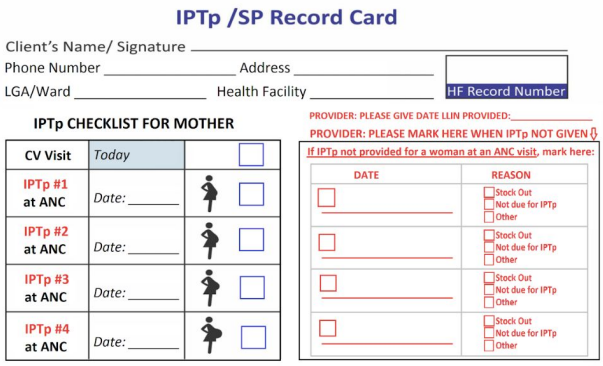
PREVENTING MALARIA DURING PREGNANCY

Redesigned referral process did not increase antenatal care (ANC) attendance for pregnant women

Target a Priority Outcome Nigeria has the highest burden of malaria globally, which remains the top cause of child illness and death.[1] The US Agency for International Development (USAID) Nigeria supports efforts to decrease the number of malaria-related deaths in pregnant women and children. Intermittent preventive treatment (IPTp), which is a full course of antimalarial medicine given to women at routine health care visits during pregnancy (also known as antenatal care visits or ANC), reduces chances of placental malaria and increases the likelihood of healthy outcomes for mothers and babies.[2] However, in 2015, only 19% of Nigerian women received the recommended three or more IPTp doses during their last pregnancy.[3]

Translate Evidence-Based Insights IPTp is not a one-time behavior. Instead, it should be taken multiple times at specific intervals during pregnancy (at least one month apart). Evidence suggests that this schedule causes confusion among women and health workers regarding when and how often to take IPTp.[4] Evidence also indicates that unsupportive family members, such as husbands, may be a key barrier to ANC visits and IPTp use in Nigeria .[5] There is corresponding evidence that behavioral change communications in Nigeria should specifically attempt to increase husband's support of IPTp health-seeking behaviors.[6]

To address these barriers and increase ANC visits and IPTp uptake, OES, USAID and its implementing partner, John Hopkins University (JHU), designed an intervention in which community volunteers (CVs): 1) explicitly requested verbal confirmation of male partner support for attending ANC; and 2) provided easy to use record cards that made the number of ANC visits and IPTp doses clear.


IPTp /SP Record Card

Client's Name/ Signature _____

Phone Number _____ Address _____

LGA/Ward _____ Health Facility _____ HF Record Number

IPTp CHECKLIST FOR MOTHER

CV Visit	Today	
IPTp #1 at ANC	Date: _____	
IPTp #2 at ANC	Date: _____	
IPTp #3 at ANC	Date: _____	
IPTp #4 at ANC	Date: _____	

PROVIDER: PLEASE GIVE DATE LLIN PROVIDED: _____

PROVIDER: PLEASE MARK HERE WHEN IPTp NOT GIVEN ⇩

If IPTp not provided for a woman at an ANC visit, mark here:

DATE	REASON
	Stock Out / Not due for IPTp / Other
	Stock Out / Not due for IPTp / Other
	Stock Out / Not due for IPTp / Other
	Stock Out / Not due for IPTp / Other

Record Card given to pregnant women by CVs

Embed Tests 72 wards in Kebbi State, Nigeria were were randomly assigned to receive the two-pronged intervention (with the other half receiving the standard procedures and documents). Prespecified ANC and IPTp outcomes – women taking at least one dose of IPTp as well as the number of doses of IPTp taken – were compared across 10,000 women from the treatment and control wards.

[1] To help address its high mortality rates, USAID supports increased access to quality family planning and reproductive health services, immunizations, polio eradication, malaria prevention and maternal health services.Retrieved from: https://www.usaid.gov/nigeria/global-health.

[2] ter Kuile, et al. "Effect of sulfadoxine-pyrimethamine resistance on the efficacy of intermittent preventive therapy for malaria control during pregnancy: a systematic review." Jama, 297 (2007): (23), 2603-2616.

[3] Nigeria Malaria Indicator Survey, NMIS, 2015

[4] Hill, et al. " Factors affecting the delivery, access, and use of interventions to prevent malaria in pregnancy in sub-Saharan Africa: a systematic review and meta-analysis." PLoS Med (2013): 10(7), e1001488.

[5] Diala, et al. "Barriers to uptake of malaria prevention and treatment during pregnancy in Cross River and Nasarawa States, Nigeria." Washington (District of Columbia): C-Change/FHI,360 (2013):14-16

[6] Diala, et al. "Perceptions of intermittent preventive treatment of malaria in pregnancy (IPTp) and barriers to adherence in Nasarawa and Cross River States in Nigeria." Malar J (2013): 12, 342.

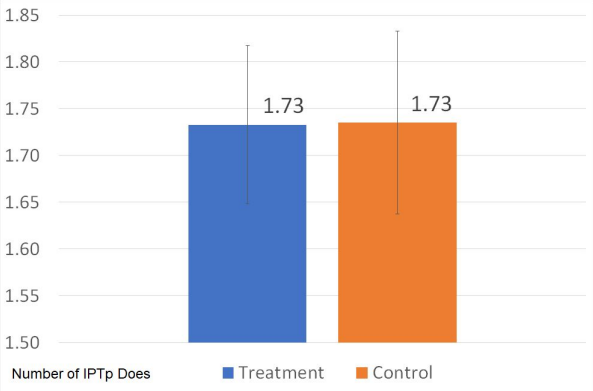
PREVENTING MALARIA DURING PREGNANCY

Redesigned referral process did not increase antenatal care (ANC) attendance for pregnant women

Analyze Using Existing Data Additional measures were added to existing data collection forms to capture the prespecified outcomes.

Results The results suggest the intervention did not change the number of women taking at least one dose of IPTp or the average number of doses of IPTp at ANC or elsewhere.

Number of IPTp doses taken by mothers in Treatment and Control Groups



There were no differences in the average number of ANC visits or the fraction of women visiting ANC at least once. Actual rates of IPTp uptake exceeded 85% in the control group, which was well above ex-ante expectations. This limited the ability to detect changes due to the intervention.

There is suggestive exploratory evidence that the intervention may have influenced beliefs about IPTp-- the intervention was associated with a small but statistically significant increase in the number of IPTp doses that mothers report that pregnant women should take (from 3.07 to 3.30).

Build Evidence While the intervention had no impact on mothers' behavior, there is suggestive evidence that it had a small but significant impact on beliefs about the number of IPTp doses that should be taken. Future studies could explore whether these changes translate to behavior change downstream in future pregnancies.

OES, USAID and JHU were able to test the impact of a small intervention by adding randomization to the project's planned scale-up. Using a project's roll out as an opportunity to rigorously test various interventions may be a promising way to embed testing into USAID programs. Further, the additional measures offered valuable data, which informed key program activities.

This project is a collaboration between the Office of Evaluation Sciences, US Agency for International Development and, John Hopkins University (JHU).