

Higher Ultra-Processed Food Intake Predicts Increased Healthcare Service Use: A Population-Based Study in Spain

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Background: While ultra-processed food (UPF) consumption is linked to increased chronic disease and mortality risks, its impact on healthcare services utilization remains unexplored.

Objectives: To assess the relationship between UPF consumption and healthcare services use in adults.

Methods: We analyzed data from 11,530 Spanish adults (≥ 18 years) recruited in 2008-10. UPF consumption was assessed using a validated computerized dietary history and classified according to NOVA criteria. Healthcare service use was self-reported in 2008-2010, with follow-up data collected for participants aged ≥ 60 years ($n=2,006$) during 2012-2013. Multiple logistic regression analyses were performed, adjusting for potential confounding variables. Mediation analyses examining the role of established chronic diseases were conducted using parametric regression models.

Results: Odds ratios (95% confidence interval) of health service use for the highest vs lowest quartile of UPF consumption were 1.43 (1.09-1.87; p -trend 0.010) for polypharmacy (≥ 3 medications/day), 1.53 (1.20-1.95; p -trend 0.001) for primary-care physician visits (≥ 1 /month), 1.14 (0.90-1.45; p -trend 0.113) for hospitalization in the last year; 1.29 (1.08-1.54; p -trend 0.005) for medical-specialist visits (> 1 /year); and 1.59 (1.27-1.98; p -trend < 0.001) for emergency-room visits (> 1 /year). These effects were largely direct, with modest mediation through established chronic conditions. Nevertheless, UPF consumption may still be operating through cardiovascular risk factors in this relatively young population. In the prospective analyses of older participants, these associations showed similar directions but did not reach statistical significance.

Conclusion: High UPF consumption was associated with increased healthcare service utilization, operating primarily through pathways beyond established chronic conditions. These findings highlight the potential public health benefits of reducing UPF consumption. Future studies should explore the mechanisms linking UPF consumption to healthcare use beyond chronic conditions.

Key word: Ultra-processed food, healthcare use, Spain, ENRICA Study