



Children & Families
Commission of Orange County

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08 APR 30 AM 11: 25 **Presentation
May 7, 2008 Meeting**

CLERK OF THE BOARD
ORANGE COUNTY
BOARD OF SUPERVISORS

DATE: April 28, 2008

TO: Children and Families Commission of Orange County

FROM: Michael M. Ruane, Executive Director

SUBJECT: Speech and Developmental Delays Workshop

SUMMARY:

Last year at the Commission's Annual Planning Retreat in June 2007, the Commission established three priorities to address in the coming year: childhood obesity prevention, services to homeless children, and speech and language developmental delays. A workshop to discuss relevant research and existing community efforts in the area of childhood obesity prevention was held in conjunction with the Commission meeting in October 2007. A workshop in relation to services to homeless children was held in conjunction with the January 2008 Commission meeting.

The final workshop will be held at the May 7 Commission. Helen DuPlessis MD, MPH will present an overview of issues related to speech and language developmental delays. Dr. DuPlessis, M.D. is a Senior Advisor with the University of California, Los Angeles Center for Healthier Children, Families and Communities. This presentation is intended to: respond to the Commission's priority identified at the June 2007 retreat and summarize critical issues related to speech and language delays; provide an overview of related current Commission investments to support positive development and connect children with needed services; and, draw connections with these investments and the Commission support for literacy development. Early literacy interventions will be examined in further depth at the June Retreat

As discussed in the attached presentation, speech and language delays is the second most prevalent developmental delay of young children (based on OCDE 2002 data). While parents may raise concerns about speech and language development at an earlier, the data shows that the majority of children are not identified with delays until after school entry (ages 6 through 9). Dr. DuPlessis will present on the importance and challenges associated with early identification as well as gaps in availability of services. While some children may qualify for services and supports, gaps in enrichment and intervention services exist for at-risk children and for those with mild and moderate delays.

Enclosed:

"Speech and Developmental Delays" Power Point Presentation

Contact: Christina Altmayer

SPEECH AND DEVELOPMENTAL DELAYS

Helen DuPlessis, M.D., MPH
UCLA Center for Healthier Children, Families and
Communities

Orange County Children and Families Commission
May 7, 2008

Overview

- Speech & Language Issues in O C
- Language and Development
- Epidemiology of Speech/language problems
- The Importance of Literacy
- Interventions, Outcomes and Options

Useful Definitions

- Language – the use of systematic, arbitrary and socially agreed upon signals to convey meaning within a group/community
- Speech – the manifestation of language that uses decodable vocal sounds as the exchange medium
- **Specific Language Impairment (SLI)** – primary language delay in person with a normal IQ (≥ 85)
- **Language delay** – language that progresses developmentally in the typical sequence, but at a slower rate
- **Language disorder** – abnormal quality/characteristics to language (e.g., syntax, semantics, phonology, pragmatics)

Family Support Network

- 810 children screened from 7/13/07 to 3/14/08
- 320 children (39.5%) were referred for speech and language concerns
 - 42% were referred to the Regional Center
 - 58% were referred to the appropriate School District
 - Over 60% (194) were identified with potential hearing loss & referred to their primary care physician

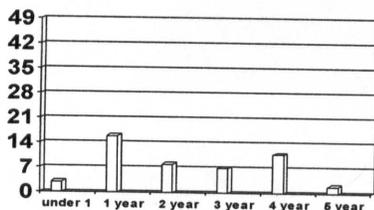
LEAPS

- 1,546 screenings completed from 7/01/2005 to 4/11/2008
- 238 screenings identified speech and language concerns
 - 191 children 0-5 were referred for further evaluation for communication concerns
 - All children were referred to Primary Care Providers for hearing evaluations
 - Approx. 62% referred to Regional Center
 - Approx. 38% referred to School District of residence
 - 47 children without identified concerns had risk factors in the area of speech and language development

LEAPS

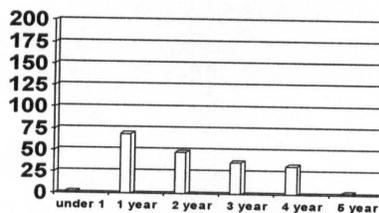
Children with Speech & Language Risk Factors by Age

