

COMPARATIVE ANALYSIS OF PRIMARY HEALTH CARE PROVIDERS' ADHERENCE TO PARASITOLOGICAL DIAGNOSIS OF UNCOMPLICATED MALARIA USING BEHAVIORAL ECONOMIC PROTOTYPES IN AKWA IBOM, NIGERIA

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Introduction

- Malaria is a major global public health problem with an estimated 232 million annual cases. Nigeria accounts for 27% of the 2022 global burden.
- The US Presidents' Malaria Initiative for States (PMI-S) collaborated with project partners and state stakeholders to provide comprehensive malaria case management (prompt parasitological confirmation and appropriate treatment of confirmed cases).
- The Behavioral Economics Prototypes (BEP) are decision-making-centered delivery approaches to improve health provider adherence to testing, differential diagnosis, and treatment of confirmed malaria cases in line with national guidelines.

Methods

- PMI-S collaborated with the SMEP to train 355 health providers from 275 PHCs on the application of BEPs for fever case management using a stepwise cascade approach.
- There was on-site post-training follow-up supportive supervision for one and a half years.
- 50 BEP facilities were randomly selected from those trained using inclusion criteria during the study period.
- Quantitative data (2020 pre-BEP and 2022 during BEP implementation) from the National Health Management Information System were analyzed for adherence to parasitological diagnosis.

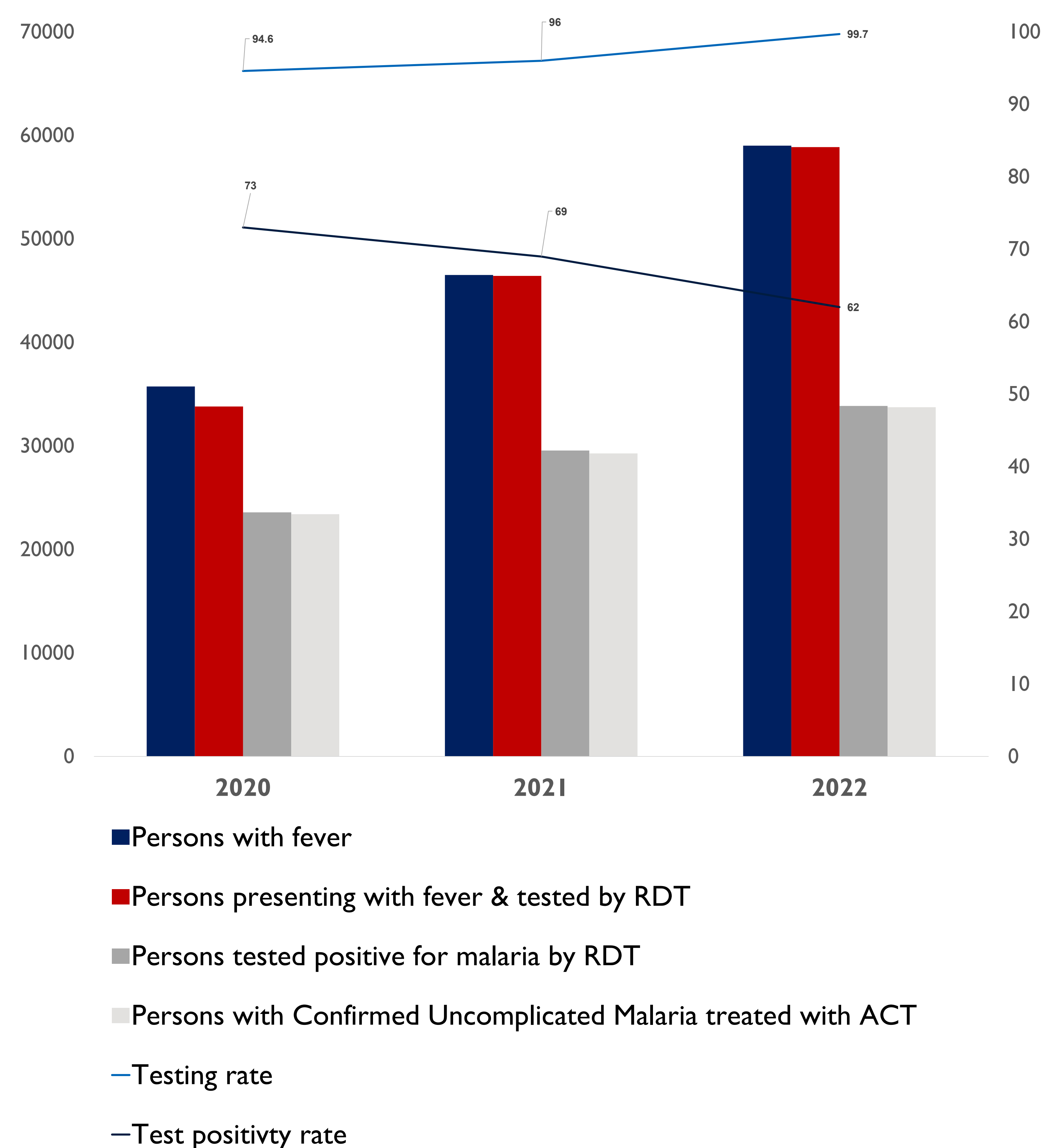


Figure 1. Malaria case management cascade in BEP-implementing health facilities in Akwa Ibom

Results

- The study showed a statistically significant increase in testing rates ($W=771$, $p\text{-value}=9.9 \times 10^{-4}$), 94% before to 99% after 2 years of intervention.
- Decrease in test positivity from 73% to 62% was also significant ($W=1,637$, $p\text{-value}=3.0 \times 10^{-4}$)
- The increase in fever testing suggests that the proportion of persons with fever tested by RDT after BEP intervention is significantly higher than before the intervention (94.6 and 99.7%).

