Fetal Alcohol Spectrum Disorders (FASD)
For the Courts and Correctional Systems

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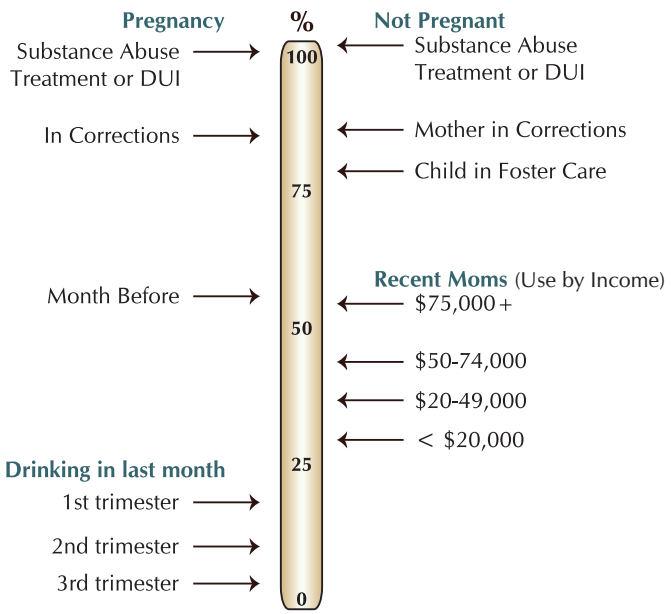
Collecting Data About Prenatal Alcohol Exposure (PAE).

Some alcohol use occurs in about 40% of pregnancies. Prenatal alcohol exposure is a common cause of premature birth, low birth weight, birth defects, learning disabilities, heart defects, and life long problems with independent living.

In this section you can use the tools provided to examine alcohol use during pregnancy. It will be helpful to note that illegal drug use increases risk for alcohol use.

Prevalence of Substance Use/Abuse



The prevalence of drinking during pregnancy is high. Does this woman fit into any of these categories? When taking a history remember that drug use does not exclude alcohol use. It increases risk.

Drinking During Pregnancy

Total Exposure Throughout Pregnancy	
Days Exposed	80
Binge Days	80
# Standard Drinks (14 grams)	960
Hours Exposed	2,160
Total grams ethanol	13,440

Drinking four beers results in about 17 hours of fetal exposure to alcohol.

Outcomes from drinking 4 beers each Friday and Saturday during the 40 weeks of pregnancy.

What PAE Forecasts

Prenatal	Labor & Delivery	Postnatal
• Smoking • Drug Use • Late and Infrequent Prenatal Care • Depression • Inadequate Nutrition • Miscarriage	• Stillbirth • Prematurity • Birth Defects • Hospitalizations	• Neglect • Abuse • Birth Defects • Poor Nutrition • Smoking • Parental Substance Abuse • Violence • Depression • SIDS

Prenatal alcohol exposure (PAE) is strongly associated with an increased risk for exposure to other environmental adversity and a wide-range of outcomes.

Screening for PAE

When was your last drink?

Before	Pregnancy	
	Pre-awareness	Post-awareness
Unexposed	Exposed	Exposed & High Risk

Screening for alcohol use begins with one question.

Charting PAE During Pregnancy

On average, how many days per week did you drink during pregnancy? _____ **(a)**

On an average drinking day during pregnancy, how many drinks did you have? _____ **(b)**

How many days per month did you have 4 or more drinks during pregnancy? _____ **(c)**

What is the most you had to drink on any one day during pregnancy? _____ **(d)**

What is a drink? Alcohol %_____ Drink vol _____

If drinking is reported, you can provide important information on frequency and quantity of alcohol use. This will be important for other professionals who will need this information for diagnosis and treatment when they interact with the family. Complete as many of these items as you can.

Estimating Exposure Risk

Maternal Risk Score

		Score
____ Age over 25 years ____ Unmarried, divorced, widow, living with partner ____ On TANF, WIC, Social Security or income < $16,000 per year ____ Did not graduate from high school ____ Poor diet ____ Smokes more than 1/2 pack per day	Check any one Add 5	
____ Drinks, but less than 2 days/week & less than 2 drinks /drinking day	Check here Add 20	
____ Age first drunk less than 15 years ____ In treatment over three times ____ In treatment in last 12 months ____ Previous child died ____ Previous child with FASD, or developmental disability ____ Children out of home (foster care or adopted)	Check any one Add 35	
____ Heavy drinker (drinks 3 or more drinks/day for 3 or more days per week, or more than 5 drinks/day on 6 or more occasions) ____ Uses inhalants, sniffs or illegal drugs	Check any one Add 45	
	Total Score	

Score	Risk Category
0	None
5	Low
20-40	Moderate
45-50	High
55-105	Very High

If the mother or other reliable reporter is unavailable, you can provide information to estimate exposure risk for this fetus or baby and their siblings.

