



Is There Increase in Autism in the United States?

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Commentary

Autism also referred to as Autistic Spectrum Disorder (ASD) and Pervasive Developmental Disorder (PDD), is a frequent and debilitating neurological handicap in children, which is usually diagnosed in early childhood. Since there are no definitive biological markers of autism for a majority of cases, diagnosis depends on a range of behavioral signs. The major symptoms of autism involve problems with communication, social interaction and repetitive behaviors [1,2]. Because people with autism can have very different features and symptoms, autism is thought of as a spectrum disorder (ASD). The prevalence of children with ASD has been reported to be higher in boys than girls. Though the frequency of ASD diagnoses has been increasing for decades, researchers cannot agree on whether the trend is a result of increased awareness, improved detection, expanding definition or an actual increase in incidence or a combination of these factors. Challenges to estimating the prevalence of Autism Spectrum Disorders (ASD) include changing definitions and labeling practices over time, as well as the high probability of co-occurring conditions that can be included under the term of autism spectrum disorders. The importance of accurately identifying children with autism is of utmost importance, particularly given the apparently growing prevalence, considerable family and societal cost, and recognition of the importance of early diagnosis and intervention. In 1990, Congress added autism as a separate category to federal law that guarantees special education services. Since then there has been an explosion of autism related treatments and services. A Centers for Disease Control and Prevention report published in 2012 estimates that about 1 in 88 children 3 - 17 years of age in the U.S. has been identified with an Autism Spectrum Disorder (ASD). This is an increase of 78% when the data from 2008 are compared with the data from 2002 [3,4]. If these estimates for ASD (1 in 88 children) are valid and, not an artifact of confounding or systematic bias due to better screening and ascertainment, then ASD affects more than 1 million children and adolescents in the United States. This enigmatic increase in prevalence of ASD reported in 2012 coincides with the decision of American Psychiatric Association researchers to update and significantly change the definition of autism for the first time in nearly two decades. Some specialists and autism advocates fear that the proposal will exclude as many as 40% of children now considered suffering from ASD. However, the panel that proposed changes maintains that none of the affected children will be left out and, that the revisions are needed to remove confusing labels associated with ASD. The estimated prevalence of ASD based in 2014 was 2.2%, a significant increase from the estimated annualized prevalence of 1.25% based on 2011-2013 data (Figure 1) (National Health Statistics Reports, number 87, Nov. 2016). However, the prevalence of children 3-17 years of age that had ever been diagnosed with ADS there was not a statistically significant from 2014 to 2016 (Figure 2). During 2014-2016 the prevalence ASD reported by the National Health Interview (NCH data BRIEF No. 291, Nov.2017) was higher among boys (3.6%) than girls (1.3%). Also, non-Hispanic white children were more likely to be diagnosed with ASD (2.8%) than Hispanic children (1.8%). AS indicated previously, the prevalence of ADS has significantly increased in the past two decades, and the estimate of prevalence of children diagnosed with ASD can vary significantly, particularly in the last 5 years depending on the definition methodology used and other factors used to measure the prevalence of ASD. The official estimate of prevalence of 1 in 68 American children with ASD, by the Centers of Disease Control and Prevention is notably lower than a new government survey of parents ([http:// www.cdc.gov/nchs/nhis.htm](http://www.cdc.gov/nchs/nhis.htm)) which suggests that 1 in 45 children, ages 3 to 17 years of age have been diagnosed with ASD. Since the new prevalence estimates come from a parent survey, they do not replace the CDC's 1 in 68 figure as the official estimate of ASD prevalence in the United States [5-7]. This is in spite of CDC's acknowledgement that its estimate has significant limitations. It is based on an analysis of the medical and school records of 8 year old children at the monitoring sited across the country. Therefore it can miss the children not receiving medical of special education services related to autism. In the National Interview Survey, more than 12,000 parents were interviewed on family health conditions. As part of this interview, one child in each family was randomly selected to be the subject of detailed questions on health and disabilities. The parent survey results from the

