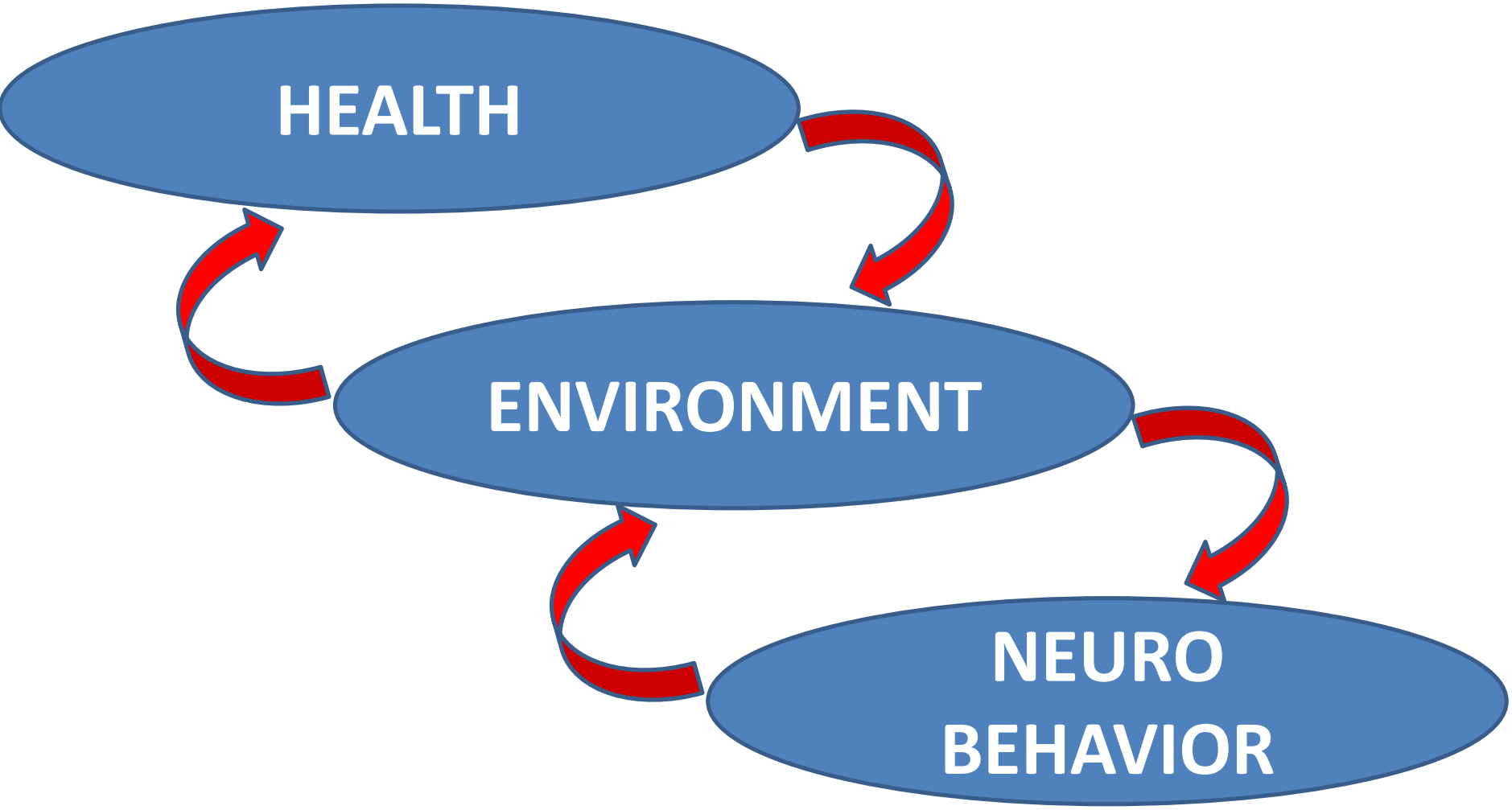
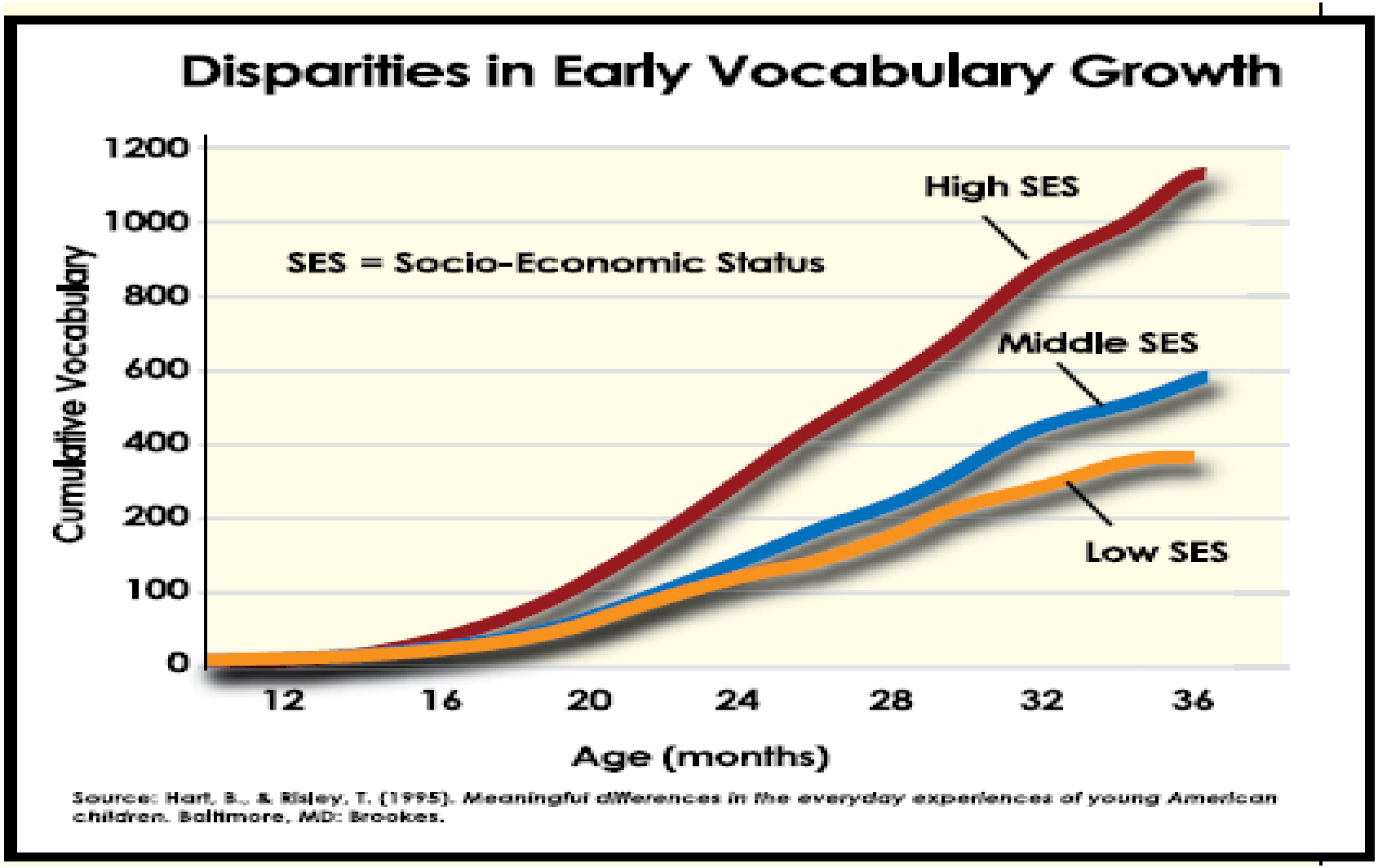
EARLY CHILDHOOD DEVELOPMENT & THE PEDIATRICIAN ROLE

Prof Joseph Haddad
Neonatology
Saint George University Hospital
University of Balamand
Beirut Lebanon