Did this person have prenatal alcohol exposure?

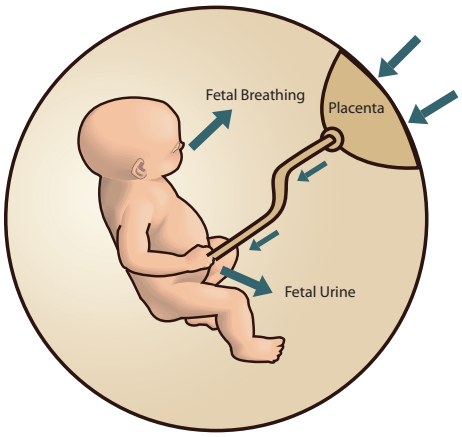
_____ **Yes. Alcohol use during pregnancy is confirmed.**
_____ **Uncertain**
_____ **No. We do not suspect PAE.**

Very important information.

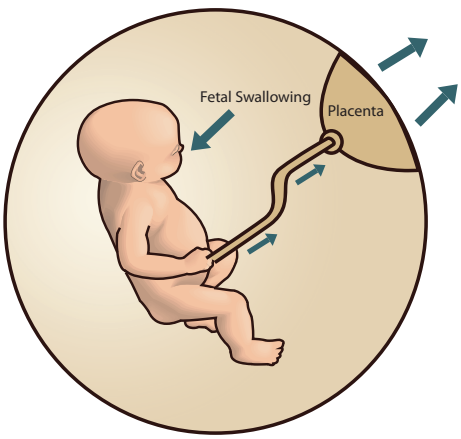
Drinking During Pregnancy: A common cause of birth defects developmental disability and mental disorders.

There is no safe level of alcohol use during pregnancy. It's never too late to stop drinking during pregnancy. Quitting now will protect future pregnancies.

When alcohol enters the stomach it quickly passes into her blood. In minutes alcohol crosses the placenta into the baby.



Alcohol passes from the baby into the amniotic fluid by fetal breathing movements and urination.



When amniotic fluid is swallowed, alcohol passes back across the placenta into the mom where it is eliminated.

Does this child need evaluation for FASD or followup as a child with high risk due to PAE?

Use this section to determine if the person might have a fetal alcohol spectrum disorder (FASD).
Some findings are very important.
If a sibling has been diagnosed with an FASD, or if a sibling or the mother is dead, the risk for FASD is high.

Fetal Alcohol Syndrome

Fetal Alcohol Syndrome:
The facial features of a child with fetal alcohol syndrome (FAS).

Other Essential Signs
Growth Impairment
- Height
- Weight

Brain Damage/Dysfunction

See chart on page 9.

FASD is not Just FAS

Most cases do NOT have
- Dysmorphic features
- Growth Impairment

Majority 80+%
- Developmental Delay
- Cognitive Impairment
- Mental Disorders
- Substance Abuse Disorders

It's important to remember that most people affected with a fetal alcohol spectrum disorder do not have the facial features of FAS.

FAS SCREEN FORM

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NAME/ID:_____ DOB:___/___/____ AGE:_____ SEX (circle one): F M

RACE (circle one): Caucasian Hispanic Native American African American Other

DATE OF EXAM:___/___/____

CIRCLE POINTS IF PRESENT:

