OBJECTIVES: To follow-up the prevalence trends of multiple sclerosis from 1983 to 1993 in western and southern Finland. MS epidemiology has been previously followed from 1964 to 1978 in these regions. The updated prevalences were correlated with incidence trends in the same period. METHODS: Age-adjusted and age-specific MS prevalence rates were calculated for cases classified by Poser's criteria. RESULTS: In the western health-care districts, Seinäjoki and Vaasa, prevalences in 1993 were 202/10(5) and 111/10(5). In the southern district Uusimaa the respective figure was 108/10(5). In Seinäjoki a significant 1.7-fold increase was found in 1993 as compared to 1983, mainly due to increased incidence. In Uusimaa a significant 1.2-fold increase in prevalence was found in the presence of stable incidence. In Vaasa prevalence was stable, although incidence was declining. CONCLUSION: The prevalence of MS is increasing in Seinäjoki and Uusimaa but not in Vaasa. Both the prevalence and incidence in Seinäjoki are now among the highest reported.