



# Prenatal Brain Development: Nurturing Babies in a Healthy Environment

## Track B Webcast Viewer's Guide

### Summary

Brain development starts at conception. The mother and fathers emotional and physical well-being is critical for a baby's healthy brain. In work with expectant families, Early Head Start staff have an incredible opportunity to influence brain development at a crucial time. This plenary will describe the foundational growth and development of the prenatal brain, the value of early intervention, and offer insight in the many, factors that impact long term health and learning.

This session will include a 30-40 minute presentation, 30 minute panel response, and a 20-30 minute live question answer session with the presenter.

### Key Messages

- Prenatal brain development impacts later development.
- Environmental and social/emotional influences impact pre-natal brain development.
- Early Head Start programs can support healthy prenatal brain development by providing expectant families culturally appropriate information and consistent emotional support.

## Learning Objectives

At the end of the session participants will be able to:

- Explain the impact of the expectant mothers and fathers physical and emotional health on prenatal brain development.
- Identify environmental factors that can impact prenatal brain development.
- Identify strategies Early Head Start and Migrant Seasonal Head Start programs can use to support healthy prenatal brain development.

## Webcast Plenary Presenter

**Dr. Joshua D. Sparrow** is a child psychiatrist whose care in the 1990s for children hospitalized for severe psychiatric disturbances, often associated with physical and sexual abuse, and for developmental delays aggravated by social and economic deprivation, prompted his interest in community-based prevention and health promotion. At the Brazelton Touchpoints Center, his work focuses on cultural adaptations of family support programs, organizational professional development, and aligning systems of care with community strengths and priorities. His work also has included collaborative consultation with the Harlem Children's Zone and American Indian/Alaska Native Early Head Start programs, among many others. He has lectured extensively nationally and internationally on related topics and has consulted to media programming for children and parents, including PBS Frontlines and Discovery Kids.

Dr. Sparrow is the co-author with Dr. T. Berry Brazelton of eight books. In 2006, he revised with Dr. Brazelton *Touchpoints: Birth to Three, 2nd Edition*, and in 2010, co-edited *Nurturing Children and Families: Building on the Legacy of T. B. Brazelton*, an infant mental health textbook. Dr. Sparrow worked for several years as a preschool teacher and journalist in New York City prior to attending medical school.

## Panelist

**Jennifer Boss** is the director of the Early Head Start National Resource Center (EHS NRC). She is responsible for effective and timely completion of contract deliverables, as well as strong fiscal oversight of the EHS NRC budget. In her role as director, Ms. Boss leads management-level EHS NRC staff in work plan development and monitoring and supports effective and collaborative work teams, using the skills, experience, and knowledge of EHS NRC staff to the highest potential. Ms. Boss keeps abreast of developments in the early childhood and infant-toddler field in order to guide the staff of the EHS NRC in its work and to provide the very best and up-to-date information for EHS and Migrant and Seasonal Head Start programs, the Office of Head Start, and the field at large.

Ms. Boss received her Master of Social Work from Howard University and completed post-graduate clinical training at the Yale University Child Study Center and the Washington School of Psychiatry in



Infant/Early Childhood Mental Health. During her career, Ms. Boss has worked as a child and family therapist, adoptions social worker, home visitor, and supervisor with an EHS program, and as a training and a technical assistance provider. Ms. Boss has co-authored articles and book chapters, as well as conducted numerous trainings on early childhood development and early childhood mental health.

**Amy Hunter** is a licensed independent clinical social worker (LICSW) who earned her Master of Social Work at Boston University in 1995. She also has a post-graduate certificate from the University of Maryland School of Medicine in early childhood mental health. Ms. Hunter currently serves as an assistant professor at Georgetown University. In this capacity, she directs the mental health section of the National Center on Health, a training and technical assistance center for Early Head Start and Head Start. Ms. Hunter has worked in the field of early childhood mental health for approximately 20 years. She maintains a private practice in Washington, DC providing consultation to parents with young children.

### Panel Moderator

**Terra Bonds Clark, MS**, is currently the director of special initiatives for the Early Head Start National Resource Center. She has worked on behalf of children and their families for over 20 years in a variety of programs, settings, and in varying capacities. She has a passion and commitment to service in the community. Ms. Clark began working with Early Head Start in 1997 providing direct services to children and families. Later, she had the distinct honor of participating in the Office of Head Start National Fellowship program, and has provided training and technical assistance to the early care and education community since that time.

