### Foster Care is a Health Intervention

AMELIA BURGESS, MD, MPH APRIL 21, 2017

#### Disclosures

None

#### My roles-

- HealthPartners Medical Toxicology Fellow
- Park Nicollet Pediatrician
- AAP FASD REAL Champion
- MN AAP Chapter Grant Foster Care Health

#### Objectives

- State ways in which caring for children in foster care is different than caring for children living with birth parents.
- Evaluation for fetal alcohol effects is a framework for the comprehensive evaluation of children in foster care.

# Why are children in Hennepin County placed in foster care?

Region	Child population	# in OOH o	care	alleged sexual abuse	alleged physical abuse
Hennepin	269,867	2397	1%	5%	12%
7 County Metro*	711,210	4944	1%	5%	11%
Minnesota	128,1826	12172	1%	4%	9%

<sup>\*</sup>Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, Washington

Minnesota Department of Human Services Children and Family Services Administration

## Primary reasons for entry into out-of-home care

#### Parent-related: 71%

- ► Alleged neglect (25%)
- Abandonment
- Alleged sexual abuse
- Caretaker inability to cope
- Parent death
- Parent incarceration
- Inadequate housing
- Parent drug/alcohol abuse
- Relinquishment/termination of parental rights
- Safe Place for Newborns

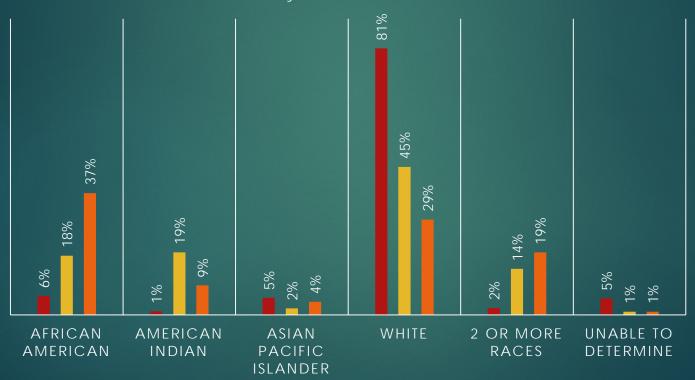
#### Child-related: 28%

- Child alcohol/drug abuse
- Child behavior problem
- ► Child disability (2-3%)
- Child mental health issues

Minnesota Department of Human Services Children and Family Services Administration Minnesota's Child Welfare Report 2014 mn.gov/dhs/

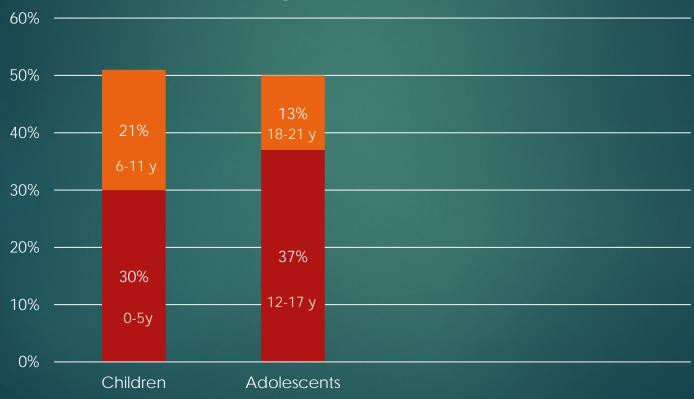
# Ethnic distribution, OOH Care and General Population

- Total Population, Minnesota OOH Care, Minnesota
- OOH Care, 7 County Metro



# Age distribution – 7 County Metro





### Subgroups

- Unaccompanied refugee minors
- Significant cognitive impairment
- Adolescents with criminal justice involvement
- Medically fragile children
- Pregnant/parenting adolescents

### Child mental health service use – Medical Assistance claims data

	Foster Care Group	Non Foster Care Group
N	9328	440,066
No treatment	43%	86%
Any treatment	57%	14%
Behavioral therapy	22%	4%
Medication	8%	6%
Medication and		
therapy	27%	4%

