

trends on dementia prevalence and incidence in Latin-America and associations of socioeconomic determinants and cardiovascular risk factors.

**Methods:** Sample size included older adults from Latin America (Cuba, Dominican Republic [DR], Puerto Rico [PR], and Mexico) drawn from the 10/66 Dementia Research Group study. We compare wave 1 (2003–2006) with wave 3 (2016 – 2019) of 10/66 studies. The main outcome was dementia prevalence relative to previous waves. Dementia diagnosis was determined according to the 10/66 dementia criteria. All the 10/66 waves used the same standardized assessments and protocols.

**Results:** Comparing the first wave (2003 - 2006) with the third wave (2016 - 2019) in four Latin American countries – Cuba, the Dominican Republic, Mexico, and Peru – reveals significant trends in dementia prevalence. Preliminary data suggest an increase in the Dominican Republic, Mexico, and Peru, while Cuba slightly declined, from 12.4 percent in Wave 1 to 10.1 percent in Wave 3. In contrast, the Dominican Republic's age-adjusted prevalence rose from 11.5 percent to 13.6 percent, Peru from 9.2 percent to 16.8 percent, and Mexico from 8.3 percent to 17.1 percent. Despite, improvements in levels of education, increases in dementia prevalence were associated with higher rates of cardiovascular disease and cardiovascular risk factors, including diabetes, hypertension, obesity and heart disease in the later-born cohorts. Self-reported stroke is also rising.

**Conclusions:** The increasing prevalence of dementia in LAC underscores the urgent need for targeted health interventions. Prevention strategies should emerge as a key focus in the battle against dementia in Latin America. Addressing modifiable risk factors can significantly impact the incidence and prevalence of dementia.

## 2 - Cognitive Impairment and Dementia in Latin American Individuals with Parkinsonism and Parkinson's Disease: A 10/66 Dementia Research Group Study (Ana Luisa Sosa)

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**Objectives:** Studies in PD have traditionally focused on motor features, however, interest in non-motor manifestations has increased resulting in improved knowledge regarding the prognosis of the disease. Although several studies have explored the incidence of dementia in PD cohorts, these studies have been conducted mainly in reference centers in high-income countries (HIC). In this study we aimed to analyze the prevalence of cognitive impairment in people with parkinsonism and PD and its association with incident dementia in a population-based study, of elderly from six Latin American countries.

**Methods:** This report consists of the analysis of data from a follow-up of 12,865 elderly people aged 65 years or older, carried out by 10/66 Dementia Research Group. Residents of urban and rural areas, from six low and middle-income countries (Cuba, Dominican Republic, Puerto Rico, Venezuela, Mexico and Peru). Exposures include parkinsonism and PD defined according to the UK Parkinson's Disease Society Brain Bank diagnostic criteria. Cognitive impairment was the main exposure and dementia was measured through the dementia diagnosis algorithm from 10/66 DRG.

**Results:** At baseline, the overall prevalence of cognitive impairment was 14% ( $n = 1,581$ ), in people with parkinsonism and PD, it was of 30.0% and 26.2%, respectively. Parkinsonism and PD were individually associated with prevalent and incident dementia after controlling for age, sex, and education. The pooled odds ratios from a fixed-effects meta-analysis were 2.2 (95% CI: 1.9–2.6) for parkinsonism and 1.9 (95% CI: 1.4–2.4) for PD. Regarding incident dementia, the pooled sub-Hazard ratio estimated using a competing risk model was 1.5 (95% CI: 1.2–1.9) for parkinsonism and 1.5 (95% CI: 1.0–2.2) for PD.

**Conclusions:** Parkinsonism and PD were associated cross-sectionally with the presence of cognitive impairment, and prospectively with incident dementia in elderly people in the community population of Latin America studied. Systematic screening for cognitive impairment and dementia with valid tools in PD patients may help with earlier detection of those at highest risk for adverse outcomes. Identifying modifiable risk factors could potentially lead to efficient interventions even in advanced stages of PD.

**Keywords:** cognitive impairment, incident dementia, parkinsonism, parkinsonism plus dementia, Latin Americans

### 3 - Prevalence and impact of neuropsychiatric symptoms in normal aging and neurodegenerative syndromes: A population-based study from 6 Latin America centers. (Isaac Acosta)

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