### Relevant Head Start Program Performance Standards

**45 CFR 1304.40(c)(2)** - Grantee and delegate agencies must provide pregnant women and other family members, as appropriate, with prenatal education on fetal development (including risks from smoking and alcohol), labor and delivery, and post-partum recovery (including maternal depression).

**45 CFR 1304.40(c)(1)(i)(ii)(iii)** - Early Head Start grantee and delegate agencies must assist pregnant women to access comprehensive prenatal and postpartum care, through referrals, immediately after enrollment in the program. This care must include:

- (i) Early and continuing risk assessments, which include an assessment of nutritional status as well as nutrition counseling and food assistance, if necessary;
- (ii) Health promotion and treatment, including medical and dental examinations on a schedule deemed appropriate by the attending health care providers as early in the pregnancy as possible; and



(iii) Mental health interventions and follow-up, including substance abuse prevention and treatment, as needed.

**45 CFR 1304.40 (i)(6)** - Grantee and delegate agencies serving infants and toddlers must arrange for health staff to visit each newborn within two weeks after the infants birth to ensure the well-being of both the mother and the child.

**Key Definitions**

**Epigenetics** - The process in which environmental signals alters the role of genes in guiding development.

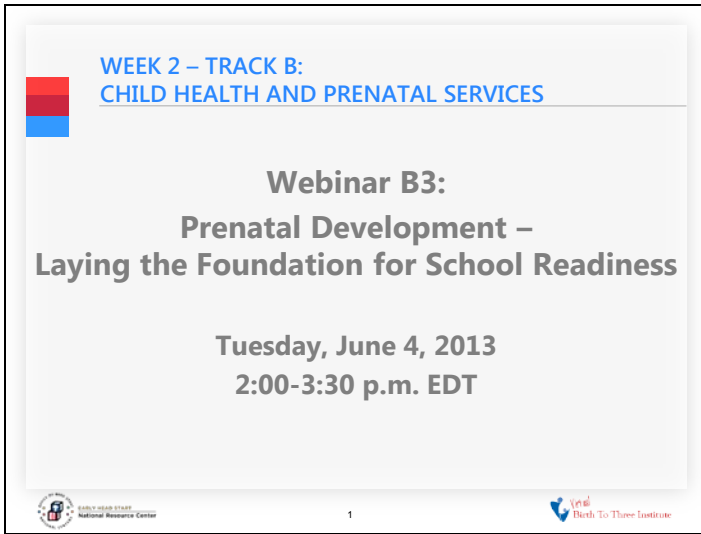
**Neural Proliferation** – The process that creates the billions of neurons in the brain.

**Synaptogenesis** – The process of hooking up the brain wiring from neuron to neuron.

**Quickening** – The moment in pregnancy when the mothers feels the baby’s first movements.

**Presentation Slides and Notes**

Slide 1




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Slide 2

**WEEK 1 – TRACK A:  
INCLUSIVE CHILD DEVELOPMENT**

- **A baby’s interactions with his or her primary caregiver influence everything within the child, including attachment, regulation, communication, and the ability to engage in cognitive learning and development experiences.**

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Slide 3

**WEEK 1 – TRACK A:  
INCLUSIVE CHILD DEVELOPMENT**

- **Children are born with an intuitive knowledge of math, and parents and teachers can assist their child’s understanding of math through daily interactions and routines.**

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Slide 4

**WEEK 1 – TRACK A:  
INCLUSIVE CHILD DEVELOPMENT**

- **Parents know so much about their children. It is important to engage with parents in order to plan the most effective learning experiences for the child**

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Slide 5

**WEEK 2 – TRACK B:  
CHILD HEALTH AND PRENATAL SERVICES**

**Featured Plenary Presenter:  
Dr. Joshua Sparrow  
Director of Strategy, Planning,  
and Program Development  
Brazelton Touchpoints Center**

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Slide 6

**WEEK 2 – TRACK B:  
CHILD HEALTH AND PRENATAL SERVICES**

**Plenary Webcast:  
Prenatal Brain Development –  
Nurturing Babies in a Healthy Environment**

**Monday, June 3, 2013  
2:00-3:30 p.m. EDT**

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Slide 7

**WEEK 2 – TRACK B:  
CHILD HEALTH AND PRENATAL SERVICES**

**Webinar B3:  
Prenatal Development –  
Laying the Foundation for School Readiness**

**Tuesday, June 4, 2013  
2:00-3:30 p.m. EDT**

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Slide 8

**WEEK 2 – TRACK B:  
CHILD HEALTH AND PRENATAL SERVICES**

**Webinar B4:  
Meeting the Unique Needs of Families  
through the Required Postpartum Visit**

**Thursday, June 6, 2013  
2:00-3:30 p.m. EDT**




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Slide 9

**PRENATAL DEVELOPMENT  
LAYING THE FOUNDATION  
FOR SCHOOL READINESS**

**Joshua Sparrow, MD  
Harvard Medical School  
Brazelton Touchpoints Center  
Boston Children’s Hospital**




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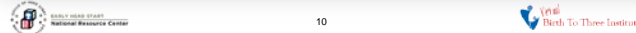
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Slide 10

