

Prevalence of dementia among elderly in Latin America and the Caribbean: a systematic review and meta-analysis

Fabiana Silva Ribeiro¹, Ana Carolina Teixeira Santos¹, & Anja Leist¹,

¹ Department of Social Sciences, University of Luxembourg, Esch-sur-Alzette, Luxembourg

BACKGROUND

Dementia is one of the most significant causes of disability and dependence among older people, causing considerable medical and care costs, translating to 0.2% of the total gross domestic product in low- and middle-income countries and 1.4% in rich countries (WHO, 2020). In the context of Latin America and the Caribbean (LAC), dementia prevalence is still increasing over time which may overburden the public health systems, raising even more the economic and social costs related to dementia in this region (Ibáñez et al., 2021). The understanding of the prevalence of dementia in LAC is of paramount importance for the implementation of social and public policy, such as in the scope of preventive measures and long-term care, considering the specificities of each country (Prince et al., 2013). Thus, the aim of this review was to systematize studies on the prevalence of dementia in LAC countries.

METHOD

The PubMed, Web of Science, Scopus, Lilacs, SciELO, and EMBASE databases were searched to detect relevant articles, with population-based studies and the prevalence of dementia, in three languages; English, Portuguese, and Spanish. Records were independently screened by two reviewers. Methodology quality of the studies was assessed using the JBI critical appraisal checklist for prevalence studies. The inclusion criteria were as following: i) Cohort or cross-sectional studies designs reporting population- or community-based data, from population surveys or patients identified in representative samples of LAC countries; ii) Population-based studies, including the prevalence of Dementia in participants aged ≥ 50 years old; and iii) Studies including frequency of any type of Dementia with clearly defined diagnostic criteria.

In order to estimate the pooled prevalence of all-type dementia, 30 studies were included in our first analysis. **The prevalence was 12% (95% CI: 9% - 15%).** No publication bias was found according to Eggers's test ($t = 1.55$, $p = 0.12$).

