




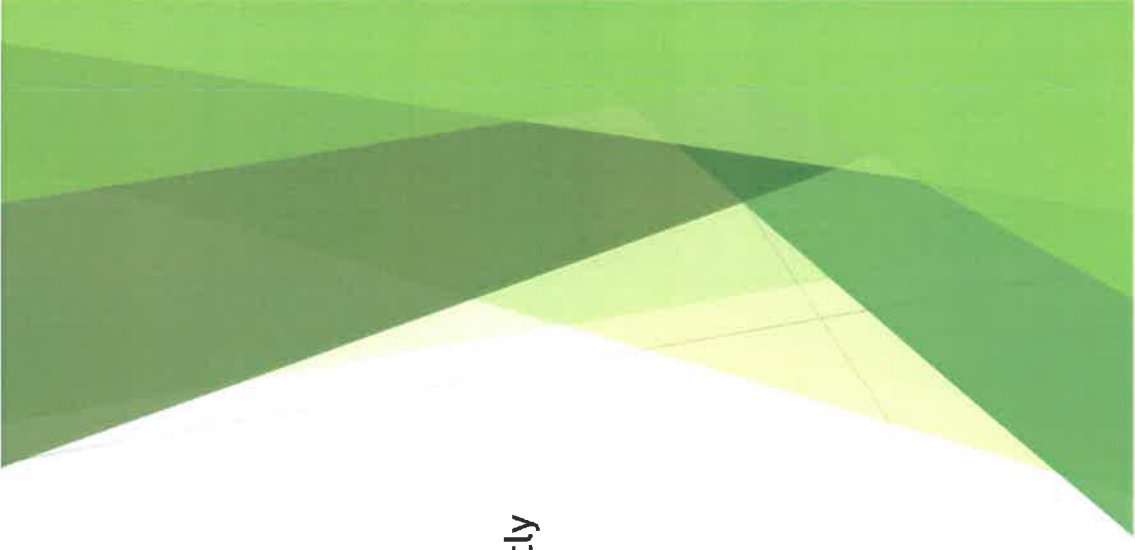
# Autism

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# What is Autism ?

- ▶ It is a developmental disability
- ▶ Presents as Social, communication and behavioral challenges
- ▶ People with autism may communicate, interact, behave and learn differently from most other people
- ▶ It is a Spectrum ; What is that mean ?
- ▶ Autistic disorder , pervasive developmental disorder (PDD) and Asperger syndrome are now all categorized together and called Autism Spectrum Disorder (ASD)



# Signs and symptoms of ASD

- ▶ Social , emotional and communication problems
- ▶ People with Autism might repeat Certain behaviors e.g. Hand flapping
- ▶ They might not want change in their daily activities e.g. same food, cloth , bedroom setting
- ▶ Signs usually start during early childhood and last throughout a person's life time.



## Children/Adults with ASD might ;-

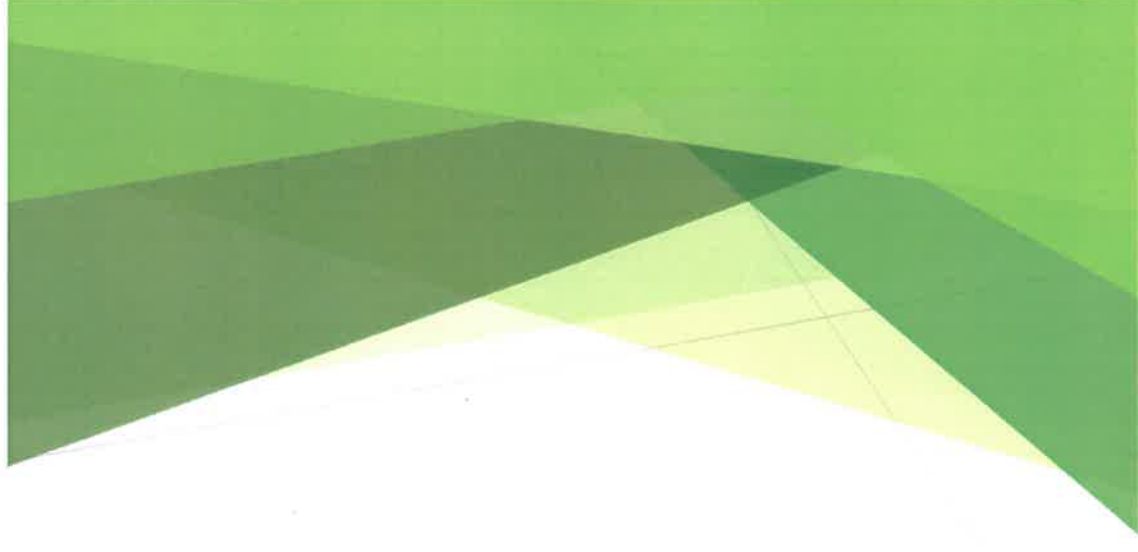
- ▶ not point at objects to show interest (E.g. not point at an airplane flying over)
- ▶ not look at objects when another person points at them
- ▶ have trouble relating to others or not have an interest in other people at all
- ▶ avoid eye contact and want to be alone
- ▶ have trouble understanding other people's feelings or talking about their own feelings
- ▶ prefer not to be held or cuddled, or might cuddle only when they want to
- ▶ appear to be unaware when people talk to them, but respond to other sounds
- ▶ be very interested in people, but not know how to talk, play, or relate to them