2013 Data from MN DHS

### Child mental health service use – Medical Assistance claims data

	Foster Care Group	Non Foster Care Group
Medication group	3296	42659
<= 3 psychotropic medications	87%	97%
>=4 psychotropic medications	13%	3%

2013 Data from MN DHS

### Child mental health service use – Medical Assistance claims data

	Foster Care Group	Non Foster Care Group
>=4 psychotropic medications	413	1410
No therapy	80	445
% polypharmacy, no therapy	19%	32%

2013 Data from MN DHS

#### State performance measure

- What percentage of children who were in foster care for 30 days or more had a medical exam/C&TC within 30 days/previous year?
- ▶ 97% Hennepin County
- ▶ 83% Minnesota

### State Performance Measure

- What percentage of children who had been in out-of-home care for 1 year or more had a medical exam or C&TC in the previous year?
- ▶ 77% Hennepin County
- 57% Minnesota

### State Performance Measure

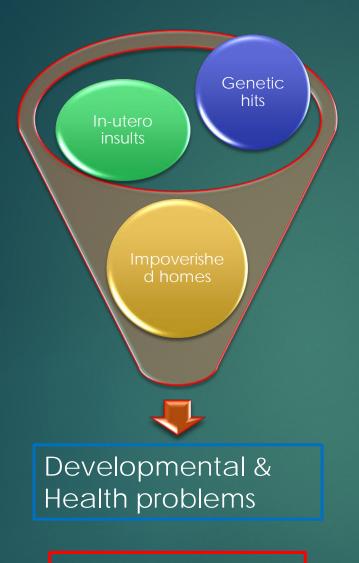
- What percent of children (3 m- 17 years) who were in OOH care for 30 days or longer, or who received in-home services from child welfare, received a mental health screening?
- ► 69% Hennepin
- ▶ 55% Minnesota

# Foster Care IS A HEALTH INTERVENTION

### Foster Care is a Health Intervention

Problem or condition	%
Chronic or untreated physical health condition	35-45
Birth defect	15
Mental Health Problem	40-95
Developmental delay in child <5 y	60
Special education placement/ academic underachievement	45
Significant dental conditions	20
Family problems	100
Reproductive health issue risks (e.g. pregnancy and STI)	100

Szilagyi MA, Rosen DS, Rubin D, Zlotnik S, AAP Council on Foster Care, Adoption, and Kinship Care, AAP Committee on Adolescence, AAP Council on Early Childhood. Technical Report: Health Care Issues for Children and Adolescents in Foster Care and Kinship Care. *Pediatrics* 2015 (136:4)



Genetic hits

- Mental Illness
- Physical illness
- Cognitive impairment
- Substance abuse

In-Utero insults

- Drugs, tobacco, alcohol
- Poor nutrition
- Infections
- Stress

Impoverished homes

- No books, toys, pictures
- Unstructured time
- Toxins
- Witnessed violence
- Infections and parasites
- Poor access to health information and services

FOSTER CARE

### Plan for the health care of children in foster care



Technical Report
Health Care Issues for Children and
Adolescents in Foster Care and Kinship Care

Szilagyi MA, Rosen DS, Rubin D, Zlotnik S

AMERICAN ACADEMY OF PEDIATRICS
Council on Foster Care, Adoption, and Kinship
Care
Committee on Adolescence

Committee on Adolescence Council on Early Childhood *Pediatrics*, Vol. 136, No. 4, October 2015

Health Care of Young Children in Foster Care

AMERICAN ACADEMY OF PEDIATRICS

Committee on Early Childhood, Adoption, and Dependent Care

Pediatrics Vol. 109 No. 3 March 2002

- Health screening visit within 72 hours of placement
- Comprehensive health admission visit within 30 days of placement
- Follow-up health visit within 60 to 90 days of placement
- Monthly for infants from birth to age 6 months
- Every 3 months for children 6 to 24 months old
- Every 6 months for children 24 months to 21 years old

