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In Denmark, Finland, Norway, and Sweden, the use of mobile phones increased sharply in the mid-1990s; thus, time trends in brain tumor incidence after 1998 may provide information about possible tumor risks associated with mobile phone use. We investigated time trends in the incidence of glioma and meningioma in Denmark, Finland, Norway, and Sweden from 1974 to 2003, using data from national cancer registries. We used joinpoint regression models to analyze the annual incidence rates of glioma and meningioma. During this period, 59,984 men and women aged 20-79 years were diagnosed with brain tumors in a population of 16 million adults. All statistical tests were two-sided. From 1974 to 2003, the incidence rate of glioma increased by 0.5% per year (95% confidence interval [CI] = 0.2% to 0.8%) among men and by 0.2% per year (95% CI = -0.1% to 0.5%) among women and that of meningioma increased by 0.8% per year (95% CI = 0.4% to 1.3%) among men, and after the early 1990s, by 3.8% per year (95% CI = 3.2% to 4.4%) among women. No change in incidence trends were observed from 1998 to 2003, the time when possible associations between mobile phone use and cancer risk would be informative about an induction period of 5-10 years.

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