## Children/ Adults with ASD might :-

- ▶ repeat or echo words or phrases said to them, or repeat words or phrases in place of normal language
- ▶ have trouble expressing their needs using typical words or motions
- ▶ not play “pretend” games (E.g. not pretend to “feed” a doll)
- ▶ repeat actions over and over again
- ▶ have trouble adapting when a routine changes
- ▶ have unusual reactions to the way things smell, taste, look, feel, or sound ( e.g. food texture )
- ▶ lose skills they once had (E.g. stop saying words they were using)

# Red flags to be concerns about :

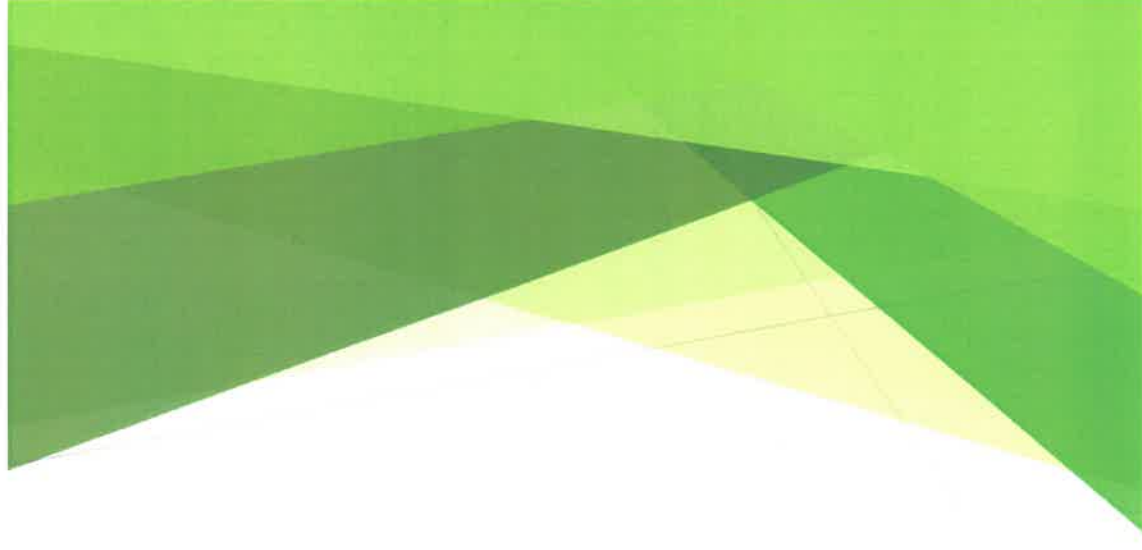
- By 6 months
  - ▶ Few or no big smiles or other warm, joyful and engaging expressions
  - ▶ Limited or no eye contact
- By 9 months
  - ▶ Little or no back-and-forth sharing of sounds, smiles or other facial expressions
- By 12 months
  - ▶ Little or no babbling
  - ▶ Little or no back-and-forth gestures such as pointing, showing, reaching or waving
  - ▶ Little or no response to name
- By 16 months
  - ▶ Very few or no words
- By 24 months
  - ▶ Very few or no meaningful, two-word phrases (not including imitating or repeating)



