

Evaluation of the coverage and benefit incidences of food fortification in Mozambique

International Policy Centre for Inclusive Growth (IPC-IG)

A recent study (IPC-IG 2019) evaluates the coverage of Mozambique's National Food Fortification Programme (NFFP), its benefit reach across vulnerable groups and its contribution to the recommended nutrient intake (RNI) of micronutrients. The NFFP is a mandatory fortification programme of wheat and maize flour with iron, and of sugar and vegetable oil with vitamin A.

A survey of 1,500 households and laboratory tests of nutrient concentration in food samples of 50g of wheat flour, maize flour and sugar, and 50ml of vegetable oil collected at the households are the main sources of data.

Coverage is defined as potential and actual coverage. Potential coverage refers to the household consumption of vehicles from any source (availability coverage) and by industrialised vehicles that are fortifiable from a large or median-scale source (accessibility coverage). Actual coverage refers to households that consume vehicles that are fortified at any level (contact coverage) and fully fortified vehicles that meet or exceed the minimum level of micronutrients set by national standards of food fortification (effectiveness coverage).

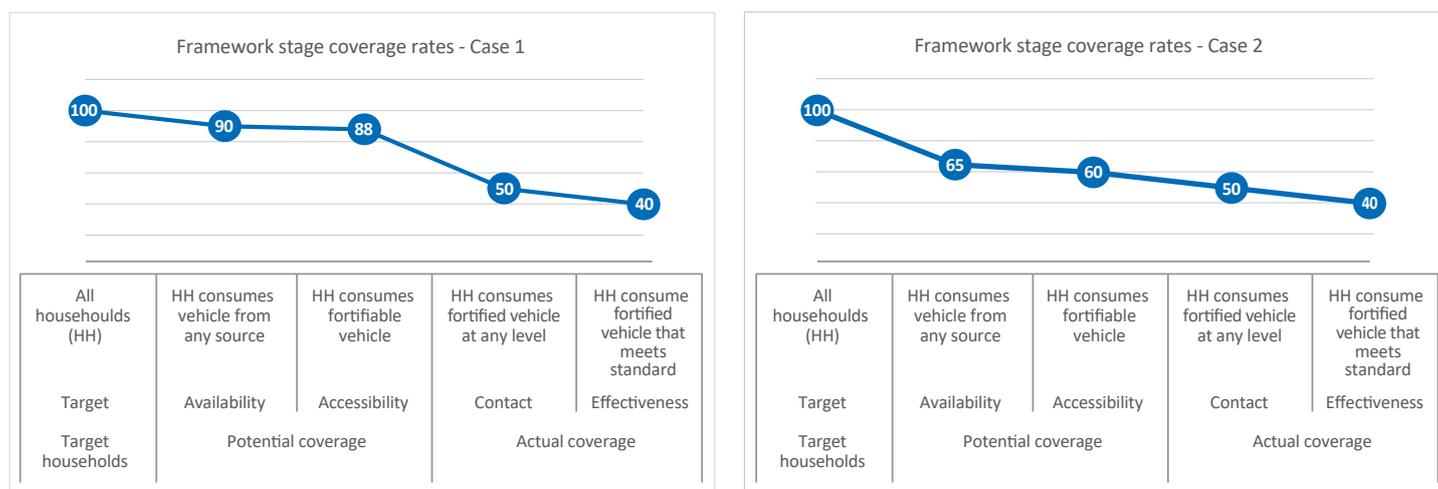
Figure 1 shows two hypothetical configurations of the potential and actual coverage (Case 1 and Case 2). The effectiveness in both cases is equal, but the paths of the other types of coverage are distinct.

To increase the effectiveness in Case 1, efforts should be directed to increasing the fortified vehicles' contact with the population and to ensuring fortification at the right level, whereas in Case 2, efforts should be directed to the right choice of the vehicles to be fortified.

The NFFP is well evaluated in terms of potential coverage rate or availability/accessibility (Case 1). The potential availability coverage and accessibility coverage are higher than 90 per cent. The NFFP has chosen the right vehicles with a high likelihood of benefiting the population at large. The contact coverage was lower, although, according to the results, the target of the proportion of the population with access to fortified food set by the NFFP was met by all the products except the wheat flour.¹ Effectiveness coverage is very low, mostly below 10 per cent. As for household intake of nutrients, about 30 per cent of households achieve at least 50 per cent of the RNI of vitamin A, while 22 per cent achieve at least 50 per cent of the RNI of iron.

The main findings indicate that the NFFP has no problem reaching the population with fortified food. The problem is to get there with the right concentration of nutrients. Continuous monitoring and evaluation of the enforcement fortification system and production chain is recommended. The NFFP has so far predominantly been implemented in urban areas. Although it has demonstrated some coverage in rural areas and among all vulnerable groups, this indicates significant potential for the programme to reach universal coverage.

Figure 1: Hypothetical display of sequences of potential and actual coverage



References:

IPC-IG. 2019. "Evaluation of the Coverage and Benefit Incidences of Food Fortification in Mozambique." *IPC-IG Research Report*. Brasília: International Policy Centre for Inclusive Growth.
Tanahashi, T. 1978. "Health service coverage and its evaluation." *Bulletin of the World Health Organization* 56(2): 295-303.

Note:

1. The wheat flour was an exception, possibly explained by the culture of consuming the vehicle through derived products such as bread and pasta.