

# **A conversation with the Global Alliance for Improved Nutrition, September 6, 2019**

## **Participants**

- Greg S. Garrett – Director, Food Policy & Financing, Global Alliance for Improved Nutrition (GAIN)
- Penjani Mkambula – Global Programme Lead, Food Fortification, GAIN
- Felistus Mutambi – Regional Fortification Coordinator, GAIN
- Grace Hultquist – Research Analyst, GiveWell

**Note:** These notes were compiled by GiveWell and give an overview of the major points made by Mr. Garrett, Mr. Mkambula, and Ms. Mutambi.

## **Summary**

GiveWell spoke with Mr. Garrett, Mr. Mkambula, and Ms. Mutambi of the Global Alliance for Improved Nutrition (GAIN) to learn about GAIN's progress and future plans. GAIN is a GiveWell standout charity. Conversation topics included GAIN's country-level and regional work, its initiatives to gather and disseminate knowledge on salt iodization, and its budget and room for more funding for the upcoming year.

## **Country-level work**

GAIN's country-level work on universal salt iodization (USI) involves:

- work around the procurement and distribution of potassium iodate (PI), including supporting countries in establishing national supply and distribution systems
- building national capacity for quality assurance and quality control, including building capacity among salt producers, monetary agencies, and government agencies responsible for the monitoring and enforcement of salt iodization
- assisting countries in developing national legislation

GAIN runs or provides technical assistance to country-level USI projects in Laos, Myanmar, Cambodia, Mongolia, Bangladesh, Nigeria, Malawi, Uganda, Tanzania, Mozambique, and Ethiopia. The majority of its work in these countries revolves around building national capacity for quality assurance and quality control. Through the GAIN Premix Facility, GAIN also supports USI programs across Africa and Asia with cost-effective procurement of PI.

GAIN has offices in Kenya, Tanzania, Ethiopia, Nigeria, Bangladesh, India, Pakistan, Indonesia and Mozambique. Each of these countries has at least one project manager dedicated to food fortification. In other countries, GAIN works with in-country consultants.

In some locations, GAIN collaborates with other agencies working on salt iodization. For example, in Cambodia, Laos, Mongolia and Myanmar, GAIN collaborates with UNICEF and the Iodine Global Network (IGN).

### **Laos and Myanmar**

Laos and Myanmar have revolving funds managed by salt producers' associations to purchase PI and distribute it to various salt producers. GAIN has strengthened the operations of these national supply systems by helping with business plans and PI sourcing.

In Myanmar, GAIN did an assessment of the operations of the national salt producers association's Potassium Iodate Revolving Fund (PIRF), including its supply chain management, business operations, financial management and overall governance, and made recommendations about potential improvements. GAIN is currently in the process of supporting PIRF in implementing the recommendations.

### **Cambodia**

Like Laos and Myanmar, Cambodia has a national association for buying and distributing PI. The implementation of proper iodization processes has been challenging, so GAIN's work in Cambodia has focused on supporting the salt producers association to develop a business plan to improve the quality of iodized salt. The objective of the business plan is to upgrade equipment for refining salt, since much of Cambodia's salt is currently sold in a coarse state, which loses iodine over time. Once a business plan is finalized, investment will be required to purchase new equipment to shift production away from coarse salt and toward refined table salt, after which producers will be able to move on to iodization. The association may need to seek funding from external sources.

### **Mongolia**

Ninety percent of salt in Mongolia is imported into the country, so GAIN's work was primarily focused on providing advice and recommendations to the authorities to monitor whether imported salt meets legal standards for iodization. However, Mongolia is interested in expanding its salt production industry and has invited GAIN to help set up a national distribution system for PI, so GAIN will likely provide some support for this project as well.

### **Bangladesh**

In Bangladesh, GAIN has provided technical assistance to the government to update national legislation. In the current legislation, penalties are sometimes lower than the costs of iodization and thus do not incentivize salt producers to iodize. A draft of the new legislation is ready for consideration by the Cabinet. The legislation will then move to Parliament to be accepted or amended.

## **Nigeria**

In Nigeria, GAIN primarily partners with the government, rather than the salt industry directly. It provides support to the National Agency for Food and Drug Administration and Control (NAFDAC) for monitoring and enforcement of fortification standards and supports four laboratories run by NAFDAC and the Standards Organization of Nigeria (SON).

Over the past six or seven months, a major focus of GAIN's work in Nigeria has been building the expertise of one research institute lab and several public and private sector labs that are seeking certification for micronutrient analysis, including iodine analysis. These labs must meet international standards developed by the International Organization for Standardization (ISO). As of the end of October 2019, 4 laboratories were accredited for micronutrient analysis following the support and mentorship program by GAIN.

