

National Center on Birth Defects and Developmental Disabilities



Autism Activities at CDC: Update on The Study to Explore Early Development (SEED)

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Centers for Disease Control and Prevention

Interagency Autism Coordinating Committee Meeting

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The Study to Explore Early Development (SEED)

- **One of the largest studies** in the United States looking at ASD risk factors
 - Already enrolled over **6,000** children and their families
- Will **contribute to growing and complex body of knowledge** around what puts children at greater risk for ASD
 - Key strength of SEED = ability to simultaneously look at detailed information on characteristics of ASD, environmental factors, and genes and to assess interactions
- Inclusion of **bio-specimens**
 - Genetic assays completed for a portion of bio-specimens



National Center on Birth Defects and Developmental Disabilities

Division of Human Development and Disability

Division of Blood Disorders

Division of Congenital and Developmental Disorders

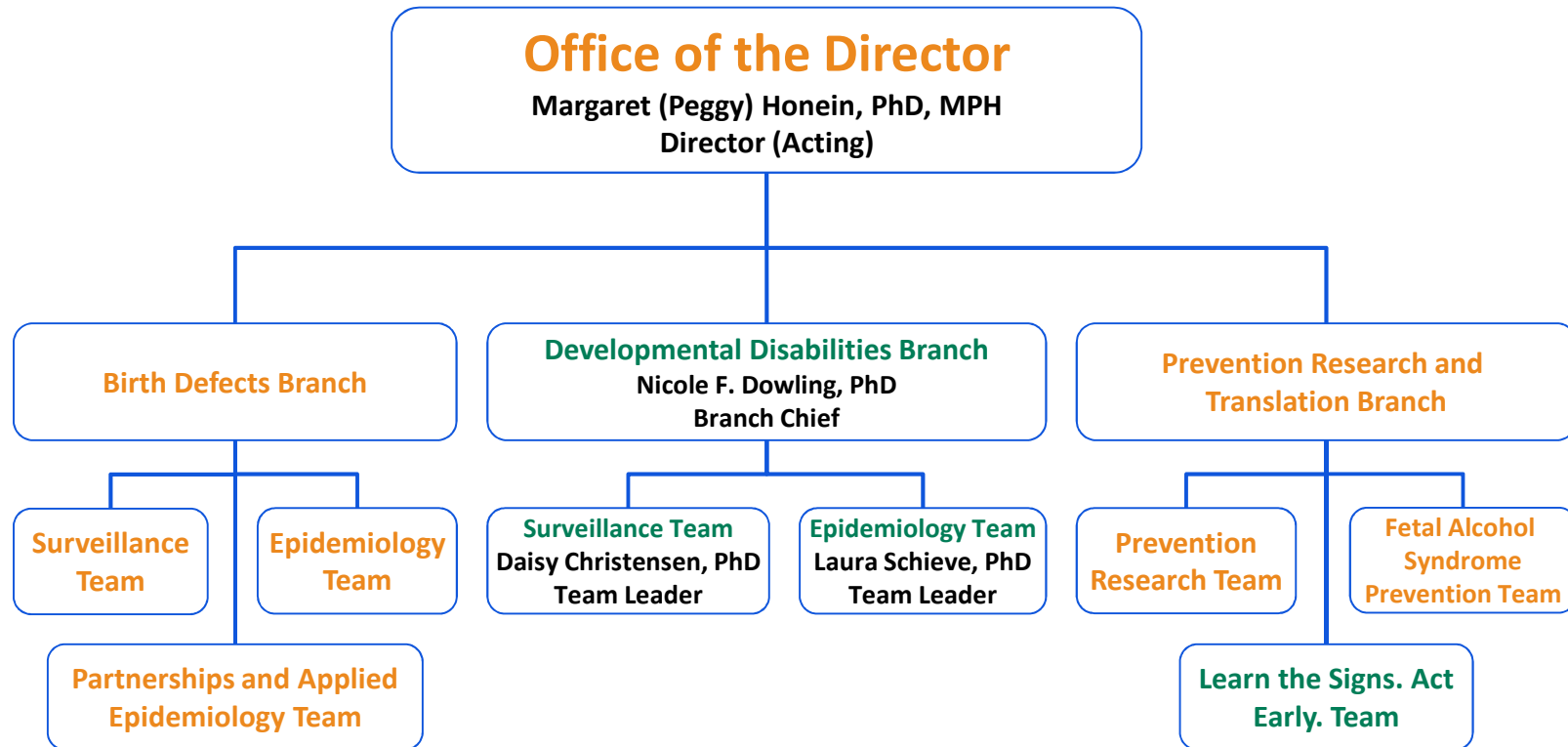


Division of Congenital and Developmental Disorders

- Vision
 - Healthy birth and optimal development for all children
- Mission
 - To be the public health leader in preventing the occurrence or adverse consequences of birth defects, developmental disabilities, and pediatric genetic conditions through surveillance, research, and intervention programs
- Role
 - Develop and support state-of-the-art surveillance programs
 - Conduct research into causes and risk factors
 - Develop, implement and evaluate prevention programs



Division of Congenital and Developmental Disorders



CDC's Autism Programs



Track

- **Autism and Developmental Disabilities Monitoring (ADDM) Network**
- Track the number and characteristics of children with Autism Spectrum Disorder (ASD) and other developmental disabilities.

