Recognition of Developmental Risk: When to Watch and When to Act!

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The Role of the Frontline Worker: Identifying Children With Developmental Problems

Observation

- Over time
- In a variety of settings
- Ready comparison group
- Interactions with other children and with their parents
- Response to interventions

You may be the only developmental specialist to ever appraise this child.

Role of the Frontline Worker

Recommendations

- Communication to parents of concerns

Suggestions for: **Assessment**

Intervention

Advocacy

Follow-up

Developmental/Behavioural Presentations

- Speech and Language Delay
- "Odd" behaviour
- Withdrawn, quiet child
- Developmental delay
- Hyperactive/disruptive/inattentive behaviour

Preschool Period

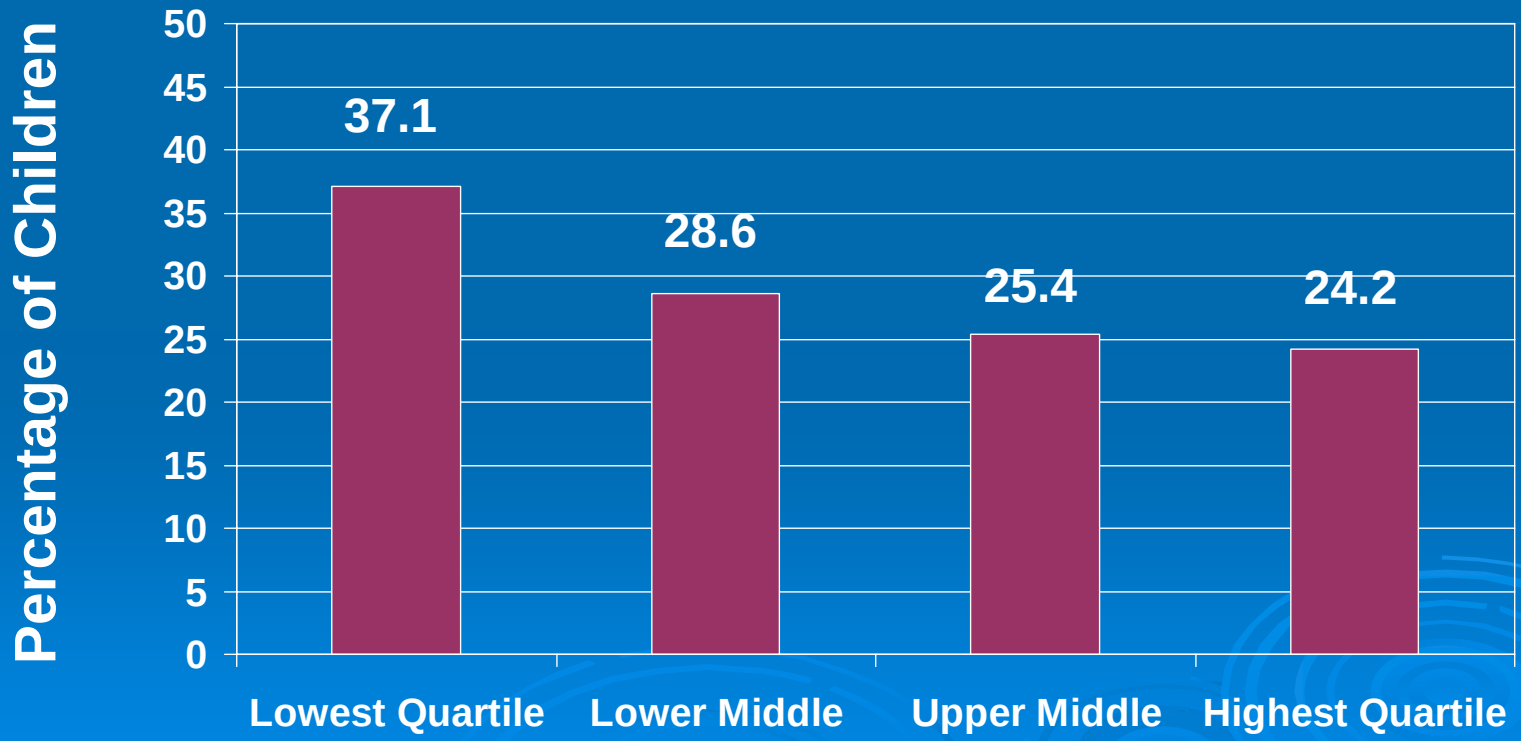
- ↑ independence
- Talking in sentences, relate stories
- Imaginary play increases
- Start to play cooperatively with other children

BC Children Today

- 250,000 children aged 0-5

One in Four

Prevalence of Vulnerable Children by Family Income



Vulnerable children demonstrate one or more cognitive or behavioural problems

Source: Vulnerable Children, J. Douglas Willms, 2002

Why "Early Diagnosis"?

