

# ASSESSING A LOW DOSE HIGH FREQUENCY TRAINING APPROACH IN PRIMARY HEALTHCARE FACILITIES IN BAUCHI, KEBBI, SOKOTO, EBONYI, AND FCT NIGERIA TO IMPROVE QUALITY OF CHILD HEALTH CARE SERVICES

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## What is the Low Dose High Frequency Training Approach?

Onsite training where healthcare worker teams learn and work together. The training is completed in less than 4 hours per day, allowing for clinical observation and practice during the remainder of the day. Training themes are spaced 2-3 weeks apart to grant participant leaders time to digest new training content prior to beginning the next module. Remaining onsite reduces disruption of services and the focus on high impact clinical competencies improves providers skills.

## Background

- Singular vertical training exerts modest to no effects on primary healthcare centers (PHC) provider skills and performance
- Offsite and stepdown trainings have less effect (Bluestone, et al, 2013). Offsite training can interrupt normal service provision
- Using a low-dose high-frequency (LDHF) approach, the USAID Integrated Health Program (IHP) implemented and appraised onsite competency-based training of CHWs to improve clinical skills in **1,183 facilities** in Bauchi, Kebbi, Sokoto, Ebonyi, and the Federal Capital Territory (FCT), Nigeria between 2020 and 2021
- NDHS 2018 reported diarrhoea cases treated with ORS/Zinc was less than 20 percent in the five states
- Less than 85 percent of children with Acute Respiratory Infections sought treatment
- Less than 19 percent of fever cases had blood taken from a finger or heel for testing
- Malaria accounts for 36 percent of child deaths in Nigeria (Dasgupta, et al, 2022)

## Results



**4,961** PHC Providers Trained



**73** Number of integrated services offered increased from 56 provisions



**97%** Average post-scores compared to 60% pre-test average



**98%** Antibiotics provision for pneumonia increased from 89%



**98%** Diarrhoea cases treated with ORS/Zinc increased from 89%



**96%** Children under-five with fever tested using RDT increased from 84%



**99%** Initiation of breastfeeding within 1st hour increase from 74%



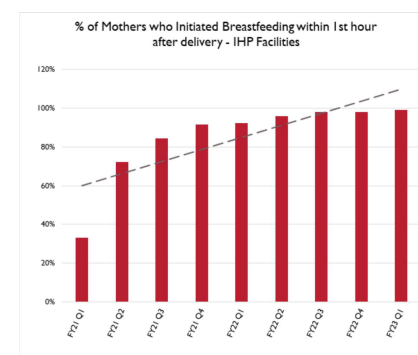
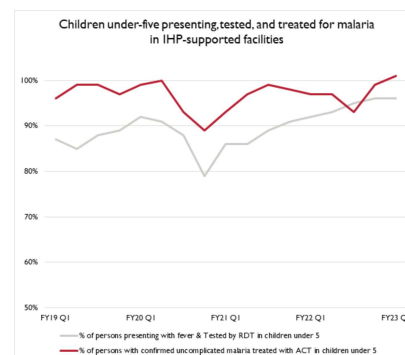
**99%** Children under-five with fever tested using RDT, diagnosed with confirmed uncomplicated malaria received ACT

## Methods

- Between September 2020 and 2021, IHP, states, and stakeholders developed modular training packages using national training manuals and guidelines on integrated management of childhood illnesses, nutrition, malaria, and routine immunization
- Training was standardized and conducted by local grantees who trained and mentored PHC providers
- IHP's phased approach leveraged teams of trainers to deliver three 17-day modules in half-day daily sessions at the facility and two-days clinical mentoring between modules
- IHP provided equipment and job aids, collaborated with stakeholders for increasing numbers of PHC providers and commodities post-training, and provided audio aids, peer-learning, and onsite and remote mentoring
- Provider knowledge and skills were assessed using pre and post-tests and structured checklists
- Service delivery data were collected through NHMIS tools reported into the DHIS2 and analysed using Excel

## Conclusion

Onsite LDHF training increases the availability, quality, accessibility, and utilization of integrated child health services and creates a team of health workers who can interchangeably provide services. On-the-job learning minimizes service disruption and allows more providers to receive training and mentorship in each location.



## References

1. Bluestone J, Johnson P, Fullerton J, Carr C, Alderman J, BonTempo J. Effective in-service training design and delivery: evidence from an integrative literature review. *Hum Resour Health*. 2013 Oct 1;11:51. Doi: 10.1186/1478-4491-11-51. PMID: 24083659; PMCID: PMC3850724.
2. Dasgupta, R.R., Mao, V.V., Ogbuonji, O. Addressing child health inequity through case management of under-five malaria in Nigeria: an extended cost-effectiveness analysis. *Malar J* 21, 81 (2022). <https://doi.org/10.1186/s12936-022-04113-w>