

The Cost of Fetal Alcohol Exposure in Alaska and the United States.

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Defining my terms....

Fetal Alcohol Spectrum Disorder is a medical diagnosis for “Individuals characterized by having been exposed to alcohol in utero and who experience behavioral and cognitive effects as a result of the prenatal exposure to alcohol” (CDC ,2002).

Fetal Alcohol Syndrome is a medical diagnosis that falls under FASD. It has four specific criteria that must be observed to make a diagnosis. (CDC, 2002).

“A drink” is 8-10 grams of alcohol in a beverage. This is:

12-oz (355 ml) of beer

5-oz glass of wine

12-oz wine cooler

4-oz glass of sherry/liqueur/aperitif

1.5 oz. / 1 “shot” of liquor (distilled alcohol)

Alcohol Consumption in Alaska

- Enough alcohol was sold in Alaska in 1999 to add up to 516 drinks for every man, woman, and child in the state in that year, and 30% of the population doesn't drink.
- In many Alaskan communities beer is cheaper than milk, fruit juice, or brand name soft drinks.
- 54.8% of Alaskan adults reported having at least one drink within 30 days.

(CDC,2007)

Alcohol is a Teratogen

- A teratogen is a substance that causes developmental malformations.
- “Alcohol has a direct toxic effect on cells and can produce cell death, thereby causing certain areas of the brain to actually contain fewer cells than normal.”

(Streissguth, 1997, p. 58)

Risk of alcohol exposure in pregnancy

- Probability an alcohol-dependent woman will have a child with FASD
 - 25%-45%
- Rate of FAS in children of women with a previous child with FASD
 - 771 per 1,000
- 10% of pregnant women report alcohol consumption
 - This includes drinking before being aware they were pregnant
- 2-4% report binge drinking (no decrease over the last decade)

Rates of FASD in the US

9-10 per 1,000 live births

- 15.4 per 1,000 live births in Alaska (CDC, 2005)

Groups found to experience higher prevalence rates for FASDs:

- Disadvantaged or minorities groups
- Children in foster care
- Youth in juvenile justice system (CDC, 2005)

Rates of FAS in the US

- CDC estimates the national rate of FAS as between 0.2 and 1.5 cases per 1,000.
- Alaska's rate is the highest in a five-state surveillance project
 - 1.5 per 1,000.
- Some groups have been found to have higher rates:
 - Disadvantaged groups, some American Indian/Alaska Native groups, and other minorities
 - some as high as 3 to 5 cases per 1,000 births
 - Children in foster care: 15 per 1,000

Rates of FAS Worldwide

- Rural South Africa - 41 to 46 per 1,000 births (May et al., 2007, Viljoen et al., 2005)
- China – acknowledged as a “challenging public health problem” (Long et al., 2010)
- Japan – first case reported in 1987
 - estimated at 1 per 10,000 – 20,000 births (Tanaka, 1995)
- Korea – 2 cases reported (Bhang et al, 2009).
- Mongolia – “The incidence of FAS was higher in UB compared to other countries.” (Erdenetungalag & Bayalag, 2005).
- Russia – prevention work underway
 - 15 per 1,000 children in orphanages (Miller et al., 2006).
 - No good overall population estimate found.

Economic Burden of FAS to US

(Streissguth, Barr, Kogan and Bookstein, 1996)

- Medical Care
 - Primary Care, Audiologist, Neurologist, Ophthalmologist
- Mental Health Services
- Child Protective services
- Schooling – special education
- Justice system – juvenile and adult
- Disability Services
 - Supported employment/job coach
 - Transportation
 - SSI & Disability Income
 - Assisted living; Respite care

Economic Impact of FAS in USA

- Estimated lifetime cost for one individual living with FAS in 2002 was **\$2 million**
- Total annual costs associated with FAS in the United States are estimated at **\$4 billion**
- The total lifetime estimated costs for fifteen cases of FAS in 2003 in Alaska was **\$47 million.**

(McDowell Group, 2005)