

# **A conversation with Professor Jonathan Gorstein, September 11, 2017**

## **Participants**

- Professor Jonathan Gorstein – Executive Director, Iodine Global Network
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**Note:** These notes were compiled by GiveWell and give an overview of the major points made by Professor Jonathan Gorstein.

## **Summary**

GiveWell spoke with Professor Gorstein to learn about the progress and future plans of the Iodine Global Network (IGN), a GiveWell standout charity. Conversation topics included the current state of IGN's operations at the global level and in five focus countries, IGN's collaboration with other food fortification organizations, and IGN's current funding.

## **IGN's focus countries**

In 2017, IGN redoubled its efforts in Madagascar, Lebanon, Angola, Sudan, and Israel, all of which have persistent iodine deficiency and where IGN has been able to provide critical inputs to national iodine nutrition programs.

## **Madagascar**

### *History of IGN's involvement in Madagascar*

IGN's active involvement in Madagascar began in earnest in 2014, when UNICEF was working with the Madagascar government to undertake a survey of iodine nutrition in the population and called upon IGN to provide technical assistance. With financial support from UNICEF, IGN helped to design the survey, and was responsible for conducting and implementing it as well. This involved, among other things, equipping a laboratory and providing training in Madagascar to be able to conduct urinary iodine analyses, and sending several urine samples to Tanzania for quality control checks.

In addition to this work, IGN assisted with the analysis of the survey data and was involved in presenting the results to stakeholders. In these discussions, IGN stressed the urgency of the problem, since the results indicated moderate iodine deficiency in the population. These discussions led to a shift from focusing on evidence generation to focusing on how to establish a national program to address iodine deficiency in Madagascar. IGN has remained active in Madagascar for the ~3.5 years since the initial survey to build consensus toward concrete action against iodine deficiency. IGN and its partners have made considerable progress on this front.

At the time of the last survey, in late 2013 and early 2014, salt iodization in Madagascar was quite limited. Since then, due to ongoing advocacy by IGN with its partners, there have been significant improvements in salt producers' commitment

to iodization, the government's commitment to oversee this process, and most importantly, the supply of iodized salt.

#### *Potassium iodate donation to urgently supply iodized salt*

IGN recently arranged for a donation of KIO<sub>3</sub> (the compound used to fortify salt with iodine) from the Japanese government directly to the government of Madagascar. This has been distributed to medium- and large-scale salt producers in Madagascar, who previously did not have access to KIO<sub>3</sub>.

This donation is being used as a seed stock to initiate a KIO<sub>3</sub> cost recovery system, so that the cost of the KIO<sub>3</sub> can be absorbed by consumers. This will put into place a sustainable model allowing KIO<sub>3</sub> to be available to salt producers at the lowest possible cost, which will significantly increase the supply of iodine in the population of Madagascar.

#### *Surveys*

IGN and UNICEF are developing a rapid survey to be conducted in early 2018 in order to generate data on the impact that increased iodine intake has had on the Madagascan population.

IGN and UNICEF's new survey would document the reach of iodized salt into the Madagascan population. Comparison with the 2014 data would show the impact that partial iodization has had on the population's iodine status.

#### *Other recent activities*

In addition to work with medium- and large-scale salt producers, Madagascar has revised its five-year plan of action to address what can be done to improve the quality of the salt that is produced by smaller-scale farmers, which is inconsistent due to the use of outdated iodization technology and has long been a problem in Madagascar.

### **Lebanon**

#### *Legislation and monitoring*

IGN's National Coordinator for Lebanon is Omar Obeid, a professor at the American University of Beirut (AUB). Professor Obeid has led the revision of national salt iodization legislation in Lebanon. The new legislation is easier to implement, and separates the salt iodization requirement from legislation requiring salt fluoridation.

After this legislation was developed in 2016, a team of technicians from AUB and IGN provided trainings and workshops to four major salt producers in Lebanon, focused on ensuring compliance with the new standard. IGN also provided the salt producers with devices to test the iodine content of their own salt.

Monitoring itself is the government's responsibility, and is done by food safety inspectors in the Lebanese Ministry of Health, who have received training from the

AUB/IGN team. Once a month, the inspectors make unannounced visits to the factories of major salt producers, and collect and test 5-7 salt samples to ensure adequate iodization.

### *Surveys*

IGN recently received approval to replicate its 2015 iodine coverage survey in Lebanon, in order to measure the impact of legislative and monitoring interventions on iodine status in the population by comparing the current population iodine status to the 2015 results. It hopes to conduct this survey in early 2018 at the latest. Results from the survey may be available in March or April of 2018.

In the 2015 survey, Lebanon had median urinary iodine levels of ~65 µg/L, suggesting that the entire population was moderately iodine deficient. IGN believes that iodized salt is now reaching nearly the entire population of Lebanon, so it expects to see much higher urinary iodine levels in the upcoming survey.

### *Impact on Syria*

The World Food Programme purchases large quantities of Lebanese iodized salt for Syria. This means that IGN's activities to increase salt iodization in Lebanon have the additional effect of increasing the amount of iodized salt available in Syria, where micronutrient malnutrition is a critical problem for the population due to current food insecurity.

