

## Fetal Alcohol Spectrum Disorders (FASD) In North Dakota: A 2025 Fact Sheet

Prevalence of Alcohol Use in Pregnancy		Reference
Early pregnancy alcohol use	42.4%	1,32
Alcohol use at end of pregnancy	8.4%	2,3,4
Women drinking during pregnancy identified by prenatal care providers	Unknown-Likely less than 1 in 10	

Neonatal Risks Associated with Prenatal Alcohol Exposure (PAE)		
Developing FASD among exposed children	1 in 13	5,32
Risk for stillbirth	40% higher	6,7
Drinking at the end of pregnancy and risk of SIDS for siblings of child with FASD	10.2x higher	7,10
Drinking at the end of pregnancy and risk of death from infectious diseases for siblings of child with FASD	13.7x higher	7,10,11
Mortality risk for sibling of a child with FAS	6.3x higher	7,11
Risk of recurrence in families with one affected child (FASD)	35% higher	1,5,10

Fetal Alcohol Spectrum Disorder (FASD)		
Prevalence and Incidence Estimates		
Newborns identified in NICU with FASD each year	< 5 per year	Estimated
New FASD cases per year	1% prevalence = 107 5% prevalence = 535	See Calculation *2
North Dakota FASD population: Children/youth (Birth – 18 yrs)	1% prevalence = 1,926 5% prevalence = 9,630	See Calculation *3
North Dakota FASD population: Adults with FASD (19-64 yrs)	1% prevalence = 4,815 5% prevalence = 24,075	See Calculation *4
North Dakota FASD population: Elderly with FASD (65+)	1% prevalence = 245 5% prevalence = 749	See Calculation *5
Pregnant women’s chance of being screened for substance use at an emergency room visit	51% less likely	12,13

FASD and Health and Mental Health Impairments		
Number of comorbid disease conditions associated with FASD	Over 400	14,15

Risk of child or adolescent psychosis	24.5x higher	15
Risk of intellectual disability	23x higher (23%)	15
Risk of ADHD (Attention Deficit Hyperactivity Disorder)	10x higher (52%)	15
Risk of anxiety disorder	11x higher (35%)	15
Risk of FASD if ACEs score: 2-6 (Adverse childhood experiences)	2.1x higher	17
Risk of FASD if ACEs score: 7-10 (Adverse childhood experiences)	8.1x higher	17

<b>Economic Costs For FASD North Dakota</b>		
Annual cost of care per child	\$22,810	18
Annual cost of care for children with FASD	1% prevalence= \$43,932,060  5% prevalence= \$219,660,300	See Calculation *6
Annual cost of care per adult	\$24,308	18
Annual cost of care for adults with FASD	1% prevalence= \$117,043,020  5% prevalence= \$585,215,100	See Calculation *7
Cost of care per diagnosed individual by age 43	Over \$1 million	See Calculation *6
Cost to prevent one case of FASD in a mother with a previous birth with FASD	\$20,200	18
Cost to prevent one case of FASD in a mother with a previous birth with FASD a using programmatic intervention	\$47,615	18
Net savings of lifetime cost per case from prevention	\$1,235,800	1,5,18

<b>Special Sub-populations</b>		
Children/youth with FASD in foster care placement	32-40% higher than in general population (18.8%)	33
Children/youth with FASD in special education	10x higher than in general population	19

Children/youth with FASD in Canadian juvenile corrections	16x higher risk of incarceration	20
Diagnosed with FASD in adult prison	.0009%	22
Undiagnosed/misdiagnosed in adult prison	99.9%	22

Mortality Rates		
Individuals with FASD	4.3x higher	Calculated based on 7,10,11
Siblings of individuals with FASD	5.3x higher	7,10
Birth mother of individual with FASD	44.8 x higher	23,25
Sudden Infant Death Syndrome	11.79 x	28
Stillbirth	2.78 x	6

North Dakota Diagnostic Demand and Capacity		
FASD diagnostic demand Annual Birth Cohort	1% prevalence 2/week 5% prevalence 2/day	1
FASD diagnostic capacity: Children/youth	1% prevalence 10/day	1
FASD diagnostic capacity: Juvenile corrections	2/month	1
FASD diagnostic capacity: Adult corrections	4/ month	1
Time to screen using the One Question Screen	1 minute	29
Time to screen using the E-FAST	3 minutes	30
Time to screen using the FASD Mini	3 minutes	31

ADHD: attention deficit hyperactivity disorder

FAS: Fetal Alcohol Syndrome

NICU: neonatal intensive care unit

SIDS: sudden infant death syndrome

- \*1. 7.6% women who drink in late pregnancy x 10,680 births= 812 women/7=116. Each year in North Dakota 116 women drink on the day they deliver.
- \*2. 1% Prevalence: 10,680 births x 0.01= 108  
5% Prevalence: 10,680 births x 0.05= 535
- \*3. 1% Prevalence: 10,680 births x 0.01 x 18 years =1,926

5% Prevalence:  $10,680 \text{ births} \times 0.05 \times 18 \text{ years} = 9,630$

\*4. 1% Prevalence:  $10,680 \text{ births} \times 0.01 \times 45 \text{ years} = 4,815$   
5% Prevalence:  $10,680 \text{ births} \times 0.05 \times 45 \text{ years} = 24,075$

\*5. 1% Prevalence:  $10,680 \text{ births} \times 0.01 \times 7 \text{ years} = 245$   
5% Prevalence:  $10,680 \text{ births} \times 0.05 \times 7 \text{ years} = 749$

\*6. 1% Prevalence:  $\$22,810 \text{ cost per child} \times 1,926 = \$43,932,060$   
5% Prevalence:  $\$22,810 \text{ cost per child} \times 9,630 = \$219,660,300$

\*7. 1% Prevalence:  $\$24,308 \text{ cost per adult} \times 4,815 = \$117,043,020$   
5% Prevalence:  $\$24,308 \text{ cost per adult} \times 24,075 = \$585,215,100$

\*8. Annual cost of care for children and youth =  $\$22,810$  (birth through 20) and cost for adults =  $\$24,308$  (from 21 and up) <sup>19</sup>  $(\$22,810 \times 20 \text{ years}) + (\$24,308 \times 23 \text{ years}) = \$1,015,284$ .

# Costs of FASD

Annually: \$53,683 per Child and \$49,077 per Adult.  
Includes \$25,993 in unreimbursed costs to family.

329% higher than ADHD

318% higher than autism

20 X higher than asthma

270% higher than diabetes

538% higher than epilepsy

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