

Supplementary tables and figures

Table S1. Spearman correlation coefficient matrix of maternal characteristics

	Maternal age in years	Education in years	Wealth quintiles	Birth interval in months	Calendar year of second birth
Maternal age in years	1	0.103*	0.063*	0.372*	0.133*
Education in years	0.103*	1	0.311*	0.051*	0.392*
Wealth quintiles	0.063*	0.311*	1	0.009	0.028*
Birth interval in months	0.372*	0.051*	0.009	1	0.223*
Calendar year of second birth	0.133*	0.392*	0.028*	0.223*	1

*P<0.05

Table S2. Risk of recurrent preterm birth when all women in the first delivery were included regardless of whether they had a second delivery or not. Cox proportional hazards analysis (n=25,140, events=2118, censored=23,022).

Gestational age at first birth (weeks)	No. of women followed-up	Events*		Unadjusted Hazards Ratio (95% confidence interval)	Adjusted Hazards Ratio (95% confidence interval) ^{†‡}
		No.	%		
<37	3848	633	16.4	2.26 (2.06-2.48)	1.67 (1.52-1.85)
≥37	21292	1485	7.0	1	1

*Preterm birth in second pregnancy

[†]Adjusted for socioeconomic status by asset quintiles, maternal education, and year follow-up ended.

[‡]Schoenfeld residuals proportional hazard assumption $P=0.086$

Table S3. Recurrent preterm birth risks stratified by study period in Matlab, Bangladesh, 1990 to 2019.

Gestational age at birth (weeks)	1990-1999			2000-2009			2010-2019		
	n (%)	Crude OR (95% CI)	Adjusted OR (95% CI) [†]	n (%)	Crude OR (95% CI)	Adjusted OR (95% CI) [†]	n (%)	Crude OR (95% CI)	Adjusted OR (95% CI) [†]
<32	65 (2.0)	3.72 (2.24 – 6.19)	3.64 (2.18 – 6.07)	72 (1.3)	5.47 (3.33 – 8.96)	5.29 (3.21 – 8.73)	43 (0.8)	2.95 (1.40 – 6.19)	2.92 (1.39 – 6.15)
32-33	172 (5.3)	3.06 (2.19 – 4.28)	3.02 (2.15 – 4.22)	170 (3.0)	4.50 (3.19 – 6.35)	4.12 (2.91 – 5.83)	87 (1.5)	3.54 (2.14 – 5.86)	3.54 (2.14 – 5.88)
34-36	675 (21.0)	1.86 (1.50 – 2.30)	1.84 (1.48 – 2.28)	767 (13.7)	2.75 (2.24 – 3.39)	2.55 (2.07 – 3.15)	464 (7.9)	2.90 (2.26 – 3.74)	2.89 (2.24 – 3.72)
37-38	791 (24.6)	1.57 (1.27 – 1.93)	1.55 (1.26 – 1.92)	1367 (24.4)	1.92 (1.59 – 2.31)	1.8 (1.53 – 2.22)	1350 (23.7)	1.72 (1.41 – 2.09)	1.72 (1.41 – 2.08)
≥39*	1515 (47.1)	1	1	3233 (57.6)	1	1	3796 (66.1)	1	1

[†]Adjusted for maternal education, socioeconomic status by wealth quintiles, and calendar year of second birth

*Reference category

Table S4. Recurrent spontaneous preterm birth odds in second pregnancy by spontaneous and indicated preterm birth in first pregnancy in Matlab, Bangladesh, 2005 to 2019.

Gestational age at birth (weeks) in first pregnancy	Spontaneous preterm birth odds in second pregnancy			
	<37 Gestational weeks (n)	≥37 Gestational weeks (n)	Crude odds ratio (95% confidence intervals)	Adjusted odds ratio (95% confidence interval) [†]
<37, spontaneous (n)	87	322	2.81 (2.18 – 3.63)	3.13 (2.40 – 4.07)
<37, induced (n)	1	4	2.60 (0.29 – 23.34)	3.00 (0.33 – 27.04)
≥37* (n)	464	4831	1	1

[†]adjusted for maternal education, socioeconomic status by wealth quintiles, and calendar year of second birth

*reference category

Table S5. Recurrent indicated preterm birth odds in second pregnancy by spontaneous and indicated preterm birth in first pregnancy in Matlab, Bangladesh, 2005 to 2019.

Gestational age at birth (weeks) in first pregnancy	Indicated preterm birth odds in second pregnancy			
	<37 Gestational weeks (n)	≥37 Gestational weeks (n)	Crude odds ratio (95% confidence intervals)	Adjusted odds ratio (95% confidence interval) [†]
<37, spontaneous (n)	13	72	1.28 (0.70 – 2.34)	1.23 (0.67 – 2.26)
<37, induced (n)	29	73	2.82 (1.80 – 4.41)	2.73 (1.75 – 4.29)
≥37* (n)	287	2035	1	1

[†]adjusted for maternal education, socioeconomic status by wealth quintiles, and calendar year of second birth