## Red flags to be concerned about:

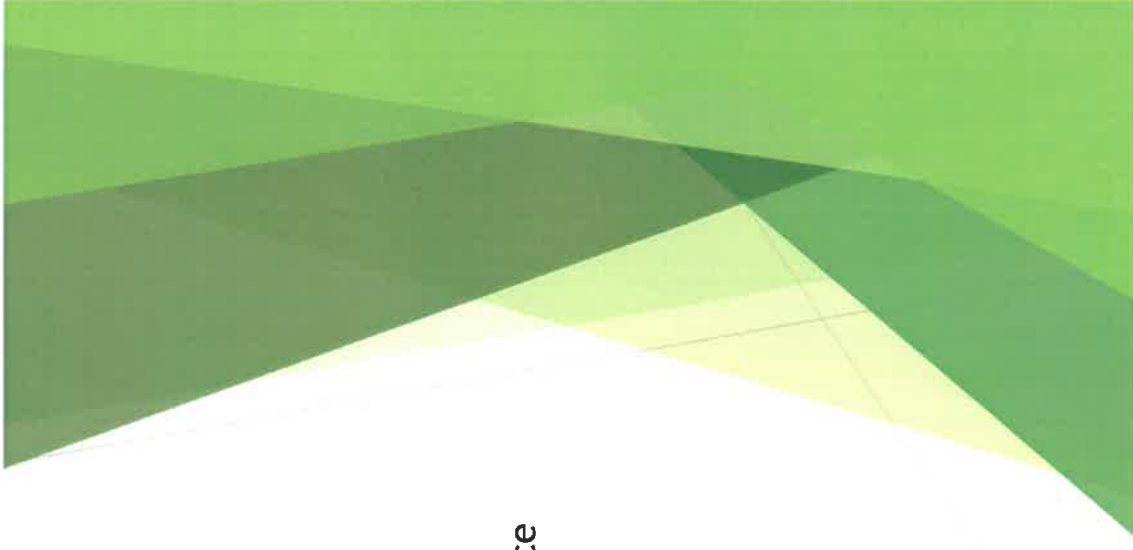
### At any age

- ▶ Loss of previously acquired speech, babbling or social skills
- ▶ Avoidance of eye contact
- ▶ Persistent preference for solitude
- ▶ Difficulty understanding other people's feelings
- ▶ Delayed language development
- ▶ Persistent repetition of words or phrases (echolalia)
- ▶ Resistance to minor changes in routine or surroundings
- ▶ Restricted interests
- ▶ Repetitive behaviors (flapping, rocking, spinning, etc.)
- ▶ Unusual and intense reactions to sounds, smells, tastes, textures, lights and/or colors



# Diagnosis

- ▶ Doctors look at the child's behavior and development to make Dx
- ▶ ASD can be diagnosed as early as 18 month of age
- ▶ Routine screening and observant parent or/and doctor make a big difference on time of diagnosis

