Online Supplementary Material

Maternal intake of folates during pregnancy and risk of cerebral palsy in the MOBAND-CP cohort.

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Supplementary Methods

Substantive Model Compatible Fully Conditional Specification

Approximately 33 % of the full MOBAND-CP sample had missing data on covariates and/or certain exposures (i.e. mid-pregnancy folates), primarily due to non-responses to the food frequency questionnaires (FFQs) administered in mid-pregnancy. Absolute numbers for each variable are presented in Table 1. We assumed these data to be missing at random, conditional on the covariates included in the imputation models. Missing covariates and exposures were imputed using the Substantive Model Compatible Fully Conditional Specification (SMCFCS) method.[1]

Imputation models were created separately for each outcome (i.e. CP, CP subtypes and CP classified according to gross motor classification) and exposures compatible with the substantive model. The following variables were included in the imputation models: (the exposure(s) and outcome of interest in each substantive model), maternal age at birth, in vitro fertilization, maternal occupational status, pre-pregnancy body mass index, number of cigarettes smoked per day, number of alcoholic beverages per week, periconceptional EPA/DHA supplementation, midpregnancy dietary folate, total eicosapentaenoic acid and docosahexaenoic acid (the covariates), and birth year, cohort affiliation and planned pregnancy (the auxiliary variables). In the imputation models for the substantive models estimating joint effects, interactions between dietary folate and periconceptional and gestational week 9 to 12 folic acid supplementation were also included. Continuous variables, such as total midpregnancy dietary folates equivalents, were first categorized and entered into the imputation models as categorical variables.

In order to arrive at the final imputation models for each substantive model, we evaluated the number of imputations adequate for convergence. The Monte Carlo error and relative efficiency were taken into account. Model convergence was assessed by visual inspection of trace plots with several models with 25, 30 and 35 imputations and 10 and 50 iterations. All final models included 30 imputations with 10 iterations.

Factor analysis with principal components as the extraction method

Increasingly there has been an interest in quantifying dietary patterns in nutritional epidemiology, as a complementary or alternative approach to examining specific food groups and/or nutrients in isolation. One approach has been factor analysis with principal components as the extraction method, in which factor scores based on factor loadings are assigned to individuals for a number of extracted principal components. In the DNBC and MoBa, this approach has been utilized to capture aspects of the maternal diet during pregnancy, based on data collected in the FFQs administered in each cohort.[2-4]

All observed variables from which the factors are derived might correlate positively or negatively with the components extracted in the analyses (loading). The dimensionality of the original data are reduced to the few linear combinations of the observed variables that are optimized to explain most of the variation in the extraction process.

Principal components are data-specific and therefore two similar extracted principal components from two different populations will not be derived from the same matrix of correlations between various dietary variables. In the absence of a harmonizable measure of the healthfulness of the dietary intakes of mothers in MOBAND-CP, we opted to use the data-specific principal components from each cohort in cohort-stratified analyses. From the DNBC, two extracted principal components were used. These two were named *Vegetable/Prudent* and *Western*.[2] A

DNBC participant with a high score on the *Vegetable/Prudent* factor would have a high intake of vegetables, fruits and legumes. A DNBC participant with a high score on the *Western* factor would have a high intake of pork, beef, potatoes, French fries and butter. Similarly, from MoBa, the two extracted factors *Western* and *Prudent* were used in in our cohort-stratified analyses.[3,4] A MoBa participant with a high score on the *Prudent* factor would have a high intake of vegetables, fruits and vegetable oils. A MoBa participant with a high score on the *Western* factor would have a high intake of snacks, sweets and desserts. If the presumed effect of folates is due to residual confounding by nutritive factors present in a dietary pattern characterized as *Vegetable/Prudent* or *Prudent* that correlate with folate intake, we would expect a partial or full attenuation of our results.

Supplementary References

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3. Englund-Ögge L, Brantsæter AL, Juodakis J, Haugen M, Meltzer HM, Jacobsson B, Sengpiel V. Associations between maternal dietary patterns and infant birth weight, small and large for gestational age in the Norwegian Mother and Child Cohort Study. Eur J Clin Nutr. 2019. doi:10.1038/s41430-018-0356-y
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Supplementary Table 1. Baseline characteristics according to *periconceptional* folic acid supplementation, stratified by cohort affiliation

