

Global prevalence of young onset dementia: a systematic review and meta-analysis

abstract

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Abstract

Background: Reliable prevalence estimates are lacking for young-onset dementia (YOD), where symptoms of dementia start before the age of 65. Such estimates are needed for policy makers to organize appropriate healthcare.

Methods: We performed a systematic review and meta-analysis on the prevalence of YOD. PubMed, Embase, CINAHL and PsychInfo were searched for relevant articles published between 1990 and March 31, 2020. Observational population-based studies investigating prevalence of dementia under the age of 65 were eligible. Data was extracted from articles and analyzed using random-effect meta-analysis to produce pooled prevalence estimates. Estimates were age-standardized against the World Standard Population and the European Standard Population. The study is registered with PROSPERO (CRD42019119288).

Findings: The inclusive search strategy yielded 19,162 articles, of which 95 were included in the review. Prevalence of all-type YOD globally increased from 1·1/100,000 in those aged 30-34 years to 77·4/100,000 in those aged 60-64 years, and in Europe from 0·8/100,000 in age group 30-34 to 112·4/100,000 in age group 60-64. Globally, the age-standardized prevalence of all-type YOD was 119/100,000 in the total 30-64 age group, for Europe, this was 159/100,000. There was large heterogeneity in estimates. Subgroup analyses showed a slightly higher prevalence for females. High income and lower-middle income countries reported lower prevalence estimates compared to upper-middle income countries. Study methodology influenced the prevalence, with cohort studies yielding higher prevalence estimates compared to register-based studies.

Interpretation: The prevalence of YOD varies by diagnosis, age, gender and World Bank classification of economic position, but differences in study designs and case finding methods hamper precise point estimation. Also, studies on prevalence of low age ranges are still scarce. To decrease heterogeneity of prevalence studies, more research adopting a strong study design and a broad age range is needed.