

The Connection Between FASD and Suicide

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Fetal Alcohol Syndrome (FAS)

- A permanent birth defect syndrome caused by maternal alcohol drinking during pregnancy.
- Characterized by
 - growth deficiency
 - a unique pattern of facial features
 - severe brain dysfunction including structural, neurological, and/or functional abnormalities.

Fetal Alcohol Spectrum Disorders

- An umbrella term for the full spectrum of damage caused by prenatal alcohol exposure.
- The brain is the organ typically affected; it can be damaged by alcohol at any time during pregnancy. FASD conditions always involve structural, neurological, or functional brain impairments.

Rates of FAS and FASD are high among some American Indians/Alaska Native (AI/AN) populations

For example:

- FAS: 2 per 1,000 among AI/AN children vs. 0.3 per 1,000 among non-Hispanic Whites

(Fox, et al., 2015)

- FASD: In Alaska, 3 per 1,000 live births among AI/AN vs. 0.2 per 1,000 among non-AI/AN

(Egeland et al., 1998)

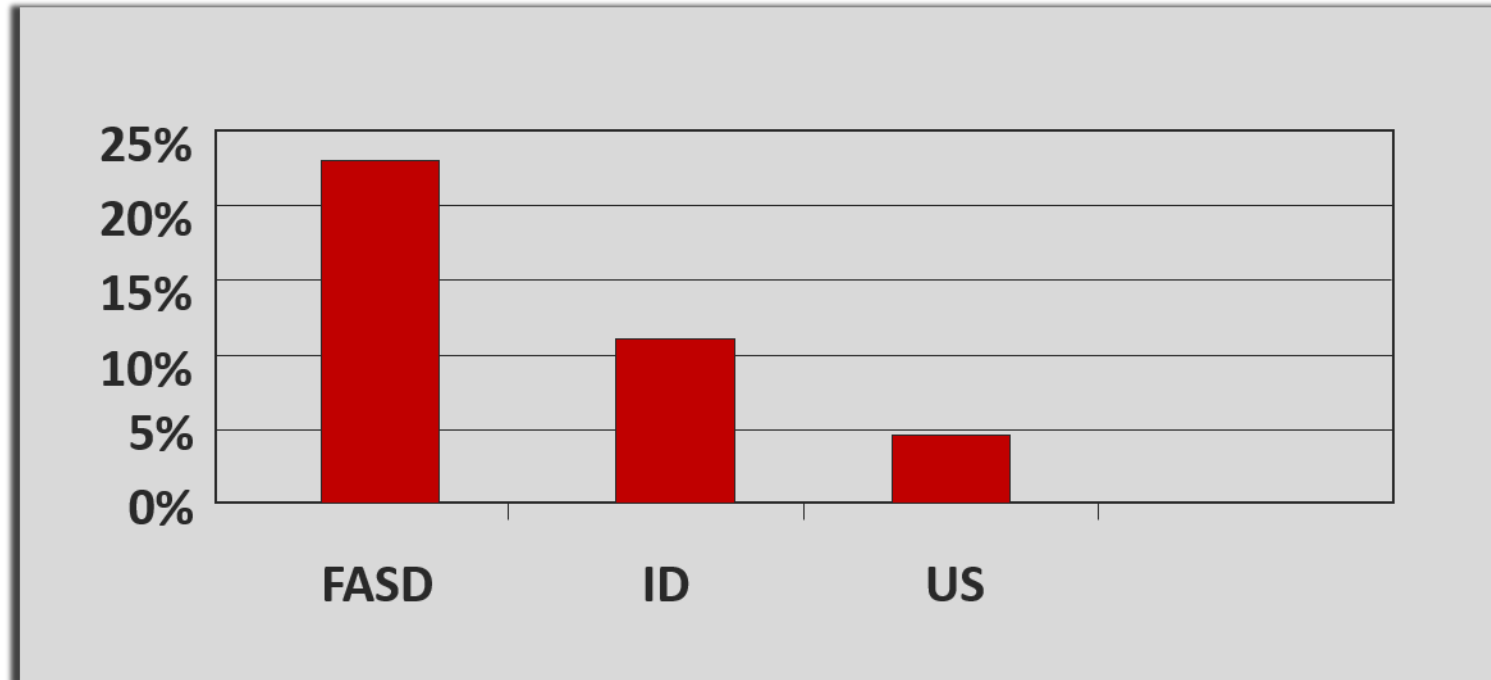
Suicide rates among some AI/AN populations are high

- Overall, in 2010 the suicide rate for AI/AN of all ages was higher than the overall U.S. rate: 16.9 per 100,000 compared to 12.1 per 100,000
- Suicide was the second leading cause of death for AI/AN youth ages 10–24.