HEIGHT	_____ Inches If < 5th percentile:	10
WEIGHT	_____ Pounds If < 5th percentile:	10
HEAD CIRC.	_____ Centimeters If < 5th percentile:	10
HEAD AND FACE	EARS STICK OUT (Protruding Auricles)	4
	SKIN FOLDS NEAR INNER EYE (Epicanthal Folds)	5
	DROOPING OF EYELIDS (Ptosis)	4
	CROSS-EYES, ONE OR BOTH EYES (Strabismus)	3
	FLAT MIDFACE/CHEEKS (Hypoplastic Maxilla)	7
	FLAT/LOW NOSE BETWEEN EYES (Low Nasal Bridge)	2
	UPTURNED NOSE	5
	GROOVE BETWEEN LIP & NOSE ABSENT OR SHALLOW (Flat Philtrum)	5
	THIN UPPER LIP	4
	CLEFT LIP OR CLEFT OF ROOF OF MOUTH (Present or Repaired)	4
NECK AND BACK	SHORT, BROAD NECK	4
	CURVATURE OF THE SPINE (Scoliosis)	1
	SPINA BIFIDA (History of Neural Tube Defect)	4
ARMS AND HANDS	LIMITED JOINT MOBILITY IN FINGERS & ELBOWS	4
	PERMANENTLY CURVED, SMALL FINGERS, ESPECIALLY PINKIES (Clinomicrodactyly)	1
	DEEP OR ACCENTUATED PALMAR CREASES	4
	SMALL NAILS/NAIL BEDS (Hypoplastic Nails)	1
	TREMULOUS, POOR FINGER AGILITY (Fine Motor Dysfunction)	1
CHEST	SUNKEN CHEST (Pectus Excavatum) } EXAM OPTIONAL	3
	CHEST STICKS OUT (Pectus Carinatum) } EXAM OPTIONAL	1
	HISTORY OF HEART MURMUR OR ANY HEART DEFECT	4
SKIN	RAISED RED BIRTHMARKS (Capillary Hemangiomas)	4
	GREATER THAN NORMAL BODY HAIR, HAIR ALSO ON FOREHEAD AND BACK (Hirsutism)	1
DEVELOPMENT	MILD TO MODERATE MENTAL RETARDATION (IQ < 70)	10
	SPEECH AND LANGUAGE DELAYS	2
	HEARING PROBLEMS	1
	VISION PROBLEMS	1
	ATTENTION CONCENTRATION PROBLEMS	2
	HYPERACTIVITY	5

COMMENTS:

	_____ **Total Score:** (Refer if score 20 or above)

For additional forms or information on FASD, contact:
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THE ARND BEHAVIORAL CHECKLIST

Larry Burd, Ph.D.

NAME/ID:_____ DOB:___/___/___ AGE:_____ SEX (circle one): F M

RACE (circle one): Caucasian Hispanic Native American African American Other

DATE OF EXAM:___/___/___

In order to complete this checklist:
1) Behaviors must be impaired for the age of the person being assessed.
2) Interviewer needs to have known the person being assessed for at least one month.

BEHAVIOR	3-6 YEARS	7 YEARS +
Hyperactive		
Poor attention		
Impulsive		
Disorganized		
Seems unaware of consequences of actions		
No fear		
Would leave with a stranger		
Poor social skills		
Few friends		
Will talk or interact with anyone		
Easily manipulated and set up by others		
Socially inept (inappropriate speech or touching)		
Difficulty staying on topic during conversation		
Always talking		
Cocktail speech - little content		
Too loud		
Can't remember from one day to the next		
Below average IQ (<85)		
Poor school performance		
Suspended or expelled from school		
Poor sleeper		
Can't follow routine - needs reminders to get dressed, brush teeth, etc.		
Temper tantrums		
Extreme mood swings		
Requires constant supervision		
Been in trouble with the law		
Inpatient treatment for mental health or substance abuse, or in jail for a crime		
Inappropriate sexual behavior		
Poor motor skills		
Has or needs glasses		
Had foster care or was adopted		
Medication for behavior - ever		
Mother used alcohol during any pregnancy (OPTIONAL)		
Mother used alcohol in last five months of this pregnancy (OPTIONAL)		
Mother has been in treatment for alcohol use (OPTIONAL)		
TOTAL CHECKED:		
	16	**20**

(Continue assessment if score is greater than or equal to above)

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Correction System Screening Protocol for FASD
Adolescent (Anyone less than 19 years of age)