RESULTS

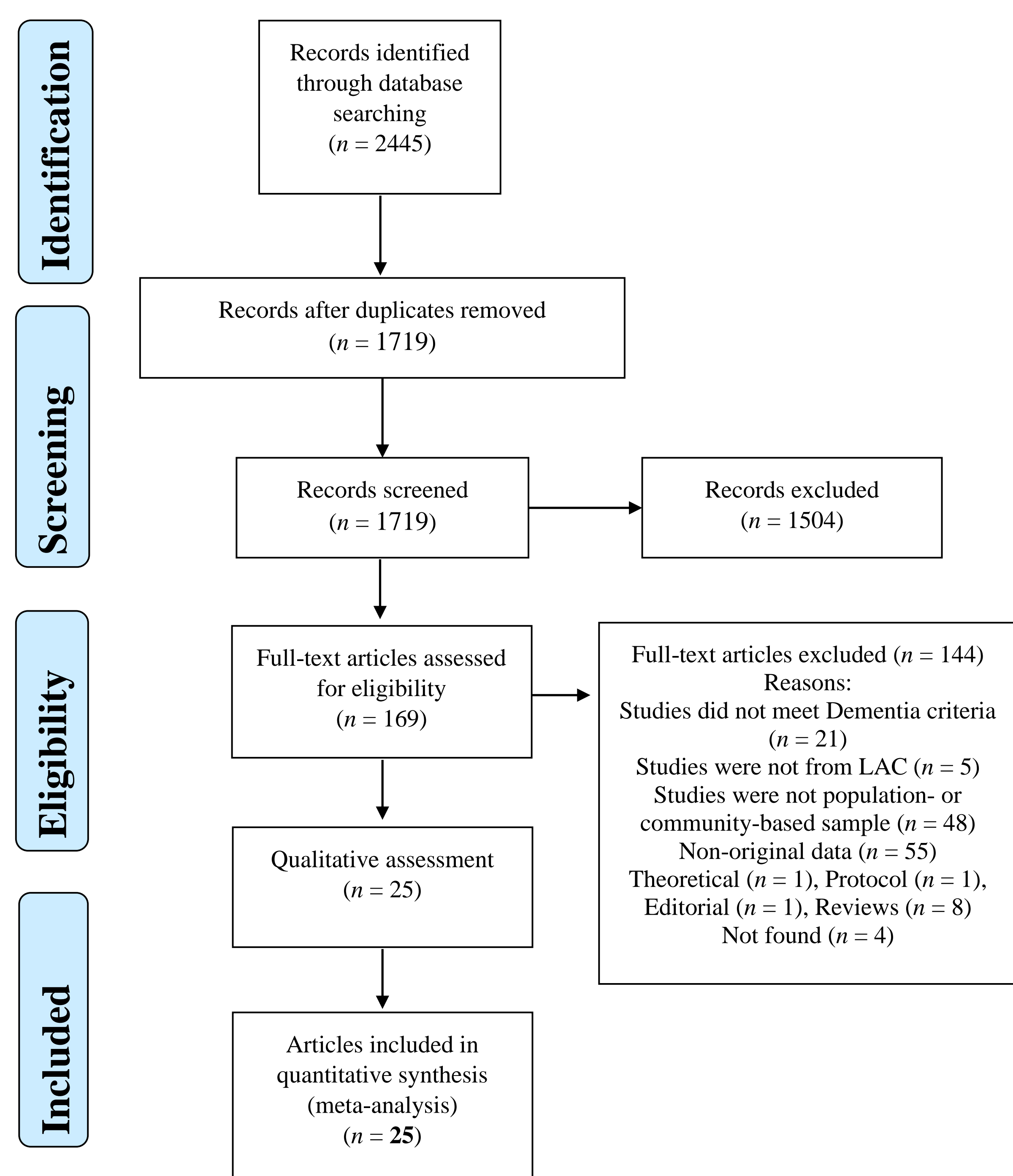


Figure 1. flow diagram of the study selection

It was included 25 articles (five of them published in Spanish), comprising a total of 30 different studies published between 1999 and 2017. Sample sizes ranged from 101 to 18,351 participants, which correspond to 62.360 participants in total. Twelve of the 20 LAC countries were covered: Argentina, Brazil, Colombia, Cuba, Dominican Republic, Honduras, Jamaica, Mexico, Peru, Trinidad and Tobago, and Venezuela. The systematic review covers estimates for a total of 526.060.212 inhabitants, that is, 81.1% of the total population of the LAC countries.