FASD and Suicide

Adults with FASD are
5 times more likely
to attempt suicide than those
in the general U.S. population.

Adult Suicide Attempts: FASD vs. Intellectual Disability vs. U.S. Population

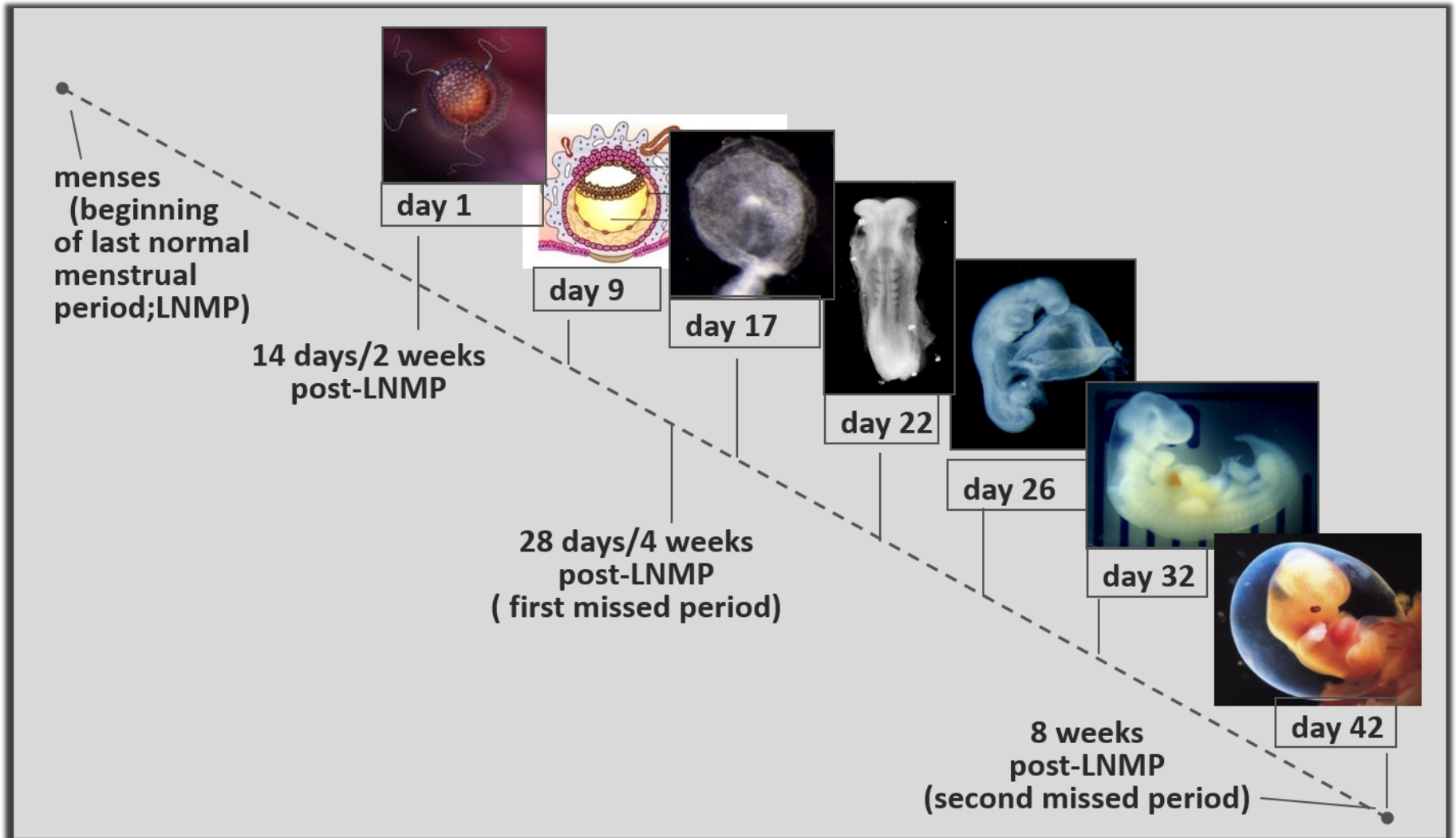


¹Streissguth, Barr, Kogan & Bookstein, 1996. Understanding the Occurrence of Secondary Disabilities in Clients with FAS & FAE. Final Report to the CDC, p. 35. ²Attempt rate for adults with an Intellectual Disability in mixed clinical & community samples (Hardan and Sahl, 1999; Lunsky, 2004). ³U.S lifetime rate of suicide attempts (1990-1992 National Comorbidity Study; Kessler, Borges, and Walters, 1999).

Why are people with FASD at higher risk for suicide and suicide attempt?

