

**Objectives:** Dementia presents a growing public health challenge globally and its impact is significantly pronounced in low and middle-income countries (LMICs), including those in Latin America. This symposium aims to present recent findings on the prevalence, impact, and underlying factors of cognitive impairment and neuropsychiatric symptoms in aging populations across Latin America, with a focus on culturally and regionally specific research findings.

**Methods:** The symposium will consolidate data from the 10/66 Dementia Research Group, which has conducted extensive research across various Latin American countries. We integrate results from multiple investigations with over 12,000 elderly participants from six Latin American countries, utilizing cross-sectional and longitudinal Methodologies. These studies employ the 10/66 Dementia Research Group protocols, among other internationally recognized diagnostic tools, to assess dementia, neurodegeneration and neuropsychiatric symptoms.

**Results:** The symposium will delve into critical yet not well-understood topics. The audience will be first introduced to emerging trends of dementia prevalence and incidence in Latin America and the interaction with different risk factors particular to the region. Second, we will discuss findings from a comprehensive analysis focusing on the prevalence and impact of cognitive impairment and incident dementia in parkinsonism and Parkinson's Disease. The third presentation will focus on the prevalence of neuropsychiatric symptoms across cognitively unimpaired, dementia, and Parkinson's' disease, emphasizing the need to implement systematic screening Methods for early detection from a clinical and public health perspective. The final talk will present data exploring the influence of genetic ancestry alongside social and environmental factors as predictors of dementia risk in Latin America.

**Conclusions:** The findings presented underscore the complex interplay of genetic, social, and environmental factors in the etiology and progression of neurodegenerative and neuropsychiatric conditions in Latin America. The symposium will highlight the critical need for comprehensive public health strategies and enhanced research focus to better understand and address these issues within aging populations.

### **1 - Trends in the prevalence of dementia in Latin America and the Caribbean: findings from the 10/66 studies. (Juan J Llibre Rodríguez)**

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**Objectives:** Population ageing will lead to a dramatic increase in dementia prevalence globally. Recent evidence suggests a decline in dementia incidence in HIC due to increasing education levels and improvements in cardiovascular health. Although, most of the increase will occur in low and middle-income countries (LMICs), there are no recent estimates of dementia prevalence and incidence in LMICs. The present study aimed to examine new

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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