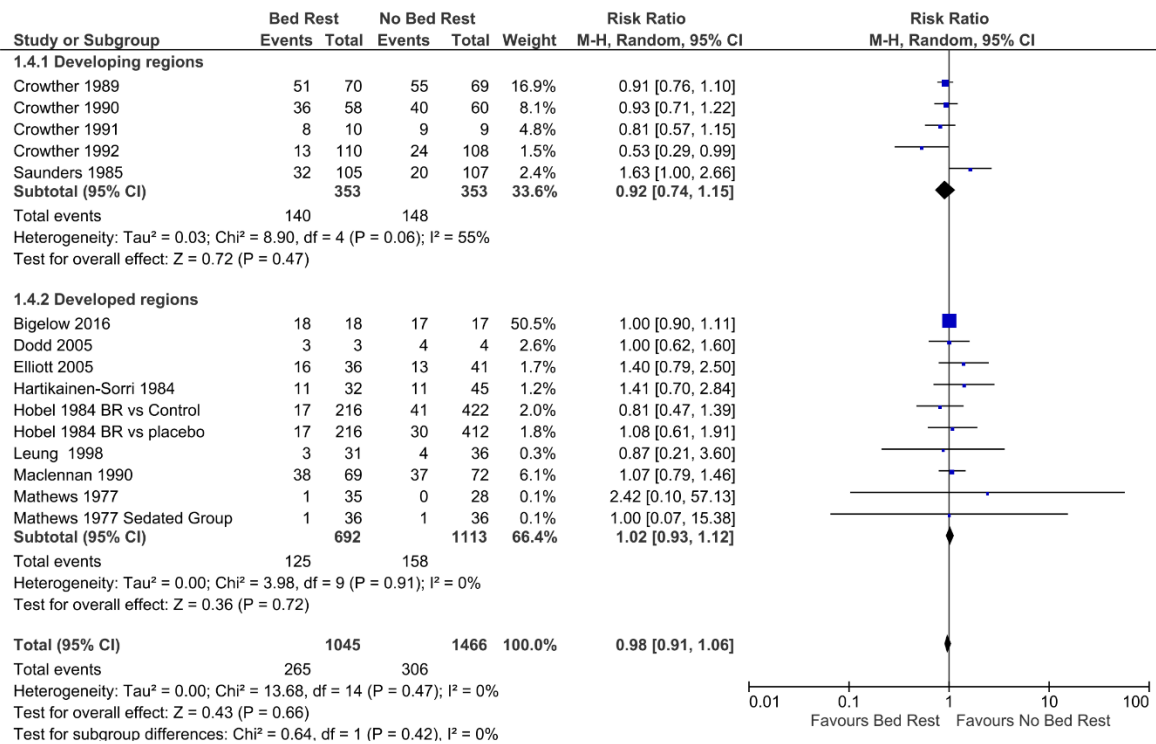
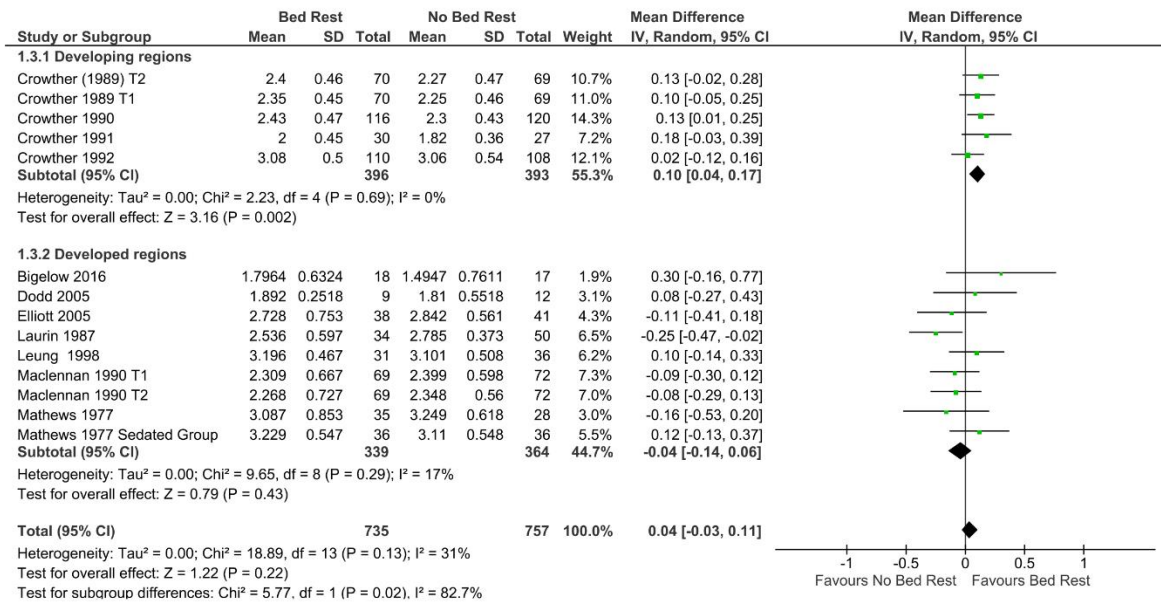


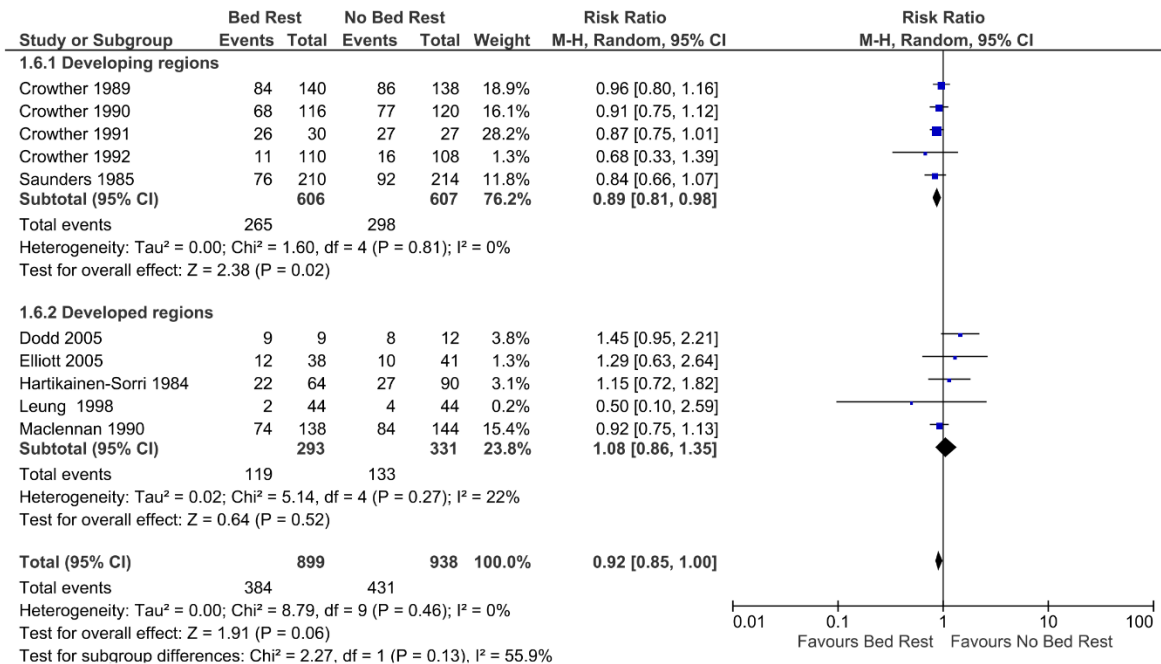
Appendix 2 (as supplied by the authors): Supplementary figures and tables



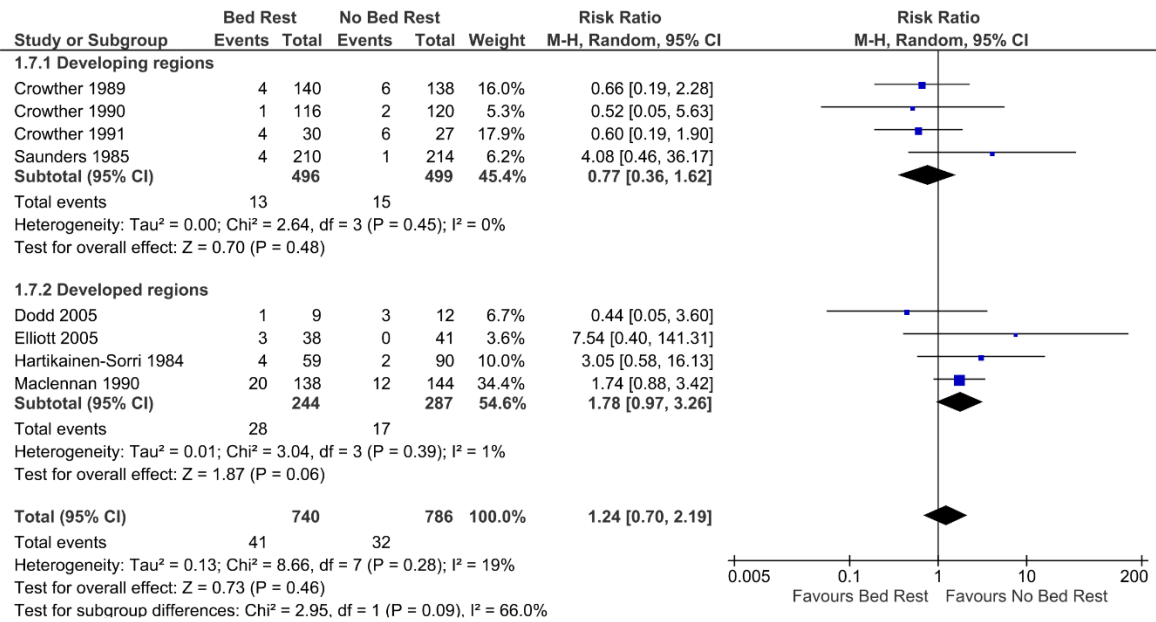
SUPPLEMENTARY FIGURE S1. Effect of bed rest (experimental) vs. non-bed rest (control) on premature birth <37 weeks. Bed rest did not significantly decrease the rate of premature birth in developing regions or developed regions. M-H-Mantel-Haenszel; 95% confidence interval = [95% CI].