***Because of how
prenatal alcohol exposure
affects the brain.***

Alcohol can cause permanent damage beginning very early in pregnancy



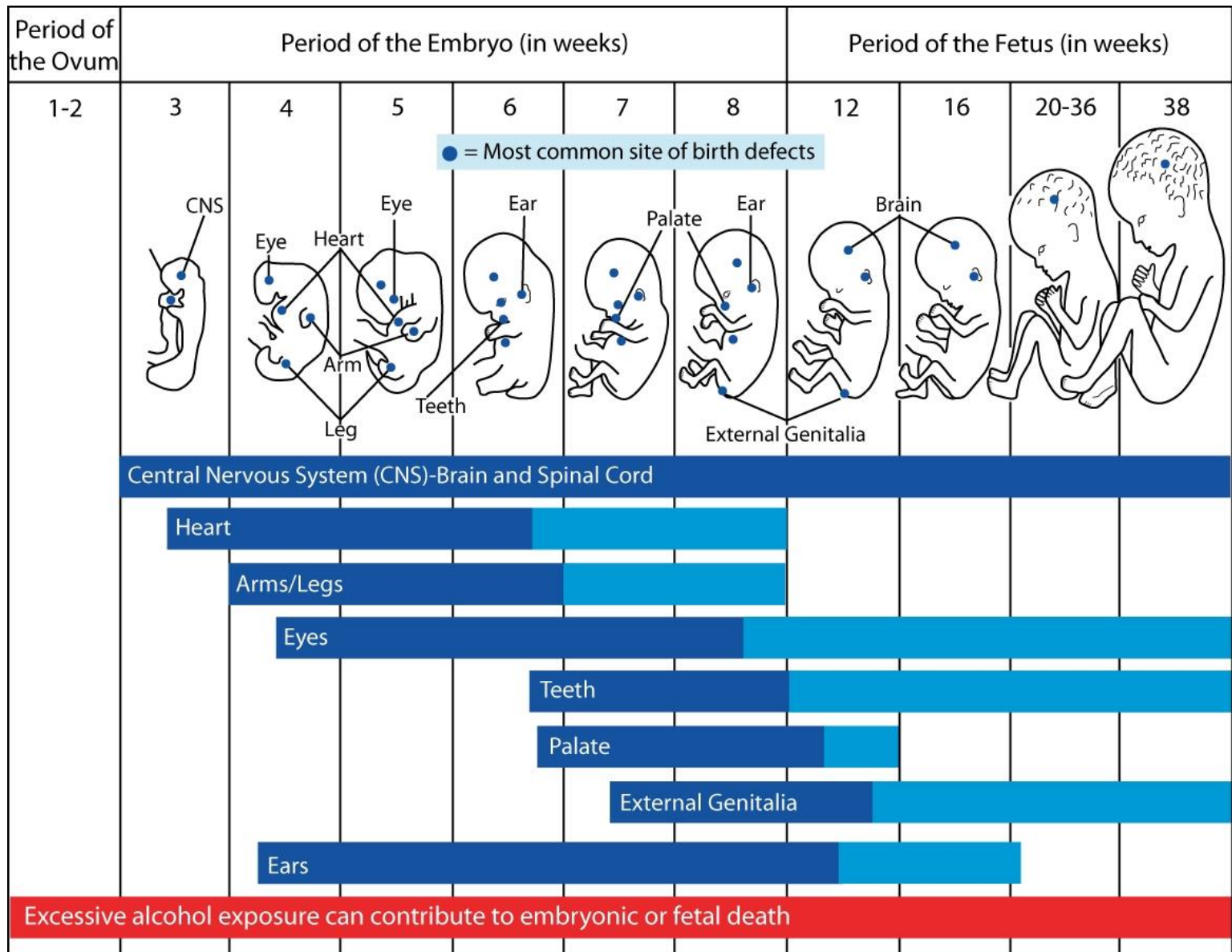


Figure 1 Vulnerability of the fetus to defects during different periods of development. The blue portion of the bars represents the most sensitive periods of development, during which alcohol-induced (i.e., teratogenic) effects on the sites listed would result in major structural abnormalities in the child. The light blue portion of the bars represents periods of development during which physiological defects and minor structural abnormalities would occur. SOURCE: Adapted from Moore and Persaud 1993.

Jacobson, S. (1997). Assessing the impact of maternal drinking during and after pregnancy. *Alcohol Health Res World* 21(3): 199-203.

How Does Prenatal Alcohol Exposure (PAE) Affect the Brain?

PAE can cause

Cognitive and neuropsychological problems in memory, attention, intellectual functioning, information processing.

In particular, problems with...

Executive Function

Sensory Integration

Executive Function is Impaired by PAE

Executive function is a higher order neurological process that includes the ability to

- Organize stored information and integrate it with new incoming information
- Plan, weigh options, reason, anticipate consequences, and sequence behavior
- Solve problems and shift gears (cognitive flexibility)

Sensory Integration is Impaired by PAE

A person with sensory integration problems may

- Become overstimulated in social situations (crowded rooms, many people, strangers)
- Overreact to unexpected (and often, insignificant) events with surprisingly strong emotions; no modulation
- Have a poor ability to focus attention, stay on task

Brain Damage → Problem Behaviors

- Poor judgment Easily victimized
- Attention deficits Unfocused / distractible
- Arithmetic disability Can't handle money
- Memory problems Doesn't learn from
experience