	***Periconceptional* folic acid supplementation (GWs -4 to 8)**							
	DNBC				**MoBa**			
	None		**Any**		**None**		**Any**	
	n	(%)	n	(%)	n	(%)	n	(%)
Total	28 585	100	59 769	100	31 613	100	71 022	100
Offspring sex (female)	13 962	48.8	29 110	48.7	15 345	48.5	34 723	48.9
IVF (yes)	395	1.4	2251	3.8	646	2.0	2 666	3.8
Age at birth								
<25	3485	12.2	4826	8.1	4845	15.3	6 398	9.0
25-29.9	10 445	36.5	23 449	39.2	9778	30.9	23 885	33.6
30-34.9	10 272	35.9	22 676	37.9	11 244	35.6	28 491	40.1
≥35	4383	15.3	8818	14.7	5746	18.2	12 248	17.3
Socio-occupational position								
Employed	21 287	74.5	45 761	76.6	23 885	75.6	58 578	82.5
Unemployed	2856	10.0	4975	8.3	2818	8.9	3489	4.9
Student	3588	12.6	8213	13.7	3613	11.4	7046	9.9
Benefits/pension	846	3.0	810	1.4	453	1.4	663	0.9
Missing	8	0.0	10	0.0	844	2.7	1246	1.8
Gestational smoking								
Non-smokers	22 461	78.6	51 243	85.7	26 927	85.2	66 453	93.6
Smokers	6082	21.3	8 456	14.1	4 316	13.7	4 126	5.8
Missing	42	0.2	70	0.1	370	1.2	443	0.6
Gestational alcohol drinking								
Non-drinkers	15 760	55.1	33 207	55.6	23 984	75.9	57 365	80.8
Drinkers	12 784	44.7	26 507	44.3	4 063	12.9	6990	9.8
Missing	41	0.1	55	0.1	3 566	11.3	6667	9.4
Pre-pregnancy BMI								
Mean (SD)	23.8	(±4.4)	23.5	(±4.2)	24.3	(±4.5)	23.9	(±4.2)
Missing	586	2.1	863	1.4	1205	3.8	1588	2.2
Periconceptional EPA/DHA supplementation								
None	28 313	99.1	57 876	96.8	27 504	87.0	30 996	43.6
Any	272	1.0	1893	3.2	4 109	13.0	40 026	56.4
Mid-pregnancy dietary folate intake (μg/day)								
Mean (SD)	354.0	(±121.1)	359.3	(±115.0)	276.0	(±104.1)	277.3	(±94.5)
Missing	7984	27.9	13 808	23.1	8 064	25.5	8 141	11.5
Mid-pregnancy dietary EPA/DHA (mg/day)								
Mean (SD)	324.6	(±303.8)	341.6	(±297.1)	441.5	(±450.4)	429.7	(±395.2)
Missing	7984	27.9	13 808	23.1	8 064	25.5	8 141	11.5

Data presented as absolute frequencies and (relative frequencies), unless otherwise specified.

Abbreviations: DNBC, Danish National Birth Cohort; Norwegian Mother and Child Cohort, MoBa; IVF, in vitro fertilization; SD, standard deviation; BMI, body mass index; EPA, eicosapentaeonic acid; DHA, docosahexaenoic acid; mg, milligram; μg, microgram.

Supplementary Table 2. ***Periconceptional*** **and early pregnancy folic acid supplementation and cerebral palsy, by regularity of intake**

		CP overall			Unilateral CP			Bilateral CP		
			OR (95 % CI)			OR (95 % CI)			OR (95 % CI)	
Folic acid supplementation	**Pop $_{Total}$ (n)**	**Pop$_{CP}$ (n)**	**Crude model**	**Adjusted model[1]**	**Pop$_{CP}$ (n)**	**Crude model**	**Adjusted model[1]**	**Pop$_{CP}$ (n)**	**Crude model**	**Adjusted model[1]**
GWs -4 to 8										
None	35 667	71	1 [Referent]	1 [Referent]	28	1 [Referent]	1 [Referent]	36	1 [Referent]	1 [Referent]
Irregular	45 785	80	0.96 (0.75, 1.22)	0.99 (0.77, 1.28)	26	0.89 (0.60, 1.32)	0.86 (0.57, 1.30)	40	0.89 (0.62, 1.28)	1.01 (0.70, 1.46)
Regular	42 706	90	1.06 (0.83, 1.36)	1.09 (0.84, 1.41)	37	0.93 (0.62, 1.38)	0.86 (0.56, 1.32)	42	1.11 (0.78, 1.59)	1.28 (0.88, 1.86)
GWs -4 to 12										
None	29 045	[2]	1 [Referent]	1 [Referent]	[2]	1 [Referent]	1 [Referent]	[2]	1 [Referent]	1 [Referent]
Irregular	57 652	104	0.90 (0.70, 1.14)	0.93 (0.72, 1.19)	37	0.81 (0.55, 1.18)	0.76 (0.51, 1.14)	51	0.81 (0.57, 1.16)	0.92 (0.64, 1.32)
Regular	37 461	[2]	0.92 (0.70, 1.20)	0.92 (0.69, 1.23)	[2]	0.76 (0.49, 1.18)	0.67 (0.41, 1.07)	[2]	0.97 (0.66, 1.42)	1.13 (0.75, 1.69)

