

Table S1. Comparisons of carotenoids and tocopherols concentration according to characteristics of lactating women and their offspring ($\mu\text{g}/100\text{mL}$).

	β -carotene ¹	β -cryptoxanthin ¹	Lutein ¹	Lycopene ¹	Zeaxanthin ¹	α -tocopherol ¹	γ -tocopherol ¹
Age, years							
< 25	2.4 (1.7-3.9)	3.1 (1.7-5.7) ^a	4.2 (2.2-7.3)	1.8 (1.3-3.2)	1.1 (0.7-1.8)	284 (175-452)	77 (52-131)
25-30	2.2 (1.4-3.9)	2.1 (1.1-4.0) ^a	4.1 (2.0-7.0)	1.8 (1.3-2.8)	1.0 (0.6-1.4)	261 (139-403)	67 (42-107)
> 30	2.5 (1.6-5.0)	2.5 (1.1-4.7)	3.9 (1.8-8.7)	1.8 (1.3-2.9)	1.1 (0.7-1.6)	281 (179-473)	73 (41-120)
Offspring gender							
Male	2.4 (1.5-4.2)	2.5 (1.4-4.8)	4.6 (2.2-8.0)	1.8 (1.3-3.2)	1.1 (0.6-1.7)	274 (153-452)	73 (44-121)
Female	2.2 (1.5-4.2)	2.1 (1.1-4.6)	3.6 (1.7-6.8)	1.8 (1.3-2.8)	1.0 (0.6-1.5)	275 (171-442)	68 (44-107)
Education							
Middle school or blow	2.3 (1.5-4.1)	2.7 (1.5-5.2) ^a	4.1 (2.1-7.4)	1.7 (1.3-2.4)	1.1 (0.7-1.8) ^a	283 (165-448)	84 (45-143)
High school	2.2 (1.5-4.1)	2.4 (1.4-4.8)	4.5 (2.0-7.1)	1.8 (1.1-3.1)	1.1 (0.6-1.5)	263 (161-419)	67 (43-103)
College or above	2.4 (1.5-4.9)	2.1 (1.0-4.5) ^a	3.9 (2.0-7.3)	2.0 (1.3-3.2)	1.0 (0.6-1.4) ^a	273 (156-468)	70 (44-107)
Family's per capita income, Yuan/mo							
< 2000	2.2 (1.4-3.9)	2.5 (1.4-5.1)	3.8 (2.1-7.4)	1.7 (1.3-2.8)	1.0 (0.6-1.5)	268 (164-451)	76 (46-122)
2000-4000	2.2 (1.4-4.1)	2.1 (1.1-4.1)	3.8 (1.8-6.2)	1.7 (1.3-2.8)	1.0 (0.6-1.5)	272 (142-426)	73 (43-112)
> 4000	2.5 (1.7-4.8)	2.5 (1.4-5.8)	5.3 (2.1-8.7)	2.2 (1.4-3.4)	1.1 (0.6-2.0)	293 (174-496)	67 (43-109)
Unknown	2.2 (1.7-5.9)	1.7 (1.2-5.3)	5.7 (2.3-8.8)	2.0 (1.3-3.5)	0.8 (0.6-1.9)	283 (178-432)	58 (28-130)
Delivery mode							
Vaginal delivery	2.4 (1.5-4.1)	2.7 (1.4-4.8)	4.6 (2.2-7.5) ^a	1.8 (1.3-2.7)	1.1 (0.7-1.7) ^a	274 (164-453)	71 (44-113)
Cesarean delivery	2.2 (1.5-4.3)	2.1 (1.1-4.7)	3.5 (1.7-6.9) ^a	1.8 (1.3-3.5)	1.0 (0.6-1.4) ^a	274 (161-427)	73 (44-115)

Present BMI

Underweight	2.6 (1.6-3.8)	2.8 (1.5-4.0)	7.4 (2.9-9.0) ^a	1.5 (1.1-2.1)	1.5 (0.8-2.6) ^{abc}	285 (214-463)	80 (47-122)
Normal	2.4 (1.5-4.5) ^a	2.5 (1.4-5.3)	4.3 (2.1-7.4)	1.8 (1.3-2.9)	1.1 (0.6-1.5) ^a	268 (161-438)	68 (41-112)
Overweight	2.0 (1.4-3.9) ^{ab}	1.8 (1.1-3.9)	3.4 (1.5-6.4) ^a	2.0 (1.3-3.2)	1.0 (0.6-1.5) ^b	274 (158-446)	75 (51-121)
Obesity	1.7 (1.1-2.2) ^b	1.4 (0.8-5.6)	3.4 (1.3-6.9)	2.1 (1.3-4.6)	0.7 (0.4-1.4) ^c	288 (141-603)	93 (62-180)

Gestational weight gain

Inadequate	2.4 (1.5-5.3)	2.8 (1.5-4.7)	5.1 (2.3-8.6)	1.7 (1.3-2.7)	1.3 (0.7-1.8)	279 (151-449)	67 (41-106)
Adequate	2.4 (1.5-4.5)	2.5 (1.3-6.0)	4.5 (2.1-8.1)	2.0 (1.3-3.3)	1.1 (0.6-1.6)	282 (171-455)	69 (42-118)
Excessive	2.2 (1.5-4.0)	2.1 (1.0-4.2)	3.5 (1.8-6.4)	1.8 (1.3-2.9)	1.0 (0.6-1.4)	265 (158-426)	76 (48-112)

Dietary supplements intake

Yes	2.2 (1.7-3.6)	2.4 (1.1-3.8)	3.9 (2.1-6.6)	1.7 (1.3-2.5)	1.1 (0.6-1.4)	274 (146-381)	68 (35-107)
No	2.3 (1.5-4.4)	2.4 (1.3-4.8)	4.2 (2.1-7.5)	1.8 (1.3-3.2)	1.0 (0.6-1.7)	273 (162-457)	72 (45-116)

Data are presented as the medians (interquartile ranges). ¹ All of data were performed ln transformations and then compared by analysis covariance adjusted with cities (Beijing, Suzhou, and Guangzhou cities) and periods of lactating (0-4 d, 5-11 d, 12-30 d, 31-60 d, 61-120 d, and 121-240 d *postpartum*). Median values in the same column with same superscript letters (a, b, c) were significantly different, *p* < 0.05.