- Early treatment/support results in improved outcome

  e.g. hearing impairment

  Fetal Alcohol Syndrome

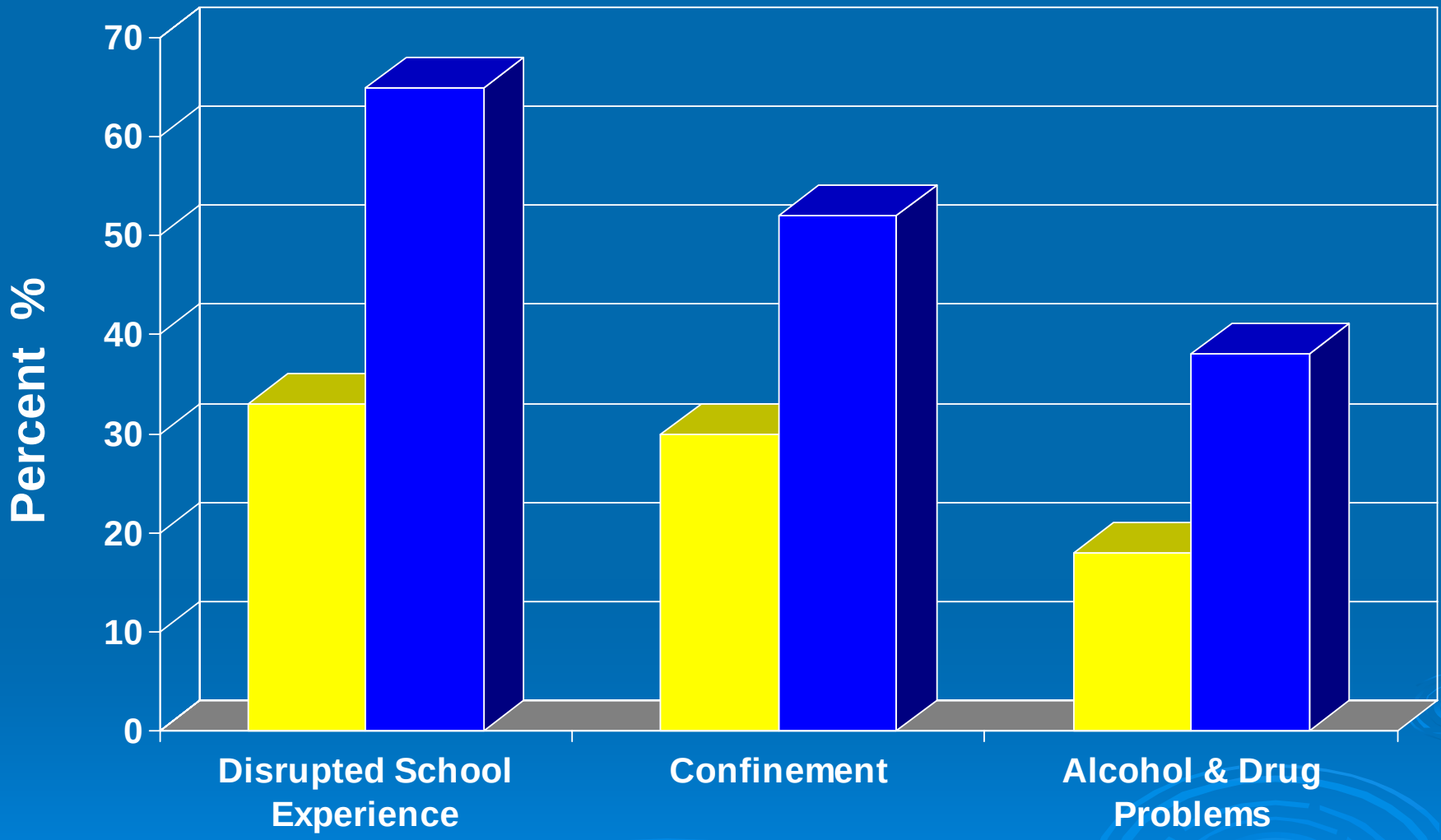
- Family planning

  e.g. in genetic conditions

- Understanding of the child from a disability perspective

- Economic "preschool interventions are cheaper than jail!"