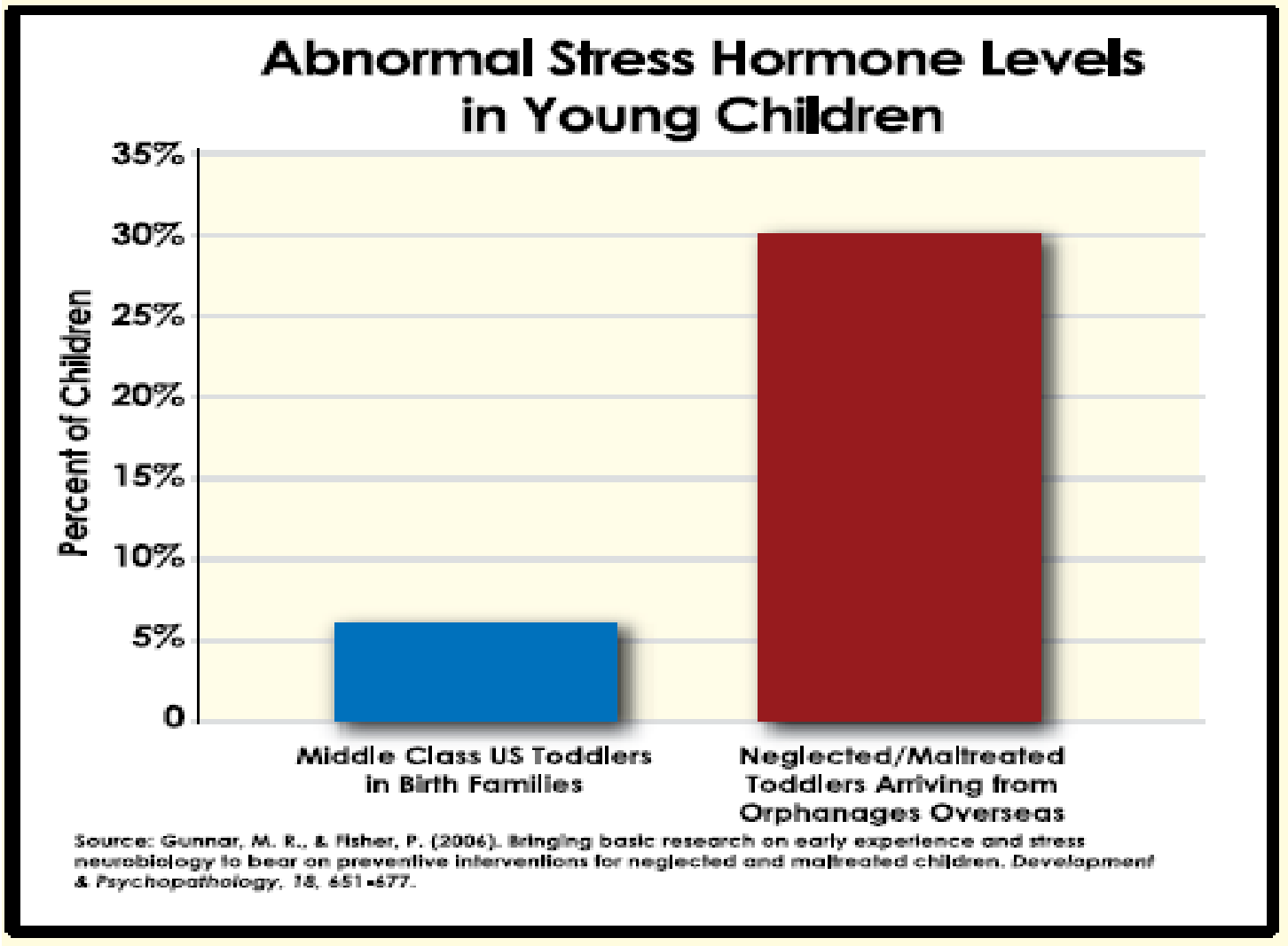
ACTIVE INTERACTION



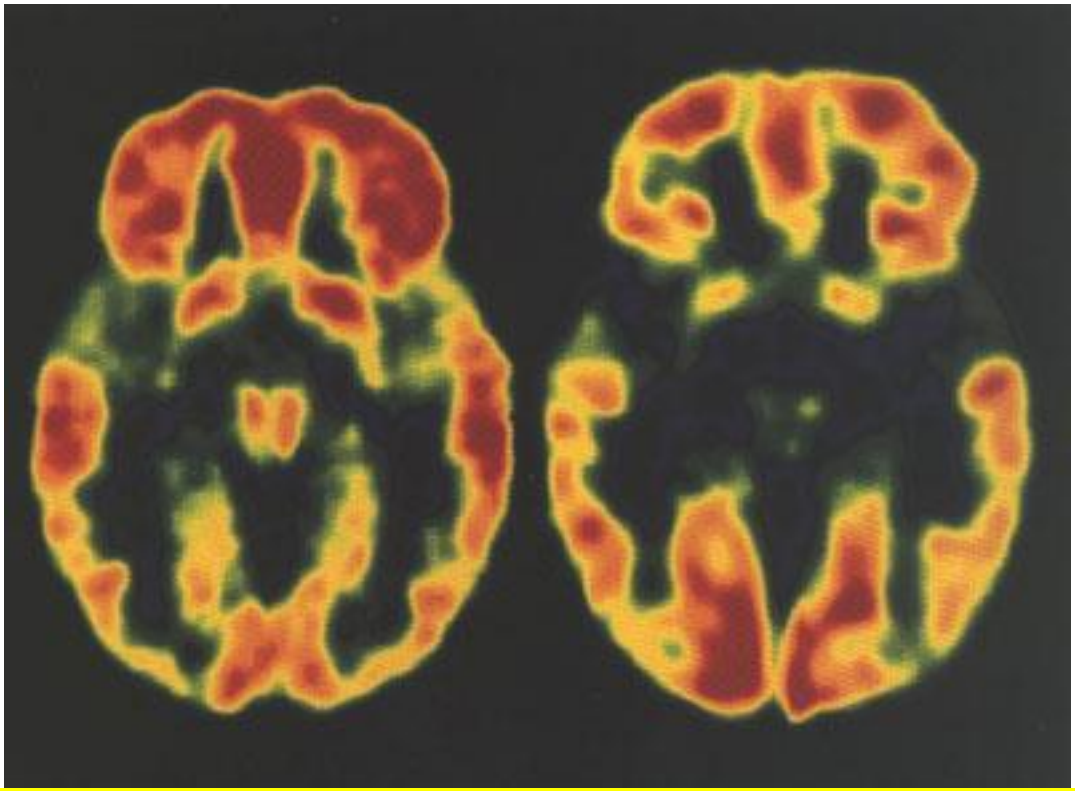
ROLE OF ENVIRONMENT



ROLE OF ENVIRONMENT



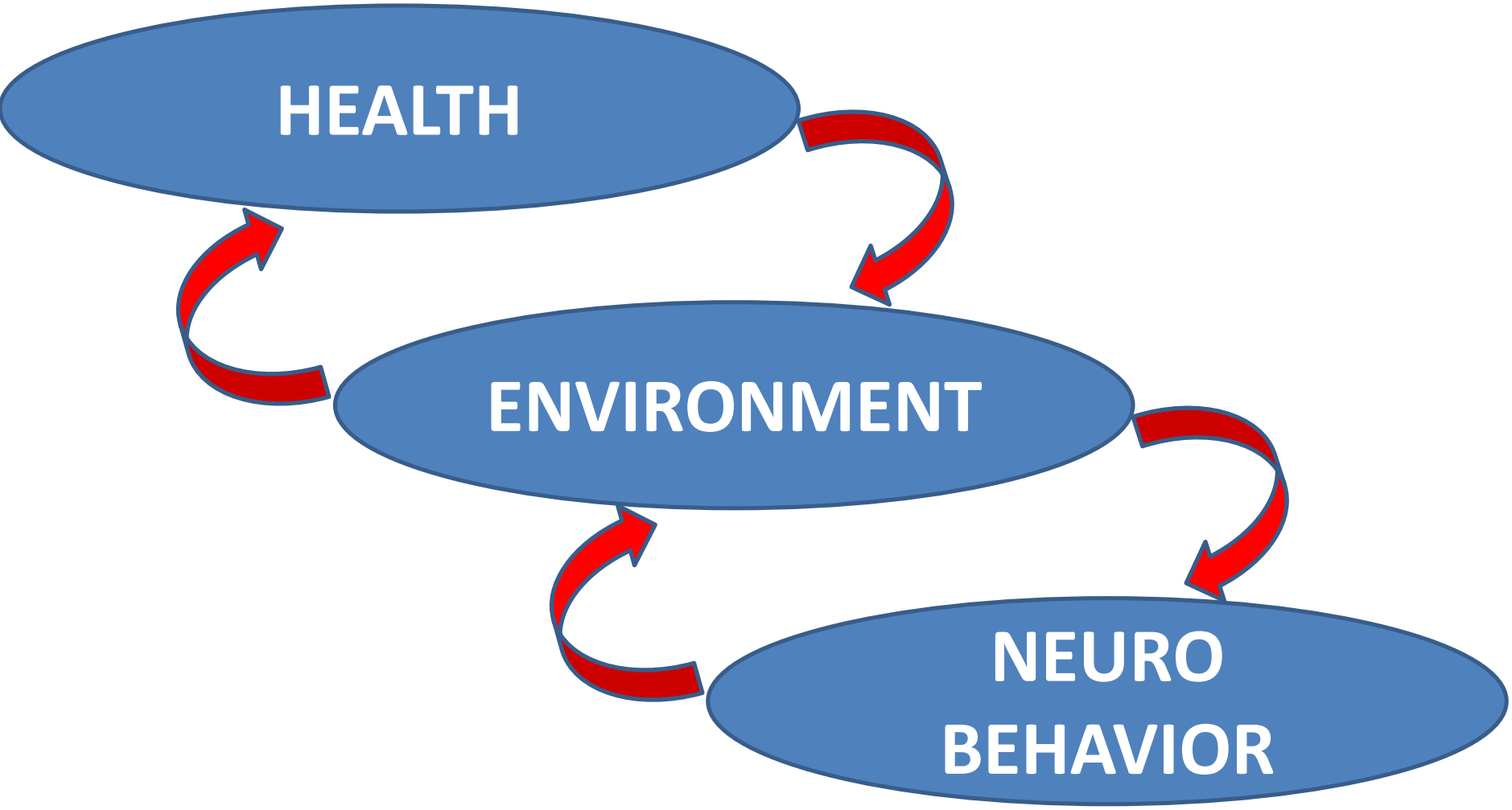
ROLE OF ENVIRONMENT



Brain activity of a normal 5-year-old child (left) and a 5-year-old institutionalized Romanian orphan who was neglected in infancy (right).

WHERE THE PEDIATRICIAN STANDS TO IMPROVE OUTCOME OF CHILDREN ?

ACTIVE INTERACTION



ACT **EARLY** FOR A BETTER **CHILDHOOD DEVELOPMENT**

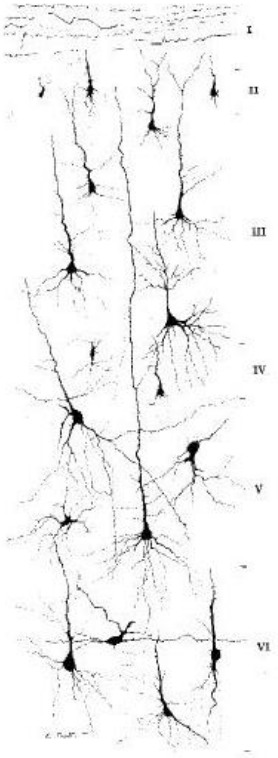


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CNS PLASTICITY
AND
BETTER DEVELOPMEMT
AND
BETTER SOCIAL INSERTION

IS THE BRAIN READY EARLY TO INTERACT ? THE CNS PLASTICITY !