- Difficulty abstracting Doesn't understand
consequences
- Disoriented in time and space Misses social cues
- Poor frustration tolerance Quick to anger

Problem Behaviors Associated With FASD



Adverse Life Outcomes

Examples include:

- School failure (about 60%)
- Trouble with the law (about 60%)
- Substance abuse (about 40%)
- Mental health problems (about 90%)

FASD and Suicide/Suicide Attempts

Age 21-51 (N=90)

- 43% suicide threats
 - 23% suicide attempts

Age 12-20 (N=163)

- 40% suicide threats
- 15% suicide attempts

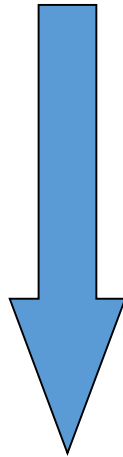
Age 6-11 (N=162)

- 20% suicide threats
- 2% suicide attempts

18

DIRECT PATHWAY

Impaired brain functioning
and poor reasoning
combined with impulsivity
and inability to control
emotions and mood



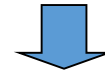
Suicide attempt

INDIRECT PATHWAY

Impaired brain function
and impulsivity



Adverse life outcomes
leading to frustration,
shame, low self-esteem,
especially if there is
inadequate support



Depression



Suicide attempt

Among All People:
Suicide Protective Factors

Some of the most significant **suicide protective factors** are these:

- Connectedness to individuals, family, community, and social institutions
- Contacts with caregivers
- Effective mental health care
- Problem-solving skills

Among AI/AN communities:

Suicide Protective Factors

Family connectedness: Among AI/AN youth, connectedness to family and talking about problems with family/friends are protective.

Cultural identification and spirituality: AI/AN people living more traditionally report greater happiness and use of spirituality to cope with stress (and less use of drugs/alcohol to cope). AI/AN with a strong cultural and spiritual orientation are better able to cope with stress and have a lower risk of suicide.

Among AI/AN communities:

Suicide Protective Factors

Cultural continuity: Cultural facilities, self-government, services provided within the community.