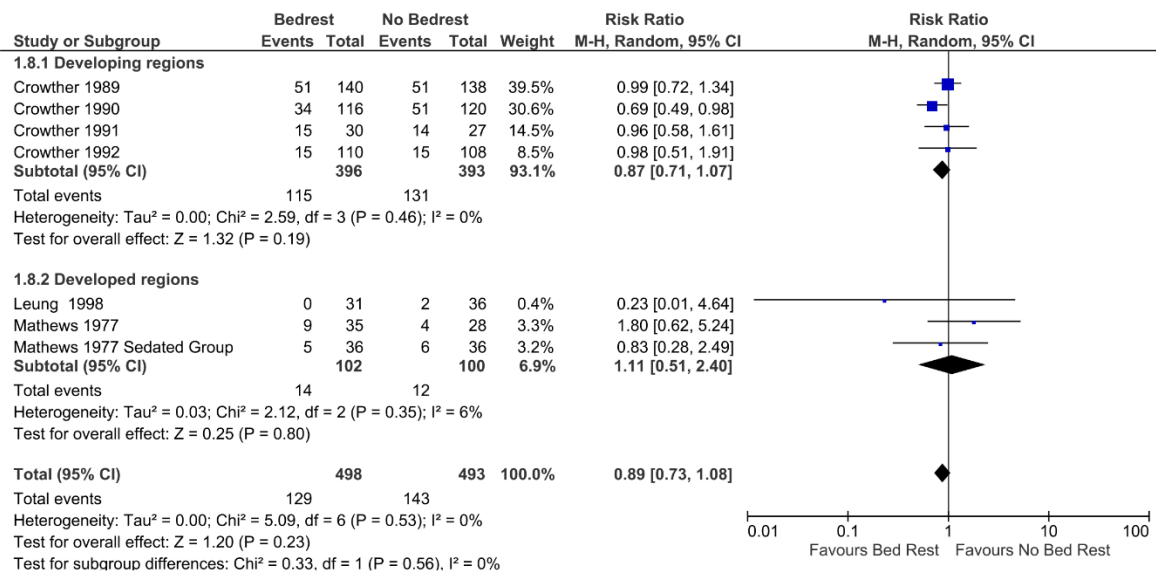
SUPPLEMENTARY FIGURE S2. Effect of Bed rest (experimental) vs. non-bed rest (control) on birthweight. Bed rest resulted in 100g increased in birth weight in developing regions. IV = inverse variance; 95% confidence interval = [95% CI].



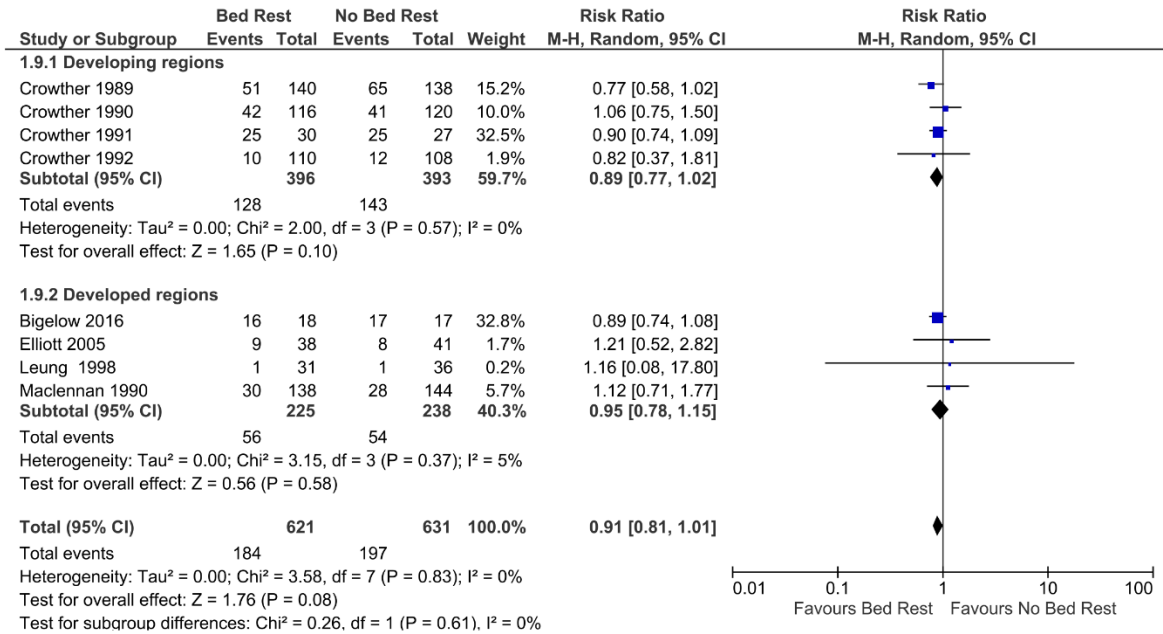
SUPPLEMENTARY FIGURE S3. Effect of bed rest (experimental) vs. non-bed rest (control) on birth weight <2500g. Bed rest significantly decrease the rate of birthweight <2500g in developing regions. M-H-Mantel-Haenszel; 95% confidence interval = [95% CI].



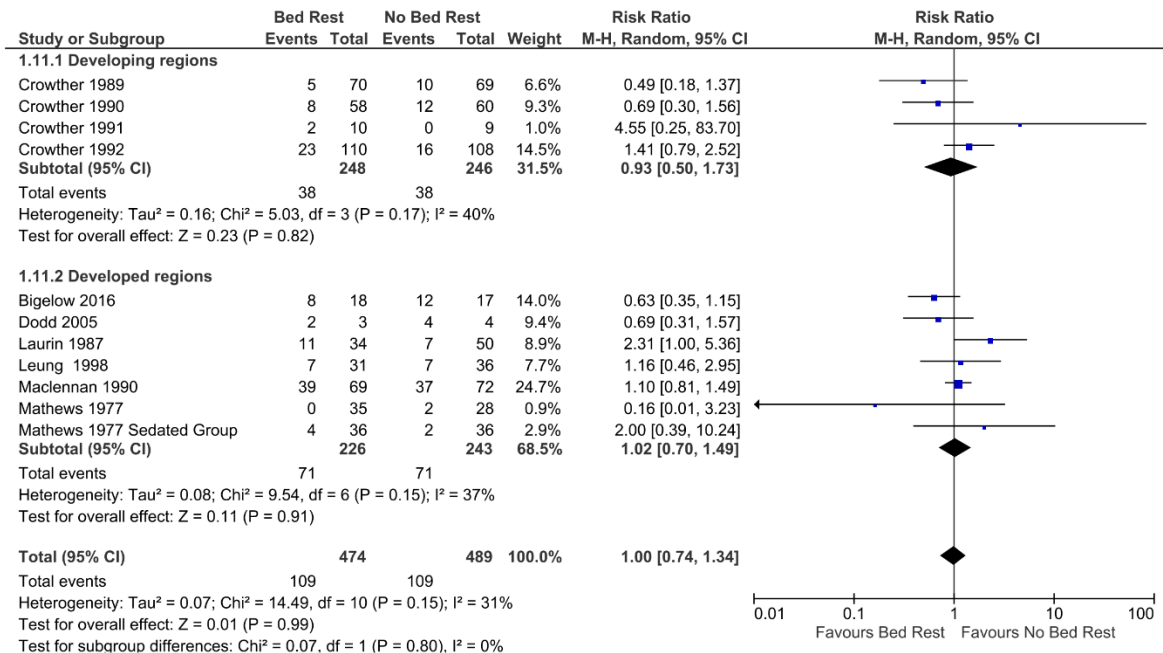
SUPPLEMENTARY FIGURE S4. Effect of bed rest (experimental) vs. non-bed rest (control) on birth weight <1500g. Bed rest did not significantly decrease the rate of birth weight <1500g in developing regions or developed regions. M-H-Mantel-Haenszel; 95% confidence interval = [95% CI].



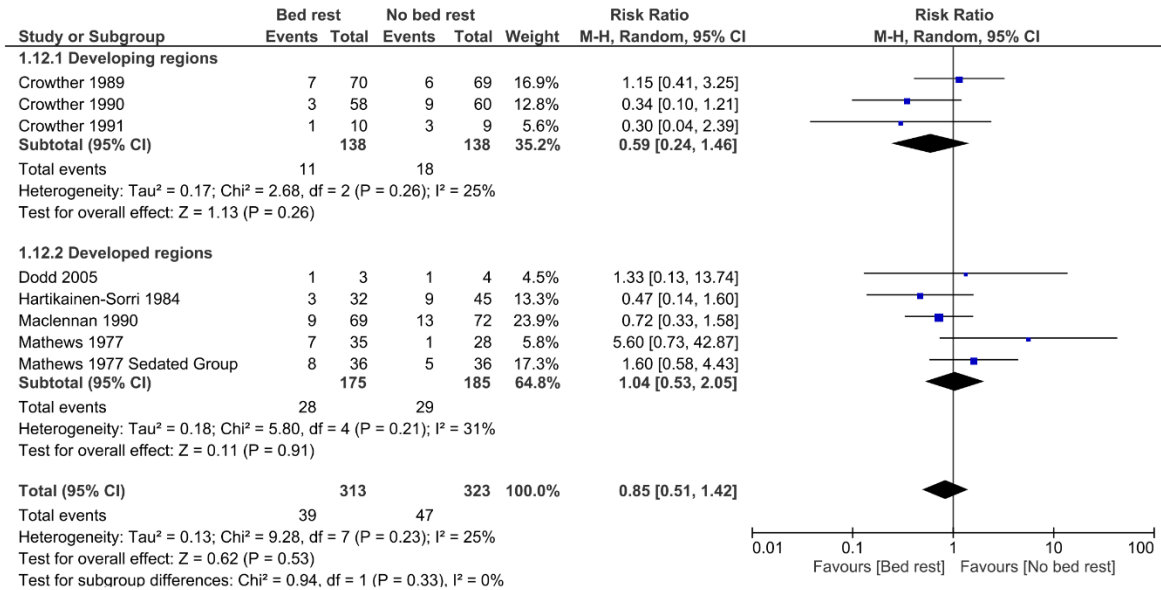
SUPPLEMENTARY FIGURE S5. Effect of bed rest (experimental) vs. non-bed rest (control) on small for gestational age (SGA). Bed rest did not significantly decrease the rate of SGA in developing regions or developed regions. M-H-Mantel-Haenszel; 95% confidence interval = [95% CI].



