Strengthening Nutrition Interventions in Antenatal Care Services Improved Consumption of Iron-Folic Acid Supplements and Early Breastfeeding Practices in Burkina Faso

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**Objectives:** Routine antenatal care (ANC) offers opportunities to receive a broad range of services including support for adequate nutritional care for pregnant women and their newborns. Alive & Thrive (A&T) aimed to strengthen provision of iron-folic acid (IFA) supplementation and interpersonal counseling on maternal nutrition and breastfeeding through government ANC services and community-based contacts in two regions in Burkina Faso. We assessed the impacts of intensified nutrition interventions during ANC (A&T) and standard ANC services (control) on intervention coverage and maternal nutrition practices.

**Methods:** A cluster-randomized design compared 40 health center catchment areas in A&T areas to 40 in control areas. Repeated cross-sectional surveys in 2019 and 2021 (960 pregnant women and 1920 women with children 0–5 months of age per survey round) provided data on impact indicators and intervention exposure. We derived

difference-in-difference effect estimates (DID), adjusted for geographical clustering, for maternal dietary diversity, IFA consumption, and early breastfeeding practices.

**Results:** More women in A&T areas had 4 + ANC visits (DID: 8.5 percentage points [pp]) and 4 + community-based contacts during their last pregnancy (DID: 14.7 pp) and started ANC during the first trimester (DID: 11.3 pp), compared to control areas. A larger improvement in exposure to nutrition counseling during ANC was achieved in A&T areas than in control areas (DID: 39.5 pp). Women in A&T areas consumed more IFA supplements during pregnancy than in control areas (DID: 21 tablets). Both early initiation of breastfeeding and exclusive breastfeeding also improved (DID: 17.1 pp and 8.3 pp, respectively). However, dietary diversity (4 out of 10 food groups) and mean probability of adequacy of micronutrients intake (14%) among pregnant women remained low in both areas.

**Conclusions:** Strengthening maternal nutrition interventions delivered through government ANC services was feasible and effective in improving maternal nutrition practices, despite implementation during the COVID-19 pandemic. Continued efforts to strengthen the delivery and use of maternal nutrition services may be required for greater behavior changes, and to address family support, social norms, and other factors to improve maternal diet.

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