#### Five domains of health

- ▶ Educational
- ▶ Oral
- Developmental
- ▶ Mental
- ▶ Physical

## Evaluation for Fetal alcohol spectrum disorders

COMPREHENSIVE HEALTH ASSESSMENT

### American Academy of Pediatrics

FASD REAL Champions Network Meeting

FETAL ALCOHOL SPECTRUM DISORDERS: SCREENING, ASSESSMENT AND DIAGNOSIS

PRESENTED BY Amelia Burgess, MD, MPH





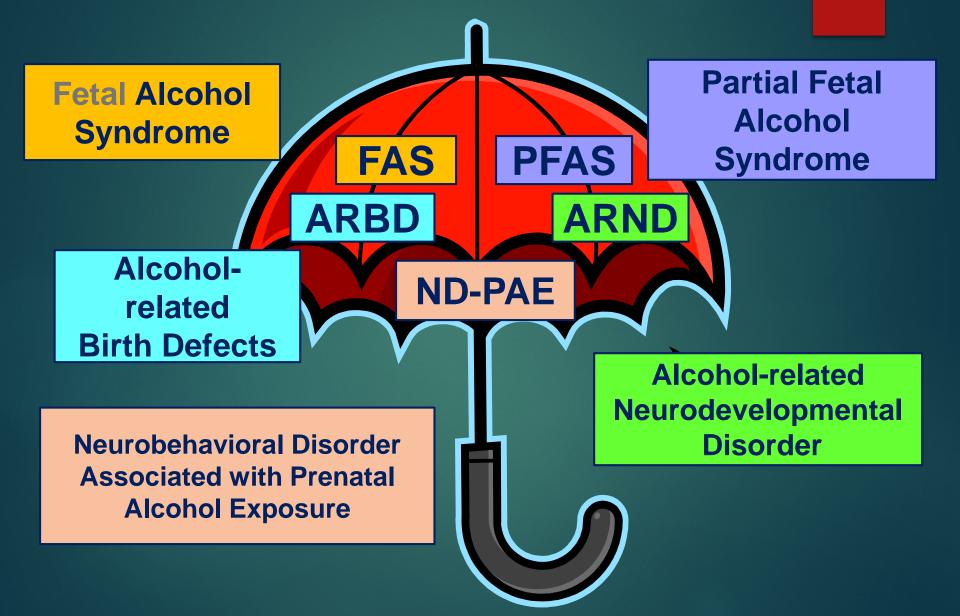


### Acknowledgments

The AAP and the Improving Fetal Alcohol Spectrum Disorders Prevention and Practice through National Partnerships collaborative thank the following experts for their help in developing this series of presentations:

- David Wargowski, MD (Screening, Assessment, and Diagnosis)
- Yasmin Senturias, MD, FAAP (ND-PAE)
- Yasmin Senturias, MD, FAAP, Vincent C Smith, MD, FAAP, and Prachi Shah, MD (Lifelong Care)

#### The Umbrella of FASD



#### FASDs – Brief Descriptions

#### Fetal Alcohol Syndrome (FAS) -

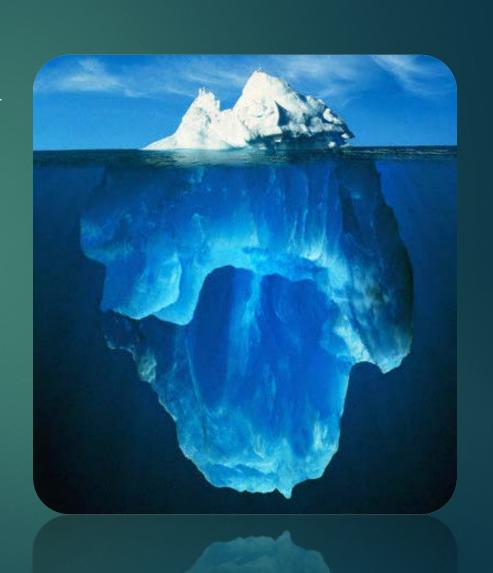
Facial features and CNS deficits or anomalies, and (classically) growth deficits

<u>Partial FAS (PFAS)</u> – Facial and either growth or CNS features

<u>ARBD</u> - Congenital anomalies without neurodevelopmental-behavioral effects (rare)