Absolute frequencies (n) are presented for complete cases (3495 excluded from 'n' due to missing data on regularity of intake); analyses are based on the full multiple imputation dataset.
Abbreviations: ORs, odds ratios; CIs, confidence intervals; CP, cerebral palsy; Pop_{Total}, total population; Pop_{CP}, cases with specified CP subtype.
[1]Adjusted model controlled for maternal age at birth, in vitro fertilization treatment, EPA/DHA supplementation, pre-pregnancy body mass index, smoking status, alcohol intake, dietary folate intake, and dietary eicosapentaenoic acid and docosahexaenoic acid.
[2]Clouded due to low number of observations in one or more cells.

Supplementary Table 3. *Periconceptional* total dietary folate equivalents and cerebral palsy in the *Danish National Birth Cohort*

		CP overall				
			OR (95 % CI)			
Total DFEs/day[1]	**Pop $_{Total}$ (n)**	**Pop$_{CP}$ (n)**	**Crude model**		**Adjusted model[2]**	
0 – 299	6292	13	1 [Referent]		1 [Referent]	
300 – 399	8564	14	1.00	0.53, 1.89	1.07	0.56, 2.03
≥400	34 868	52	0.94	0.54, 1.65	1.04	0.58, 1.88

Absolute frequencies (n) are presented for complete cases; analyses are based on the full multiple imputation dataset.
Abbreviations: ORs, odds ratios; CIs, confidence intervals; CP, cerebral palsy; Pop$_{Total,}$ total population; Pop$_{CP}$, cases with specified CP subtype; DFEs, dietary folate equivalents.
[1]Dietary folate during mid-pregnancy used as a proxy for earlier intake
[2]Adjusted model controlled for maternal age at birth, in vitro fertilization treatment, EPA/DHA supplementation, pre-pregnancy body mass index, smoking status, alcohol intake, and dietary eicosapentaenoic acid and docosahexaenoic acid.

Supplementary Table 4. *Periconceptional* folic acid supplementation and cerebral palsy, adjusted for cohort-specific dietary patterns (complete cases)

		CP overall			Unilateral CP			Bilateral CP		
			OR (95 % CI)			OR (95 % CI)			OR (95 % CI)	
Folic acid supplementation	**Pop_{Total} (n)**	**Pop_{CP} (n)**	**Crude model**	**Adjusted model[a]**	**Pop_{CP} (n)**	**Crude model**	**Adjusted model[a]**	**Pop_{CP} (n)**	**Crude model**	**Adjusted model[1]**
DNBC										
None	15 768	26	1 [Referent]	1 [Referent]	[2]	1 [Referent]	1 [Referent]	16	1 [Referent]	1 [Referent]
Any	36 754	55	0.91 (0.57, 1.45)	0.94 (0.58, 1.53)	[2]	0.86 (0.39, 1.91)	0.86 (0.35, 2.08)	31	0.83 (0.45, 1.52)	0.93 (0.50, 1.73)
MoBa										
None	19 625	45	1 [Referent]	1 [Referent]	19	1 [Referent]	1 [Referent]	20	1 [Referent]	1 [Referent]
Any	54 805	117	0.93 (0.66, 1.31)	1.04 (0.73, 1.49)	46	0.87 (0.51, 1.48)	0.84 (0.46, 1.51)	51	0.91 (0.54, 1.53)	1.23 (0.73, 2.07)

Abbreviations: ORs, odds ratios; CIs, confidence intervals; CP, cerebral palsy; Pop_{Total}, total population; Pop_{CP}, cases with specified CP subtype.
[1]Adjusted model controlled for maternal age at birth, in vitro fertilization treatment, EPA/DHA supplementation, pre-pregnancy body mass index, smoking status, alcohol intake, dietary folate intake, and total eicosapentaenoic acid and docosahexaenoic acid.
[2]Clouded due to one or several cells with a low number of observations

Supplementary Table 5. *Periconceptional* and early pregnancy folic acid supplementation and cerebral palsy (complete cases)

