ABSTRACT

**Objectives:** To prevent iodine deficiency, Senegal mandated the iodization of all salt produced, imported or distributed. There has been a dramatic increase in use of bouillon, which is claimed to contain iodine in Senegal. We undertook this survey to better understand the extent of bouillon cube use in the context of salt iodization.

**Methods:** A nationwide cross-sectional stratified cluster sample household-level survey was conducted to measure urinary iodine concentration in women 15-45 years and children 6-12 years, iodized salt and bouillon consumption, and iodine concentration in salt available in households. In all, 3,768 households were surveyed including 7,980 women and 6,309 children.

**Results:** Only 56% of households surveyed had iodized salt. Average iodine concentration in salt was 22ppm. Average per capita daily household consumption was 4.79 g salt (5.01g urban, 4.60g rural; P<0.001) and 3.98 g bouillon cube (4.29g urban, 3.74g rural; P< 0.05). Median urinary iodine concentration in children was 104.42µg/l (141.25µg/l urban, 82.63µg/l rural) and 92.20µg/l for women (114.73µg/l urban, 72.95µg/l rural).

**Conclusions:** This study shows that household consumption of bouillon cubes is high in Senegal; mean UI seems to be adequate in urban setting but insufficient in rural areas, suggesting a lower
intake of iodine from iodized salt/bouillon cube. Adequate iodine concentration in bouillon cube could be an avenue to tackle IDD in Senegal; however, further research is warranted on current content and bioavailability of iodine in bouillon cube as well as feasibility of iodization of bouillon cube as complement to iodized salt in Senegal to guide decisions.