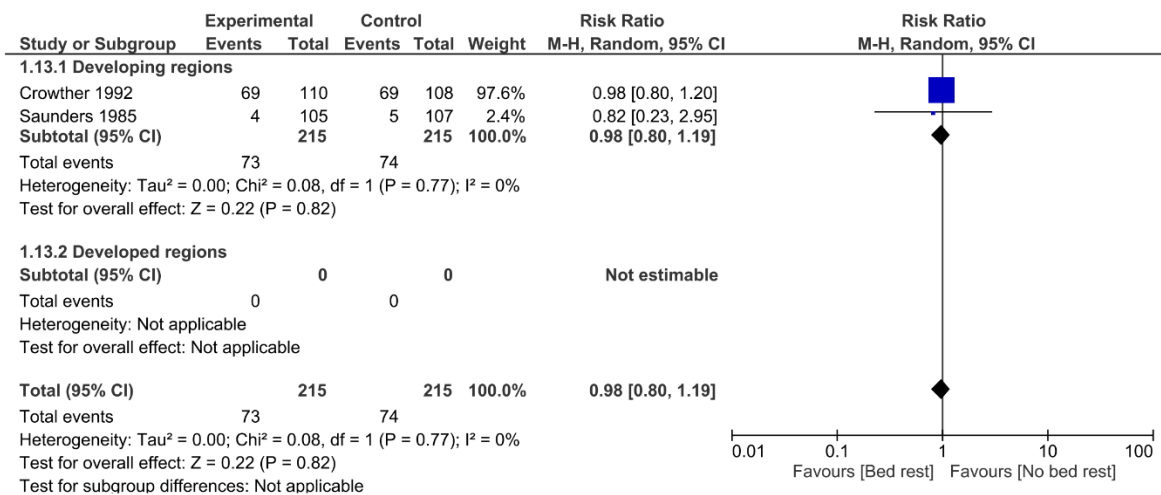
SUPPLEMENTARY FIGURE S6. Effect of bed rest (experimental) vs. non-bed rest (control) on admission to NICU. Bed rest did not significantly decrease the rate of admission to NICU in developing regions or developed regions. M-H-Mantel-Haenszel; 95% confidence interval = [95% CI].



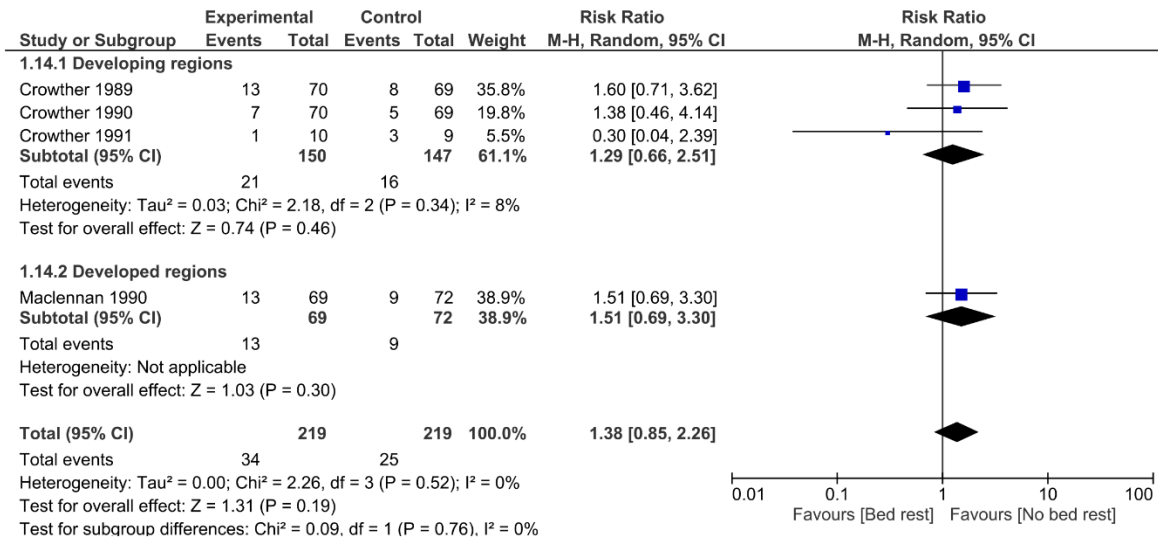
SUPPLEMENTARY FIGURE S7. Effect of bed rest (experimental) vs. non-bed rest (control) on C-section. Bed rest did not significantly decrease the rate of C-section in developing regions or developed regions. M-H-Mantel-Haenszel; 95% confidence interval = [95% CI].



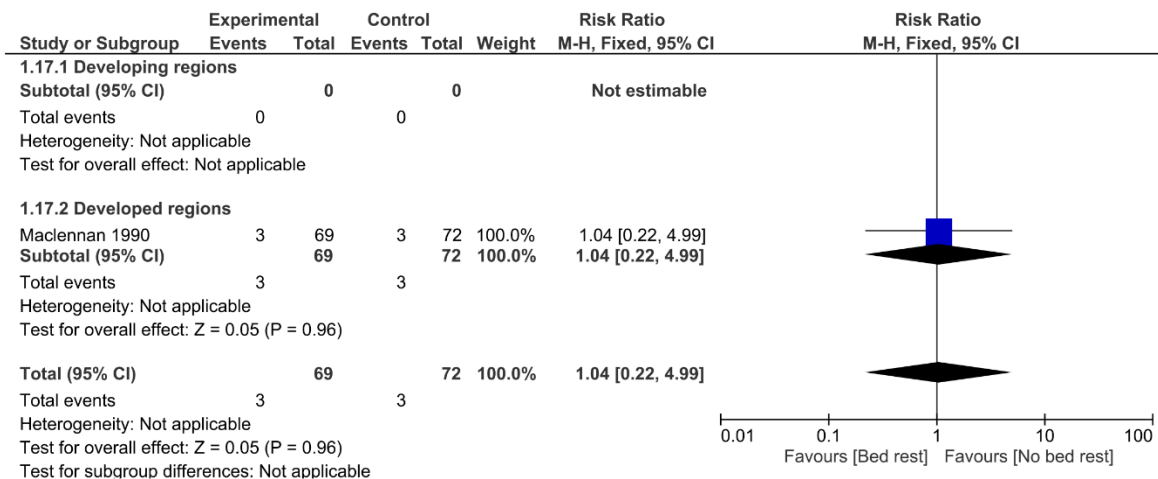
SUPPLEMENTARY FIGURE S8. Effect of bed rest (experimental) vs. non-bed rest (control) on pregnancy induced hypertension. Bed rest did not significantly decrease the rate of pregnancy induced hypertension in developing regions or developed regions. M-H-Mantel-Haenszel; 95% confidence interval = [95% CI].



SUPPLEMENTARY FIGURE S9. Effect of bed rest (experimental) vs. non-bed rest (control) on pre-eclampsia. Bed rest did not significantly decrease the rate of pre-eclampsia in developing regions. No studies were available on the rate of pre-eclampsia due to bed rest vs non-bed rest in developed regions. M-H-Mantel-Haenszel; 95% confidence interval = [95% CI].

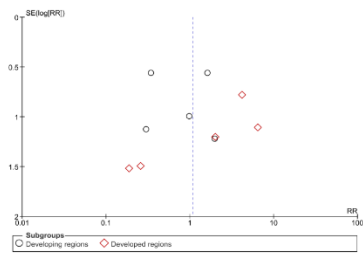


SUPPLEMENTARY FIGURE S10. Effect of bed rest (experimental) vs. non-bed rest (control) on premature rupture of membranes (PROM). Bed rest did not significantly decrease the rate of PROM in developing regions or developed regions. M-H-Mantel-Haenszel; 95% confidence interval = [95% CI].

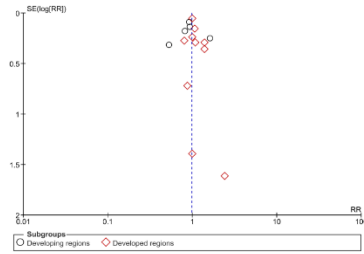


SUPPLEMENTARY FIGURE S11. Effect of bed rest (experimental) vs. non-bed rest (control) on gestational diabetes mellitus (GDM). Only one study with GDM as an outcome was available. Bed rest did not significantly influence the rate of GDM in this study. M-H-Mantel-Haenszel; 95% confidence interval = [95% CI].

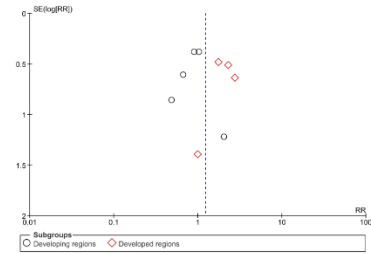
A. Perinatal Death



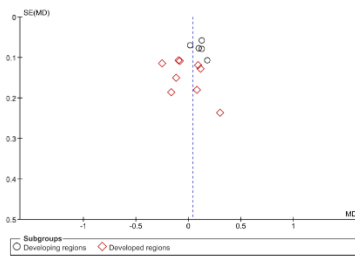
B. Premature Birth <37 weeks



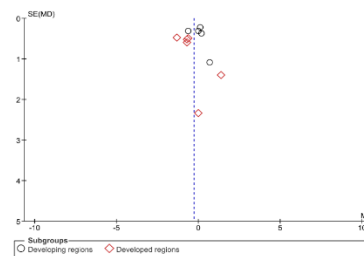
C. Very Premature Birth



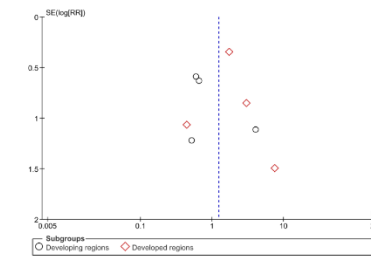
D. Birth Weight



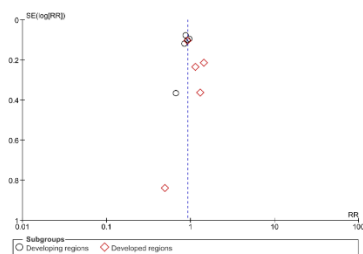
E. Gestational Age



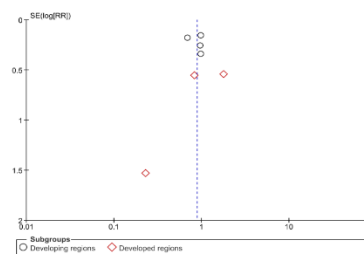
F. Birth Weight <1500g



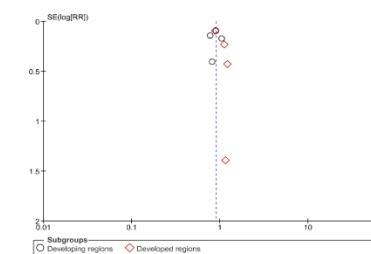
G. Birth Weight <2500g



H. SGA

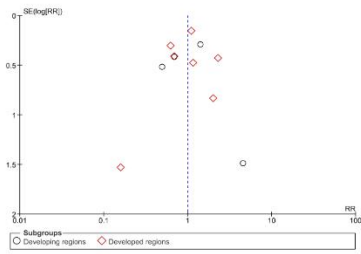


I. Admission to NICU

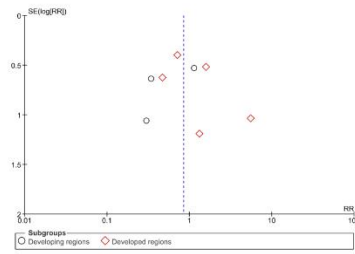


SUPPLEMENTARY FIGURE S12. Funnel plots of infant outcomes A) perinatal death; B) premature birth <37 weeks; C) very premature birth; D) birth weight; E) gestational age; F) birth weight <1500g; G) birth weight <2500g; H) small for gestational age(SGA); and I) admission to NICU following maternal prenatal bed rest.