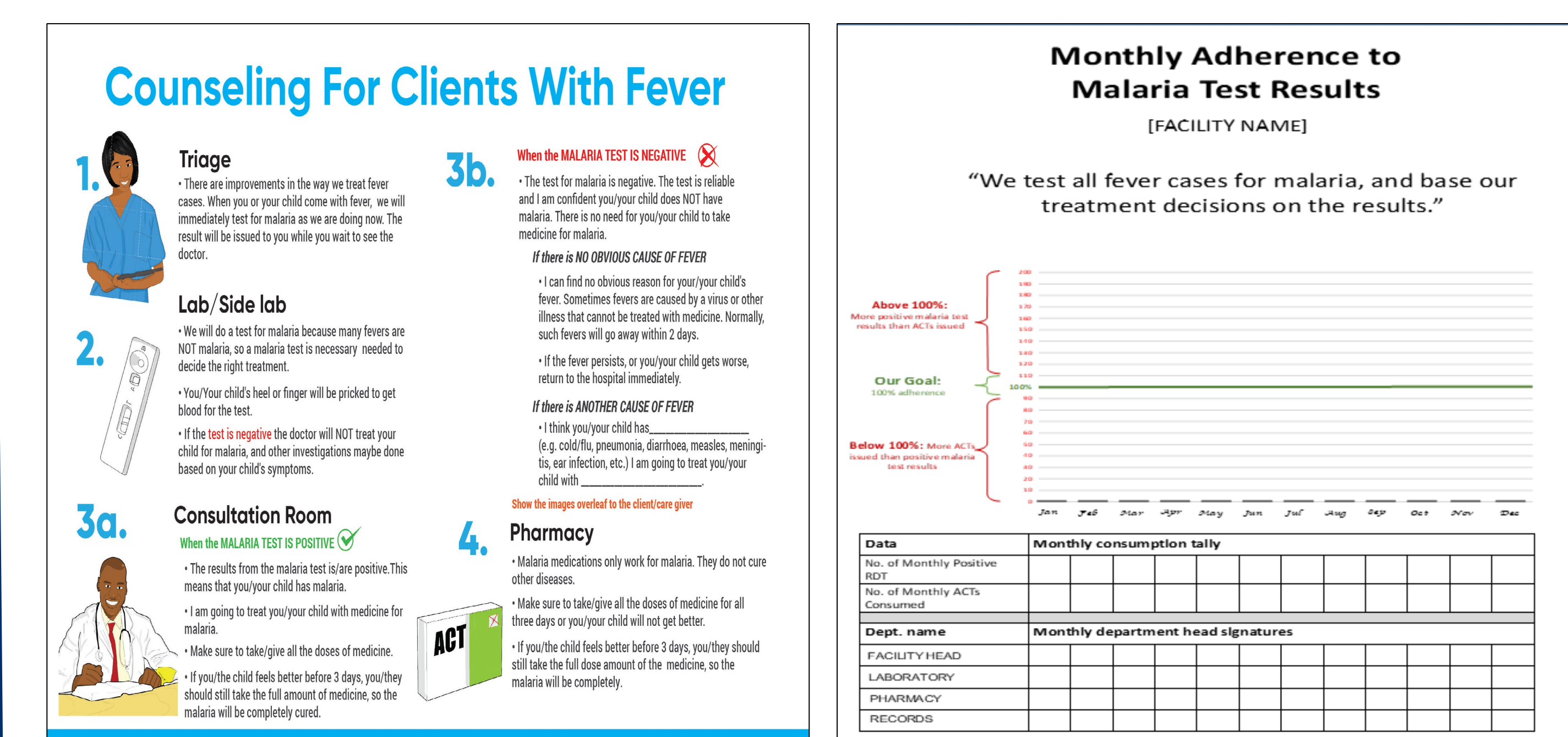


Figure 2. BEP supervisory tool deployed during the supervisory and mentoring efforts

Discussion

- Efforts to eliminate malaria require prompt and accurate confirmation of suspected cases as part of comprehensive case management as a global intervention.
- Adhering to testing of all fever cases for malaria is pivotal to meeting the NMSP 100% target of fever testing before treatment to improve the efficient use of antimalarials for confirmed cases.
- BEP can improve health care workers' belief and confidence in parasitological confirmation of uncomplicated malaria, leading to higher fever testing and rational use of drugs to improve treatment outcomes.



Figure 3. BEP supervisory team supervising and mentoring a PMI-S-supported health facility. Photo credit: PMI-S Project

References

1. World Health Organization World Malaria Report 2021
2. National Malaria Strategic Plan (NMSP) 2021 to 2025

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