NAME/ID:_____ DOB:___/___/___ AGE:_____ SEX (circle one): F M

RACE (circle one): Caucasian Hispanic Native American African American Other

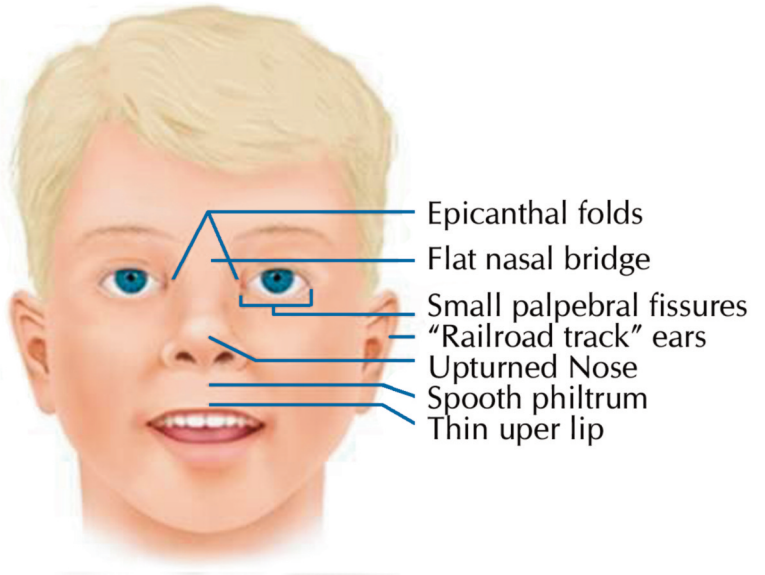
DATE OF EXAM:___/___/___ Preferred Hand: Left/Right (circle one) Location_____ Current Grade _____

Step 1
Weight in lbs._____

Step 2
Height in inches_____

Step 3
Review photographs

Step 4
Physical findings
Head Circumference _____ cm



	Check if present
Thin vermillion border upper lip	_____
Flat philtrum	_____
Decreased supination	_____
Angulated distal palmar crease	_____
Clinodactyly	_____
Midface hypoplasia	_____

NEUROBEHAVIORAL

	Standard Score
Reading	_____
Spelling	_____
Math	_____
Reading Comprehension	_____
Adaptive Behavior	_____

	Check if Present
Below average IQ	_____
Intellectual Deficiency	_____
Attention Deficit/ Hyperactivity disorder	_____
Impulsive	_____
Stubborn	_____
Seizures	_____

Graduate from high school Yes_____ No_____

If no, what was the last grade completed? _____

Ever take medication for hyperactivity as a child? _____

Adaptive Behavior Scores

Communication	_____
Socialization	_____
Daily Living Skills	_____
Gross/Fine Motor	_____
Composite	_____

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Correction System Screening Protocol for FASD and Related Disorders
Adult (Anyone 19 years of age or older)

NAME/ID:_____ DOB:___/___/___ AGE:_____ SEX (circle one): F M

RACE (circle one): Caucasian Hispanic Native American African American Other

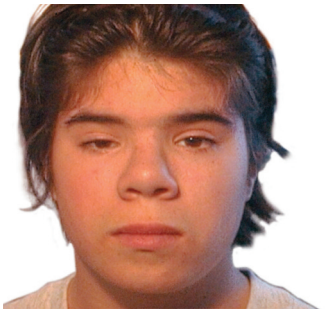
DATE OF EXAM:___/___/___ Location_____

Step 1
Weight in lbs._____

Step 2
Height in inches_____

Step 3
Review photographs

Step 4
Physical findings
Head Circumference _____ cm



If less than	
128 lbs for men	105 lbs for women
Continue ↓	
If less than	
66 inches for men	61 inches for men

	Check if present
Thin vermillion border upper lip	_____
Flat philtrum	_____
Decreased supination	_____
Angulated distal palmar crease	_____
Clinodactyly	_____
Midface hypoplasia	_____

Neubehavioral

	Standard Score
Reading	_____
Spelling	_____
Math	_____
Reading Comprehension	_____
IQ	_____
Adaptive Behavior	_____

	Check if Present
Below average IQ	_____
Intellectual Deficiency	_____
Attention Deficit/ Hyperactivity disorder	_____
Impulsive	_____
Stubborn	_____
Seizures	_____

Graduate from high school Yes_____ No_____

If no, what was the last grade completed? _____

Ever take medication for Hyperactivity as a child? _____

Adaptive Behavior Scores

Communication	_____
Socialization	_____
Daily Living Skills	_____
Gross/Fine Motor	_____
Composite	_____

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Age based impairments in FASD and Alcohol Related Neurodevelopmental Disorder