		CP overall			Unilateral CP			Bilateral CP		
			OR (95 % CI)			OR (95 % CI)			OR (95 % CI)	
Folic acid supplementation	**Pop_{Total} (n)**	**Pop_{CP} (n)**	**Crude model**	**Adjusted model[1]**	**Pop_{CP} (n)**	**Crude model**	**Adjusted model[1]**	**Pop_{CP} (n)**	**Crude model**	**Adjusted model[1]**
GWs -4 to 8										
None	35 667	71	1 [Referent]	1 [Referent]	24	1 [Referent]	1 [Referent]	36	1 [Referent]	1 [Referent]
Any	91 986	174	0.95 (0.72, 1.25)	0.97 (0.73, 1.29)	68	0.89 (0.57, 1.38)	0.78 (0.49, 1.24)	84	0.90 (0.61, 1.34)	1.08 (0.72, 1.61)
GWs 9 to 12										
None	42 746	93	1 [Referent]	1 [Referent]	34	1 [Referent]	1 [Referent]	52	1 [Referent]	1 [Referent]
Any	84 907	152	0.82 (0.64, 1.06)	0.74 (0.53, 1.03)	58	0.86 (0.56, 1.31)	0.78 (0.45, 1.38)	68	0.66 (0.46, 0.94)	0.60 (0.38, 0.93)
GWs -4 to 12										
None	29 045	62	1 [Referent]	1 [Referent]	24	1 [Referent]	1 [Referent]	33	1 [Referent]	1 [Referent]
Any	98 608	183	0.87 (0.65, 1.16)	0.88 (0.65, 1.19)	68	0.83 0.52, 1.33	0.72 (0.44, 1.20)	87	0.78 (0.52, 1.16)	0.93 (0.61, 1.41)

Abbreviations: ORs, odds ratios; CIs, confidence intervals; CP, cerebral palsy; Pop_{Total}, total population; Pop_{CP}, cases with specified CP subtype; GWs, gestational weeks.
[1]Adjusted model controlled for maternal age at birth, in vitro fertilization treatment, periconceptional EPA/DHA supplementation, pre-pregnancy body mass index, smoking status, alcohol intake, dietary folate intake, and total eicosapentaenoic acid and docosahexaenoic acid, and periconceptional folic acid supplementation (for GWs 9 – 12).

Supplementary Table 6. *Periconceptional* and early pregnancy folic acid supplementation and total midpregnancy dietary folate equivalents and cerebral palsy, according to *low* or *moderate/high* gross motor function impairment (complete cases)

		GMFCS I (*low* impairment)			GMFCS II-IV (*moderate/high* impairment)		
			RRR (95 % CI)			RRR (95 % CI)	
	Pop_{Total} (n)	Pop_{CP} (n)	Crude model	Adjusted model[1]	Pop_{CP} (n)	Crude model	Adjusted model[1]
Early pregnancy							
Folic acid supplementation							
GWs -4 to 8							
None	35 666	[2]	1 [Referent]	1 [Referent]	[2]	1 [Referent]	1 [Referent]
Any	91 983	[2]	1.00 (0.70, 1.42)	0.97 (0.67, 1.41)	[2]	0.87 (0.56, 1.36)	0.95 (0.60, 1.51)
GWs 9 to 12							
None	42 653	[2]	1 [Referent]	1 [Referent]	[2]	1 [Referent]	1 [Referent]
Any	84 755	[2]	0.80 (0.57, 1.11)	0.76 (0.54, 1.07)	[2]	0.84 (0.55, 1.29)	0.90 (0.57, 1.42)
GWs -4 to 12							
None	28 983	[2]	1 [Referent]	1 [Referent]	[2]	1 [Referent]	1 [Referent]
Any	98 425	[2]	0.90 (0.62, 1.30)	0.88 (0.59, 1.29)	[2]	0.82 (0.52, 1.31)	0.91 (0.56, 1.48)
Mid-pregnancy							
Total DFEs/day							
0-199	7328	[2]	1 [Referent]	1 [Referent]	[2]	1 [Referent]	1 [Referent]
200-299	16 966	[2]	0.48 (0.25, 0.91)	0.50 (0.27, 0.96)	[2]	1.29 (0.42, 4.01)	1.33 (0.44, 4.04)
300-399	13 396	22	0.67 (0.36, 1.25)	0.71 (0.38, 1.34)	13	1.78 (0.58, 5.45)	1.87 (0.62, 5.65)
400-499	9866	11	0.41 (0.19, 0.89)	0.45 (0.21, 0.96)	7	1.30 (0.38, 4.44)	1.42 (0.43, 4.73)
≥500	80 097	80	0.41 (0.24, 0.68)	0.43 (0.26, 0.73)	55	1.26 (0.46, 3.47)	1.39 (0.50, 3.84)

Abbreviations: RRRs, relative risk ratios; CIs, confidence intervals; CP, cerebral palsy; GMFCS, Gross Motor Function Classification System; $Pop_{Total,}$ total population; Pop_{CP}, cases with specified CP subtype; GWs, gestational weeks; DFEs, dietary folate equivalents.