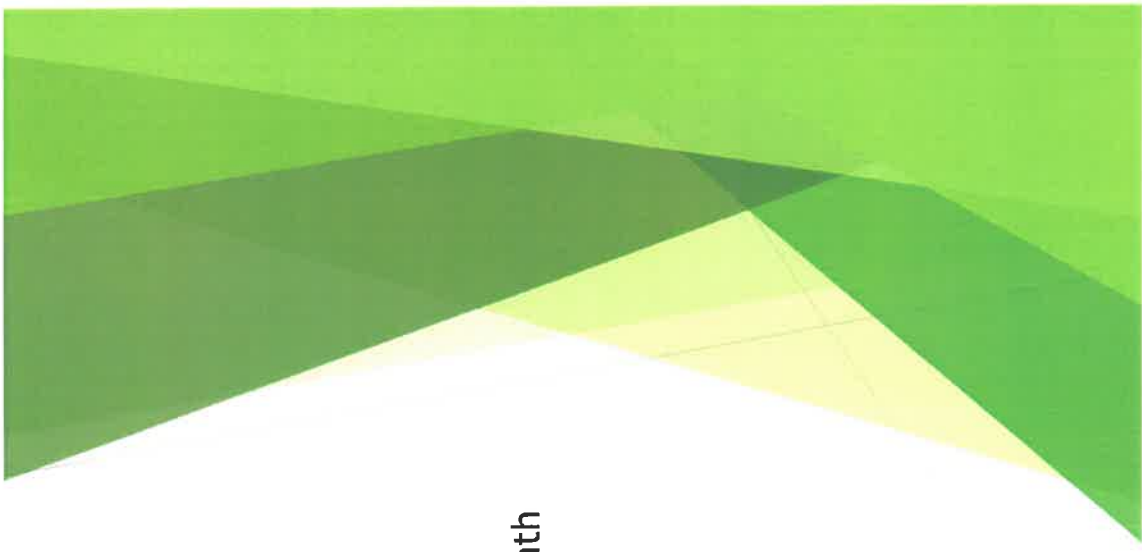




# Screening

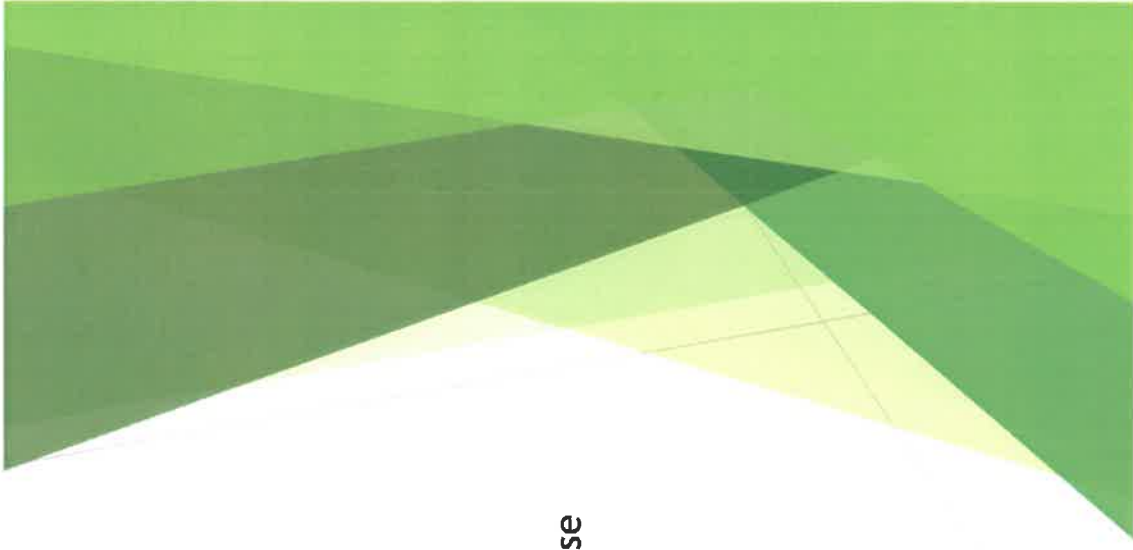
AAP (America Academy of Pediatrics ) recommends ;

- ▶ Routine standardized developmental screening : @ 9 , 18 and 24/30 month.
- ▶ Routine screening for Autism using standardized tools like MCHAT at 18 month and 24 month of age.



# What causes Autism

- ▶ NO ONE cause of Autism
- ▶ Research : ASD develops from Combination of genetics and non genetic or environmental , influences.
- ▶ Combination of some gene changes with some environmental factors increase risk of Autism



## Autism's genetic risk factors

- ▶ genes are one of the risk factors that can make a person more likely to develop ASD
- ▶ Children who have a sibling with ASD are at a higher risk of also having ASD.
- ▶ ASD happens more often in people with conditions like fragile X syndrome or tuberous sclerosis which are genetic and chromosomal disorders

# Autism's environmental risk factors

## Increased risk

- ▶ Advanced parent age (either parent)
- ▶ Pregnancy and birth complications (e.g. extreme prematurity [before 26 weeks], low birth weight, multiple pregnancies [twin, triplet, etc.] )
- ▶ Pregnancies spaced less than one year apart
- ▶ Some medications taken during pregnancy , like valproic acid and thalidomide