**PRENATAL BRAIN DEVELOPMENT DEPENDS  
ON WHAT GOES ON IN THE WOMB**

**This depends on a mother’s**

- **nutrition, health, and mental health**
- **her relationship with the father or partner she plans to raise the baby with**
- **other important relationships**
- **the contexts that shape her everyday life**




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Slide 11

 **OVERVIEW**

- **Babies’ brains prepare for learning before birth**
- **Prenatal brain development is fantastic and fragile, and depends on experiences in the womb**

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Slide 12

 **OVERVIEW**

- **Expectant parents and the people who support them can protect and positively influence prenatal brain development**

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Slide 13

 **OVERVIEW**

- **Prenatal brain development also depends on experiences and environments outside the womb, including social, economic, and environmental forces beyond individual parents’ control**

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Slide 14

**WHY IS PRENATAL BRAIN DEVELOPMENT SO SENSITIVE TO A MOTHER'S HEALTH, NUTRITION AND WELL BEING?**

- Unborn baby's brain is constructed from the raw materials that the mother's body supplies



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Slide 15

**WHY IS PRENATAL BRAIN DEVELOPMENT SO SENSITIVE TO A MOTHER'S HEALTH, NUTRITION AND WELL BEING?**

- Building a brain is a fantastically delicate and complex process – nearly a miracle



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Slide 16

**WHY IS PRENATAL BRAIN DEVELOPMENT SO SENSITIVE TO A MOTHER'S HEALTH, NUTRITION AND WELL BEING?**

- Baby's brains are shaped during pregnancy by their parents' genes, and the experiences and environments that reach them in the womb: prenatal brain development adapts babies to the environments they will live in



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Slide 17

**DEVELOPING BRAIN AFFECTED BY**

- nutrients and substances that cross from mother to unborn baby through the placenta
- hormones and brain chemicals produced by the mother's body in response, for example, to stress, relaxation, emotional states

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Slide 18

**CHALLENGES TO HEALTHY PRENATAL DEVELOPMENT CAN BEGIN BEFORE PREGNANCY**

**HEALTH:**

- Diabetes
- High blood pressure
- Obesity
- HIV infection and other STDs

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Slide 19

**CHALLENGES TO HEALTHY PRENATAL DEVELOPMENT CAN BEGIN BEFORE PREGNANCY**

**HEALTH:**

- Alcohol and substance abuse
- Tobacco use
- Depression, anxiety, and other mental health challenges

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Slide 20

**CHALLENGES TO HEALTHY PRENATAL DEVELOPMENT CAN BEGIN BEFORE PREGNANCY**

**SOCIAL AND RELATIONSHIP HEALTH:**

- Domestic violence
- Social isolation



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Slide 21

**CHALLENGES TO HEALTHY PRENATAL DEVELOPMENT CAN BEGIN BEFORE PREGNANCY**

**ENVIRONMENTAL HEALTH:**

- Environmental toxins in the home, workplace or neighborhood



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Slide 22

**HEAD START PROGRAM PERFORMANCE STANDARDS**

**45 CFR 1304.40(C)(2)**

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Slide 23

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Slide 24

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Slide 25

**HEAD START PROGRAM PERFORMANCE STANDARDS**

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Slide 26

 **3RD TRIMESTER FETAL BEHAVIOR AND LEARNING**

**RESPONSIVE BEHAVIORS**

- Sounds
- Bright lights
- Mother's movements

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Slide 27

 **3RD TRIMESTER FETAL BEHAVIOR AND LEARNING**

**EXPLORING BEHAVIORS**

- Feels its face
- Sucks its thumb

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Slide 28

 **3RD TRIMESTER FETAL BEHAVIOR AND LEARNING**

**MEMORY AND LEARNING**

- Remembers repeated nursery rhyme

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Slide 29

**FIGURE 1. Illustration of developmental progression in number of action units (AU) over gestational age.**

Reissland N, Francis B, Mason J, Lincoln K (2011) Do Facial Expressions Develop before Birth?. PLoS ONE 6(8): e24081. doi:10.1371/journal.pone.0024081  
<http://www.plosone.org/article/info:doi/10.1371/journal.pone.0024081>