- 3 under 12 months
- 16 one year olds
- 8 two year olds
- 7 three year olds
- 11 four year olds
- 2 five year olds



Children with Speech & Language Concerns by Age

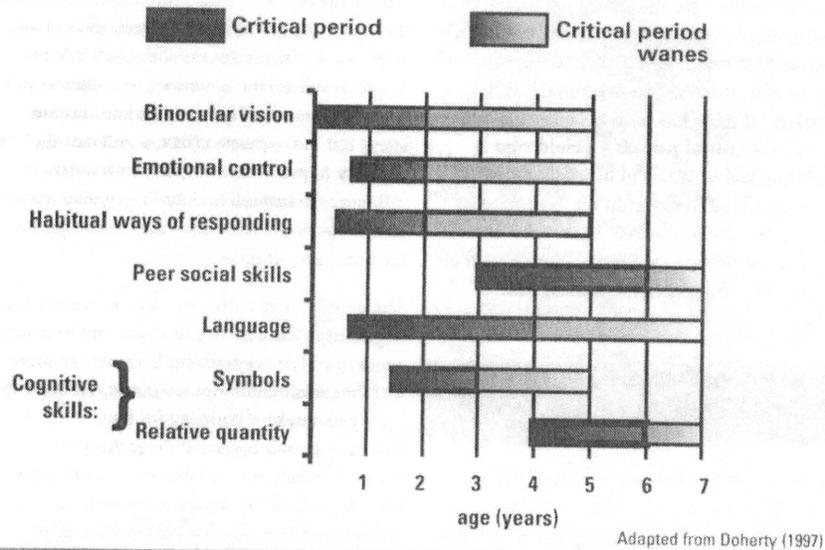
- 2 under 12 months
- 69 one year olds
- 48 two year olds
- 37 three year olds
- 33 four year olds
- 2 five year olds



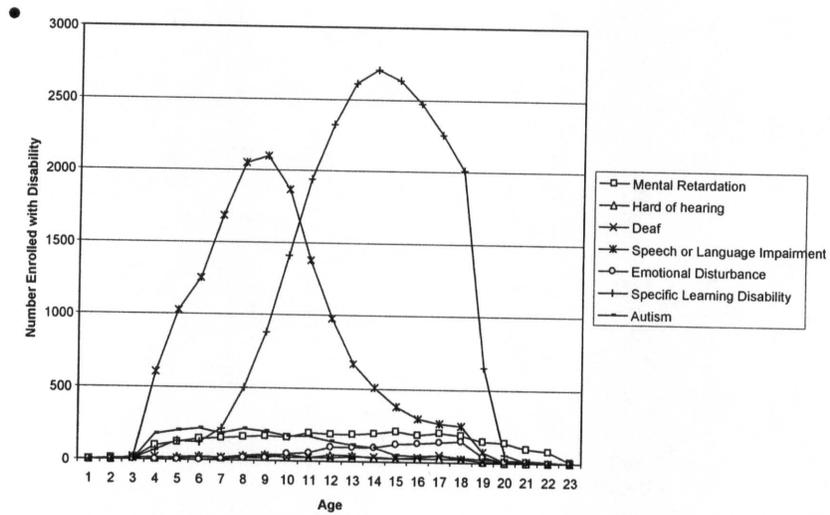
Help Me Grow

- Out of 750 calls made from 1/1/2007 to 12/31/2007:
 - Approx. 161 (over 21%) were made for concerns pertaining to speech, language & hearing
- Out of 341 calls made from 1/1/2008 to 3/31/2008:
 - Approx. 52 (over 15%) were made for concerns pertaining to speech, language & hearing

