Supplemental material

Table S1. Sensitivity analyses

Model	Estimated risk of ADHD in infants born just before *vs* just after 34+0 weeks gestation	
	Rate ratio [95% CI]	**Excess cases per 100 births by age 13[a] [95% CI]**
At least one dispensation (primary analysis)	1.12 [0.80, 1.57]	1.3 [-2.5, 5.7]
Multiple dispensations	1.14 [0.74, 1.68]	1.3 [-3.1, 5.6]
Adjusting for male sex[b]	1.11 [0.75, 1.55]	1.1 [-1.6, 3.5]
14-day window	1.29 [0.85, 1.92]	2.9 [-1.7, 8.5]
7-day window	2.45 [1.30, 4.44]	12.0 [3.2, 25.2]
Model-selected optimal age window[c]	-	0.8 [-3.3, 4.9]
[a]absolute difference in cumulative risk by age 13 [b]further inclusion of an interaction term between male sex and pre/post discontinuity status was not statistically significant (p-value 0.38, calculated from the bootstrapped confidence intervals using the approach of Altman & Bland *BMJ.* 2011;343:d2304. [c]linear regression model for at least one dispensation at any point in follow-up, model-selected optimal window of 5.3 days		

Figure S1. Illustration of the regression discontinuity design using the example of neonatal respiratory morbidity/mortality among 16,358 children in British Columbia, Canada, admitted for the delivery admission just before and just after the clinical cut-off for antenatal corticosteroid administration of 34+0 weeks, 2000-2013. Light grey shading indicates the gestational ages in which routine antenatal corticosteroid administration is recommended. Circles indicate observed day-specific values, solid line indicates the smoothed estimate of risk from the regression discontinuity model, and dashed line indicates the risk in neonatal respiratory morbidity/mortality in the absence of any change in antenatal corticosteroid administration practices at 34+0 weeks. The effect of antenatal corticosteroid administration is estimated as the difference between the solid and dashed lines at 34+0 weeks.
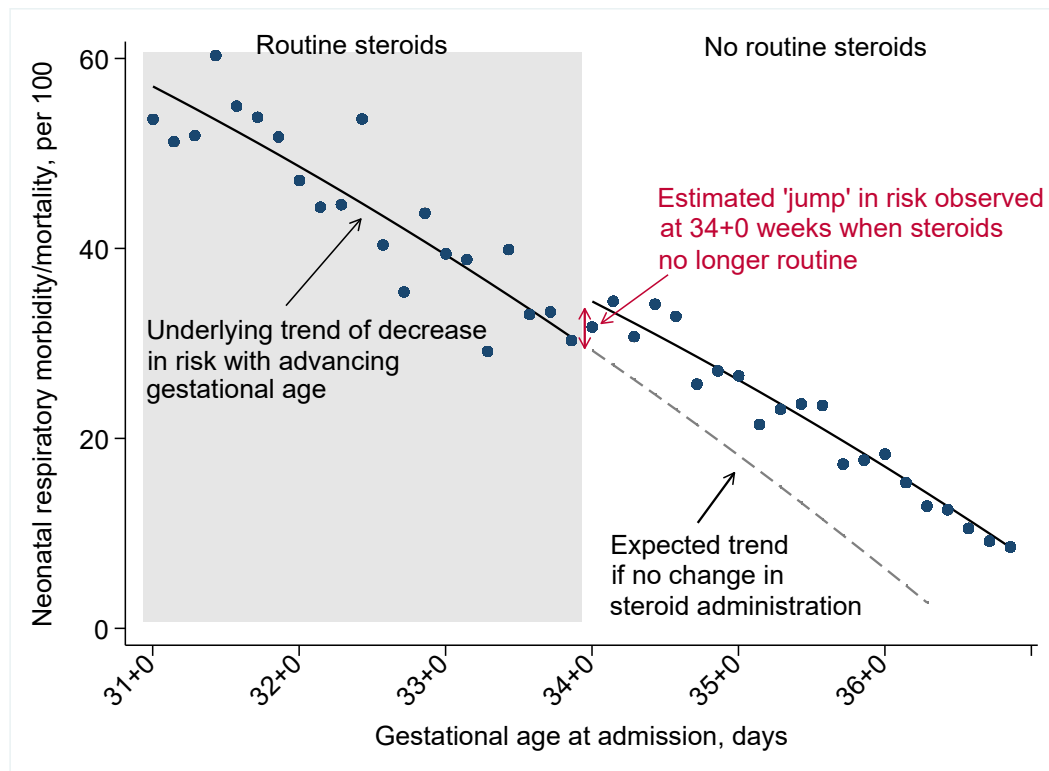
Figure S2. Maternal and fetal characteristics by day of gestation. Vertical dashed line indicates 34+0 weeks' gestation.
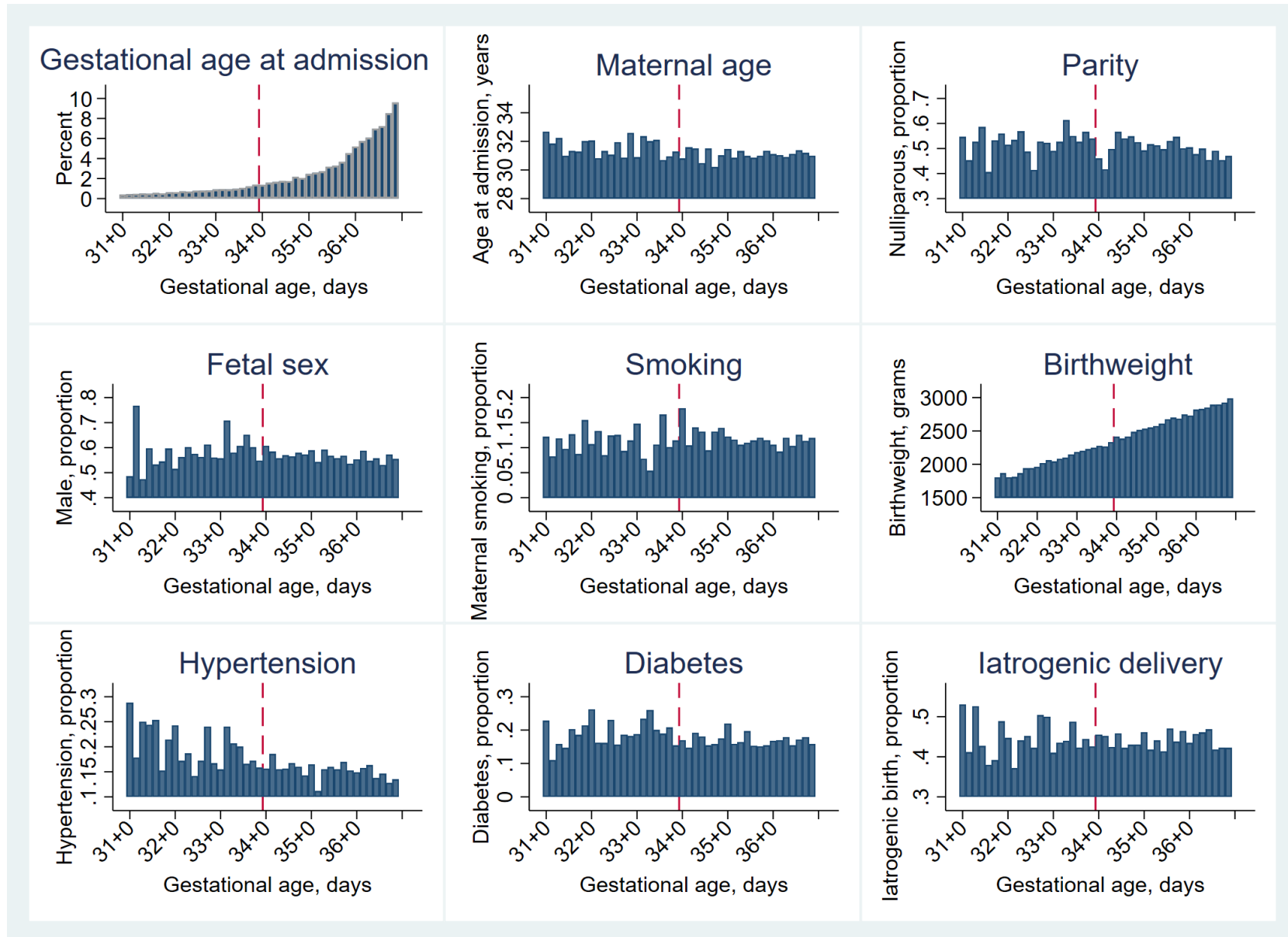
Figure S3. Regression discontinuity estimates when limiting the gestational age window to 7 days.