

Publication

Study protocol of a cluster randomized controlled trial of strategies to increase antenatal iron and folic acid supplementation and malaria prophylaxis in rural south-central Côte d'Ivoire

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BACKGROUND: Coverage of antenatal iron and folic acid supplementation (IFAS) and intermittent preventive treatment of malaria in pregnancy (IPTp) remains low in many countries. Evidence on the most effective ways to increase both IFAS/IPTp is mixed overall, with only few studies directly identifying cost-effective ways to increase coverage of both interventions. The proposed study aims to assess the cost, impact and relative cost-effectiveness of two complementary strategies of increasing IFAS and malaria chemoprophylaxis coverage among pregnant women relative to the current default system in a rural low-income setting of sub-Saharan Africa. **METHODS/DESIGN:** This study will be carried out in the Taabo health and demographic surveillance system (HDSS) in south-central Cote d'Ivoire. This is a cluster-randomized trial targeting 720 consenting pregnant women aged ≥ 15 years. The 118 clusters constituting the Taabo HDSS monitoring area will be randomly allocated to one of the following three groups with equal probability: a control group, an information only group, and an information plus home delivery group. To assess the relative effectiveness of each strategy, we will conduct an endline survey within the first 2 weeks after delivery. The primary outcomes of the trial will be maternal post-partum anaemia and malaria infection. Anaemia will be assessed using HEMOCUE devices; malaria infections will be assessed using standard rapid diagnostic tests named CareStart Malaria Pf (HRP2) Ag RDT (Multi Kit with capped lancet and inverted cup specimen transfer device). Other outcomes will include self-reported adherence to supplementation and malaria chemoprophylaxis, as well as miscarriages, stillbirths and low birth weight deliveries. **DISCUSSION:** This study will assess the cost-effectiveness of two alternative strategies to increase antenatal IFAS and malaria chemoprophylaxis coverage among pregnant women in rural Cote d'Ivoire and similar settings. **TRIAL REGISTRATION:** ClinicalTrials.gov NCT04250428 ; Registered 31 January 2020.

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