Birth to 2 Years--Synapses



Birth

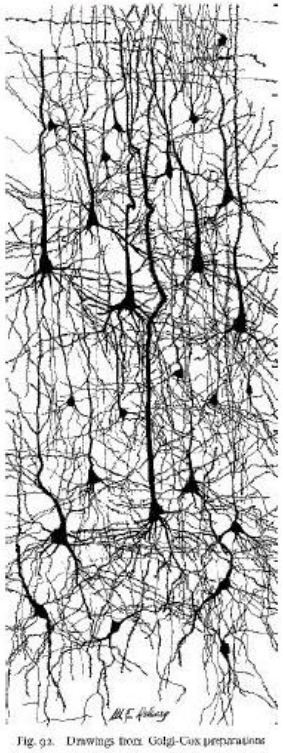
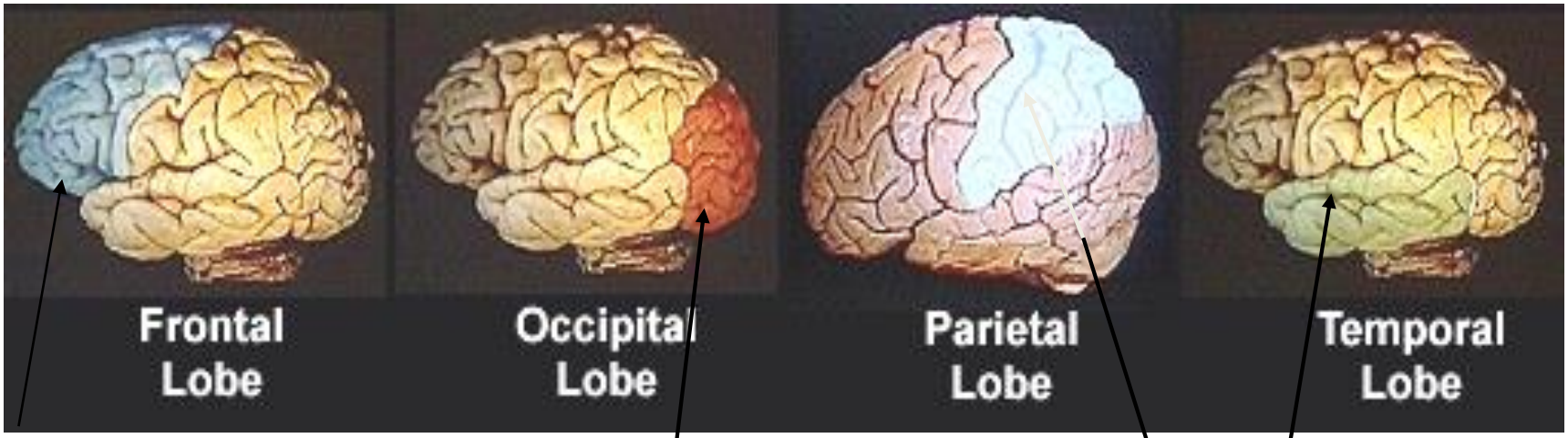


Fig. 92. Drawings from Golgi-Cox preparations

2 years

Major Areas of the Brain



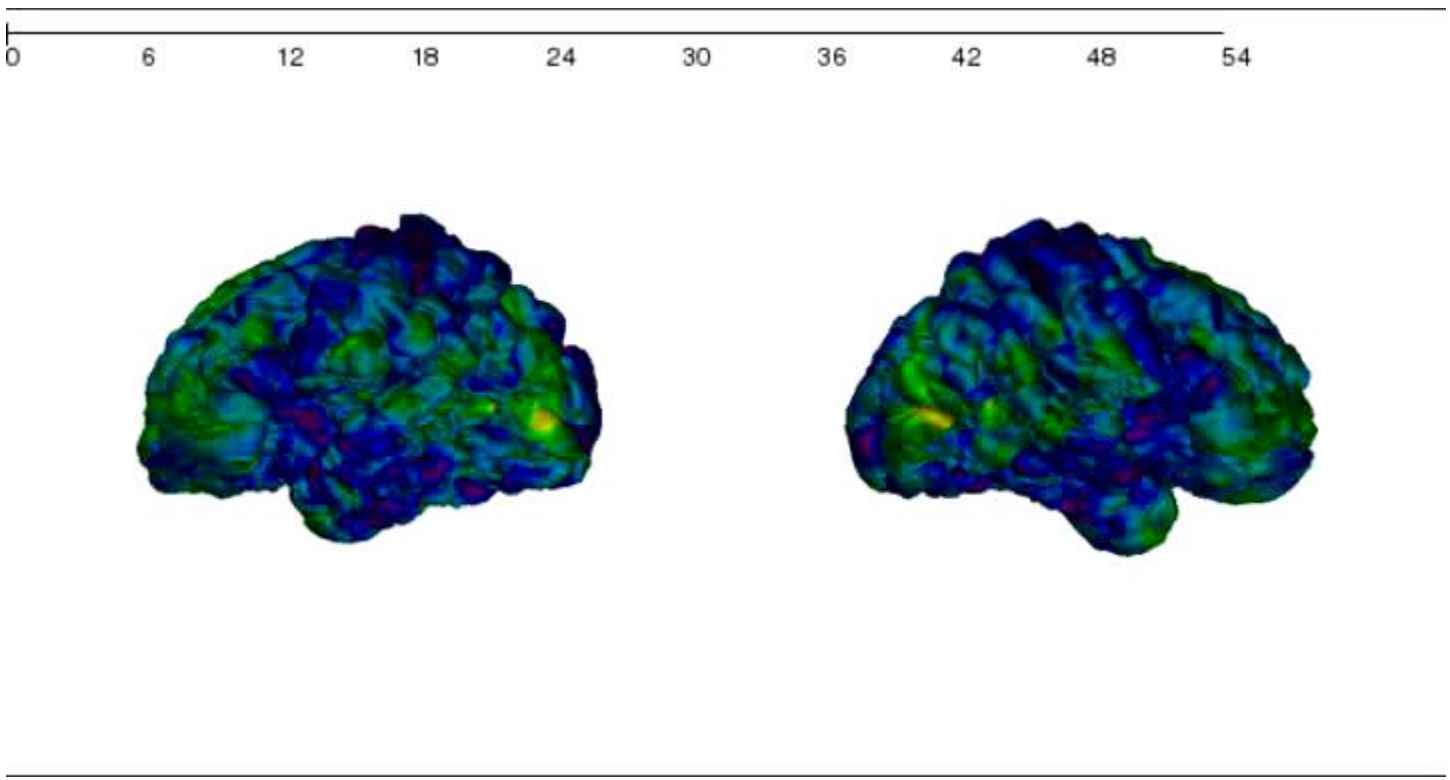
Self-regulation, problem solving, goal setting, social cognition

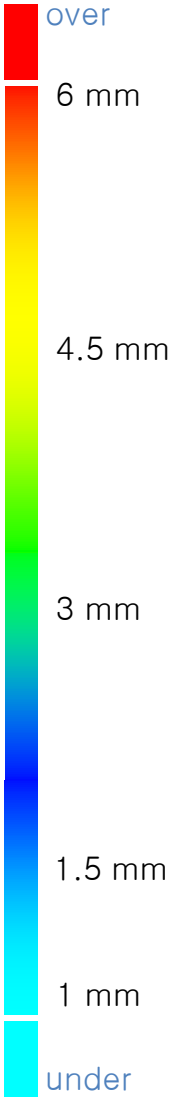
Vision and perception

Sensory motor perception, spatial abilities

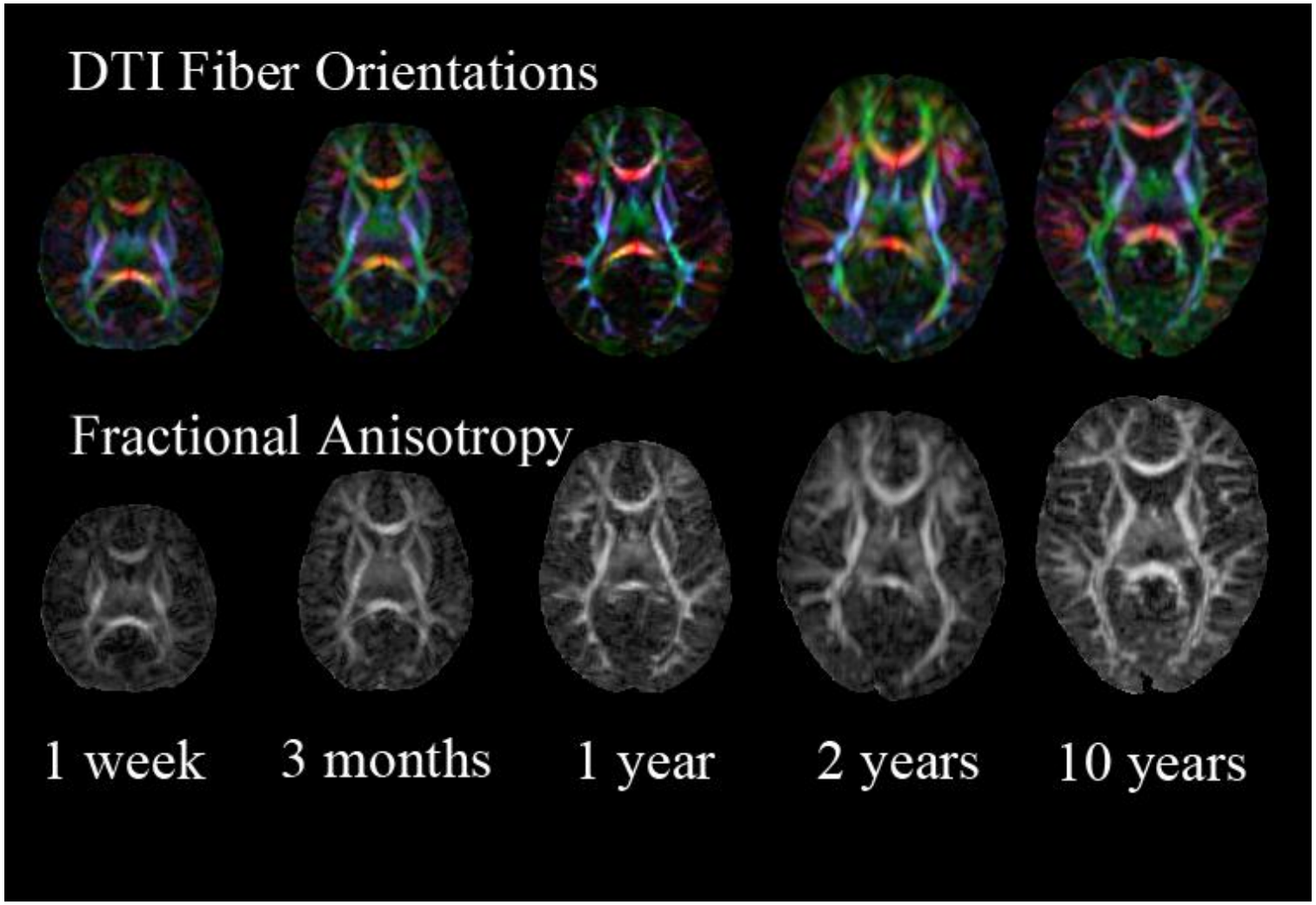
Hearing, language, memory, social - emotional function

