

# Bouillon cubes carrying iodine in West Africa

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In industrialized countries, industrially-processed foods account for as much as 75% of dietary salt intake, and using iodized salt in those foods can improve population iodine status. In West Africa, processed foods are likely to provide increasing amounts of dietary salt, especially in urban areas (1). Furthermore, seasoning products in the form of bouillon cubes and powders are increasingly popular. To illustrate, in Senegal, the estimated daily consumption of stock cubes per person is 8.6 g in urban and 4.3 g in rural areas (2). In Cameroon, 96% of households use stock cubes at least once a week with an average weekly consumption frequency of 14 times (3). These products are composed of 50-70% salt alongside dehydrated stock, solid vegetable fat, flavor enhancers, and spices. To better understand the role of these products as vehicles for iodine in West Africa, 13 different brands/flavors of bouillon cubes and powders pro-

duced by five manufacturers in Senegal were collected and tested for iodine content and other variables of interest.

All of the samples tested were found to contain iodine, ranging from 1.3 to 20.0 mg/kg. Five brands from three manufacturers contained iodine over 10 mg/kg; this translates into 100 µg iodine per 10 g cube. Results on moisture content and iodine losses during storage and cooking are being analyzed. Preliminary results suggest that after 6 months in humid storage conditions, average iodine retention remained high.

In interviews undertaken with manufacturers, the producers indicated that they have used iodized salt since their involvement in stock cube manufacturing (1997–2008) in order to comply with legislations and company norms. All five producers reported procuring only iodized salt, although only three claim iodine content on their packaging. Three producers test their

procured salt using rapid test kits or external laboratories. No producer added iodine separately or as a replacement for using non iodized salt.

These analyses indicate that bouillon cubes are important sources of iodine in Senegal and possibly other West African countries. Thus careful monitoring of the quality of iodized salt supplies to bouillon cube manufacturers is needed.

## References

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Bouillon cubes and seasoning powders used by many West African households contain iodine