SUPPLEMENTARY DATA

Supplementary Table S1. Relative risks and 95% CIs of gestational diabetes according to pre-pregnancy intake of supplementary folate, adjusted for intakes of other micronutrients and multivitamin

	RR (95% CI)*
Adjusted for vitamin B1	
Supplemental folate, µg/day	
0	1.00 (ref)
1-399	0.81 (0.66, 0.99)
400-599	0.72 (0.55, 0.93)
≥ 600	0.64 (0.45, 0.91)
P-trend	0.01
Adjusted for vitamin B2	
Supplemental folate, µg/day	
0	1.00 (ref)
1-399	0.80 (0.67, 0.97)
400-599	0.74 (0.58, 0.95)
≥ 600	0.69 (0.49, 0.99)
P-trend	0.03
Adjusted for vitamin B3	
Supplemental folate, µg/day	
0	1.00 (ref)
1-399	0.83 (0.69, 1.01)
400-599	0.74 (0.58, 0.96)
≥ 600	0.67 (0.48, 0.95)
P-trend	0.02
Adjusted for vitamin B5	
Supplemental folate, µg/day	
0	1.00 (ref)
1-399	0.79 (0.65, 0.96)
400-599	0.74 (0.59, 0.94)
≥ 600	0.67 (0.49, 0.92)
P-trend	0.008
Adjusted for vitamin B6	
Supplemental folate, µg/day	
0	1.00 (ref)
1-399	0.83 (0.68, 1.01)
400-599	0.76 (0.58, 0.98)
≥ 600	0.67 (0.47, 0.96)
P-trend	0.03
Adjusted for vitamin B12	
Supplemental folate, µg/day	
0	1.00 (ref)
1-399	0.80 (0.67, 0.95)

400-599	0.73 (0.58, 0.92)
≥ 600	0.69 (0.50, 0.97)
P-trend	0.01

Adjusted for vitamin A

Supplemental folate, µg/day

0	1.00 (ref)
1-399	0.78 (0.66, 0.94)
400-599	0.70 (0.55, 0.88)
≥ 600	0.63 (0.45, 0.87)
P-trend	0.003

Adjusted for vitamin C

Supplemental folate, µg/day

0	1.00 (ref)
1-399	0.81 (0.69, 0.96)
400-599	0.73 (0.59, 0.90)
≥ 600	0.65 (0.48, 0.89)
P-trend	0.001

Adjusted for vitamin D

Supplemental folate, µg/day

0	1.00 (ref)
1-399	0.82 (0.69, 0.98)
400-599	0.70 (0.54, 0.90)
≥ 600	0.60 (0.42, 0.87)
P-trend	0.004

Adjusted for calcium

Supplemental folate, µg/day

0	1.00 (ref)
1-399	0.84 (0.71, 0.98)
400-599	0.77 (0.63, 0.94)
≥ 600	0.70 (0.51, 0.95)
P-trend	0.004

Adjusted for magnesium

Supplemental folate, µg/day

0	1.00 (ref)
1-399	0.83 (0.70, 0.97)
400-599	0.75 (0.62, 0.92)
≥ 600	0.68 (0.50, 0.92)
P-trend	0.002

Adjusted for multivitamin intake

Supplemental folate, µg/day

|	
0	1.00 (ref)
1-399	0.81 (0.66, 1.00)
400-599	0.73 (0.52, 1.02)

≥ 600	0.65 (0.42, 1.01)
P-trend	0.10

*Adjusted for quartiles of each micronutrient intake or daily frequencies of multivitamin use, in addition to age (months), race (White, African American, Hispanic, Asian and others), parity (0, 1, 2, ≥3), family history of diabetes (yes, no), physical activity (quartiles), pre-pregnancy BMI (<21.0, 21.0–22.9, 23.0–24.9, 25.0–26.9, 27.0–28.9, 29.0–30.9, 31.0–32.9, 33.0–34.9 and ≥35.0 kg/m^2), cigarette smoking (never, past, current) and alcohol use (0, 0.1–5.0, 5.1–9.9, ≥10 grams/day), quartiles of dietary intakes of total energy, glycemic load, saturated fat, total fiber and heme iron.

SUPPLEMENTARY DATA

Supplementary Figure S1. Relative risks and 95% CIs of gestational diabetes according to pre-pregnancy intake of supplemental folate among women who were married and not using oral contraceptive (1), who concurrently used ovulation induction medications (2) and who had concurrent infertility (3).