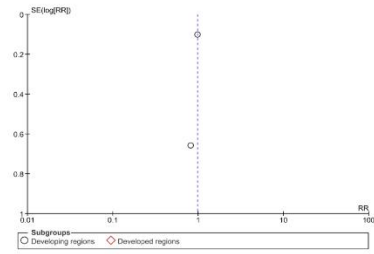
A. C-section



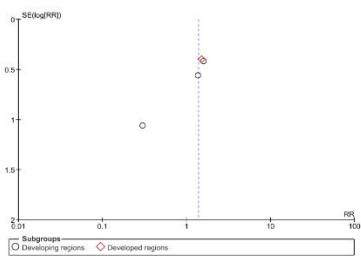
B. Pregnancy induced hypertension



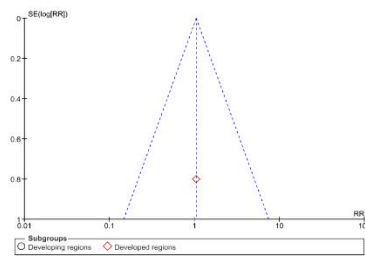
C. Pre-eclampsia



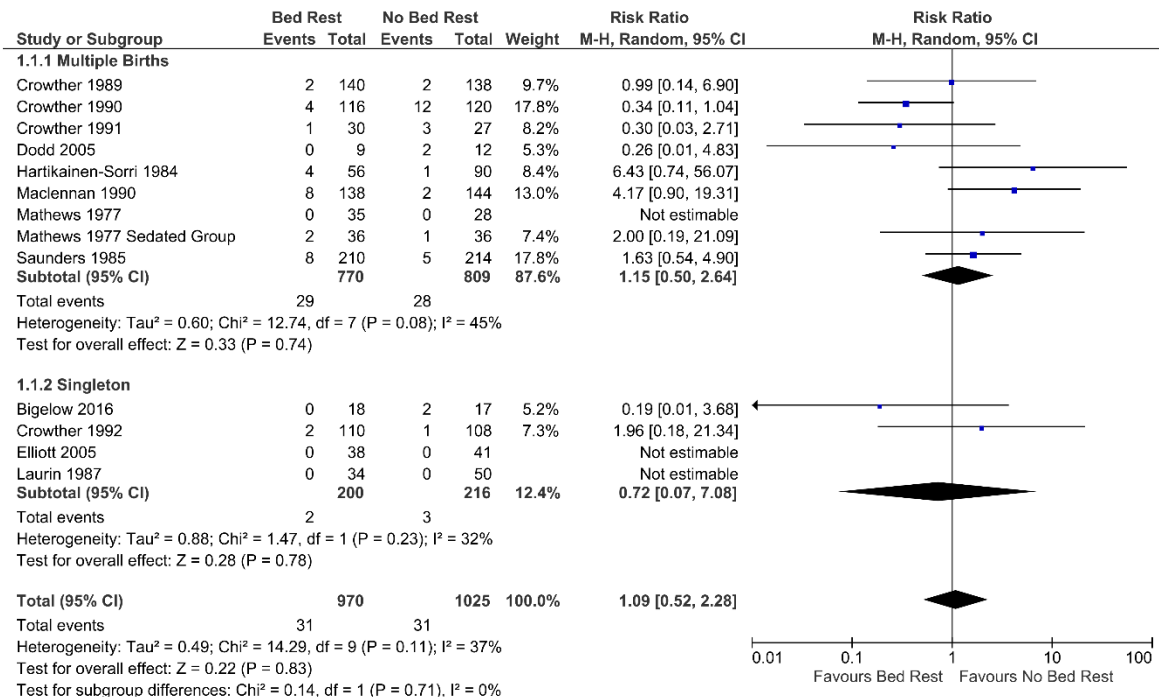
D. PROM



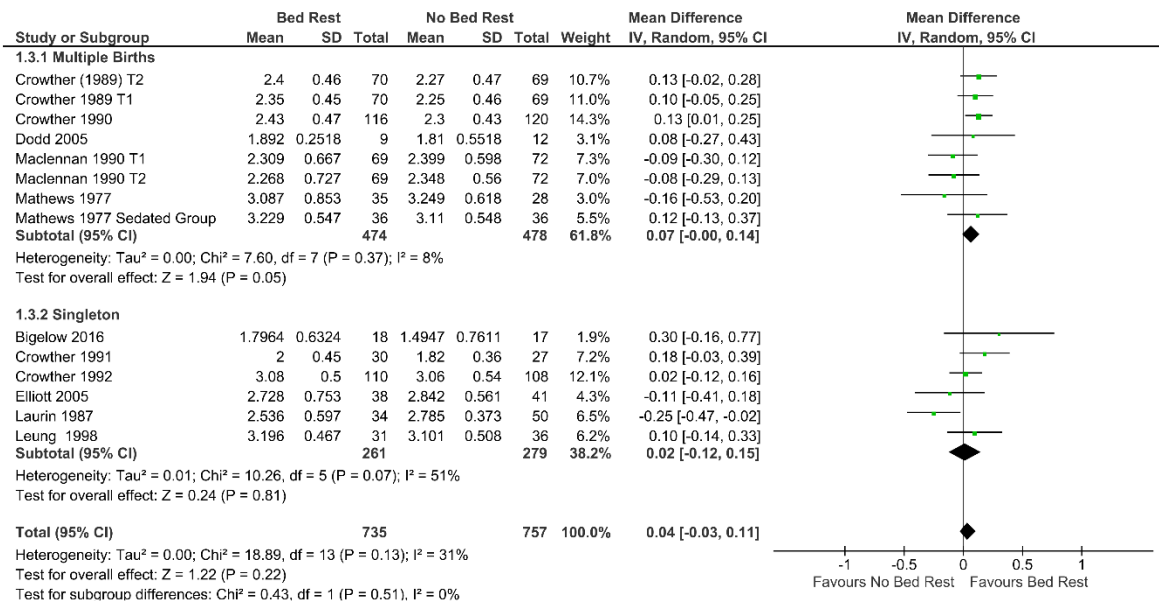
E. GDM



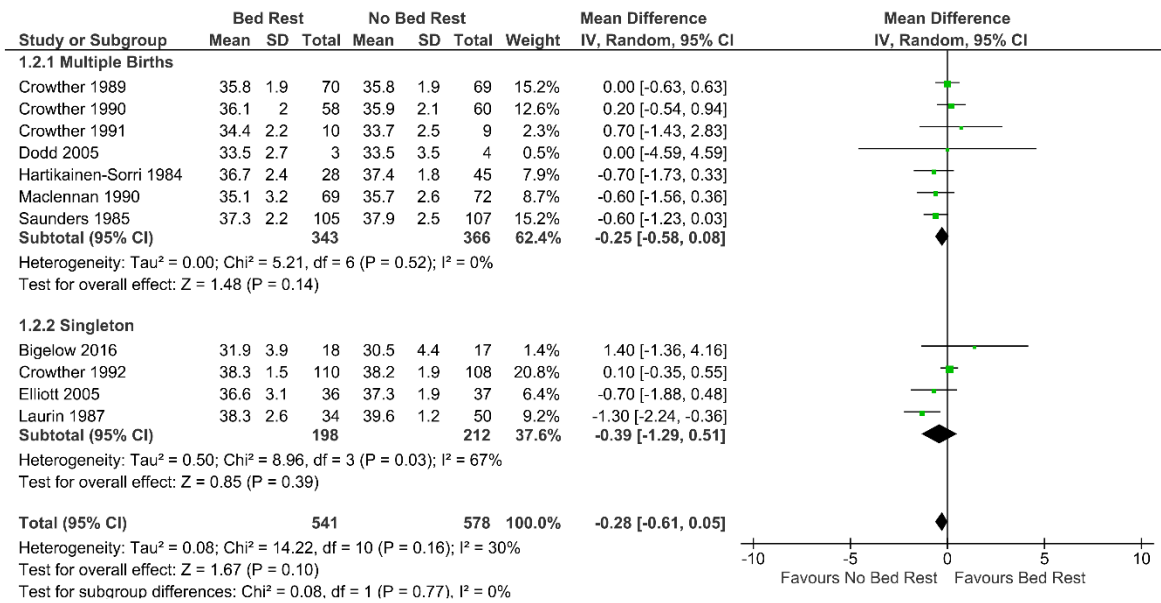
SUPPLEMENTARY FIGURE S13. Funnel plots of maternal outcomes A) c-section; B) pregnancy induced hypertension; C) pre-eclampsia; D) PROM; and E) GDM following maternal prenatal bed rest.



