

Global policy and update: translating evidence to action

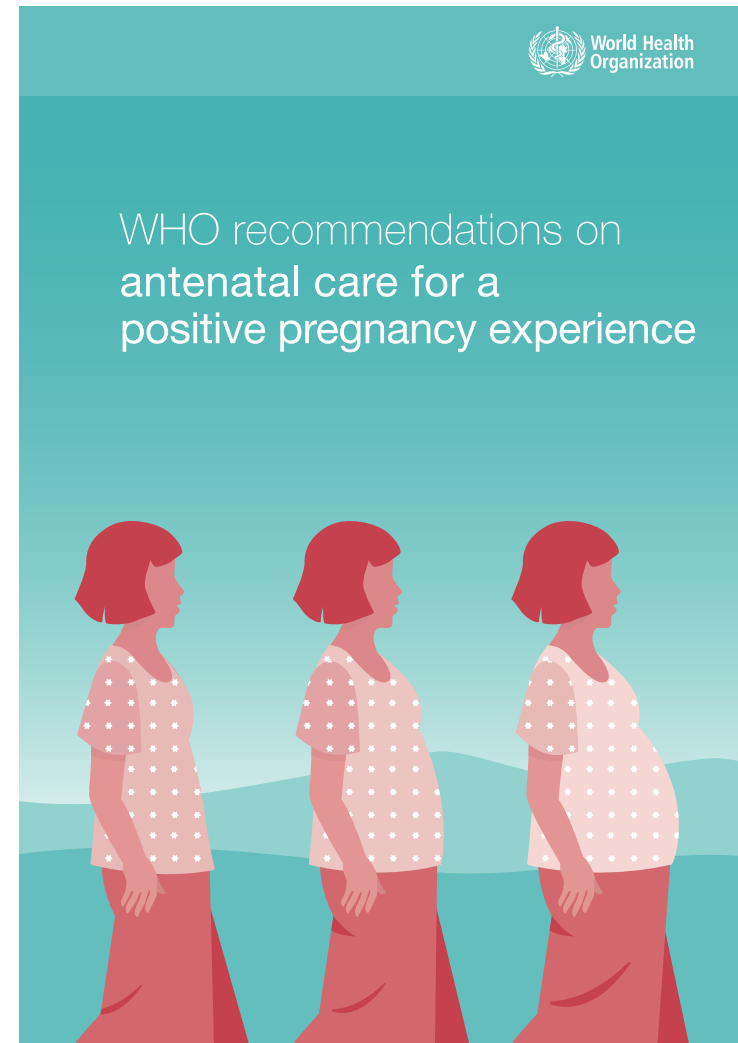
Parul Christian

MMS Stakeholder Consultation

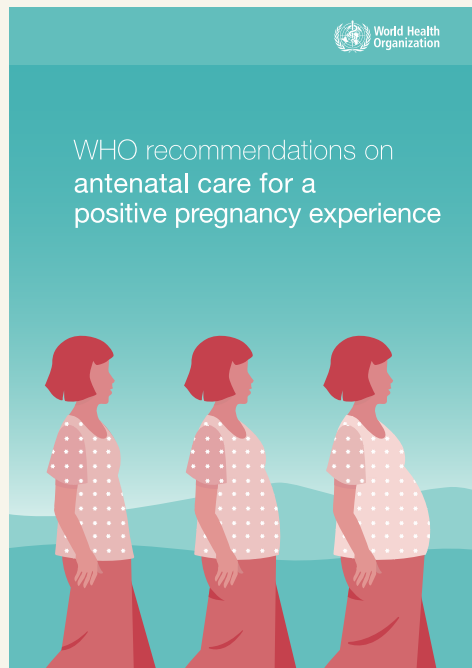
Washington DC, Feb 5-6, 2020

Update on current global antenatal (ANC) guidelines

- WHO released new ANC recommendations in 2016
- Process based on systematic reviews
- Technical Working and Steering Group



WHO ANC RECOMMENDATIONS FOR NUTRITION



Dietary Counseling for Healthy Eating and Appropriate Weight Gain & Diet

Supplementation with Iron-Folic Acid (30-60 mg, 400 ug)