<u>ARND</u> - Neurodevelopmentalbehavioral effects without major dysmorphic features (common)

**ND-PAE** – Updated DSM-5 term for ARND



### Prenatal Alcohol Exposure: Relevance to Pediatric Practice

- The most common preventable cause of intellectual disability and behavior problems
- Can have lifelong effects on CNS development and function (more so than methamphetamine, opiates, cocaine, smoking, other teratogens)
- Can also contribute to a range of growth deficits and structural anomalies (FASD)

## Brain Regions Affected by Prenatal Alcohol Exposure

Working Memory

**Motor Control** 

Executive Function

**Attention** 

**Spatial Memory** 

Bimanual coordination

Balance

Verbal Learning

Memory

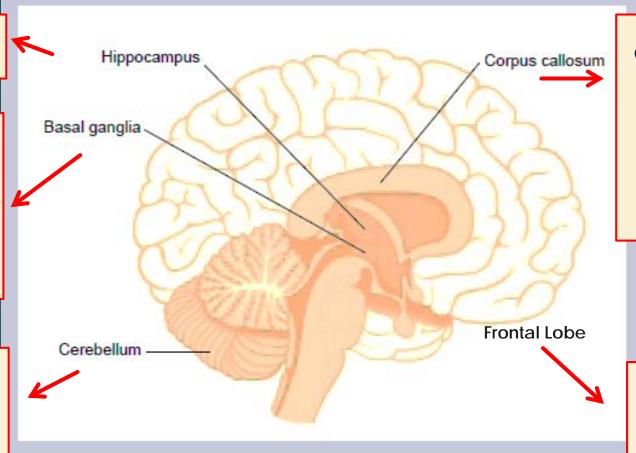


Figure 1 Brain areas affected by prenatal alcohol exposure.

Bimanual Coordination

Verbal learning

Executive Function

Emotional regulation

Cognition

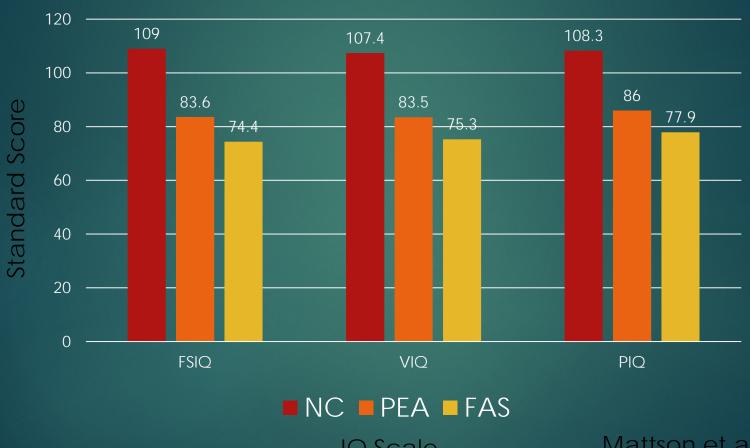
Executive Function

Attention

Alcohol Research & Health

Vol. 25, No. 3, 2001

# General Intellectual Performance



IQ Scale Mattson et al., 1997

NC: Normal Control. PEA: Prenatal Exposure to Alcohol. FAS: Fetal Alcohol Exposure

### FASD: Relevance to Pediatric Practi<mark>ce High Prevalence</mark>

- Prevalence in a Midwestern city (May, 2014):
  - ► FAS: 6-9/1000 children
  - ► All FASD: 24-48 /1000 children (2.4% to 4.8%)
- Increased prevalence among children in child welfare (Lange, 2013)
  - ► FAS: 60/1000 children (6%)
  - ► All FASD: 169/1000 children (16.9%)

### FASD: Perspectives on Prevalence

Birth defect	Prevalence
Down syndrome	1.2/1000 births
Cleft lip +/- palate	1.2/1000 births
Spina bifida	1/1000 births
Autism	12.5-14/1000*
Fetal Alcohol Syndrome (FAS)	6-9/1000*
All FASDs	24-48/1000* *per 1000 school age children (May, 2014)

