

A conversation with Dr. Jonathan Gorstein, June 22, 2018

Participants

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Note: These notes were compiled by GiveWell and give an overview of the major points made by Dr. Gorstein.

Summary

GiveWell spoke with Dr. Gorstein of Iodine Global Network (IGN) as part of its investigation into IGN's progress and future plans. Conversation topics included IGN's international and collaborative work, its country-level work, and its room for more funding.

International and collaborative work

Iodization of salt in processed foods

Over the last decade, there have been major shifts in salt consumption patterns, and increasingly processed food products and condiments have become the main source of dietary salt in both industrialized and developing countries. For this reason, in the past year, IGN's general strategy to achieve universal salt iodization (USI) has shifted from an exclusive focus on ensuring that salt sold for discretionary consumption at the household level is iodized to ensuring that salt in these processed food products is iodized. IGN's leadership believes that this shift will streamline iodine delivery to populations and enable stricter quality control.

IGN has started to work with governments to encourage the use of iodized salt in major processed food products, such as bread and condiments, including bouillon. This entails working with each country's government, salt producers, and food manufacturers in two primary ways:

1. **Assessment** – IGN has been working to identify which products are the main sources of dietary salt in different countries, to determine the feasibility of using iodized salt (rather than non-iodized salt) in these products, and to address any concerns about its usage.
2. **Regulation** – Some food manufacturers already use iodized salt in their products, but its use is not clearly regulated. IGN has been reviewing relevant legislation to close loopholes and establish clear standards that govern the amount of iodized salt used in processed food products.

In the last year, IGN has also held meetings with its partner organizations to harmonize and standardize guidelines for managing this shift within countries. These partners include UNICEF, Nutritional International (NI), the Global Alliance for Improved Nutrition (GAIN), Helen Keller International (HKI), and the World Health Organization (WHO).

Global review of double-fortified salt (DFS)

The IGN is facilitating a global consultation to assess the feasibility of double fortification of salt with both iodine and iron. Given the large amount of interest in expanding the scope of salt fortification and experiences with the introduction of DFS in public sector programs in India, the IGN has been asked to convene researchers, development partners, program managers, and representatives of the salt industry to review the evidence of the production and distribution of DFS in order to establish clear guidance for countries interested in exploring the introduction of DFS.

For both the DFS consultation and its work on the use of iodized salt in processed foods, the IGN works closely with those promoting the reduction of salt intake due to the risk that it poses to cardiovascular diseases. This work reinforces the complementarity between the two public health strategies: salt reduction and use of salt as a vehicle for fortification. IGN has participated in meetings with WHO and the salt industry to reinforce the message not to eat more salt, but to make sure that the salt that is consumed is iodized. IGN has been developing monitoring systems which track both salt and iodine intake, and is collaborating with the Institute for Health Metrics and Evaluation (IHME) to analyze both salt consumption and the iodine status of populations in order to develop recommendations to modify the content of iodine in salt in settings where overall salt intake may be declining.

The Global Fortification Data Exchange (GFDx)

Last year, IGN, in partnership with the Food Fortification Initiative (FFI) and GAIN, started GFDx. The group works to standardize and harmonize the data collected across large-scale food fortification programs—namely, FFI's wheat, maize, and rice programs, GAIN's oil programs, and IGN's salt programs. Dr. Gorstein believes that GFDx's work demonstrates both the value of and IGN's commitment to inter-organizational collaboration.

Since its formation, GFDx has developed a standardized data collection tool that enables the group to work with countries to measure critical indicators of program performance. It has also created a website. GFDx is currently undertaking a series of in-country consultations with stakeholders of each fortification program that aim to identify how data can be used to improve program efficiency and synergy. This work is being supported by a grant from the Bill & Melinda Gates Foundation (BMGF) through the CDC Foundation.

Country-level work

Tanzania and Mozambique

Tanzania's salt is supplied by hundreds of small-scale artisanal salt producers who have not been able to produce high-quality iodized salt. In December 2016, IGN led an inter-agency assessment of the country's salt iodization program, from which came a plan to consolidate raw salt from small producers to larger units which are responsible for all steps of processing, including washing, crushing, iodization, and distribution. Once all stakeholders approved the plan, IGN began conducting

feasibility studies to inform its implementation (e.g. by getting a better understanding of markets), identify possible improvements to the raw salt production process, and develop a business plan for the consolidated units. In the process, IGN has sought input from salt producers who manage large plants in Nigeria, Namibia, and Kenya.