Cortical thickness development from birth to 54 mos

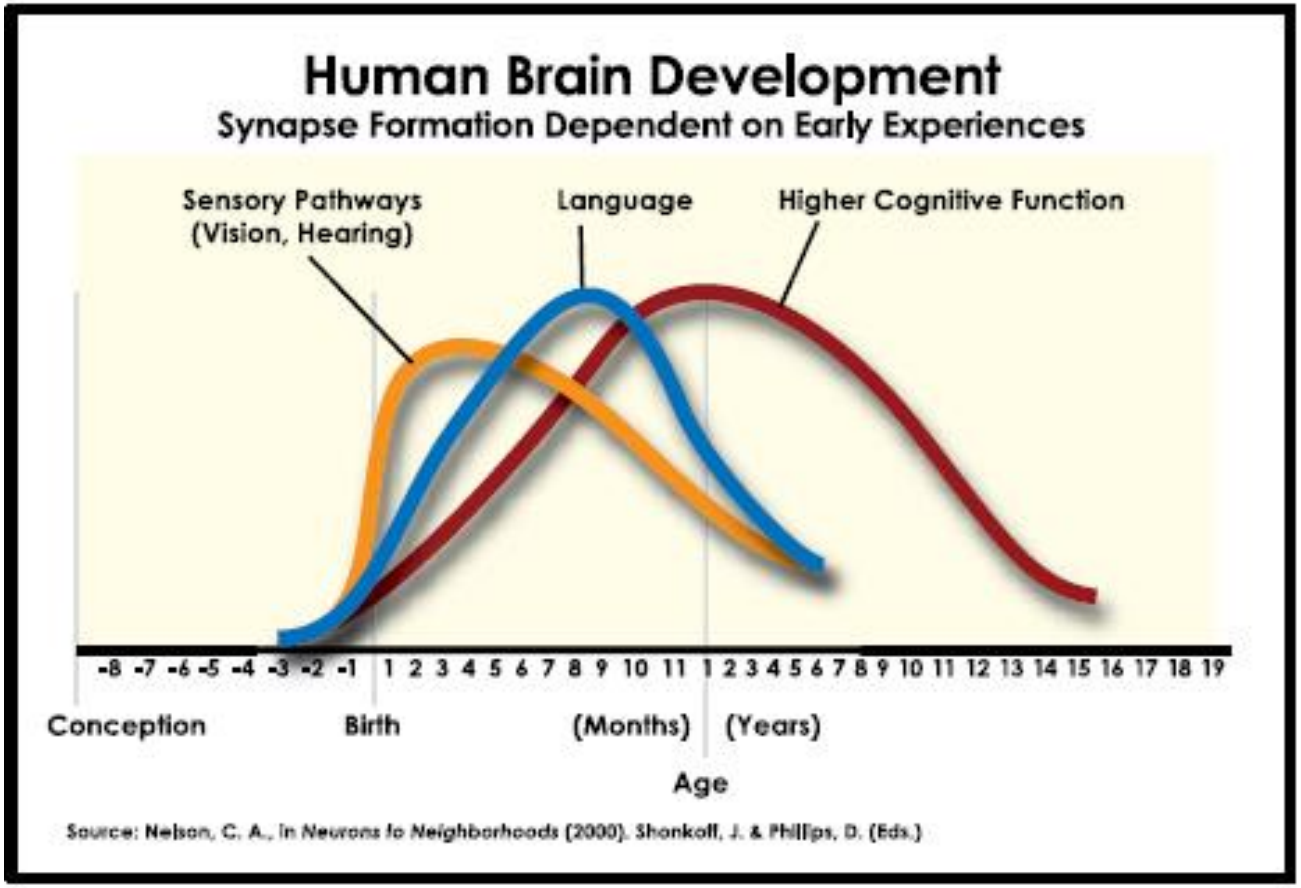




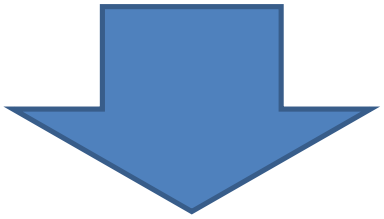
Myelinization



NECESSITY TO ACT EARLY
THE CNS PLASTICITY

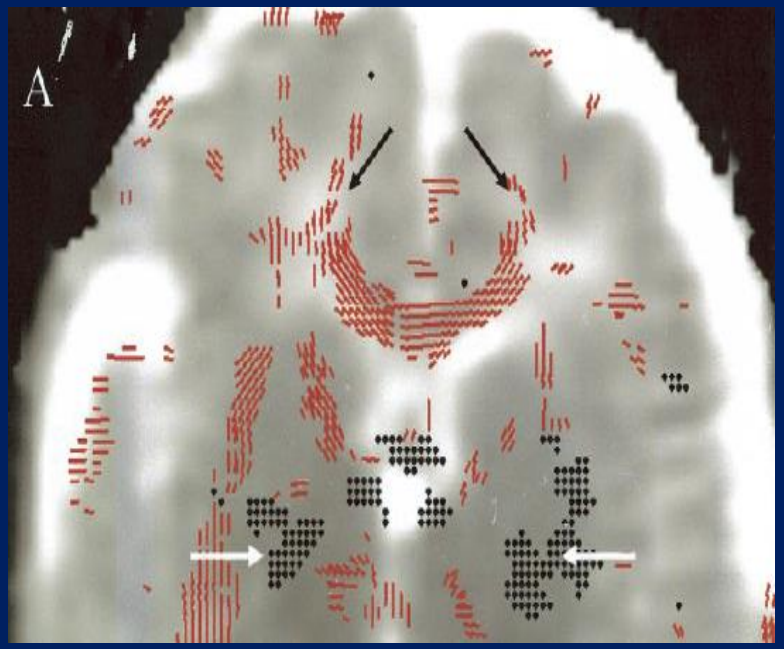


IS THE BRAIN READY EARLY TO INTERACT-THE CNS PLASTICITY !



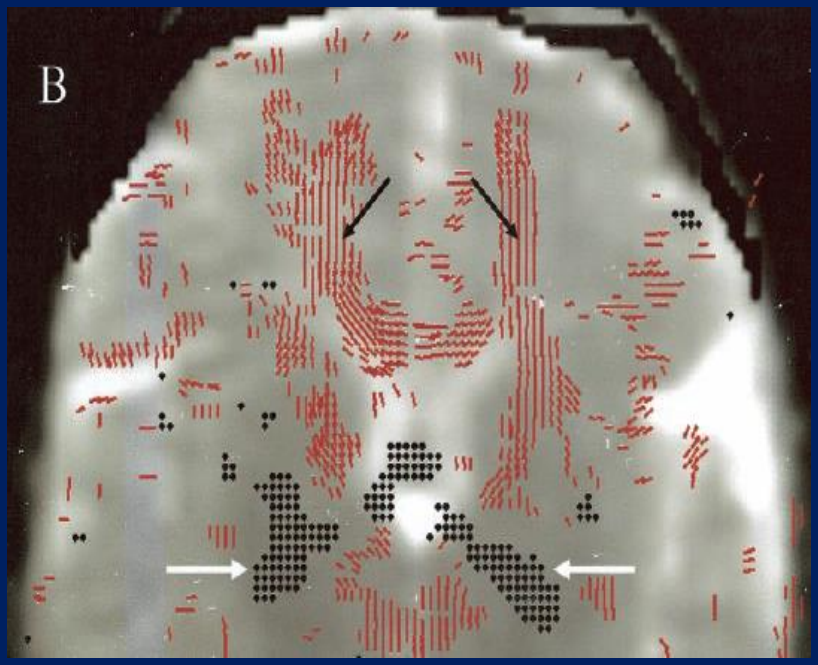
?

CNS PLASTICITY



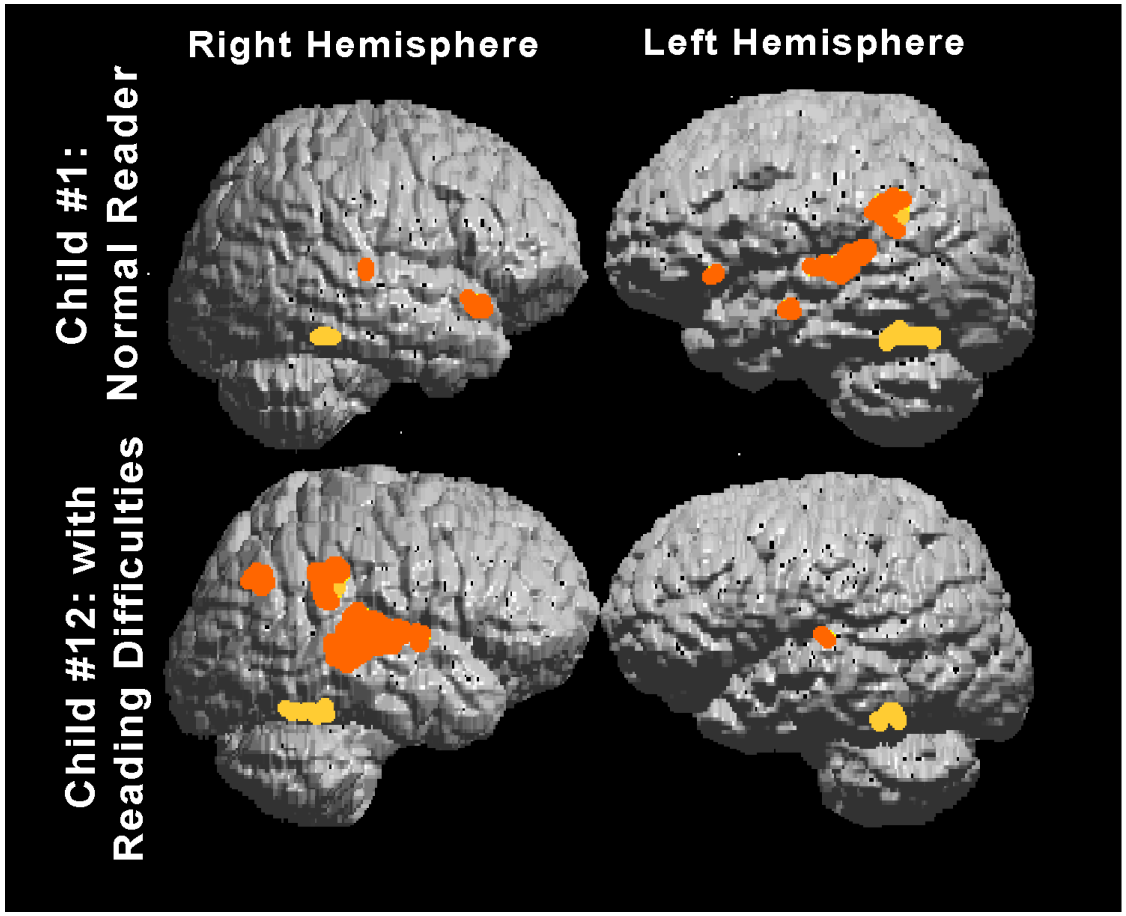
Effects of Early Interventions in Preterm Infants

