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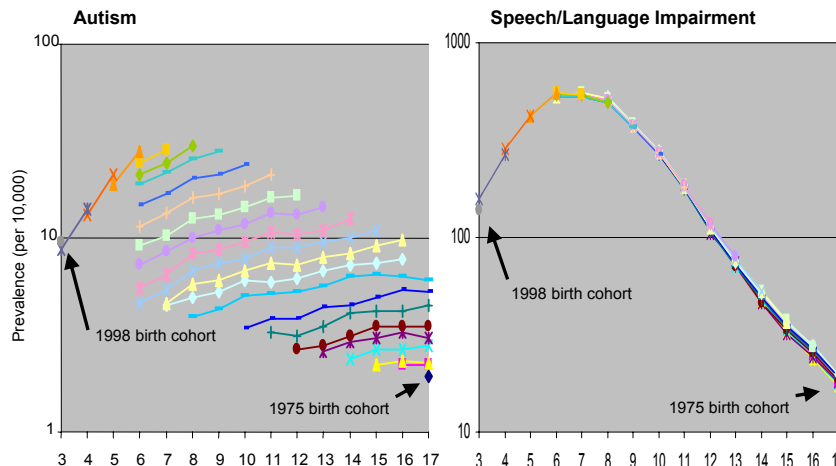
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BACKGROUND:

There has been much recent concern over the magnitude and causes of the apparent rise in prevalence of autism spectrum disorder (ASD) in the United States. The US Department of Education Office of Special Education Programs (OSEP) maintains a national source of data on children who receive free and appropriate special education services classified into 13 primary disability categories (including autism). These data have been routinely cited but few rigorous analyses of these data have been put forward. We constructed cohort curves using OSEP administrative data to assess secular trends in autism prevalence and to compare these to secular trends for other selected disability categories.

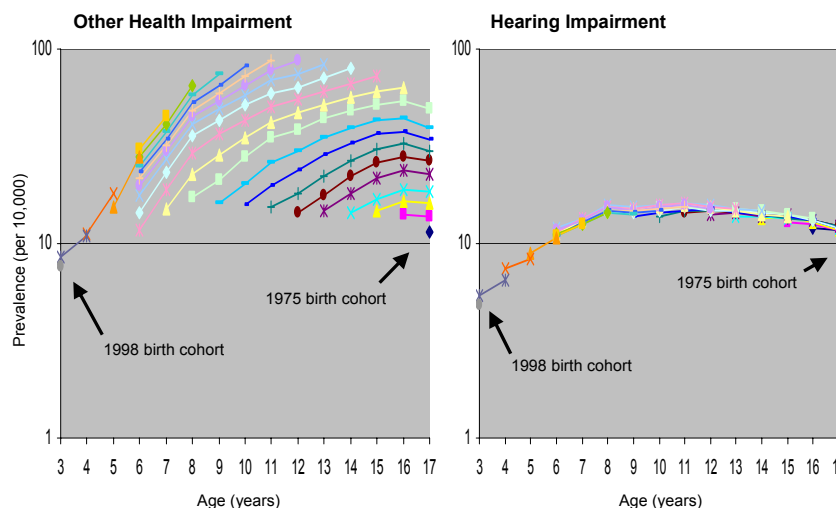
Methods:

Numerators for prevalence come from annual reports issued by OSEP. OSEP data are aggregations of counts supplied by state education departments based on annual censuses. Denominators come from US Census Bureau resident population estimations. Age-specific prevalence estimates were calculated for four disability categories (autism, speech or language impairment, hearing impairment, and other health impairments) for ages 3 through 17 years in each of 10 years, 1992 through 2001. Prevalence estimates were stratified by birth cohort and displayed visually as a plot of prevalence by age on a log-scale. Vertical separation of the cohort curves (with younger cohorts having higher age-specific prevalence) indicates increase in prevalence with time. Comparable vertical distances between two pairs of birth cohorts represent comparable percent increases between cohorts.



Results:

For the autism classification, prevalence increased in successive (younger) cohorts. This increase was greatest between annual cohorts born from 1987 to 1992. For cohorts born after 1992, the prevalence increase with each successive year does not appear as great, although there are fewer data points available within cohorts. Curves for other health impairment, the category including children with attention deficit hyperactivity disorder, also showed strong cohort differences. There were no birth cohort differences for speech/language impairment or hearing impairment prevalence.



Discussion:

A pattern of increasing prevalence is not found in all disability categories evaluated, suggesting that the increasing prevalence of the autism classification is not the by-product of generalized increases in special education. It is still unknown whether the narrowing in vertical separation of the cohort curves marks waning of periods of increasing prevalence. Secular trends were also seen in other health impairments, the category including ADHD - also a complex, behaviorally-based diagnosis. The mere observation that increases over time have been seen in these two particular categories is not empirical evidence that secular trends are more likely due to changing patterns in diagnosis and classification than changes in the real risk. However, there is value in noting the similarities in the patterns of the curves for autism and other health impairments categories and the contrast between these and the other categories.

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