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Slide 30

**FIGURE 2. Illustration of neutral faces over gestational age and combinations of action units (AU) for the laughter and cry gestaits.**

Reissland N, Francis B, Mason J, Lincoln K (2011) Do Facial Expressions Develop before Birth?. PLoS ONE 6(8): e24081. doi:10.1371/journal.pone.0024081  
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Slide 31

**Motor behavior of the fetus**

**Video frame showing self-directed movement towards the mouth of a 22 week-old fetus.**

Reissland N, Francis B, Mason J, Lincoln K (2011) Do Facial Expressions Develop before Birth?. PLoS ONE 6(8): e24081. doi:10.1371/journal.pone.0024081  
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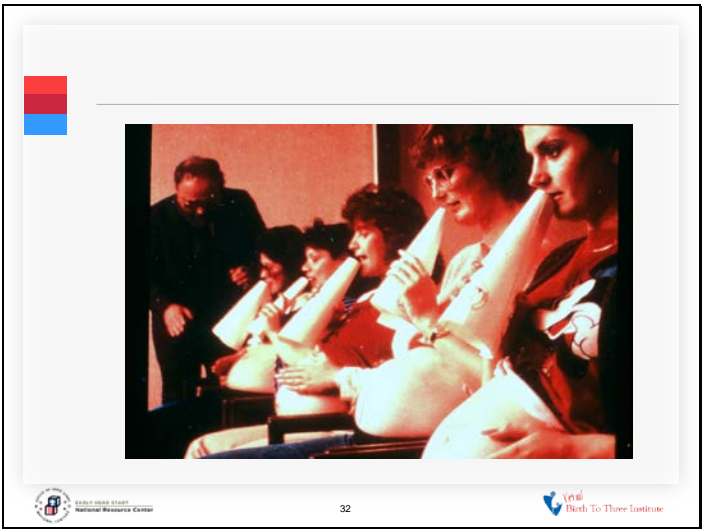
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Slide 32



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Slide 33

**EARLY HEAD START STAFF CAN SUPPORT HEALTHY PRENATAL DEVELOPMENT IN PARTNERSHIP WITH EXPECTANT FAMILIES BY PROMOTING**

- Quality health care before pregnancy
- Consistent and high quality prenatal care
- Healthy nutrition
- Healthy habits and lifestyles



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Slide 34

**EARLY HEAD START STAFF CAN SUPPORT HEALTHY PRENATAL DEVELOPMENT IN PARTNERSHIP WITH EXPECTANT FAMILIES BY PROMOTING**

- Help with everyday stresses as well as mental health challenges
- Supportive relationships with families, friends, and neighbors



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Slide 35

**EARLY HEAD START STAFF CAN SUPPORT HEALTHY PRENATAL DEVELOPMENT IN PARTNERSHIP WITH EXPECTANT FAMILIES BY PROMOTING**

- Healthy housing and physical environments
- Family-friendly and pregnancy-friendly work environments



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Slide 36

**SAFETY, TRUST, RESPECT: FOCUS ON STRENGTHS BALANCING POWER, AND LEARNING TOGETHER**

When relationships are marked by trust and respect rather than top-down, one-way interactions, parents are more likely to:

- Open up to information
- Ask for advice
- Share their challenges as they begin their relationship with their unborn baby



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Slide 37

**SAFETY, TRUST, RESPECT: FOCUS ON STRENGTHS BALANCING POWER, AND LEARNING TOGETHER**

When relationships are marked by trust and respect rather than top-down, one-way interactions, parents are more likely to:

- Accept whatever help they need to protect their unborn baby's development
- Discover strengths within themselves they didn't even know they had



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Slide 38

**WORKING WITH EXPECTANT PARENTS:  
THE ROLE OF RELATIONSHIPS**

- **Parent-provider struggles: Gatekeeping**
- **Telling: Information and advice**
- **Showing: Fetal behavior**
- **Individualizing: Telling and showing approaches for diverse expectant parents**




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Slide 39

**GATEKEEPING**

**The natural competition between two adults who care passionately about the same child.**




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Slide 40

**DEALING WITH GATEKEEPING**

- **Keep the parents in mind when focusing on the baby; keep the baby in mind when focusing on the parents**




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Slide 41

 **DEALING WITH GATEKEEPING**

- Remind parents and ourselves that our conflicts are motivated by the passion we share for the baby