### Initial Identification: How will children with FASDs present to your clinic?

- Developmental, cognitive, or behavioral concerns
- Dysmorphic facial characteristics associated with FAS
- Growth deficits
- History of maternal alcohol use

### Initial Identification: How will children with FASDs present to your clinic?

- Risk factors:
  - Other exposures associated with alcohol use (eg, tobacco, marijuana, cocaine, methamphetamine)
  - Adoption, particularly from endemic region (eg, Russia, Eastern Europe)
  - Foster care
- Parental concern

# Potential Benefits of a Diagnosis

- Parental relief in the knowledge that the child's problems have a biological basis
- Facilitates access to evidence-based interventions
- Avoids unnecessary additional testing and nonspecific referrals or interventions

# Who Drinks During Pregnancy?

- Women who drink during pregnancy come from all social, economic and ethnic groups
- Nationally, 1 in 10 women report alcohol use during pregnancy

# Who Drinks During Pregnancy?

- Among pregnant women, the highest prevalence of reported alcohol use was among those who were:
  - Aged 35-44 years (18.6%)
  - ► College graduates (13.0%)
  - ► Unmarried (4.6 x married)
    - ▶ Tan, Denny, Cheal, Sniezek & Kanny, 2015

### Women 18-44 years old, Minnesota

- ▶ 64% of women report drinking at least once during the previous 30 days
- 22% report drinking 4 or more drinks on any one occasion during the previous 30 days
- Among drinkers, 34% reported binge drinking in the previous 30 days

http://www.cdc.gov/ncbddd/fasd/data.html

# Unintended pregnancy in MN

▶ In 2010, 40% of all pregnancies were unintended

https://www.guttmacher.org/fact-sheet/state-facts-about-unintended-pregnancy-minnesota

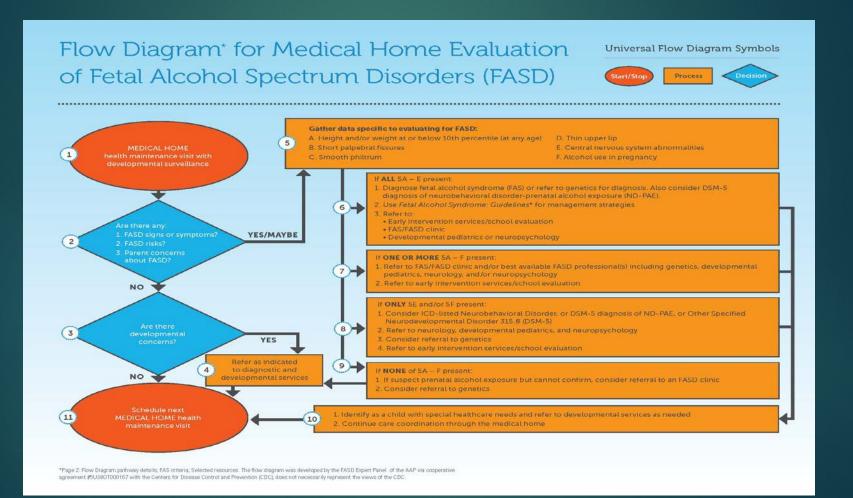
# Prengant and Non-pregnant binge drinkers

- ▶ Not MN specific
- Among binge drinkers, pregnant women reported an average of 4.6 episodes of binge drinking in the previous 30 days
- Among binge drinkers, non-pregnant women reported an average of 3.1 episodes

# Documented prenatal alcohol exposure

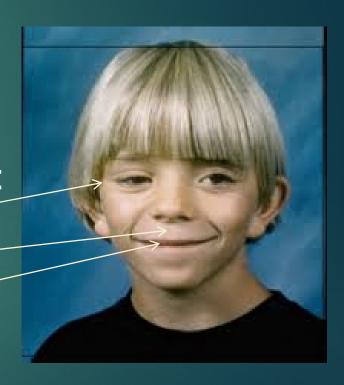
- >= 6 drinks/wk for >= 2 wk during pregnancy
- >= 3 drinks/occasion on >= 2 occasions during pregnancy
- Documentation of alcohol-related social or legal problems in proximity to pregnancy
- Documentation by blood, breath or urine during pregnancy
- Positive testing with established alcohol-exposure biomarkers during pregnancy or at birth
- Increased prenatal risk on a validated screening tool such as AUDIT, T-ACE