[1]Adjusted model controlled for maternal age at birth, in vitro fertilization treatment, EPA/DHA supplementation, pre-pregnancy body mass index, smoking status, alcohol intake, dietary folate intake, and dietary eicosapentaenoic acid and docosahexaenoic acid. Mid-pregnancy total DFEs analyses additionally adjusted for periconceptional folic acid supplementation and supplementation in gestational weeks 9 – 12.

[2]Clouded due to one or several cells with a low number of observations

Supplementary Table 7. *Periconceptional* folic acid supplementation and cerebral palsy by regularity of intake (complete cases)

		CP overall			Unilateral CP			Bilateral CP		
			OR (95 % CI)			OR (95 % CI)			OR (95 % CI)	
Folic acid supplementation	**Pop $_{Total}$ (n)**	**Pop$_{CP}$ (n)**	**Crude model**	**Adjusted model[1]**	**Pop$_{CP}$ (n)**	**Crude model**	**Adjusted model[1]**	**Pop$_{CP}$ (n)**	**Crude model**	**Adjusted model[1]**
GWs -4 to 8										
None	35 667	71	1 [Referent]	1 [Referent]	28	1 [Referent]	1 [Referent]	36	1 [Referent]	1 [Referent]
Irregular	45 785	80	0.88 (0.64, 1.21)	0.90 (0.65, 1.25)	26	0.72 (0.42, 1.23)	0.66 (0.38, 1.14)	40	0.87 (0.55, 1.36)	1.02 (0.65, 1.60)
Regular	42 706	90	1.06 (0.78, 1.45)	1.09 (0.78, 1.52)	37	1.10 (0.68, 1.80)	0.95 (0.56, 1.63)	42	0.97 (0.62, 1.52)	1.20 (0.75, 1.93)
GWs -4 to 12										
None	29 045	62	1 [Referent]	1 [Referent]	62	1 [Referent]	1 [Referent]	24	1 [Referent]	1 [Referent]
Irregular	57 652	104	0.84 (0.62, 1.16)	0.88 (0.63, 1.21)	104	0.78 (0.46, 1.30)	0.71 (0.41, 1.23)	37	0.78 (0.50, 1.21)	0.92 (0.59, 1.44)
Regular	37 461	75	0.94 (0.67, 1.31)	0.94 (0.66, 1.35)	75	0.97 (0.57, 1.66)	0.80 (0.44, 1.45)	30	0.80 (0.49, 1.29)	1.00 (0.60, 1.66)

An additional 3 495 observations excluded due to missing data on regularity of intake

Abbreviations: ORs, odds ratios; CIs, confidence intervals; CP, cerebral palsy; Pop$_{Total}$, total population; Pop$_{CP}$, cases with specified CP subtype; GWs, gestational weeks.

[1]Adjusted model controlled for maternal age at birth, in vitro fertilization treatment, EPA/DHA supplementation, pre-pregnancy body mass index, smoking status, alcohol intake, dietary folate intake, and dietary eicosapentaenoic acid and docosahexaenoic acid.

Supplementary Table 8. Joint effects of *periconceptional* dietary and supplemental folate and cerebral palsy (complete cases)