### **Angola**

When IGN began its work in Angola, the last data on iodine were over 20 years old. In 2016 IGN commissioned a group to undertake an analysis of the salt situation and of existing salt programs, which were quite limited. This led to a series of high-level stakeholder discussions, including discussions with the Ministry of Health and the Ministry of Fisheries.

The government of Angola has now agreed to undertake a large nationally representative survey of the current iodine situation. The design and implementation of this survey are a collaborative effort between IGN, UNICEF, the Angolan Ministry of Fisheries, and Agostinho Neto University. IGN expects to have the data from this survey by March 2018.

Angola has a small number of very large-scale salt producers, and also relies heavily on salt imported from Namibia and South Africa. Once IGN has collected data from the new iodine status survey, it aims to work with the government to develop a comprehensive national salt iodization program, strengthening domestic salt production and external monitoring of salt producers.

A private foundation is specifically interested in IGN's work in Angola, and is supporting work on the 2017 survey as well as follow-up policy discussions.

## **Sudan**

Baseline data from 2005 in Sudan indicates that there is significant iodine deficiency in the population. Over the past several years, IGN has worked with Sudanese government officials and salt producers to upgrade the salt industry in the Red Sea Province, which is the only province in Sudan that produces salt. Due to efforts by IGN to convene all partners and facilitate foreign investment, this upgrade is being achieved by the procurement of high-quality production equipment by a Spanish company. The first Spanish machine was delivered to a salt producer in the Red Sea Province in March, and a second one arrived in August. However, due to a trade embargo imposed on the Sudanese government, the machines have only recently been installed. Training on their use is now being provided by Indian engineers. The progress has been strong given the challenges of working in the country.

### *Surveys*

IGN would like to conduct a survey of household salt iodization in the latter part of 2018 to check the impact of the industry upgrade. It expects to see dramatic results, since Sudanese salt producers claim that 60-80% of the population will have access to iodized salt with the new equipment in place, whereas in the most recent iodine coverage survey only ~8% of household salt was iodized.

IGN is also working with the Sudanese government to design and implement a urinary iodine survey to demonstrate the impact of the improved salt supply on the iodine status. With these major investments and upgrades of salt production capacity, it is expected that the iodine intakes of the population will improve, reducing the burden of iodine deficiency in the population.

## **Israel**

In 2016, IGN collaborated with the Israeli Ministry of Health to conduct a survey of iodine status, and found that the median urinary iodine level of the Israeli population was among the five lowest in the world. Less than 2% of household salt in Israel is iodized.

IGN's National Coordinator in Israel, Dr. Aron Troen, has convened a series of discussions with the Ministry of Health, with the goal of passing legislation to make the use of iodized salt in bread products mandatory. He has also convened discussions with representatives of the baking industry and of its large suppliers, including those supplying emulsifying agents and salt.

IGN is looking for the opportunity to ensure that all kosher baking salt is iodized, and hopes that this will be accomplished in early 2018. It further hopes to undertake a rapid survey to demonstrate that these changes have increased iodine intakes and improved the overall iodine status in the population. Unlike other micronutrient deficiencies, iodine deficiency occurs in both developing and industrialized countries. As such, the scope of the work undertaken by IGN is all over the world, and some of the most challenging countries to work in are those

which resist iodized salt and require strong advocacy and communication, along with robust scientific guidance, which IGN provides.

## **International and collaborative work**

### **The Global Fortification Data Exchange (GFDx)**

IGN is working with the Food Fortification Initiative (FFI), the Global Alliance for Improved Nutrition (GAIN), and the Micronutrient Forum to harmonize the data available across fortification programs. These include data on legislation, supply, and coverage, among other things.

This is the first time that all of these agencies have worked together to present data across food vehicles, including salt, rice, wheat, maize, and oils. The GFDx has secured funding from the Bill and Melinda Gates Foundation (BMGF) to expand to more indicators and more food vehicles, including sugar and other staple products, in 2018.

The primary goals of the collaboration are advocacy and making data available. There is also an increasing recognition that food fortification can be more efficient if different fortification programs coordinate and align their activities, rather than working in isolation.

The public-facing version of the GFDx is available at [www.fortificationdata.org](http://www.fortificationdata.org).

### **Iodization of salt in processed foods**

Salt iodization programs have long focused on ensuring that household salt is adequately iodized. However, it is now known that an increasing proportion of salt consumption comes from processed foods. IGN is working to document the contribution of salt from processed foods, and to determine how it can work with processed food manufacturers to ensure that the salt used in the preparation of their products is iodized.

IGN has worked with UNICEF, Nutrition International, and GAIN in West Africa, and with the Institute of Nutrition of Central America and Panama, to develop initial program guidelines for this work. These guidelines will help countries incorporate the use of iodized salt in processed foods as a fundamental part of universal salt iodization (USI) programs. Thanks to this work, the way that countries assess iodine status is already changing, such that countries now look at not only household salt but also the iodized salt in processed food and condiments as sources of iodine.

