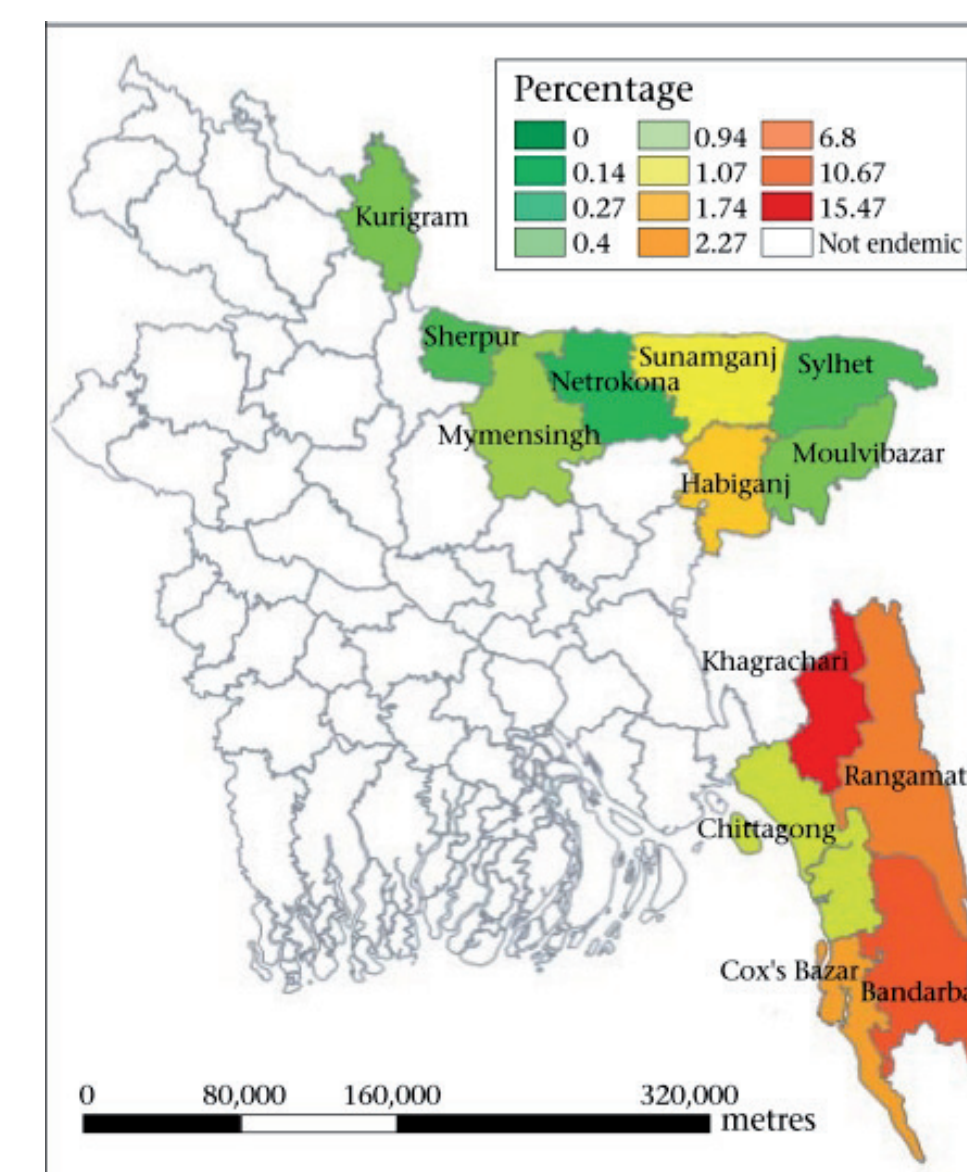


Key messages

- When adequately trained, supervised and provided with the necessary supplies, first-line family planning health workers (FPHWs) in Bangladesh, can accurately diagnose and treat *P. falciparum*, *P. vivax* and mixed malaria cases in the community.
- Participatory training methods implemented during training of trainers (ToT) and cascade trainings were feasible and acceptable and resulted significant improvement in post-test scores.
- Regular, dedicated and comprehensive supervision improved FPHW performance skills over time.

Introduction

- Pregnant women and children under five living in the Chittagong Hill Tract (CHT) districts (Rangamati, Khagrachari and Bandarban) of Bangladesh are at increased risk of severe illness and death from malaria due to poor access to appropriate and timely care.
- First-line FPHWs deliver community-based family welfare interventions in CHT communities. Previously, FPHWs lacked adequate training to deliver malaria case management at the community level.
- This pilot study was commissioned in (Sept 2016) by the National Malaria Control Program (NMCP) and the Family Welfare Department to determine if FPHWs, when adequately trained, supplied and supervised, could accurately diagnose and treat malaria cases in the community and increase access to malaria diagnosis and treatment, especially for pregnant women and children under five.



Top: Malaria endemic areas of Bangladesh
Bottom: FPHWs performing RDT at a cascade training

Methods

Development of tools

- Comprehensive trainer's guide for trainers to train FPHWs and supervisors using participatory adult training activities.
- Training topics included: malaria epidemiology; diagnosing malaria with multispecies rapid diagnostic testing (RDT); treating uncomplicated *Pf* and *Pv* malaria, referral of severe cases; use of interpersonal communication skills, prevention of malaria; supervision skills; and performance improvement.
- Job aids, pre-and post-assessment tests, comprehensive FPHW performance appraisal assessment form measuring seven core malaria competencies.
- Training materials were translated into the local language.

