The Ages and Stages Questionnaire
## Who, What and Why

- Jen Stout: Local Child Wellness Coordinator, Project LAUNCH with Visiting Nurse Services of Iowa…more importantly, I’m a mom.
- ASQ and ASQ-SE training
- Developmental Screening in your classrooms
Normal development includes developing skills like:

- **Gross motor**: using large groups of muscles to sit, stand, walk, run, etc., keeping balance, and changing positions.

- **Fine motor**: using hands to be able to eat, draw, dress, play, write, and do many other things.

- **Language**: speaking, using body language and gestures, communicating, and understanding what others say.

- **Cognitive**: Thinking skills: including learning, understanding, problem-solving, reasoning, and remembering.

- **Social**: Interacting with others, having relationships with family, friends, and teachers, cooperating, and responding to the feelings of others.
Speech has to do with the sound that comes out of our mouths. When it is not understood by others there is a problem. Speech problems, such as stuttering and mispronunciation can be very frustrating.

*Language* has to do with meanings, rather than sounds. Language is a measure of intelligence and language delays are more serious than speech problems. *Language delay* is when a child’s language is developing in the right sequence, but at a slower rate. *Speech and language disorder* describes abnormal language development.

Delayed speech or language development is the most common developmental problem.

It affects five to ten percent of preschool kids.
Dilemma

- At birth, only 1-2% of infants have discernible, disabling conditions
- By school age, 10-12% of children have some degree of disability
- Question: How do we identify the 8%?

IT is our job to case find this elusive 8% with the screening and surveillance we are doing regularly.
Benefits to making developmental screening part of your work
These benefits include:
• Screening works!
• Screening can result in access to services.
• Screening meets the expectations that parents have
• Screening meets federal requirements.
On the left are the detection rates without using validated screening tools. Without these tools, only 20-30% of children with delays are identified.

On the right are the detection rates you can expect if you use good quality screening tools correctly. Almost three times as many children with developmental and behavioral problems will be correctly detected when providers use these tools rather than only using professional judgment alone.

If we look at developmental status repeatedly over time, detection rates longitudinally should be substantially higher.
Without using proper screening tools, providers often don’t detect disabilities as early as they should.

This graph is from an epidemiologic study by Dr. Judith Palfrey that looked at over 5,000 children across the United States, all of whom were receiving special education services. Children in Dr. Palfrey’s survey who had genetic syndromes or physical disabilities were generally diagnosed within their 1st year of life by a physician.

Children with cognitive, speech or behavioral problems were more typically diagnosed as they entered school. And only 20% of these children were referred for diagnostic services by their physician.

For many of those with developmental problems, detection might have been possible in the first few years of life… had the proper screening tools been used. And as we know, early treatment would probably have enhanced their outcomes.

Many pediatric providers use developmental checklists. Although checklists are a good beginning to the practice of developmentally-minded pediatrics, they are not efficient, accurate, or effective enough. Routine, scientifically-tested and recommended screening and referral practices must become a part of the office procedure to ensure proper care.

Many providers use one of two very similar resources – the AAP’s Guidelines for Health Supervision, which was originally published in the mid 1980s and is now in its third edition, or the Bright Futures manual, which was initiated by the Maternal and Child Health Bureau. The AAP recently accepted a contract from the Maternal and Child Health Bureau to update and administer the Bright Futures program, so we might expect to see the...
Extensive research conducted by Francis Glascoe on children’s behavior and development reveals the following:

• 11% of children have a high risk of disabilities and need referrals for further evaluations.
• 20% have a low risk of disabilities and need mostly behavioral guidance.
• 26% have a moderate risk of disabilities and need screening developmental promotion and vigilance.
• 43% have a low risk of disabilities and need only routine monitoring.

This is what you can expect to see when you are screening all children in your practice routinely.
How you communicate test results to parents is very important, particularly in cases when the test results indicate further screening or referral. Always look at the strengths of the child and of the family. Point out the child’s positive areas of development or areas of temperament before discussing the problem areas. Parents want to know that you think their child is great. Find ways to compliment the parent before addressing the areas of potential concern.