Dietary intake and Periconceptional supplementation[1]	Pop $_{Total}$ (n)	CP overall			Unilateral CP			Bilateral CP		
		Pop$_{CP}$ (n)	OR (95 % CI) Crude	Adjusted[2]	Pop$_{CP}$ (n)	OR (95 % CI) Crude	Adjusted[2]	Pop$_{CP}$ (n)	OR (95 % CI) Crude	Adjusted[2]
Low dietary intake*None	18 764	41	1 [Referent]	1 [Referent]	[3]	1 [Referent]	1 [Referent]	[3]	1 [Referent]	1 [Referent]
Insufficient dietary intake*None	10 271	22	0.98 (0.58, 1.65)	1.03 (0.61, 1.73)	[3]	0.55 (0.22, 1.36)	0.57 (0.22, 1.45)	[3]	1.32 (0.65, 2.69)	1.37 (0.68, 2.77)
Sufficient dietary intake*None	6632	8	0.55 (0.26, 1.18)	0.59 (0.28, 1.26)	[3]	0.28 (0.07, 1.21)	0.30 (0.07, 1.29)	[3]	0.79 (0.29, 2.12)	0.81 (0.30, 2.17)
Low dietary intake*Any	47 918	101	0.96 (0.67, 1.39)	0.98 (0.67, 1.42)	[3]	0.63 (0.36, 1.10)	0.54 (0.30, 0.96)	[3]	1.04 (0.61, 1.80)	1.26 (0.73, 2.18)
Insufficient dietary intake*Any	27 558	43	0.71 (0.46, 1.09)	0.76 (0.49, 1.17)	[3]	0.71 (0.39, 1.32)	0.66 (0.35, 1.25)	[3]	0.72 (0.38, 1.37)	0.87 (0.45, 1.66)
Sufficient dietary intake*Any	16 467	30	0.83 (0.52, 1.34)	0.90 (0.56, 1.46)	[3]	0.63 (0.30, 1.31)	0.60 (0.28, 1.28)	[3]	1.08 (0.55, 2.09)	1.27 (0.65, 2.49)

Abbreviations: ORs, odds ratios; CIs, confidence intervals; CP, cerebral palsy; Pop$_{Total}$, total population; Pop$_{CP}$, cases with specified CP subtype; μg, micrograms .

[1]*Low dietary intakest* are defined as intakes below what is recommended for adults (0-299 μg/day). Insufficient dietary intakes are defined as intakes typically sufficient, but below recommendations for women in the reproductive age (300-399 μg/day). Sufficient dietary intakes are defined as meeting or exceeding the New Nordic Recommendations 2012 for women of reproductive age to consume at minimum 400 μg/dietary folate equivalents.

[2]Adjusted model controlled for maternal age at birth, in vitro fertilization treatment, EPA/DHA supplementation, pre-pregnancy body mass index, smoking, alcohol, dietary folate, and total eicosapentaenoic acid and docosahexaenoic acid.
In total 37 997 observations excluded due to missing data from the Food Frequency Questionnaires.

[3]Clouded due to one or several cells with a low number of observations

Supplementary Table 9. Midpregnancy total, supplemental and dietary folates and cerebral palsy (complete cases)