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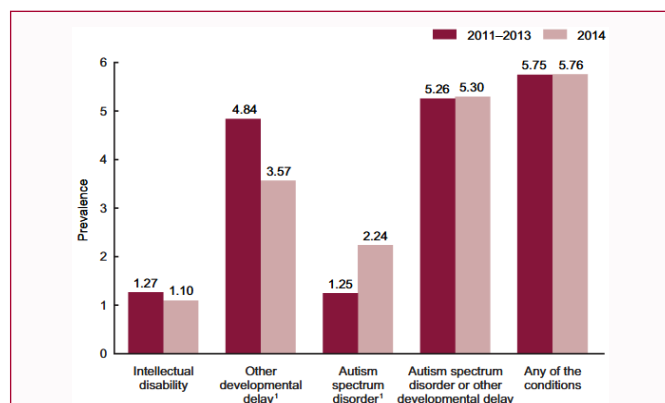


Figure 1: Estimated parent reported lifetime prevalence of ASD in children aged 3-11 years: United states, 2011 - 2013 and 2014.

2014 National Interview Survey conducted by the National Center for Health Statistics is the most in-depth survey of its kind in the U. S. Several epidemiologists including Michael Romanoff, the “Autism speaks” director for public health research believe that the 1 in 45 estimate is not surprising and is likely a more accurate representation of ASD prevalence in the United States. It is possible that in part, the 2014 survey’s high ASD prevalence number reflects changes in the order of wording of the survey’s questions. These changes were made after noting that the questions on the 2011-2013 survey most likely confused parents and resulted in an underreporting of ASD (<http://www.cdc.gov/nchs/nhis.htm>). It is obvious that ASD research has a long way to go before developing precise yet inclusive diagnostic criteria, pinpointing relevant risk factors, and providing valid reasons for increasing prevalence of ASD.

References

1. Kim YS, Leventhal BL, Koh, YJ, Fombonne E, Laska E, Lim EC, et al. Prevalence of autism spectrum disorders in a total population sample. *Am J Psychiatry*. 2011;168(9):904-12.

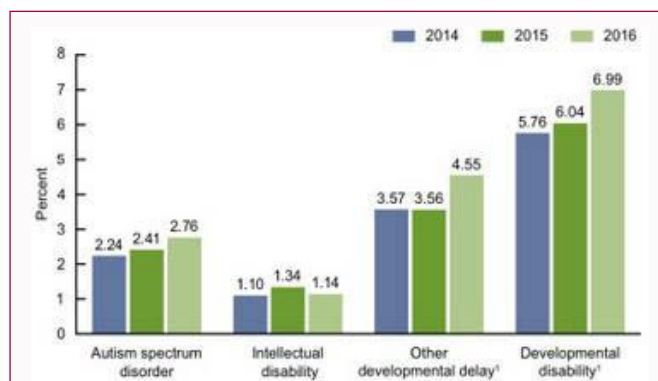


Figure 2: Prevalence of aged 3-17 ever diagnosed with ASD by year: United States, 2014-2016.

2. Nassar N, Dixon G, Rourke J, Bower C, Glasson E, de Klerk N, et al. Autism spectrum disorders in young children: effect of changes in diagnostic practices. *Int J Epidemiol*. 2009;38(5):1245-54.
3. Zablotsky B, Black LI, Maenner MJ, Schieve LA, Blumberg SJ. Estimated prevalence of autism and other developmental disabilities following questionnaire changes in 2014 National Health Interview. *Natl Health Stat Report*. 2015;(87):1-20.
4. Zablotsky B, Black LI, Blumberg SJ. Estimated prevalence of children with diagnosed developmental disabilities in the united states, 2014 - 2016. *NCHS Data Brief*. 2017;(291):1-8.
5. Zablotsky B, Black LI, Maenner MJ, Schieve LA, Blumberg SJ, et al. National Health Statistics Report; no 87 Hyattsville, MD: National Center for Health Statistics. 2015.
6. Wright J. The real reasons autism rates are up in the U.S. *Spectrum*. 2017.
7. National Health Interview Survey underscores gap between the number of kids diagnosed with autism and number receiving services. *Autism Speaks*. 2015.