

A conversation with Jonathan Gorstein and Michael Zimmermann, September 21, 2016

Participants

- Jonathan Gorstein, PhD – Executive Director, Iodine Global Network (IGN)
- Michael Zimmermann, PhD – Chair of the Board, IGN
- Natalie Crispin – Senior Research Analyst, GiveWell

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

Summary

GiveWell spoke with Dr. Gorstein and Dr. Zimmermann to learn about the progress and future plans of the Iodine Global Network (IGN), a GiveWell standout charity. Conversation topics included program updates, current operational research (new approach to assessing iodine status in individuals), funding, and plans for 2017.

Program updates

In 2015, funding obtained through GiveWell enabled the Iodine Global Network (IGN) to significantly increase the breadth of its activities in the following ways:

1. **Targeting of high-burden countries:** Following guidance from its Board, IGN is now strategically targeting, and leading efforts in, several high-burden countries where iodine nutrition activities were either non-existent or under-resourced. For example, in late 2015 and early 2016, IGN substantially increased its engagement in Sudan, Lebanon, Haiti, and Angola. It will take 2-3 years for these efforts to result in significant increases in the supply and access to iodized salt, and as a result, improved iodine status. As part of these special initiatives, IGN has been generating the necessary data to determine how much iodine nutrition has changed over this period in these countries.
2. **Transformation of IGN's core secretariat,** including hiring Dr. Gorstein as Executive Director (working half-time), as well as a Communications Officer (also employed half-time).
3. **New management and operational approach:** IGN has developed a more efficient and systematic approach to its fiscal and operational management, particularly with respect to the planning, implementation, and reporting of activities carried out by its Regional Coordinators.

IGN also continues to prioritize sustaining achievements in countries with well-established salt iodization programs, focusing on ongoing advocacy, regulatory monitoring, and streamlining of iodine nutrition into broader health and nutrition programs.

Examples of its national-level special initiatives include actions in Sudan, Haiti and Lebanon. For additional updates on these countries and others, please see: [http://files.givewell.org/files/DWDA%202009/ICCIDD/IGN_brief_summaries_of_recent_work_\(Sept_2016\).pdf](http://files.givewell.org/files/DWDA%202009/ICCIDD/IGN_brief_summaries_of_recent_work_(Sept_2016).pdf).

Sudan

Due in large part to the efforts of the Middle East/North Africa Regional Coordinator (RC), the Sudan universal salt iodization program has the potential to make significant progress in a relatively short timeframe. The program has prioritized consolidating the efforts of major salt producers which are located primarily in one province, Red Sea Province. The IGN has facilitated an agreement between these salt producers and key government officials to establish a joint investment in new equipment that will help improve their production quality and efficiency. These investments will translate to an increase in the supply of 30,000 metric tons of adequately iodized salt in the next three months, increasing to 60,000 metric tons by the middle of 2017, sufficient to meet 50% of the population's iodine requirements.

Haiti

IGN has been working closely with UNICEF, USAID, and the Haitian Ministry of Health to develop an innovative approach to improve the supply of iodine in the diet. IGN is working with partners to shift the focus of national efforts from iodizing Haiti's indigenous salt supply, which has traditionally been difficult to do due to the large number of small-scale artisanal farmers, to ensuring that the salt used in the production of bouillon cubes is adequately iodized. Bouillon represents 70% of the Haitian population's sodium intake and is widely consumed throughout the country by all segments of the population. Furthermore, there are only three major manufacturers that produce bouillon cubes for the country, thereby streamlining the technical support and investments required to significantly increase the availability and intake of iodine.

Lebanon

A main lesson learned through the GAIN-UNICEF Universal Salt Iodization Partnership Project was the importance of establishing clear legislation to define iodization standards and requirements. In Lebanon, there was a need to revise iodized salt legislation, which required high-level advocacy. IGN has facilitated a series of policy discussions amongst key partners in order to modify and approve legislation that was easier for salt producers to comply with and regulators to monitor. Four of the country's major salt producers have since requested assistance to implement the new regulations, which IGN is supporting through the provision of equipment and training in internal quality control. By the end of 2016, it is likely that a significant proportion of the country's salt will be adequately iodized. IGN will conduct a small survey to demonstrate the impact of this work on iodine nutrition levels.

IGN's efforts in Lebanon will also benefit Syria, as Lebanon is the major supplier of the salt distributed by the World Food Programme in Syria.

IGN's Lebanon program provides a clear-cut case study of the IGN's unique contribution. Lebanon is a relatively small country, and the program has a national coordinator who has been able to make considerable progress with a relatively modest budget.

New approach to measuring iodine status

Over the past several years, approaches to salt iodization have experienced a major paradigm shift. For example, it has become evident, through the experiences of mature national country programs such as in China, that monitoring efforts should focus both on ensuring the achievement of sufficient iodine intake levels, as well as on avoiding excessive intake.

There has also been increasing recognition of the need to track all sources of iodine in the diet and focus more on metrics, such as urinary iodine concentration (UIC) levels, that accurately capture the total iodine intake. This has led IGN to promote and recommend more widespread use of UIC as a biomarker of a population iodine status. The World Health Organization (WHO) recommends the use of UIC, and UIC reference ranges have been established. IGN is using its extensive lab network and robust quality control procedures to ensure rigor and capacity to analyze UIC measurements throughout the world.

IGN will also continue to use the metrics it has used in the past to collect accurate estimates of household iodized salt coverage.

