

**Questions and Answers to Support the Release of the Paper,
Evidence-Informed Milestones for Developmental Surveillance Tools,
and LTSAE's Updated Milestone Materials**

Note: As of Feb. 8, 2022, CDC has updated all milestone materials with the revised milestones, however, there may be a brief (1-2 week) delay in the release of the updated Milestone Tracker app due to some additional requirements.

Q1: Why did CDC revise the developmental milestones used in their checklists?

A1: There were three reasons for revising the milestones used in CDC checklists:

1. to be able to offer a free milestone checklist for every age at which there is an American Academy of Pediatrics (AAP) recommended well-child health supervision visit between 2 months and 5 years, which meant adding the 15- and 30-month checklists;
2. to assign milestones to ages when most children (75% or more) would have reached them, and thereby reduce the “wait and see” approach to taking action on missed milestones;
3. to address parents’ and early childhood professionals’ feedback that having very similar milestones across checklist ages was confusing.

Q2: How much did the milestones change, as reported in the paper?

A2: Previously, LTSAE included a total of 216 milestones across 10 checklists. After the addition of 15- and 30-month checklists, the evidence review process, and assessment of milestones against criteria, 159 milestones were included across 12 checklists.

- This represented a reduction of 57 (26.4%) LTSAE milestones, with the average number of milestones per checklist decreasing from 22 to 13.
- Of the final 159 milestones that met the evaluation criteria, 94 (59.1%) were based on LTSAE original milestones and 65 (40.9%) were added based on the milestone identification and evaluation process.
- A third of the 94 retained LTSAE milestones were moved to a different age based on the criterion that 75% or more of children would be expected to achieve the milestone by that age. When moved, 21 of those 31 milestones were transferred to an older age.
- Over half (56.5%) of the original 216 LTSAE milestones were eliminated based on subject matter expert (SME) criteria, including 25 that were duplicated across checklists at different ages.

Q3: What is new across the checklists and supporting materials?

A3: In updating the checklists, we

- Revised nearly all of the developmental milestones included in existing materials to improve clarity, reduce confusion, improve the evidence base for milestones, and lessen the likelihood of a “wait and see” approach to taking action on missed milestones,
- Developed a 15- and 30-month milestone checklist,
- Revised and expanded tips and activities to support children’s development for all ages,
- Added open-ended questions to help facilitate conversations between parents, healthcare providers and others,
- Removed the “when to act early” milestones/warning signs/“red flags” (see Q4 for more detail),

- Integrated the new milestones and tips within the *Milestone Tracker* app (photos and videos to be added soon), and
- Redesigned the *Milestone Moments* booklet, milestone checklists, and milestones brochure and gameboard poster for a fresh new look.

Q4: Where did the “when to act early” milestones/warning signs/“red flags” go?

A4: Over the years, the program received feedback from families and early childhood providers that two lists of milestones in one tool made it difficult to know when to be concerned and when it was appropriate to take action on a possible concern. Many “when to act early milestones” were milestones repeated from an earlier age. Using milestones most children would be expected to achieve allowed incorporation of 77% of those “warning sign” milestones into the checklists. Those that were not incorporated may be better recognized during the child’s health supervision visit (such as *stiff or tight muscles*) or may be better captured in the new open-ended question “*Is there anything your child is doing or is not doing that concerns you?*”

The developmental experts who participated in this review agreed that a child not meeting one of the new milestones should be considered for screening, just as children demonstrating the previously-designated warning signs, because the new milestones represent those that most children their age (75% or more) would be expected to achieve.

Q5: Will revisions create unnecessary referrals to early intervention programs?

A5: No, it is not expected that the new milestones will result in any unnecessary referrals to early intervention programs or for further evaluation. The developmental experts, using AAP’s guidelines, recommend that missing a milestone(s) should support clinical decision-making for additional developmental screening. * Referrals can then be considered based on developmental screening results and if families or providers still have concerns.

Q6: How are these checklists different from a developmental screener?

A6: LTSAE’s milestone checklists are developmental surveillance/monitoring tools. Developmental surveillance and screening are two different, but complementary, processes. Both are recommended by the AAP for early detection of developmental delays. Together, surveillance and screening improve early identification.

The milestone checklists, used in developmental surveillance, are not a substitute for a standardized, validated developmental screening tool. Rather, they offer a way to engage parents and other important care providers in ongoing developmental surveillance/monitoring and empower them to act early if they have concerns by discussing them with their child’s doctor, asking about developmental screening, and contacting early intervention services if they still have concerns.

