Intended Audience:

Overview for Facilitators:
ECPC has developed an anchor presentation for each of the Initial Practice-Based Professional Preparation Standards for Early Interventionists/Early Childhood Special Educators (EI/ECSE). The components under each standard are presented separately. The materials are designed for an in-service professional development (PD) program but can be used in a pre-service teacher preparation course. This resource will increase professionals’ ability to address each of the EI/ECSE standard and components. Additional materials for each standard can be found on the ECPC Website: Curriculum Module | The Early Childhood Personnel Center (ecpcta.org)

Speaker Notes
The speaker notes provide a narrative and activities for each slide. You will see speaker notes for most of the slides within the slide deck. The notes provide additional details about the information on a particular slide, including the context for the information and key points. The notes are a guide, and speakers should feel free to modify these as needed. Please note the following:

- The narrative is a sample script for the presenter. Although you may read it verbatim, speaker notes are intended as a guide for the presenter, and you may modify them as needed.

Materials Required for face to face
1. Share the outline with timelines for the training (build in breaks)
2. Conduct an opening activity (introductions/ice breaker)
3. Computers or tablets with internet access for participants (if possible)
4. Handouts
5. Projector with audio capable for playing video with speakers
6. Presentation slides with speaker notes
7. Develop an evaluation tool for all attendees (e.g., continuous improvement activity)

Materials Required for virtual
1. Distribute the link to the online platform in advance
2. Share the outline with timelines for the training (build in breaks)
3. Conduct an opening activity (introductions/ice breaker)
4. Determine how participants will receive handouts and materials, on the cloud, using a storage platform (e.g., dropbox, google, etc.)
5. Platform to share presentation (e.g., zoom, teams, etc.) with polling questions prepared in advance and breakout room capability
6. Upload or send handouts in advance or through platform (insert through chat)
7. Download videos ahead of time to prepare for low bandwidth from slide deck
8. Share screen capability (be sure to enable sound for videos)
9. Develop an evaluation tool for all attendees (e.g., continuous improvement activity)

**Objectives for Standard 1, Component 1.4:**
After participating in this professional learning opportunity, participants will be able to:
- Identify characteristics and etiologies of conditions that may cause developmental delays and/or disabilities
- Describe individual differences within and across the range of conditions likely to cause developmental delays and/or disabilities
- Describe the impact of developmental delays and/or disabilities on learning and development
- Describe the impact of developmental delays and/or disabilities on: assessment, curriculum, intervention and/or instruction

**Outline of Session Activities**

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**Slide 1**

**Child Development and Early Learning:**

**Early Learning & Development Theory & Philosophy**

Initial Practice-Based Professional Standards for Early Interventionists/Early Childhood Special Educators (ECSE)

1.4

**Slide 2**

**Standard 1**

Candidates understand the impact of different theories and philosophies of early learning and development on assessment, curriculum, instruction, and intervention decisions. Candidates apply knowledge of normative developmental sequences and variations, individual differences within and across the range of abilities, including developmental delays and disabilities, and other direct and indirect contextual factors that support or constrain children’s development and learning. These contextual factors as well as social, cultural, and linguistic diversity are considered when facilitating meaningful learning experiences and individualizing intervention and instruction across contexts.

**Slide 3**

**Component: 1.4**

- Candidates demonstrate an understanding of characteristics, etiologies, and individual differences within and across the range of abilities, including developmental delays and disabilities, their potential impact on children’s early development and learning, and implications for assessment, curriculum, instruction, and intervention.

**Slide 4**

**Objectives**

- Identify characteristics and etiologies of conditions that may cause developmental delays and/or disabilities
- Describe individual differences within and across the range of conditions likely to cause developmental delays and/or disabilities
- Describe the impact of developmental delays and/or disabilities on learning and development
- Describe the impact of developmental delays and/or disabilities on: assessment, curriculum, intervention and/or instruction
Slide 5

**Discussing Etiologies and Conditions That Impact Learning and Development**

- Children across abilities must be seen as fundamentally competent rather than flawed or deficient
- Value is not defined by a set of skills but by who they are
- Intervention provided not to erase an essential “deficiency” but to promote optimal participation in all aspects of home, school, and community

Slide 6

**Early Learning**

- Babies are born learning
- Young children learn through play, exploration of their environment
- Interactions with adults and peers are important to development
- Children benefit from a rich learning environment in their homes and communities

Slide 7

**Factors That Influence Learning and Development**

- Many factors influence how children develop
  - Genetics
  - Environmental influences
  - Prenatal and antenatal influences
  - Early experiences

We will be talking today about etiologies and conditions that can pose barriers to a child’s access to learning opportunities and full participation. As we speak, we always want to be mindful that a category or a diagnosis never represents who a child is, or describes his essential value as a human being in his own context.

