The fight against IDD in Gabon

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Historical Background

Because only 36% of households in Gabon are using iodized salt, in September 2007, Dr. Lantum was invited by UNICEF Libreville to intervene to try and reinvigorate the Gabonese IDD control program. In 2001, supported by WHO, UNICEF and ICCIDD, national authorities organized an exhaustive national iodine survey. The results identified IDD as a national public health problem, and it was estimated that only 37.3% of households were using iodized salt. Subsequently, the USI strategy was adopted and an action plan was elaborated. Also, a program to ensure periodic monitoring of the IDD situation was proposed. In the mean time, the government authorities allowed the salt importers to use up their stocks of noniodized salt already on the market by a moratorium, and from then on only to import iodized salt.

A governmental decree, defining the conditions for production, importation and commercialization of iodized salt in Gabon, was made in Libreville in January of 2004, after consultations of the State Council and a hearing of the Council of Ministers. This was jointly signed by all interested government partners. Then, in November and December of 2004, follow-up decrees on creation of the National Committee for the follow-up of the Micronutrient Deficiency Program and on importation and commercialization of iodized salt, was signed.

The 2007 Mission

The general aim of the mission was to review progress of the Gabonese IDD/USI program since 2002, and to identify constraints and search for solutions to increase iodized salt consumption from 63% to >90%.

The ICCIDD team was warmly welcomed in Libreville by the UNICEF Interim Administrator, Sidi Mohamed Anouche. Meetings were arranged and ideas exchanged with the authorities of the Ministry of Public Health, as well as:

■ Dr Eric Dodo Bouguendza – Director of the Cabinet of the State Ministry/Ministry of Public Health
■ Dr Constant Roger Ayenengoye – Director General of Health
■ Dr Renée Enombo – Deputy Director General, in charge of the national programs and services
■ Ambonguial Collette Lydie – Director of the National Nutrition Center
■ Dr Christian Mba – Agro-Food Engineer in charge of studies in the Cabinet of the Ministry (focal point) Ministry of Trace and of Industrial Development

■ Professor Edouard Ngou Millama – Dean of the Medical Faculty

In the field, Blandine Ondzaghé and Fabrice Menest Adande of the Nutrition Center, as well as Dr Christian Mba of the Ministry of Trade served as guides and collaborators for the studies.

The mission team visited the large popular market Mont Bouet and met with salt retailers and traders. The market salt was tested with the Rapid MBI Testing Kit, and the retailers were asked about iodized salt. A large crowd assembled to listen, observe the testing and the change of color of the iodized salt, and asked questions to better understand the importance of the program.
The manuals “Let’s consume iodized salt for vitality, intelligence and to prevent goiter” and “IDD in Cameroon in 1990-91: 25 Questions and answers” were distributed. To back up the results of the kits, salt samples were taken for analysis by titration at the Quality Control Laboratory of the General Direction of Competition and Consumption, Direction of Consumption in Libreville. Samples were also taken to the International Reference Laboratory for Iodine Analysis (IRLI) at the National Center for Food and Nutrition Research in Yaoundé, Cameroon. The mission team visited five large salt importers and found that the imported salt was well-controlled by the Ministry of Agriculture at the entrance port. A certificate in accordance with law was available on demand. The team also visited the Quality Control Laboratory based at Port Ovendo where salt samples from two of the importers were left for verification of iodine levels.

A large public school, Akebe II, was visited in Libreville. In advance, the school director had asked all children to bring a cooking salt sample from their home. The children were told: “Children who regularly consume iodized salt are talented. They have vitality, intelligence, and they can’t get goiter. Iodine is necessary for the development of the brain and the body of children ….”

Each child’s salt was tested for iodine content, and disappointingly, almost half did not change color indicating lack of iodine. But many of the rapid test kits performed poorly and were past their expiration date. Back up by titration indicated that all salt samples were well iodized with potassium iodate. Moreover, all brands of salt at the retailers as well as at the wholesaler (importers) were adequately iodized, indicating the program to control IDD is progressing well in Libreville, and, hopefully, in the rest of the country.

In 10-14 y-old children, 155 urine samples were collected and analyzed at the IRLI Yaoundé. The results showed clear iodine sufficiency among this small sample (Table 1). It was discussed how this method of school, family and community sensitization and monitoring can be applied in schools in the interior of the country to determine the coverage of iodized salt in the households and at the same time create an increased demand for iodized salt among the population.

Conclusions

Although the results of the UI and salt iodine tests suggest a well-functioning program, Libreville, which is well situated in the Estuaire region, may not be representative for the whole country. Other regions, particularly the Eastern and Southeastern provinces need to be studied to make a firm conclusion regarding the national IDD situation.

Table 1: Urinary iodine concentrations in 8-14 y-old school children in Libreville, Gabon

<table>
<thead>
<tr>
<th>%</th>
<th>µg/L</th>
<th>Median</th>
<th>Range</th>
<th>% &lt;100 µg/L</th>
<th>% &lt;50 µg/L</th>
<th>% &gt;300 µg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>155</td>
<td>196 µg/L</td>
<td>14 – 400 µg/L</td>
<td>15.5%</td>
<td>3.1%</td>
<td>9.7%</td>
</tr>
</tbody>
</table>

Since 2001, some progress has been realized. The political commitment is solidly in place thanks to the regulations signed in 2004. The importers in Gabon are well-sensitized and there is good evidence they comply with the regulations. The legislation is enforced by a quality control system, including the agents of the Ministry of Agriculture at production, agents of the Ministry of Trade and Industrial Development at the level of the wholesalers, and by the Direction of Competition and Consumption at the level of retailers.

A national committee (known as the Coalition) for the program to control micronutrient deficiencies is in place. All these elements promise sustainability of the Gabonese UI/IDD program.

Recommendations include:

- WHO needs to publish the results of the 2001 baseline survey and a popular manual to help in the control campaign
- UNICEF in collaboration with the National Center of Nutrition needs to develop a monitoring system for schools, particularly in the provinces away from the coast
- To evaluate the impact of the IDD program, monitoring activities in the eastern provinces of Ogooué Ivindo, Ogooué Lolo and Haut Ogooué, which were hyperendemic for goiter in 2001, need to be sampled.
- The National Center of Nutrition should keep a permanent database to help authorities follow the progress of the program.