would be a charity we could recommend, as they had come to our attention for operating a very low cost strategy for effectively increasing micronutrient consumption in the developing world.

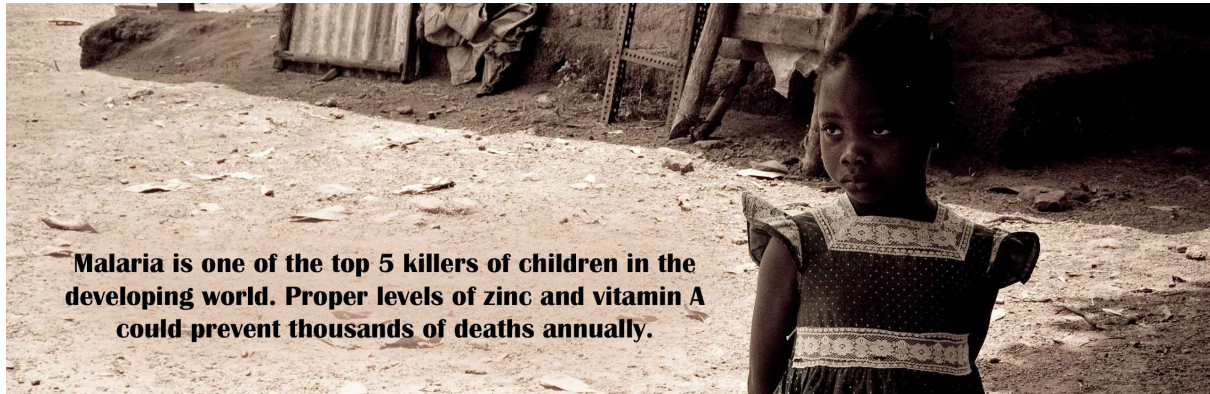
This report is a summary of our findings at this stage. For those who don't have time to read the full report, the bottom lines are:

- Project Healthy Children aims to ensure that foods in the developing world are fortified with necessary micronutrients through partnerships with government and industry. They want fortification to happen earlier, and be more comprehensive than otherwise.
- They appear to have a sensible model for pursuing this goal. First they research what nutrients are needed and foods consumed, then design and implement regulations that require all staple foods to be fortified. The cost of this fortification to industry is small.
- They consult for free with affected industry to ensure they do properly fortify food. They also promote monitoring and evaluation to ensure that foods being bought by people are indeed fortified as intended.
- The cost of providing all of this advice to a country is in the order of \$300-650,000, which could lead to an annual cost per person in the country under one cent.
- However, we have various doubts. We worry that recipient countries may have pursued fortification even in the absence of PHC. We wonder why they have not already managed to raise the relatively small amounts of money they require from other donors. We would like their monitoring to include tests for deficiencies in the population both before and after the fortification process goes ahead.
- We will push ahead with our research to resolve these remaining doubts.

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1 Introduction

1 INTRODUCTION



PHC's model stipulates they work in partnership with governments and private sector manufacturers to ensure the fortification of many staple foods with micronutrients essential for human growth and development. Food fortification is an intervention that has been developed to deliberately increase the levels of micronutrients in a foodstuff. This improves the nutritional quality of the food and thus improves the health status of the population eating that food.

Importantly, PHC seems to spend very little money to do so. They operate on a small budget of around \$650,000 per country and with more funding they assert their operations could expand into additional countries. However, 'cheap' does not necessarily mean 'cost-effective.'

The importance of micronutrients for human health and development are well demonstrated ([Investing in the Future 2009 Report](#)).

PHC is therefore working with an intervention that is known to significantly improve quality of life, child survival, maternal health and healthy life expectancy, when carried out effectively.

However, we need to ascertain whether the work of PHC really is having a sustainable impact. We also want to see whether their model is scalable, and whether they have a highly cost-effective use for marginal private donations. In order to recommend this charity, we need to be sure PHC are more effective than other fundable programmes.

1.1 PHC's Model

PHC have designed a model to guide the implementation of comprehensive food fortification programmes. We are convinced that their meticulous, detailed and extensive methodology is sound, ethical and effective.

Project Healthy Children work with governments, private industries, and partner agencies to support the design and implementation of food fortification programs to improve population health status. Much of this report relies on PHC's own testimony but their activities. While we have no particular reason to doubt their reports, readers should be aware that we have not yet attempted to independently verify many of these claims.

PHC are invited by a developing country to work with the government to implement a nationwide mandatory food fortification programmes. David Dodson (Founder and CEO), Laura Rowe and their consultancy team (we are yet to get a clearer picture on the exact structure of their consultancy team) work within the country over several years, assisting the formation of the government's National Food Fortification Alliance.