At 2 weeks' corrected age: more advanced white matter development



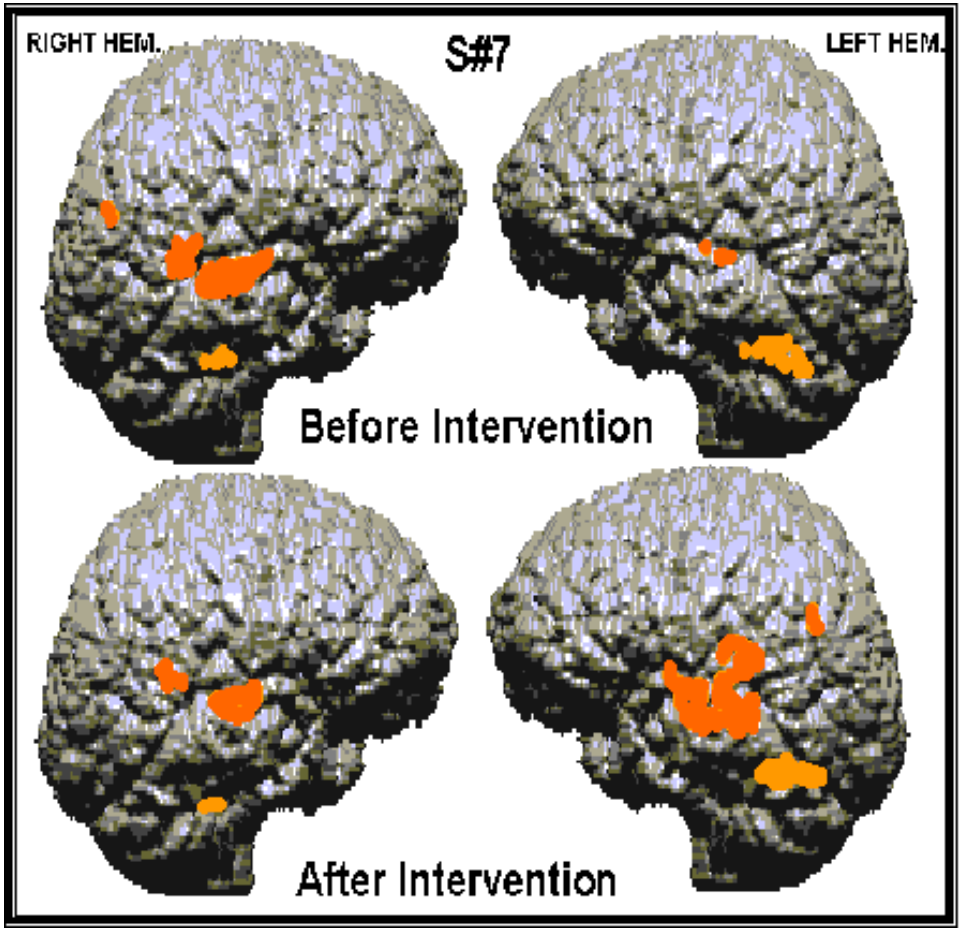
CNS PLASTICITY

Differences in brain activity (colored areas) between a typical child reader and a child with reading difficulties



CNS PLASTICITY

Differences in brain activity in the same child before and after specialized reading instruction

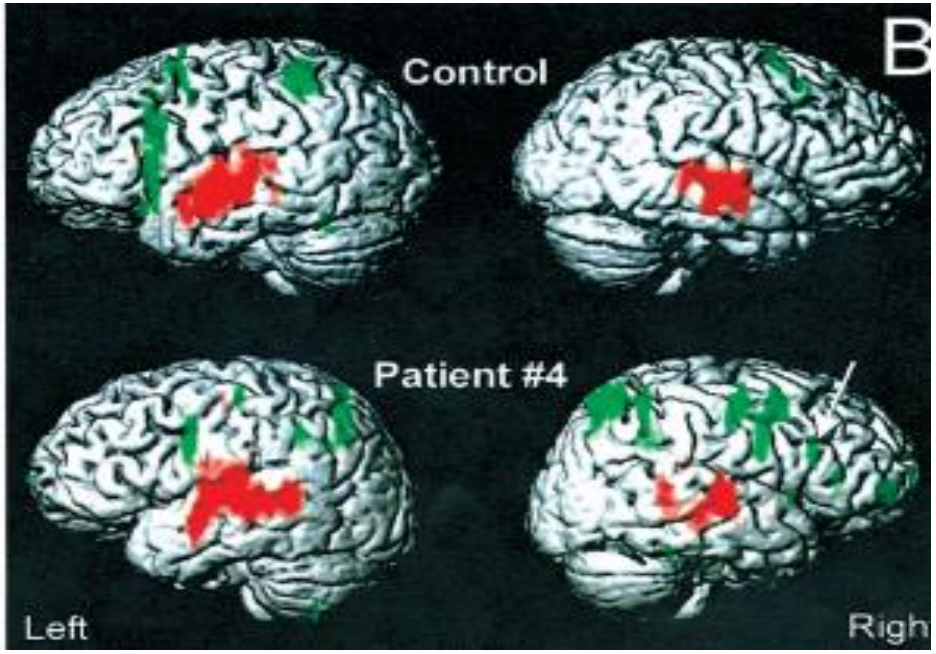


Early left periventricular brain lesions induce right hemispheric organization of speech

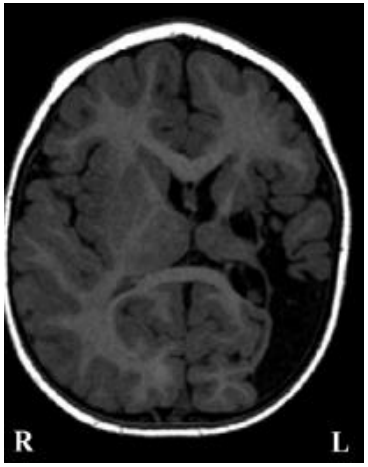
Language perception

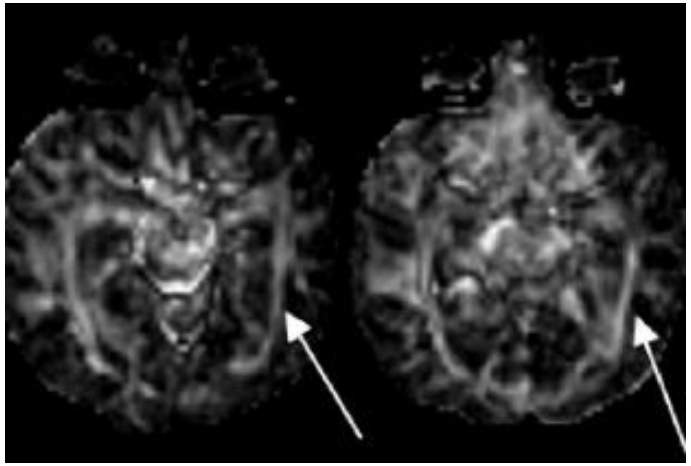
Language production

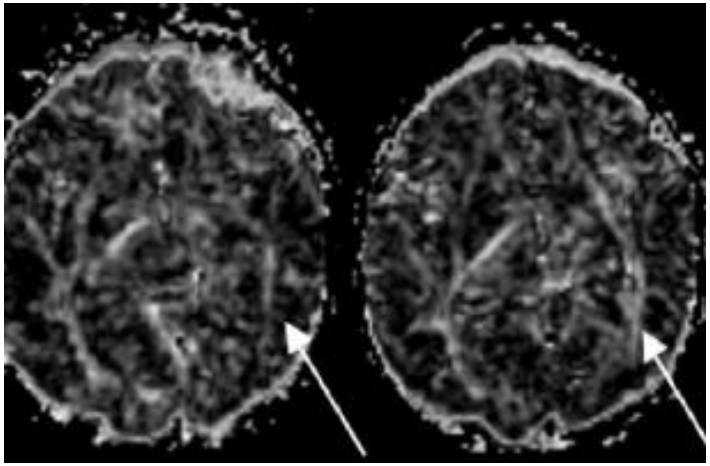


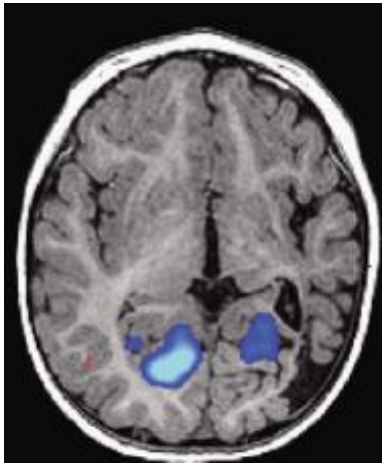


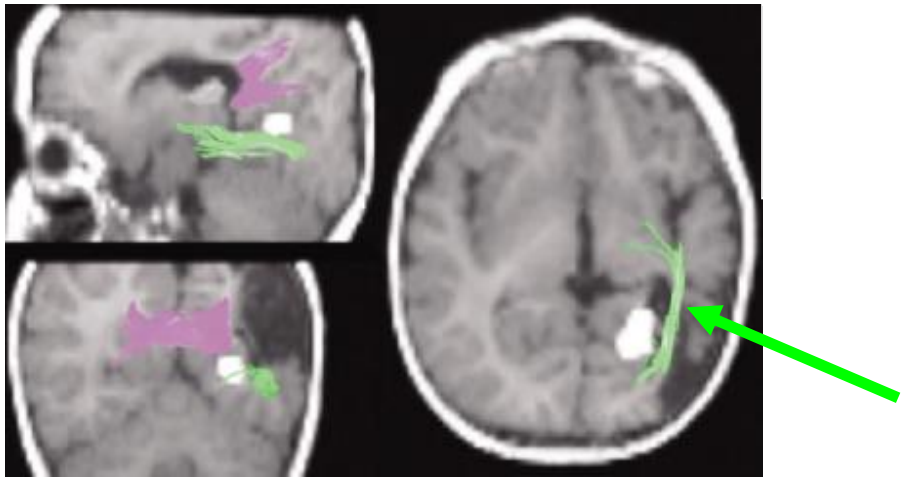
Visual recovery after perinatal stroke evidenced by functional and diffusion MRI: case report





