

### Transitioning to Sustainable Dietary Patterns: Learnings From the Dietary Patterns of Adults With Low Animal Protein Consumption in the Province of Quebec

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**Objectives:** The sustainable diet paradigm rests, among others, on the replacement of animal proteins by plant-based proteins. Our aim was to provide insights on the food and nutrient characteristics of a dietary pattern consistent with lower intakes of animal proteins among French Canadians.

**Methods:** Analyses were conducted in 1147 French-speaking adults (50.2% female, mean age 42.8y) of the PRÉdicteurs Individuels, Sociaux et Environnementaux (PRE-DISE) study in Québec. Dietary intakes were evaluated using a validated web-based 24hr dietary recall (R24W) repeated on three unannounced occasions. Foods were classified according to the 2019 Canada's Food Guide (CFG) food categories and consumption was expressed as reference amount (RA) or nutrient amounts (in g or mg) per 2000kcal. Diet quality was assessed using the Healthy Eating Food Index-2019, a new index that reflects adherence to the recommendations on healthy food choices in 2019 CFG. Animal

protein consumption was classified into quartiles and differences in food and nutrient intakes as well as in the HEFI-2019 score between quartiles were assessed using linear regression models adjusted for age and sex as well as for multiple comparisons.

**Results:** Compared with those in the highest quartile of animal protein consumption, participants in the lowest quartile reported consuming more plant-based protein foods (+0.4 RA/2000 kcal; 95%CI 0.2;0.6), refined grains (+0.3 RA/2000 kcal; 95% CI 0.1;0.5), foods not recommended in CFG 2019 (+1.5 RA/2000 kcal; 95%CI 1.0;2.0), polyunsaturated fatty acids (+2.5g/2000 kcal; 95%CI 1.4;3.5) and free sugars (+20.0g/2000 kcal; 95%CI 14.0;26.0). They also consumed less monounsaturated fatty acids (−1.8g/2000 kcal; 95%CI −3.2; −0.4), saturated fats (−7.3g/2000 kcal; 95%CI −8.8; −5.9) and sodium (−349 mg/2000 kcal; 95%CI -510; -188). The HEFI-2019 score was similar among quartiles of animal protein consumption.

**Conclusions:** The dietary pattern of French-Canadian adults who consume lesser amounts of animal proteins is not entirely consistent with better diet quality. These results highlight some of the challenges in transitioning the dietary habits of French Canadian adults into more sustainable and healthier patterns.

**Funding Sources:** Canadian Institute for Health Research, Centre Nutrition, Santé et Société-NUTRISS and Fonds de nutrition publique.