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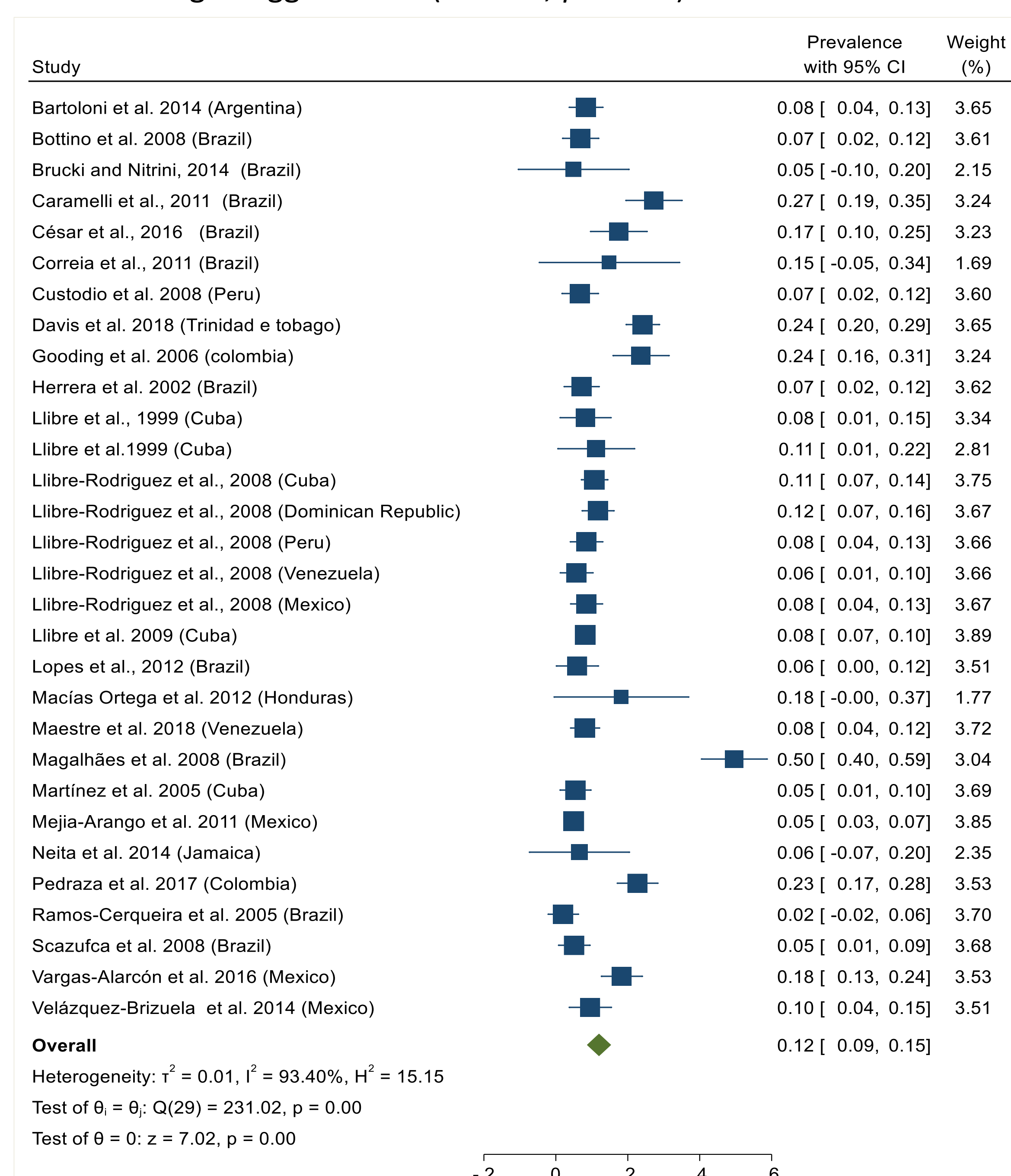


Figure 2. Forest plot for prevalence of all-type Dementia in LAC

We run a second analysis with 23 studies to analyse the prevalence by sex. Two meta-analyses was separately performed for men and women and showed a pooled prevalence of dementia estimated as 3% (95% CI: 2% - 4%) and 7% (95% CI: 5% - 9%), respectively. No publication bias was found all-type Dementia among female ($t = 1.45$, $p = .15$), or among men ($t = 1.60$, $p = .11$).

DISCUSSION

This systematic review systematizes the prevalence of dementia in LAC countries using strict inclusion criteria for dementia diagnosis and including research published in the predominant languages spoken in this region, allowing to provide new estimates of dementia prevalence for a region inhabited by around 8.4% of the world population. We observed a higher prevalence of dementia in LAC countries compared with high-income countries, for instance, USA with 8.24% (Koller & Bynum, 2015) or Europe with 9.3% (Bacigalupo et al., 2018).

In line with earlier studies with Western samples, the prevalence of dementia was higher among women than men (Prince et al., 2013). Moreover, we observed that more recent studies reported higher dementia prevalence, which could be related to increases in life expectancy in LAC countries over the last three decades. In contrast to studies with Western samples, we did not observe declines in dementia prevalence in recent years. This may be due to the simultaneous rise in aging-associated chronic conditions and unfavourable lifestyle behaviors. However, increases in dementia prevalence may simply be associated with population aging, as LAC countries only recently arrived at life expectancies comparable with North America and other Western regions.