**Multiple Micronutrient Supplementation—
*Not Recommended***

Balanced Protein and Energy Supplementation in Undernourished Population

High Dose Calcium (1.5-2 g) Supplementation in Low Intake Populations

Maternal Health and Survival

**Birth Outcomes
(SGA, PTB, Stillbirth, Infant Mortality)**

Evidence for maternal interventions

	Low Birthweight		Preterm Birth		SGA		Neonatal Death	
	N	RR (95% CI)	N	RR (95% CI)	N	RR (95% CI)	N	RR (95% CI)
	Studies		Studies		Studies		Studies	
Iron-Folic Acid								
Pena-Rosas 2015	11	0.84 (0.69 to 1.03)	13	0.93 (0.84 to 1.03)	n/a	Not assessed	4	0.91 (0.71 to 1.18)
Haider 2013	13	0.81 (0.71 to 0.93)	12	0.84 (0.68 to 1.03)	8	0.85 (0.68 to 0.57)	3	Not assessed
Multiple Micronutrients								
Haider 2017	15	0.88 (0.85 to 0.91)	15	0.96 (0.90 to 1.03)	14	0.92 (0.86 to 0.98)	11	1.06 (0.92 to 1.22)
Smith 2017	17	0.86 (0.81 to 0.92)	16	0.93 (0.87 to 0.98)	16	0.97 (0.96 to 0.99)	12	0.99 (0.89 to 1.09)
Balanced Energy and Protein								
Ota E 2015	11	41 g, (4.7 to 77.3)*	5	0.96 (0.80 to 1.16)	7	0.79 (0.69 to 0.90)	5	0.68 (0.43 to 1.07)
Calcium (high dose)		Pre-eclampsia		Preterm Birth		Hypertension		Perinatal mortality
Hofmeyr 2018	13	0.45 (0.31 to 0.65)	11	0.76 (0.60 to 0.97)	8	0.59 (0.41 to 0.83)	11	0.90 (0.74 to 1.09)

*birth weight

Recommendation on MMS

- Current Situation: Countries have policy for daily iron-folic acid use in pregnancy also recommended by the WHO
- WHO recommendation A.6: Multiple micronutrient supplementation is not recommended for pregnant women to improve maternal and perinatal outcomes
 - evidence, cost, acceptability, harm, were concerns
- **Clause:** .. *policymakers in populations with a high prevalence of nutritional deficiencies might consider the benefits of MMN supplements on maternal health to outweigh the disadvantages and may choose to give MMN supplements that include iron and folic acid.*

Translating recommendation for impact



Activities Following 2016:

- Task Force : Review evidence and create decision making guidance for countries (NYAS)
- Annals of the New York Academy of Sciences Supplement (online)
- Implementing MMS & Policy Change in 4 countries (UNICEF)
- Technical Advisory Group (NYAS)
- BMGF's Goal Keepers Event : MNF leads the accelerator with partners

New synthesis of evidence

ANNALS OF THE NEW YORK ACADEMY OF SCIENCES

Special Issue: *Multiple Micronutrient Supplementation in Pregnancy*

REVIEW

Review of the evidence regarding the use of antenatal multiple micronutrient supplementation in low- and middle-income countries

Megan W. Bourassa,¹ Saskia J.M. Osendarp,^{2,3} Seth Adu-Afarwuah,⁴ Saima Ahmed,¹ Clayton Ajello,⁵ Gilles Bergeron,¹ Robert Black,⁶ Parul Christian,^{6,7} Simon Cousens,⁸ Saskia de Pee,^{3,9,10} Kathryn G. Dewey,¹¹ Shams El Arifeen,¹² Reina Engle-Stone,¹¹ Alison Fleet,¹³ Alison D. Gernand,¹⁴ John Hoddinott,¹⁵ Rolf Klemm,^{5,16} Klaus Kraemer,¹⁷ Roland Kupka,¹⁸ Erin McLean,¹⁸ Sophie E. Moore,¹⁹ Lynnette M. Neufeld,²⁰ Lars-Åke Persson,²¹ Kathleen M. Rasmussen,¹⁵ Anuraj H. Shankar,^{22,23} Emily Smith,^{7,22} Christopher R. Sudfeld,²² Emorn Udomkesmalee,²⁴ and Stephen A. Vosti¹¹

New Scientific Evidence on the Benefits of Maternal Multiple Micronutrient Supplements

New Scientific Evidence on the Benefits of Maternal Multiple Micronutrient Supplements

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Maternal nutrition is critical for a healthy pregnancy


Nutrition in pregnancy is important for mothers' health, as well as to support fetal growth and development. Inadequate diets – those without diversity of fruits and vegetables, animal-source foods and micronutrient-fortified foods – are common among pregnant women in low- and middle-income countries (LMICs). Such diets can lead to concurrent micronutrient deficiencies.¹ In pregnancy, micronutrient deficiencies tend to be more common and more severe because pregnant women and their developing babies have

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REVIEW

The upper level: examining the risk of excess micronutrient intake in pregnancy from antenatal supplements

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ANNALS OF THE NEW YORK ACADEMY OF SCIENCES

Special Issue: *Annals Reports*

LETTER TO THE EDITOR

Antenatal multiple micronutrient supplementation: call to action for change in recommendation