Community control in designing and carrying out suicide prevention programs “can be effective towards preventing suicide.”

Suicide Risk Factors: Adverse Childhood Experiences (ACE)

The Adverse Childhood Experiences (ACE) study and other research finds that early adverse childhood experiences dramatically increase the risk of suicide attempts in childhood/adolescent and adulthood.

ACE Questions: Prior to your 18th birthday

Did a parent or other adult in the household often or very often... Swear at you, insult you, put you down, or humiliate you? or Act in a way that made you afraid that you might be physically hurt?

Did a parent or other adult in the household often or very often... Push, grab, slap, or throw something at you? or Ever hit you so hard that you had marks or were injured?

Did an adult or person at least 5 years older than you ever... Touch or fondle you or have you touch their body in a sexual way? or Attempt or actually have oral, anal, or vaginal intercourse with you?

Did you often or very often feel that ... No one in your family loved you or thought you were important or special? or Your family didn't look out for each other, feel close to each other, or support each other?

Did you often or very often feel that ... You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? or Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?

ACE Questions: Prior to your 18th birthday

Were your parents ever separated or divorced?

Was your mother or stepmother: Often or very often pushed, grabbed, slapped, or had something thrown at her? or Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard? or Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?

Did you live with anyone who was a problem drinker or alcoholic, or who used street drugs?

Was a household member depressed or mentally ill, or did a household member attempt suicide?

Did a household member go to prison?

Felitti, Anda, et al. Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults. American Journal of Preventive Medicine. May 1998, Volume 14, Issue 4, Pages 245–258

Suicide Risk Factors: Adverse Childhood Experiences (ACE)

An ACE score of 7 or more increased the risk of suicide attempts 51-fold among children/adolescents and 30-fold among adults (Dube et al., 2001).

The strongest predictor of future suicide attempts in ACE research was emotional abuse.

Adverse Childhood Experiences (ACE)

In Alaska, effective suicide prevention strategies to reach culturally diverse populations include the role of ACEs in understanding and preventing suicide.

It starts with education for service providers, survivors, and communities about how early trauma can affect health and risk behaviors even decades later.

It's Never Too Late

The Institute for Safe Families is expanding its “Amazing Brain Series” to include a booklet for adult trauma survivors called “It’s Never Too Late,” developed to help adults to understand the long-term effects of trauma and the capacity of the adult brain to heal. The first four booklets in the series focus on early brain development and implications of trauma for children.

- <http://www.instituteforsafefamilies.org/materials/amazing-brain>

Suicide Risk Among People with FASD

Among a small group of young adults (age 18-30) diagnosed with FASD: Six had made suicide attempts, and five had not.

How are attempters different from non-attempters?

Can we see patterns that alert us and help identify areas for intervention?

Those with FASD who did not attempt suicide

Had these protective factors:

- Consistent positive social supports
- Life satisfaction
- A sense of responsibility to family
- Religious beliefs

For people with FASD, research shows these protective factors:

- **Diagnosis of FASD by age 6**
- **Home environment:**
 - Remaining in each home for at least 3 years
 - Living in stable, nurturing home most of life
 - Eligibility for financial (SSI), and case management/financial services (DD)

Suicide Risk factors: Those with FASD who did attempt suicide

Had these risk factors:

- Mental health disorders
- Alcohol or other substance use disorders
- History of trauma or abuse
- Job or financial loss
- Lack of social support
- Prior suicide attempt

These are also suicide risk factors among all people, in addition to access to lethal means.

After their first suicide attempt,
none of the 6 attempters had any follow-up care.
Later, five of these 6 young adults attempted
suicide again.

Suicide Intervention/Prevention: Lessons Learned for People with FASD

- Recognize that the person with FASD is at increased risk for suicide. ***Pay attention, take suicide threats seriously, and provide care.***
- Be aware that the seriousness of the intent to die may not match the suicidal behavior .

Suicide Intervention/Prevention

- Educate and recruit family members and close friends to provide emotional and practical support.
- Educate community service providers about FASD so services can be tailored to the needs of the individual.
- Put supports in place to improve the quality of life of the person with FASD.
- Reduce access to guns and other lethal means.

Lesson Learned:
Strengthen and reinforce
reasons for living.

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