

TOOLBOX

New data establishes norms for developmental milestones

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3 JANUARY 2020



A new database that details the ages at which children attain milestones could help clinicians spot developmental delays and autism sooner¹.

Children usually reach developmental milestones such as speaking and walking by a certain age. Pediatricians use these cutoffs to screen for developmental delays and autism.

Few studies, however, have collected baseline data on when different children reach developmental milestones, which can vary widely. As a result, the current age cutoffs clinicians use for screening can miss children with delays.

The U.S. Centers for Disease Control and Prevention (CDC) **outlines the ages** at which “most children pass” a specific milestone and the ages at which parents should “act early” by speaking with a clinician if their child has not yet reached a milestone. It is unclear whether “most” means 50 or 99 or some other percent, however. It is also unclear how well or how often children must demonstrate a milestone behavior, such as pointing, before they are considered to have reached it.

A new database provides more detailed information. The researchers analyzed data from 23,520 children whose parents had completed the **Survey of Well-being of Young Children**, a screening tool that includes 54 questions about developmental milestones. It asks parents how often and how well a child has displayed a milestone behavior at a specific age².

The team assessed 41,465 responses collected at different ages, from 9 months to 5 years. They matched specific questions to the CDC milestones and calculated the proportion of children who had reached each milestone by the recommended age.

Meeting milestones:

At least 90 percent of children attain developmental milestones “somewhat” or “very much” by the age at which the CDC recommends that parents act early, the researchers reported in December in *Pediatrics*. Scientists can download a visualization tool from the journal’s **website** that allows them to explore the data.

A high proportion of children also achieve milestones by the age at which the CDC reports that “most children pass.” For example, 63 percent of children respond to their own name “very much” by the time they are 6 months old, and 97 percent “somewhat” do so by that age. These findings suggest that whether a child has passed a given milestone depends on how a ‘pass’ is defined, the researchers say.

The team also found that behavioral problems and family variables — including parents’ depression, a child’s hunger and exposure to tobacco — can delay milestones. And girls tend to attain milestones earlier than boys do.

The database may also help clinicians interpret the results of developmental screening tests and gauge how milestone attainment may differ for disadvantaged children.

REFERENCES:

1. Sheldrick R.C. *et al. Pediatrics* **144**, e20190374 (2019) [PubMed](#)
2. Sheldrick R.C and E.C. Perrin *Acad. Pediatr.* **13**, 577-586 (2013) [PubMed](#)