It is this long-term alliance that works to make fortification a legal requirement for producers. The intervention is a public health initiative; however instead of working through the Ministry of Health and traditional health sector channels, delivery comes from the private sector through food producers, manufacturers and distributors. Apart from regulatory expenses, the cost of the programme is borne by the manufacturers, or consumers if the price is passed along. However, the costs of fortification are very low on a per person basis. Add more here

Their work can be divided into three broad phases: research, design and implementation.

1.2 Research

This initial phase consists of conducting a "country assessment". They gather data from national surveys on the health of the population, nutritional status, micronutrient deficiency rates, the political environment, imports and exports and consumption patterns of staple foods. They draw from US Aid's Demographic and Health Survey data, and other national household surveys. Where the necessary information has not yet been collected, PHC works with local partners to conduct deficiency studies. For instance, in Liberia and Malawi they worked with UNICEF to design a national micronutrient deficiency study.

PHC also gather information on current nutrition policy and legislation, to understand which government bodies are responsible for monitoring and inspecting foods, and how food standards are implemented and regulated on the ground.

1.3 Design

During the design phase PHC uses the preceding information to work out which food vehicles will be most effective. PHC take five factors into account when identifying the best staple foods for fortification: coverage, consumption levels, cost, central processing and compatibility (i.e. no discernible change in taste or appearance after fortification)

PHC help the government form a 'National Fortification Alliance' in order to encourage cohesion and communication across government departments. They then help the government draft and pass food fortification requirements into law. By making fortification mandatory they aim to make the intervention widespread and sustained. If all manufacturers must take on the fortification, it ensures a fair market.

The cost of the premix that is added to the food is very low, and this cost is borne by some combination of the manufacturers (slightly lower profits) and consumers (slightly higher prices). However, the costs are unnoticeable even for the poorest of consumers, just like the cost of salt iodisation or the addition of folic acid to cereal in the developed world.

PHC suggests they have a model where their programme could operate in a country would reach 6 million people at a cost of \$300,000 in the first year. In order to calculate a quick estimate of their costs, one can assume the programme is brought forward by for 15 years.

$(\$300,000 \text{ cost}) / (6,000,000 \text{ people}) = 0.05$ or five cents per person reached in the first year

$0.05 / 15 = 0.0033$ or 1/3 of a cent per year spread over 15 years.

1.4 Implementation

PHC works with the government to draft and disseminate national fortification standards. This may involve wider policy and diplomacy work. For example, in Rwanda country-specific standards had to be presented and approved by the East Africa Community (EAC) before they were officially endorsed by the country.

PHC wants to maintain an on-the-ground presence in the countries they work with and so maintains one representative in each. PHC's consultancy team works alongside government partners, providing technical assistance on the design and implementation of each fortification program. On occasion, PHC hires outside consultants to assist with training sessions, and industry scale-up, as necessary.

Currently they have Country Coordinators in Malawi, Rwanda, Burundi, and Liberia.

PHC's consulting work includes the food industry. For example, they provide technical assistance on how to ensure equipment is administering the correct amount of micronutrient premix.

1.5 Monitoring and Evaluation

PHC supports each country, through their Bureau of Standards, to ensure inspectors working in factories, borders, markets, and households are trained on how to sample and test for appropriate levels of micronutrients in foods.

Currently, training is being conducted in Malawi and Rwanda. In Malawi they are in the process of documenting a country-wide monitoring exercise with the government.. PHC believes that this stage of the intervention can be the most difficult as this system often has to be implemented from scratch.

In order to address this issue, they have designed an Excel-based monitoring tool for Malawi that captures fortification-specific data collected at each level and then generates quarterly reports to track progress. It is also able to report results by brand, which would allow identification of issues with specific manufacturers. This tool is monitored in the Ministry of Health and maintained by two trained staff members.

PHC will work with governments in both Burundi and Liberia to adapt the tool to their specific needs.

2 Impressive Points of Their Model

2 IMPRESSIVE POINTS OF THEIR MODEL



- Their country-specific assessment of consumption patterns.
 - Each PHC intervention programme is tailored to the specific country at hand. The design draws upon an assessment of the specific deficiency state of the population, and their food consumption patterns, to design the most appropriate strategy for targeting nutritional deficiency.
 - They make use of empirical evidence from nationally representative surveys such as the DHSI
 - If this is unavailable, they partner with other NGOs, such as UNICEF, to obtain the data they need.
- They work at the governmental level to make the intervention mandatory for all food producers.
 - This allows them to 'leverage' their small amount of funding to move a lot more spending by other partners.
 - This creates a level playing field for all private sector manufacturers
 - It makes the programme more likely to persist in the long run
 - Problem: mismatch between legislation / rhetoric and reality?
- Their recognition of the importance of implementing a Monitoring and Evaluation (M&E) system
 - They are aware of the need to evaluate their impact directly
 - This could allow them to learn from their previous experiences
 - Problem: we have seen lots of evidence of planning, and less of actual data output. We need to see this to declare success.