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Slide 42

 **DEALING WITH GATEKEEPING**

- Success in working through conflict toward resolution is more likely when we know that we all share the same intents

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Slide 43

 **PARENTAL INTENTIONS, EXPERTISE AND EMPOWERMENT**

- Look for and acknowledge parents' passion for their unborn child

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Slide 44

**PARENTAL INTENTIONS, EXPERTISE AND EMPOWERMENT**

- Find out what parents already know and build on their knowledge
- Partner with parents to share and develop expertise together

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Slide 45

**PARENTAL INTENTIONS, EXPERTISE AND EMPOWERMENT**

- Invite parents to share their expertise about prenatal development before offering our own
- Ask parents if they want advice before giving it

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Slide 46

**SHOWING, NOT TELLING: FETAL BEHAVIOR**

**OBSERVING FETAL BEHAVIOR CAN HELP:**

- Parents bond to the baby before birth

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Slide 47

 **SHOWING, NOT TELLING: FETAL BEHAVIOR**

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**OBSERVING FETAL BEHAVIOR CAN HELP:**

- **Spark conversations and break the silence about hopes and fears for the baby and for themselves as parents**

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Slide 48

 **SHOWING, NOT TELLING: FETAL BEHAVIOR**

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**OBSERVING FETAL BEHAVIOR CAN HELP:**

- **Make the baby seem "real"**

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Slide 49

 **WORKING WITH EXPECTANT PARENTS**

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- **Creates a circle of connection**
- **May help them connect to their babies-to-be**

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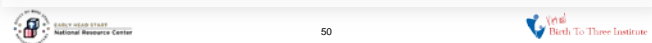
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Slide 50

**INDIVIDUAL DIFFERENCES IN EXPECTANT PARENT RESPONSES TO PRENATAL BRAIN DEVELOPMENT INFORMATION**

**SOME PARENTS MAY BE:**

- Eager to learn about a baby’s brain before birth, and how to protect this delicate process



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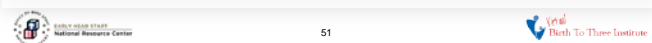
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Slide 51

**INDIVIDUAL DIFFERENCES IN EXPECTANT PARENT RESPONSES TO PRENATAL BRAIN DEVELOPMENT INFORMATION**

**SOME PARENTS MAY BE:**

- Anxious, due to important reasons not to think about this, or to think differently about this



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Slide 52

**INDIVIDUAL DIFFERENCES IN EXPECTANT PARENT RESPONSES TO PRENATAL BRAIN DEVELOPMENT INFORMATION**

**SOME PARENTS MAY BE:**

- Becoming ready at their own pace to think about the fetus’s fragile development and preparing themselves for this new responsibility



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Slide 53

**INDIVIDUALIZING CONVERSATIONS ABOUT PRENATAL BRAIN DEVELOPMENT**

- What factors contribute to different families' readiness for and responses to this information?




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Slide 54

**INDIVIDUALIZING CONVERSATIONS ABOUT PRENATAL BRAIN DEVELOPMENT**

- How to introduce topic of prenatal brain development to find out what it means to each individual family?




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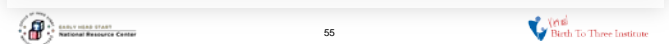
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Slide 55

**INDIVIDUALIZING CONVERSATIONS ABOUT PRENATAL BRAIN DEVELOPMENT**

- What kinds of experiences and beliefs, hopes and fears, affect how expectant families approach and understand this topic differently?




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Slide 56

**INDIVIDUALIZING CONVERSATIONS ABOUT PRENATAL BRAIN DEVELOPMENT**

- How to individualize discussions to respect expectant parents' individual cultures and places on their paths to parenthood?

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Slide 57

**EXPECTANT PARENTS' REACTIONS TO INFORMATION ABOUT PRENATAL DEVELOPMENT DEPEND ON**

- Who they are
- Where they are in this pregnancy

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Slide 58

**EXPECTANT PARENTS' REACTIONS TO INFORMATION ABOUT PRENATAL DEVELOPMENT DEPEND ON**

- Where they are in their own lives
- Where you and they are in your relationship to each other

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Slide 59

 **EXPECTANT FATHERS**

- Often feel left out of the pregnancy
- Want to be important to the mother and the fetus

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Slide 60

 **EXPECTANT FATHERS CAN**

- Nurture the mother to be
- Reduce stress around her
- Help her eat well (shop, cook)