Q7: Can people still use the old materials?

A7: Yes, the old LTSAE milestones and checklists can still be used while programs and early childhood providers transition to using the new materials with families. The old milestones can still help support developmental surveillance/monitoring by asking about a child’s developmental progress and eliciting parents’ concerns. However, the new milestones were identified by developmental experts’ recent

review of the milestone literature and represent those that most children (75% or more) would be expected to achieve, so LTSAE encourages programs using the old materials to transition to the new materials when feasible.

Q8: What should healthcare providers know about the revised milestones?

A8: The milestones were revised to better support pediatricians and other clinicians in following the AAP’s recommendations for developmental surveillance and screening to identify children with developmental delays or disabilities early, to help ensure timely interventions at a time in brain development when children are more likely to learn new skills.

Adding 15- and 30-month milestone checklists completes CDC’s free series of checklists for surveillance at health supervision visits from 2 months to 5 years of age. Using milestones that most children (75% or more) would be expected to achieve at a given age can support clinical decision-making for additional developmental screening* as recommended by the AAP when concerns arise, since screening would be warranted for children missing these milestones to better assess their risk for developmental concerns.

The open-ended questions can help identify strengths and concerns not identified by milestones. The “Act Early” message can support families in discussing concerns and asking about developmental screening. The reminders for universal developmental screening at recommended ages can encourage families to attend these visits and complete the screeners. Finally, the revised and expanded tips and activities can help engage families in developmental promotion and support relational health.

Q9: Where are the photos and videos that demonstrate the milestones?

A9: The revised milestones were finalized during 2020, and due to the COVID-19 pandemic, CDC determined that photo and video shoots should be postponed to minimize the risk to participants. The supporting photos and videos will be released late 2022/early 2023.

Q10: Have these milestones been tested with families?

A10: The milestones and open-ended questions were tested with a demographically diverse group of English and Spanish-speaking parents of young children 2 months to 5 years of age to ensure comprehension of the milestones and ease of use in determining if their child had reached the milestones. Findings were used to further refine milestone descriptions.

Q11: How were the milestones and checklists made clearer and easier to understand?

A11: Developmental experts identified by the AAP established criteria for milestones to include in the updated checklists.

- Age most (75% or more) children would be expected to demonstrate the milestone
- Easy to observe in natural settings
- Can be answered with yes/not yet/not sure
- Use plain language; avoid vague terms like may, can, and begins
- Show progression of skills with age, when possible

There were also criteria for how the milestone checklists should be structured.

- Organize in developmental domains
- Eliminate repetition across checklists
- Remove “when to act early” milestones/warning signs/“red flags” (see question 4)
- Include open-ended questions
- Include information for developmental promotion
- Include information on how to act early if there are concerns

Q12: Why were the tips and activities revised and what was the process for revising them?

A12: The tips were revised to support early child development and relational health and to make them more relevant to families today. Some milestones from the previous checklists that were removed because they did not meet the new criteria were adapted into tips for developmental promotion since they provided valuable information for families. New tips about feeding, screen time, sleep, and other topics were included to provide developmentally appropriate information for parents that was not present on the previous checklists.

The revised tips and activities to support development were developed through a comprehensive review process and cross-referenced with common developmental promotion resources. CDC’s previous *Learn the Signs. Act Early. (LTSAE)* tips and activities were used as the base for the revision. Representatives from CDC’s LTSAE program, Child Development Studies team, Division of Nutrition, Physical Activity, and Obesity, CDC’s Injury Prevention team, and the Division of Violence and Prevention then reviewed and provided recommendations for improving these tips and activities. The revised tips and activities were also reviewed to ensure they were family-friendly, written in plain-language, and used simple words and short sentences to ensure that all tips are at or below a 7th grade reading level.

Q13: Since the milestones reflect what approximately 75% or more of children are expected to do by the specified age, do they have utility outside of Child Find for educating parents and professionals about development and anticipatory guidance?

A13: They can be used for anticipatory guidance for parents to know what milestones to expect at their child’s current age and what milestones they should be reaching by the next age. Both the checklists and the developmental domain tables within the published paper can be used when training professionals.

Q14: Why did developmental experts choose to use milestones at least 75% of children would be expected to achieve at a given age when revising the checklists?