The specific language you use can be very important in setting the tone of the discussion. Do not use diagnostic language such as “mentally challenged” or “developmental delay.” Instead, find phrases you are comfortable with that prepare the parents for further evaluation. “Children develop differently, and some need extra attention and support during their earliest years. We both want Jake to learn and grow to his full potential, so we need to make sure we know how to support that.”
Reinforce the idea that the tool you’ve just completed is just a step in the process, and that the child needs a complete evaluation to look at all aspects of his learning and development. Emphasize that the test and its results are only designed to indicate that further evaluation or follow up may be needed. If possible, provide the parents with guidance on what they can do at home, before their next visit to your office… or to the specialist or early intervention office you refer them to. Often, this may be as simple as suggesting that they read to or play with their baby more often. This will help them feel like good parents and alleviate some of the helplessness they might be experiencing. This may be particularly important if the child does not meet the delay criteria to be eligible for services but is delayed nevertheless. Your initial guidance to the parents can empower them and change the course of their child’s development for years to come.

You may also need to help a parent to anticipate resistance to the results from other family members. Listen for signs that the parent will be afraid to tell his or her partner, or parent, or friend. Work with them on what they might tell others so everyone understands the situation and does not overreact.

Acknowledge their fears, and anticipate that the family might have “cold feet” and avoid your recommendations for referral and further evaluation. There are many reasons why parents fail to follow through on referrals. Understanding their reluctance and taking a non-judgmental approach to working with them further may allow you to address their issues. Encourage communication… tell the parents that if they decide against further evaluation you would like to be informed.
The family's culture may impact your relationship and the screening process. It is important that you keep all of these issues in mind when working with the family, not only during the screening process. Remember people have different levels of comfort. Some families may appreciate very direct questions, while others may not be comfortable with that type of interaction. Be aware of the family's nonverbal behavior. Some cultures avoid making eye contact, considering it disrespectful. Be aware of a family's primary language. If it is not English, try to have an interpreter or translator available. This could even be someone from your staff. A translator should be offered to a family, if possible, even if they appear to speak and understand English. They may prefer, and be more comfortable, communicating with you through an interpreter in their first language.
The Ages & Stages Questionnaire (ASQ) is a parent report tool generally completed in the waiting room. Parents complete each item by answering “yes,” “sometimes” or “not yet” regarding things their child can do. Completing the test can take parents usually 5 to 10 minutes, and providers usually only need 1 - 2 minutes to score the test.

The 30 to 35 item questionnaires cover five key developmental areas: communication, gross motor, fine motor, problem solving, and personal-social. ASQ questionnaires are written at a 6th grade level and are available in English, Spanish, and French.

The ASQ’s sensitivity ranges from 70 to 90 percent and its specificity ranges from 76 to 91 percent. The tool was standardized in more than two-thousand children, of varying ethnic and socioeconomic backgrounds, from three different states. The research sample evaluated infants who were deemed medically at risk.

The ASQ consists of 19 different questionnaires and scoring sheets appropriate for different ages between 4 and 60 months of age. Each questionnaire is valid for one month before and after the indicated age. So for example, the ten month questionnaire can be used with children who are between 9 and 11 months.
IN order to adjust for prematurity when the child is more than 3 weeks premature and less than two years premature you take the weeks they are preterm and subtract the date of birth from that to get the corrected date of birth

**Administration**

- Prematurity: Correct >3 wk to 24 mos
  - Weeks preterm - DOB = CDOB

  - For example: A baby with Date of Birth (DOB) March 28 2008 who is four weeks preterm would have a Corrected Date of Birth (CDOB) of February 28 2008

- 2 month window (4 months ASQ at 3-5 months)
### Scoring the ASQ

- Use ASQ Information Summary sheet to score and for child’s permanent record
- Ensure test is complete
- Convert responses to point values:
  - yes (10), sometimes (5), not yet (0)
- Add item scores by developmental area and record totals
- Use ratio scoring procedure for unfinished sections

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“ASQ Information Summary.”