Groups (1), (2) and (3) included 14594, 2159 and 1984 pregnancies, respectively. Models adjusted for age (months), race (White, others) nulliparity (yes, no), family history of diabetes (yes, no), physical activity (MET-h/wk), pre-pregnancy BMI (<21.0, $21.0–22.9$, $23.0–24.9$, $25.0–26.9$, $27.0–28.9$, $29.0–30.9$, $31.0–32.9$, $33.0–34.9$ and ≥35.0 kg/m^2), current smoking (yes, no), alcohol use (yes, no), and dietary intakes of total energy (kcal/d), glycemic load (unit), saturated fat (% energy), total fiber (g/d) and heme iron (mg/d). Q – quartile. OC – oral contraceptive.
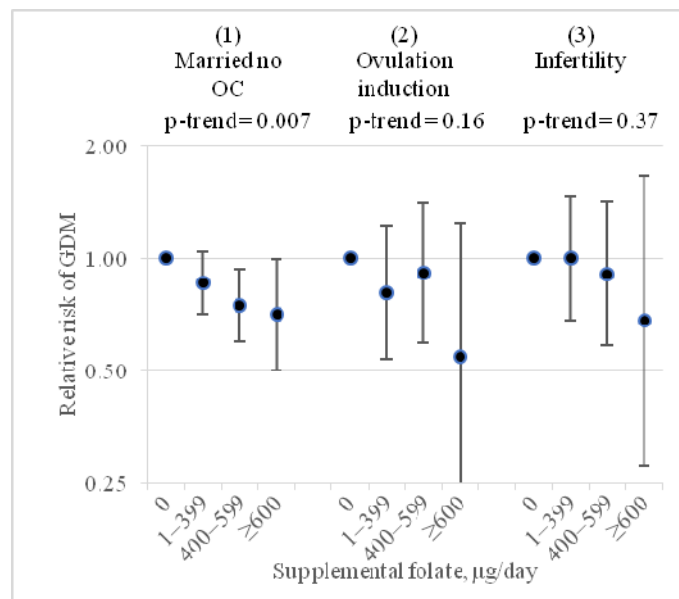
Supplementary Table S2. Relative risks (95% CIs) of gestational diabetes according to updated* pre-pregnancy folate intake

	GDM/ Pregnancy	Model 1†	Model 2‡	Model 3§
Total folate‖, µg/day				
Q1 (81–293)	243/4858	1.00 (ref)	1.00 (ref)	1.00 (ref)
Q2 (294–422)	211/4863	0.85 (0.71, 1.01)	0.95 (0.79, 1.13)	1.00 (0.83, 1.20)
Q3 (423–697)	173/4860	0.69 (0.57, 0.84)	0.79 (0.65, 0.96)	0.84 (0.69, 1.03)
Q4 (698–3363)	166/4861	0.65 (0.54, 0.79)	0.73 (0.60, 0.88)	0.78 (0.65, 0.95)
P-trend		<0.001	0.003	0.003
Per 100 µg/day increase		0.95 (0.93, 0.97)	0.96 (0.94, 0.98)	0.97 (0.95, 0.99)
Total folate^e, µg/day				
Inadequate (<400)	465/9872	1.00 (ref)	1.00 (ref)	1.00 (ref)
Adequate (≥400)	359/10327	0.73 (0.64, 0.84)	0.76 (0.66, 0.87)	0.80 (0.69, 0.91)
P-value		<0.001	0.001	0.001
Supplemental folate, µg/day				
0	436/9377	1.00 (ref)	1.00 (ref)	1.00 (ref)
1–399	168/4411	0.79 (0.67, 0.95)	0.84 (0.70, 0.99)	0.84 (0.71, 1.00)
400–599	122/3716	0.70 (0.57, 0.85)	0.73 (0.60, 0.88)	0.74 (0.61, 0.90)
≥600	67/1938	0.71 (0.55, 0.92)	0.73 (0.57, 0.93)	0.74 (0.58, 0.95)
P-trend		0.001	0.001	0.002
Per 100 µg/day increase		0.95 (0.93, 0.98)	0.95 (0.93, 0.98)	0.96 (0.93, 0.98)
Food folate, µg/day				
Q1 (46–212)	206/4860	1.00 (ref)	1.00 (ref)	1.00 (ref)
Q2 (213–254)	217/4861	1.03 (0.86, 1.25)	1.16 (0.96, 1.40)	1.21 (1.00, 1.46)
Q3 (255–302)	195/4861	0.92 (0.76, 1.11)	1.09 (0.90, 1.32)	1.18 (0.97, 1.45)
Q4 (303–833)	175/4860	0.80 (0.65, 0.97)	0.93 (0.76, 1.14)	1.11 (0.88, 1.39)
P-trend		0.01	0.29	0.76
Per 100 µg/day increase		0.87 (0.79, 0.96)	0.95 (0.86, 1.04)	1.04 (0.93, 1.15)

Q-quartile.

*Intake from the most recent dietary assessment before pregnancy. This is an alternative to the cumulative average intake before pregnancy in the main analysis.

†Adjusted for age (months)

‡Added parity (0, 1, 2, ≥3), family history of diabetes (yes, no), physical activity (quartiles), pre-pregnancy BMI (<21.0, 21.0–22.9, 23.0–24.9, 25.0–26.9, 27.0–28.9, 29.0–30.9, 31.0–32.9, 33.0–34.9 and ≥35.0 kg/m^2), cigarette smoking (never, past, current) and alcohol use (0, 0.1–5.0, 5.1–9.9, ≥10 grams/day) to model 1

§Added quartiles of updated dietary intakes of total energy, glycemic load, saturated fat, total fiber and heme iron to model 2

‖Includes food folate and folic acid from supplements and fortified food.