

Nutrient Composition of Plant-Based Substitutes for Animal-Sourced Foods: Evidence From Packaged and Processed Meats in 30 Countries

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Objectives: To compare the nutrient composition of plant-based (PB) to animal-sourced (AS) items sold in 30 countries, and identify associated changes in national nutrient supply.

Methods: Using Euromonitor data from 30 countries for 2015–2021 we identified the main items contributing to PB and AS processed meat sales, and used their nutrient composition (calories, total fat, saturated fat, carbohydrate, fiber, sugar, protein, and sodium) to quantify the impacts of change in sales on the nutrient density of sales in each country and in total.

Results: Since 2014 total calories from PB meat rose a total of 3.1%/yr to 9.9 million kcal in 2021, in contrast to sales of AS processed meat which rose by about 1%/yr to 30.6 million kcal. In 2021, the energy

in AS processed meat was 59% fat (22% kcal from saturated fats), 28% protein and 10% carbohydrates (3% kcal from sugar), with 0.21 g fiber, and 1.07 g sodium per 100 kcal. In comparison, energy in PB meats sold in 2021 was 41% fat (8% kcal from saturated fat), 31% protein and 13% carbohydrate (2% kcal from sugar), 2.17 g fiber and 0.56 g sodium per 100 kcal. The average annual changes in sugar were + 11% in AS and –4.1% in PB; sodium + 4% in PB and –1% in AS; and saturated fat + 12.6% in PB and –0.2% in AS.

Conclusions: Isocaloric substitution of PB meat for AS processed meats would lower density by 14% for saturated fats and 18% for total fats, while raising density by 3% for both protein and carbohydrates, raising fiber intake by 1.99 g/100 kcal, and lowering sodium intake by 0.51 g/100 kcal. Differences between items, and reformulation over time of both AS and PB products would affect these results and may explain observed changes in this period. On average since 2015, the rise of PB meats has led to healthier food composition of the processed meats category regarding these nutrients of concern. Overall, PB alternatives have a preferential nutritional profile to AS processed meat.

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