

Figure for Supplementary Material.

Data showing sequential exclusions to derive the final study population

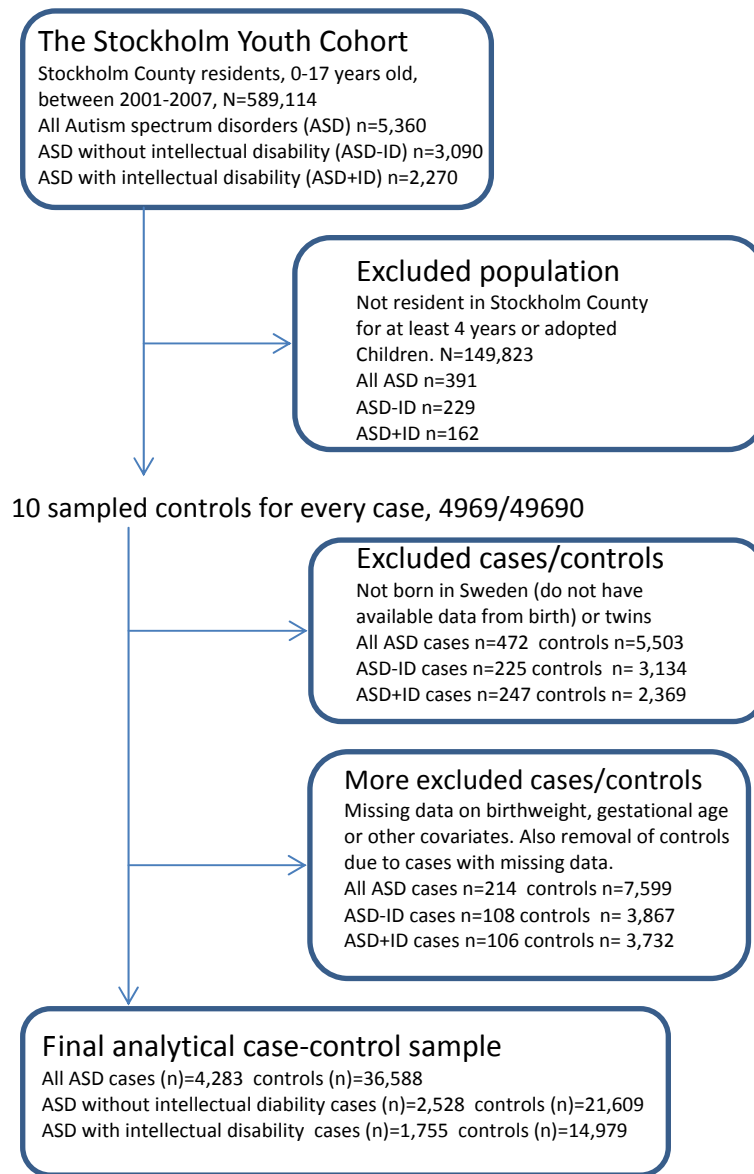


Table 1a Characteristics of autism spectrum disorder with intellectual disability (ASD+ID) cases and controls in the Stockholm Youth Cohort

Characteristic	CASES (N=1,755)		CONTROLS (N=14,979)		P-value ^a
	n	%	n	%	
<i>Birth weight (g):</i>					
500-2499	110	6.3	465	3.1	
2500-4499	1572	89.6	13,984	93.4	<0.001
4500+	73	4.2	530	3.5	
<i>Gestational age (weeks):</i>					
<33	40	2.3	98	0.7	
33-36	98	5.6	622	4.2	<0.001
37-41	1448	82.5	13,026	87.0	
42+	169	9.6	1233	8.2	
<i>Parental psychiatric history:</i>					
Mother admitted	194	11.1	1013	6.8	<0.001
Father admitted	190	10.8	1049	7.0	<0.001
<i>Household income:</i>					
Lowest 2 quintiles	792	45.1	5422	36.2	<0.001
<i>Occupational social class:</i>					
Unskilled manual worker	311	17.7	2065	13.8	<0.001
<i>Mother's region of birth</i>					
Sweden	1226	69.9	11,699	78.1	
Other	529	30.1	3280	21.9	<0.001
<i>Maternal gestational diabetes:</i>	8	0.5	48	0.3	=0.35
<i>Gestational hypertension:</i>	5	0.3	49	0.3	=0.77
<i>Congenital malformation:</i>	111	6.3	439	2.9	<0.001
		Mean		Mean	P-value
<i>Mean age at delivery:</i>					
Mother		29.9		29.5	<0.01
Father		33.3		32.3	<0.001

^a For variables with multiple categories, the p-value reported is the overall value across all categories

Table 1b Characteristics of autism spectrum disorder without intellectual disability (ASD-ID) cases and controls in the Stockholm Youth Cohort