History of Secondary Disabilities among clients ≥ 12 years old by age at diagnosis



Ann P. Streissguth, 1996

But which kids need assessment/intervention?

Domains of Development

- Physical – growth
- Cognitive – way child thinks and processes information
- Social/Emotional – relation to other people, how he/she feels about him/herself
- Fine Motor – way child uses small muscles
- Gross Motor – way child uses large muscles

Domains of Development cont.

- Self-Help/Adaptive – gaining of independence in day to day skills

- Language
  - Receptive – comprehension of language
  - Expressive – Verbal communication

General Concepts

- Children can exhibit delays in one domain of development or in many (Global Developmental Delay)
- Speech development is most predictive of cognitive development
- Gross motor skills are the least predictive of cognitive outcome

  e.g. (35% of profoundly mentally handicapped children walk by 15 months)
- Things which are typical (normal) at one age may be cause for concern at another age

General Concepts (cont.)

- Approximately 16% of children have disabilities such as speech-language impairments, intellectual impairment (mental retardation), learning disabilities, and emotional/behavioural disturbance.
- Only 20-30% are detected prior to school entry.

courtesy Francis P. Glascoe

Biopsychosocial Approach to Child Development

- Child development is multifactorial
- Occurs in the context of a genetic background, prenatal exposures and influences, postnatal environmental influences, familial factors and health conditions
- Must assess child in context of these varied influences to arrive at an appropriate diagnosis and to plan effective intervention

e.g.

1. Assess child for SLP delay, reassure parents, not knowing there is a history genetically based hearing loss in the family
2. Assess child for attentional weakness, dx ADHD without realizing child was prenatally exposed to cocaine and alcohol
3. Assess child for global developmental delay, recommend appropriate child-centred interventions without realizing there is maternal depression

Developmental/Behavioural Presentations

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Temperament

Definition – A characteristic that defines individual differences in people

- a behavioral style which is innate and biologically based

"preferred style of responding….a child's first and most natural way of responding to the world around him" – Thomas and Chess 1977

"behavioural propensities" – Rutter

"broad inherited tendencies" – Bars & Plomin

Temperament Types

Easy (40%)

regularity, adaptable, positive response to newness, positive mood, friendly, social responsive to others, well-liked

Difficult (10%)

irregularity, low adaptability to change, negative mood, negative response to newness, tend to overreact, be unpredictable, can be irritable and irritating, difficulty along with peers

getting

Temperament Types cont.

Slow-to-warm-up (15%)

mild negative response to newness coupled with slow adaptability to change

tend to stand back, need a bit more patience and support to get involved

relatively stable across situations and over time

Special Senses

- Vision
- Hearing

Special Senses - Vision

Vision Screening

Identifies:

- Strabismus – misalignment of the eyes
- Amblyopia – diminution in visual acuity for which no structural cause exists
- Refractive errors – visual acuity problems

Canadian Pediatrics Society Guidelines 1998

All children should be screened in their preschool years for amblyopia

Vision in preschoolers

- Preschoolers should have normal vision
- It is NOT normal for a preschooler to have a 'lazy eye' and the child should be investigated for this
- All children should have a vision screen before kindergarten

