

Estimated Consumption of Discretionary Salt and Salt From Bouillon Among Households, Women, and Children in the Northern Region of Ghana: CoMIT Project

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Objectives: To 1) estimate discretionary salt ('table salt') consumption and the proportion of salt from bouillon, among households, women and children; 2) compare estimated salt consumption of women and children to recommendations; and 3) identify factors related to household salt consumption in 2 districts in the Northern Region, Ghana.

Methods: We enrolled households in the Condiment Micronutrient Innovation Trial (CoMIT) Project pilot survey from 14 urban and 14 rural clusters in the Tolon and Kumbungu districts. Using the Fortification Assessment Coverage Toolkit (FACT), households ($n = 369$) reported most recent purchases of discretionary salt (DS) and bouillon cubes (SB, 'salt from bouillon'; bouillon assumed to be 55% salt). From the purchase data, we calculated median (IQR) household salt consumption (g/d) by summing DS and SB, and calculated the proportion from SB. Salt consumption for women of reproductive age

(15–49 yrs, WRA) and children 2–5 yrs was estimated by the Adult Male Equivalent method and compared to recommendations from the World Health Organization (WRA < 5 g/d) and the National Academy of Sciences (children 2–5 yrs < 3.75 g/d). We used Spearman's rank test to assess partial correlations between household salt consumption and household size, food insecurity (USAID Household Food Insecurity Access Scale score), socioeconomic status (SES, index score of home asset ownership), and household head education level while controlling for district, setting (urban/rural), and cluster.

Results: Median (IQR) household salt consumption was 56.2 (40.3,116.2) g/d, 23% of which was contributed by SB. Median household size was 10 (8, 14) members. Estimated salt consumption was 6.0 (4.0, 10.2) g/d for WRA and 2.9 (1.9, 5.2) g/d for children; an estimated 50% of WRA and 31% of children potentially exceeded recommendations. Household size and food insecurity, but not education level or SES, were positively correlated with household salt consumption ($r = 0.3$, $p < 0.001$; $r = 0.2$, $p < 0.001$).

Conclusions: Household salt and bouillon purchase data suggest that salt consumption among women and children in this area exceeds recommendations; food prepared outside the home may further contribute to salt consumption. Salt reduction interventions may be warranted in this context.

Funding Sources: Helen Keller International through support from the Bill & Melinda Gates Foundation.