



No SLPs were in the room where it happened

The CDC rolled out [revamped milestone checklists](#) this month, and they've caused a lot of stir in the early intervention world. The goal of their project was to reduce the "wait and see" method of surveillance that rules the day in pediatricians' offices by providing clearer guidance for when further screening and evaluation should be conducted. We can get behind the goals of the project and like many of the changes; however, some of the updated language milestones don't align with current evidence—in a way that could undermine those goals.

What we liked:

We won't disagree that the CDC's old milestone lists needed some updates. As we covered in [this review](#), the previous checklists and "Learn the Signs Act Early" materials were difficult for early childhood professionals and parents to use effectively due to the sheer amount of information. The CDC made a number of changes, per the guidance of [Zubler et al.](#) Here are some of the changes that we liked:

- **Added 15- and 30- month checklists** to align with children's well-child visits
- **Reduced overall number of milestones** to decrease information overwhelm and redundancy
- **Adjusted language of milestones to be more parent-friendly** by eliminating vague terms and making items easily observable in daily life
- **Fleshed out the social-emotional milestones to help with early identification of autism**

Where things got dicey:

One of the big changes the CDC made was to adjust the milestones so that they **represented what most children are doing by a certain age, rather than what is average at that age**. The logic here is that they could eliminate the "warning signs" the lists previously included and instead have any missed milestone be cause for concern. We can get behind that logic. In theory, this should provide clearer guidance for when to act. They're not trying to lower developmental expectations, but rather to just list milestones at the 25th percentile, instead of the 50th.

BUT...the milestones don't all line up with what the 25th percentile looks like in the data.

Let's take a closer look:

The following milestones are for 12–30 months and are intended to represent what 75% of children have acquired by these ages—in other words, the 25th percentile. We've included the [MCDI](#) data for reference and comparison. [Zubler et al.](#) list the MCDI in their master list of sources but do not include it as a reference for the vocabulary milestones.

Age	Updated CDC Milestones		MCDI
	Receptive	Expressive	# of Words 25th percentile
12 months	Understands "no" (pauses briefly or stops when you say it)	Waves bye bye Calls a parent "mama" or "dada" or another special name	0 words
15 months	Looks at a familiar object when you name it Follows directions given with both a gesture and words. For example, he gives you a toy when you hold out your hand and say, "Give me the toy."	Tries to say one or two words besides "mama" or "dada," Points to ask for something or to get help	7 words
18 months	Follows one-step directions without any gestures, like giving you the toy when you say, "Give it to me."	Tries to say three or more words besides "mama" or "dada"	37 words
24 months	Points to things in a book when you ask, like "Where is the bear?" Points to at least two body parts when you ask him to show you	Says at least two words together, like "more milk" Uses more gestures than just waving and pointing, like blowing a kiss or nodding yes	156 words
30 months	None given	Says about 50 words Says two or more words with one action word, like "Doggie run" Says words like "I," "me," or "we" Names things in a book when you point and ask, "What is this?"	412 words



Five words at 18 months? Fifty words at 30 months? Word combinations before the child has 50 words? Simple picture ID not until 24 months? These milestones make our EI SLP heads hurt. On the MCDI, 5 words at 18 months and 50 words at 30 months both fall below the 5th percentile.

There are a lot of children who fall between the 5th and 25th percentiles and may benefit from additional conversations, screenings, and perhaps support. This prompted us to take a look under the hood and see how [Zubler et al.](#) came to these milestones. Thankfully they describe their methods and provide a table that lists all of the sources that they considered in deciding each milestone. Here are the two things we take issue with:

The sources they cite don't back up their milestones.

We looked at all of the sources that they referenced for the "50 words by 30 months" milestone, which is the most alarming one, and found that **none of the sources listed backed up this number**. Not only that, but some of the studies that they did list were dated and limited (e.g., a 40 child longitudinal study with all white children from 1998). Multiple sources even explicitly have 50 words

listed as a 24-month milestone (the [CLAMS](#) and [Scharf et al.](#)). The sources aren't even correctly cited; they say that they referenced the [American Academy of Pediatrics Bright Futures toolkit](#) for this milestone, but the superscript links to the ASHA milestones.

Additionally, it's worth noting that the ASQ is frequently listed as a source for the milestones. Just this month we covered an [article](#) that found that it misses 1 in 3 children with low language; and yet, the ASQ is more stringent than these milestones (it has two-content-word phrases listed at 24 months).

SLPs were not included as subject matter experts.

The milestones were derived via the consensus of a group of "subject matter experts." The group consisted of "developmental-behavioral, neurodevelopmental, and general pediatricians; child and developmental psychologists; and a professor of special education and early intervention." The fact that SLPs weren't represented on the committee isn't **inherently** an issue, but it becomes one when the milestones don't accurately reflect typical early language development, and there isn't appropriate data to back up their choices.

These errors aren't without impact

While we applaud these authors' efforts to improve developmental surveillance tools, inaccurate and unfounded milestones such as these can impact timely language referrals and will likely counteract their project's aim of reducing "wait and see."

We would like to see the authors provide **clearly delineated logic and evidence** for the language milestones, especially the "50 words by 30 months" one. Even more, we'd like to see the CDC issue a correction in collaboration with speech-language pathologists who have expertise in early language development to ensure that the milestones are aligned with current evidence and support the goals of their project.

One last comment about milestones

Milestones describe the development of primarily neurotypical children. Not all children follow a typical developmental path. If we overemphasize "normal" development as best, we can pathologize other valid developmental paths such as those of autistic children. It's important to keep our focus on functional impact. Is the child able to access their environment? Are they well-adjusted? Able to communicate their needs? Falling below the 25th percentile doesn't mean that there is something "wrong" with a child that needs to be fixed. It does, however, clue us in that they may need some support. We're grateful to V. Tisi ([@speechologist](#)) for drawing attention to this matter; check out their Instagram for more.

P.S. For those of you asking if this has anything to do with recent research about [infant development and COVID](#) (publication pending; February 25th), the sources that the authors looked at were published before the pandemic, so these updated milestones were not affected by new trends in infant development.

Update: ASHA evidently shares our concerns. Just prior to our publication of this piece, they [announced](#) that they are reviewing the milestones and have reached out to the CDC.

[Zubler, J. M., Wiggins, L. D., Macias, M. M., Whitaker, T. M., Shaw, J. S., Squires, J. K., Pajek, J. A., Wolf, R. B., Slaughter, K. S., Broughton, A. S., Gerndt, K. L., Mlodoach, B. J., & Lipkin, P. H. \(2022\). Evidence-informed milestones for developmental surveillance tools. *Pediatrics*.
<https://doi.org/10.1542/peds.2021-052138>](https://doi.org/10.1542/peds.2021-052138)

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