

operating across diverse life course experiences. Such research could advance global primary prevention of dementia.

Key words: Dementia, prevalence, China, Hong Kong, Taiwan, meta-analysis

Key Messages

- This review incorporates 96 prevalence studies of dementia in mainland China, Hong Kong and Taiwan from previous systematic reviews, and an updated search including both English and Chinese literature published until February 2017.
- The decreasing prevalence of dementia from northern, central and southern China to Hong Kong and Taiwan was confirmed in this update. A high prevalence in western China was identified in this new analysis.
- The increasing time trend was substantially attenuated after adjusting for methodological variation and geographical areas, and regional trends showed considerable fluctuations.
- The updated estimated number of people with dementia in all these areas is 9.5 million, which is higher than the previous estimate (8.4 million).

Introduction

Dementia, a syndrome of cognitive decline and a major cause of disability in older age, has become a global public health priority in the context of population ageing.^{1,2} The worldwide epidemiology of dementia has been an important topic, as it provides fundamental information for dementia research, charity lobbying and policy planning.¹ Since the turn of the millennium, many prevalence studies of dementia have been conducted in low- and middle-income countries, with China being among these.³ Estimated prevalence and number of people with dementia in China have been reported in some multicentre prevalence studies^{4–6} and systematic reviews.^{7–12}

Although the earlier literature suggests a lower prevalence in China compared with Western Europe and other high-income countries,^{1,7,13} systematic reviews including more recent studies have reported higher estimates and indicated a dramatic increase in prevalence over time.^{8,9,12} However, these analyses did not fully take into account methodological features of individual studies. Changes in diagnostic criteria and research methods can influence dementia case identification considerably, and therefore these results might not reflect the true prevalence trend in the Chinese older population. In addition, the existing reviews have generally estimated the number of people with dementia based on a single set of pooled prevalence estimates, and have not considered variation within this region.^{9,12} China, Hong Kong and Taiwan have had very different historical, economic and societal contexts as well as various trajectories of life expectancy and health status.

Variations within China, one of the largest countries in the world, have seldom been fully explored.

Our earlier meta-analytical review has covered the prevalence studies of dementia from mainland China, Hong Kong and Taiwan published before April 2012, and identified important methodological factors related to the heterogeneity of prevalence estimates. The findings reveal north-south geographical variation and a fluctuating time trend in dementia prevalence when taking into account methodological factors.^{10,11} With rising global attention to population ageing and dementia, several new prevalence studies have been conducted in China, Hong Kong and Taiwan and published in the past 5 years. This provides an opportunity to update prevalence data in these areas and review the findings from previous analyses. Building on our earlier reviews,^{10,11} the analysis here updates the prevalence estimates for mainland China, Hong Kong and Taiwan and investigates whether adding these new data changes the results from the previous analyses.

Methods

Literature search and data extraction

This study included three systematic reviews: our earlier review (up to April 2012),¹¹ *World Alzheimer Report 2015* (January 2011–March 2015)¹² and an updated search (March 2015–February 2017). The literature searches were conducted to identify prevalence studies of dementia in English (PubMed, Web of Knowledge) and Chinese