We know that babies of abilities are born ready to learn, even when they have significant disabilities. They use the unique abilities they possess to pay attention to and explore the world. One of the most important ways all children learn are through interactions with their primary caregivers, as well as other adults, siblings, and peers. Children of all abilities need interactions with others to learn about the social world and acquire social gestures and language – powerful tools that they will need as they grow.

- Many factors can influence how children develop
- Delays may be influences by genetic conditions (fragile X, down syndrome) or due to complications during pregnancy and birth
- Many conditions that constrain learning and development are a result of many factors, including environmental toxins, maternal substance use, in utero exposure to infectious agents, maternal malnutrition, and maternal exposure to toxic levels of stress.
- Science is still finding out about how many conditions that can constrain learning and development develop, for example cerebral palsy, or autism spectrum disorder
- We also know that highly adverse experiences in the first months and years of life can dramatically impact developmental outcomes.
Let’s begin by thinking about congenital disorders. The word *congenital* refers to that fact that the condition developed before birth.

**Genetics and Environment:**

*Epigenetic Factors*

- Environmental factors can influence the way genes are expressed
- Inherited vulnerabilities can be informed by multiple genes, then influenced by environment before/after birth
- May be a variable in conditions of unknown etiologies, e.g., autism, autoimmune diseases, mental health conditions

**Congenital Abnormalities**

- Characteristics present at birth that affect appearance, development, or function
- Caused by issues during the fetus’s development before birth

**Causes of Congenital Abnormalities**

- Chromosome abnormalities
  - Chromosomes are missing or duplicated
- Single-gene abnormalities
  - Autosomal dominant inheritance
  - Autosomal recessive inheritance
  - X-linked conditions
  - X-linked dominant conditions

**Causes of Congenital Abnormalities**

- Conditions during pregnancy
  - Certain maternal illnesses
  - Chronic maternal conditions
  - Maternal alcohol or substance use
  - Eating raw or uncooked foods
  - Certain medications
Down Syndrome is an example of a condition that is genetically determined.

Quality educational programs, stimulating home environment, good health care and positive support enable people with Down syndrome to lead fulfilling and productive lives.

Another example of a genetically determined congenital condition is Fragile X Syndrome.
Have groups meet and review their assigned websites, and formulate ideas about how each of these conditions would inform plans for assessment, curriculum, instruction and intervention depending on the population they serve (e.g., Part C, Part B, early elementary school age) – and report out to the larger group when they are done. [https://www.cdc.gov/ncbddd/birthdefects/downsyndrome.html](https://www.cdc.gov/ncbddd/birthdefects/downsyndrome.html) [https://fragilex.org/understanding-fragile-x/fragile-x-101/](https://fragilex.org/understanding-fragile-x/fragile-x-101/)

An example of a common condition of unknown etiology is Autism Spectrum Disorder (ASD).

ASD is a common neurodevelopmental disorder that is present from birth with reported prevalence in the United States of 1 in 59 children (approximately 1.7%). Core deficits are identified in 2 domains: social communication/interaction and restrictive, repetitive patterns of behavior.

Symptoms are always present in the early developmental period (but may not become...
fully manifest until social demands create a barrier to full participation in relationships, routines, activities, instruction). Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning. These disturbances are not better explained by intellectual disability (intellectual developmental disorder) or global developmental delay. Intellectual disability and ASD frequently co-occur; to make comorbid diagnoses of ASD and intellectual disability, social communication should be below that expected for the general developmental level.

Many autistic people—especially those who have intact language and no learning difficulties such that they can self-advocate—have adopted the neurodiversity framework, coining the term “neurotypical” to describe the majority brain and seeing autism as an example of diversity in the set of all possible diverse brains, none of which is “normal” and all of which are simply different.