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Slide 61

 **EXPECTANT FATHERS CAN**

- Help her remember and get to doctors' appointments
- Help them both stay connected to friends and family

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Slide 62

 **EXPECTANT FATHERS CAN**

- Learn pregnancy-safe massage techniques
- Talk to the fetus, gently feel the fetus moving, responding to his voice

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Slide 63

 **EXPECTANT FATHERS MAY VALUE**

- Experiencing fetal behavior and discovering how their communication with their unborn baby has already begun
- The opportunity to learn what they really have to offer their partners and future babies
- Being recognized for what they have to offer

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Slide 64

 **EXPECTANT FATHERS MAY VALUE**

- Being connected to other fathers, fathers-to-be, and other people who understand and encourage them
- Receiving nurturing that will give them the energy to nurture their partners and babies-to-be, nurturing that is offered in ways that respect how they see themselves and how they define their roles

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Slide 65

**SOCIAL DETERMINANTS OF PRENATAL DEVELOPMENT**

- Access to health and mental health care
- Access to healthy foods, clean air and water
- Safe housing, neighborhoods and work places
- Warm and supportive relationships

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Slide 66

**SELELCTED RESOURCES**

- **Brazelton Touchpoints Center**  
(prenatal touchpoint) [brazeltontouchpoints.org](http://brazeltontouchpoints.org)
- **Brown Center for the Study of Children at Risk**  
(prenatal substance exposure) [brown.edu/Departments/Children\\_at\\_Risk](http://brown.edu/Departments/Children_at_Risk)
- **Centering Pregnancy**  
(group prenatal care) [centeringhealthcare.org](http://centeringhealthcare.org)
- **Columbia Center for Children’s Environmental Health**  
(environmental toxins in pregnancy) [cceh.org](http://cceh.org)
- **Family Work Institute**  
(employer support for pregnancy) [familiesandwork.org](http://familiesandwork.org)
- **The Touch Research Institute**  
(massage during pregnancy) [miami.edu/touch-research](http://miami.edu/touch-research)

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Slide 67

**VIDEO CREDIT**

- **FOCUS ON THE BRAIN**  
**Part 1: The Science of Preterm Infant Development**

Vida Health Communications, Inc.  
[Vida-health.com](http://Vida-health.com)

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Slide 68




**Prenatal Brain Development:  
Nurturing Babies in a Healthy Environment  
Panel Response**

Amy Hunter, Office of Head Start National Center on Health  
Jennifer Boss, Early Head Start National Resource Center  
Moderated by:  
Terra Bonds Clark, Early Head Start National Resource Center



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Slide 69



**During pregnancy, expectant families may be more open to developing relationships and engaging with programs.**



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Slide 70



**It is important for programs to individualize the support they provide to expectant families based on the family's interests, culture, beliefs, development, knowledge, and needs.**



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Slide 71

Early Head Start programs have a unique opportunity during pregnancy to make connections and build trusting relationships with families.

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Slide 72

EARLY HEAD START RESEARCH AND EVALUATION PROJECT FINDINGS

EARLY HEAD START HAS SHOWN A STRONG PATTERN OF POSITIVE IMPACTS WHEN FAMILIES ARE ENROLLED EARLY IN PREGNANCY:

- Greater likelihood of breastfeeding

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Slide 73

EARLY HEAD START RESEARCH AND EVALUATION PROJECT FINDINGS

EARLY HEAD START HAS SHOWN A STRONG PATTERN OF POSITIVE IMPACTS WHEN FAMILIES ARE ENROLLED EARLY IN PREGNANCY:

- Positive impacts on parenting

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Slide 74

**EARLY HEAD START RESEARCH AND EVALUATION PROJECT FINDINGS**

**EARLY HEAD START HAS SHOWN A STRONG PATTERN OF POSITIVE IMPACTS WHEN FAMILIES ARE ENROLLED EARLY IN PREGNANCY:**

- **Positive impacts on children’s cognitive and social-emotional development at age 3**



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Slide 75

**Early Head Start can have a significant positive impact on children and family outcomes.**



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Slide 76

**The baby’s developing brain is sensitive to the raw materials that go into the pregnant mother’s body.**



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Slide 77

**RESEARCH ON MATERNAL DEPRESSION DURING PREGNANCY**

- Depression may peak during pregnancy – some research shows that depression ratings were highest at 8 months

[http://www.health.harvard.edu/newsweek/Depression\\_during\\_pregnancy\\_and\\_after\\_0405.htm](http://www.health.harvard.edu/newsweek/Depression_during_pregnancy_and_after_0405.htm)

