

# **The societal cost of children**

- with Fetal Alcohol Syndrome (FAS)**
- to parents with mental illness, addiction to alcohol or drugs (CNK)**

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# Fetal Alcohol Syndrome (FAS)

- FAS is disabilities caused by maternal alcohol consumption during pregnancy
- alcohol can affect the foetus during the whole pregnancy
- mainly damages to the features brain development
- the prevalence is uncertain, but studies show
  - Sweden 0,2 percent
  - USA 0,2–0,9 percent
  - South Africa 6–9 percent
- criteria
  - pre- and/or postnatal growth deficiency
  - characteristic facial anomalies
  - central nervous system dysfunctions
  - confirmed maternal alcohol exposure.





# Study population

- based on a Swedish register follow up study of psychosocial aspects for adults with FAS (Rangmar *et al* 2015)
- N=79, average age 32 years of age
- diagnosed with FAS as child
- comparison group, matched by age, gender and place of birth (n=3 160).





# Annual average cost (SKR) per person in the comparison group

Type of resources	Annual average cost per person	
	Children (0–17 year)	Adults (18–64 year)
Societal support	21 302	27 513
Special education	7 823	–
Psychiatric disorder	–	3 725
Alcohol/drug abuse	–	39 115
Reduced working capacity	–	74 075
Family care support	20 156	–
Total	49 281	144 427





# Annual average additional cost (SKR) per person with FAS

Type of resources	Annual average additional costs per person	
	Children (0–17 year)	Adults (18–64 year)
Societal support	421 121	543 904
Special education	115 872	–
Psychiatric disorder	–	22 350
Alcohol/drug abuse	–	106 991
Reduced working capacity	–	181 911
Family care support	125 977	–
<b>Total</b>	<b>642 814</b>	<b>855 155</b>





# Societal costs of Fetal Alcohol Syndrome in Sweden

- Annual total societal costs: 14,4 billion SKR
  - Children 2,7 billion SKR
  - Adults 11,7 billion SKR
- Annual total additional costs 12,6 billion SKR
  - Children 2,6 billion SKR
  - Adults 10,0 billion SKR





# Conclusions

- the cost burden of FAS on the society is vast
- societal costs, such as housing condition/accomodation are the major costs
- preventive and targeted interventions need to be prioritised
- early assessment and diagnosis is important and helps the children to get the right support.





# Study population

## Children as Next of Kin (CNK)

- all children born in Sweden during the six years 1973-1978 and who were still registered in Sweden in the year they turned 18 years (i.e. 1991-1996)
- within the study population the CNK group is defined as the children aged 0-17 years who had at least one parent admitted to hospital for mental illness or alcohol or drug abuse
- in the total study population of 535 508 individuals, the CNK-group comprised a total of 41 770 individuals (7.8%).







# Measurement period and outcome variables

All born 1973-1978 who sometime, after the age of 18 years, during the period 1991-2008 received

- Specialist care for mental illness
- Specialist care for drug-related diagnosis
- Specialist care for diagnosis indicating alcohol abuse



# Proportion of individuals with mental illness, alcohol or drug abuse in the CNK group and other

		CNK group	Other
		percent	percent
<b>Mental illness</b>			
	Hospital care	7,7	2,5
<b>Alcohol Abuse</b>			
	Hospital care	2,0	0,4
<b>Drug Abuse</b>			
	Hospital care	3,6	0,7



## The CNK group's share of all with mental illness, alcohol abuse or drug addiction 1991-2008

			All	CNK-group	
			number	number	share (%)
<b>Mental illness</b>			53 371	11 362	21,3
<b>Alcohol abuse</b>			6 292	1 970	31,3
<b>Drug abuse</b>			8 839	3 075	34,8



Total Societal Cost, the BSA-groups share, the additional costs for the BSA-group overrepresentation.

	Total cost billion SKR		Additional cost billion SKR
	Societal cost	CNK share	Due to CNK-groups overrepresentation
<b>Mental illness</b>	134,6	28,7	16,9
<b>Alcohol abuse</b>	49,3	15,4	11,8
<b>Drug abuse</b>	<u>23,6</u>	<u>8,2</u>	<u>6,5</u>
<b>Total</b>	<b>207,5</b>	<b>52,3</b>	<b>35,2</b>





# Conclusions

- the group of individuals who grew up as children as dependents of parents with mental illness or addiction responds in adulthood themselves for a disproportionate share of the costs to society of mental illness and addiction to alcohol and drugs
- large societal costs are argument for preventive measures that benefit both the individual and society over the individual's entire lifetime, for example
  - information, education, advice and support to children as next to kin
  - family intervention and support group activities for children
  - better coordination between health care and social service responses
  - support for the CNK group in preschool and school
- more health economic studies and systematic monitoring should be performed to assess which prevention efforts are most effective.





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