Characteristic	CASES (N=2,528)		CONTROLS (N=21,609)		P-value ^a
	n	%	n	%	
<i>Birth weight (g):</i>					
500-2499	129	5.1	689	3.2	
2500-4499	2287	90.5	20,127	93.1	<0.001
4500+	112	4.4	793	3.7	
<i>Gestational age (weeks):</i>					
<33	36	1.4	193	0.9	
33-36	127	5.0	864	4.0	<0.01
37-41	2136	84.5	18,703	86.6	
42+	229	9.1	1849	8.6	
<i>Parental psychiatric history:</i>					
Mother admitted	342	13.5	1508	7.0	<0.001
Father admitted	289	11.4	1445	6.7	<0.001
<i>Household income:</i>					
Lowest 2 quintiles	954	37.7	7751	35.9	=0.06
<i>Occupational social class:</i>					
Unskilled manual worker	444	17.6	2968	13.7	<0.001
<i>Mother's region of birth</i>					
Sweden	2082	82.4	16,749	77.5	
Other	446	17.6	4860	22.5	<0.001
<i>Maternal gestational diabetes:</i>	13	0.5	89	0.4	=0.45
<i>Gestational hypertension:</i>	7	0.3	61	0.3	=0.96
<i>Congenital malformation:</i>	107	4.2	615	2.8	<0.001
		Mean		Mean	P-value
<i>Mean age at delivery:</i>					
Mother		29.4		29.4	=0.89
Father		32.2		32.4	=0.38

^a For variables with multiple categories, the p-value reported is the overall value across all categories

Table 2a Relative risk of autism spectrum disorder (ASD) by fetal growth z-score: Girls

Fetal growth z-score	CASES (N=4283)		CONTROLS (N=36,588)		Univariate:		Multivariate:	
	n	%	n	%	Odds Ratio	(95% CI)	Adjusted OR ^a	(95% CI)
< -2.00	53	4.6	291	2.9	1.70	(1.24-2.32)	1.58	(1.15-2.17)
-1.51 to -2.00	61	5.2	471	4.7	1.20	(0.90-1.60)	1.18	(0.88-1.57)
-1.01 to -1.50	133	11.4	1020	10.2	1.20	(0.98-1.48)	1.22	(0.99-1.50)
-0.51 to -1.00	180	15.5	1660	16.6	1.00	(0.84-1.21)	1.02	(0.84-1.22)
-0.50 to 0.50 (ref.)	420	36.1	3886	39.0	1.00	-	1.00	-
0.51 to 1.00	125	10.7	1268	12.7	0.91	(0.74-1.12)	0.91	(0.73-1.12)
1.01 to 1.50	88	7.6	727	7.3	1.12	(0.88-1.44)	1.09	(0.86-1.40)
1.51 to 2.00	48	4.1	363	3.6	1.23	(0.90-1.69)	1.21	(0.88-1.67)
> 2.00	55	4.7	284	2.8	1.80	(1.32-2.44)	1.71	(1.26-2.34)

^a Odds ratio adjusted for maternal age, paternal age, parental psychiatric admission (pre-birth), family income at birth, occupational status at birth, mother's country of birth (region), maternal gestational diabetes, gestational hypertension, congenital malformation in the child

Table 2b Relative risk of autism spectrum disorder (ASD) by fetal growth z-score: Boys

Fetal growth z-score	CASES (N=4283)		CONTROLS (N=36,588)		Univariate:		Multivariate:	
	n	%	n	%	Odds Ratio	(95% CI)	Adjusted OR ^a	(95% CI)
< -2.00	142	4.6	664	2.5	1.90	(1.57-2.30)	1.76	(1.45-2.14)
-1.51 to -2.00	169	5.4	1183	4.4	1.26	(1.06-1.50)	1.23	(1.04-1.47)
-1.01 to -1.50	308	9.9	2553	9.6	1.07	(0.94-1.22)	1.04	(0.91-1.19)
-0.51 to -1.00	497	15.9	4270	16.0	1.02	(0.91-1.14)	1.02	(0.91-1.14)
-0.50 to 0.50 (ref.)	1173	37.6	10,324	38.8	1.00	-	1.00	-
0.51 to 1.00	379	12.1	3620	13.3	0.92	(0.82-1.04)	0.92	(0.81-1.04)
1.01 to 1.50	220	7.1	2224	8.4	0.87	(0.75-1.01)	0.86	(0.73-1.00)
1.51 to 2.00	103	3.3	1016	3.8	0.90	(0.73-1.11)	0.88	(0.72-1.10)
> 2.00	129	4.1	764	2.9	1.48	(1.22-1.81)	1.41	(1.16-1.73)

^a Odds ratio adjusted for maternal age, paternal age, parental psychiatric admission (pre-birth), family income at birth, occupational status at birth, mother's country of birth (region), maternal gestational diabetes, gestational hypertension, congenital malformation in the child