Study ID	% ES (95% CI) W	eight
Trimester 1		
Ritz et al. (2000)	1.02 (1.00, 1.04) 1	2.70
Suh et al. (2009)		9.53
Jalaludin et al. (2007)		3.20
Wilhelm and Ritz (2005)		0.66
Lee et al. (2013)		2.71
Subtotal (1-squared = 73.0% , $p = 0.005$)		8.80
Trimester 2		
Suh et al. (2009)	0.98 (0.94, 1.03)	9.70
Wilhelm and Ritz (2005)		1.96
Subtotal (1-squared = 0.0% , $p = 0.394$)		1.65
Trimester 3		
Jalaludin et al. (2007)	0.89 (0.77, 1.03)	3.03
Ritz et al. (2000)		2.18
Suh et al. (2009)		1.58
Wilhelm and Ritz (2005)		1.53
Subtotal (1-squared = 57.2% , $p = 0.072$)		8.32
Entire pregnancy		
Rogers and Dunlop (2006)	— 1.24 (1.04, 1.48)	1.23
Subtotal (1-squared = $.\%$, p = .)	1.24 (1.02, 1.46)	1.23
Overall (1-squared = 77.6% , $p = 0.000$)	1.00 (0.97, 1.02) 10	0.00
Note: weights are from random effects analysis		
-1.48	1 1.48	
	% ES (95% CI) We	eight
D Frimester 1	ES (95% CI) We	
D Frimester 1 Hansen et al. (2006)	ES (95% CI) We	0.70
D Frimester 1 Hansen et al. (2006) Kim et al. (2007)	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) 5	0.70
D Frimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2004)	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) (0.98 (0.97, 1.00) 26	0.70 5.38 6.22
D Frimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2004) Zhao et al. (2015)	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) (0.98 (0.97, 1.00) 26 1.00 (0.74, 1.36) (0.70 5.38 6.22 0.47
D Trimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2004) Zhao et al. (2015)	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) (0.98 (0.97, 1.00) 26 1.00 (0.74, 1.36) (0.70 5.38 6.22
D Trimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2004) Zhao et al. (2015) Subtotal (1-squared = 71.1%, p= 0.015) Trimester 2	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) (0.98 (0.97, 1.00) 26 1.00 (0.74, 1.36) (1.01 (0.91, 1.11) 32	0.70 5.38 6.22 0.47 2.77
D Frimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2004) Zhao et al. (2015) Subtotal (1-squared = 71.1%, p = 0.015) Frimester 2 Kim et al. (2007)	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) (0.98 (0.97, 1.00) 26 1.00 (0.74, 1.36) (1.01 (0.91, 1.11) 32 1.00 (0.93, 1.08) (0.70 5.38 6.22 0.47 2.77 6.78
D Trimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2004) Zhao et al. (2015) Subtotal (1-squared = 71.1%, p= 0.015) Trimester 2 Kim et al. (2007) Ha et al. (2004)	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) (0.98 (0.97, 1.00) 26 1.00 (0.74, 1.36) (1.01 (0.91, 1.11) 32 1.00 (0.93, 1.08) (1.00 (0.98, 1.02) 22	0.70 5.38 6.22 0.47 2.77 6.78 5.21
D Frimester 1 Hansen et al. (2006) Cim et al. (2007) Ha et al. (2004) Chao et al. (2015) Subtotal (1-squared = 71.1%, p = 0.015) Frimester 2 Cim et al. (2007) Ha et al. (2007) Ha et al. (2004) Chao et al. (2015)	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) 5 0.98 (0.97, 1.00) 26 - 1.00 (0.74, 1.36) (1.01 (0.91, 1.11) 32 1.00 (0.93, 1.08) (1.00 (0.93, 1.02) 25 1.10 (0.74, 1.65) (0.70 5.38 6.22 0.47 2.77 6.78
D Trimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2004) Zhao et al. (2015) Subtotal (1-squared = 71.1%, p = 0.015) Trimester 2 Kim et al. (2007) Ha et al. (2007) Ha et al. (2004) Zhao et al. (2015) Subtotal (1-squared = 0.0%, p = 0.891)	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) 5 0.98 (0.97, 1.00) 26 - 1.00 (0.74, 1.36) (1.01 (0.91, 1.11) 35 1.00 (0.93, 1.08) (1.00 (0.93, 1.02) 25 1.10 (0.74, 1.65) (0.70 5.38 6.22 0.47 2.77 6.78 5.21 0.21
D Trimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2015) Subtotal (1-squared = 71.1%, p = 0.015) Trimester 2 Kim et al. (2007) Ha et al. (2007) Ha et al. (2004) Zhao et al. (2015) Subtotal (1-squared = 0.0%, p = 0.891) Trimester 3	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) (0.98 (0.97, 1.00) 20 1.00 (0.74, 1.36) (1.01 (0.91, 1.11) 32 1.00 (0.93, 1.08) (1.00 (0.93, 1.02) 22 1.10 (0.74, 1.65) (1.00 (0.98, 1.01) 32	0.70 5.38 6.22 0.47 2.77 6.78 5.21 0.21 2.21
D Frimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2015) Subtotal (I-squared = 71.1%, $p = 0.015$) Frimester 2 Kim et al. (2007) Ha et al. (2007) Ha et al. (2004) Chao et al. (2015) Subtotal (I-squared = 0.0%, $p = 0.891$) Frimester 3 Kim et al. (2007)	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) (0.98 (0.97, 1.00) 20 1.00 (0.74, 1.36) (1.01 (0.91, 1.11) (1.00 (0.93, 1.08) (1.00 (0.98, 1.02) 22 1.10 (0.74, 1.65) (1.00 (0.98, 1.01) (1.05 (0.99, 1.11) (1.05 (0.99,	0.70 5.38 6.22 0.47 2.77 6.78 5.21 0.21 2.21 8.67
D Frimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2015) Subtotal (1-squared = 71.1%, $p = 0.015$) Frimester 2 Kim et al. (2007) Ha et al. (2007) Ha et al. (2015) Subtotal (1-squared = 0.0%, $p = 0.891$) Frimester 3 Kim et al. (2007) Hansen et al. (2006)	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) (0.98 (0.97, 1.00) 20 1.00 (0.74, 1.36) (1.01 (0.91, 1.11) (1.00 (0.93, 1.08) (1.00 (0.98, 1.02) (1.10 (0.74, 1.65) (1.00 (0.98, 1.01) (1.05 (0.99, 1.11) (1.07 (0.87, 1.32) (0)	0.70 5.38 6.22 0.47 2.77 6.78 5.21 0.21 2.21 8.67 0.88
D Frimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2015) Subtotal (1-squared = 71.1%, $p = 0.015$) Frimester 2 Kim et al. (2007) Ha et al. (2007) Ha et al. (2004) Chao et al. (2015) Subtotal (1-squared = 0.0%, $p = 0.891$) Frimester 3 Kim et al. (2007) Hansen et al. (2007) Hansen et al. (2006) Chao et al. (2015)	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) (0.98 (0.97, 1.00) 26 1.00 (0.74, 1.36) (1.01 (0.91, 1.11) (1.00 (0.98, 1.02) (1.10 (0.74, 1.65) (1.00 (0.98, 1.01) (1.00 (0.98, 1.01) (1.05 (0.99, 1.11) (1.07 (0.87, 1.32) (0.90 (0.66, 1.23) (0.90 (0.90 (0.91	0.70 5.38 6.22 0.47 2.77 6.78 5.21 0.21 2.21 8.67 0.88 0.56
D Frimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2015) Subtotal (1-squared = 71.1%, $p = 0.015$) Frimester 2 Kim et al. (2007) Ha et al. (2007) Ha et al. (2004) Chao et al. (2015) Subtotal (1-squared = 0.0%, $p = 0.891$) Frimester 3 Kim et al. (2007) Hansen et al. (2007) Hansen et al. (2007) Hansen et al. (2006) Chao et al. (2015) Ha et al. (2004)	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) (0.98 (0.97, 1.00) (1.00 (0.74, 1.36) (1.01 (0.91, 1.11) (1.00 (0.98, 1.02) (1.00 (0.98, 1.02) (1.00 (0.98, 1.02) (1.00 (0.98, 1.01) (1.00 (0.98, 1.01) (1.00 (0.99, 1.11) (1.07 (0.87, 1.32) (0.90 (0.66, 1.23) (1.01 (0.99, 1.03) (1.01 (0.99, 1.01) (1.01 (0.99, 1.01) (1.01 (0.99, 1.	0.70 5.38 6.22 0.47 2.77 6.78 5.21 0.21 2.21 8.67 0.88 0.56 4.54
D Trimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2015) Subtotal (1-squared = 71.1%, p = 0.015) Trimester 2 Kim et al. (2007) Ha et al. (2007) Ha et al. (2004) Trimester 3 Kim et al. (2007) Hansen et al. (2006) Zhao et al. (2015) Ha et al. (2004)	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) (0.98 (0.97, 1.00) (1.00 (0.74, 1.36) (1.01 (0.91, 1.11) (1.00 (0.98, 1.02) (1.00 (0.98, 1.02) (1.00 (0.98, 1.02) (1.00 (0.98, 1.01) (1.00 (0.98, 1.01) (1.00 (0.99, 1.11) (1.07 (0.87, 1.32) (0.90 (0.66, 1.23) (1.01 (0.99, 1.03) (1.01 (0.99, 1.01) (1.01 (0.99, 1.01) (1.01 (0.99, 1.	0.70 5.38 6.22 0.47 2.77 6.78 5.21 0.21 2.21 8.67 0.88 0.56 4.54
D Trimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2004) Zhao et al. (2015) Subtotal (1-squared = 71.1%, $p = 0.015$) Trimester 2 Kim et al. (2007) Ha et al. (2007) Ha et al. (2004) Zhao et al. (2015) Subtotal (1-squared = 0.0%, $p = 0.891$) Trimester 3 Kim et al. (2006) Zhao et al. (2006) Zhao et al. (2015) Ha et al. (2004) Subtotal (1-squared = 0.0%, $p = 0.566$) Entire pregnancy	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) 5 0.98 (0.97, 1.00) 26 1.00 (0.74, 1.36) (1.01 (0.91, 1.11) 32 1.00 (0.93, 1.08) (1.00 (0.93, 1.08) (1.00 (0.98, 1.02) 22 1.10 (0.74, 1.65) (1.00 (0.98, 1.01) 32 1.05 (0.99, 1.11) (1.07 (0.87, 1.32) (0.90 (0.66, 1.23) (1.01 (0.99, 1.03) 22 1.02 (1.00, 1.04) 34	0.70 5.38 6.22 0.47 2.77 6.78 5.21 0.21 2.21 8.67 0.88 0.56 4.54 4.65
D Trimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2004) Zhao et al. (2015) Subtotal (1-squared = 71.1%, $p = 0.015$) Trimester 2 Kim et al. (2007) Ha et al. (2007) Ha et al. (2004) Zhao et al. (2015) Subtotal (1-squared = 0.0%, $p = 0.891$) Trimester 3 Kim et al. (2006) Zhao et al. (2005) Zhao et al. (2015) Ha et al. (2006) Zhao et al. (2015) Ha et al. (2006) Entire pregnancy Hansen et al. (2006)	ES (95% CI) We 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) 5 0.98 (0.97, 1.00) 26 1.00 (0.74, 1.36) (1.01 (0.91, 1.11) 32 1.00 (0.93, 1.08) (1.00 (0.93, 1.08) (1.00 (0.93, 1.02) 22 1.10 (0.74, 1.65) (1.00 (0.98, 1.01) 32 1.00 (0.99, 1.01) 32 1.07 (0.87, 1.32) (0.90 (0.66, 1.23) (1.01 (0.99, 1.03) 22 1.02 (1.00, 1.04) 34 1.19 (0.87, 1.64) (0.00 (0.87, 1.64) (0.00 (0.87, 1.64) (0.01 (0.97, 1.64) (0.01 (0	0.70 5.38 6.22 0.47 2.77 6.78 6.78 6.78 6.78 0.21 2.21 8.67 0.88 0.56 4.54 4.65