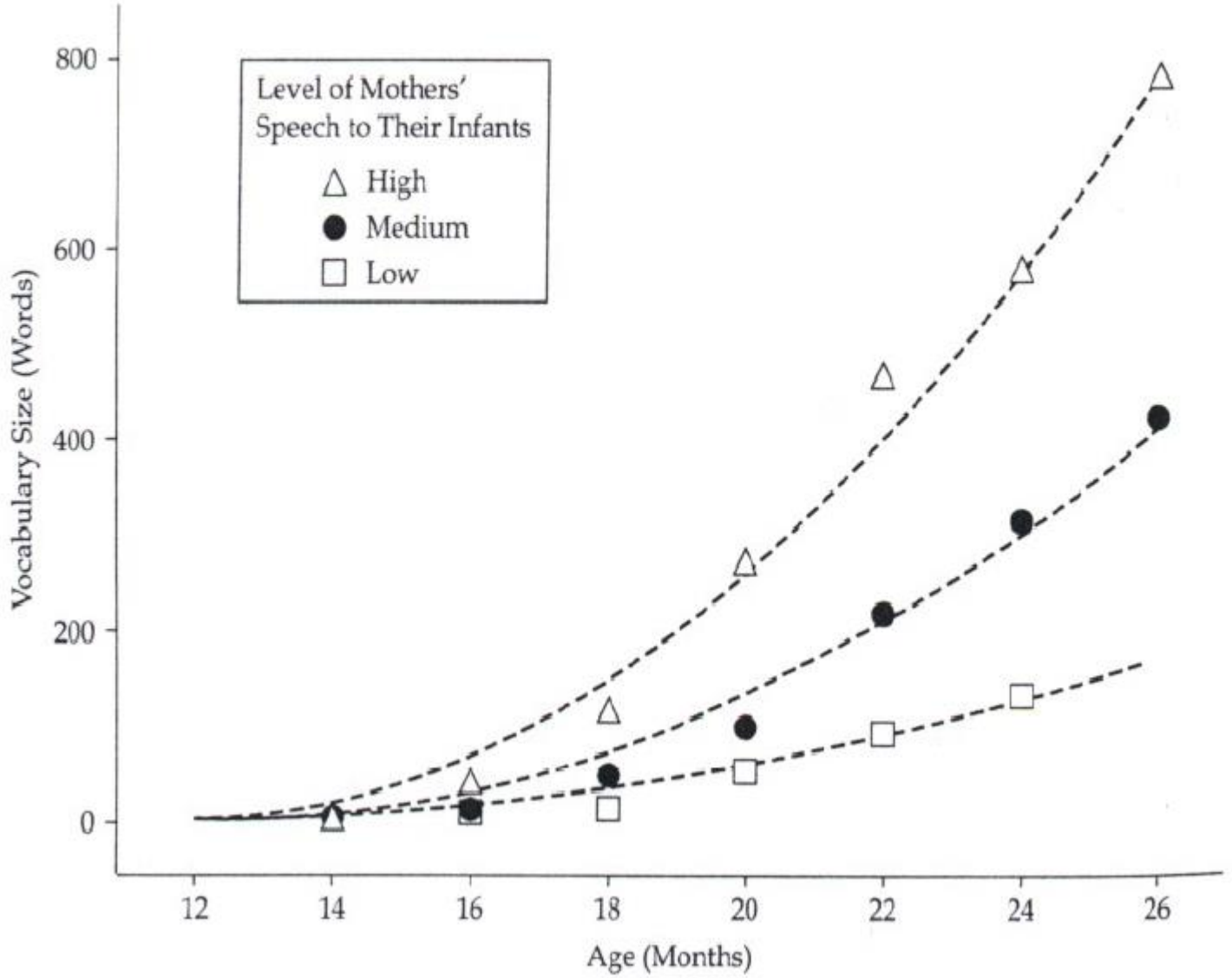




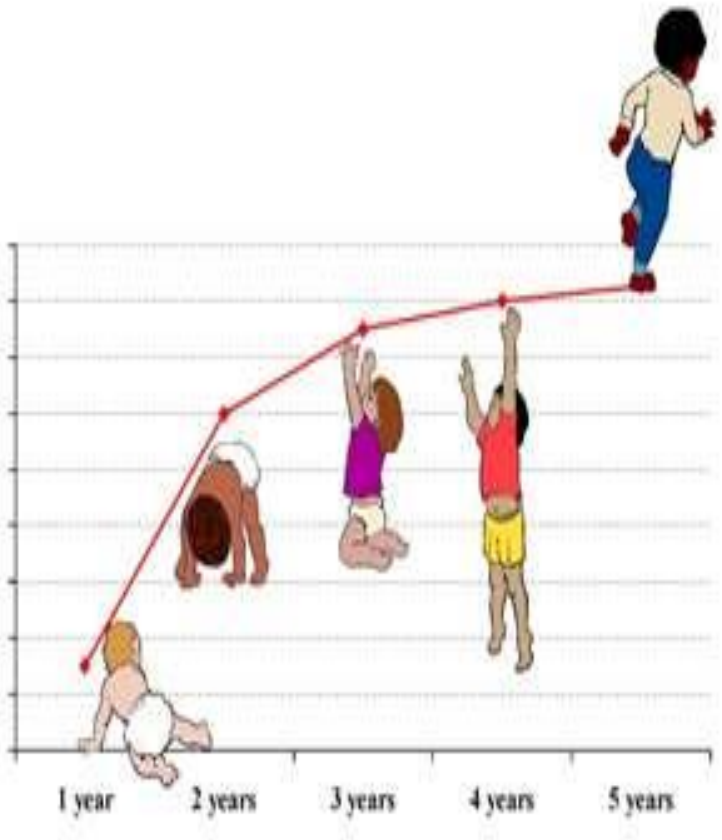


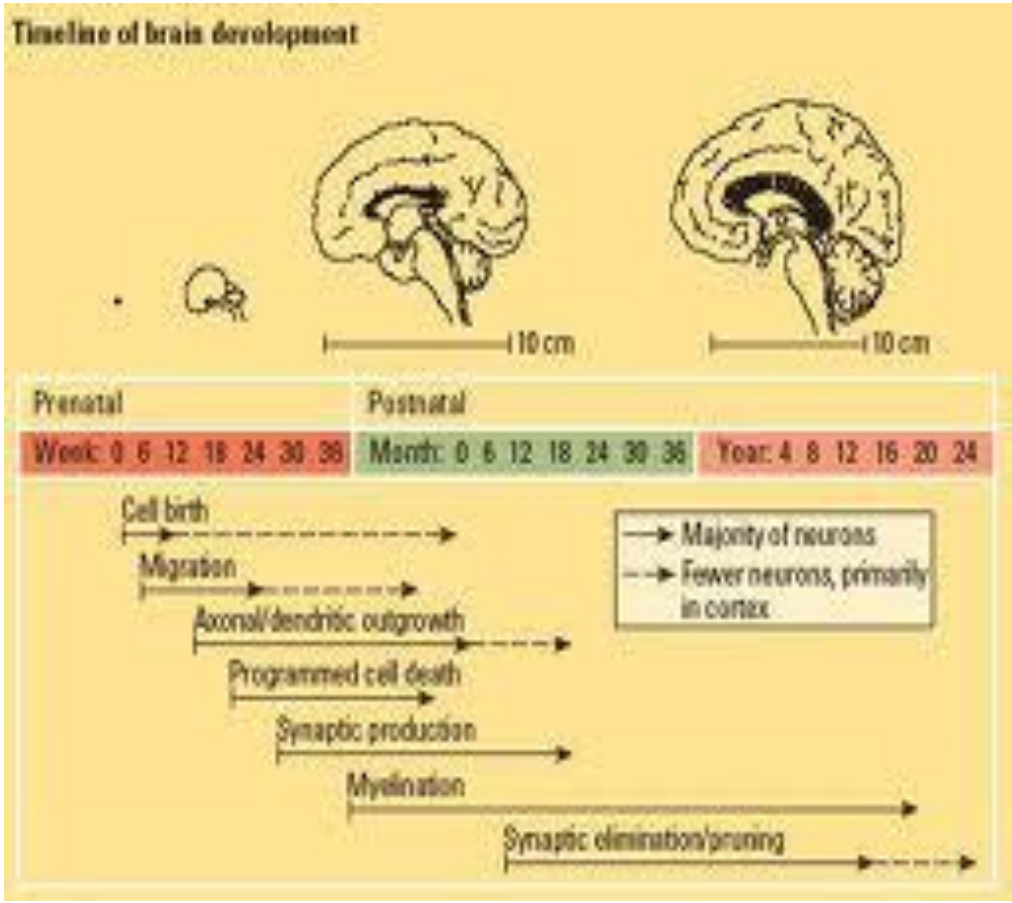
Effects of Mothers' Speech on Infant Vocabulary