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Slide 78

**RESEARCH ON MATERNAL DEPRESSION DURING PREGNANCY**

- A higher level of depression in mothers during pregnancy was associated with higher levels of stress hormones in their children at birth

[http://www.health.harvard.edu/newsweek/Depression\\_during\\_pregnancy\\_and\\_after\\_0405.htm](http://www.health.harvard.edu/newsweek/Depression_during_pregnancy_and_after_0405.htm)

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Slide 79

**BABIES BORN TO WOMEN WITH SEVERE DEPRESSION MAY BE MORE LIKELY TO**

- Be born prematurely or with low birth weight
- Be less cuddly
- Be more difficult to soothe/more irritable
- Have diminished hand-to-mouth coordination

[http://www.health.harvard.edu/newsweek/Depression\\_during\\_pregnancy\\_and\\_after\\_0405.htm](http://www.health.harvard.edu/newsweek/Depression_during_pregnancy_and_after_0405.htm)

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Slide 80




**Depression screening tools will soon be available on the Center for Early Childhood Mental Health website:**

**<http://www.ecmhc.org>**



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Slide 81



**PREGNANCY IS A TIME OF VARIED EMOTIONS**

- Excitement
- Hopes/dreams
- Ambivalence/uncertainty
- Sadness



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Slide 82



**It is important to pay attention to the nuances of individual families' feelings about pregnancy.**



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Slide 83



**Programs can minimize stress experienced by expectant families by identifying and building a system of support for the mother and baby.**



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Slide 84




**HEAD START PROGRAM PERFORMANCE STANDARDS  
45 CFR 1304.40(c)(iii)**

**Early Head Start grantee and delegate agencies must assist pregnant women to access comprehensive prenatal and postpartum care, through referrals, immediately after enrollment in the program. This care must include: mental health intervention and follow-up, including substance abuse prevention and treatment services, as needed.**



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Slide 85




**INTERPERSONAL SAFETY AND DOMESTIC VIOLENCE STUDIES SHOW THAT**

- **Domestic violence rates are higher during pregnancy**



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Slide 86

**INTERPERSONAL SAFETY AND DOMESTIC VIOLENCE STUDIES SHOW THAT**

- Intimate partner violence during pregnancy is associated with an increased risk of miscarriage, low birth weight babies, and fetal injury or even death

EARLY HEAD START National Resource Center 86 Birth To Three Institute

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Slide 87

**INTERPERSONAL SAFETY AND DOMESTIC VIOLENCE STUDIES SHOW THAT**

- Women who live in an abusive relationship may feel embarrassed and ashamed, and often think they are to blame

EARLY HEAD START National Resource Center 87 Birth To Three Institute

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Slide 88

**Poverty brings adversity and is sometimes referred to as the great disequalizer.**

EARLY HEAD START National Resource Center 88 Birth To Three Institute

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Slide 89



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**Early Head Start has an opportunity to positively support families during the vulnerable period of pregnancy.**



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Slide 90



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**There is a connection between a mother's health and the health of the growing baby.**



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Slide 91




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**It is important to connect parents to natural support networks (i.e., extended family, friends, neighbors, faith communities, etc.).**



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Slide 92

**FATHER/PARTNER INVOLVEMENT DURING PREGNANCY IS IMPORTANT**

- Fathers/partners may feel left out during pregnancy – it is important to engage them in the process in a way that respects their role and their feelings about the pregnancy



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Slide 93

**FATHER/PARTNER INVOLVEMENT DURING PREGNANCY IS IMPORTANT**

- Fathers/partners may not realize how much their support and protection of the pregnant mother contributes to the delicate processes of prenatal brain development



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Slide 94

**FATHER/PARTNER INVOLVEMENT DURING PREGNANCY IS IMPORTANT**

- Like mothers, fathers/partners need relationships that nourish them and help them discover their inner strengths as they face the challenges of their new role as a parent



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Slide 95



**Programs can cultivate community partnerships with organizations that provide prenatal care and can work with expectant families to facilitate their access to this care.**



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Slide 96



**A mother's experiences and environment during pregnancy have a significant impact on prenatal brain development.**



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Slide 97



**Early Head Start programs are well positioned to offer information and help link expectant families to resources in their community.**



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Slide 98

**EARLY HEAD START PROGRAMS CAN BE SUPPORTIVE AND HELP BABIES GROW AND THRIVE BY BUILDING STRONG PROGRAM/FAMILY RELATIONSHIPS THAT**