### *Separation of monitoring responsibilities*

Three government agencies – NAFDAC, SON and the Consumer Protection Council – are involved with compliance monitoring of food fortification in Nigeria, and there is ambiguity regarding the separation of their responsibilities. GAIN is working with these agencies to create a joint regulatory framework to better define which pieces of industry and market testing each is responsible for.

To begin this process, GAIN held a discussion with the director generals of the three agencies, who agreed to the idea subject to more detailed work by their technical teams. Thus, a technical team was brought together with staff from all three agencies and is working out the details of the framework. Within the next few months or so, GAIN hopes to have the three agencies sign off on the combined work plan for the next year.

## **Malawi and Uganda**

Malawi and Uganda have industries to repack salt, but not to produce it. One hundred percent of their salt is imported, so GAIN works in these countries to build capacity for monitoring imported salt. GAIN provides rapid test kits for screening salt that comes into the country through the borders or customs, to ensure that it has been iodized. GAIN also provides training to Malawi and Uganda's bureaus of standards and food control agencies.

## **Tanzania**

### *Consolidation of small-scale salt producers in Zanzibar*

On the islands of Zanzibar (a semi-autonomous region of Tanzania), there are hundreds of small-scale salt producers, supplying primarily non-iodized salt. Most of these producers would not have the capacity to purchase their own equipment to iodize the relatively small quantities of salt that they produce.

An investor is interested in setting up a salt-producing facility on the islands, so GAIN is helping to create a cooperative of small-scale producers to supply the new company, which would then iodize large quantities of salt. This would allow smaller producers to continue to have a market for their salt while also ensuring that salt is iodized. GAIN may be able to use its work in Zanzibar as a model for consolidating small-scale producers for iodization.

#### *Capacity building for local governments*

The Tanzanian government is pursuing decentralization, so many tasks of governance are being reassigned to local authorities. Many responsibilities related to the monitoring and enforcement of iodization, which have traditionally been the purview of the Tanzania Food and Drug Authority and the Tanzania Bureau of Standards, are now being moved toward regional and district authorities. Local authorities currently have lower capacity than centralized organizations to fulfill these monitoring and enforcement responsibilities, so GAIN is providing them with training.

### **Mozambique**

Mozambique has approximately 400 salt producers, around 88% of which are micro- or small-scale producers. Thus, GAIN's work in Mozambique has focused on the formation of a national association, as well as regional associations, for salt producers and traders. GAIN will be able to work with these associations to more easily support the needs of the small producers in procuring PI and improving their iodization facilities.

GAIN is also in discussions with the government of Mozambique about how to set up an in-country supply system for PI. In the past, PI was donated to Mozambique by UNICEF and distributed to salt producers. These donations are no longer being funded, so Mozambique is in need of a sustainable local supply system.

### **Ethiopia**

#### *Certification for salt producers*

GAIN has supported the development of a voluntary program to certify that salt producers are meeting standards for production quality. The certification program would be run by a state-owned company called the Ethiopian Conformity Assessment Enterprise.

#### *Education for senior management*

GAIN primarily works with individuals focused on salt production, fortification, and quality assurance (such as production managers or quality control managers), but it is also important to help senior management understand both the legal imperative and the health benefits of salt iodization. Otherwise, iodization may not be prioritized or may be viewed simply as an extra cost. To that end, GAIN held a workshop in Ethiopia with owners and chief executive officers of companies that

produce salt. Efforts are ongoing in several countries to educate senior management on salt iodization as well as other kinds of food fortification.

Both of these activities are in addition to general quality assurance and control work in Ethiopia.

## **Regional work**

### **Southern African Development Community (SADC)**

SADC is a regional economic community of 16 southern African countries. GAIN is providing technical assistance to SADC in its efforts to more closely align food fortification standards across the region, which will make trade between southern African countries easier. This plan must be agreed to by all 16 countries, so this initiative will extend into 2020.

### **East, Central and Southern African (ECSA) Health Community fortification manuals**

Over the last year, GAIN has been working to update two manuals on fortification for the ECSA Health Community because new methods of fortification testing and monitoring have been developed since the manuals were written in 2007. GAIN and ECSA plan to have the revised manuals published by the end of 2019 for use by countries across the region. The original manuals have been used outside of the ECSA region (such as in West Africa, Asia, and elsewhere), so GAIN hopes that the revised manuals will be used beyond the region as well.

