

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



Hawkesworth, S; Wagatsuma, Y; Kahn, AI; Hawlader, MD; Fulford, AJ; Arifeen, SE; Persson, LA; Moore, SE (2013) Combined Food and Micronutrient Supplements during Pregnancy Have Limited Impact on Child Blood Pressure and Kidney Function in Rural Bangladesh. *The Journal of nutrition*. ISSN 0022-3166 DOI: <https://doi.org/10.3945/jn.112.168518>

Downloaded from: <http://researchonline.lshtm.ac.uk/705600/>

DOI: [10.3945/jn.112.168518](https://doi.org/10.3945/jn.112.168518)

Usage Guidelines

Please refer to usage guidelines at <http://researchonline.lshtm.ac.uk/policies.html> or alternatively contact researchonline@lshtm.ac.uk.

Available under license: <http://creativecommons.org/licenses/by-nc-nd/2.5/>

Supplemental Table 1. Interaction between maternal food and micronutrient interventions on child blood pressure and kidney function in MINIMat follow-up¹

	MMS*food intervention		Fe*food intervention	
	Interaction term regression	P-value	Interaction term regression	P-value
	coefficient (95% CI)		coefficient (95% CI)	
Systolic, <i>mmHg</i>	-0.18 (-1.50, 1.13)	0.78	-0.01 (-1.32, 1.30)	0.98
Diastolic, <i>mmHg</i>	-0.89 (-2.01, 0.23)	0.12	0.71 (-0.40, 1.83)	0.21
Kidney volume, <i>cm³/m²</i>	-0.89 (-4.90, 3.11)	0.66	-2.80 (-6.76, 1.17)	0.17
GFR, ² <i>mL/(min·1.73m²)</i>	-1.88 (-10.28, 6.52)	0.66	1.02 (-7.28, 9.32)	0.81

¹Values are the interaction term regression coefficient (β) for either MMS*food or Fe*food, derived from linear regression analysis.

²GFR = glomerular filtration rate calculated from plasma cystatin C (17).

Supplemental Table 2. Effect of maternal food intervention on offspring blood pressure at 4.5 years in Bangladesh: as-treated analysis¹

	Model 1 ² β (95% CI)	P-value	Model 2 ³ β (95% CI)	P-value	Model 3 ⁴ β (95% CI)	P-value
Systolic pressure, <i>mmHg</i>	-0.03 (-0.11, 0.04)	0.40	-0.04 (-0.11, 0.04)	0.36	-0.02 (-0.10, 0.06)	0.64
Diastolic pressure, <i>mmHg</i>	-0.04 (-0.10, 0.03)	0.23	-0.05 (-0.12, 0.02)	0.15	-0.04 (-0.11, 0.03)	0.27
Kidney volume, <i>cm³/m²</i>	-0.03 (-0.15, 0.19)	0.78	-0.12 (-0.34, 0.11)	0.30	-0.12 (-0.36, 0.11)	0.30
GFR, ⁵ <i>mL/(min⁻¹·1.73m²)</i>	-0.31 (-0.81, 0.19)	0.23	-0.21 (-0.71, 0.29)	0.40	-0.23 (-0.75, 0.30)	0.39

¹Values are regression coefficients (β) for the association between a 10 packet increase in food packet consumption during pregnancy and offspring blood pressure and kidney function, derived from linear regression analysis

²Model 1 = adjusted for MMS and iron intervention dummy variables only;

³Model 2 = additionally adjusted for age, sex, wealth index, thirds of maternal BP (blood pressure models only) and season of birth;

⁴Model 3 = as model 2 but additionally adjusted for height, BMI, fat free mass, diarrhoea in the past 2 weeks and feeling well on the study day.

⁵GFR = glomerular filtration rate calculated from plasma cystatin C (17).

Supplemental Table 3. Effect of maternal micronutrient supplementation on offspring blood pressure at 4.5 years in Bangladesh: as-treated analysis¹

	Variable ²	Model 1 ³	P-value	Model 2 ⁴	P-value	Model 3 ⁵	P-value
Systolic BP, <i>mmHg</i>	Tablets	0.02 (-0.15, 0.20)	0.85	-0.06 (-0.23, 0.12)	0.57	-0.08 (-0.26, 0.10)	0.38
	MMS dose	0.11 (-0.13, 0.36)	0.34	0.15 (-0.09, 0.40)	0.22	0.22 (-0.03, 0.48)	0.08
	Fe dose	0.00 (-0.24, 0.24)	0.99	0.08 (-0.17, 0.33)	0.52	0.14 (-0.11, 0.40)	0.28
Diastolic BP, <i>mmHg</i>	Tablets	-0.01 (-0.16, 0.14)	0.90	-0.01 (-0.16, 0.14)	0.86	-0.05 (-0.21, 0.10)	0.50
	MMS dose	0.08 (-0.13, 0.29)	0.46	0.07 (-0.14, 0.28)	0.50	0.15 (-0.07, 0.37)	0.17
	Fe dose	-0.03 (-0.24, 0.18)	0.78	0.00 (-0.21, 0.21)	0.99	0.08 (-0.14, 0.30)	0.47
Kidney volume, <i>cm³/m²</i>	Tablets	0.52 (0.00, 1.04)	0.05	0.33 (-0.18, 0.85)	0.21	0.26 (-0.29, 0.81)	0.35
	MNS dose	-1.05 (-1.80, -0.31)	0.01	-0.74 (-1.48, -0.00)	0.05	-0.81 (-1.59, -0.05)	0.04
	Fe dose	-0.68 (-1.42, 0.06)	0.07	-0.51 (-1.24, 0.22)	0.17	-0.36 (-1.13, 0.42)	0.37
GFR, ⁶ <i>mL/(min · 1.73m²)</i>	Tablets	0.05 (-1.03, 1.14)	0.93	-0.22 (-1.29, 0.85)	0.69	-0.25 (-1.37, 0.86)	0.65
	MNS dose	0.96 (-0.60, 2.51)	0.23	1.17 (-0.35, 2.69)	0.13	1.14 (-0.44, 2.71)	0.16
	Fe dose	-0.19 (-1.70, 1.32)	0.81	-0.17 (-1.64, 1.31)	0.83	0.09 (-1.47, 1.64)	0.91

¹Values are regression coefficients (β) for the association between a 10 tablet increase in maternal consumption of supplementation tablets during pregnancy and offspring blood pressure or kidney function, derived from linear regression analysis

²Tablets: coefficient for the association between total number of tablets consumed and offspring blood pressure or kidney function (irrespective of intervention arm); MMS dose: coefficient for the association between multiple micronutrient dose (fitted as interaction between tablets consumed and MMS intervention variable) and offspring BP/kidney function; Fe dose: coefficient for the association between high iron dose (fitted as interaction between tablets consumed and Fe intervention variable) and offspring BP/kidney function

³Model 1 = adjusted for the food intervention variable only;

⁴Model 2 = additionally adjusted for age, sex, wealth index, thirds of maternal BP (blood pressure models only) and season of birth;

⁵Model 3 = as model 2 but additionally adjusted for height, BMI, fat free mass, diarrhoea in past 2 weeks and feeling well on the study day.

⁶GFR = glomerular filtration rate calculated from plasma cystatin C (17)