## CDC's Autism and Developmental Disabilities Monitoring (ADDM) Network

- Authorized by the Children's Health Act of 2000, the Centers for Disease Control and Prevention (CDC) has funded 14 ADDM Network sites since 2000.
- CDC's current ADDM Network sites identify 8-year-old children with ASDs and other developmental disabilities. Six sites in Arizona, Missouri, New Jersey, South Carolina, Utah, and Wisconsin also monitor ASDs among 4-year old children.



### Understanding Autism Spectrum Disorders and Other Developmental Disabilities

- CDC estimates that 1 in 88 children has been identified with an autism spectrum disorder (ASD).
- ASDs occur among all racial, ethnic, and socioeconomic groups.
- ASDs are almost five times more common among boys than among girls.
- Medical costs for children with ASDs are estimated to be six times higher than for children without ASDs.
- In addition to medical costs, intensive behavioral interventions for children with ASDs can cost \$40,000 to \$60,000 per child per year.



## Autism and Developmental Disabilities Monitoring (ADDM) Network

The ADDM Network is a group of programs funded by the Centers for Disease Control and Prevention (CDC) to determine the number of children with ASDs and other developmental disabilities in the United States. Each site collects data using the same method.

By studying the number of children with ASDs at different points in time, we at CDC can find out if the number is rising, dropping, or staying the same. We also can compare the number of children with ASDs in different areas of the country and among different groups of people. This information can help direct our research into potential risk factors and can help communities direct their outreach efforts to those who need it most.

ADDM Network goals are to:

- Provide data about how common ASDs are in a specific place and time period (also known as *prevalence*)
- Describe the population of children with ASDs
- Compare how common ASDs are in different areas of the country
- Identify changes in ASD occurrence over time
- Understand the impact of ASDs and related conditions in US communities

# Advancing Our Understanding of Autism Spectrum Disorders

CDC estimates that 1 in 88 children has been identified with an ASD. This data comes from the ADDM Network, which estimated the number of 8-year-old children with ASDs living in 14 communities throughout the United States in 2008. In 2007, CDC's ADDM Network first reported that about 1 in 150 children had an ASD (based on 2002 data from 14 communities). Then, in 2009, the ADDM Network reported that 1 in 110 children had an ASD (based on 2006 data from 11 communities). This means that the estimated prevalence of ASDs increased 23% during 2006 to 2008 and 78% during 2002 to 2008. Some of the increase is due to the way children are identified, diagnosed and served in their local communities, although exactly how much is due to these factors in unknown.

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Data were based on reviews of health and education records from reporting communities, which included 8% of the U.S. population of 8-year-old children. All children in the studies were 8-years-old because previous studies showed that, by this age, most children with ASDs had been identified for services.

### Here are the key findings from our most recent study:

- ASD prevalence estimates varied widely across the 14 ADDM Network sites, from 1 in 210 to 1 in 47 children.
- More children were diagnosed at earlier ages—a growing number of them by 3 years of age. Still, *most* children were not diagnosed until after they reached 4 years of age.
  - » On average, diagnosis was a bit earlier for children with autistic disorder (4 years) than for children with the more broadly defined autism spectrum diagnoses (4 years, 5 months), and diagnosis was much later for children with Asperger disorder (6 years, 3 months).
- Almost five times as many boys were identified with ASDs than girls (1 in 54 compared to 1 in 252).
- ASDs were more common among White children than among Black or Hispanic children, but the largest increases over time were among Hispanic children (110%) and Black children (91%).
- The majority (62%) of children identified as having ASDs did not have intellectual disability.

Early ADDM Network and Other Developmental Disabilities Monitoring Activities:

- CDC has provided supplemental funding to six ADDM Network sites to monitor the prevalence of ASDs among younger children (4-year-olds) using ADDM Network methods. These efforts will increase our understanding of the characteristics and early identification of young children with ASDs.
- Some ADDM Network sites also are studying the prevalence of other developmental disabilities, including cerebral palsy, intellectual disability, hearing loss, and vision impairment.



### Current ADDM Network Sites, Surveillance Years 2010 and 2012

For more information on CDC's ADDM Network, visit www.cdc.gov/addm. For more information on CDC's ASD activities, visit www.cdc.gov/autism. For more information on CDC's Cerebral Palsy activities, visit www.cdc.gov/cp.

#### National Center on Birth Defects and Developmental Disabilities

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