
Supplementary Online Content

Liu J, Mei Z, Ye R, Serdula MK, Ren A, Cogswell ME. Micronutrient supplementation and pregnancy outcomes double-blind randomized controlled trial in China. *JAMA Intern Med*. Published online January 7, 2013. doi: 10.1001/jamainternmed.2013.1632.

eMethods 1. Supplement formulations

eMethods 2. Data collection procedures

eMethods 3. Outcome definitions

This supplementary material has been provided by the authors to give readers additional information about their work.

eMethods 1.

Supplement formulations

- 1) FA (400 µg);
- 2) IFA, FA (400 µg) plus iron (ferrous fumarate, 30 mg);
- 3) MMN, the UNICEF/WHO/UNU international MMN preparation (UNIMMAP) supplement, FA (400 µg), iron (ferrous fumarate, 30 mg), vitamin A (800 µg), vitamin E (10 mg), vitamin D (5 µg), vitamin C (70 mg), thiamine (1.4 mg), riboflavin (1.4 mg), vitamin B6 (1.9 mg), vitamin B12 (2.6 µg), niacin (18 mg), zinc (15 mg), copper (2 mg), iodine (150 µg), and selenium (65 µg).

eMethods 2.

Data collection procedures

In the study area, we established an electronic population-based perinatal and child health care surveillance system to: identify pregnant women, monitor women from the first prenatal care visit to delivery, and monitor children from birth to age 1 year. Women living in the counties entered the system during their premarital health examination or at any stage of pregnancy; relevant data about demographic, complications during pregnancy, and delivery summary was routinely collected at entry, subsequent prenatal visits, or delivery. Study doctors enrolled eligible women, followed them monthly until delivery, collected the bottle and unused supplements dispensed at the previous monthly visit, recorded the number of pills consumed and side effects, gave women a new bottle of supplements, checked pregnancy outcomes, and completed the required measurements. Study doctors also followed newborns until age 1 year.

Stillbirths, neonatal and infant deaths identified through the surveillance system were cross-checked with death reports. If necessary, additional medical records were reviewed by the project team. Maternal hemoglobin concentration was measured from finger puncture, capillary blood using the HemoCue system (HemoCue AB, Angelholm, Sweden) at enrollment, and at 24-28 weeks gestation. Birth weight was measured using an electronic scale (BD 585, Tanita, Dongguan, China) with precision to the nearest ten grams. Birth length was measured using standardized procedures to the nearest 0.1 cm on a collapsible length board. Maternal weight and height were measured at enrollment using an electronic scale (BW 150, UWE, Beijing, China) with precision to the nearest 50 g and a collapsible height board to the nearest 0.1 cm, respectively. Scales and length boards were routinely checked and calibrated.

eMethods 3.

Outcome definitions

Perinatal deaths were defined as stillbirths delivered at ≥ 28 weeks gestation plus early neonatal deaths from 0-6 days of age. Gestational age at delivery was defined as the number of weeks from the first day of the woman's last recorded menstrual period to the day of delivery.

Neonatal deaths were defined as deaths occurring within 28 days, and infant deaths, within 365 days.

Maternal anemia was defined as a hemoglobin concentration < 11.0 g/dL with no need for altitude adjustment.

Preterm delivery was defined as live birth < 37 weeks gestation from the first day of the last menstrual period.

Low birth weight was defined as birth weight < 2500 g.