This plan has been met with enthusiasm in both Tanzania, as well as in other countries which have long struggled to achieve USI due to the fragmented nature of the salt industry characterized by many small-scale producers. As a result of this initial work, IGN has received funding from GAIN to convene and lead a similar assessment in Mozambique, as well as from Nutrition International to explore salt industry consolidation in Senegal.

Assessing impact

The two primary metrics IGN uses to assess the impact of its activities, including those in Tanzania and Mozambique, are 1) the proportion of households consuming adequately-iodized salt and 2) the median urinary iodine concentration in the population. In Tanzania, IGN hopes that its efforts will contribute to the achievement of optimal iodine nutrition both at the national level and across all regions, which vary in their iodine supply and intake due to the fragmented nature of the salt industry. To measure this, it will conduct a rapid urinary iodine survey that is stratified at the regional level.

On a high level, Dr. Gorstein believes that IGN's impact derives from its unifying role of the development community. For example, in many countries, development assistance is typically fragmented, with individual agencies often competing with one another and at times offering conflicting technical recommendations to governments. However, IGN is able to convene all stakeholders—including development partners, government officials, salt producers, and food manufacturers—to reach consensus, common programmatic vision, and agreed-upon plans of action. While the impact of this collaboration can be difficult to measure, Dr. Gorstein believes that it leads to both quantifiable improvements (e.g., in absolute coverage, iodized salt quality, and iodine status) and qualitative improvements in stakeholder relationships and outputs. IGN has been receiving increasing grants from a number of new donors in the past year, including some which had never provided support in the past, which Dr. Gorstein believes is an important metric of IGN's success on this front.

Sudan

IGN continues to place high priority on its work in Sudan. Over the past few months, IGN facilitated the Sudanese government's purchase of three salt processing units—two from Spain and one from China. These units, which became fully operational in May 2018, are now iodizing 40% of the nation's salt and were launched by the highest level of government, including President Omar al-Bashir. Since that time, IGN has been working with partners to lay the groundwork for the Sudanese government to purchase three additional machines that will ideally have the

capacity to iodize the remaining 60% of Sudan's salt. While the partners in this deal have signed a memorandum of understanding, IGN is still seeking funding for the procurement. Once the country's entire salt supply is adequately iodized, IGN expects that Sudan will achieve optimal iodine nutrition very rapidly.

IGN is currently undertaking a rapid survey to assess the population coverage with iodized salt and plans to assess the iodine status in early 2019. It expects to find strong evidence of improved iodine intake and status that can be attributed to the increased availability of iodized salt provided by the new machines. IGN has also planned for Sudan's Minister of Industry to visit Azerbaijan to learn about the management and quality control of its iodization program. IGN hopes that this visit will lead to a bilateral agreement between the governments of Sudan and Azerbaijan, which could provide Sudan with low-cost equipment and technical training.

Angola

As a follow-up to a comprehensive situation analysis of the Angolan USI program, IGN identified the need for both a national iodine survey and a salt industry mapping to generate critical data to inform the design of the salt iodization program in Angola. In June, it finalized plans for both surveys, which will be carried out by the University Agostinho Neto in Luanda with support from UNICEF. IGN is engaging Tanzanian and Mozambican experts to provide technical assistance.

Burundi

This year, IGN completed a national survey of the iodine status of the Burundian population and of the population's sources of salt. Prior to this survey, iodine status had not been measured in Burundi since the 1990s. The survey's results identified regions of the country with sub-optimal iodine intake. This is primarily due to Burundi's importation of sub-optimally iodized salt from northern Tanzania, which provides almost all of the country's salt.

IGN's main partner in Burundi is UNICEF, which provides resources and relationships with important stakeholders, including salt importers and the Burundian Ministry of Health. UNICEF asked IGN to provide in-country technical assistance in the survey's design, implementation, and quality control. In addition, IGN provided laboratory support, and an IGN consultant oversaw the survey, conducted the analysis, and drafted the resulting report, which has now been finalized.

IGN's regional coordinators for East Africa, Festo Kavishe and Vincent Assay, together with a Tanzania consultant, are now using these results to develop a plan to improve the country's iodine status by targeting iodine-deficient regions and monitoring imported salt. The Government of Burundi is holding a meeting in November 2018 to review the survey's results and IGN's recommendations, which will lead to the development a strategic plan of action.