Many adults with autism prefer to be referred to as “an autistic adult” vs people first language such as “an adult with autism”
Signs and Symptoms of ASD

Early signs of ASD can include but are not limited to:
- Reduced eye contact/does not prefer to look at faces
- Rarely or does not point/show to share focus of interest
- Delayed onset of verbal language
- Unusual ways of moving hands, fingers, body
- Develops rituals such as lining things up, repeating things

(Facilitator may choose to visit the Autism Navigator website link in the slide to look at video examples of typically developing toddlers vs. those who have ASD, and review their many resources for families).

https://autismnavigator.com/what-is-autism/

Intervention Targets: ASD

- Nonverbal communication/joint attention
- Social engagement – increased interactions
- Social initiations and responses
- Verbal language
- Challenging behaviors

Interventions and Supports

- Behavioral therapy
- For young children: Naturalistic Developmental Behavioral Interventions (NDBIs) such as the Early Start Denver Model
- Speech-language Therapy
- Occupational Therapy
- Early Childhood Special Educator
- Supports for the family and children at home and in inclusive childcare/school settings

Conditions of Unknown Etiology: Cerebral Palsy (CP)

- Most common disability affecting motor control
- Caused by abnormal brain development or injury
- Can be mild, moderate, or severe
- A lifelong condition

Another condition of uncertain etiology is Cerebral Palsy (CP). Cerebral palsy is caused by abnormal development of the brain or damage to the developing brain that affects a child’s ability to control his or her muscles.

There are several possible causes of the abnormal development or damage. People used to think that CP was mainly caused by lack of oxygen during the birth process. Now, scientists think that this causes only a small number of CP cases.

The brain damage that leads to CP can happen before birth, during birth, within a
month after birth, or during the first years of a child’s life, while the brain is still developing.

(CDC: 11 Things to Know About Cerebral Palsy)

### Slide 25

**Risk factors for CP**
- Low birthweight/prematurity/multiple births
- Infections during pregnancy
- Jaundice
- Maternal medical conditions
- Birth complications

### Slide 26

**Cerebral Palsy, Continued**
- Every child is different and ongoing screening and care is important
- Learning difficulties
- Seizures/epilepsy
- Vision difficulties
- Hearing loss

### Slide 27

**Activity**
- Visit the CDC Website: [11 Things to Know about Cerebral Palsy](https://www.cdc.gov/ncbddd/cp/features/cerebral-palsy-11-things.html)
- Explore each tab and identify information you think will be helpful to know in your work with young children with CP.
- What accommodations/adaptations might be needed to support full access to learning at home? At school?

Break into partner or groups
[https://www.cdc.gov/ncbddd/cp/index.html](https://www.cdc.gov/ncbddd/cp/index.html)
Babies who are born withdrawing from opioids are not easy to care for (read list). These symptoms are often present at birth and are often treated pharmacologically. Most recently, evidence suggests that infants withdrawing from opioids at birth do best when they are cared for, fed, and comforted by their mothers in a rooming-in context, and have a much lower need for pharmacological intervention.

Mothers, who are often not feeling well themselves, need a lot of support in order to care for a child – if she remains in custody. Support for mothers in this situation needs to be intentionally planned for in the hospital, and continued well after discharge.

Infants with opioid exposure are at increased risk for developmental delay and disability. In addition to developmental, behavioral, and mental health screenings by the primary care pediatrician, infants with substance exposure should be referred to early intervention services, and developmental screenings in a NICU developmental assessment clinic or equivalent should be considered. Early intervention services are often available in areas of the United States as part C of the Individuals with Disabilities Education Act.

(Facilitator may choose to have attendees watch Dr. Matthew Grossman of the Yale...
Medical School talk in the link about the use of the Eat, Sleep, Console approach to supporting infants withdrawing from opioids, and report out on how this information may inform their work with families.

