

Racial Disproportionality in School-based Identification of Autism

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Abstract

Objective: This study examined relative risk of autism identification among school-aged children across the five primary racial groups.

Research Design: Secondary analysis of data reported by state departments of education was used to determine the likelihood that children in each racial group received special education services for autism. These data were used to calculate group risk and relative risk for each minority group relative to White children.

Setting: Data from 47 states, as reported to the U.S. Department of Education's Data Analysis System, for 2008 was analyzed.

Measures: Risk index and relative risk index

Results: Nationwide, 1 in 240 students were identified as having autism by their school system and received related special education services. Across the 47 states examined, identification rates ranged from 1 in 1000 to 1 in 101 children with substantial variation across racial groups.

Conclusions: Schools identify 4.2 children in 1000 as autistic. Black, Hispanic, and Native American children are generally less likely to be identified with autism and receive school-based services to accommodate the learning and behavioral challenges associated with the disorder.

Background

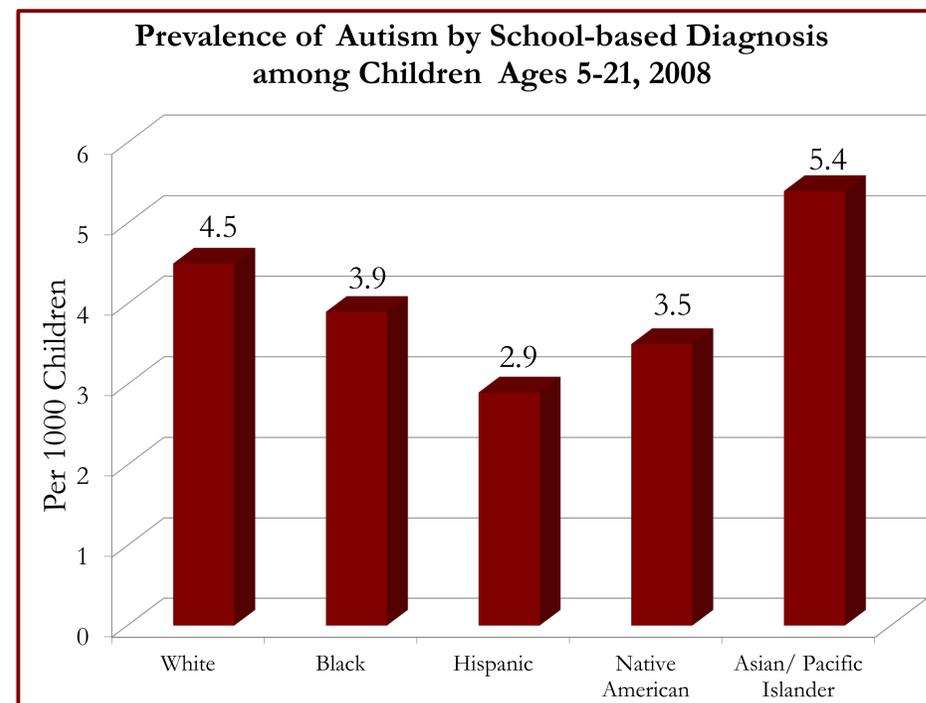
The CDC estimates that 1 in 110 (or 9 in 1,000), children have autism with variations in prevalence by race and ethnicity.¹

Under federal special education regulations,² children and youth with autism spectrum disorders can receive specialized instruction and other educational services and supports. The definition of autism under federal special education regulation, which is applied in school-based identification, is:

Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences. (34 CFR §300.8.c1)

Research Questions

- What is the national prevalence of autism among students identified by public schools?
- How do prevalence rates vary across states?
- To what extent does relative risk of autism diagnosis vary among the 4 race/ethnicity minority groups at the national and state levels?



Relative Risk of School-based Autism Identification, 2008

	Black	Hispanic	Native American	Asian/PI
National Relative Risk*	0.86	0.65	0.77	1.19
State SD	0.36	0.17	0.38	0.3
Minimum State RR	0.5	0.28	0	0.6
Maximum State RR	2.72	1.2	1.66	1.88
N State RR<0.8	8	40	16	5
N State RR>1.2	5	1	8	21

Note: Referent group is White students. *RR=Relative Risk

Results

- Nationwide, 1 in 240 students were identified by public schools as having autism and received related special education services in their school systems.
- Across 47 states, identification rates ranged from 1 in 1000 to 1 in 101 children.
- Asian children were 17% more likely than White children to be identified with autism and Black children were equally likely to be identified. Conversely, Native American children were 13% less likely to be identified within schools as autistic than White children and Hispanic children were 45% less likely to be identified.
- Identification rates varied considerably across states: 58% underidentified Native American students relative to Whites, 51% underidentified Blacks, and 25% underidentified Asian/Pacific Islander children. Only 2 states identified Hispanic children with autism at rates comparable to White children.

Conclusions

School-based identification of autism lags behind CDC estimates of prevalence.

- While it is estimated that 9 children in 1000 have autism, schools identify 4.2 children in 1000.
- These differences may be due to the differences between federal special education diagnostic criteria and DSM-IV criteria, and because children are classified as having other disabilities.³ This latter explanation may be especially true among Black and Native American children as they are generally less likely to be identified with autism and receive school-based services to accommodate the learning and behavioral challenges associated with the disorder.



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¹Centers for Disease Control and Prevention. (2010). *Autism spectrum disorders: Research*. Atlanta, GA: Author.
²Individuals with Disabilities Education Improvement Act (IDEA), P.L. 108-446, 20 U.S.C. 1400-87.
³CDC. (2009). Prevalence of autism spectrum disorders: Autism and developmental disabilities monitoring network, United States, 2006. *Morbidity & Mortality Weekly Report: Surveillance Summaries*, 58(SS10), 1-20.