

### The Traditional Mexican Diet and Its Association With Non-communicable Disease-Related Outcomes: Analysis of a Nationally Representative Survey

Selene Valerino-Perea, Miranda Armstrong, and Angeliki Papadaki

University of Bristol

**Objectives:** To evaluate the association between adherence to the traditional Mexican diet (TMexD) and cardiovascular disease (CVD), obesity, and diabetes-related outcomes.

**Methods:** Secondary data analysis of the 2018–19 Mexican National Health and Nutrition Survey, including cross-sectional data from 10,180 adults collected by trained personnel via visits to randomly selected households. Adherence to the TMexD was measured using a validated food frequency questionnaire and an adapted TMexD index, developed by systematically reviewing the literature and consulting expert opinion. Outcomes included CVD biomarkers and diagnosis, hypertension values and diagnosis, anthropometric measurements, and diabetes biomarkers and diagnosis. The percentage differences and odds ratios for presenting non-communicable disease (NCD)-related outcomes

(with 95% confidence intervals [CI]), were calculated using multiple linear and logistic regression, adjusting for relevant variables. Sensitivity analyses were conducted using multiple imputation, according to sex, and excluding people with an NCD diagnosis.

**Results:** High, compared to low, TMexD adherence was associated with lower total cholesterol (−3.5%; 95% CI: −5.2, −1.8), low-density lipoprotein-cholesterol (−4.3%; 95% CI −6.9, −1.5), non-high-density lipoprotein-cholesterol (−3.9%; 95% CI: −6.1, −1.7), and insulin (−9.8%; 95% CI: −16.0, −3.3) concentrations ( $p < 0.004$ ) in fully adjusted models. Weaker associations were observed in multiple imputation models, whereas men and adults with no NCD diagnosis had stronger associations. No other associations were observed.

**Conclusions:** TMexD adherence was associated with a favorable profile for some NCD-related outcomes, highlighting the potential of the TMexD in reducing the risk of some NCD-related outcomes in Mexican adults.

**Funding Sources:** This research was funded by Consejo Nacional de Ciencia y Tecnología (CONACYT). CONACYT had no role in the design, analysis or writing of this abstract.