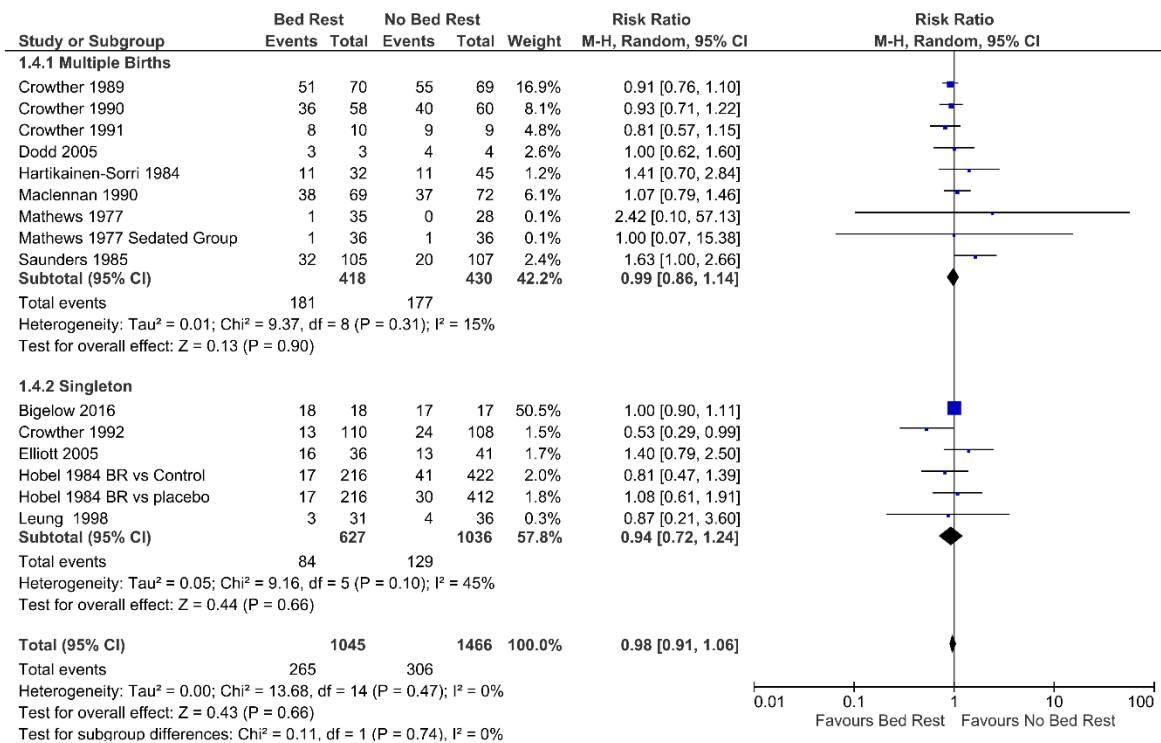
SUPPLEMENTARY FIGURE S14. Effect of bed rest (experimental) vs. non-bed rest (control) on perinatal death stratified by multiple versus singleton gestation. M-H = Mantel-Haenszel; 95% confidence interval = [95% CI].



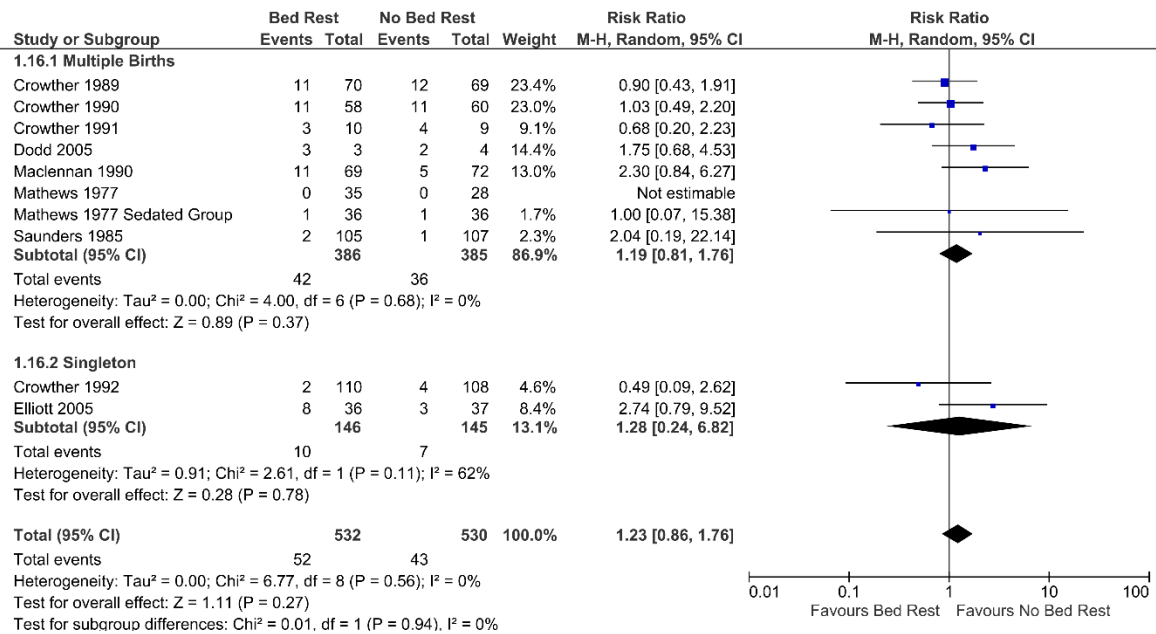
SUPPLEMENTARY FIGURE S15. Effect of bed rest (experimental) vs. non-bed rest (control) on birth weight stratified by multiple versus singleton gestation. IV = inverse variance; 95% confidence interval = [95% CI].



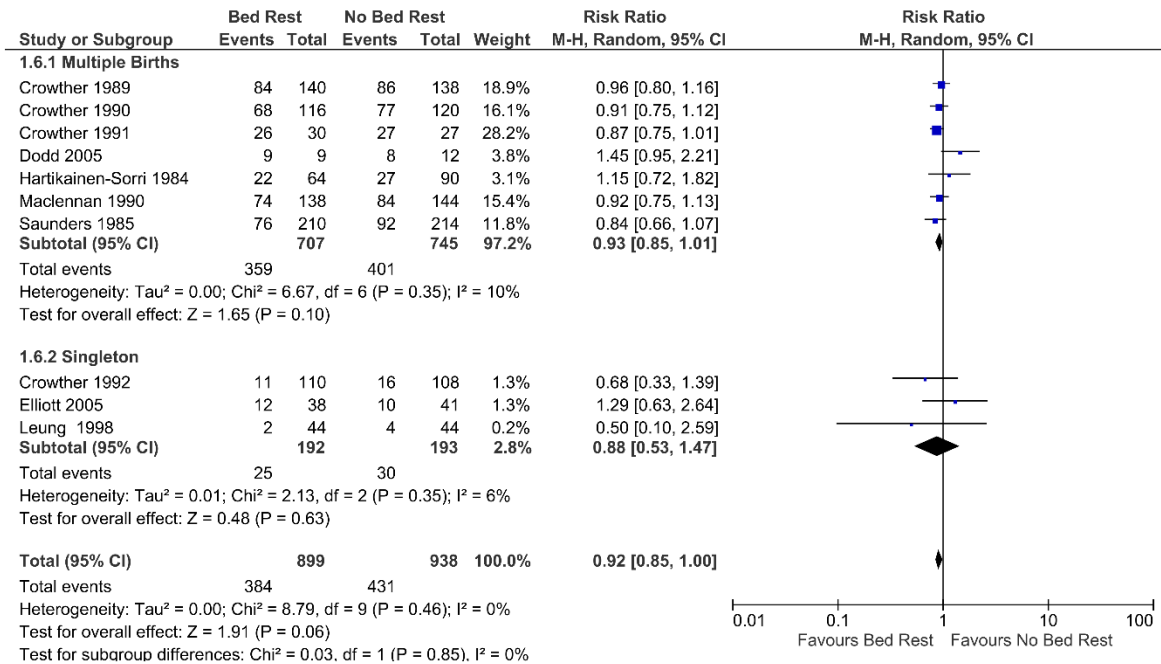
SUPPLEMENTARY FIGURE S16. Effect of bed rest (experimental) vs. non-bed rest (control) on gestational age by multiple versus singleton gestation. IV = inverse variance; 95% confidence interval = [95% CI].



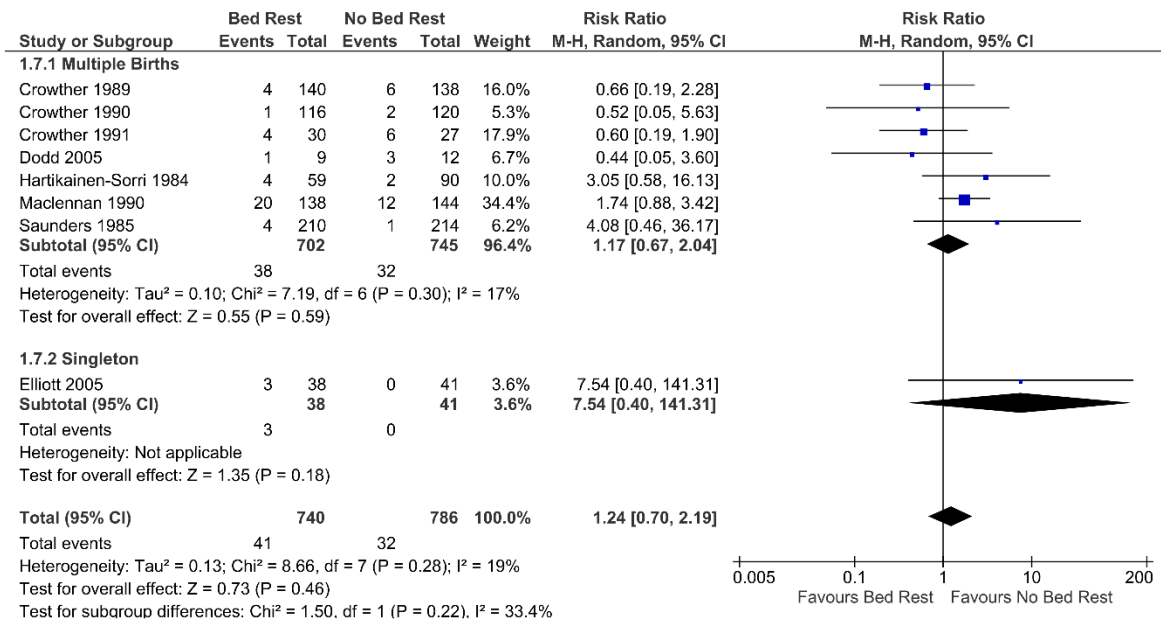
SUPPLEMENTARY FIGURE S17. Effect of bed rest (experimental) vs. non-bed rest (control) on rate of premature birth <37 weeks stratified by multiple versus singleton gestation. M-H = Mantel-Haenszel; 95% confidence interval = [95% CI].