Age	Cognitive	Motor Skills	Socialization	Behavior
Infancy	Developmental delay Learning games Attention	Tremor Poor suckle Low tone Floppy	Interactive activities and games Attachment Reading others expressions	Sleep disturbance Regulation of behavior Irritable Temperament Impaired settling Cuddling
Toddler	Speech-language Understanding Toilet training Attention Impulsivity Memory	Tremor Fine motor Gross motor Balance Late crawling or walking	Frustration Threshold Separation problems Attachment Group participation	Difficulty in group settings Tantrums Aggression Stubborn
Child	IQ Academic deficits (math, spelling, written language) Humor Memory Recall Speech-language comprehension	Fine and gross motor Coordination Balance Handwriting Hand tremor	Requires increased supervision Difficulty sustaining friendships Group activities Games – activities with rules	ADHD Increased frustration Lack of persistence Increased risk taking Impaired independence for age Impaired executive functioning
Pre-Adolescence	IQ Academic deficits (math, spelling, written language) Planning Memory and recall Comprehension Generalization of skills and behaviors	Coordination Balance Handwriting Clumsy	Independent functioning Needs increased supervision Exploitation by others Appropriate boundaries	ADHD Impaired executive functioning Impulsive Repeats problem behavior Poor response to demands Risk taking
Adolescence/ Adults	Ability to work independently Self-care Money and time management Household routines Generalization of skills and behaviors Limited benefit from treatment programs without adaption	Writing Fine motor Balance Coordination	Independent functioning Peer exploitation Increased supervision Interpersonal boundaries	Increased risk for substance abuse Depression Anxiety Repeats problem behavior Increased risk taking Impulse control Planning ahead Meeting deadlines Asking for help Organization Record keeping Peer exploitation

The FASD Family

THE DADS	
Age	30.8
Education	10.9
Unmarried	63%
Alcoholic	12+years
Heavy Drinker	+
Treatment	<3
Low SES	+

THE MOMS	
Age	27.4
Education	10.6
Unmarried	63%
Smoker	82%
Alcoholic	10+years
Treatment	>3 (45%)
Low SES	+
Poor Diet	+
Parity	3
Prenatal Visits	<5 (56%)
1st Prenatal	>1st tri (56%)
Mortality	4.9%

Previous Terminations	↑
Number of Prenatal Visits	↓
Number of Prenatal Complications	↑
Birth Weight	↓

Mortality		
FASD Mothers	=	4.9%
Controls	=	0.11%
OR	=	44.82
87% Died age 50	<	(41.5%)
Cancer, Alcohol Related, Accidents		67%
31.3 YPLL per case		

THE CHILDREN	
Age Diagnosis	7.1 Years
Older Sibs	2
Younger	2
Mean Birth Weight	-701 grams
Birth Defects	50%
Cerebral Palsy	6%
Mental Retardation	40%
ADHD	75%
Out of Home	85%
Head Injury	15%
If FAS Diagnosis	1 dead sibling (9%)
	2 dead siblings (2%)
	3 dead siblings (5%)

Mortality Rate		
FASD	=	5.4%
FAS Sibling	=	11.4%
Sibling Controls	=	2.0%
RR	=	530%
Infection OR	=	13.7
SIDS OR	=	10.2

Number of Prenatal Complications	↑
Number of Prenatal Visits	↓
Late Start Prenatal Care	↑
Birth Weight	↓
Number of Malformations	↑

What risk factors are present for this family?

Does this person have evidence of developmental delay, birth defects, sibling with FASD, sibling death or intellectual deficits?

1_____ Yes, consider referral for FASD evaluation.

2_____ No, but person does need monitoring as high risk for future problems.

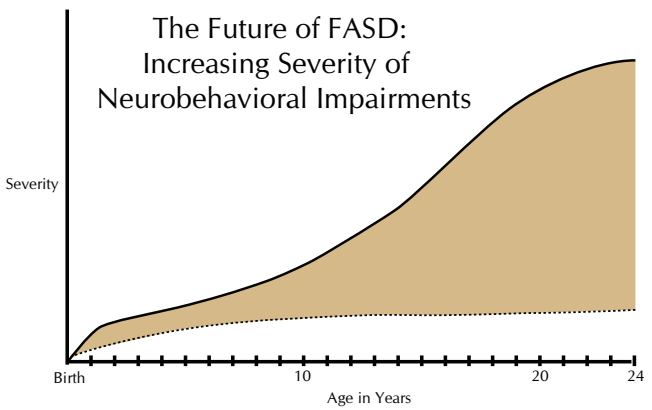
3_____ No reason for concern

Does this person/family need management for current alcohol related problems, substance abuse for prenatal alcohol exposure or as a person with FASD?