Special Senses

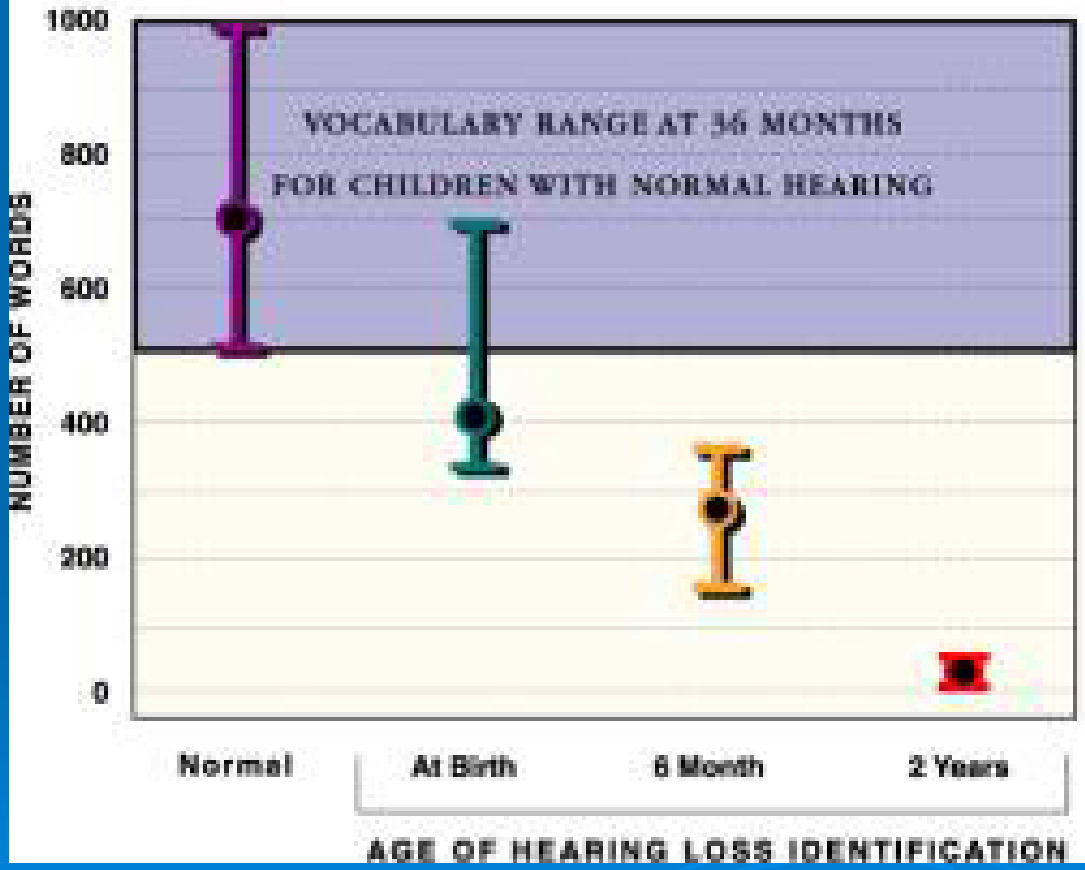
Hearing

- 1/1000 infants is born hearing impaired
- average age of diagnosis of congenital deafness is 2-2.5 years; lesser degrees of hearing loss are diagnosed even later
- early gross motor, problem solving skills, social and fine motor skills are usually normal

* should orient consistently to sound by 4-5 months

- May have normal expressive language development until 6-8 months of age
- Newborn screening program is being implemented in B.C.

CHILDREN WITH HEARING LOSS IDENTIFIED AT BIRTH DEVELOP LANGUAGE WITHIN THE NORMAL RANGE



Each bar indicates the 75th to the 25th percentile vocabulary ranges for 36-month old children. In each category, the black dot represents the median vocabulary range. (Source: The Marion Downs National Center for Infant Hearing, 1997)

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Concerns Re: Language Development

Speech & Language Delay

Language Development cont.

When to be concerned

3 months - not cooing

12 months - doesn't respond to own name;
not saying ma-ma da-da

18 months - no words
- no pointing
- no imaginary play

Language Development cont.

24 months	-	not talking
3 years	-	not talking in sentences; disinterested in listening to a story
4 years	-	not relating events/stories

* All children with suspected language delay should have a hearing test

Concerns Re: Language Development

Speech & Language Delay

Expressive only

- hearing test
- refer to SLP

Expressive & Receptive

- hearing test
- unusual or atypical social behaviour
  - consider Autism Spectrum Disorder
- delays in many areas
  - refer for developmental assessment and investigation for underlying etiology

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Unusual or Delayed Social Development

Be concerned when:

- A 4 month old is not smiling responsively
- An infant or toddler is not interested in reciprocal social interactions and play
- A 31/2 year old who isn't interested in cooperative play, imaginative play, playing with a variety of toys, seeking adult attention and approval

Autism

Autism is a disorder of brain development with a strong genetic component. It is characterized by qualitative impairment in:

- Reciprocal social interaction
- Communication
- And: restricted, repetitive and stereotypic patterns of behaviours, interests and activities.

