

Supplemental Information

SUPPLEMENTAL TABLE 5 Associations Between Gestational Age at Birth (1973–2013) and Risk of ASD With or Without Intellectual Disability (1987–2015), Sweden

	Cases, <i>n</i>	Prevalence, ^a %	Unadjusted PR (95% CI)	Adjusted ^b PR (95% CI)	<i>P</i>	Unadjusted PD (95% CI)	AF ₀ , %	PAF, ^d %
ASD with intellectual disability								
Preterm (<37 wk)	1015	0.5	2.32 (2.17–2.48)	2.02 (1.89–2.17)	<.001	0.3 (0.3–0.3)	57.7	8.0
Extremely preterm (22–27 wk)	102	2.0	8.99 (7.41–10.91)	7.38 (6.07–8.96)	<.001	1.8 (1.4–2.2)	91.7	1.5
Very to moderate preterm (28–33 wk)	275	0.7	3.10 (2.75–3.49)	2.61 (2.31–2.94)	<.001	0.5 (0.4–0.6)	69.2	2.9
Late preterm (34–36 wk)	638	0.4	1.89 (1.74–2.05)	1.68 (1.54–1.82)	<.001	0.2 (0.2–0.2)	47.3	4.4
Early term (37–38 wk)	2163	0.3	1.35 (1.29–1.42)	1.25 (1.19–1.31)	<.001	0.1 (0.1–0.1)	28.7	7.3
Term (39–41 wk)	6300	0.2	Reference	Reference	—	Reference	—	—
Postterm (≥42 wk)	833	0.2	1.10 (1.03–1.19)	1.14 (1.06–1.22)	<.001	0.0 (0.0–0.0)	1.1	0.1
Per additional week (trend)	—	—	0.89 (0.88–0.89)	0.91 (0.90–0.91)	<.001	—	—	—
ASD without intellectual disability								
Preterm (<37 wk)	3132	1.6	1.43 (1.37–1.48)	1.28 (1.23–1.32)	<.001	0.5 (0.4–0.5)	31.2	2.8
Extremely preterm (22–27 wk)	209	4.1	3.66 (3.20–4.18)	3.15 (2.76–3.59)	<.001	3.0 (2.5–3.5)	79.7	0.5
Very to moderate preterm (28–33 wk)	748	1.9	1.66 (1.56–1.80)	1.46 (1.35–1.56)	<.001	0.8 (0.6–0.9)	43.2	1.0
Late preterm (34–36 wk)	2175	1.4	1.28 (1.23–1.34)	1.16 (1.11–1.21)	<.001	0.3 (0.3–0.4)	22.4	1.4
Early term (37–38 wk)	9288	1.3	1.15 (1.13–1.18)	1.10 (1.07–1.12)	<.001	0.2 (0.1–0.2)	16.7	3.8
Term (39–41 wk)	31 640	1.1	Reference	Reference	—	Reference	—	—
Postterm (≥42 wk)	4033	1.2	1.06 (1.03–1.10)	1.07 (1.03–1.10)	<.001	0.1 (0.0–0.1)	4.6	0.5
Per additional week (trend)	—	—	0.95 (0.95–0.96)	0.97 (0.96–0.97)	<.001	—	—	—

—, not applicable.

^a Cumulative prevalence.

^b Adjusted for birth year, sex, birth order, maternal factors (age, education, BMI, preeclampsia, other hypertensive disorders, and diabetes), paternal factors (age and education), and family history of ASD.

SUPPLEMENTAL TABLE 6 Interactions Between Gestational Age at Birth and Fetal Growth (1973–2013) in Relation to Risk of ASD (1987–2015), Sweden

	Gestational Age at Birth						PRs (95% CI) for Preterm Versus Term Within Fetal Growth Strata	PRs (95% CI) for Early Term Versus Term Within Fetal Growth Strata
	Term (39–41 wk)		Early Term (37–38 wk)		Preterm (<37 wk)			
	Prevalence ^a (Cases), % (n)	PR (95% CI) ^b	Prevalence ^a (Cases), % (n)	PR (95% CI) ^b	Prevalence ^a (Cases), % (n)	PR (95% CI) ^b		
Fetal growth								
AGA	1.3 (29 578)	Reference	1.5 (8941)	1.12 (1.09, 1.14); <i>P</i> < .001	2.0 (53 523)	1.40 (1.35, 1.45); <i>P</i> < .001	1.12 (1.09, 1.14); <i>P</i> < .001	1.40 (1.35, 1.45); <i>P</i> < .001
SGA	1.6 (39 004)	1.26 (1.22, 1.30); <i>P</i> < .001	2.2 (10 166)	1.60 (1.50, 1.70); <i>P</i> < .001	2.9 (492)	1.95 (1.79, 2.13); <i>P</i> < .001	1.27 (1.18, 1.36); <i>P</i> < .001	1.55 (1.41, 1.70); <i>P</i> < .0001
PRs (95% CI) for SGA versus AGA within gestational age strata	—	1.26 (1.22, 1.30); <i>P</i> < .001	—	1.43 (1.34, 1.52); <i>P</i> < .001	—	1.40 (1.27, 1.53); <i>P</i> < .001	—	—
Interaction on additive scale: RERI (95% CI)	—	—	—	0.22 (0.11, 0.33); <i>P</i> < .001	—	0.30 (0.12, 0.48); <i>P</i> = .001	—	—
Interaction on multiplicative scale: PR ratio (95% CI)	—	—	—	1.14 (1.05, 1.22); <i>P</i> = .001	—	1.11 (1.00, 1.22); <i>P</i> = .05	—	—