### **Iodine measurement and reporting guidelines**

There has historically been some confusion about how iodine status data should be analyzed and presented. To address this, IGN is working with the Swiss Federal Institute of Technology in Zurich (ETH Zurich) and UNICEF to update program guidance regarding the measurement, classification, and reporting of iodine status amongst different population groups.

UNICEF recently finalized a new Program Brief on this topic, which IGN will disseminate through a series of webinars. Along with the guidance on processed food, this information will equip countries to more accurately assess the current status of their iodine programs, understand the sources of dietary iodine for their population, and interpret the iodine status of their population.

### **Relationship with implementation partners**

In many of the countries where IGN is active, it works closely with UNICEF, GAIN, Nutrition International, and other international agencies in support of national iodine programs. This is useful because IGN has access to the in-country infrastructure of its implementing partners, which is helpful for facilitating discussions and other work, while other agencies rely on IGN to help convene and facilitate broad collaboration amongst partners, including Ministries of Industry, Ministries of Health, and salt producer associations. In some countries, implementing agencies also rely on IGN for technical support in conducting the surveys that they fund.

### **Funding**

#### **Major funders**

IGN's major donors are its partners, including UNICEF, USAID, Nutrition International, and Kiwanis. IGN also receives funding from Good Ventures and from a number of donors who learned about IGN through GiveWell's recommendation.

#### **Current budget**

IGN's annual budget for 2017 is ~\$1.5 million. This is a significant increase from the level it sustained over the preceding 10 years, which was between \$900,000 and \$1 million. The increase is largely thanks to GiveWell and The Life You Can Save.

The extra ~\$500,000 has allowed IGN to expand its role as a lead technical agency, executing its mandate to convene and align partners to enable greater program harmonization and efficiency. Much of the work in the five countries discussed above, such as the follow-up survey work in Madagascar and Angola, would not have been possible without the extra funding. If funding were to significantly decrease, IGN's ability to continue working in those five countries, as well as other high priority countries, would be compromised.

As of September 2017, IGN has ~\$300,000 on hand, all of which is allocated. IGN expects to end 2017 with a surplus of ~\$100,000 or less.

#### **Budget projections**

IGN would like to sustain its current level of funding for 2018 if possible, and is planning its budget for next year based on the assumption that its 2018 funding will be similar to its 2017 funding.

If funding were to increase above \$1.5 million, IGN would easily be able to spend it – there is potential for IGN to further accelerate its work in countries that have been lagging behind, and to expand to other countries.

## **Potential future work**

### **Elimination of iodine deficiency**

The strategic vision of IGN is to support the establishment of national programs to ensure that the planet is free of iodine deficiencies by the end of 2020. There are currently 19 countries that continue to have high rates of iodine deficiency. In order to increase the likelihood of reaching its goal, IGN would like its Regional Coordinators to be able to set priorities among the 19 countries, and to explore strategic opportunities with Ministries of Health and Industry and salt producers in those countries. This would be made possible by more funding.

### **Country-level data exchange**

With more funding, IGN could significantly increase its data exchange work. IGN believes that the next stage of the GFDx work should be to expand the collaboration of data generation, analysis, presentation, and use, at the country level amongst all partners working to support food fortification programs. This would be especially fruitful in countries with multiple fortification programs. IGN would like to build capacity to work with national fortification alliances, so that the alliances work across food vehicles and across nutrients rather than focusing on only one or two fortification programs. If countries think of fortification programs as synergistic, and operate such that the parties responsible for getting updates on salt iodization programs are responsible for staying informed about fortification of other food vehicles as well, then food fortification organizations will be able to cooperate to improve programming and monitoring, which will increase efficiency.

In addition, with better access to data across fortification programs, countries could use the data to identify and address problems and gaps in programs, and to further strengthen regulatory monitoring systems, including expanding the role of external monitoring bodies, such as food control inspectors.

### *Partners*

The opportunity for expansion to other countries is an investment that IGN is looking for together with GAIN and FFI. Though the three groups maintain financial and organizational autonomy from one another, they are eager to break down the barriers between them and work more effectively together.

### *Funding*

IGN proposed a country-level multi-vehicle food fortification data exchange to the BMGF grant team. However, while BMGF supports IGN's global work on the GFDx, the grant team was reluctant to provide a significant amount of funding to a large number of countries for this purpose since they do not support such capacity-building investments, and ultimately did not accept the proposal.

Nevertheless, in 2018 IGN will be developing data exchange models in 5-7 countries. It hopes that this will foster a culture of better data exchange and demonstrate best practices for data use.

### **Expansion to other countries**

IGN would like to work more actively in Burundi, Mozambique, Tanzania, and Haiti. These countries are all already ideologically in support of salt iodization, but need an organization such as IGN to take initiative to convene stakeholder meetings, identify priorities, and determine how to accelerate iodine program progress.

Malawi and Burkina Faso are also countries where IGN believes dramatic progress could be made. Both have low population iodine levels and are net importers of salt, and there are no agencies working on iodine in either country.

There are also several countries where there has been progress on iodine in the past, but recently a lack of diligence has led to a faltering of iodine coverage. IGN would like to initiate an additional push of advocacy in these countries, which include Cambodia, Vietnam, and Indonesia.

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