China

In January 2018, China reformed its salt industry to allow non-iodized salt to be sold in areas with sufficiently high iodine content in water. This is a significant change and represented a departure from the vigilant implementation of USI in which all edible salt was under state control and had to meet national iodization standards. This policy shift acknowledged that there were some segments of the population whose iodine needs were met by the natural water supply and did not require iodized salt. IGN is supporting the Chinese Ministry of Health and the China National Salt Industry Corporation to ensure that the reform's guidelines are followed correctly. It is working with UNICEF and Chinese research organizations to implement a sentinel site surveillance system to track urinary iodine levels in order to detect any unintended negative effects of the reform, data from which will be reviewed during a meeting in October 2018 in Shenzhen, China.

North Korea

This year, IGN began working in North Korea. Due to restrictions on foreign aid, IGN was unable to use funds from many organizations, but was able to leverage a portion of its GiveWell-directed funds to undertake critical assessments. In 2017, it sent a consultant on two successful missions to work with salt producers and propose improvements to the quality of the country's raw salt supply and upgrade its iodization equipment. IGN has been invited to return to North Korea to explore additional program refinements and recommendations. The engagement in North Korea has been timely as the global political environment has relaxed somewhat and the IGN is uniquely poised to embrace the opportunity to work with the North Korean government. It has planned two visits, in October and December 2018, during which it plans to explore how to implement those proposed improvements.

Israel

In 2016, IGN and the Israeli Ministry of Health conducted a survey that found the country's iodine status to be severely low, with an iodine intake amongst the lowest in the world. To address this problem, IGN has been working with Israel's Ministry of Health and salt and bread baking industries to determine the feasibility of using iodized salt in commercial bread, which is consumed by 90% of Israel's population. Israel's legislature will consider legislation to require commercial bread bakers to use iodized salt in late 2018. If the legislation passes, IGN will conduct a rapid survey of urinary iodine status to measure any resulting changes. Because similar legislation was successful in Australia, Tasmania, the Netherlands, and New Zealand, IGN expects to see positive changes in iodine status within weeks of the legislation passing and widespread implementation of the regulation.

Lebanon

A 2015 baseline rapid survey of iodine status identified very low iodine intake and a number of critical challenges with the salt iodization program in Lebanon. In response, IGN initially supported a policy review conducted by the American University of Beirut (AUB) and the Lebanese Ministry of Health, which led to revised and more pragmatic legislation. This has been followed by a focus on improving the

production and monitoring of salt iodization undertaken by the country's four major salt producers located in the north of the country. The work being undertaken in Lebanon has been funded exclusively with GiveWell-directed funds and IGN is the primary agency facilitating these major programmatic advances.

Since the changes, several quality control reports have shown increasing improvements in iodine supply. In the last quarter of 2018, the AUB plans to conduct a follow-up rapid survey to measure any changes in the supply of adequately iodized salt and the iodine status in the Lebanese population. IGN expects positive results that can be directly attributed to its work in the country.

Madagascar

In 2017, IGN provided technical assistance to UNICEF and the Ministry of Health on a national iodine survey that revealed poor iodine status in most regions of Madagascar, particularly in the northern area of the country, likely due to the absence of a comprehensive salt iodization program. In response, IGN facilitated the procurement of a large amount of potassium iodate (the iodine compound added to iodized salt) from the Japanese government. There were several delays in the delivery of the potassium iodate, but it was projected to reach the country and be provided to a number of medium-scale producers and used to help establish a revolving fund so that future needs of the fortificant could be met.

Room for more funding

Available funding

In 2018, IGN's budget and revenue increased from approximately \$1.3 million to approximately \$1.8 million. Sources of this funding include:

- **BMGF** – This year, IGN received its first grant from BMGF. With this funding, it will lead the technical consultation with relevant stakeholders to assess the feasibility of double-fortified salt and support pilot testing of its program guidelines for using iodized salt in processed foods.
- **Kiwanis International (KI)** – For the past 5-6 years, KI has provided approximately \$65,000 per year to support IGN's IDD newsletter. This year, it also provided a small grant to support a portion of IGN's overhead expenses, which is the first funding IGN has received that is explicitly designated for this purpose.
- **GAIN** – This year, IGN received a small grant from GAIN to support a number of activities in East and Southern Africa, including its Mozambique work, facilitation of a salt producer round tables workshop, and four advocacy workshops in the region. Dr. Gorstein believes that this grant uses GAIN's GiveWell-directed funds.
- **UNICEF** – This year, IGN continued to receive funding from UNICEF, USAID, and CDC to support activities in several individual countries, where IGN was asked to provide technical assistance and convene stakeholders.

