

2022 SUMMARY OF ADVANCES

in Autism Research



The Interagency Autism Coordinating Committee (IACC) is a federal advisory committee that provides advice to the Secretary of Health and Human Services. The IACC includes federal agency representatives and public members representing the autism community. The IACC selected their top 20 most significant autism research advances published in 2022. The articles are divided into categories that correspond to categories in the *IACC Strategic Plan*. This easy-read version of the *Summary of Advances* provides a one-sentence summary of the findings of each research study that is described in more detail in the full-length publication. The full publication is available here: <https://iacc.hhs.gov/publications/summary-of-advances/2022/>.

SCREENING AND DIAGNOSIS

- The Autism Diagnostic Observation Schedule, Second Edition (ADOS-2) test may not be necessary for clinicians to diagnose autism in most children. [[LINK](#)]
- Measurement bias may contribute to underdiagnosis or late diagnosis of autism in girls, highlighting the need to improve detection methods for girls and ensure access to interventions based on need, regardless of formal diagnosis. [[LINK](#)]
- Telehealth evaluations for autism diagnoses in young children showed high satisfaction rates among providers and caregivers, indicating their potential to increase access and reduce wait times. [[LINK](#)]
- Incorporating autism screening into early intervention settings may improve early detection, which is required for access to services and supports. [[LINK](#)]



BIOLOGY

- There are significant differences in the gene activity of autistic versus neurotypical brains, particularly in brain regions involved in sensory and language processing. [\[LINK\]](#)
- Autistic youth exhibit considerable social strengths and struggle more with performing social skills than with learning them. [\[LINK\]](#)
- Social communication challenges in older autistic siblings are associated with altered brain development in younger siblings who are eventually diagnosed with ASD. [\[LINK\]](#)
- There is a potential link between emotional dysregulation, self-injurious behavior (SIB), and aggressive behavior among autistic youth in psychiatric hospitals, emphasizing the need for mental and behavioral health support programs and interventions that focus on regulating emotions. [\[LINK\]](#)
- Autistic children with early word loss exhibit a slight delay in some language skills, but the delay does not worsen over time and overall language development is comparable to autistic children without early word loss. [\[LINK\]](#)

GENETIC AND ENVIRONMENTAL FACTORS

- Genes associated with ADHD, autism, and schizophrenia may also affect prenatal factors such as maternal depression and anxiety during pregnancy, highlighting the need to consider genetic factors when studying effects of the prenatal environment on brain development. [\[LINK\]](#)

INTERVENTIONS

- Behaviors such as use of gesture, fine motor skills, and play can help predict how autistic children will respond to an intervention to improve social communication and language, suggesting a strategy to match interventions to those who will benefit the most. [\[LINK\]](#)

SERVICES AND SUPPORTS

- Less than half of the children in New Jersey diagnosed with autism between 2006 and 2016 received early intervention services, and significant socioeconomic and racial/ethnic disparities were observed, underscoring the urgency to address disparities and increase access to early intervention. [\[LINK\]](#)
- Pediatricians can identify early mental health concerns in school-age children with autism through screening during well-child appointments, and opportunities exist to refine screening and linkage efforts across pediatric care settings. [\[LINK\]](#)

LIFESPAN

- International survey results indicate several barriers, particularly communicating with providers and sensory challenges in waiting rooms, that may affect autistic adults in scheduling and completing primary care visits, leading to worse health outcomes. [\[LINK\]](#)
- Factors measured in childhood such as IQ, adaptive functioning, and degree of autistic traits may predict levels of independence, employment and education, and, to a lesser extent, physical health in autistic adults. [\[LINK\]](#)
- Autistic people diagnosed as adults are more likely to have co-occurring psychiatric conditions than those diagnosed as children, highlighting the importance of mental health supports across the lifespan and the need for research on how timing of diagnosis affects well-being. [\[LINK\]](#)
- Work readiness skills (e.g., adaptability, success in daily routines) may improve employment outcomes for autistic adults. [\[LINK\]](#)
- Medicaid data suggest that co-occurring health conditions among autistic adults, which occur more often than in non-autistic peers, differ based on race and ethnicity. [\[LINK\]](#)
- Lack of lifelong Medicaid coverage for autistic adults in many states leads to higher rates of coverage loss and lower re-enrollment compared to non-autistic peers with intellectual disabilities. [\[LINK\]](#)

INFRASTRUCTURE AND PREVALENCE

- The number of autistic children identified early increased substantially between 2002 and 2016 in the United States, though racial and ethnic disparities remained; analyses suggest median age should not be used to measure progress. [\[LINK\]](#)