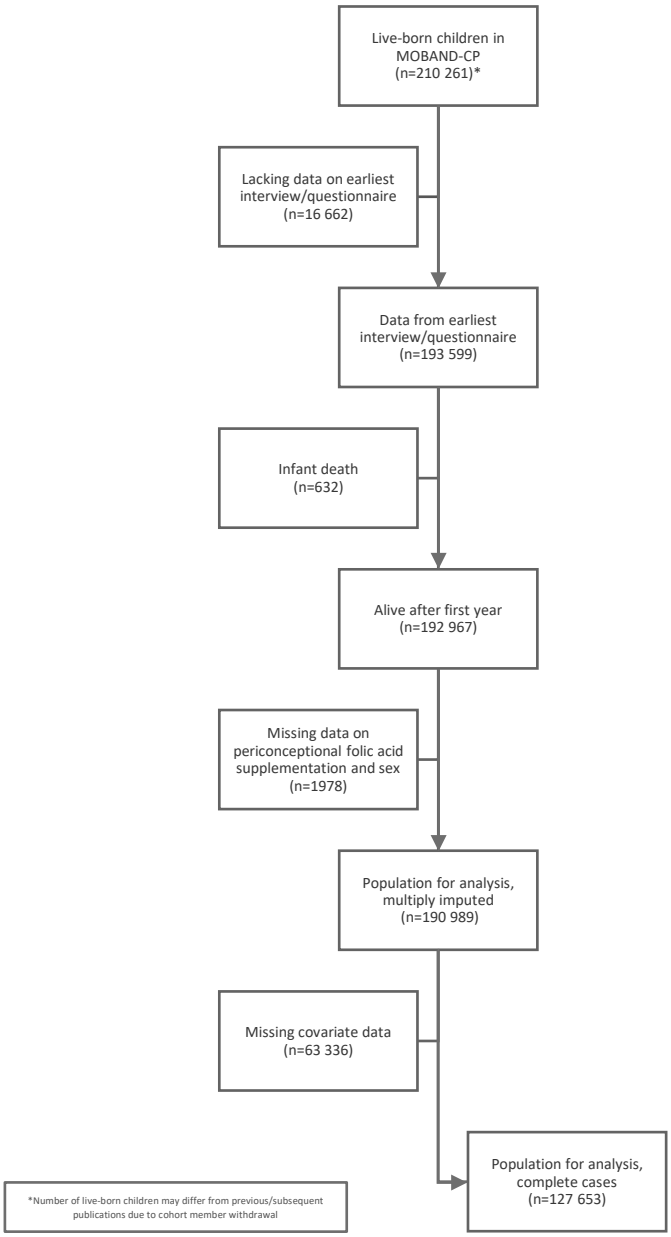
		CP overall			Unilateral CP			Bilateral CP		
			OR (95 % CI)			OR (95 % CI)			OR (95 % CI)	
	Pop_{Total} (n)	Pop_{CP} (n)	Crude model	Adjusted model[1]	Pop_{CP} (n)	Crude model	Adjusted model[1]	Pop_{CP} (n)	Crude model	Adjusted model[1]
Total DFEs/day										
0-199	7328	22	1 [Referent]	1 [Referent]	10	1 [Referent]	1 [Referent]	9	1 [Referent]	1 [Referent]
200-299	16 966	33	0.65 (0.38, 1.11)	0.67 (0.39, 1.16)	13	0.56 (0.25, 1.28)	0.57 (0.25, 1.31)	13	0.62 (0.27, 1.46)	0.66 (0.28, 1.54)
300-399	13 396	35	0.87 (0.51, 1.48)	0.93 (0.55, 1.58)	[2]	0.88 (0.40, 1.93)	0.92 (0.41, 2.03)	[2]	0.91 (0.40, 2.08)	0.97 (0.43, 2.20)
400-499	9 866	17	0.57 (0.30, 1.08)	0.62 (0.33, 1.17)	[2]	0.30 (0.09, 0.95)	0.32 (0.10, 1.00)	[2]	0.91 (0.38, 2.19)	0.99 (0.41, 2.37)
≥500	80 097	138	0.57 (0.37, 0.90)	0.62 (0.39, 0.98)	49	0.45 (0.23, 0.88)	0.47 (0.24, 0.94)	72	0.73 (0.37, 1.46)	0.82 (0.40, 1.66)
Supplemental folic acid (μg/day)										
0	37 922	88	1 [Referent]	1 [Referent]	33	1 [Referent]	1 [Referent]	41	1 [Referent]	1 [Referent]
1-399	50 633	89	0.76 (0.56, 1.02)	0.80 (0.59, 1.08)	36	0.82 (0.51, 1.31)	0.84 (0.52, 1.38)	43	0.79 (0.51, 1.20)	0.88 (0.56, 1.38)
≥400	39 098	68	0.75 (0.55, 1.03)	0.79 (0.57, 1.10)	23	0.68 (0.40, 1.15)	0.73 (0.42, 1.26)	36	0.85 (0.54, 1.33)	0.90 (0.56, 1.46)
Dietary folates (μg/day)										
0-299	66 682	142	1 [Referent]	1 [Referent]	52	1 [Referent]	1 [Referent]	66	1 [Referent]	1 [Referent]
300-399	37 872	65	0.81 (0.60, 1.08)	0.86 (0.64, 1.15)	27	0.91 (0.57, 1.46)	0.99 (0.62, 1.59)	32	0.85 (0.56, 1.30)	0.86 (0.56, 1.33)
≥400	23 099	38	0.77 (0.54, 1.10)	0.84 (0.58, 1.22)	13	0.72 (0.39, 1.33)	0.81 (0.42, 1.54)	22	0.96 (0.59, 1.56)	0.96 (0.58, 1.58)

Abbreviations: ORs, odds ratios; CIs, confidence intervals; CP, cerebral palsy; Pop_{Total}, total population; Pop_{CP}, cases with specified CP subtype; DFEs, dietary folate equivalents; μg, micrograms.