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**Fetal Alcohol Syndrome Disorders**

- [Fetal Alcohol Spectrum Disorders](https://www.cdc.gov/ncbddd/fasd/facts.html) (FASD): variety of disorders that can occur when a pregnant woman drinks alcohol

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**Signs/Symptoms of FASD**

May demonstrate:
- Abnormal facial features
- Vision or hearing problems
- Hyperactive behavior
- Difficulty with attention
- Learning disabilities
- Speech and language delays
- Poor coordination

**Slide 33**

**FASD: Intervention and Protective Factors**

- Early diagnosis and intervention to support healthy self-regulation and attention skills, social-communication, and cognitive development
- Individualized curriculum and instruction geared toward functional and inclusive outcomes
- Stable home environments
- Supportive communities
Facilitator can ask the group how these strategies might be generalized to the populations they work with.

Activity
Watch Alex’s Success Story on the next slide before discussing the following questions:
- What adaptations and accommodations were developed by Alex’s team to optimize his participation and learning in school?
- How did these support his ability to self-regulate and remain engaged in learning routines?
- How did his teachers include Alex’s family in everyday educational planning?

Facilitator can ask the group how these strategies might be generalized to the populations they work with. https://www.fasdoutreach.ca/resources/all/a/alexs-success-story

Intellectual Disability
- Diagnosed through standardized tests <70 IQ
- Must show deficits in 2 or more specific areas of adaptive behavior
- Present before birth unless the result of an injury

Intellectual disability (also known as intellectual developmental disorder) is a neuro-developmental disorder characterized by deficits in general intellectual functioning such as reasoning, planning, judgment, abstract thinking, academic learning, and experiential learning. These may also lead to impairments in practical, social, and academic functioning.

Standardized tests such as an IQ test are used to determine a child’s level of intellectual development. A score below 70 on a standardized IQ test indicates that he may have intellectual disability. To be officially diagnosed, one must also exhibit deficiencies in two or more specific areas of adaptive behavior, such as communication skills, interpersonal skills, or daily living skills like getting dressed and using the bathroom. The onset of intellectual disability is usually before birth unless it is accounted for by a specific injury or toxic exposure before the age of 18.
Risk factors include genetic syndromes like Down Syndrome, brain malformations, environmental influences like alcohol or toxins, labor and delivery-related issues, traumatic brain injury, infections, seizure disorders, social deprivation, and more.

See:
- https://childmind.org/guide/intellectual-development-disorder/
- https://www.cdc.gov/ncbddd/birthdefects/downsyndrome.html
- https://fragilex.org/understanding-fragile-x-101/
- https://autismnavigator.com/what-is-autism/
- https://www.cdc.gov/ncbddd/cp/index.html
- https://www.cdc.gov/ncbddd/fasd/facts.html

**Slides 37-40**

**Signs of ID in Young Children**
- Meet global milestones later than other children
- Difficulty in acquiring communications skills
- Difficulty interpreting and applying new information
- Difficulty with adaptive skills/tasks of daily living

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**ID: Risk Factors**
- Intellectual disabilities can have a variety of causes
  - Hereditary disorders (phenylketonuria [PKU])
  - Early alterations in the embryo’s development
  - Exposure to toxic substances or infections in utero
  - Low oxygen at birth, traumatic brain injury
  - Early social deprivation

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**Supporting Children with ID**
- Support family stability
- Promote adult and peer responsiveness and warm nurturing relationships
- Implement intentional sequencing of learning activities
- Create an individualized and supportive environmental structure to ensure inclusion in everyday environments

**Slide 40**

**References and Resources**
- Centers for Disease Control: Down Syndrome
- National Fragile X Foundation
- Autism Navigator: Early Signs of Autism
- Centers for Disease Control: 11 Things to Know about Cerebral Palsy (CP)
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References and Resources
- Patrick SW, Barfield WD, Pointhier BB, AAP Committee on Fetus and Newborn, Pediatrics. 2020;146(5):e202002974
- California Health Care Foundation: Opioid-Dependent Newborns Get New Treatment: Mom Instead of Morphine, 2019

https://pediatrics.aappublications.org/content/pediatrics/146/5/e202002974.full.pdf

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References and Resources
- Centers for Disease Control (2021) Fetal Alcohol Syndrome Disorder

https://www.cdc.gov/ncbddd/fasd/facts.html

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References and Resources
- Centers for Disease Control: Facts About Intellectual Disability (2021)
- Child Mind Institute, 2021: Intellectual Disabilities

https://childmind.org/guide/quick-guide-to-intellectual-development-disorder/