

The Investor's Case: Developmental Screening



Why It Matters...

- With [1 in 4 children at risk for developmental delay](#), early childhood screening helps us identify warning signs and intervene during the most critical period of development.
- Last year, [70% of infants and toddlers](#) were not assessed for disorders in intellectual or physical growth—a huge missed opportunity for early detection and treatment.
- Poverty and other [childhood adversities](#) are strong predictors of developmental delays. Children who face 6+ Adverse Childhood Experiences (ACEs) are [90-100% likely](#) to struggle with cognitive, language, or other learning-related impairments, a nearly 10-fold increase in risk relative to their peers who have experienced ≤ 2 ACEs.

What Science and Research Tell Us...

- Children don't develop on a strict timetable, and minor differences in skill progression often aren't a concern. A developmental delay is more than being "a little slower"—it means a child is consistently behind in skills possessed by others of the same age.
- Developmental delays fall into 4 broad domains: (1) cognitive, (2) fine and gross motor, (3) speech and language, and (4) social-emotional.
- While there is no single cause, risk factors include genetics; parental behaviors in pregnancy (e.g., alcohol use); birth complications; infections; and toxins (e.g., lead).
- If we detect developmental delays in children's first years, we can take advantage of the young brain's remarkable capacity for change and adaptation, implementing strategies to exercise the relevant brain areas and strengthen core capacities. For example, early intervention for children with autism for 3 years before school entry saves society an estimated [\\$200,000 per child](#) by age 22.

What "Good" Would Look Like...

- The Centers for Disease Control & Prevention (CDC) and American Academy of Pediatrics (AAP) recommend a tiered system of universal developmental assessment:
 - Monitoring, or simple checks for developmental milestones by parents, caregivers, and teachers at regular intervals, beginning at birth
 - Developmental screening by trained practitioners at 9, 18, and 30 months
 - Formal evaluation by a specialist when screening identifies areas of concern

Strategies for Scaled Impact....

Tech-enabled platforms that facilitate developmental screening, offer real-time data, and use AI to predict needs and outcomes

Approaches that link early identification to personalized treatment services at scale

Strategies that embed screening into existing touch points (e.g., well-child visits) and ensure training and reimbursement for providers

Dig Deeper: Developmental Screening

Key Terms

- **Adverse Childhood Experiences (ACEs):** abuse, neglect, domestic violence, parental mental illness, and other household instabilities that may negatively affect child development
- **Well-child visits:** children's doctor visits, recommended to take place at regular intervals
- **Early intervention services:** coordinated services to promote a child's healthy growth and ability to cope with disabilities and/or disadvantages from the outset

Key Research Studies

- How healthcare professionals can integrate universal developmental surveillance and screening into well-child visits
- Gaps in access to treatment services, particularly for children of color
- How Medicaid's Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) benefit works

Field Leaders

- National Institute for Children's Health Quality (NICHQ) synthesizes indicators and uses quality improvement methods to drive systems change
- The CDC's free developmental milestones tracker allow parents to monitor children's progress from birth
- ABCD incorporates developmental screening into routine pediatric practice

Promising Innovators

- BabyNoggin facilitates at-home screening and integrates data for care providers and service referral
- Astarte Medical uses predictive analytics to assess and prevent growth failure and developmental delays in premature infants
- Cognitive ToyBox's game-based child assessments reduce assessment time, provide more reliable data, and inform early educators' instruction in real time
- Visit our Venture Index for more innovators in this space!

Key Funders

- Robert Wood Johnson Foundation
- David & Lucile Packard Foundation
- National Institutes of Health
- *To learn more, check out this national database of funders in this space!*

Sample Metrics & Tools

METRICS

- Visual, auditory, & language abilities
- Fine & gross motor skills
- Early warning signs of developmental disorders (e.g., lack of smiling, lack of response to sounds)

ASSESSMENT TOOLS

- Bayley Infant Neurodevelopmental Screener (BINS)
- Ages & Stages Questionnaire (ASQ-3)
- CDC's Milestone Tracker

Want to learn more? Check out Promise's full resource library!
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