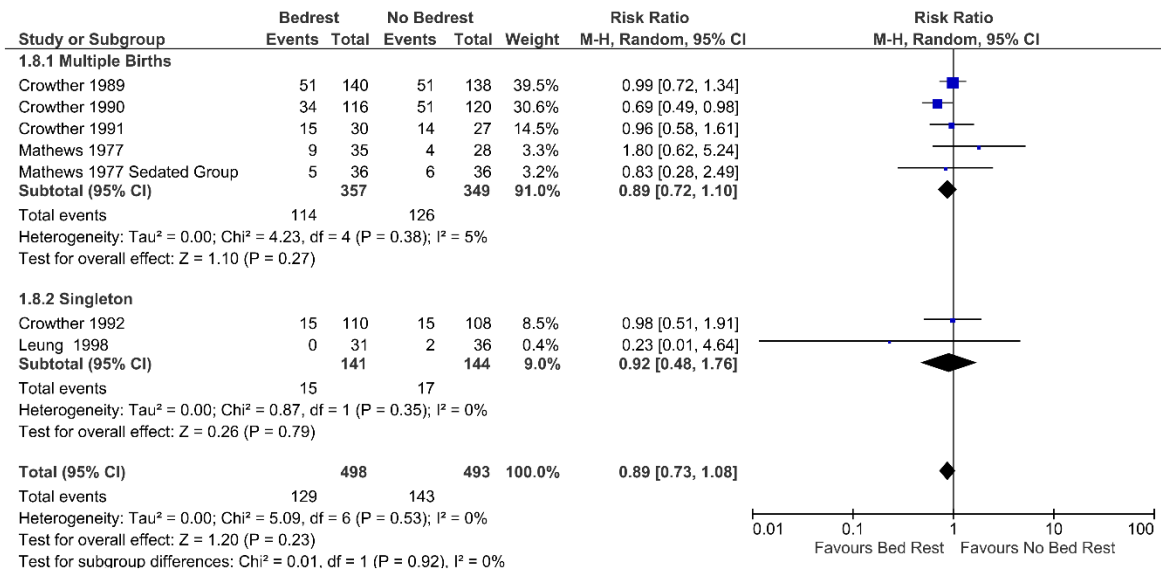
SUPPLEMENTARY FIGURE S18. Effect of bed rest (experimental) vs. non-bed rest (control) on rate of very premature birth stratified by multiple versus singleton gestation following the removal of Bigelow et al. due to its impact on heterogeneity. M-H = Mantel-Haenszel; 95% confidence interval = [95% CI].



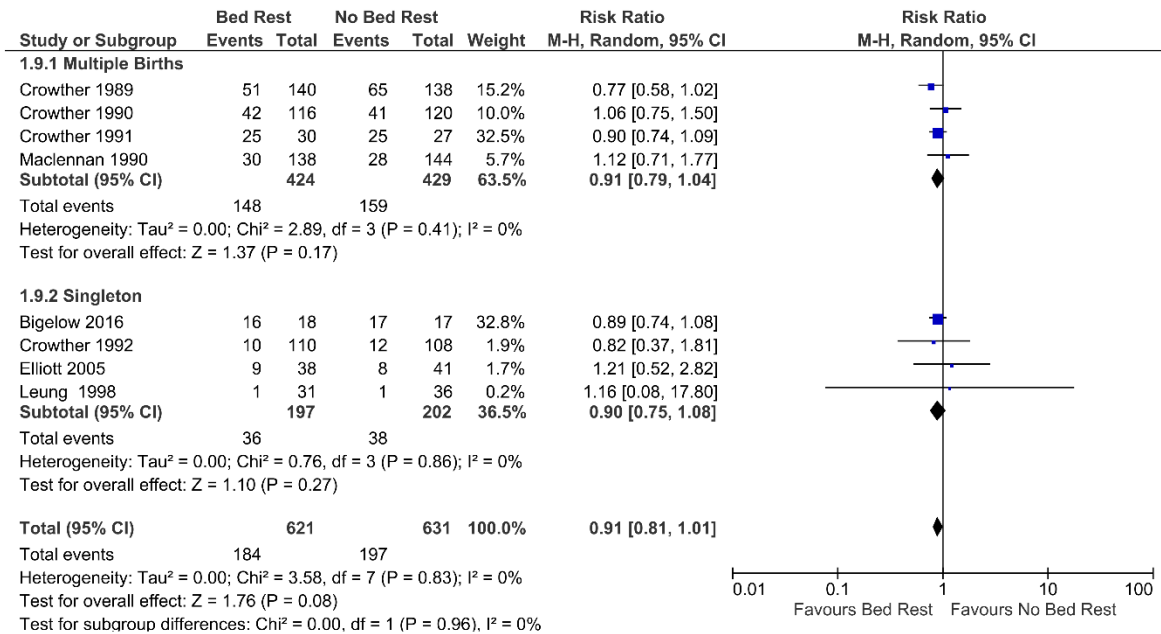
SUPPLEMENTARY FIGURE S19. Effect of bed rest (experimental) vs. non-bed rest (control) on rate of birth weight <2500g stratified by multiple versus singleton gestation. M-H = Mantel-Haenszel; 95% confidence interval = [95% CI].



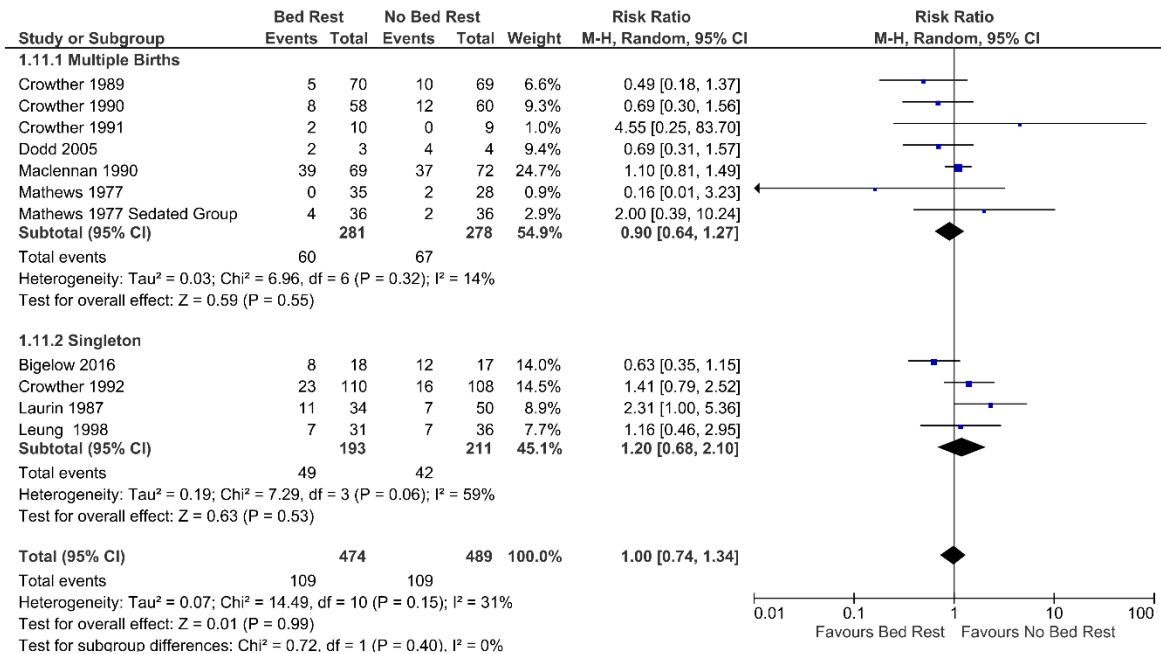
SUPPLEMENTARY FIGURE S20. Effect of bed rest (experimental) vs. non-bed rest (control) on rate of birth weight <1500g stratified by multiple versus singleton gestation. M-H = Mantel-Haenszel; 95% confidence interval = [95% CI].



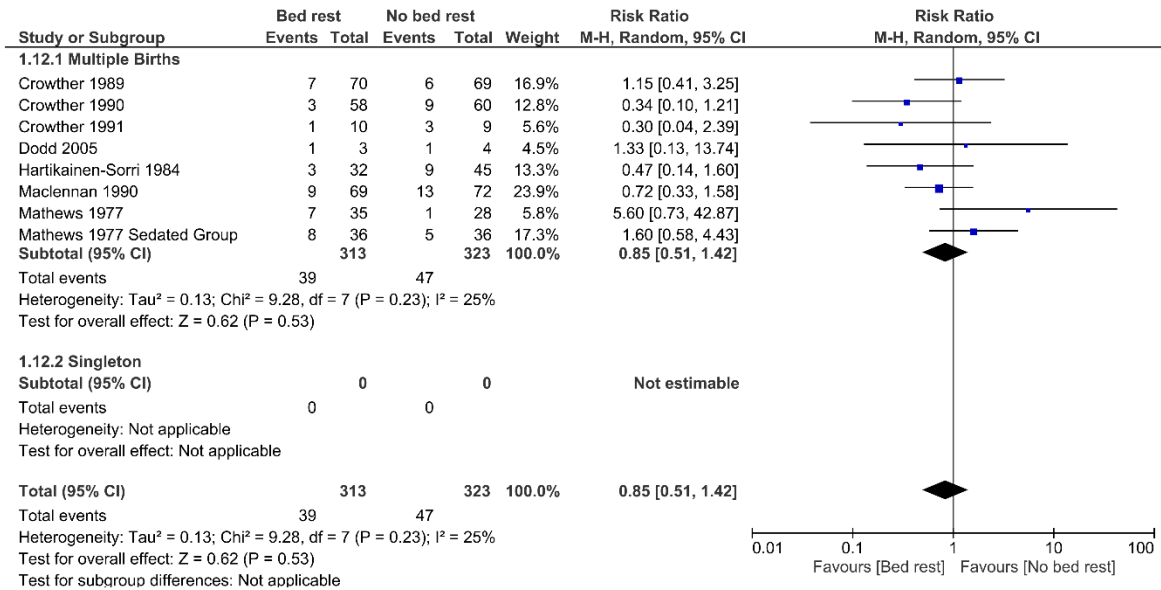
SUPPLEMENTARY FIGURE S21. Effect of bed rest (experimental) vs. non-bed rest (control) on rate of small for gestational age stratified by multiple versus singleton gestation. M-H = Mantel-Haenszel; 95% confidence interval = [95% CI].



