

## Adult child migration status and cognitive decline among older parents in Mexico

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### Abstract

**Background:** Low and middle-income countries (LMICs) are experiencing rapid aging and growing dementia burden. We consider family-member migration status as a potential societal determinant of cognitive outcomes for older adults in LMICs. In particular, we evaluate the effect of adult child United States (US) migration status on change in cognitive performance scores among older parents who remain in Mexico.

**Methods:** Data come from a population-based, national-level cohort of Mexican adults  $\geq 50$  years old at baseline (2001), with 2, 11, and 14-year follow-up waves. We compared those with an adult child in the US at baseline and two-year follow-up to those who had no adult children in the US during the same time period. Immediate and delayed verbal recall (8-word list) and overall cognitive performance were all measured with the screening portion of the Cross-Cultural Cognitive Evaluation. Change in cognitive scores was evaluated by subtracting scores at two-year follow-up from scores at 11 and 14-year follow-up waves, respectively

**Results:** The analytic sample included 11806 respondents who completed baseline assessments; 5972 and 4933 respondents completed cognitive performance assessments at 11 and 14-years, respectively. Twenty-percent of women and 17% of men had an adult child in the US at both baseline and two-year follow-up. For women, having an adult child in the US was associated with steeper 9 and 11-year decline in verbal memory and overall cognitive performance scores (Marginal Risk Differences (RDs) at 9-year follow-up for immediate verbal recall z-score: -0.10; 95% CI: -0.16, -0.03; delayed verbal recall z-score: -0.11; 95% CI: -0.17, -0.04; overall cognitive performance: -0.03, 95% CI: -0.06, -0.00). There were fully null associations between having an adult child in the US and change in cognitive performance measures for men.

**Conclusion:** Adult child migration status may be a unique societal determinant of cognitive outcomes for older adults – and particularly for older women – in Mexico. Results should be replicated and extended to other LMIC settings.