A14: The updated milestones were chosen to reflect what most children (75% or more) can do by given ages to better identify potential concerns. Many milestones lists available for developmental surveillance/monitoring are based on average/50th percentile. These lists can help parents and professionals have a sense of typical child development. However, average age/50th percentile milestones may be less helpful in identifying when there may be concerns for an individual child because half of children would be expected to attain a milestone at that age and half would not. Using milestones that 75% or more of children would be expected to achieve can help parents and professionals discuss concerns and consider next steps such as performing additional developmental screening* to assess a child’s risk for developmental concerns.

Q15: How should healthcare providers and other early childhood professionals use the new open-ended questions on the checklists?

A15: The new, short, open-ended questions encourage families to share additional information with the child’s healthcare provider and early childhood professionals to give a broader picture of a child’s development. They provide an opportunity to discuss strengths, support relational health, and identify concerns that milestones alone may not.

Q16: What other free resources does CDC/LTSAE and its partners have to support developmental surveillance and screening for early identification of developmental delays and disabilities?

A16: The program has many free resources that families and other providers can use to track children’s development, like printable milestone checklists, CDC’s free *Milestone Tracker* app (available in the App store and Google Play), and the *Milestone Moments* booklet (available for order in limited quantities).

For professional audiences, “primers” are available that provide tips on ways to integrate LTSAE resources and materials across various settings like Home Visiting, Child Find, and early care and education programs. Additionally, other simple training resources like the *Watch Me! Celebrating Milestones and Sharing Concerns* and the *Developmental Milestone Checklist Program – Online Implementation Guide* are available at www.cdc.gov/ActEarly/Materials. For healthcare provider specific trainings, visit www.cdc.gov/ActEarly/Healthcare .

Q17: Do these milestones apply to diverse populations?

A17: Yes, the available evidence suggests, and the developmental experts agree, that the selected milestones are those that most children, including those from diverse racial and cultural backgrounds, would exhibit. More than half of the literature used to inform the revisions to the milestones was based on international studies from non-English speaking countries. Two native Spanish-speaking pediatricians reviewed the Spanish translation of the milestones, and CDC’s Multilingual Services certified the translation process. Efforts were made to select milestones that families and caregivers could observe in a child’s natural settings (home, preschool, and/or community) and were written using family-friendly language at a 5th-7th grade reading level.

Over 50 parents from across the United States participated in extensive cognitive testing of the milestones to ensure the descriptions of each milestone were easy to understand as intended, observable in natural settings, and relatable to families. Both English and Spanish-speaking parents from different racial groups, geographic areas, educational levels, and income levels participated in testing and helped improve the milestone descriptions.

Q18: What are the strengths and limitations of using milestone checklists?

A18: Using milestone checklists to monitor and track a child’s development can help parents, caregivers, and early childhood professionals celebrate a child’s developmental progress, identify concerns,

improve knowledge of typical development, and form realistic expectations of what children can do at different ages (a protective factor).

However, milestones, even those informed by evidence, may not capture all concerns. Ongoing longitudinal developmental surveillance, which involves many components, including a developmental history and eliciting concerns, may help families feel comfortable expressing and discussing concerns they have about their child's development. Studies have shown that when parents have concerns about their child's development, their concerns are usually substantiated. It is recommended that children receive developmental screening (in addition to universal screening recommended at specific ages) if providers or parents have concerns during monitoring, even if those concerns are not captured by missing milestones.

CDC milestone checklists for monitoring and to support developmental surveillance at health supervision visits, along with the open-ended questions, tips and activities, and messages about what to do when there are concerns, can encourage ongoing conversations with families about their child's development. These conversations can help providers and families celebrate children's development, identify concerns, and take any next steps, such as developmental screening, to further determine a child's risk for delays.

Q19: What do I do with my supply of Milestone Moments booklets?

A19: LTSAE will be updating all web, print, and *Milestone Tracker* app materials to reflect the new milestones. However, the program understands that it will take some time to fully integrate the new milestones. The old LTSAE Milestone Moments booklets and other pre-printed checklists can still be used to help support developmental monitoring while programs and early childhood providers transition to using the new materials with families. The revised booklets have a new look to help providers know which version they are using as they transition and replenish their supply with the new booklets. Although there are some new features in the new version of the Milestone Moments booklets, like a developmental screening passport and a page providing detailed information on the steps families can take if they have developmental concerns, the old version still supports developmental monitoring, developmental surveillance, and conversations about a child's development.

** AAP recommends developmental screening any time there are concerns in addition to universal screening at 9, 18, and 30-months and autism screening at 18 and 24-months. If there are concerns regardless of results of screening, further evaluation should be pursued. Screening is not necessary if clinical judgement supports directly referring for further evaluation for suspected developmental delays or disabilities.*