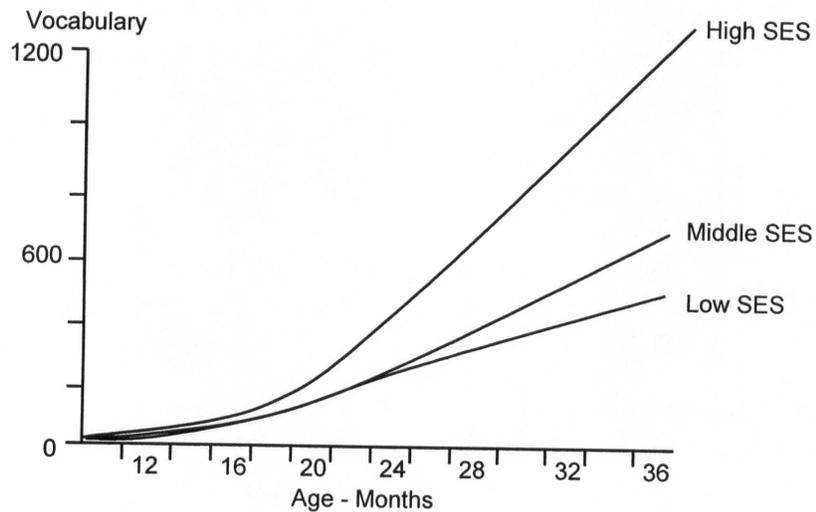
FIGURE 1.2 CRITICAL PERIODS FOR SOME ASPECTS OF BRAIN DEVELOPMENT AND FUNCTION



Special Education Enrollment by Age and Disability in Orange County (2002)



Vocabulary Growth - First 3 Years



Source: B Hart & T Risley Meaningful Differences in Everyday Experiences of Young American Children 1995

Causes of Language/Speech Delay

- Hearing loss
- Traumatic brain injury
- Global developmental delay
- Autism Spectrum Disorder
- Psychosocial deprivation
- Occurs as a secondary characteristic in
 - Neuromuscular disorders (e.g., CP, Landau-Keffner syndrome, Duchennes MD)
 - Genetic Conditions (e.g., Downs, Fragile X, Williams syndromes)

Risk Factors for Speech/Language Delay

- Low SES
- **Family History of SLI**
- **VLBW**
- Low 5 min APGAR score
- Absent or short duration of breastfeeding
- Male gender
- **Parental education**
- Young maternal age

Levels of Literacy: A Reflection of ECD

- Level 1: basic skills to perform simple literacy activities (sign name)
- Level 2: can perform moderately challenging literacy skills
- Level 3: is considered a suitable minimum for coping with the demands of everyday life
- Level 4 describe people who demonstrate and 5: command of higher-order processing skills

Documented Literacy Levels 1994 – 1998, Ages 16 to 55

	Level 1 and 2	Level 4 and 5
Sweden	23%	34%
Canada	42%	23%
Australia	43%	17%
United States	48%	18%
Chile	85%	3%

The Consequences of Low Literacy

- Achieving H.S. level skills 2X probability of employment
- H. S. grads earn 42% > those who don't graduate
- 75% of jobs require reading level \geq 9th grade
- **Literacy levels and school achievement have enormous economic consequences**
- 42% of adults with the lowest literacy skills live in poverty
- Only 50% of low income moms (with <3 y.o.) read to their children daily
- **By 18-24 months of age, children in environments with low parental education, poverty and high family stress are often delayed in expressive language**

What Do We Know About Interventions?

- Early intervention for speech/language problems → improved language skills
- Children with expressive speech/language problems show the greatest improvement
- Longer duration of intervention yields better outcomes
- The effectiveness of treatment for receptive or expressive syntax speech/language problems is unclear

What Do We Know About Outcomes?

- **The long term prognosis is poor for children with persistent language deficits by age 5.5 yrs**
- Persistent language deficits in school aged childhood, often persist into adulthood resulting in:
 - ✓ anxiety disorders (27%)
 - ✓ antisocial behavior (20%)
 - ✓ Inability to live independently (40%)

Options for Intervening

- Address the risk factors (poverty, parental education, VLBW and family hx of SLI)
- Focus on what we know works:
 - ✓ Early intervention (long before school age)
 - ✓ Longer duration of therapy
 - ✓ Supporting enriched home environments
 - ✓ Reading enhances vocabulary and literacy
- Consider comprehensive assessments to avoid missing primary/co-morbid conditions
- Assess, plan, intervene and reassess