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Future IDA EVENTS

Growing Development Through Relationships: An Introduction to the DIR-FCD Model

Monday and Wednesday March 28th & 30th 3:00-6:30pm PST

*Marilee Burgeson SLP and Caroline Ferguson-Walsh SLP
Certified DIR-FCD Trainers (sorry this event is filled)*

Adaptations: Increasing Access and Participation in Everyday Activities for Young Children- 2 day event

Mondays April 4th & 25th 12:00-1:30pm PST

With Dr. Pip Campbell

Leadership Conversation Series

Wednesday April 13th 12:00-1:00pm PST

IDA Policy Committee

Early Intervention, Advocacy and the California Budget May Revise

Tuesday May 17th 12:00-1:30pm PST

With Teresa Anderson

Coaching Families Raising Young Children With Signs of Autism: Naturalistic Approaches

Wednesday May 25th 12:00-1:30pm PST

With Dr. Aubyn Stahmer and Sarah Dufek PhD.

New CDC milestones

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Infant Development Association
Membership Outreach and Belonging Co-Chair
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Why and how were the milestones changed?

- New child development research over the past 18 years
 - *Improve the evidence base for milestones* and add to domains where more evidence was needed (social-emotional domain)
- Needed checklist to align with every child's well visit (from 2 months to 5yrs)
 - Added 15 and 30-month checklists
- Make it more parent-friendly
 - Reduced the change overall number of milestones from 216 to 159
 - Reduce duplicated milestones across ages by 25
 - Remove vague language like “may” or “begin”
 - Written at 5th to 7th-grade reading level in English and Spanish
 - *Added open-ended questions to create dialogue* and look at the *progression* of skills
- Avoid the wait and see approach
 - Changed the milestones from 50% to 75% of children achieve (avg to most)
 - *Removed 55 of the 77 warning signs and embedded within milestones*



Comparison of Old and New Milestones Checklists

What Most Children Do at this Age:

Social/Emotional

- Copies others, especially adults and older children
- Gets excited when with other children
- Shows more and more independence
- Shows defiant behavior (doing what he has been told not to)
- Plays mainly beside other children, but is beginning to include other children, such as in chase games

Language/Communication

- Points to things or pictures when they are named
- Knows names of familiar people and body parts
- Says sentences with 2 to 4 words
- Follows simple instructions
- Repeats words overheard in conversation
- Points to things in a book

Cognitive (learning, thinking, problem-solving)

- Finds things even when hidden under two or three covers
- Begins to sort shapes and colors
- Completes sentences and rhymes in familiar books
- Plays simple make-believe games
- Builds towers of 4 or more blocks
- Might use one hand more than the other
- Follows two-step instructions such as "Pick up your shoes and put them in the closet."
- Names items in a picture book such as a cat, bird, or dog

- Climbs onto and down from furniture without help
- Walks up and down stairs holding on
- Throws ball overhand
- Makes or copies straight lines and circles

Act Early by Talking to Your Child's Doctor if Your Child:

- Doesn't use 2-word phrases (for example, "drink milk")
- Doesn't know what to do with common things, like a brush, phone, fork, spoon
- Doesn't copy actions and words
- Doesn't follow simple instructions
- Doesn't walk steadily
- Loses skills she once had

Tell your child's doctor or nurse if you notice any of these signs of possible developmental delay for this age, and talk with someone in your community who is familiar with services for young children in your area, such as your state's public early intervention program. For more information, go to www.cdc.gov/concerned or call 1-800-CDC-INFO (1-800-232-4636).

The American Academy of Pediatrics recommends that children be screened for general development and autism at the 24-month visit. Ask your child's doctor about your child's developmental screening.

What most children do by this age:

Social/Emotional Milestones

- Notices when others are hurt or upset, like pausing or looking sad when someone is crying
- Looks at your face to see how to react in a new situation

Language/Communication Milestones

- Points to things in a book when you ask, like "Where is the bear?"
- Says at least two words together, like "More milk."
- Points to at least two body parts when you ask him to show you
- Uses more gestures than just waving and pointing, like blowing a kiss or nodding yes

Cognitive Milestones (learning, thinking, problem-solving)

- Holds something in one hand while using the other hand; for example, holding a container and taking the lid off

- Tries to use switches, knobs, or buttons on a toy
- Plays with more than one toy at the same time, like putting toy food on a toy plate

Movement/Physical Development Milestones

- Kicks a ball
- Runs
- Walks (not climbs) up a few stairs with or without help
- Eats with a spoon

* It's time for developmental screening!

At 2 years, your child is due for an autism screening, as recommended for all children by the American Academy of Pediatrics. Ask the doctor about your child's developmental screening.

Other important things to share with the doctor...

- What are some things you and your child do together?
- What are some things your child likes to do?
- Is there anything your child does or does not do that concerns you?
- Has your child lost any skills he/she once had?
- Does your child have any special healthcare needs or was he/she born prematurely?