Play: Social Levels

- Solitary Play
- Parallel Play – playing side-by-side other children but not with them
- Interactive/Group Play – playing with other children

Screening/Assessment - PLAY

How pre-schoolers learn

<u>Cognitive Levels</u>

1. Functional play – repetitive
   e.g. running and jumping
   gathering and dumping
2. Constructive play – using objects to make something
   e.g. blocks, lego, playdoh

Screening/Assessment cont.

1. Dramatic play – role playing e.g. firefighter, superhero
   - make-believe transformation

2. Games with rules – conformity with pre-established rules
   e.g. tag, mother-may-I, soccer

Play – Developmental Milestones

18 months – 22 months

- Starts to pretend – pretends to drink from a cup
- Plays with dolls – feeds, cover with a blanket

2 years

- Plays house
- Short play sequences

3 years

- Pretend play has long sequences

3½ years

- Pretend play with a dollhouse and miniature toys

3½ – 4 years

- Acts out scenes with dolls, puppets, animals

5 years

- Plans a sequence of pretend events
- Organizes objects and other children
- Highly imaginative and cooperative

Adapted from Westby Symbolic Play Scale

Screening Tools for Social Development

- Developmental Checklist
- CHAT

Developmental Checklist

YES/NO

- Does your child enjoy playing word/action games with others (such as peek-a-boo)?
- Does your child show emotions that fit the situation?
- Do your child's fears seem unusual?
- Is your child interested in what's going on around him or her?
- Does your child enjoy playing with many different toys, in many ways?
- Is your child beginning to enjoy pretend play, taking turns, and imitating other people's play?
- Is your child interested in approaching other children and joining in a group?
- Can your child easily indicate his or her interests and needs through words or sounds?
- Is your child talking as you would expect?
- Does your child point to, ask for, or try to show you something?

Developmental Checklist (con't)

- Does your child look at you when you talk to him or her?
- Does your child imitate other people's words or sounds?
- Does your child imitate gestures and facial expressions?
- Is your child comfortable with changes in routine?
- Does your child hear and react to sound as you would expect?
- Does your child enjoy being touched and touching other things?
- Does your child move his or her hands like other children?
- Does your child see and react to things as you would expect?
- Does your child eat and drink a variety of foods and beverages?

- Try these with your child: Point to a toy and say, "Look, there's a _____." Does your child look in the right direction?
- Use two cups and spoons. Invite your child to pretend to make juice with you – mix, pour, and drink. Does your child participate?
- Ask your child to show you something in the room. "Show me the _____." Where's the _____?" Does your child turn and point or touch the items?
- If you answered "No" to some of these questions, or if you need more information, talk with your family doctor, pediatrician, community health nurse, local health unit, or child care provider.

CHAT: The Checklist for Autism in Toddlers – A Screening Tool

To be used by GP's or Health Visitors during the 18-month development checkup.

SECTION A: Ask Parent

YES/NO

1. Does your child enjoy being swung, bounced on your knee, etc.?
2. Does your child take an interest in other children?
3. Does your child like climbing on things, such as up stairs?
4. Does your child enjoy playing peek-a-boo/hide-and-seek?*

*5. Does your child ever pretend, for example, to make a cup of tea using a toy cup and teapot, or pretend other things (pouring juice)?

6. Does your child ever use his/her index finger to point, to ask for something?*

*7. Does your child ever use his/her index finger to point, to indicate interest in something?

8. Can your child play properly with small toys (e.g. cars or blocks) without just mouthing, fiddling, or dropping them?
9. Does your child ever bring objects over to you (parent), to show you something?

SECTION B: GP or HV Observation

YES/NO

1. During the appointment, has the child made eye contact with you?*
*2. Get child's attention, then point across the room at an interesting object and say, "Oh look! There's a (name of toy)." Watch the child's face. Does the child look across to see what you are pointing at? (a)
*3. Get child's attention, then give child a miniature toy cup and teapot and say, "Can you make a cup of tea?" Does the child pretend to pour out tea, drink it, etc.? (b)
*4. Say to the child, "Where's the light?" or "Show me the light." Does the child point with his/her index finger at the light? (c)
5. Can the child build a tower of blocks? (If so, how many?) (Number of blocks…)

***Indicates critical questions that are most indicative of autistic characteristics.**

SECTION B: GP or HV Observation

(a) To record yes on this item, ensure the child has not simply looked at your hand, but has actually looked at the object you are pointing at .

