The Foundations of Fetal Alcohol Spectrum Disorder

The Calgary Fetal Alcohol Network
Overview

• What is FASD?
• Diagnosis and Assessment
• Alcohol and Pregnancy
• Adolescent Youth Project
• Resources
FASD Service Networks

- 12 provincially-funded locations
- FASD initiatives across the province
- Alberta is the leader in the country and the world because of our provincial strategy on FASD
- Local and Provincial Service Networks
Definition

Fetal Alcohol Spectrum Disorder (FASD) is a diagnostic term used to describe impacts on the brain and body of individuals prenatally exposed to alcohol. FASD is a lifelong disability. Individuals with FASD will experience some degree of challenges in their daily living, and need support with motor skills, physical health, learning, memory, attention, communication, emotional regulation, and social skills to reach their full potential. Each individual with FASD is unique and has areas of both strengths and challenges.
Fetal Alcohol Spectrum Disorder (FASD)

- Prevalence of 4% in Canada\(^1\)
- 2.5x more common than ASD, 19x more common than CP
- Estimated lifetime costs are $1M+/individual or $9.7B+ annually in Canada\(^3\)
  - 40% CJS, 21% healthcare, 17% education, 13% social services, and 9% others
What is FASD?

• Primary challenges
  – Executive functioning, attention, memory, impulsivity, physical (lower height/weight, hearing impairments/infections, etc.)

• Secondary challenges
  – Education, employment, mental health, addiction, victimization, homelessness, trouble with law, etc.
FASD Diagnosis & Assessment

- In-depth, multi-disciplinary assessment of growth, facial features, brain damage and/or CNS dysfunction
- Local: ACH, Enviros, Mustard Seed, Foothills Fetal Alcohol Society, Siksika Health Services

Strengths of an assessment:

1. Recognizes disability (answers for the client)
2. Government supports
3. Identifies strengths, challenges, strategies for learning and success
4. Should be used as a tool for case-planning
1. FASD with Sentinel Facial Features
   - FASD, Partial FAS (code 4 in facial features), Sentinel physical findings, static encephalopathy- alcohol exposed (code 4 in facial features)

2. FASD without Sentinel Facial Features
   - Partial FAS (code 3 or 4 in growth deficiency, or code 3 in facial features), Sentinel physical findings, static encephalopathy- alcohol exposed (code 3 or 4 in growth deficiency, or code 3 in facial features), static encephalopathy-alcohol exposed, ARND (not having the full facial features)

- At-Risk for Neurodevelopmental Disorders and FASD, Associated with Prenatal Alcohol Exposure
  - Neurobehavioral disorder, alcohol exposed
Alcohol Metabolism

![Image of alcohol metabolism diagram]

**Ethanol** ($\text{H}_3\text{C}-\text{CH}_2\text{OH}$) is converted to **Acetaldehyde** ($\text{H}_3\text{C}-\text{CH}=\text{O}$) by Alcohol dehydrogenase. Acetaldehyde is then converted to **Acetate** ($\text{H}_3\text{C}-\text{COO}^-$) by Aldehyde dehydrogenase (mitochondria). P4502E1 (microsomes) and Catalase (peroxisomes) are involved in the metabolism of alcohol.
Fetal Alcohol Spectrum Disorder
We are all unique...
### Won’t vs. Can’t

<table>
<thead>
<tr>
<th>From seeing the person as:</th>
<th>To understanding the person as:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bad/Angry</td>
<td>Frustrated or challenged</td>
</tr>
<tr>
<td>Lazy and unmotivated</td>
<td>Trying hard and tired of failing</td>
</tr>
<tr>
<td>Lying</td>
<td>Low self-esteem, storytelling to compensate for memory (filling in the blanks)</td>
</tr>
<tr>
<td>Immature/Inappropriate</td>
<td>Being “younger”</td>
</tr>
<tr>
<td>Annoying</td>
<td>Needing contact and support</td>
</tr>
<tr>
<td>Thief/always steals</td>
<td>Not understanding ownership/possession</td>
</tr>
<tr>
<td>Refuses to sit still</td>
<td>Over-stimulated</td>
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</table>
2,136 LIQUOR RETAILERS

22,815 ALCOHOL PRODUCTS AVAILABLE

94% ALBERTANS AGED 15+ HAVE USED ALCOHOL IN THEIR LIFETIME

80% OF ALBERTANS AGED 15+ ARE CURRENT DRINKERS (meaning they drink on a weekly basis)

Canadian Alcohol and Drug Use Monitoring Survey (2012)
Canada Low-Risk Drinking Guidelines (2017)
Alcohol in Canadian Schools

Percentage of students who report drinking beer & liquor at least once a week.

