



Supporting Information

Supplementary methods and tables

**This appendix was part of the submitted manuscript and has been peer reviewed.
It is posted as supplied by the authors.**

Appendix to: Grzeskowiak LE, Grieger JA, Andraweera P, et al. The deleterious effects of cannabis during pregnancy on neonatal outcomes. *Med J Aust* 2020; doi: 10.5694/mja2.50624.

Figure. Selection of participants for the Screening for Pregnancy Endpoints (SCOPE) study, 2004–2011

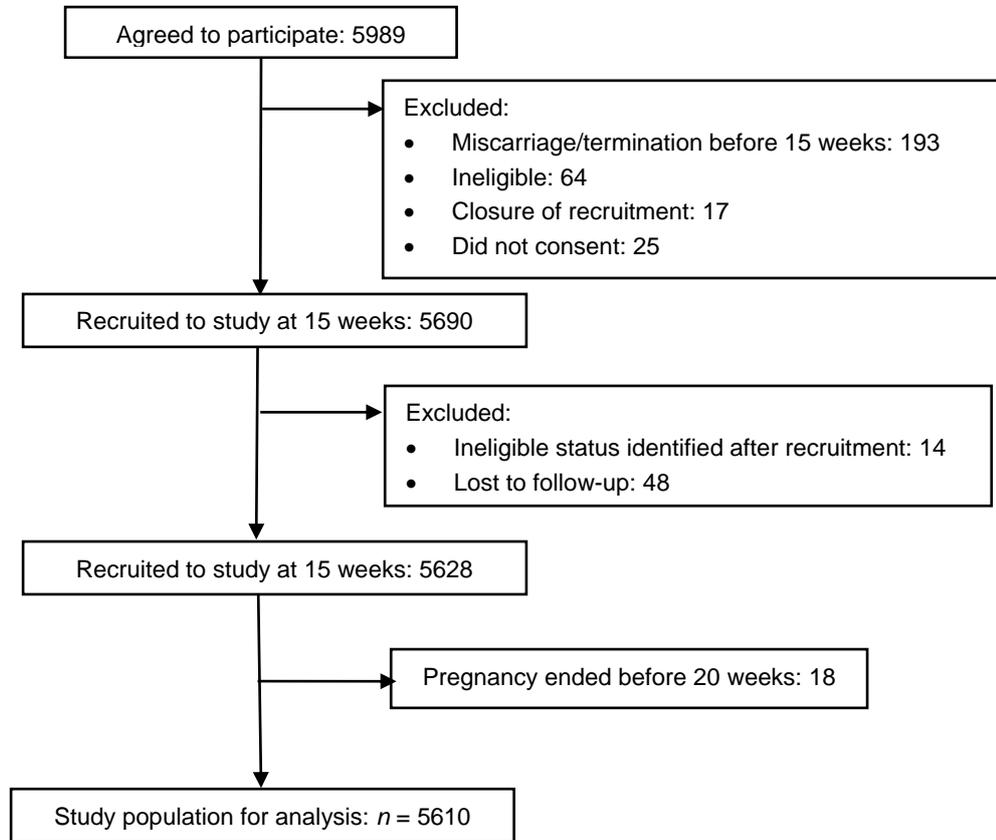


Table 1. Birthweight, head circumference, birth length, and gestational age of infants, by cannabis use of mothers: E-values

Outcome	Cannabis use			
	Never used (reference)	Continued use at 15 weeks		
	Mean (SD)	Mean (SD)	Adjusted mean difference (95%CI)	E-value [‡]
Birthweight (g)*	3410 (580)	2930 (797)	-127 (-238 to -17)	1.74
Head circumference (cm)*	34.7 (1.7)	33.2 (2.5)	-0.5 (-0.8 to -0.1)	1.88
Birth length (cm)*	50.3 (3.1)	47.0 (4.5)	-0.8 (-1.4 to -0.2)	1.82
Gestational age (days) [†]	278 (13)	270 (22)	-8.1 (-12.1 to -4.0)	2.58

CI = confidence interval; SD = standard deviation.

* Adjusted for maternal age, body mass index, socio-economic index score, cigarette smoking, country, alcohol use, binge alcohol consumption, illicit drug use, ethnic background, anxiety and depression scores at 15 weeks' gestation, infant sex, and gestational age at birth and gestational age squared.

† Adjusted for same factors, except gestational age at birth and gestational age squared.

‡ The E-value quantifies the extent of residual uncontrolled confounding that would be required to shift the difference in outcome for continued maternal cannabis use and adverse perinatal outcomes to zero;¹ calculated with the Stata package *eval_e*. As E-values are calculated on the risk ratio scale, corresponding mean differences can be estimated using back transformation, applying the following formula; $RR = \exp(0.91 \times \text{standardised mean difference})$.