Research

- **Study to Explore Early Development (SEED)**
- Research what puts children at greater risk for ASD.

Act Early

- **Learn the Signs. Act Early.**
- Improve early identification of developmental delays and disabilities so children and families can get the help they need.

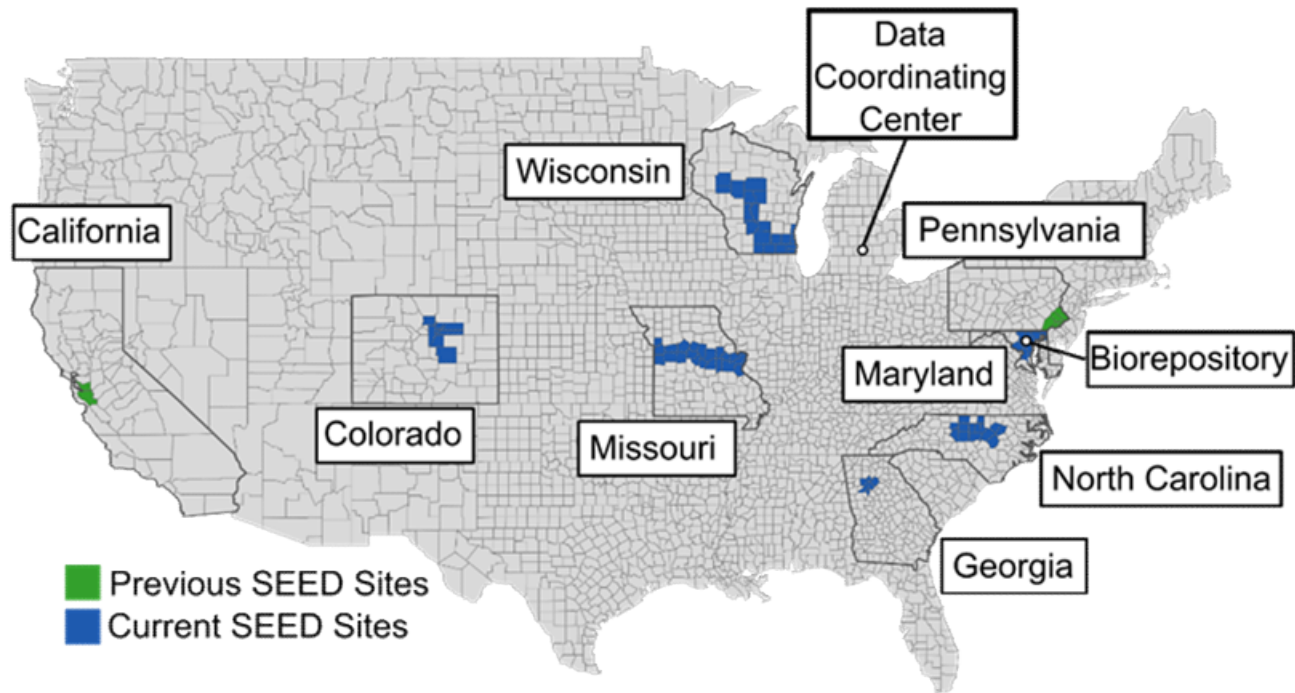


The Study to Explore Early Development (SEED)

- SEED case-control study
 - Fund and oversee research activities at 5 extramural sites
 - CDC participates as 6th intramural site
 - 3 phases funded to date
 - Fund central bio-repository (all phases)
 - Fund and oversee Data Coordinating Center (all phases)
- SEED Teen Follow-up Study (SEED Teen)
 - Fund and oversee research activities at 1 extramural site
 - CDC participates as 2nd intramural site
 - First phase funded in 2016
 - Data collection expected to begin early 2018



The Study to Explore Early Development (SEED)



Agenda for Today's Presentation

SEED: Overview of Methods and Data Collection – Laura Schieve, PhD

Highlights of the Findings of 5 SEED Studies

ASD Risk Factors Studies

- *Autism Spectrum Disorder and Birth Spacing* – Laura Schieve, PhD
- *Maternal Infection and Fever during Pregnancy and Risk of Autism Spectrum Disorder* – presented by M. Danielle Fallin, PhD on behalf of Lisa Croen, PhD

ASD Genetic Associations

- *Peripheral Blood DNA Methylation and ASD* – M. Danielle Fallin, PhD

ASD and Child Health Effects

- *Gastrointestinal Symptoms in 2 – 5 Year Old Children* – Ann Reynolds, MD

Characteristics of Children with ASD

- *A Novel Protocol for Characterizing Dysmorphology to Enhance the Phenotypic Classification of ASD* – Stuart Shapira, MD