A CLOSER LOOK AT THE ISSUE

Statistics show a high correlation between alcohol use and social, environmental and behavioural problems, including substance abuse.

- Personal Influences
- Social Influences
- Environmental Influences

Alcohol Consumption and Gender

What’s the difference between boys and girls when it comes to alcohol?

**Boys are prone to anxiety**
Boys are more prone to anxiety types of challenges or disorders.

**Biological response in males**
Alcohol affects the GABA system that decreases the biological response to stress. It acts in the same way as a sedative to relax the body.

**Machoism**
Boys can be influenced by a belief in Machoism. For example, a belief in that the more you drink, the more you increase your status.

**Girls are more vulnerable**
Girls have less enzymes that break down alcohol, therefore, more alcohol is transferred through the bloodstream to the brain.

**Depression is more prevalent in females**
Alcohol consumption is strongly related to depression which is more prevalent in young women than young men.

**Weight concerns**
Young women who are more concerned about their weight report more binge drinking than those who are not concerned.

Alcohol and Adolescents. (2014). Alberta Health Services
Alcohol. (2017). Kids Health
Resource for Adolescents

Let’s Get Real
(Designed by surveying the population intended for)

https://getrealab.ca/

- Drinking
- Relationships
- Birth Control
- Drinking and Pregnancy
- STI’s
- Mental Health
- Links to apps and social media platforms (Snapchat, FB and IG)
Suggested resources (for referral)

Our funded service providers:
- Calgary Alternative Support Services (CASS) – CAPA program
- Calgary John Howard Society – Extended FASD Support Services
- Enviros – A&D-FASD Evolution and caregiver support
- Foothills Fetal Alcohol Society
- MAPS – partnership between Renfrew Educational Services, Hull Services, McMan and Woods
- McMan (PCAP and PCAP-EE) for pregnant/parenting women
- Aventa
- Wood’s Homes
- Siksika Health Services

Confidential referral line: 403-681-2673
E-mail: info@mycfan.ca
Web: www.mycfan.ca
Assessment & Diagnosis

Enviros
- FASD Assessment and Diagnosis Services
- No age criteria

Foothills Fetal Alcohol Society
FASD Rural Assessment and Diagnosis Services
- Under 18 years of age

Siksika Health Services
FASD Program – Coordinate FASD Assessments for 12 children
- Provide In-Home support to 54 families – PCAP
- FASD Prevention & Awareness activities
Supports to Individuals & Caregivers

Support, Outreach and Advocacy:

- Calgary Alternative Support Services (CASS)
  - CAPA Program for Youth Transitioning into Adulthood
  - CAPA Program for Adults with FASD

- Calgary John Howard Society (CJHS)
  - FASD Extended Support Program
  - FASD Action Hall (support group)
Supports to Individuals & Caregivers

Enviros Wilderness School Association
- FASD Evolution Program (outreach and supports for adults who have an assessment)
- FASD Intervention Services (supports parents and caregivers children and youth diagnosed with FASD)

Foothills Fetal Alcohol Society
- FASD Family Response Program
- FASD Adult Response Program
- FASD Addiction Supports

Aventa
- Residential addiction treatment / Transition Supports
Supports to Individuals & Caregivers

FASD MAPS Program (Mentorship, Advocacy, Partnership and Support)
- Partnership between Renfrew Educational Services, Hull Services, McMan and Woods to provide a continuum of care for families with children and youth with FASD

Woods FASD Support Program
- Family support in the home and community
- FASD caregiver support groups
Prevention

McMan Calgary

PCAP Urban / Rural

• 3 Year program for women who are pregnant or up to six months postpartum who acknowledge drug and alcohol use during pregnancy

PCAP Expanded Enrollment

• Supports for parents who are diagnosed or suspected of living with FASD who are parenting their children at least half the time.