Dr. Gorstein believes that the increasing funding from its partners is a reflection of IGN's success and highlights its distinctive ability to convene stakeholders more successfully than other organizations. He believes that there is emerging evidence that the convening function of IGN has led to greater program planning and efficiency amongst partners and has facilitated a uniform recognition of innovative approaches to the design, implementation, and monitoring of USI programs amongst all partners.

Current fundraising status and activities

The proportion of IGN's total revenue that GiveWell-directed funds comprise has reduced from approximately 50 to 30 percent. IGN hopes to continue being recommended as a standout charity and receive the same level of total funding it has received over the past four years as a result of this recommendation, including funding from Good Ventures, MaxMind, and individual donations (approximately \$500,000-\$600,000). Because IGN's work is focused on high-level advocacy and stakeholder strengthening, \$2 million is the maximum amount it would be able to use effectively.

IGN is currently seeking funding from NI, which has been enthusiastic about developing a collaborative work plan with IGN.

Allocation of funding

In 2018, IGN will spend approximately \$211,000, or 12% of its total operating budget, on overhead expenses and spend the remainder on program expenses. Dr. Gorstein estimates that program spending will be allocated as follows:

- **20% to global initiatives** – IGN's global advocacy and data initiatives include the GFDx and the double-fortified salt technical consultation.
- **20% to operational research** – IGN received a grant of approximately \$300,000 from UNICEF through USAID and CDC. This funds research being conducted by ETH Zurich to define cut-off points for urinary iodine in pregnant women and women of reproductive age.
- **60% to country-level work**

Examples of country-level work:

- **Sudan** – IGN spent the more in Sudan than in any other country. In the past year, there was a high number of visits and level of engagement. It also supported a visit of Sudanese salt producers and government officials to Spain.
- **Tanzania** – IGN's market assessment required convening four people over ten days and was followed by two additional visits.
- **Angola** – IGN has designated approximately \$60,000 for the survey that is beginning in Angola.
- **Burundi** – IGN contributed to the implementation of the national iodization status survey.

- **China** – IGN’s China work involves only advocacy and collaboration with the Chinese Ministry of Health.
- **North Korea** – Dr. Gorstein estimates that the North Korea budget is approximately one-third of the budgets in Sudan, Tanzania, Angola, and Burundi. This is due to the constraints of working in North Korea.
- **Israel** – Israel is a resource-rich country that requires only guidance. Thus, IGN’s Israel work involves advocacy and technical assistance, which it expects will continue to be the case.
- **Lebanon** – Dr. Gorstein estimates that spending in Lebanon has been similar to spending in North Korea. However, spending will increase in late 2018 to support the follow-up survey, to which IGN has allocated \$50,000 in 2018.

Uses of additional funding

With funding beyond its current revenue, IGN would prioritize increasing support of its current countries or supporting new countries.

Increasing support of current countries

While IGN already plans to continue supporting its current countries, additional resources would enable IGN to increase its impact. This is particularly true in the following five countries:

1. **Tanzania** – NI has supported some of the post-assessment follow-up work in Tanzania. IGN would use additional resources to accelerate its research and implementation of that work.
2. **Mozambique** – In Mozambique, IGN has funding to complete the initial assessment, the findings of which should generate interest from funders. It would use additional resources to fund the follow-up plans that result from that assessment.
3. **Burundi** – IGN would use additional resources to support the follow-up plans that have resulted from Burundi’s national survey.
4. **Angola** – IGN would use additional resources to conduct the survey it has planned in Angola.
5. **Sudan** – IGN would use additional resources to facilitate the procurement of the three new salt processing units.

Supporting new countries

IGN’s goal is for all countries to achieve optimal iodine status by the end of 2020. However, as of mid-2018, 19 countries still have sub-optimal iodine status. These countries are predominantly in Africa, but countries in western and central Europe are also experiencing sub-optimal iodine intakes in their populations due to low use of iodized salt and changing food patterns that do not provide sufficient iodine to the diet.

IGN would use additional funding to expand to these new countries, where it would continue to focus on promoting the use of iodized salt in processed foods by targeting particular food products and industries. Already, IGN is working with an

expanded network of consultants and partners. Increased funding would allow it to facilitate more discussions between salt producers, food manufacturers, and government officials and to document that work.

IGN recognizes that working in industrialized countries would present two challenges. First, despite IGN's success in low- and middle-income countries, working in industrialized countries requires different strategies. Second, while this work is important, it is not typically supported by most funders.

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