2.1 Doubts

Monitoring and Evaluation

We are impressed with their planning for monitoring and evaluating, but have not found a detailed case study or impact assessment for any particular country or intervention. Due to this we have several doubts.

Firstly, we are concerned that the monitoring above does not include small-scale production sites. Although it is impressive that PHC have developed the technology to allow small-scale fortification to happen at scale, we are concerned there may be a lack of M&E in this area.

We think there are two possible stages to M&E. There is ensuring the correctly fortified foods are reaching and being consumed by the population. (This includes training inspectors to ensure the producers are correctly administering the premix, collecting samples from food across a range of locations including visiting points of sale such as markets. It should also include ensuring the market is not being infiltrated with cheaper foreign imports that have not been subject to fortification regulations). We have seen comprehensive plans by PHC to implement just this. As mentioned above, PHC are currently conducting these training procedures in both Rwanda and Malawi, and scaling up their Excel based monitoring tool for use in other countries too.

A second stage is to take new measurements of the micronutrient deficiency state of the population post intervention. In theory this could take the form of serum blood samples, or it could be a much longer longitudinal study looking at how maternal health or maternal mortality indicators have changed over time since the intervention.

PHC has comprehensive plans to implement the first stage.

But our second doubt regarding M&E is that we have not seen any evidence of this second state i.e. a long term view. Simply measuring consumption is not sufficient to declare success.

It is imperative to ensure that there has been a positive change in the micronutrient status of the population. Measuring consumption patterns of the fortified foodstuffs may be an adequate proxy for measuring impact and success in the short term. However it does not tell you about the micronutrient status of the population in the long term. It may well be that these positive outcomes are a tacit assumption (i.e. the effects of adding iodine to salt are already scientifically proven to reduce neural tube defects, this is known fact, therefore they feel there is a need to rigorously conduct their own impact assessment). While intermediate outcomes, like foods being fortified, are good to confirm, clear evidence from tests that nutrient deficiencies were declining would be much more compelling evidence that the program was working in the way we expected.

We hope to be able to construct an estimated range of their plausible impact, by comparing data from their initial fieldwork on baseline deficiency rates and consumption patterns, with published literature on recommended and necessary micronutrient doses.

Coverage

PHC claim to have a country wide coverage of 80%. This is something we need confirmed before we can recommend them. For example, we need to know more about what proportion of urban dwellers and rural dwellers are consuming centrally-processed foods.

PHC work with local food producers, such as local mills, in an attempt to increase coverage. This is well thought out given the fact that fortification of centrally processed foods are more likely to reach urban dwellers. We are currently investigating this branch of their intervention model, looking at for example the loan agreements local millers enter into in order to purchase the fortification equipment, and whether any monitoring is taking place on their outputs. We are interested in whether any monitoring is taking place on the micronutrient content of the food produced here.

Given their small budget, why have they not attracted the funding they are looking for from other sources?

We would ordinarily expect mainstream and highly cost-effective interventions to receive funding, so that a lack of funding is some reason to suspect this intervention is not as cost-effective as we might have thought.

We do not yet know about the appropriate ‘counterfactual’ scenario to PHC's work.

There are two ways PHC can help: bringing forward fortification, or improve the quality of the implementation. We are currently investigating whether governments would have done something similar without the help of PHC. Identifying the correct counterfactual is difficult, and we are building up several case study hypotheses.

We need to establish how applicable general results regarding the effectiveness of micronutrient programs are to the programs operated by Project Healthy Children.

This includes a more detailed understanding of the micronutrient deficiencies resolved by PHC.

Ordinarily we would be concerned about ‘regression to the mean’ – which would mean that PHC’s apparent effectiveness would be the result of luck or mis-measurement.

Because PHC was not selected for some stunning previous result, this is less of a concern. However we should still worry that results in the literature suggesting that micronutrient fortification is extremely valuable are mistaken.

We would like to know more about the general competence of the people running PHC.

While early signs are positive, we do not know the credentials and relevant experience of the people running these programs.

3 Next Steps

3 NEXT STEPS



Vitamin A, iron, and zinc significantly impact HIV child survival rates.

- Further research into obtaining data output from any existing M&E system in place
- We need to be clearer on the health benefits of micronutrients including doses required to have a discernible impact on health. We can then combine this with information on PHC's fortification design to build up a plausible range of their possible impact.
- We need to build up a picture of the counterfactual scenario to PHC's involvement in a country, preferably by speaking to relevant government officials in recipient countries.