*reference category

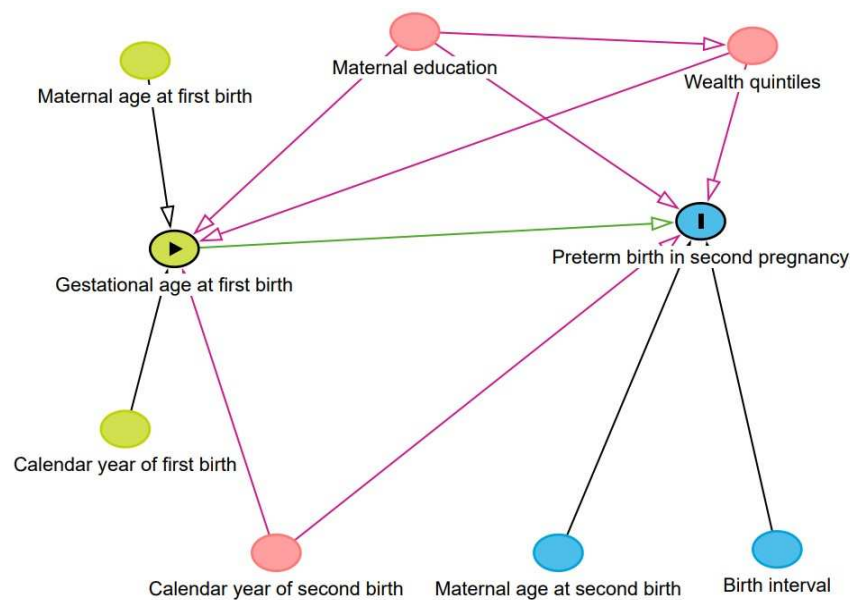


Figure S1: Directed acyclic graph showing exposure, outcome and other observed covariates. The exposure is marked green with an arrow; the outcome is marked blue with a vertical line; the ancestors of the outcome are marked blue; the ancestors of outcome and exposure are marked red.

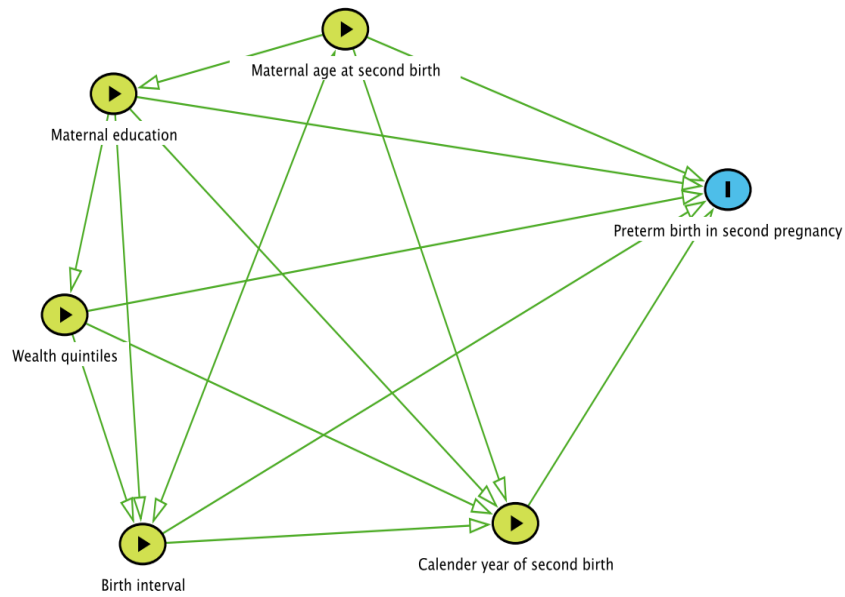


Figure S2: Directed acyclic graph showing exposures and outcome. Exposures are marked green with an arrow, and the outcome is marked as blue with a vertical line.

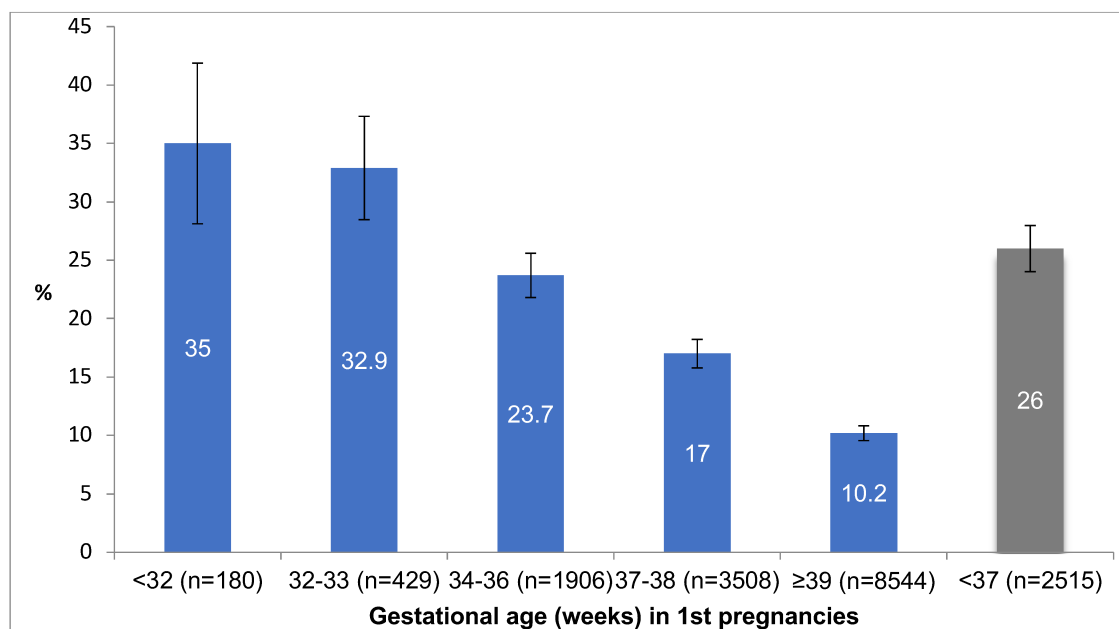


Figure S3. Proportion of preterm birth in second pregnancy based on the gestational age at delivery in first pregnancy in Matlab, Bangladesh, 1990 to 2019