- Are inclusive of two-way communication
- Recognize the family’s knowledge and experience
- Respect their home language, cultural background, and traditions




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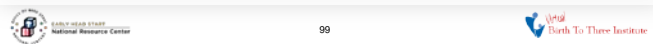
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Slide 99

**To ask Dr. Sparrow a question, please call**

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**International Toll: 719-325-4844**  
**US/CAN Toll Free: 800-967-7154**  
**Participant Passcode: 779041**




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Slide 100

**T H A N K Y O U**  
**S E E Y O U S O O N**




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## Resources

### Articles

Cohn, J. (2011). The Two Year Window: The New Science of Babies and Brains—and How It Could Revolutionize the Fight Against Poverty, *The New Republic* 242 (10–13).

<http://www.developingchild.net>.

National Scientific Council on the Developing Child, "Children's Emotional Development Is Built Into the Architecture of Their Brains," Working Paper No. 2 (2004).

[www.developingchild.net](http://www.developingchild.net)

National Scientific Council on the Developing Child, "The Timing and Quality of Early Experiences Combine to Shape Brain Architecture," Working Paper No. 5 (2007).

[www.developingchild.net](http://www.developingchild.net).

National Scientific Council on the Developing Child, "Young Children Develop in an Environment of Relationships," Working Paper No. 1 (2004).

[www.developingchild.net](http://www.developingchild.net).

### ECLKC

Attachment: Services to Pregnant Women Participating in Early Head Start.

[http://eclkc.ohs.acf.hhs.gov/hslc/standards/IMs/2009/resour\\_ime\\_004\\_072209.pdf](http://eclkc.ohs.acf.hhs.gov/hslc/standards/IMs/2009/resour_ime_004_072209.pdf)

Healthy Children Are Ready to Learn. HHS/ACF/OHS/NCH. 2012. English.

[http://eclkc.ohs.acf.hhs.gov/hslc/ttssystem/health/Health/Health%20and%20Wellness/Health%20and%20Wellness%20Children%20\(ages%200-5\)/HealthyChildren.htm](http://eclkc.ohs.acf.hhs.gov/hslc/ttssystem/health/Health/Health%20and%20Wellness/Health%20and%20Wellness%20Children%20(ages%200-5)/HealthyChildren.htm)

Giving Children the Earliest Head Start: Developing an Individualized Approach to High-Quality Services for Pregnant Women

[http://eclkc.ohs.acf.hhs.gov/hslc/hs/resources/ECLKC\\_Bookstore/PDFs/TANo3%5B1%5D.pdf](http://eclkc.ohs.acf.hhs.gov/hslc/hs/resources/ECLKC_Bookstore/PDFs/TANo3%5B1%5D.pdf)

News You Can Use. Early Experiences Build the Brain – Foundations of School Readiness.

<http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/ehsnrc/Early%20Head%20Start/early-learning/caregiving/nycu-brain-development.pdf>

Stress and the Developing Brain. Gould, Beverly. *Child Mental Health*. Head Start Bulletin #73.

HHS/ACF/ACYF/HSB. 2002. English. [http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/health/Health/Health%20and%20Wellness/Health%20and%20Wellness%20Program%20Staff/health\\_art\\_00527a1\\_081705.html](http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/health/Health/Health%20and%20Wellness/Health%20and%20Wellness%20Program%20Staff/health_art_00527a1_081705.html)



## Research

Brown Center for the Study of Children at Risk. Prenatal Substance Exposure.  
[www.brown.edu/Departments/Children\\_at\\_Risk](http://www.brown.edu/Departments/Children_at_Risk)

## Websites

Brazelton Touchpoints Center. Prenatal Touchpoints. [www.brazeltontouchpoints.org](http://www.brazeltontouchpoints.org)

Centering Pregnancy - <http://www.centeringhealthcare.org/pages/centering-model/pregnancy-overview.php>

Columbia Center for Children's Environmental Health. Environmental Toxins in Pregnancy.  
[www.ccceh.org](http://www.ccceh.org)

Family Work Institute. Employer Support for Pregnancy. [www.familiesandwork.org](http://www.familiesandwork.org)

The Touch Research Institute. Massage During Pregnancy. [www. miami.edu/touch-research](http://www6.miami.edu/touch-research/)  
<http://www6.miami.edu/touch-research/>

## Video Credit

FOCUS ON THE BRAIN. Part 1: The Science of Preterm Infant Development. Vida Health Communications, Inc. [www.Vida-health.com](http://www.Vida-health.com)