RERI, relative excess risk due to interaction; —, not applicable.

^a Cumulative prevalence.^b Adjusted for birth year, sex, birth order, maternal factors (age, education, BMI, preeclampsia, other hypertensive disorders, and diabetes), paternal factors (age and education), and family history of ASD.

SUPPLEMENTAL TABLE 7 Associations Between Gestational Age at Birth (1973–2013) and Risk of ASD (1987–2015), Stratified by Birth Decade, Sweden

	Adjusted PR (95% CI) ^a	P
Born in 1973–1979		
Preterm (<37 wk)	1.44 (1.27–1.63)	<.001
Extremely preterm (22–27 wk)	2.06 (0.77–5.46)	.15
Very to moderate preterm (28–33 wk)	1.68 (1.31–2.17)	<.001
Late preterm (34–36 wk)	1.37 (1.19–1.58)	<.001
Early term (37–38 wk)	1.18 (1.08–1.28)	<.001
Term (39–41 wk)	Reference	—
Postterm (≥42 wk)	1.10 (1.01–1.21)	.03
Per additional week (trend)	0.97 (0.95–0.98)	<.001
Born in 1980–1989		
Preterm (<37 wk)	1.37 (1.28–1.47)	<.001
Extremely preterm (22–27 wk)	4.80 (3.73–6.18)	<.001
Very to moderate preterm (28–33 wk)	1.70 (1.49–1.93)	<.001
Late preterm (34–36 wk)	1.21 (1.12–1.31)	<.001
Early term (37–38 wk)	1.11 (1.06–1.16)	<.001
Term (39–41 wk)	Reference	—
Postterm (≥42 wk)	1.09 (1.02–1.16)	.01
Per additional week (trend)	0.96 (0.95–0.96)	<.001
Born in 1990–1999		
Preterm (<37 wk)	1.37 (1.30–1.44)	<.001
Extremely preterm (22–27 wk)	3.41 (2.87–4.05)	<.001
Very to moderate preterm (28–33 wk)	1.50 (1.36–1.66)	<.001
Late preterm (34–36 wk)	1.25 (1.18–1.33)	<.001
Early term (37–38 wk)	1.11 (1.08–1.15)	<.001
Term (39–41 wk)	Reference	—
Postterm (≥42 wk)	1.09 (1.04–1.15)	<.001
Per additional week (trend)	0.96 (0.95–0.97)	<.001
Born in 2000–2009		
Preterm (<37 wk)	1.41 (1.33–1.49)	<.001
Extremely preterm (22–27 wk)	3.75 (3.14–4.48)	<.001
Very to moderate preterm (28–33 wk)	1.68 (1.50–1.88)	<.001
Late preterm (34–36 wk)	1.21 (1.12–1.30)	<.001
Early term (37–38 wk)	1.11 (1.06–1.15)	<.001
Term (39–41 wk)	Reference	—
Postterm (≥42 wk)	1.06 (1.00–1.12)	.045
Per additional week (trend)	0.95 (0.94–0.96)	<.001
Born in 2010–2013		
Preterm (<37 wk)	1.55 (1.30–1.85)	<.001
Extremely preterm (22–27 wk)	3.67 (2.12–6.37)	<.001
Very to moderate preterm (28–33 wk)	2.00 (1.45–2.74)	<.001
Late preterm (34–36 wk)	1.32 (1.06–1.64)	.01
Early term (37–38 wk)	1.30 (1.16–1.45)	<.001
Term (39–41 wk)	Reference	—
Postterm (≥42 wk)	0.94 (0.78–1.13)	.52
Per additional week (trend)	0.92 (0.90–0.94)	<.001

—, not applicable.

^a Adjusted for birth year, sex, birth order, maternal factors (age, education, BMI, preeclampsia, other hypertensive disorders, and diabetes), paternal factors (age and education), and family history of ASD.