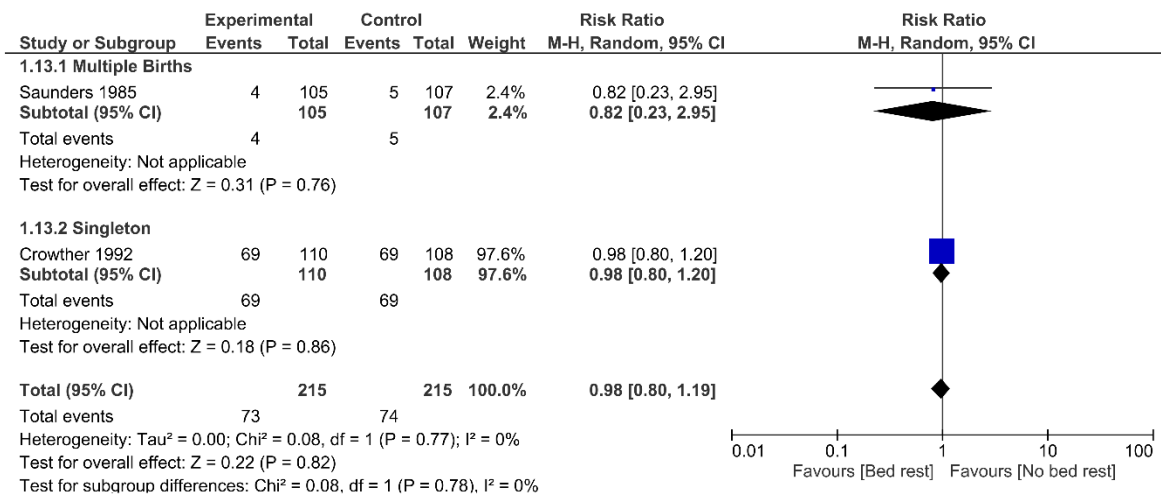
SUPPLEMENTARY FIGURE S22. Effect of bed rest (experimental) vs. non-bed rest (control) on rate of admission to NICU stratified by multiple versus singleton gestation. M-H = Mantel-Haenszel; 95% confidence interval = [95% CI].



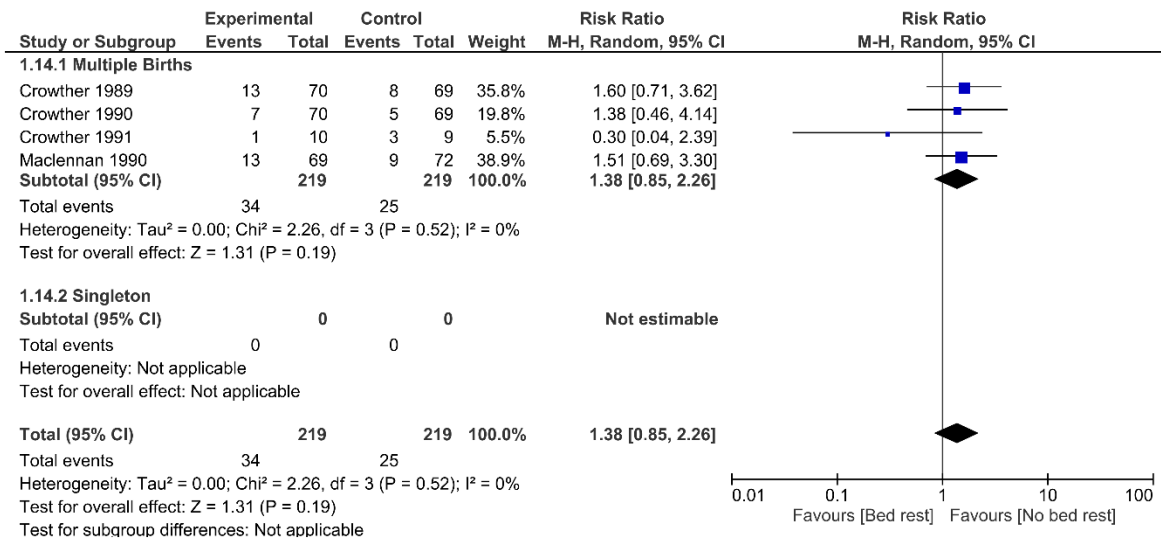
SUPPLEMENTARY FIGURE S23. Effect of bed rest (experimental) vs. non-bed rest (control) on rate of C-section stratified by multiple versus singleton gestation. M-H = Mantel-Haenszel; 95% confidence interval = [95% CI].



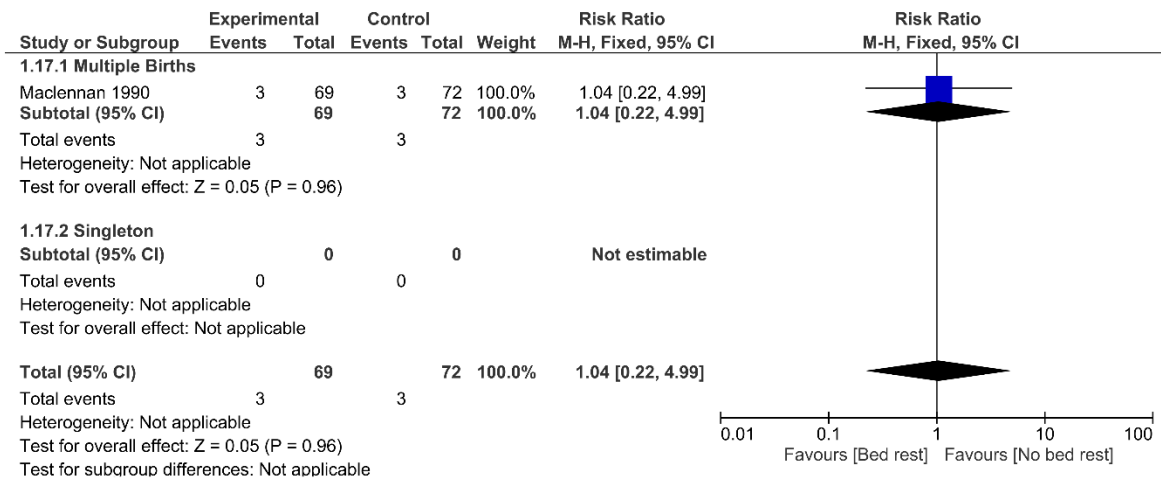
SUPPLEMENTARY FIGURE S24. Effect of bed rest (experimental) vs. non-bed rest (control) on rate of pregnancy induced hypertension stratified by multiple versus singleton gestation. M-H = Mantel-Haenszel; 95% confidence interval = [95% CI].



SUPPLEMENTARY FIGURE S25. Effect of bed rest (experimental) vs. non-bed rest (control) on rate of pre-eclampsia stratified by multiple versus singleton gestation. M-H = Mantel-Haenszel; 95% confidence interval = [95% CI].



SUPPLEMENTARY FIGURE S26. Effect of bed rest (experimental) vs. non-bed rest (control) on rate of PROM stratified by multiple versus singleton gestation. M-H = Mantel-Haenszel; 95% confidence interval = [95% CI].



SUPPLEMENTARY FIGURE S27. Effect of bed rest (experimental) vs. non-bed rest (control) on rate of gestational diabetes mellitus stratified by multiple versus singleton gestation. M-H = Mantel-Haenszel; 95% confidence interval = [95% CI].

SUPPLEMENTARY TABLE S1. GRADE table for study quality evaluation.

	№ of studies	№ of patients		Effect		Certainty	Importance
		Bed rest	Control	Relative (95% CI)	Absolute (95% CI)		
Association between bed rest (intervention) and perinatal death	12	31/970 (3.2%)	31/1025 (3.0%)	RR 1.09 (0.52 to 2.28)	3 more per 1,000 (from 15 fewer to 39 more)	⊕⊕⊕○ MODERATE ^a due to imprecision	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and perinatal death in developing regions	5	17/606 (2.8%)	23/607 (3.8%)	RR 0.77 (0.35 to 1.71)	9 fewer per 1,000 (from 25 fewer to 27 more)	⊕⊕⊕○ MODERATE ^a due to imprecision	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and perinatal death in developed regions	7	14/364 (3.8%)	8/418 (1.9%)	RR 1.73 (0.48 to 6.26)	14 more per 1,000 (from 10 fewer to 10 more)	⊕⊕○○ LOW ^{b, c} due to risk of bias and imprecision	CRITICAL
Association between bed rest (intervention) and gestational age	11	541	578	-	MD 0.28 wks lower (0.61 lower to 0.05 higher)	⊕⊕⊕⊕ HIGH	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and gestational age in developing regions	5	353	353	-	MD 0.04 wks lower (0.35 lower to 0.26 higher)	⊕⊕⊕⊕ HIGH	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and gestational age in developed regions	6	188	225	-	MD 0.77 wks lower (1.26 lower to 0.27 lower)	⊕⊕⊕○ MODERATE ^d due to risk of bias	CRITICAL
Association between bed rest (intervention) and birth weight	11	735	757	-	MD 0.04 kg higher (0.03 lower to 0.11 higher)	⊕⊕⊕⊕ HIGH	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and birth weight in developing regions	4	396	393	-	MD 0.1 kg higher (0.04 higher to 0.17 higher)	⊕⊕⊕⊕ HIGH	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and birth weight in developed regions	7	339	364	-	MD 0.04 kg lower (0.14 lower to 0.06 higher)	⊕⊕⊕○ MODERATE ^d due to risk of bias	CRITICAL
Association between bed rest (intervention) and prematurity	13	265/1045 (25.4%)	306/1466 (20.9%)	RR 0.98 (0.91 to 1.06)	4 fewer per 1,000 (from 19 fewer to 13 more)	⊕⊕○○ LOW ^{a, c} due to risk of bias and imprecision	CRITICAL