Risk Factors Ahead

These are key areas for prevention efforts for people with an FASD.

FASD Forecast



The presentation of FASD varies by age and development. Severity and complexity almost always increase with age.

4 Keys to Success

1) Focus on Risk Reduction

- Abuse - Neglect
- Speech and Language
- Foster Care
- ADHD
- School
- Social Development
- Self Care
- Look Ahead
- Adult Impairments

1) It is much easier to prevent or minimize problem outcomes.

2) FASD: The Keys to Intervention

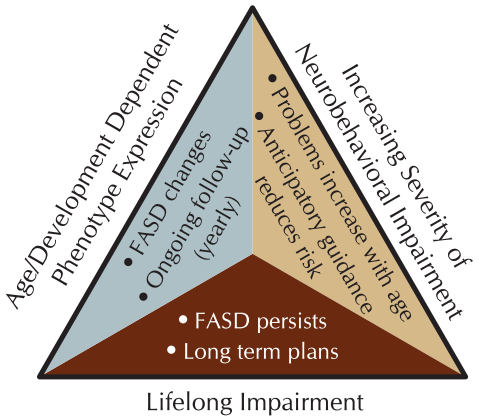
- Age & Development
- Dependent Phenotype
- Risk Reduction
- Long-term Plan
- Anticipatory Guidance
- Appreciate Impairment

2) Key components of a case management plan.

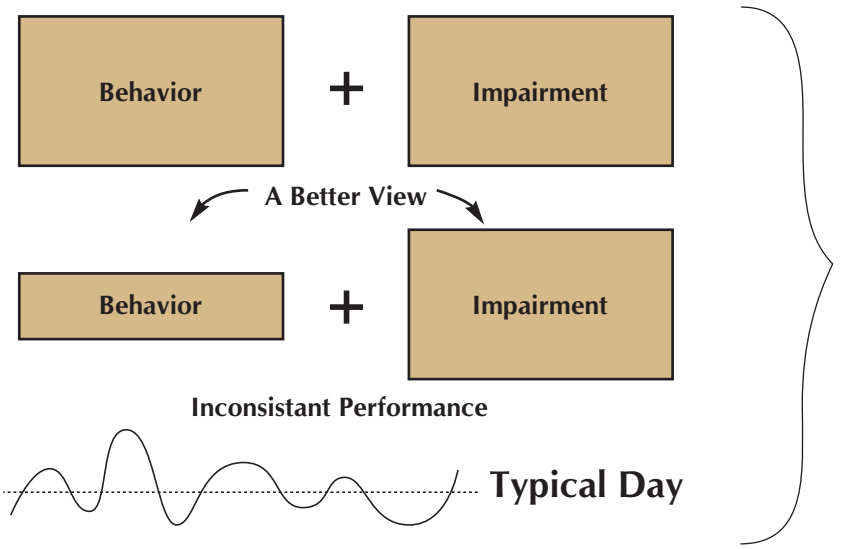
It is crucial to remember that FASD changes over time and that intervention must include plans to prevent future problems.

The child will require ongoing assessments to have the best outcome.

The Developmental Triad



3) FASD: What we First See



3) Most people with an FASD have fewer behaviors and more impairments than we first suspect. This results in day to day performance that is HIGHLY variable.

4) FASD Management Keys

- Yearly Follow-up
- Few Live Independently
- Remember the Familial and Generational Effects of FASD
- Services MATTER

4) Begin a case management plan with the understanding that this is likely a lifelong disorder requiring lifelong management.

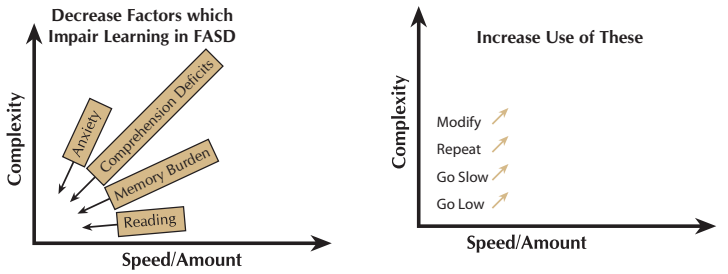
Parents or Adults with an FASD

1) Does either parent have an FASD?
- Do they have Neurocognitive Impairment
- Useful Measures
- Intelligence Testing
- Adaptive Behavior Testing
- Selectively-More Detailed Neurocognitive Testing

2) Basic Cognitive Skills in Adolescents and Adults with FASD

Characteristics	Grade Level	Percent Affected	
Reading	5.0	Memory	80%
Reading comprehension	4.5	Attention (ADHD)	75%
Oral Comprehension	5.0	Executive Function Impairments	80%

3) Learning in FASD



4) What should we change?

