

The NuTWInd Project : Nutrition Transition in French West Indies

*The **NuTWInd** project is a research project funded by the French Research Agency. Its main objective is to elucidate the relationships between characteristics of local food supply and dietary behaviours of populations and to propose strategies to improve nutrition security in the French West Indies.*

*The **NuTWInd** consortium is composed of 5 highly-experienced research teams, a food technical institute and the French Ministry of Agriculture. The approach is multi-disciplinary, with experts in epidemiology, economics, nutrition, sensory sciences, sociology.*

The goal of this newsletter is to present the work in progress.

Ultra-processed food consumption and associated individual characteristics

Content

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The consumption of industrially processed foods and beverages has increased over the last decades, especially in Latin America, marker of the nutrition transition [1]. In addition, numerous studies have shown that high consumption of ultra-processed foods (UPF) is associated with health risks [2] and diet quality [3].

The French West Indies, like the Caribbean region, are highly dependent on imported food products, mostly processed, but, to our knowledge, no study has analyzed the consumption of UPF.

We therefore assessed the proportion of UPF in the diet of West Indians and studied the associations between the consumption of UPF and individual characteristics and diet quality.

For this analysis, all foods and beverages reported by children (11-15 years) and adults (≥16 years) participating in the Kannari survey were classified according to their process degree into one of the 4 groups of the NOVA classification developed by Monteiro *et al.* [4]. Group 1 includes unprocessed or minimally processed foods, Group 2 includes processed culinary ingredients (for preparing, seasoning and cooking) and Group 3 includes processed foods. UPF consisting mainly or entirely of food-derived substances and additives, are grouped in group 4.

However, the NOVA classification, developed for purchase data, is sometimes unclear, and the information in the 24h recalls was sometimes not precise enough to classify foods with certainty. Thus, we created two estimations: a low estimation, which assigned the food in question to the group with the least processed foods, and a high estimation, which assigned it to the group with the most processed foods.

Figure 1 presents the contribution of the UPF to the quantity of food consumed and to the daily energy intake. We can notice the huge differences in the percentage according to the low and high estimations.

According to the low estimation, the average part of UPF in children was 16% of the quantity consumed (ranging between 3 and 42%) and 32% of the energy intake (ranging between 8 and 58%). In adults, the part of UPF was 11% of the quantity consumed (ranging from 0 to 47%) and 24% of the energy intake (ranging from 0 to 77%). With the high estimation, these parts doubled to 22% and 55% respectively in adults. In comparison, UPF accounted for 15-19% of the amount consumed and 32% of the daily energy intake of adults in the NutriNet-Santé cohort in France [5,6]. In contrast, the part of energy from UPF in the same period of time exceeded 50% in the United States, the United Kingdom and among First Nations in Canada [7].

Among adults, the part of UPF in the diet (low and high estimations) decreased with age and was lower among participants in couples than among those who were single. The part of energy from UPF was lower in single-parent households than in other types of households.

Finally, consistent with the literature, diet quality (DQI-I, [8]) was inversely associated with the part of UPF in the diet, adjusted for all demographic and socioeconomic characteristics.

Given the variability according to the estimation applied (low or high), it is difficult to conclude whether or not UPF make a significant contribution to the diet in the French West Indies. Although this methodology was the most appropriate for our data, and has the advantage of being simple, it has limitations. The part of UPF in the consumption surveys can double depending on the classification choices made by the authors. It is therefore necessary to be cautious and critical about the results that are presented in the literature.

References

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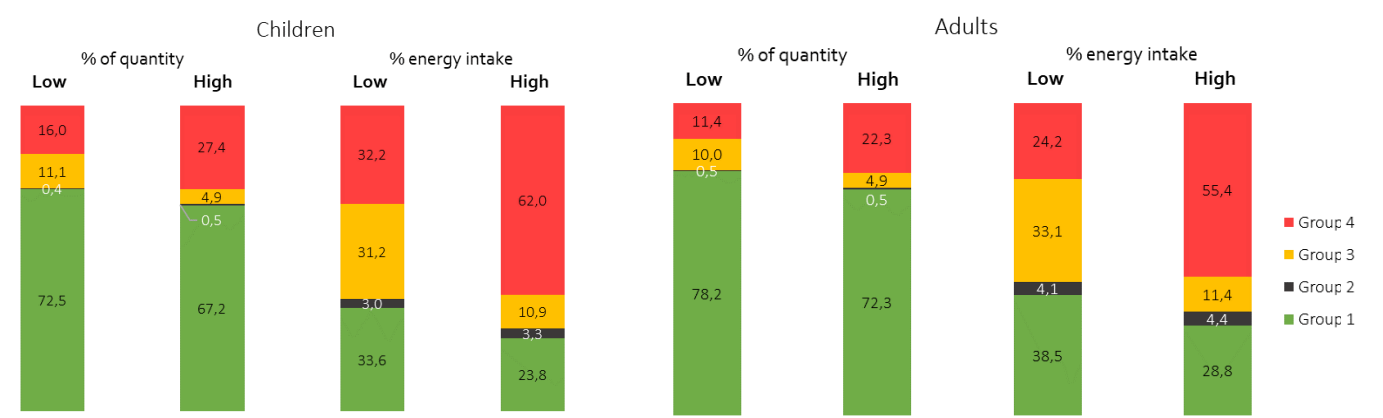


Figure 1. Contribution of food groups according to the NOVA classification, in quantity and daily energy intake, in children (n = 154) and adults (n = 1144) in the Kannari sample.