New method for using urinary iodine concentration to estimate the adequacy of individual iodine intake

As an individual's iodine intake and UIC levels can vary considerably from day to day, it can be difficult to categorize iodine status using a single spot sample. This can result in the erroneous application of data meant to describe population status to assess individual iodine intake, which in turn might lead to an overestimation of the prevalence of suboptimal iodine intake.

As a result, IGN has developed a new method to more accurately determine the distribution of habitual iodine intake. After assessing UIC in the entire population, IGN takes a 30% repeat sample measurement from a subsample of individuals and uses this to adjust the distribution from the original survey. This does not change the central tendency of the data or the interpretation of the population median. Using WHO reference ranges, the median is still used to classify a population's iodine status as deficient, sufficient, or in excess.

However, this new approach does enable the IGN and national programs to better characterize habitual iodine intakes and estimate the proportion of individuals with low intakes. Such prevalence estimates have been evasive in the past, and using the strong network of research institutions which are members of the IGN, it has been

possible to develop, validate, and disseminate these advances in program monitoring.

Baseline urinary iodine concentration measurements

When IGN engages in a new country to support iodine programs, it conducts a comprehensive situation analysis to develop an understanding of the country's salt industry and iodine status. In all of the countries where the IGN has intensified activities and special initiatives, the IGN measures baseline UIC levels, in some cases adopting the new measurement approach described above.

1. **Lebanon:** In Lebanon, baseline UIC measurements were collected in a national survey conducted almost two years ago. The results were published. IGN plans to repeat this survey in mid-2017.
2. **Angola:** During IGN's comprehensive analysis of Angola's national iodine nutrition program, it has been recommended that the IGN conduct a rapid baseline survey to determine iodine status. The results will help IGN develop a strategy for targeting its inputs and provide a basis for an evaluation of its efforts in 2-3 years.
3. **Sudan:** In Sudan, IGN is considering conducting a small-scale sentinel survey to collect baseline data in advance of the introduction of the new salt production facilities.
4. **Haiti:** A survey was conducted at three sites approximately a year and a half ago. Following a recent mission, stakeholders recommended that a rapid sentinel survey on iodine status be conducted which is representative of the entire population.
5. **Morocco:** IGN is advocating to the royal family of Morocco to increase engagement around iodine nutrition. IGN hopes that a baseline nutrition survey will be completed in Morocco by the end of 2016, as efforts are underway to significantly accelerate program activity.
6. **Madagascar:** A nation-wide survey was conducted in Madagascar in 2015 and highlighted a severe public health problem. Making use of these data, the IGN has been working with partners to develop appropriate remedial actions to increase the production of iodized salt and explore complementary interventions in the short term.

Funding

Room for more funding

A few years ago, IGN was a relatively small and lean organization, and did not have the capacity to use large amounts of additional funding. IGN tends to concentrate its efforts on a small number of countries to ensure the effectiveness of its programs.

Same level of funding

With GiveWell's support, IGN has been able to begin a planning cycle and engage in in-depth systems and capacity building work in Lebanon, Sudan, Haiti, and Angola, and has done so with increasing confidence that it will be able to continue these

efforts. Some of these activities, such as conducting baseline surveys and program enhancement, can be expensive to implement. In order to maintain these new country activities at a similar level in 2017, IGN would require at least the same level of funding it received from GiveWell in 2016 (approximately \$700,000).

Less funding

If IGN did not receive this same level of funding from GiveWell in 2017, it would have to seek other funding sources, and if unsuccessful, would likely have to suspend some of these new country initiatives and limit its potential expansion to other high-burden countries.

More funding

Sudan, Lebanon, Haiti, and Angola are only 4 of the 25 countries that were classified as having suboptimal iodine nutrition levels in 2015. A lack of resources constrains the scope and scale of the work of IGN's RCs and NCs; some new coordinators are particularly motivated to increase activities in their jurisdictions.

IGN believes that it has developed the necessary infrastructure and operational effectiveness to spread to additional countries and spend approximately \$2 million/annum. If GiveWell's previous level of funding doubled to \$1.4 million, IGN's total revenues (accounting for a few additional funding sources) would total approximately \$1.8 million.

If IGN had this additional funding, as well as the confidence that it would recur for several years, it would scale up activities in several additional countries, such as Morocco, Madagascar, Burundi, and Djibouti, increasing the supply and availability of iodine to prevent deficiency in millions of individuals and ensure optimal cognitive development in tens of thousands of newborns. It would also consider increasing activities in countries where iodine nutrition levels have faltered in the past few years, such as Vietnam and Cambodia. As GiveWell funding commitments are made on a year by year basis, IGN would have to decide whether to spend the total amount in 2017 or amortize it over a two- or three-year period.

IGN has \$300,000 of working capital in reserve; it does not plan to use this in 2016.

Other potential funding sources

IGN has had some preliminary discussions about funding opportunities with the Bill & Melinda Gates Foundation (Gates Foundation). The Gates Foundation recently awarded IGN some funding for a joint nutrition project with other organizations, but might not fund country programs focused on a single nutrient, such as iodine. IGN has also had preliminary discussions with the Unilever Foundation. If these attempts are unsuccessful, IGN might approach its partners (GAIN, Micronutrient Initiative, and UNICEF) for funding.

Plans for 2017

IGN has moved up its planning period to ensure that the work plans of RCs and NCs are vetted and approved by mid-February 2017. The next meeting of IGN's Management Council meeting will take place that month in Dakar, Senegal.

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