

Multiple sclerosis epidemiology

Usual age of onset: 10–59 years, with the greatest peak between ages 20–40 years. The female:male incidence is approximately 2:1 ¹⁾

Prevalence varies with latitude, and is <1 per 100,000 near the equator, and is \approx 30–80 per 100,000 in the northern U.S. and Canada.

There is an unapprehended diversity in the epidemiology of [multiple sclerosis](#) (MS) in different geographical regions.

In a study, for the first time, Etemadifar et al. from [Isfahan](#) systematically reviewed the studies estimating the incidence and/or prevalence of MS in the Persian Gulf area. The goal is to obtain the overall incidence and prevalence of MS and elucidate the reasons for the geographical variation.

A comprehensive literature search was carried out using MEDLINE and EMBASE through articles published between January 1985 and December 2018 on MS epidemiology in Persian Gulf countries including Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. Search terms included 'Multiple sclerosis', 'Incidence', 'Prevalence', 'Epidemiology', 'Persian Gulf', 'Arabian Gulf' and name of each country. Only full-text articles published in English were included. All abstracts were considered and two trained reviewers evaluated the study quality using an assessment tool specifically designed for this study.

39 studies met the inclusion criteria. The mean age at disease onset varied in each country and the pooled mean age of onset was 23.11. The overall pooled MS incidence was 5.03/100,000 person-years (95% CI: 0.04 - 10.02). Prevalence was 39.31/100,000 (95% CI: 29.12 - 49.50) and the result of the meta-regression method showed that prevalence increased by 2.3% per year between 1985–2018 ($p = 0.04$). Quality scores ranged from 4/7 to 8/8.

The prevalence and incidence of MS in the Persian Gulf region have gone through significant changes during the past decades. This study highlights the need for future studies of MS prevalence and incidence, which will further elucidate the possible etiologies leading to periodical and geographical variations in MS incidence ²⁾.

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Pugliatti M, Rosati G, Raine CS, et al. Epidemiology of multiple sclerosis. In: Multiple sclerosis: a comprehensive text. Philadelphia: Saunders Elsevier; 2008

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Etemadifar M, Nikanpour Y, Neshatfar A, Mansourian M, Fitzgerald S. Incidence and prevalence of multiple sclerosis in persian gulf area: A systematic review and meta-analysis. Mult Scler Relat Disord. 2020 Jan 21;40:101959. doi: 10.1016/j.msard.2020.101959. [Epub ahead of print] Review. PubMed PMID: 31991397.

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