CNS PLASTICITY



PEDIATRICIAN AND GROWTH



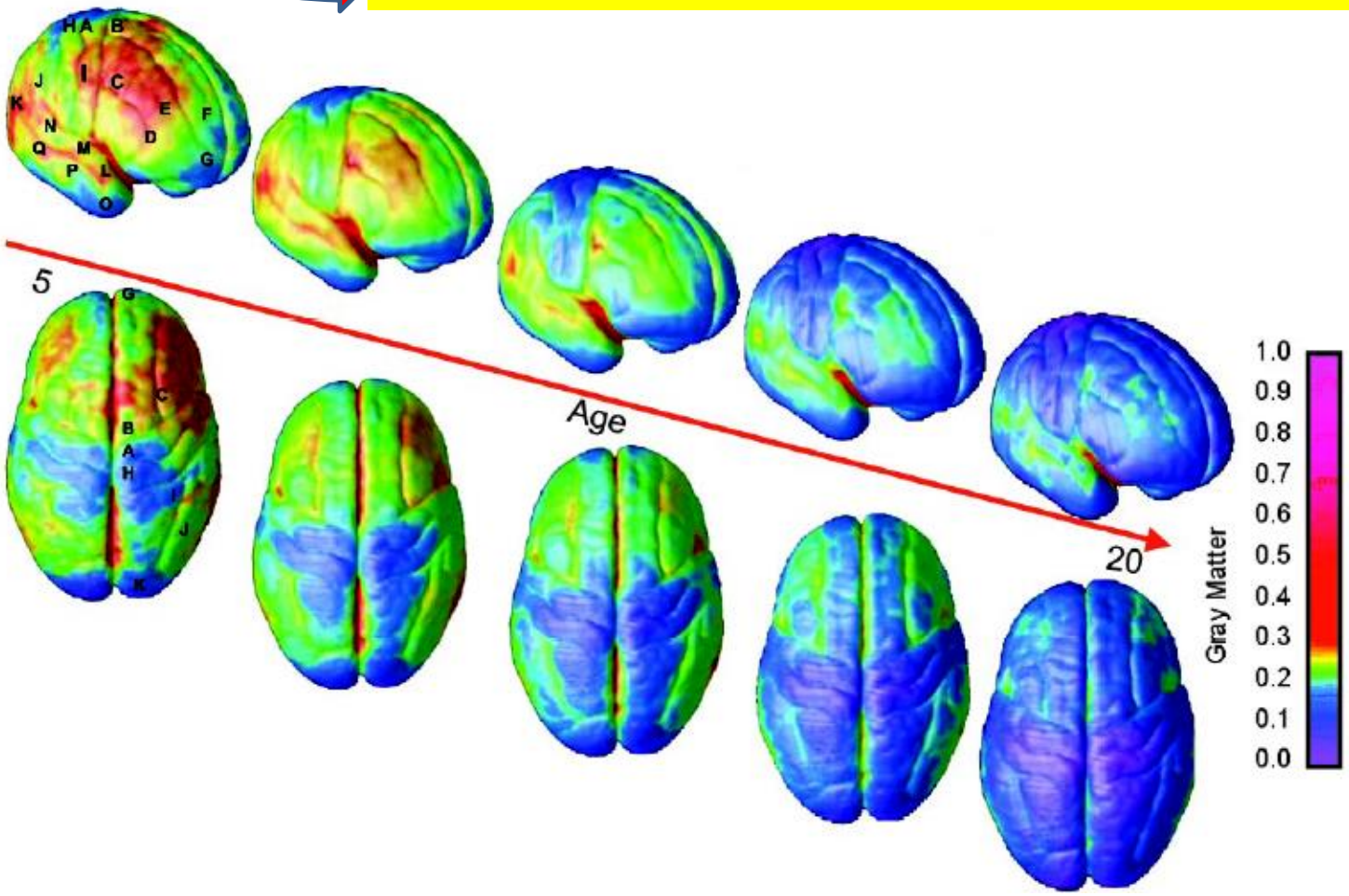


METABOLIC SYNDROM /BEHAVIOR PROBLEM

PEDIATRICIANS AND BRAIN DEVELOPMENT

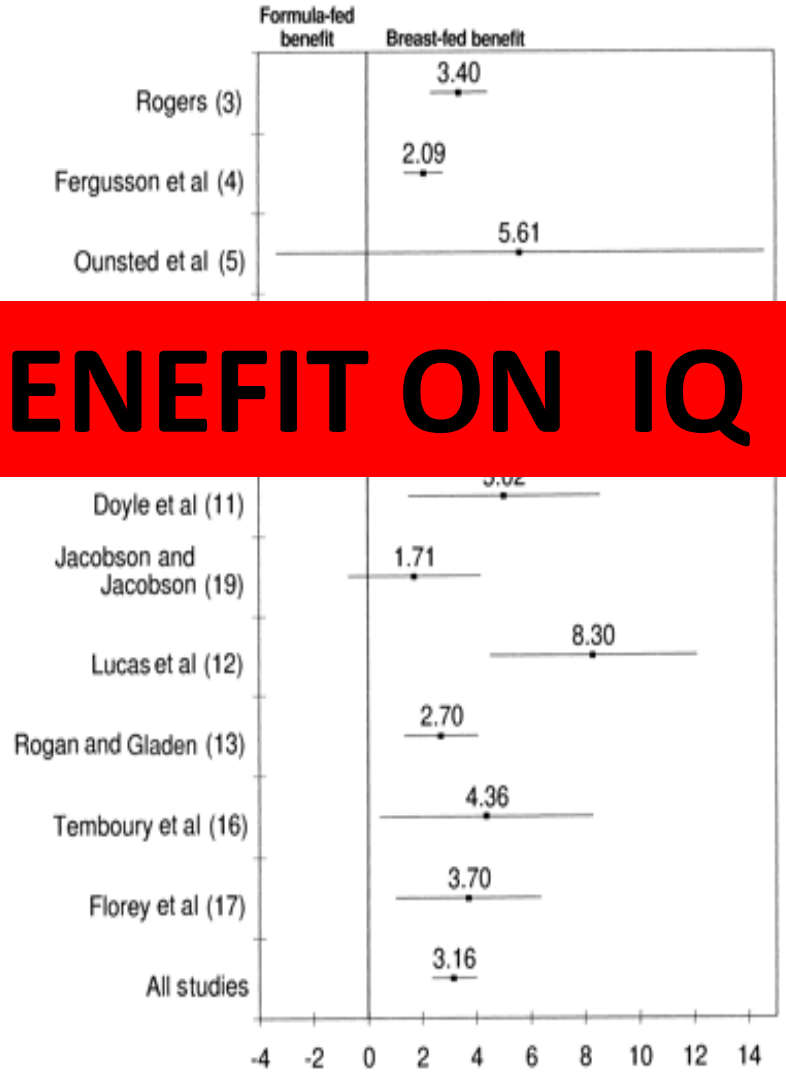
EARLY DETECTION OF ABNORMAL DEVELOPMENT

FAVOR INTERACTION WITH PARENTS AND ENVIRONMET



PEDIATRICIAN AND NUTRITION





BENEFIT ON IQ

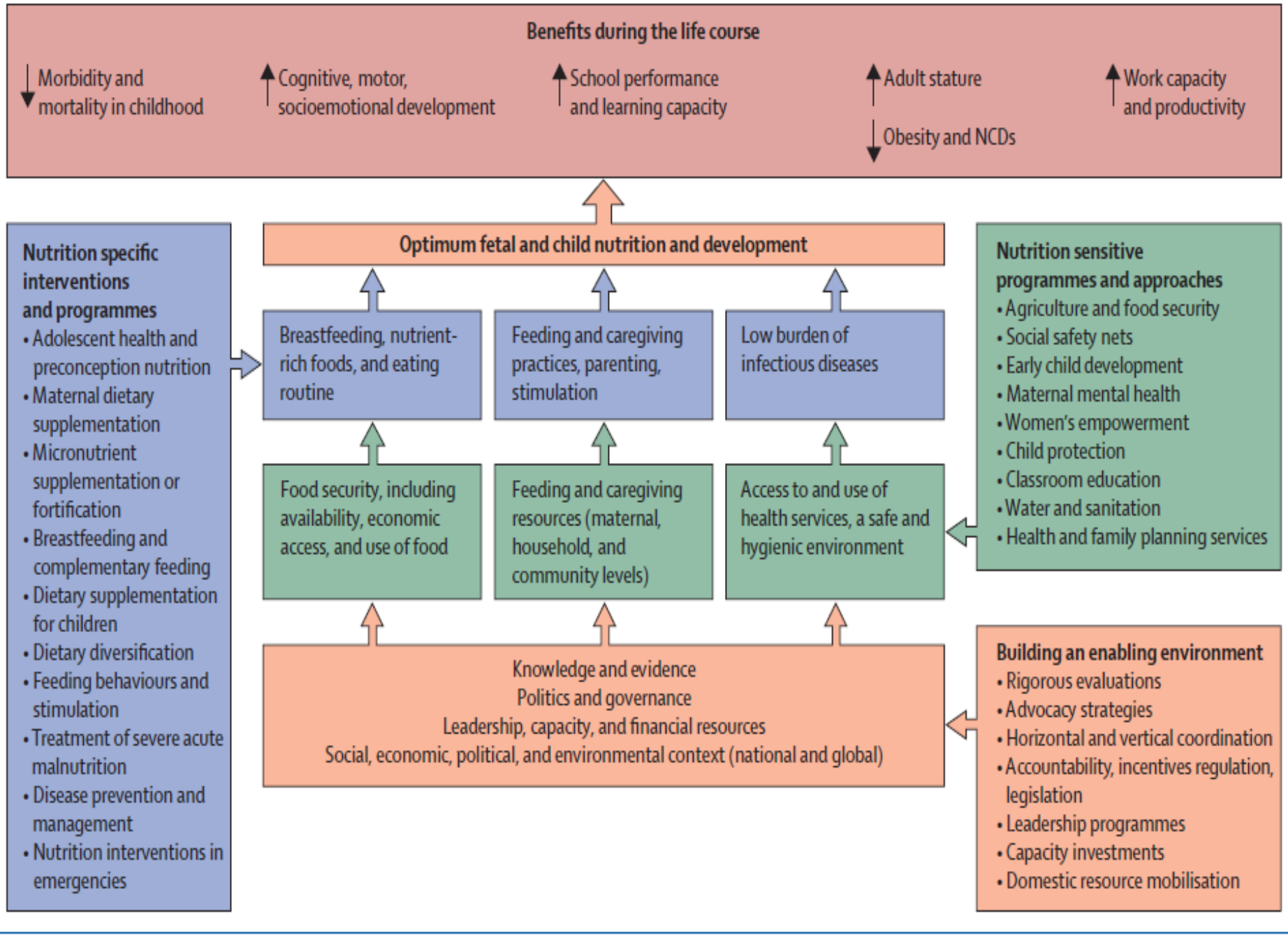


Figure 1: Framework for actions to achieve optimum fetal and child nutrition and development

