



***Setting the Stage for  
Success...***

# **DEVELOPMENTAL & BEHAVIORAL SCREENING**

*A Quality Improvement Initiative in  
Primary Care Practice*

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*Developed by:  
Dr. Marian Earls, Developmental & Behavioral Pediatrician*

# What We Know

- Impact of experience on brain development.
- Growth, development, and behavior are inextricably linked.
- Emotional development occurs in the context of a relationship (bonding, attachment, reading cues).

# Our Nation's Children...

- ❑ 37% of the children in the U.S live in low-income families
- ❑ The rate of children living in low income families is rising again, a trend that began in 2000 (after a decade of decline)



**“The AAP Committee  
on Children with Disabilities  
recommends the use of standardized  
screening tests at well visits”**

About **16%** of children have disabilities including speech  
and language delays, mental retardation, learning  
disabilities and emotional/behavioral problems.

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(Only 30% are detected prior to school entrance.)

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# Prevalence and Risk

13% of preschool children have mental health problems.

This rate increases with the co-occurrence of other risk factors:

- Poverty
- Maternal depression
- Substance abuse
- Domestic Violence
- Foster care

# Maternal Depression

Infant at 1 year may show:

- Decreased performance on Bayley.
- Insecure attachment, which is associated with later conduct disorders and behavior problems.

# Poverty

Severe child hunger associated with:

- Increased rates of internalizing behavior problems in preschoolers and school-age children.
- Increased rates of anxiety and depression at school age.

(U Mass Med study 2002)

# Foster Care

- Children of “risky families,” who have characteristics of conflict, aggression, relationships that are neglectful.
- “Risky” environment disruptive of biological stress-response regulatory systems, and to psychosocial functioning.

# Foster Care

Children in foster care have increased rates over the general population of children for:

- Acute and chronic illness
- Growth and development problems
- Serious mental health problems
- Difficulty accessing health services

# Disparities

- Minorities receive about  $\frac{1}{2}$  as much outpatient mental health care as whites.
- Most children who need a mental health evaluation do not receive services, and Latinos and uninsured children have especially high rates of unmet needs.

# Disparities

- Children living in poverty have twice the rate of mental health problems as the general population of children.
- Rates of use of mental health services are extremely low among preschool children.

# Disparities

## System Capacity

- Workforce shortage of child and adolescent psychiatrists and clinicians who can work with children.
- Even greater workforce shortage of child psychiatrists and psychologists who can work with very young children.

**“Under-detection ...** Eliminates the Possibility of Early Intervention...”

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- No point in **waiting to screen** until the problem is observable.
- **Don't ignore screening results;** there is no value to “wait and see.”
- Informal checklists have **no validated criteria** for referral.

# Are we looking?

Poor rates of screening in PCP's office for:

- Development and behavior
- Maternal depression
- Family risk factors

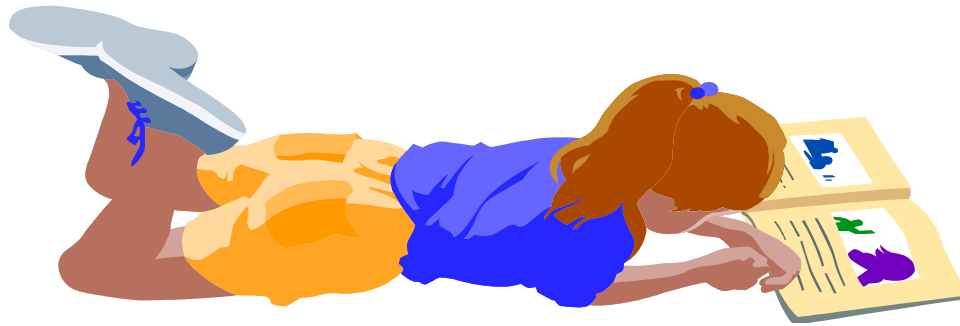
# Limited use of screening at well visits because...

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- ❑ **Takes too long**
- ❑ **Difficult to administer**
- ❑ **Children may not cooperate**
- ❑ **Reimbursement is limited**

**So....**

## **What Should We Do?**



- Use new, brief, accurate tools**
- Use parents**
- Use Family Centered principles**

# Screening Overview

- **Screening** - Looks at the whole population to identify those at risk - flags those who need further assessment.
- **Assessment** - Determines existence of delay or disability - generates decision regarding intervention.
- **Surveillance** - Periodic evaluation of development in relation to the child as a whole.

# The Screening Tools

## Types of screening include:

- Parent Questionnaire
- History/Interview
- Direct Elicitation
- Observation

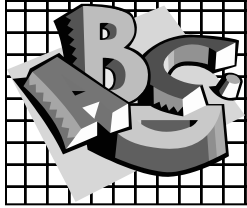


## Desired Sensitivity and Specificity:

- 70-80% min.