## Establishing a Diagnosis



## FAS Diagnostic Criteria

- ► Weight and/or length growth deficiency(≤10%)
- ► CNS Structural or functional abnormality (<10%)
- ▶ 2 out of 3 cardinal facial features:
  - Short palpebral fissures
  - ▶ Smooth philtrum
  - ► Thin vermillion border



## Comprehensive FC/FASD Assessment: Records/History

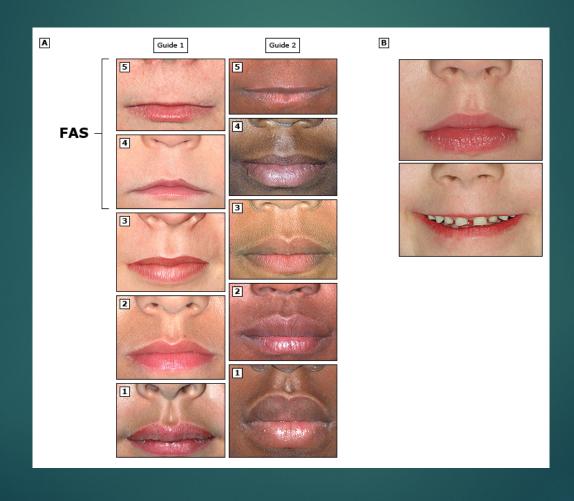
- Exposure History
- Birth records (weight, length, head circumference <=10<sup>th</sup> percentile)
- Medical history/records (birth defects?)
- Postnatal growth records (<=10<sup>th</sup> percentile)
- Developmental/behavioral history
- Psychological testing, including cognitive and behavioral assessments

## Physical Assessment

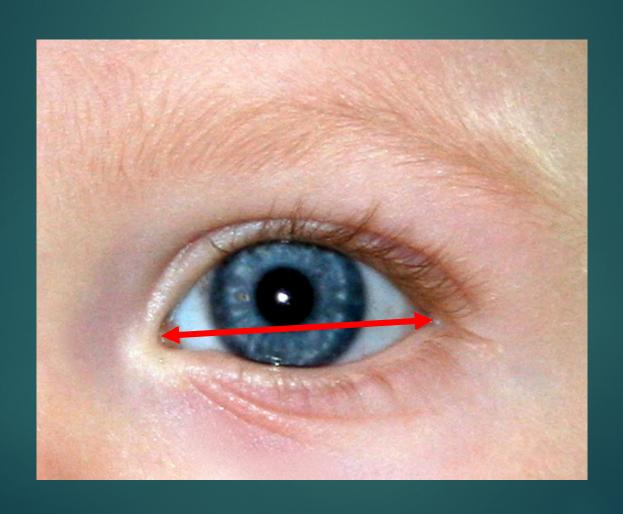
- Growth measurements
- Palpebral fissure length
- Ears ("railroad track" configuration)
- Eye/vision
- Midface recession/hypoplasia
- Philtrum, lip (lip/philtrum guide)
- Palate
- Heart
- Elbows, digits
- Examination for other minor anomalies characteristic of FAS, and those that could lead to the suspicion of another genetic syndrome.



## Lip-Philtrum guide



# Palpebral fissure



# Hoyme et al. Pediatrics 138(2) e20154256



## Neurobehavioral Assessment

- Developmental screening and routine behavioral history may be sufficient if it shows clear cognitive and behavioral or global deficits
- Most will require referral for psychological assessment of neurocognition, self regulation and adaptive function
  - ▶ Template referral letters available
  - Request that the psychologist use tests that will examine the affected domains in ND-PAE
- Review data do deficits fit the diagnosis?
  - Data review checklist available