Megan W. Bourassa,¹ Saskia J.M. Osendarp,² Seth Adu-Afarwuah,⁴ Saima Ahmed,¹ Clayton Ajello,⁵ Gilles Bergeron,¹ Robert Black,⁶ Parul Christian,^{6,7} Simon Cousens,⁸ Saskia de Pee,^{3,9,10} Kathryn G. Dewey,¹¹ Shams El Arifeen,¹² Reina Engle-Stone,¹¹ Alison Fleet,¹³ Alison D. Gernand,¹⁴ John Hoddinott,¹⁵ Rolf Klemm,^{5,16} Klaus Kraemer,¹⁷ Roland Kupka,¹⁸ Erin McLean,^a Sophie E. Moore,¹⁹ Lynnette M. Neufeld,²⁰ Lars-Åke Persson,²¹ Kathleen M. Rasmussen,¹⁵ Anuraj H. Shankar,^{23,25} Emily Smith,^{22,26} Christopher R. Sudfeld,²² Emorn Udomkesmalee,²⁴ and Stephen A. Vosti¹¹

ANC Platform: Opportunities and Gaps

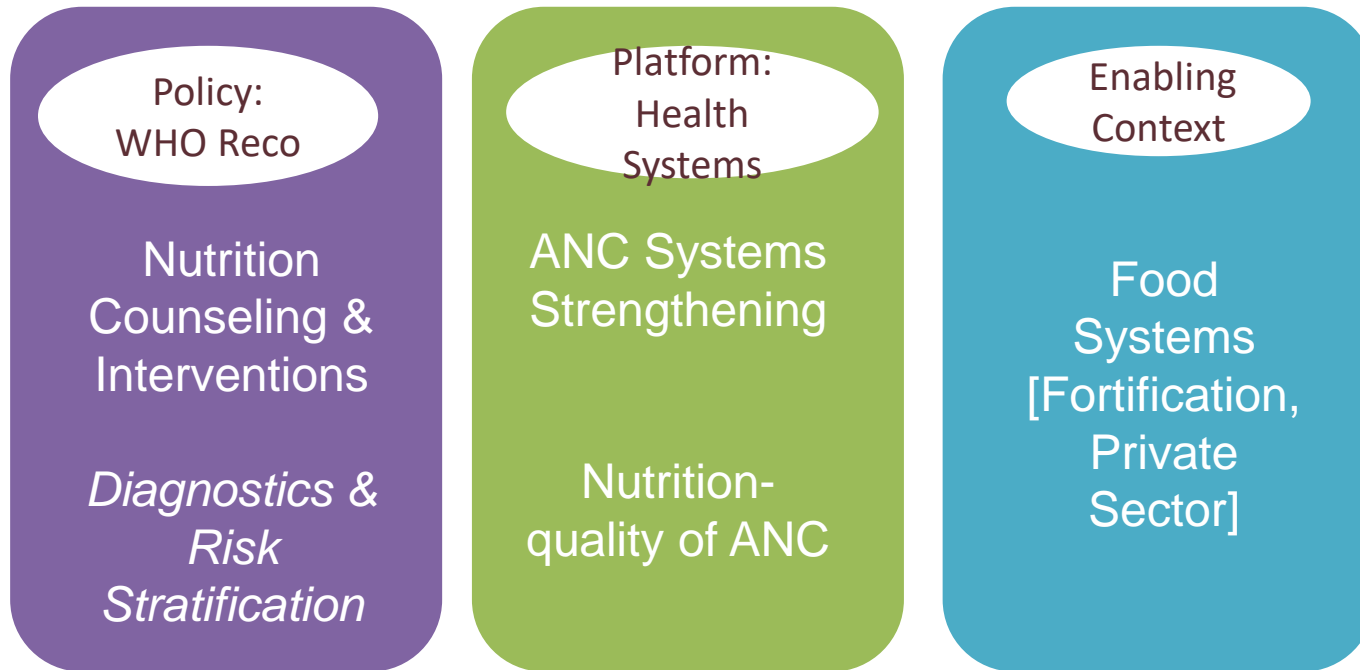
Indicators	NFHS-4 (2015-16)			NFHS-3 (2005-06)
	Urban	Rural	Total	Total
Maternal and Child Health				
Maternity Care (for last birth in the 5 years before the survey)				
32. Mothers who had antenatal check-up in the first trimester (%)	69.1	54.2	58.6	43.9
33. Mothers who had at least 4 antenatal care visits (%)	66.4	44.8	51.2	37.0
34. Mothers whose last birth was protected against neonatal tetanus ⁷ (%)	89.9	88.6	89.0	76.3
35. Mothers who consumed iron folic acid for 100 days or more when they were pregnant (%)	40.8	25.9	30.3	15.2
36. Mothers who had full antenatal care ⁸ (%)	31.1	16.7	21.0	11.6

NFHS-4 DATA – INDIA (2015-16)

Opportunity

Nutrition guidance for pregnancy exists but implementation lags and “nutrition-quality” in ANC needs attention.

Maternal nutrition : opportunity



Effectiveness, Implementation Science, Focused-Geographies for Scale up

Policy, Advocacy, Communications