You know your child best. Don't wait. If your child is not meeting one or more milestones, has lost skills he or she once had, or you have other concerns, act early. Talk with your child's doctor, share your concerns, and ask about developmental screening. If you or the doctor are still concerned:

1. Ask for a referral to a specialist who can evaluate your child more; and
2. Call your state or territory's early intervention program to find out if your child can get services to help. Learn more and find the number at cdc.gov/FindEI.

For more on how to help your child, visit cdc.gov/Concerned.



How were the milestones changed?

- CDC worked with AAP (American Academy of Pediatrics) to choose *8 SMEs*
- Literature review of 1,027 journals, chose 34 to meet inclusion criteria (normative data)
- Removed 122 milestones for 4 reasons:
 - Little/no normative data
 - Inconsistent data
 - Duplicate milestone
 - Did not meet criteria established by SMEs

Who were the SMEs?

- Developmental-behavioral pediatrician
- Neurodevelopmental pediatrician
- General pediatrician
- Child and developmental psychologists
- Professor of special education and early intervention
- Developer of screening tools
- Editor of Bright Futures: Guidelines for Health Supervision of Infants, Children and Adolescents
- Authors of AAP 2020 clinical report Promoting Optimal Development: Identifying Infants and Young Children with Developmental Disorders Through Developmental Surveillance and Screening



Summary of Changes

- 26% reduction in total
 - Average number of milestones per checklist was reduced from 23 to 13
 - The 1, 2, and 3-year-old checklists had the greatest decrease in the number of milestones with a >50% reduction.
 - Half moved to new 15 and 30 month
- 65 new milestones were added
- 94 original were retained
 - 1/3 of retained were moved
 - 2/3 moved to older age
- Cognitively tested milestone descriptions with a diverse group of 50 parents

Food for thought: How does removing earlier milestones, moving most milestones to older ages and adding new milestones at older ages accomplish the goal of earlier identification?

New Milestones	Before 30 months	After 30 months
Social Emotional	13	7
Language	8	11
Cognitive	8	6
Motor	7	5



ASHA (American Speech Hearing Association) response to communication milestones

- Initial statement: ASHA is supportive of efforts to help identify children earlier, but the milestones presented to parents must be evidence-based in order for families to make well-informed decisions about their children's care.
 - (FYI - Of the 87 resources cited only 22 journals were not authored by pediatricians)
- ASHA (American Speech Hearing Association) FAQs after meeting with CDC
 - ASHA was not involved in the revisions
 - *A handful of the revised CDC speech and language milestones do not align with ASHA's speech and language development publication (updated in 2015)*
 - ASHA is very conscious of what many members report, that children are already being referred to them later than they optimally should be. ASHA members worry that any reassignment of expected skills to an older age will entrench the “wait and see” approach
 - ASHA concerned that the checklists were translated into multiple language and language milestones are not universal across all languages



Handful that might be problematic in addition to 50 words at 30 months

- By “Simplifying” they removed markers of language disorder versus delay and identification of pragmatic disorders (identifying how children are using their language)
- Expressive milestones removed:
 - Begins to act bored if activity doesn’t change
 - Babbles and copies sounds he hears
 - Strings vowels together when babbling
 - Begins to say consonant sounds
 - Copies sounds and gestures of others and Tries to say words you say
 - Shaking head “no” and says and shakes head no
- Receptive milestones removed (at 3 years old) – think about the preschool aged child who doesn’t have these milestones
 - Understands words like “in,” “on” and “under”
 - Follows instructions with 2 or 3 steps



