Household Food Insecurity in Middle- and High-Income Countries Before and During the COVID-19 Pandemic

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Objectives: The impact of the pandemic on the prevalence of food insecurity is unclear given the potentially contradictory effects of shocks such as lockdowns versus stabilizers such as income supplements. We examined changes in the prevalence of household food insecurity in five countries from before (2019) to during the pandemic (2020).

Methods: Data were drawn from cross-sectional surveys conducted in Australia, Canada, Mexico, the United Kingdom (UK), and the United States (US) in November/December of 2018,2019, and 2020. Adults aged 18-99 years were surveyed annually (2018: n = 22,731,2019: n = 19,274,2020: n = 21,323). Household food insecurity in the past 12 months was assessed using the Household Food Security Survey Module. Weighted logit models examined changes in the prevalence of living in households affected by food insecurity from 2019 to 2020, adjusting for the prevalence in 2018 and demographic characteristics. Weighted generalized logit models examined changes in the severity of food insecurity.

Results: Adults in Mexico had a higher probability of living in foodinsecure households in 2020 compared to 2019 ($\beta = 0.14$, p = 0.02). In contrast, decreases in the probability of living in food-insecure households in 2020 compared to 2019 were observed in Australia $(\beta = -0.21, p < .001)$ and Canada $(\beta = -0.14, p = 0.03)$. In the UK and the US, no important changes in the prevalence of food insecurity were observed (UK: $\beta = -0.11$, p = 0.11, US: $\beta = 0.05$, p = 0.42). Changes in the severity of food insecurity within countries are also evident.

Conclusions: Changes in the prevalence of household food insecurity during the pandemic appear to differ across countries. Further analyses will contextualize these differences in relation to varied policy responses to the pandemic, as well as changes in prevalence among subgroups such as those with low incomes.

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