Can processed foods containing iodized salt contribute to dietary iodine intake?

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A Technical Consultation on assessing the contribution of processed foods to iodine and salt intake took place in Dakar, Senegal on February 13–14, 2017. Facilitated by the Iodine Global Network, the meeting had broad agency representation including UNICEF, GAIN, Micronutrient Initiative, Helen Keller International, GroundWork, and The George Institute for Global Health.

Since the 1990s, Universal Salt Iodization (USI) has been the most cost-effective strategy to eliminate iodine deficiency as a public health problem around the world. Although USI by definition includes all salt for human and animal consumption, in practice it has come to be associated with household salt (i.e., table or cooking salt used in meal preparation at home), which has been the focus of national monitoring. Globally, the household use of iodized salt has increased from 20% in the 1990s to 75% today. However, there is a discrepancy between iodized salt coverage levels and population iodine status based on national median urinary iodine concentration (MUIC). This suggests that some populations are consuming iodine from sources other than household salt, most likely iodized salt used in processed foods, which is not captured in household surveys. Where this is the case, salt iodization programs need to be adapted to pay more attention to these sources of iodine. The objective of the Technical Consultation was to discuss the need and outline the steps needed to assess iodine intake from processed foods and the efforts to ensure that all salt in processed foods is iodized. The steps proposed were as follows:

**Step 1: Review the current situation, including legislation**

To identify the foods that provide significant dietary iodized salt, it may be necessary to review trade/industry data, consumption or expenditure survey data, market surveys for fortified foods, as well as other reports that explore whether the salt in processed foods is iodized. A review of sales patterns of specific foods may help to estimate their consumption by all sub-populations. The wording in legislation mandating iodization of salt should be clear with regard to iodized salt use in the food industry. It may be necessary to advocate for an amendment that specifically mentions the use of iodized salt in processed foods.

**Step 2: Assess market availability of processed foods contributing to iodine intake**

The goal of this assessment is to identify processed foods that contain enough iodized salt or are eaten in sufficient quantities to make a significant contribution to iodine intake (e.g., fish sauce, bouillon, or other widely used condiments). In countries with insufficient iodine intakes, iodization of the salt used in these foods could be a useful strategy to improve iodine intake.

Where iodine status is already optimal, it is important to track changes in consumption patterns of these foods to prevent a decline in iodine intakes. Critical to this step is a situation analysis of the processed food industry in countries to determine the scope and size of the manufacturers of key salt- and iodine-rich food products.

**Step 3: Assess consumption patterns of processed food contributing to iodine intake**

This is to understand the demand for processed foods and condiments which are most likely to contain iodine (such as iodized salt), and whether that demand translates into a real contribution to iodine intake across all population segments. Assessment of consumption patterns can also be useful in the discussion on efforts to reduce salt intake.

**Conclusions and next steps**

- Majority of salt iodization legislation includes processed foods, but its effectiveness can be weakened by ambiguity as well as poor enforcement.
- Contribution of processed foods to salt/iodine intake can vary sub-nationally and change rapidly, and there is a need for improved monitoring systems.
- Assessment of salt intake, including from processed foods, is important in the context of salt reduction efforts and is being led by the salt reduction community.
- It is often possible to roughly estimate the contribution of processed foods to salt/iodized salt intake and to identify the important contributors. A comparative study of the available tools and methods of estimating intake, together with relevant case studies, should be developed.
- Guidance should be developed on legislation, methods of assessing the main sources of iodine/salt, interpreting the available data (UIC, household salt coverage, and sources of iodine).
- The group will collaborate to support the assessment process in selected countries.