# ND-PAE Neurodevelopmental disorderPrenatal Alcohol Exposure

- Included in DSM-5 to facilitate identification by mental health providers
- Best Definition of Cognition and Behavior FASD
- Describes deficits in neurocognition, selfregulation and adaptive function, in the context of confirmed prenatal alcohol exposure, regardless of presence or absence of dysmorphism or congenital anomalies

### ND-PAE. Exposure to alcohol during gestation +

- Impaired neurocognitive functioning (1)
  - Global intellectual performance
  - Executive function
  - Learning
  - Memory
  - Visual-spatial reasoning
- Impaired self-regulation (1)
  - Mood or behavioral regulation
  - Attention deficit
  - Impulse control
- Impairment in adaptive functioning (2)
  - Communication deficit
  - Social communication and interaction
  - Daily living skills
  - Motor skills

#### Examples of Neurobehavioral Effects

- Problems with self-regulation
  - ► Self-soothing, sleep
- Delayed adaptive skills
  - Problems with social skills
  - Problems with self care/daily living skills



# FASD Diagnostic Schema Available

Currently available guidelines:

- Updated Clinical Guidelines for Diagnosing Fetal Alcohol Spectrum Disorders (Hoyme et al, Pediatrics, 2016)
- Canadian guidelines for diagnosis (Cook et al, CMAJ, 2015)
- CDC National Task Force on FAS and FAE (2004)
- ► FASD 4-digit diagnostic code (Astley and Clarren, Alcohol, 2000)

Historically available guidelines:

- ▶ A practical clinical approach to diagnosis of fetal alcohol spectrum disorders: clarification of the 1996 Institute of Medicine criteria (Hoyme et al, Pediatrics, 2005)
- Fetal alcohol spectrum disorder: Canadian guidelines for diagnosis (Chudley et al, CMAJ) 2005
- Fetal Alcohol Syndrome (The Lancet, 1973)

The Diagnostic and Statistical Manual version 5 published by the American Psychological Association also proposes criteria for neurobehavioral disorder associated with prenatal alcohol exposure.

### Indications for Referral

- ► For diagnosis: If uncertain whether findings satisfy criteria, depending on available resources:
  - ► FASD diagnostic clinic
  - Medical Genetics clinic
  - Neurodevelopmental/behavioral pediatrician (gaining expertise in this area)
  - Neuropsychologist or behavioral psychologists who can work through the ND-PAE route
- For determination of needs for education and behavioral management:
  - Neuropsychologist, clinical psychologist, school psychologist as available

# Diagnosis Established What now?

- Counsel re: Natural history (risk of neurodevelopmental manifestations over time)
- Medical Home: http://www.aafp.org/practicemanagement/transformation/pcmh.html
- AAP toolkit: www.aap.org/fasd

### Written Care Plan

- Medical
- Developmental
- Mental Health
- Oral Health
- ▶ Educational Health

### KEY POINTS

#### Foster Care Surveillance

- Initial Screen within 72 h
- Comprehensive Assessment within 30 d
- Follow up within 90 d
- Surveillance visits ~ twice the frequency of usual C&TC