### **Providing support to labs for micronutrient analysis**

GAIN is working with 21 government and private sector laboratories across 12 countries in order to assess and improve the laboratories' proficiency at testing and monitoring micronutrients, including iodine.

## **Knowledge leadership**

As compared to previous years, GAIN's work over the past year has focused slightly less on initiatives to gather and disseminate knowledge on salt iodization, but GAIN has been working on a study of double fortified salt as well as a meta-analysis of food fortification studies.

### **Study on double fortified salt**

GAIN was invited to be an independent evaluator of a study in India on the impact of double fortification of salt with iron and iodine. The study has been running for a couple of years and examines whether the consumption of double fortified salt (DFS) could reduce anemia, iron-deficiency anemia, iron deficiency, and iodine deficiency. The results of the study are not yet published but some preliminary results have been shared.

One major question of the study is whether the addition of iron to iodized salt would make it less effective for decreasing iodine deficiency. This is an important question

for India, which has had success with salt iodization, achieving roughly 80% coverage of iodized salt. This has prevented or mitigated many cases of goiter and iodine deficiency. The country is now interested in distributing double fortified salt through schools and the public distribution system, but evidence is needed to demonstrate that double fortified salt will a) reduce iron deficiency anemia and b) not damage India's success with iodization.

In addition, GAIN is contributing to a global consultation on double fortification of salt with iron and iodine by undertaking a systematic review and meta-analysis of published and grey literature examining the effects of DFS on nutritional status, cognition, work productivity, development, and morbidity.

### **Meta-analysis on the impact of large-scale food fortification**

GAIN and the Hospital for Sick Children (SickKids) in Toronto recently published a large meta-analysis on the impact of large-scale fortification of wheat flour, edible oil, and salt. The lead author on the publication is a researcher from SickKids. GAIN commissioned the study and provided technical oversight on the methods and analysis.

The researchers identified thousands of effectiveness studies conducted in low- and middle-income countries, then narrowed these down to 130 different studies for analysis, based on predetermined exclusion criteria. The meta-analysis confirmed that salt iodization effectively reduces goiter and iodine deficiency rates. For example, the studies showed that consuming iodized salt reduces an individual's odds of developing goiter by 74%.

GAIN hopes to use the results of the meta-analysis to persuade donors and governments who are unsure about the effectiveness of food fortification interventions. In the past, many people that GAIN has worked with have expressed concerns that the fortification successes of other countries, especially wealthier countries, would not replicate to their country. Because the meta-analysis focused on low- and middle-income countries around the world, it was able to confirm that the health benefits of fortification are possible to achieve in any location if fortification interventions are properly implemented.

GAIN has disseminated the results of the meta-analysis, including through two blogs, but has had some difficulty in drawing attention to them. See <https://www.gatesfoundation.org/TheOptimist/Articles/food-fortification-to-fortify-the-future> and <https://www.gainhealth.org/media/news/doubling-down-food-fortification-fortify-future>.

### **Funding for GAIN's USI work**

GAIN's USI work in 2018 was funded by three primary sources:

- GiveWell-directed funds

- the Dutch government
- the Bill & Melinda Gates Foundation

About one year ago, GAIN closed out a grant from a donor for work in Tanzania, but GAIN's funding sources have not otherwise changed significantly since its last update to GiveWell. GAIN typically receives a limited amount of unrestricted funding, most of which goes toward operational costs of the organization.

### **Future funding**

Funding from the Dutch government will continue for another year and a half to two years, and GAIN expects that the Gates Foundation will increase its spending this year on food fortification initiatives, including GAIN's salt iodization initiatives. GAIN is actively fundraising and having discussions with potential new donors.

Mr. Garrett believes that the goal of controlling and possibly eliminating iodine deficiency around the world is within reach, but meeting this goal will require new funding from committed donors. With increased funding, GAIN would strengthen initiatives in the countries where it currently works as well as expand into other countries where technical assistance for salt iodization is needed, including Madagascar, Angola, Myanmar, and Egypt. GAIN worked in Egypt in the past, but the country has since stalled in its progress on salt iodization.

In past years, GAIN had an annual budget of \$8-10 million for food fortification work, \$3-4 million of which went to salt iodization work. The Bill and Melinda Gates Foundation used to supply GAIN with a grant specifically for salt iodization. GAIN would like to return to at least this level of funding. This would necessitate obtaining another large grant of about \$10-15 million for the next three to four years. GAIN has the in-country staff and the consultant network needed to effectively absorb a grant of this size.

*All GiveWell conversations are available at  
<http://www.givewell.org/research/conversations>*