# Autism's Environmental risk factors

## Decreased risk

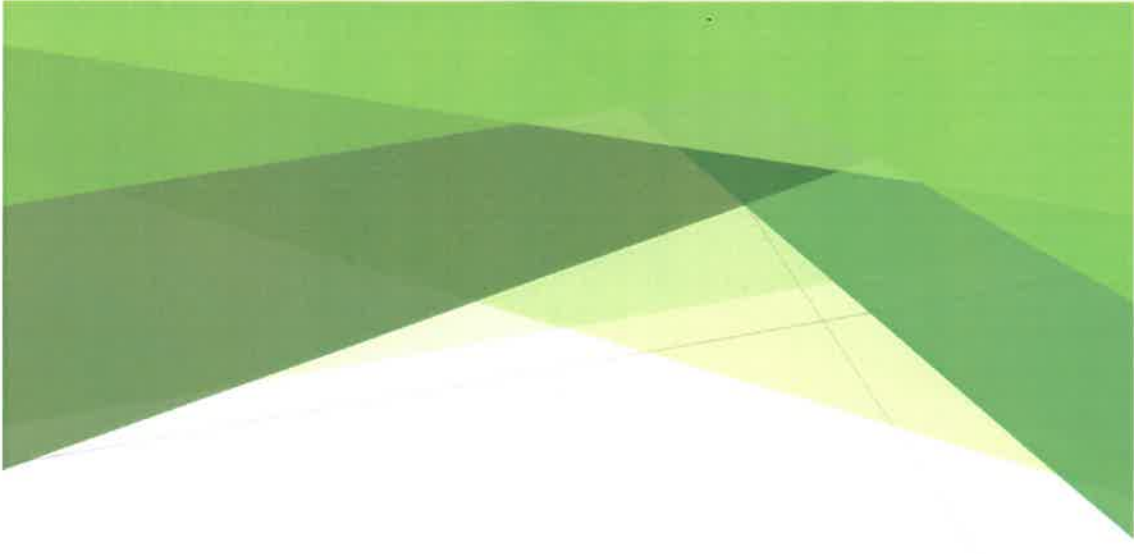
- ▶ Prenatal vitamins containing folic acid, before and at conception and through pregnancy

## No effect on risk

- ▶ **Vaccines DO NOT Cause Autism** Each family has a unique experience with an autism diagnosis, and for some it corresponds with the timing of their child's vaccinations. At the same time, scientists have conducted extensive research over the last two decades to determine whether there is any link between childhood vaccinations and autism. The results of this research is clear: Vaccines do not cause autism. The American Academy of Pediatrics has compiled a comprehensive list of this research.

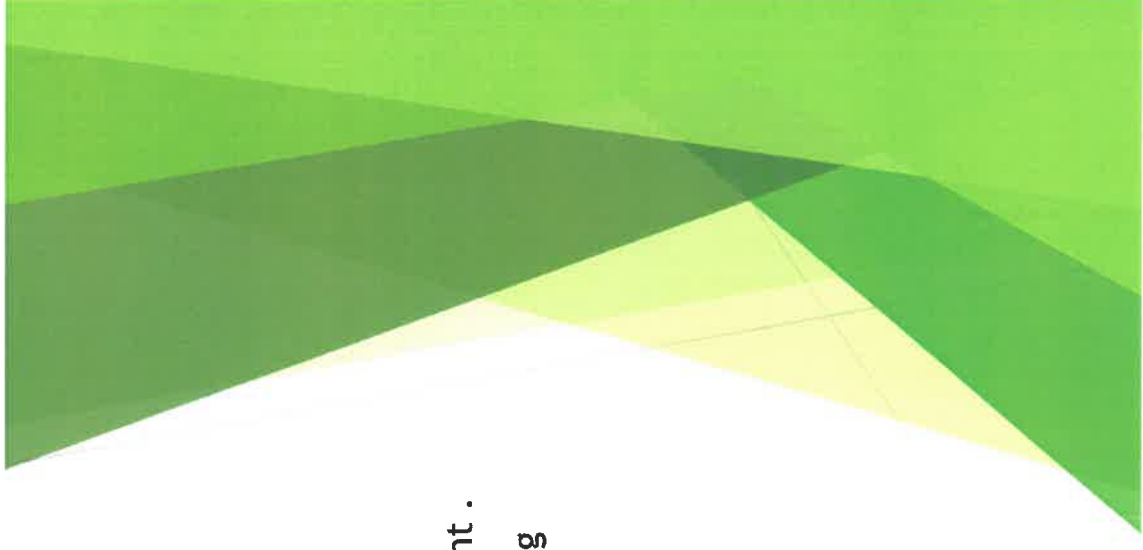
## How common ?