1. VanderWeele TJ, Ding P. Sensitivity analysis in observational research: introducing the e-value. *Ann Int Med* 2017; 167: 268-274.

Table 2. Sensitivity analysis: birthweight, head circumference, birth length, and gestational age of infants, by cannabis use of mothers, adjusted for individual markers of socio-economic status (education status, employment status, income level) instead of socio-economic index score

Outcome	Cannabis use						
	Never used (reference)	Quit before pregnancy		Quit early in pregnancy		Continued use at 15 weeks	
	Mean (SD)	Mean (SD)	Adjusted mean difference (95% CI)	Mean (SD)	Adjusted mean difference (95% CI)	Mean (SD)	Adjusted mean difference (95% CI)
Birthweight (g)*	3410 (580)	3405 (569)	15 (-69 to 100)	3339 (687)	41 (-27 to 109)	2930 (797)	-121 (-232 to -11)
Head circumference (cm)*	34.7 (1.7)	34.9 (2.1)	0.3 (-0.1 to 0.5)	34.4 (2.3)	0.1 (-0.2 to 0.3)	33.2 (2.5)	-0.5 (-0.8 to -0.1)
Birth length (cm)*	50.3 (3.1)	50.7 (3.0)	0.1 (-0.4 to 0.5)	49.4 (3.7)	0.0 (-0.3 to 0.4)	47.0 (4.5)	-0.8 (-1.4 to -0.2)
Gestational age (days) [†]	278 (13)	278 (16)	-0.1 (-3.0 to 3.2)	276 (18)	-1.9 (-4.4 to 0.6)	270 (22)	-7.8 (-11.9 to -3.8)

CI = confidence interval; SD = standard deviation.

* Adjusted for maternal age, body mass index, education status, employment status, income level, cigarette smoking, country, alcohol use, binge alcohol consumption, illicit drug use, ethnic background, anxiety and depression scores at 15 weeks' gestation, infant sex, and gestational age at birth and gestational age squared.

† Adjusted for same factors, except gestational age at birth and gestational age squared.

Table 3. Sensitivity analysis: birthweight, head circumference, birth length, and gestational age of infants, by frequency of cannabis use by mothers during weeks 0–15 of pregnancy, adjusted for individual markers of socio-economic status (education status, employment status, income level) instead of socio-economic index score

Outcome	Frequency of cannabis use during weeks 0–15 of pregnancy		
	No more than once a week (reference)	More than once a week	
	Mean (SD)	Mean (SD)	Adjusted mean difference (95% CI)
Number of infants	109	108	
Birthweight (g)*	3390 (702)	3060 (745)	–206 (–346 to –66)
Head circumference (cm)*	34.6 (2.3)	33.5 (2.4)	–0.9 (–1.3 to –0.5)
Birth length (cm)*	49.8 (3.5)	47.7 (4.3)	–1.1 (–1.7 to –0.4)
Gestational age (days)†	276 (18)	273 (21)	–5.8 (–12.5 to 0.8)

CI = confidence interval; SD = standard deviation.

* Adjusted for maternal age, body mass index, education status, employment status, income level, cigarette smoking, country, alcohol use, binge alcohol consumption, illicit drug use, ethnic background, anxiety and depression scores at 15 weeks' gestation, infant sex, and gestational age at birth and gestational age squared.

† Adjusted for same factors, except gestational age at birth and gestational age squared.

Table 4. Sensitivity analysis: cannabis use during pregnancy and severe neonatal morbidity* or death, by cannabis use by mothers, adjusted for individual markers of socio-economic status (education status, employment status, income level) instead of socio-economic index score

Cannabis use	Severe neonatal morbidity or death		Odds ratio (95% CI)	
	No	Yes	Crude	Adjusted†
Never used	5136 (97)	160 (3)	1	1
Quit before pregnancy	94 (97)	3 (3)	1.02 (0.32–3.27)	1.42 (0.43–4.62)
Quit before 15 weeks	147 (94)	10 (6)	2.18 (1.13–4.22)	1.73 (0.84–3.55)
Continued use at 15 weeks	55 (92)	5 (8)	2.92 (1.15–7.39)	2.21 (0.80–6.10)
<i>P</i> (trend)			0.002	0.041

* For definition, see Methods.

† Adjusted for maternal age, body mass index, education status, employment status, income level, cigarette smoking, country, alcohol use, binge alcohol consumption, illicit drug use, ethnic background, anxiety and depression scores at 15 weeks' gestation, infant sex, and gestational age at birth and gestational age squared.