(b) If you can elicit an example of pretending in some other game, score a yes on this item.

(c) Repeat this with, "Where's the Teddy?" or some other unreachable object; if the child does not understand the word "light". To record a yes on this item, the child must have looked up at your face around the time of the pointing.

Autism Referrals

- Absolute Red Flags:
- No babbling by 12 months
- No gesturing (pointing, waving bye-bye, etc.) by 12 months
- No single words by 16 months
- No spontaneous words/phrases by 24 months (not just echolalic)
- ***Any*** loss of any language or social skills

Getting an Autism Assessment

- Once autism is suspected, the family should be go to their family doctor for a referral to the BC Autism Assessment Network (BCAAN)
- A referral will be made for special assessments as mandated by the MCFD
- If the child is diagnosed with autism they will be eligible for funding through the MCFD for therapeutic services
- (under age 6: $20,000 per year/over age 6: $6000 per year)
- Full information available at www.phsa.ca; click on patients/autism

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Global Developmental Delay

In 1939, a low cost early intervention study was done. Half the children with mental retardation in a poorly staffed orphanage, were transferred to an adult women's institution for the mentally retarded. The retarded women showered the children with love and affection. Long term follow up demonstrated significant gains in the transferred group in terms of education, occupation, family adjustment, etc.

Screening Tests for Global Developmental Delay

- Nippissing
- Ages and Stages Questionnaire
- Parents Evaluation of Developmental Status (PEDS)

BUT:

Family demographics and family function are also strong predictors of how successful the child will be in school.

Global Developmental Delay: How Much Delay is Too Much?

- There is no definite answer, but remember, the gap tends to grow
- If the child is functioning like children $\frac{3}{4}$ of his/her chronological age or less~REFER
- Take into account: progress that child is making, family situation, any other worrisome features in the child's development and behaviour, and ask:
- Will the child need extra supports in Kindergarten?

Predictors

- Poorest developmental outcomes occur when children with high biological risk are raised in social environments that do not provide much educational stimulation or emotional support
- In several long terms studies low achievement in school is best predicted by family environments where opportunities for verbal conceptual stimulation is low.
- Early recognition and support of developmental delays lead to better outcomes.

Referrals for Global Developmental Delay

- If the child is significantly behind his/her peers in more than one area of development, suggest that the parents see their doctor and request a referral to a pediatrician.
- If the pediatrician concurs, referral should be made **prior to starting school** for a psychoeducational and developmental pediatric assessment at Sunny Hill. (Once the child is in school, the psyched. can be delayed by up to 3 years.)

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Is it ADHD?
Disruptive/Inattentive/Impulsive Behaviour in Preschoolers

- Wide range of behaviour styles in preschoolers
- Narrow range of ways of expressing discomfort in preschoolers
- Many things cause disruptive, inattentive or impulsive behaviour in preschoolers. The behaviour may just be a **symptom**.

Key Points to Consider:

- Is this a change in the usual behaviour?
- Does this behaviour occur mainly in one setting or in all settings?
- Is circle time the most challenging?
- Can the child engage in a sequence of play when it is of his/her own choosing?
- Are there any other concerning features about the child?
- Are the usual behaviour modifications working?

Disruptive/Inattentive/Impulsive Behaviour

- Sensory impairments
- Maternal depression
- Family dysfunction/chaos
- Fetal Alcohol Spectrum Disorder/Prenatal Drug Exposure
- Speech/language delay
- Child sexual/physical abuse
- Domestic violence
- Learning disabilities
- Depression, anxiety

How to refer?

- Suggest a referral to a pediatrician for a full evaluation of the **whole** child.
- Let your concerns about other features be known.
- Encourage the parents to advocate for a complete assessment, not just a "checklist" approach leading to an ADHD diagnosis.
- Remember that behaviours can cover up underlying conditions such as FASD, learning disabilities, family issues, etc.
- You will influence the long term outcome by insisting that issues contributing to the behaviour be assessed and treated, rather than just treating the behaviour.

Conclusions

- Early childhood educators are probably the most experienced professionals in child development that most children will see prior to starting school.
- Your role in encouraging healthy development alters long term success and happiness in children
- Don't be afraid to speak up!