

ANTENATAL CARE STRATEGIES

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Nutrition-Driven Strategies for Optimizing Antenatal Care

Outcome	Overall	LMICs
Multiple micronutrient supplementation versus iron/folic acid or placebo		
Stillbirth	RR 0.91 (0.86 to 0.98)	RR 0.91 (0.85 to 0.98)
Low birthweight	RR 0.85 (0.77 to 0.93)	RR 0.84 (0.77 to 0.92)
SGA	RR 0.93 (0.88 to 0.98)	RR 0.93 (0.88 to 0.98)
Iron and folic acid vs folic acid alone		
Maternal anemia	-	RR 0.52 (0.41 to 0.66)
Low birthweight	-	RR 0.88 (0.78 to 0.99)
Vitamin D supplementation		
Preterm birth	RR 0.66 (0.34 to 1.30)	RR 0.54 (0.30 to 0.96)*
Low birthweight	RR 0.55 (0.35 to 0.87)	RR 0.53 (0.35 to 0.79)
Balanced protein and nutrient supplementation		
Stillbirth	RR 0.60 (0.39 to 0.94)	RR 0.52 (0.31 to 0.88)
SGA	RR 0.79 (0.69 to 0.90)	RR 0.80 (0.69 to 0.92)

Conclusion

Proper nutrition during the antenatal period is essential for positive maternal and neonatal health outcomes

Outcome	Overall	LMICs
Lipid-based nutrient supplements (LNS)		
SGA	-	RR 0.94 (0.89 to 0.99)
Omega-3 fatty acids supplementation		
Preterm birth	RR 0.89 (0.81 to 0.97)	RR 1.1 (0.7 to 1.74)*
Low birthweight	RR 0.90 (0.8 to 0.99)	RR 1.08 (0.72 to 1.61)*
Dietary education without supplementation		
Preterm birth	RR 0.46 (0.21 to 0.98)*	-
High-dose calcium supplementation for pre-eclampsia		
High blood pressure (with or without proteinuria)	RR 0.65 (0.53 to 0.81)	RR 0.41 (0.25 to 0.69)
Pre-eclampsia	RR 0.45 (0.31 to 0.65)	RR 0.32 (0.22 to 0.46)
Preterm birth	RR 0.76 (0.60 to 0.97)	RR 0.68 (0.49 to 0.95)

Way Forward

Urgent need for research focused on nutrition during pregnancy in LMICs, where nutritional deficiencies are more prevalent.