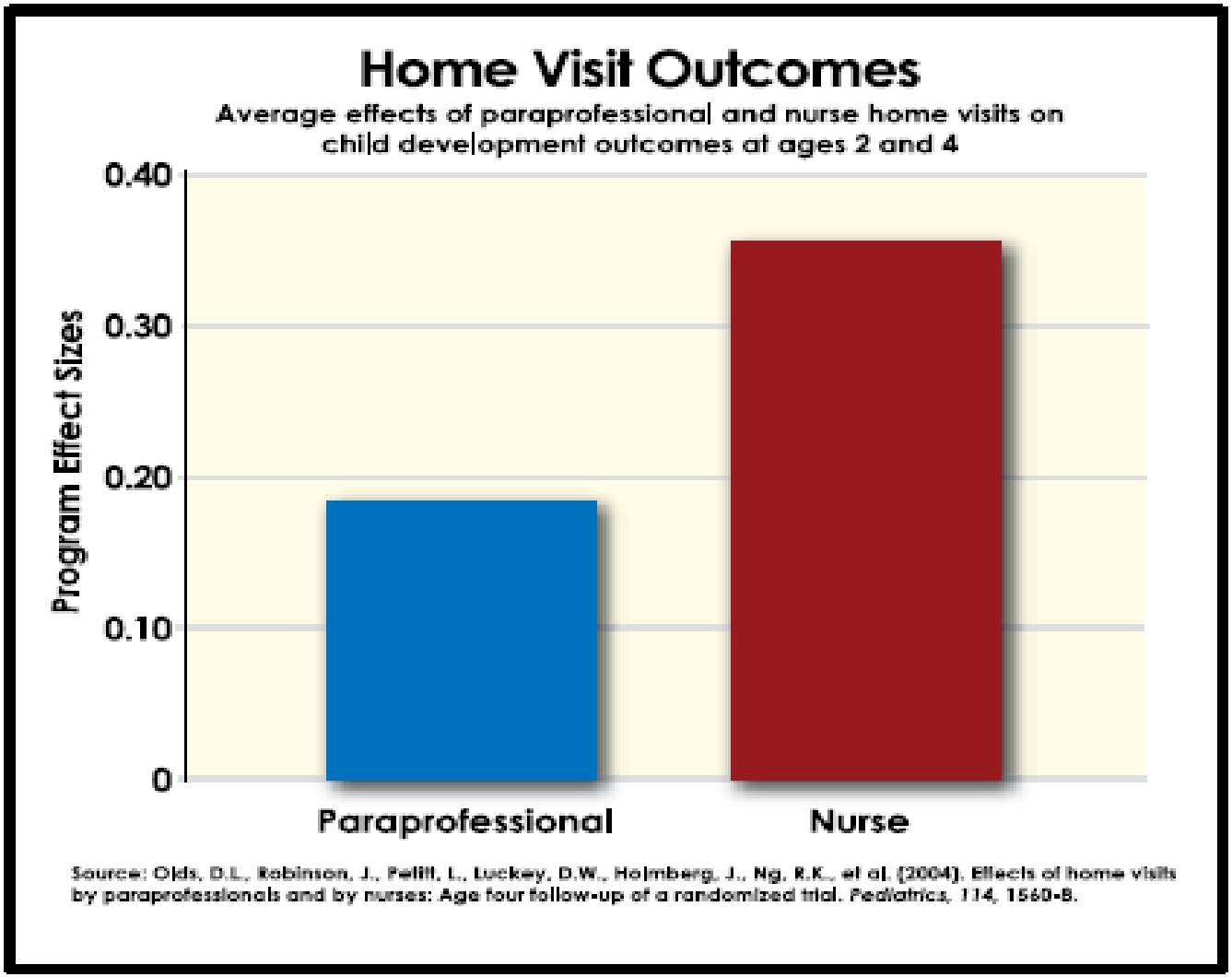
PEDIATRICIAN AND IMMUNIZATION

FROM CONCEPTION TO ADULTHOOD

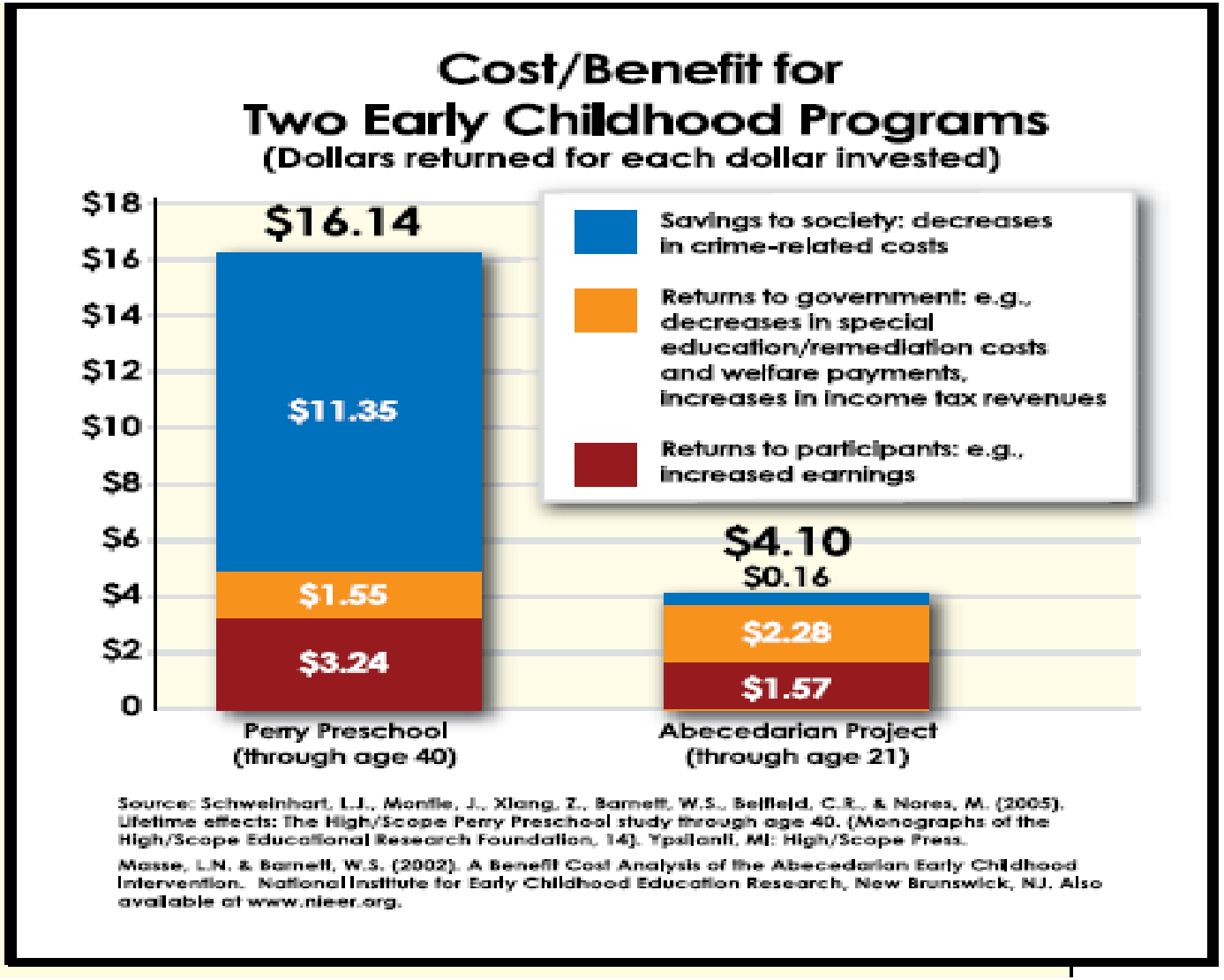


BENEFIT ON MORBIDITY

NECESSITY TO ACT EARLY



NECESSITY TO ACT EARLY



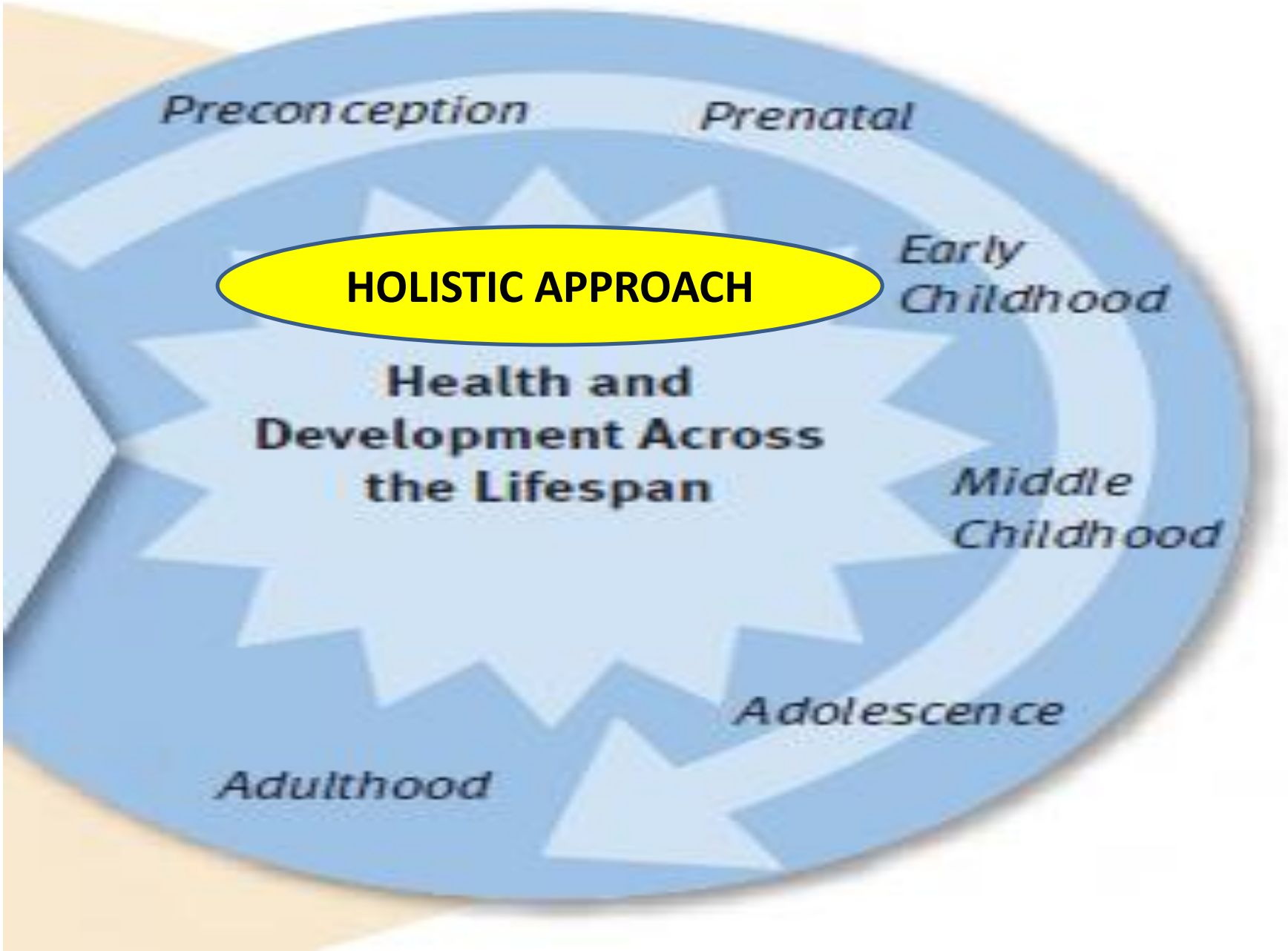
Source: Schweinhart, L.J., Montie, J., Xiang, Z., Barnett, W.S., Belfield, C.R., & Nores, M. (2005). Lifetime effects: The High/Scope Perry Preschool study through age 40. (Monographs of the High/Scope Educational Research Foundation, 14). Ypsilanti, MI: High/Scope Press.

Masse, L.N. & Barnett, W.S. (2002). A Benefit Cost Analysis of the Abecedarian Early Childhood Intervention. National Institute for Early Childhood Education Research, New Brunswick, NJ. Also available at www.nieer.org.

Nurturing Relationships

- Healthy brain development requires consistent and nurturing relationships
- They shape self awareness, social competence, conscience, emotional growth, and other accomplishments.
- They buffer against future behavior problems




Preconception
Prenatal
HOLISTIC APPROACH
Early Childhood
Health and Development Across the Lifespan
Middle Childhood
Adolescence
Adulthood

ACT EARLY FOR A BETTER CHILDHOOD DEVELOPMENT

HEALTH & PREVENTION



EDUCATION



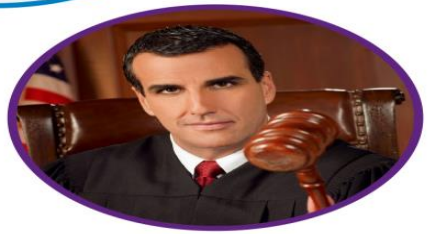


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