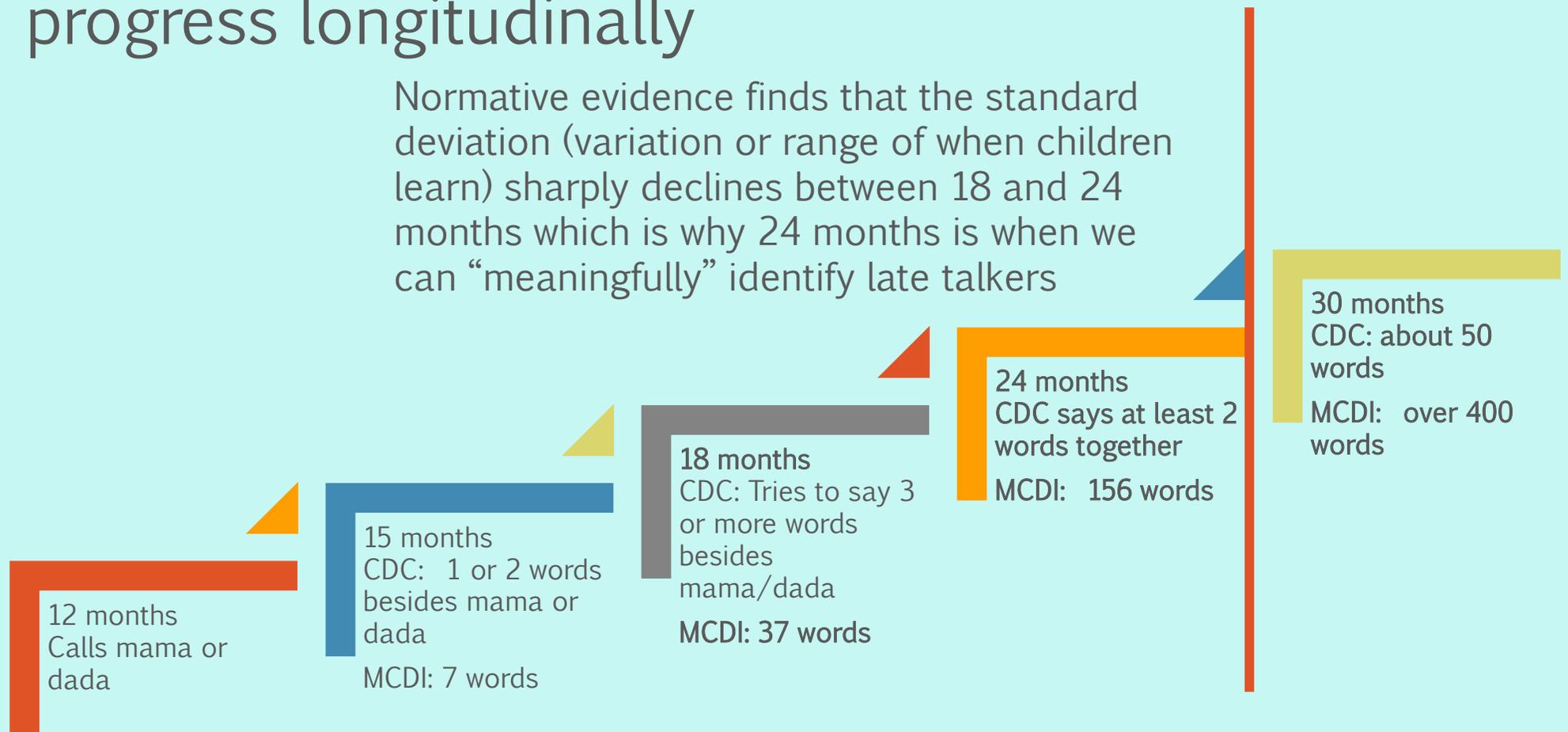
Problems with the communication milestones

- Developmentally it doesn't make sense to make "combine words" a milestone before child has achieved a vocabulary of 50 words (Marchman & Bates)
 - Research shows that children usually have a vocabulary of about 50 words before they start combining them into phrases (Rescorla and Mirak 2000)
 - Research shows that vocabulary size at 20 months is the best predictor of phrase length at 28 months; grammar develops once a critical mass of vocabulary words is learned (Bates et al. 1988)
 - Grammatical differences in preschool identify children with language impairment versus language delay (which is why it is troublesome that CDC removed some grammatical markers such as production of plural /s/) (Paul 1996)
- Research shows that most children commonly have a word spurt at 18 months, the range is 15 to 24 months, so at 30 months you are way beyond even delayed language development (Bloom 1973, Nelson 1973, Mitchell and McMurray 2008, Dale & Fenson 1996)
 - The CDC also reduced the number of words at 18 months by half, missing the opportunity to identify children whose vocabulary is not growing at the rate it should
 - CDC has unilaterally tried to change the widely accepted definition of a late talker - an expressive vocabulary of fewer than 50 words and no two-word combinations by 24 months of age (Paul, 1991; Rescorla, 1989).
- If children are not identified until the 30-month checkup, they have missed the transition to preschool meeting and by the time screening, referral, intake and initial evaluations happen they are almost ready to transition out of EI when services start
- *Also keep in mind that vocabulary size is the main predictor of reading comprehension so kids entering preschool with a gap do not necessarily "catch up" (Justice 2006, Hart and Risley)



Surveillance is intended to capture developmental progress longitudinally

Normative evidence finds that the standard deviation (variation or range of when children learn) sharply declines between 18 and 24 months which is why 24 months is when we can “meaningfully” identify late talkers



Comparison between CDC milestones and what most children are achieving Per MCDI (MacArthur Bates Developmental Inventory) word bank *source: The Informed SLP March Reviews



