**New cases of autism in UK have levelled off after five-fold surge during 1990s**

*Recent US data indicate 78% rise in prevalence of autism among eight year olds in 2004-08*

**[Prevalence and incidence rates of autism in the UK: time trend from 2004-2010 in children aged 8 years doi 10.1136/bmjopen-2013-003219]**

The number of newly diagnosed cases of autism has levelled off in the UK after a five-fold surge during the 1990s, finds research published in the online journal ***BMJ Open***.

The findings differ from widely publicised results issued by the US Centers for Disease Control and Prevention (CDC) last year, which reported a 78% increase in the prevalence of the condition in eight year old children between 2004 and 2008 in the US.

Prompted by these data, which found that one in every 88 eight year old children in the US had been diagnosed with an autistic spectrum disorder in or before 2008, the authors wanted to find out if there were comparable rates in the UK.

They used entries into the General Practice Research Database (GPRD), which contains around three million anonymised active patient records from over 300 representative general practices in the UK - equivalent to 5% of the UK population.

Data from practices enrolled from 1990, when the GPRD was set up, were used to calculate the annual prevalence (number of people living with the condition) and the annual incidence (number of newly diagnosed cases) of autistic spectrum disorders among eight year olds, all of whom were born after 1996.

Annual prevalence rates for 2004-2010 were calculated by dividing the number of eight year olds diagnosed as autistic in that or any previous year, by the number of eight year olds enrolled in the database for each year.

Annual incidence rates were calculated by dividing the number of eight year olds who had been newly diagnosed with autism between 2004 and 2010 by the number of eight year olds enrolled into the database for each of those years.

The results showed that the annual prevalence and incidence of autism did not materially change over the entire study period, for either boys or girls.

The annual prevalence of autistic spectrum disorders was estimated at 3.8 per 1000 boys and 0.8 per 1000 girls, while the annual incidence was estimated at 1.2 per 1000 boys (1190 in total) and 0.2 per 1000 girls (217 in total).

Girls were about 75% less likely to be diagnosed with an autism spectrum disorder as boys.

The UK prevalence of about 4/1000 children is substantially lower than the equivalent US figure of about 11/1000 children in 2008, which was reported in 2012.

“The large difference between countries is closely similar to differences in rates reported for children diagnosed and treated for attention deficit hyperactivity disorder in the two countries,” the authors point out.

Their previously published research, based on the same database, showed that the cumulative

incidence of autism among children born in UK between 1988 and 1995 increased continuously by a factor of five during that period.

And they say that both studies provide “compelling evidence that a major rise in incidence rates of autism, recorded in general practice, occurred in the decade of the 1990s but reached a plateau shortly after 2000 and has remained steady through 2010.”

Similar widespread sharp rises in the number of children diagnosed as autistic were also seen in the 1990s in other parts of Europe and North America, they add, making it unlikely that better understanding of the condition or a broadening of the diagnostic criteria alone could have been responsible for these simultaneous large increases.

Given the apparent sudden halt in the rise in rates from early 2000 onwards - at least in the UK - the “actual cause of the dramatic rise in the 1990s remains a mystery,” they write, emphasising that the suggestion that it might be linked to the MMR vaccine has been conclusively ruled out.