	№ of studies	№ of patients		Effect		Certainty	Importance
		Bed rest	Control	Relative (95% CI)	Absolute (95% CI)		
Subgroup analysis: Association between bed rest (intervention) and prematurity in developing regions	5	140/353 (39.7%)	148/353 (41.9%)	RR 0.92 (0.74 to 1.15)	34 fewer per 1,000 (from 109 more to 63 fewer)	⊕⊕○○ LOW ^{a, f} Due to inconsistency and imprecision	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and prematurity in developed regions	8	125/692 (18.1%)	158/1113 (14.2%)	RR 1.02 (0.93 to 1.12)	3 more per 1,000 (from 10 fewer to 17 more)	⊕⊕○○ LOW ^{a, c} due to risk of bias and imprecision	CRITICAL
Association between bed rest (intervention) and very premature birth	9	52/532 (9.8%)	43/530 (8.1%)	RR 1.23 (0.86 to 1.76)	19 more per 1,000 (from 11 fewer to 62 more)	⊕⊕⊕○ MODERATE ^c Due to imprecision	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and very premature birth in developing regions	5	29/353 (8.2%)	32/353 (9.1%)	RR 0.90 (0.57 to 1.42)	9 fewer per 1,000 (from 39 fewer to 38 more)	⊕⊕⊕○ MODERATE ^a Due to imprecision	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and very premature birth in developed regions	4	23/179 (12.8%)	11/177 (6.2%)	RR 2.07 (1.15 to 3.73)	66 more per 1,000 (from 9 more to 170 more)	⊕⊕○○ LOW ^{c, g} Due to risk of bias and imprecision	CRITICAL
Association between bed rest (intervention) and birth weight <2500g	10	384/899 (42.7%)	431/938 (45.9%)	RR 0.92 (0.85 to 1.00)	37 fewer per 1,000 (from 69 fewer to 0 fewer)	⊕⊕⊕○ MODERATE ^a Due to imprecision	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and birth weight <2500g in developing regions	5	265/606 (43.7%)	298/607 (49.1%)	RR 0.89 (0.81 to 0.98)	54 fewer per 1,000 (from 93 fewer to 10 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and birth weight <2500g in developed regions	5	119/293 (40.6%)	133/331 (40.2%)	RR 1.08 (0.86 to 1.35)	32 more per 1,000 (from 56 fewer to 141 more)	⊕⊕○○ LOW ^{a, g} Due to risk of bias and imprecision	CRITICAL
Association between bed rest (intervention) and birth weight <1500g	8	41/740 (5.5%)	32/786 (4.1%)	RR 1.24 (0.70 to 2.19)	10 more per 1,000 (from 12 fewer to 48 more)	⊕⊕○○ LOW ^{c, g} Due to risk of bias and imprecision	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and birth weight <1500g in developing regions	4	13/496 (2.6%)	15/499 (3.0%)	RR 0.77 (0.36 to 1.62)	7 fewer per 1,000 (from 19 fewer to 19 more)	⊕⊕⊕○ MODERATE ^c Due to imprecision	CRITICAL

	№ of studies	№ of patients		Effect		Certainty	Importance
		Bed rest	Control	Relative (95% CI)	Absolute (95% CI)		
Subgroup analysis: Association between bed rest (intervention) and birth weight <1500g in developed regions	4	28/244 (11.5%)	17/287 (5.9%)	RR 1.78 (0.97 to 3.26)	46 more per 1,000 (from 2 fewer to 134 more)	⊕⊕⊕○ MODERATE ^g Due to risk of bias	CRITICAL
Association between bed rest (intervention) and small for gestational age	6	129/498 (25.9%)	143/493 (29.0%)	RR 0.89 (0.73 to 1.08)	32 fewer per 1,000 (from 78 fewer to 23 more)	⊕⊕⊕○ MODERATE ^a Due to imprecision	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and small for gestational age in developing regions	4	115/396 (29.0%)	131/393 (33.3%)	RR 0.87 (0.71 to 1.07)	43 fewer per 1,000 (from 97 fewer to 23 more)	⊕⊕⊕○ MODERATE ^a Due to imprecision	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and small for gestational age in developed regions	2	14/102 (13.7%)	12/100 (12.0%)	RR 1.11 (0.51 to 2.40)	13 more per 1,000 (from 59 fewer to 168 more)	⊕⊕⊕○ MODERATE ^c Due to imprecision	CRITICAL
Association between bed rest (intervention) and admission to NICU	8	184/621 (29.6%)	197/631 (31.2%)	RR 0.91 (0.81 to 1.01)	28 fewer per 1,000 (from 59 fewer to 3 more)	⊕⊕⊕○ MODERATE ^a Due to imprecision	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and admission to NICU in developing regions	4	128/396 (32.3%)	143/393 (36.4%)	RR 0.89 (0.77 to 1.02)	40 fewer per 1,000 (from 84 fewer to 7 more)	⊕⊕⊕○ MODERATE ^a Due to imprecision	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and admission to NICU in developed regions	4	56/225 (24.9%)	54/238 (22.7%)	RR 0.95 (0.78 to 1.15)	11 more per 1,000 (from 50 fewer to 34 more)	⊕⊕○○ LOW ^{a, g} Due to risk of bias and imprecision	CRITICAL
Association between bed rest (intervention) and C-section	10	109/474 (23.0%)	109/489 (22.3%)	RR 1.00 (0.74 to 1.34)	0 more per 1,000 (from 58 fewer to 76 more)	⊕⊕○○ LOW ^{a, d} Due to risk of bias and imprecision	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and C-section in developing regions	4	38/248 (15.3%)	38/246 (15.4%)	RR 0.93 (0.50 to 1.73)	11 fewer per 1,000 (from 77 fewer to 122 more)	⊕⊕⊕○ MODERATE ^a Due to imprecision	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and C-section in developed regions	6	71/226 (31.4%)	71/243 (29.2%)	RR 1.02 (0.70 to 1.49)	6 more per 1,000 (from 88 fewer to 143 more)	⊕⊕○○ LOW ^{a, d} Due to risk of bias and imprecision	CRITICAL

	№ of studies	№ of patients		Effect		Certainty	Importance
		Bed rest	Control	Relative (95% CI)	Absolute (95% CI)		
Association between bed rest (intervention) and hypertensive disorders of pregnancy	7	39/313 (%)	47/323 (%)	RR 0.85 (0.51 to 1.42)	30 fewer per 1,000 (from 99 fewer to 85 more)	⊕⊕○○ LOW ^{c, j} Due to serious risk of bias and inconsistency	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and hypertensive disorders of pregnancy in developing regions	3	11/138 (8.0%)	18/138 (13.0%)	RR 0.59 (0.24 to 1.46)	53 fewer per 1,000 (from 99 fewer to 60 more)	⊕⊕⊕○ MODERATE ^a Due to imprecision	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and hypertensive disorders of pregnancy in developed regions	4	28/175 (16.0%)	29/185 (15.7%)	RR 1.04 (0.53 to 2.05)	11 more per 1,000 (from 128 fewer to 285 more)	⊕⊕○○ LOW ^{c, j} Due to risk of bias and inconsistency	CRITICAL
Association between bed rest (intervention) and pre-eclampsia	2	73/215 (34.0%)	74/215 (34.4%)	RR 0.98 (0.80 to 1.19)	7 fewer per 1,000 (from 69 fewer to 65 more)	⊕⊕⊕○ MODERATE ^a Due to imprecision	CRITICAL
Association between bed rest (intervention) and preterm rupture of membranes	4	34/219 (15.5%)	25/219 (11.4%)	RR 1.38 (0.85 to 2.26)	43 more per 1,000 (from 17 fewer to 144 more)	⊕⊕⊕○ MODERATE ^c Due to imprecision	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and preterm rupture of membranes in developing regions	3	21/150 (14.0%)	16/147 (10.9%)	RR 1.29 (0.66 to 2.51)	32 more per 1,000 (from 37 fewer to 164 more)	⊕⊕⊕○ MODERATE ^c Due to imprecision	CRITICAL
Subgroup analysis: Association between bed rest (intervention) and preterm rupture of membranes in developed regions	1	13/69 (18.8%)	9/72 (12.5%)	RR 1.51 (0.69 to 3.30)	64 more per 1,000 (from 33 fewer to 148 more)	⊕⊕⊕○ MODERATE ^{h, i} Due to imprecision and inconsistency	CRITICAL
Association between bed rest (intervention) and GDM	1	3/69 (4.3%)	3/72 (4.2%)	RR 1.04 (0.22 to 4.99)	2 more per 1,000 (from 33 fewer to 166 more)	⊕⊕⊕○ MODERATE ^{h, i} Due to imprecision and inconsistency	CRITICAL

CI: Confidence interval; **OR:** Odds ratio; **MD:** Mean difference

Explanations

- Serious imprecision. The 95% CI crosses the line of no effect.
- Serious risk of bias. High risk of selection bias. Unclear risk of detection bias; it was unknown if the outcome assessments were blinded.

- c. Serious imprecision. The 95% CI crosses the line of no effect, and is wide, such that our recommendation would be different if the true effect were at one end of the CI or the other.
- d. Serious risk of bias. High risk of selection and reporting bias. Unclear risk of detection bias; it was unknown if the outcome assessments were blinded.
- e. Serious risk of bias. High risk of reporting bias. Unclear risk of selection bias; it was unknown if allocation concealment was adequate. Unclear risk of detection bias; it was unknown if the outcome assessment were blinded.
- f. Serious in inconsistency because the heterogeneity was high ($I^2 \geq 50\%$)
- g. Serious risk of bias. High risk of reporting bias. Unclear risk of detection bias; it was unknown if the outcome assessments were blinded.
- h. Serious inconsistency because only one study
- i. No serious imprecision; only one study but already downgraded for serious inconsistency for this reason
- j. Unclear risk of selection bias; it was unknown if allocation concealment was adequate. Unclear risk of detection bias; it was unknown if the outcome assessment were blinded.

SUPPLEMENTARY TABLE S2. Risk of bias table for study evaluation.

	Random Sequence generation	Allocation Concealment	Blinding of participants and personnel	Blinding of outcome assessment	Incomplete outcome data	Selective report	other bias
Crowther 1989	Low risk	Low risk	Low risk	Low risk	High risk	Low risk	Low risk
Crowther 1990	Low risk	Low risk	Low risk	Low risk	High risk	Low risk	Low risk
Crowther 1991	Low risk	Low risk	Low risk	Low risk	High risk	Low risk	Low risk
Crowther 1992	Low risk	Low risk	Low risk	Low risk	High risk	Low risk	Low risk
Dodd 2005	Low risk	Low risk	Low risk	Unclear	High risk	Low risk	Low risk
Elliott 2005	Low risk	Low risk	Low risk	Unclear	Low risk	Low risk	Low risk
Hartikainen-Sorri 1984	High risk	unclear	Low risk	Unclear	Low risk	High risk	Low risk
Hobel 1984	Low risk	unclear	Low risk	Low risk	Low risk	High risk	Low risk
Laurin 1987	High risk	unclear	Low risk	Unclear	Low risk	Low risk	Low risk
Leung 1998	Low risk	Low risk	Low risk	Unclear	High risk	Low risk	Low risk
MacLennan 1990	Low risk	Low risk	Low risk	Unclear	High risk	Low risk	Low risk
Mathews 1977	Low risk	unclear	Low risk	Unclear	Low risk	Low risk	Low risk
Saunders 1985	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Bigelow 2016	Low risk	Low risk	Low risk	Unclear	Low risk	High risk	Low risk