Address one problem at a time
allow participants to learn and apply solution before moving on to next topic

Provide short directions
an essential key for successful interventions

Make it concrete
picture guides are helpful for teaching key concepts

Work in small groups
allow more attention to topical material

Minimize anxiety, which increases impairment
especially important in treatment of substance abuse, sexual abuse or PTSD

Understand impairments
some problems cannot be treated and we need to learn how to adapt to them and minimize the effects

Address mental health concerns
need appropriate treatment

Go slowly
Treatment or interventions need to last longer

Planning for aftercare is essential
improves generalization of learned behaviors

Think *family history*
FASD is often familial

Wishing and Anger Won't Help

5) Success rate of Substance Abuse Programs
It is important to understand how well your intervention program works. Is the substance abuse program you use effective 5% or 40% of the time? The efficacy of the programs are important keys to participant success.

Key issues:
1) Adults with FASD have significant learning deficits which impact their ability to learn and remember.

2) We can improve the success rate of treatment programs by building in these treatment keys. See #4 below.

3) Useful strategies:
Modify content
Repeat important content
Modify pace with participants ability to learn and remember
Short directions
Learn reading and audio content

4) Essential factors for development of case management plans for adolescents and adults.

5) Most programs serving this population need to make more accommodations in response to their participants' learning impairments. Otherwise the content of the programs is not easily available to the participants.

Policy Recommendations

Judicial Bench Card			
Fetal	Alcohol	Spectrum	Disorders

Adverse outcomes from alcohol use during pregnancy

In the United States about 50% of pregnancies have some alcohol exposure. In most cases women find out they are pregnant and quit drinking. However, around 12% of women drink during pregnancy and 4-5% drink throughout pregnancy. Most of these women also smoke and many have other problematic life circumstances (other substance abuse, smoking, poor diet, late or no prenatal care).

The United States has about 40,000 new cases of fetal alcohol spectrum disorders (FASD) each year. For most affected people the primary problem from prenatal alcohol exposure is brain damage/dysfunction. This will usually result in lifelong impairments which will change in response to age and development.

Fetal Alcohol Spectrum Disorders

Comprised of four diagnostic categories

Fetal Alcohol Syndrome (FAS)

- Growth Impairments (height and weight < 3d)
- Abnormal Facial Features (2+)
- Brain Damage/Dysfunction
- Thought to result from prenatal alcohol exposure

Alcohol Related Birth Defects (ARBD)

- Birth defects though to be due to prenatal alcohol exposure
- Not commonly diagnosed
- Prevalence is as yet unknown

Partial Fetal Alcohol Syndrome (pFAS)

- Missing one or two key findings
- Prenatal Alcohol Exposure

Alcohol Related Neurodevelopmental Disorder (ARND)

- The primary features are brain damage/dysfunction developmental delays, mental illness or cognitive impairments) thought to result from prenatal alcohol exposure.
- Most common FASD
- Often undiagnosed
- Changes across the lifespan

Judicial officers often see people with prenatal alcohol exposure and FASD should be a frequent consideration.

Judicial officers often see people with prenatal alcohol exposure and FASD should be a frequent consideration.

Mortality

People with FASD have increased mortality rates. Mortality risk is also increased for siblings (even if they do not have a diagnosis of FASD). Miscarriage, stillbirth, sudden infant death syndrome (SIDS), birth defects, infectious illness other causes.
Mortality rates are also increased for mothers of cases and siblings.

Prevalence of FASD

- 1% live births
- Highly recurrent in families
- In some families FASD is generational
- Most affected people are undiagnosed

Cost of Care

US lifetime cost is $2.5 million per person. Service systems most impacted are health care, foster care, education/special education, developmental disabilities, mental health systems, corrections systems, and substance abuse systems. Annual cost in US $3.4 billion

Outcomes

Manifestation of FASD changes over lifespan. A two year old is at low risk for a substance abuse disorder, but adolescents are at very high risk.
Low rates of independent living
In Canada a juvenile with FASD is 14 times more likely to be in Corrections system than an unaffected peer.

