

Coverage and Seasonality Use of Fortifiable Maize Flour in Morogoro, Tanzania

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Objectives: Maize flour is a staple consumed by 93% of the population in Tanzania. In 2011, Tanzania aimed to reduce micronutrient deficiencies and neural tube defects by introducing mandatory fortification of large-scale industrially produced wheat and maize flour. However, maize production is often fragmented (produced at smaller commercial mills) that are not required to fortify under the existing mandate. Objective: 1. Ascertain the proportion of the population of Morogoro region, Tanzania, that consumes packaged maize flour from commercial mills; 2. understand if consumption of packaged maize flour is affected by changes in seasons and 3. determine who might potentially be reached by point-of-milling fortification in smaller packaging mills.

Methods: In 2018, a regional, multistage cluster probability study was conducted among residents in Morogoro region, Tanzania, living in households that reported consuming maize flour as the main staple. Interviews collected information on socio-demographic factors and patterns of household flour consumption. Weighted medians estimated daily individual flour intake [g/day/Adult Male Equivalent (AME)]. Daily estimated intake of folic acid was reported in μg and as percentages of the estimated average requirements (EAR) according to age.

Results: Information was collected on 711 households (out of 984 households selected). Use of wheat flour was reported by 49.5% of households. Package maize flour was purchased 10–12 months, 6–9 months, and 1–5 months of the year by 22.9%, 17.6% and 25.1% of households, respectively; and 34.4% of households never purchased package maize flour. Per capita median daily consumption of any maize flour (including non-packaged flour) was 209.7 g/d/AME. Median daily intake was 230.1 g/d/AME among females. If all packaged maize flour were fortified according to mandate standards, those consuming packaged maize flour 10–12 months of the year would intake 199.9 μg folic acid/d representing 49.7% of daily EAR requirements.

Conclusions: Fortifying maize flour at small- and medium-packaging scale mills is a promising strategy for increasing household access to micronutrients including folic acid in Tanzania.

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