First, the scorer should review the questionnaire for unanswered questions. If parents did not have the materials available to test certain items, the provider can make those materials available during the visit and complete the test in the waiting or exam room. Most materials required to complete ASQ questions would be readily available in a pediatric practice.

Each answer is converted to a point value – “yes” answers are 10 points, “sometimes” are 5 points, and “not yet” answers are zero points.

Each section – for instance communication or gross motor – is then tallied and recorded on the score chart, like the one you see on your handout. For instance, if the parent completed the communication section with three “yes” answers, two “sometimes,” and one “not yet,” that section would get a score of 40 points. The scorer would fill in the bubble in the 40 column for that section. If it was not possible for them to answer and the item remains unanswered, a score needs to be computed. This is very simple: using a ratio scoring procedure the scorer would add the sections total points and divide by the number of questions answered in that section to get the ratio score. The ratio score is then added to the section total score resulting in the final score.

Remember, there are 19 different tests, each with different activities, and 19 corresponding score sheets, each with different shading based on what children should be able to do at each developmental level. The same age must appear on both the questionnaire and summary sheet in order to be valid.
Summary Sheets

- Each sheet is unique
- Separate sheet for each questionnaire
- Each sheet has 4 sections:
  - Child/Family information
  - Overall section
  - Bar graph of domains
  - Bubble boxes to summarize answers

We will review these areas
This section asks about questions or concerns parents may have about hearing and vision, history of deafness in the family, medical problems, how the child uses their hands and feet and any other general concern the parents might have about their child.

Overall Section: General Parent Concerns

- Answers to THESE questions are just as important as the domain specific questions

- Child may have mastered the skills on a questionnaire, but still need follow-up
Comments need to be written in so that if your site is going to give parents the questionnaire back and keep the summary sheet only they have all the information transferred over to the summary sheet.
So for example you would total communication scores in the first section and continue scoring through the overall section.

### Scoring the ASQ

- **Total points in each area with**
  - 10 pts: “Yes”
  - 5 pts: “Sometimes”
  - 0 pts: “Not Yet”
Let's review calculating the ratio when there are unanswered questions again. You will first get the total for all the items that have been answered in that section. You can use the ratio scoring method for up to two answers that are left unanswered but no more than two. Then you divide that number by the number of questions that were answered and that number is the answer you give to each of the unanswered questions. Then you finish by adding all the questions in the section both the answered questions and the ones that have been assigned a ratio score.

### Scoring the ASQ

- Calculating Ratio score for unanswered questions
  - Area total ÷ # items answered = Ratio Score
    - $35 \div 5 = 7$
  - Ratio score ÷ Previous total = Final Area Score
    - $7 + 35 = 42$
<table>
<thead>
<tr>
<th>Follow-up &amp; Referral</th>
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<tbody>
<tr>
<td>• All scores ABOVE cut-off point?</td>
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<tr>
<td>• All scores ABOVE cut-off but concerns on overall questions?</td>
</tr>
<tr>
<td>• One or more score below cut-off?</td>
</tr>
<tr>
<td>• One or more score fall right on cut-off?</td>
</tr>
<tr>
<td>• Concern on Overall Questions?</td>
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</tbody>
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Let’s Review now what would you do with each of these areas?
All scores ABOVE cut-off point? monitor
All scores ABOVE cut-off but concerns on overall questions? Handle concern or referral
One or more score below cut-off? referral
One or more score fall right on cut-off? referral
Concern on Overall Questions? handle or refer
Communicating with Families

- Provide feedback quickly
- Explain cut-offs & child’s score
- Address parental concerns realistically
- Emphasize child/family skills & strengths
- Provide info re community resources & follow up ideas
- Offer continued support, hope, encouragement

Review slide
Each provider should know what to do when a child needs to be referred. There may be a person in your agency that is designated to make the referrals but each person will be explaining what happens next to parents and therefore need to be aware.

Follow-up & Referral

- Each program should have a WRITTEN POLICY for how, when, to whom referrals will be made!!!!!
Contact Information

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