Every day in the United States we have 120 new cases. FASD has a high recurrence rate and younger siblings tend to be the most severely affected. Diagnosis matters and appropriate services improve outcomes.

Actions from the Bench

System-Level Actions

- Make prenatal alcohol exposure (PAE) screening* a regular component of child welfare cases.

- Assess the community's diagnostic capacity.

- Assess interventions and treatment facilties for facilties that have appropriate training on, and service for FASD.

- Train systems of care personnel on FASD and work to expand the community's capacity to screen, diagnose and provide interventions for affected persons.

Case-Level Actions

- Screen all children for PAE.

- Refer children with positive screens or sibling wtih an FASD for FASD assessments.

- If positive, refer child for developmentally appropriate and proactive treatment. Follow up on service utilization in subse quent hearings.

- When FASD is diagnosed.

- Screen siblings and parents.

- Pick placements carefully. Placements should be safe, stable and loving homes with caregivers willing to adopt if reunification fails.

- Tailor affected parent's case plans to meet their developmental needs.

* To learn more about prenatal alcohol exposure (PAE), please see the PAE Judicial Bench Card.

Policy Recommendations

Judicial Bench Card		
Prenatal	Alcohol	Exposure

Prevalence of Alcohol Use

- Non-pregnant women during child bearing years: 54%
- Month before pregnancy: 50%
- Pregnant women: 12% (1 in 8)
- Third trimester of pregnancy: 4.6%

Rates of Prenatal Alcohol Exposure (PAE)

- Children of women in substance abuse treatment: very high
- Children of women in prison: 80%
- Children in foster care: 70-80%
- Increased in women with other drug use

Drinking and Pregnancy

In the majority of cases, drinking primarily occurs on weekends, but for women with alcohol use disorders drinking may occur on most days.

Alcohol rapidly crosses from the mother to fetus. Increasing maternal blood alcohol can be detected in fetus in 1 minute. Maternal-fetal ethanol concentrations reach equilibrium in about two hours after women quit drinking.

Alcohol elimination from the fetus and amniotic fluid relies on mother's alcohol metabolism. The alcohol elimination capacity of the fetus is 5% of the mother's capacity. Promptly after birth, alcohol elimination rates reach 83.5% of maternal elimination rate.

Variation in Blood Alcohol Concentration (BAC)

BAC varies from person to person. For example, BAC varies by about 4 fold for women of the same weight consuming the same amount of ethanol.

PAE is an important marker for increased risk of postnatal environmental adversity

PAE is associated with increased rates of environmental adversity including other substance abuse, smoking, neglect, abuse, malnutrition, stressful life circumstances and mortality. These often persist throughout infancy and childhood. PAE should also be considered in risk stratification for alcohol exposure in both previous and future pregnancies.

Screening for PAE*
What we might want to know about drinking during pregnancy

When was your last drink?

Before	PREGNANCY	
	Pre-awareness	Post-awareness
Unexposed	Exposed	Exposed & High Risk

Assessment of exposure during pregnancy

On average how many drinks per week did you drink during pregnancy? _____ (a)
On an average drinking day during pregnancy how many drinks did you have? _____ (b)
How many days per month did you have 4 or more drinks during pregnancy? _____ (c)
What is the most you had to drink on any one day during pregnancy? _____ (d)

Estimating cumulative exposure during pregnancy

Pregnancy Drinking Days = (a x 40) = _____ (e)
Estimates number of drinking days during pregnancy

Percent of Days Exposed During Pregnancy = e ÷ 280 = _____
Estimates number of drinking days during pregnancy

Number of Binge Days (4 or more drinks in one day = (c x 9) = _____
Estimates number of binge days

Number of Drinks During Pregnancy = (a x b x 40) = _____ (f)
Estimates number of drinks during pregnancy

Ounces of absolute alcohol = (f / 2) = _____
Estimates cumulative absolute alcohol exposure during pregnancy.

Effective intervention NOW reduces risk for alcohol exposure in subsequent pregnancies

Getting Services for Mothers

- Ask "when was your last drink?"
- Ask if she has been in treatment previously. Should she return to the same program or does she need a different treatment provider?"
- Determine if she may have an FASD. If yes, what modifications does she need to improve her response to treatment?
- Ask "what is the success rate of the treatment program for similar women?"
- Ask if planning to create a substance use free environment needs to start now. Who will participate and when will they report back to the court?"

* If the screening reveals a child was prenatally exposed to alcohol, see the Judicial Bench card on FASD for next steps.