# What's Possible, What Works ....

	<b>ASQ</b>	<b>BINS</b>	<b>PEDS</b>	<b>IDI</b>	<b>BRIGANCE</b>	<b>PSC</b>
<b>Type/ Ages</b>	Parent Questionnaire 2 mos-5yrs.	Direct Elicitation 3 mos-24 mos	Parent Questionnaire 0-8 yrs.	Parent Questionnaire 3 mos-18 mos.	Direct Elicitation 21 mos -7.5 yrs.	Parent Questionnaire 6 -18 years
<b>Staff Required</b>	Para-prof	MA or Equiv.	Para-prof	Para-prof	Prof.	Para-prof
<b>Time (Score)</b>	5 min.	10-15 min.	5 min.	10 min.	10-15 min.	7 min.
<b>Cost (Per Kit)</b>	\$190* (less 30% =\$133.00 thru 9/30/04)	\$195	\$30 (pad of 50)	\$ 11 (pad of 25)	\$249	Freely Download
<b>Refills</b>	OK to copy	Needed	\$30	\$11	Contact company	OK to copy
<b>Language</b>	English & Spanish French & Korean	English	English & Spanish Vietnamese Hmung, Somali	English & Spanish	English & Spanish	English
<b>Reading Level</b>	4 <sup>th</sup> -6 <sup>th</sup> Grade	NA	5 <sup>th</sup> Grade	Contact company	NA	Contact company



# The Office Process

- **Assess Current Protocols**
- **Identify Physician Champion**
- **Select a Screening Tool**
- **“Map the Workflow”**
- **Identify System Supports**  
Networking is key
- **Conduct Staff Orientations**

# The ASQ Questionnaire

Each questionnaire - Reviews 5 areas\*

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- communication**
- gross motor**
- fine motor**
- problem-solving**
- personal/social.**

\*(Same focus as Early Intervention Program)

# The Ages and Stages (ASQ)

“First level screening tool for accurate identification of developmental delays or disorders”

- ❑ **Original work** - 1981. revised 1991, 1994.
- ❑ **Original sample** - 2008
- ❑ **Validation**- Gesell, Bayley, Stanford-Binet, McCarthy, Batelle. Overall= **83%**.
- ❑ **Sensitivity** - 72%
- ❑ **Specificity** - 86%



Ages Tested- 4-60 months  
Elicits parent input/concerns

# Parents Evaluation of Developmental Status (PEDs)

- **Validation** - 771 children
- **Standardized** - 2823 children across the U.S.
- **Sensitivity:** 74 – 80%
- **Specificity:** 70 – 80%
- **Format** - Each questionnaire-reviews 10 items
  - No, yes, and a little are responses.
  - Decision pathways A – E, based on score, to refer or do a second stage screen with ASQ, BINS, Batelle or CDI



***Ages Tested: 0-8 years***  
***Elicits parent input/concerns***

# Ages and Stages – SE (ASQ-SE)

- Areas screened: self regulation, compliance, communication, adaptive functioning, autonomy, affect, interaction. 30 items.
- Sensitivity: 71 – 85%
- Specificity: 90 – 98 %
- Ages: 6 – 60 months
- 10 minutes
- English and Spanish

# Eyberg Child Behavior Inventory

- 36 short statements of common acting out behaviors. Rating scale with single cutoff.
- Sensitivity: 80%
- Specificity: 86%
- Ages: 2 – 16 years
- 5 minutes
- English only

# Pediatric Symptom Checklist (PSC)

- 35 short statements of problem behaviors. One cutoff for preschool and one for school-age.
- Sensitivity: 80 – 95%
- Specificity: 68 – 100%
- Ages: 4 – 18 years
- 5 minutes
- English, Spanish, Chinese

# Temperament & Atypical Behavior Scales (TABs)

- 15 items. To identify temperament and self-regulation problems that indicate risk for developmental delay.
- Sensitivity: 72%
- Specificity: 83%
- 11 –71 months
- 5 minutes
- English and Spanish

# Brief-Infant-Toddler Social-Emotional Assessment

- 42 items to identify social-emotional problems. Cutoff based on age and sex.
- Sensitivity: 80 – 85%
- Specificity: 75 – 80%
- Ages: 12 – 36 months
- 5 – 7 minutes
- English, Spanish, French, Dutch, Hebrew

# Family Psychosocial Screens

- Variety of tools ranging from very brief to multi-item.
- Most screen for maternal depression, domestic violence, substance abuse: individual area or several.
- Considered best practice, but limited validation data, etc.
- Examples are Kemper&Kelleher, Edinburgh

# Talking with Families

- Identify child's strengths
- Discuss developmental issues
- Discuss transition stages
- Discuss sharing information
- Discuss community resources

# MH Needs in 0-5 Population

## Level 1

### SERVICES

- Preventive strategies
- Screening & Surveillance
- Health promotion and education

### WHO CAN PROVIDE

- Primary care physician/medical home
- Child care consultants
- Home visitors

# MH Needs in 0-5 Population

## Level 2

Children with elevated risk (e.g. parental depression, SA, Domestic Violence, Foster Care)

### SERVICES

- Consultation
- Support
- Short term counseling
- Early Intervention

### WHO CAN PROVIDE

- PCP
- Social Worker
- Counselor
- Early Intervention Specialist

# PCP Using the DSM-PC

- VARIATION – Reassurance
- PROBLEM – Short-term Counseling and Follow-up, Early Intervention
- DISORDER - Referral

# MH Needs in 0-5 Population

## Level 3

### SERVICES

- Referral after screening indicates serious emotional disorder
- Intensive Mental Health treatment
- Multidisciplinary essential

### WHO CAN PROVIDE

- PCP
- Psychiatrist
- Psychologist
- Community MH Program

# Conclusions

- Mental Health is a consideration for 0-5 year olds.
- Screening and surveillance needs to be a regular part of periodic well care.
- It is essential to elicit and listen to family concerns
- Collaborative relationships among providers in the community constitute best practice