Even the sources cited by CDC do NOT support the 50-words at 30 month milestone

- Johnson and Biasco (1997) – 50 words at 24 months
- Accardo & Capute (1973) – 50-word vocabulary at 24 months
- Gerber et al (2010) – Uses 50+words at 24 months
- Lipkin Bright Futures - Uses 50 words at 2 year visit
- Scharf et al (2016) - Uses 50+ words at 24 months
- Lancaster et al (2018) – No number of words listed at 18 to 24 or 24 to 30 mo.
- ASQ-3 – 8 or more words at 20 months, 15 or more words at 22 months, no # listed for 24 or 30 months
- Tamis-Lemonda (1998)
 - Mean age was 18 months for achieving 50 words
 - 60% of children at bottom 10% had achieved 50 words by 21 months
 - Children learn 5.9 words per month before 50 word mark and average of 39 new words per month after the 50 word mark



Clarifying or Confusing Parents

- No agreement with other tools
 - Rossetti Infant Toddler Language Scale - Uses 50 different words at 21 to 24 months
 - DAYC-2 uses at least 50 different words in spontaneous speech at 24 months
 - HELP Uses expressive vocabulary of 50+ words at 24 to 30.5 months, Uses expressive vocabulary of 200+ at 30 to 35 months
- No agreement with other medical/developmental sources
 - Pathways.org – 50 words at 24 months
 - **First Words Project** – 50 words at 21-22 months
 - Stanford Children’s Health - 50 words at 18 to 23 months
 - Rady’s Children’s Hospital - 5 to 20 words 15 to 18 months, has an average vocabulary of 200 words by 2 years
 - CHOC (Children’s Hospital of Orange County) - 2 year old says about 200 to 300 words
- Removal of warning signs and some milestones and assuming they will be discussed with “open ended” questions at visits in a “dialogue”
 - The **total** time of well-child care is 45 to 90 minutes for the first year of life and declines to less than 30 minutes per year thereafter
 - Most children only make 3 to 4 of the 6 well-child visits in the first year of life and impoverished children even less
 - High-risk children make half as many well-child care visits and only receive a 3 to 4 minute increase per year (Le Baron et al 1999)
 - The 2016 US National survey of children’s health found that **only 37% of parents of children 9 to 35 months of age reported that their healthcare provider performed developmental surveillance during visits and only 30% reported having completed a developmental screening** in the past 12 months (Abercrombie et al 2021)
 - California has one of the lowest developmental screening and early intervention rates in the country. While 18% of the state’s children have a developmental delay or disability, only 3% of children receive early intervention by age three. Screening rates are a key sticking point: just 26% of children are screened three times before age three, as recommended by the AAP (Help me grow 2020)



Concerns about crawling being removed

- Think about this – they added blowing raspberries as a milestone but removed crawling
- The definition in Farlex Medical Dictionary (2006) is an achievement or ability that has special importance in the growth, motor functioning or social development of infants, toddlers and older children, usually associated with a particular age range (eg sitting, **crawling**, walking, language acquisition)
- World Health Organization 2006– longitudinal data collected with 816 children over multiple years in 6 geographic regions around the world to create tool to measure development
- – 6 major gross motor milestones identified, including crawling
 - (only 4.3% of sample did not exhibit hands and knees crawling)
- Michigan State University 2013 – research supports that hands and knees crawling is a important for coordination and preparatory phase for walking
 - Cognitive and spatial development: Children who crawled on hands and knees were able to locate a hidden toy correctly more often than children who were not able to crawl on hands and knees
 - Memory flexibility: Research found that children who were crawling showed greater memory retention when tested in same and different settings versus children who were not crawling.
- “When babies don’t crawl that’s a red flag that something else might be wrong such as physiological difference in their feet/legs, reflux, inability to integrate reflexes, delay in other less obvious milestones, poor strength and muscle tone so eliminating it as a milestone could cause that red flag to be missed.” Jessica Hatfield, MS, OTR/L Parents magazine



Concerns for children who skip crawling

- Benefits of crawling:
 - Cross-lateral crawling develops the corpus callosum in a balanced way which belly crawling does not develop
 - This supports cognitive function and problem solving
 - Increases lower back strength
 - Strengthen hand-eye coordination
 - Joint stability and muscle strength in the trunk and arms
 - Lengthens finger muscles, develops arches in the hand and development of thumb and web space which help with grasping and manipulation of smaller items (pencils/spoons)
 - Children who crawled scored better on visual perceptual tests better than non-crawlers – affects your ability to feed, dress, write, avoid falling off a surface
 - Binocular vision – child can look to the distance where they are going and back down to where hands are crawling – important for future tasks such as taking a note in class
 - Primitive reflexes are inhibited by crawling, the longer an infant has those reflexes greater chances of growing into disabilities and delays
 - Symmetrical Tonic Neck Reflex – which helps us operate upper and lower body independently
 - 75% of those diagnosed with ADHD/learning disorders had immature STNR
 - Sources: Anna Goldenberg OT, NYC Dept of Ed, Pediatric Occupational Therapy Resources, Kim Hall MS
 - OTr