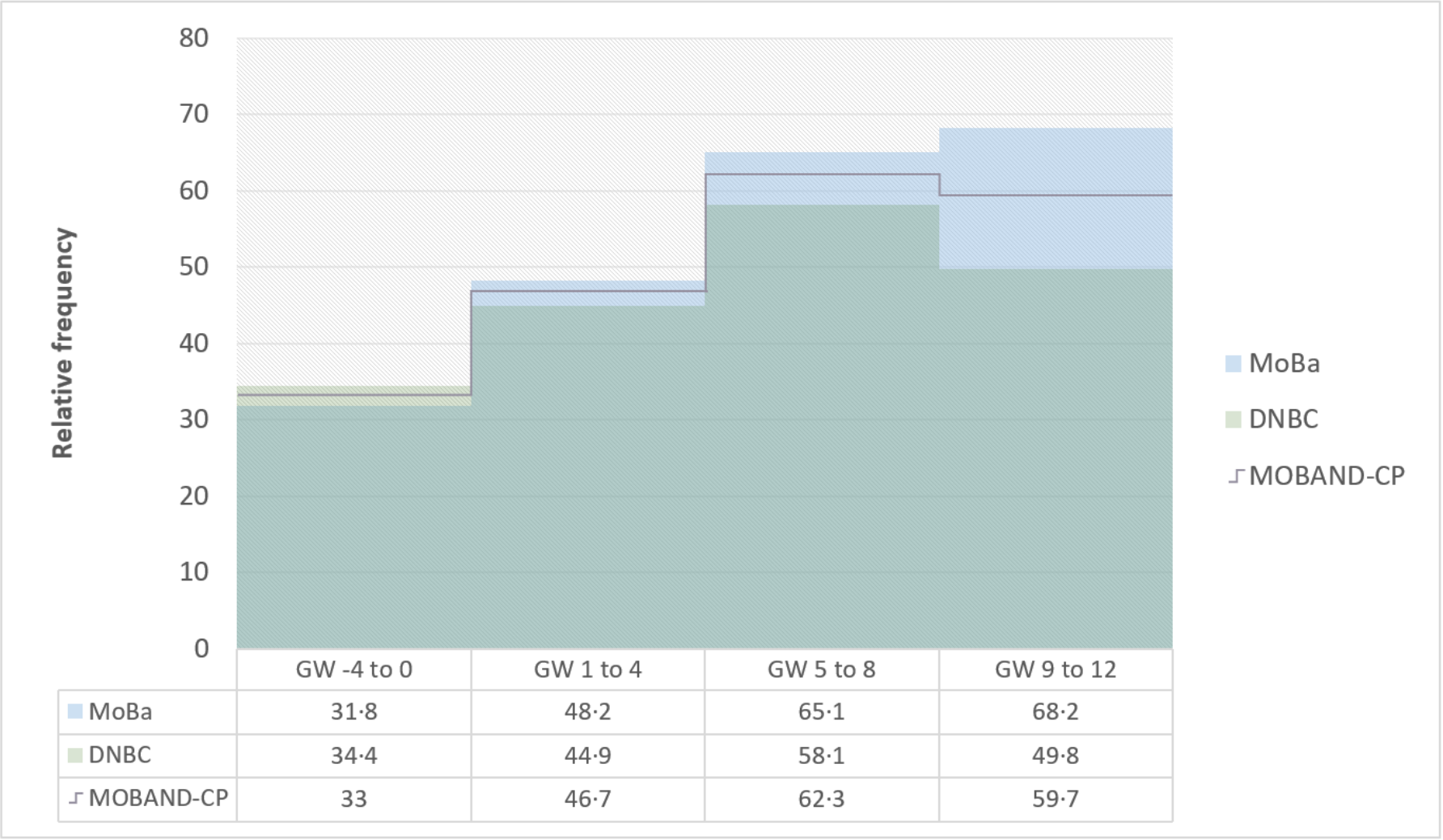
[1]Adjusted model controlled for maternal age at birth, in vitro fertilization treatment, EPA/DHA supplementation, pre-pregnancy body mass index, smoking status, alcohol intake, dietary folate intake, and dietary eicosapentaenoic acid and docosahexaenoic acid, and periconceptional folic acid supplementation. Supplemental folic acid and dietary folates were mutually adjusted for in each respective analysis. Total DFEs additionally adjusted for periconceptional folic acid supplementation and supplementation in gestational weeks 9 – 12.

[2]Clouded due to one or several cells with a low number of observations

Supplementary Figure 1. Flow chart



Supplementary Figure 2. Relative frequency of *periconceptional* folic acid supplementation in four-week intervals, according to cohort affiliation



	GW -4 to 0	GW 1 to 4	GW 5 to 8	GW 9 to 12
MoBa	31·8	48·2	65·1	68·2
DNBC	34·4	44·9	58·1	49·8
MOBAND-CP	33	46·7	62·3	59·7

*Relative frequencies (prevalence) based on full sample excluding 6 447 observations due to lacking data on interval-specific intakes.

Supplementary Figure 3. Odds of cerebral palsy (CP) overall, unilateral CP, and bilateral CP, by level of total midpregnancy dietary folate equivalents