Study ID Trimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2007) Ha et al. (2015) Subtotal (1-squared = 71.1%, $p = 0.015$) Trimester 2 Kim et al. (2007) Ha et al. (2007) Ha et al. (2004) Zhao et al. (2015) Subtotal (1-squared = 0.0%, $p = 0.891$) Trimester 3 Kim et al. (2006) Zhao et al. (2015) Ha et al. (2004) Subtotal (1-squared = 0.0%, $p = 0.566$) Entire pregnancy Hansen et al. (2006) Zhao et al. (2015) Subtotal (1-squared = 0.0%, $p = 0.951$)	ES (95% CI) We - 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) 2 0.98 (0.97, 1.00) 2 (- 1.00 (0.74, 1.36) (1.01 (0.91, 1.11) 32 1.00 (0.93, 1.08) (1.00 (0.93, 1.08) (1.00 (0.98, 1.02) 22 1.10 (0.74, 1.65) (1.00 (0.98, 1.01) 32 - 1.05 (0.99, 1.11) 3 - 1.05 (0.99, 1.11) 3 - 1.05 (0.99, 1.11) 3 - 1.07 (0.87, 1.32) (0.90 (0.66, 1.23) (1.01 (0.99, 1.03) 2 1.02 (1.00, 1.04) 3 - 1.19 (0.87, 1.64) (1.22 (0.66, 2.24) (0	0.70 5.38 6.22 0.47 2.77 6.78 5.21 0.21 2.21 8.67 0.88 0.56 4.54 4.65 0.30 0.07
Trimester 1 Hansen et al. (2006) Kim et al. (2007) Ha et al. (2004) Zhao et al. (2015) Subtotal (1-squared = 71.1%, $p = 0.015$) Trimester 2 Kim et al. (2007) Ha et al. (2007) Ha et al. (2004) Zhao et al. (2015) Subtotal (1-squared = 0.0%, $p = 0.891$) Trimester 3 Kim et al. (2006) Zhao et al. (2005) Ha et al. (2004) Subtotal (1-squared = 0.0%, $p = 0.566$) Entire pregnancy Hansen et al. (2006) Zhao et al. (2015) Subtotal (1-squared = 0.0%, $p = 0.951$)	ES (95% CI) We - 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) 2 0.98 (0.97, 1.00) 22 - 1.00 (0.74, 1.36) (1.01 (0.91, 1.11) 32 - 1.00 (0.93, 1.08) (1.00 (0.93, 1.08) (1.00 (0.98, 1.02) 22 1.10 (0.74, 1.65) (1.00 (0.98, 1.01) 32 - 1.05 (0.99, 1.11) 3 - 1.07 (0.87, 1.32) (0.90 (0.66, 1.23) (1.01 (0.99, 1.03) 22 1.02 (1.00, 1.04) 32 - 1.19 (0.87, 1.64) (1.22 (0.66, 2.24) (1.20 (0.85, 1.54) (- 1.20 (0.85, 1.54) (-	0.70 5.38 6.22 0.47 2.77 6.78 5.21 0.21 2.21 8.67 0.88 0.56 4.54 4.65 0.30 0.07 0.37
D Frimester 1 Hansen et al. (2006) Gim et al. (2007) Ha et al. (2004) Chao et al. (2015) Subtotal (1-squared = 71.1%, $p = 0.015$) Frimester 2 Gim et al. (2007) Ha et al. (2007) Ha et al. (2004) Chao et al. (2015) Subtotal (1-squared = 0.0% , $p = 0.891$) Frimester 3 Gim et al. (2006) Chao et al. (2015) Ha et al. (2004) Subtotal (1-squared = 0.0% , $p = 0.566$) Entire pregnancy Hansen et al. (2006) Chao et al. (2015)	ES (95% CI) We - 1.36 (1.14, 1.64) (0.93 (0.85, 1.02) (0.98 (0.97, 1.00) 22 - 1.00 (0.74, 1.36) (1.01 (0.91, 1.11) 32 - 1.00 (0.93, 1.08) (1.00 (0.93, 1.08) (1.00 (0.98, 1.02) 22 1.10 (0.74, 1.65) (1.00 (0.98, 1.01) 32 - 1.05 (0.99, 1.11) (1.00 (0.98, 1.01) 32 - 1.07 (0.87, 1.32) (0.90 (0.66, 1.23) (1.01 (0.99, 1.03) 24 1.02 (1.00, 1.04) 34 - 1.19 (0.87, 1.64) (1.20 (0.85, 1.54) (- 1.20 (0.85, 1.54) (0.70 5.38 6.22 0.47 2.77 6.78 5.21 0.21 2.21 8.67 0.88 0.56 4.54 4.65 0.30 0.07

Figure S4. Effect size (ES) (odds ratio) and 95% confidence interval (Cl) of preterm birth per 10 μg/m³ PM₁₀, by exposure period; size of shaded area around point estimate is proportional to weight in calculating pooled estimate. (A) Forest plot of pooled relatively better quality studies and (B) forest plot of pooled relatively low quality studies. PM₁₀, particulate matter less than or equal to 10 μm in diameter.