- ▶ CDC's 2018 report shows that :
- ▶ 1 in 59 children are diagnosed with ASD
- ▶ 1 in 37 boys
- ▶ 1 in 151 girls
- ▶ Boys are 4 times likely to be affected by Autism than Girls



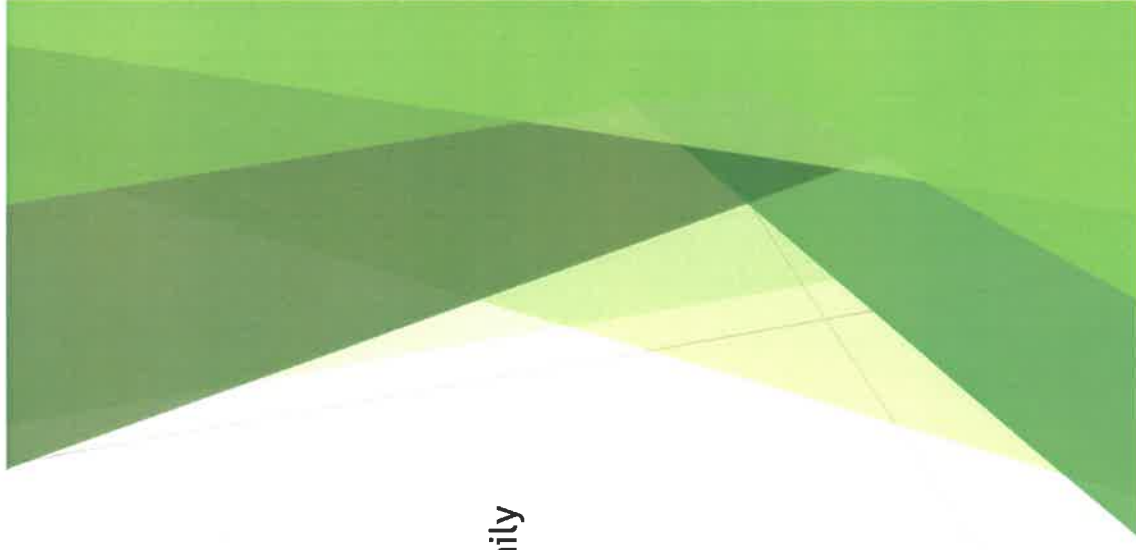
# Treatment

- ▶ NO CURE FOR ASD as of today
- ▶ But Early intervention treatment services can improve a child's development .
- ▶ EI helps a child to learn important skills like walking, talking and interacting with others
- ▶ It is implemented by STATES , covers children from birth to 3 yrs. of age.



## If you are concerned :

- ▶ If you think your child might have ASD ; contact your doctor and share your concern
- ▶ Do not underplay a concern of your child's behavior or development by family and friends .
- ▶ Be proactive . Advocate for your child
- ▶ Early diagnosis and services make **BIG DIFFERENCE** in your child's quality of life .
- ▶ If your child is younger than 3 yrs. of age: EI provides services like PT/OT/ST/ABA
- ▶ If older than 3 yrs. of age: Board of Education will provide services





# References

- ▶ [Centers for Disease Control and Prevention \(CDC\) inquiry a.cdc.gov/](https://www.cdc.gov/inquiry/a.cdc.gov/)  
<https://www.cdc.gov/>  
Tel: 800-311-3435; 404-639-3311; 404-639-3543
- ▶ [Autism Speaks, Inc.](http://www.autismspeaks.org)  
[contactus@autismspeaks.org](mailto:contactus@autismspeaks.org)  
<http://www.autismspeaks.org>  
Tel: 212-252-8584; 888-288-4762
- ▶ [Autism Science Foundation](http://www.autismsciencefoundation.org)  
[contactus@autismsciencefoundation.org](mailto:contactus@autismsciencefoundation.org)  
<http://www.autismsciencefoundation.org>  
Tel: 212-391-3913
- ▶ [Autism Society of America](http://www.autism-society.org)  
<http://www.autism-society.org>  
Tel: 301-657-0881; 800-3AUTISM (328-8476)
- ▶ Early Intervention program for each State  
NYC: <https://www1.nyc.gov/site/doh/health/health-topics/early-intervention.page>