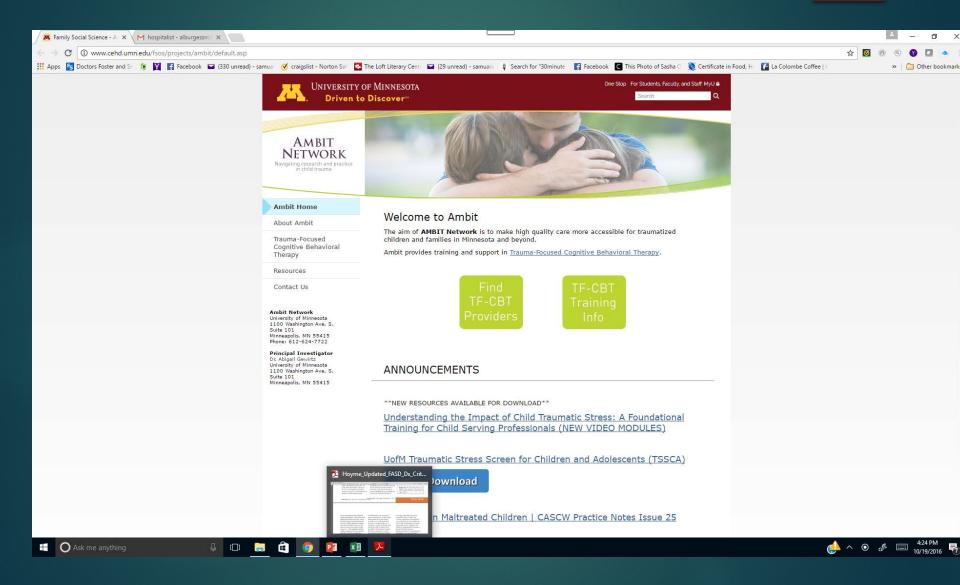
#### **FASD Evaluation**

- Prenatal history of alcohol exposure
- Growth and HC data
- Congitive/neurodevelop mental disorders
- Characteristic facial features

### Resources

- ▶ Healthy Foster Care America
- ► MOFAS
  - MN Organization on Fetal Alcohol Syndrome
- AMBIT Network (Trauma resources)
- Children's Mental Health Collaborative Psychiatric Consultation Service (1-855-431-6468)

## Ambit Network



#### Resources

- Centers for Disease Control and Prevention (CDC): www.cdc.gov/ncbddd/fasd/index.ht
- National Institute on Alcohol Abuse and Alcoholism: www.niaaa.nih.gov
- American Academy of Pediatrics (AAP): www.aap.org/fasd
- National Organization on Fetal Alcohol Syndrome: www.nofas.org

## References

- ► Hoyme et al., *Pediatrics* 2005;115;39-47
- May et al., Pediatrics 2014;134(5);855-66
- Lange et al., Pediatrics 2013;132(4):e980-95
- Sacks et al., Am J Prev Med 2015;49(5):e73-e79
- Mattson, S. N., Rile, E. P., Gramling, L., Delis, D. C., & Jones, K. L. (1997). Heavy prenatal alcohol exposure with or without physical features of fetal alcohol syndrome leads to IQ deficits. *The Journal of Pediatrics*, 131, 718-721.
- Tan, Denny, Cheal, Sniezek & Kanny, 2015: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6437a3.htm
- Wisconsin statute 146.0257: http://docs.legis.wisconsin.gov/statutes/statutes/146/0257

## Questions?



# Supplemental information for longer presentations

- NOFAS national resource and local resource directory
- Info in slides on animal models, neurobiology, imaging
- Lifespan/timeline; manifestations of FASD at various ages and developmental stages
- Specific diagnostic criteria for FASDs
- Physical examination videos
- Differential diagnosis
- Modules on ND-PAE and Lifelong Care



How do I?

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Partners and providers

General public

Media

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#### People we serve Adults Children and families Economic assistance Health care Services Adolescent services Adoption and kinship Child care Child protection Child support Deaf and hard of hearing Direct care and treatment Foster care A to Z Contact us **Programs and services** Resources Refugee assistance What's New People with disabilities Seniors

#### Programs and services

#### Become a foster parent

Potential foster parents need to be licensed and approved, and Minnesota requires foster parents to meet requirements prior to placing a child in your home. <u>Learn the steps to become a foster parent in Minnesota</u>. If you are related to your potential foster child, your county agency can place a child with you if you are unlicensed as long as you quickly complete the licensing process and meet the required state standards.

#### Additional support for foster families

- Financial support for foster parents who want to adopt foster children
- Occasional expense reimbursement
- Training for foster parents
- Programs for current or former foster youth moving to adulthood
- Normalcy and reasonable and prudent parent standard training

http://mn.gov/dhs/people-we-serve/children-andfamilies/services/foster-care/programs-services/





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Refugee assistance

What's New

#### Resources

- **∄** Brochures
- # Fact sheets
- ₩eb Resources
- Reports and administrative tools for licensed foster parents, counties and tribes
- Forms
- Training Videos

https://mn.gov/dhs/people-we-serve/children-and-families/services/fostercare/resources/

removed from home