Training

- One 3-day ToT of national trainers (n=29) from the Ministry of Health and Family Welfare and NMCP which included adult learning methods, malaria case management, and how to use the FPHW performance improvement tools during routine supervision.
- Two 2-day cascade trainings of FPHWs (n=57) [FWV (12), FWA (31), SACMO (5) and FP supervisors (9)], from three sub districts (Sadar Upazila, Thanchi and Alikadam), using a simplified curriculum to acquire skills to diagnose and treat malaria and interpersonal communication skills (IPC).

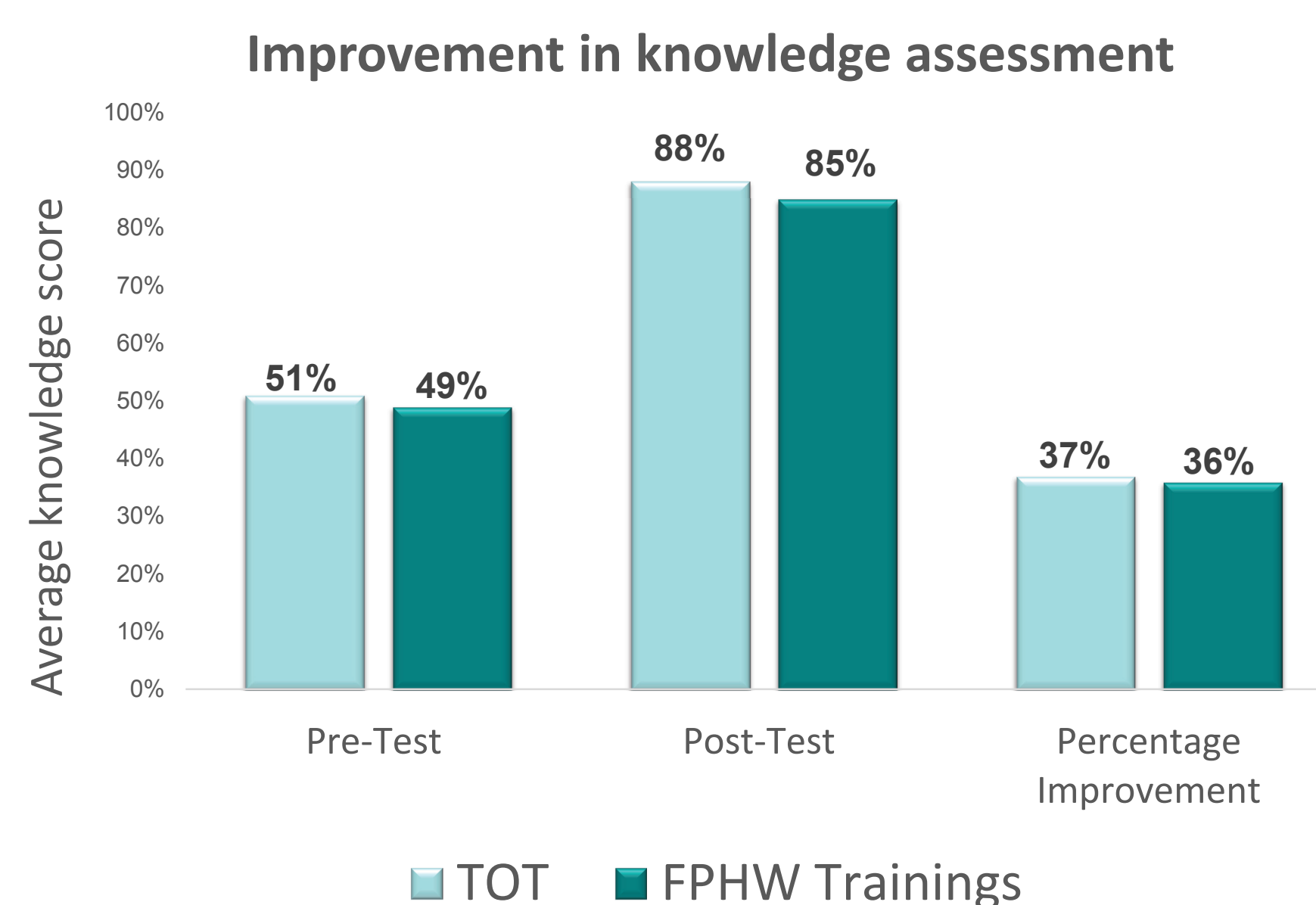
Supervision

- Three supervisors from icddr,b and NMCP conducted three supervision visits each to observe the performance of trained FPHWs to be able to diagnose and treat malaria using a performance appraisal competency assessment form.
- Objectives of supervision were to endorse a set of uniform standards (aligned with national policies and guidelines for malaria); ensure FPHWs had a consistent supply of medicines and other health commodities and were stored properly; assess competencies and mentor FPHWs to continually improve; review registers and health records to ensure proper documentation; and assess medication stock accountability.

Results

FPHW knowledge

- Both national trainers and FPHWs had similar improvement between pre- and post-test knowledge scores before and after training. Highest percentage improvement (72% and 58% respectively).
- End of training evaluations results showed FPHWs were confident and able to diagnose, classify and treat malaria cases after training.



FPHW performance

- A total of 50 volunteers received three supervision visits with performance assessments and mentoring. Total FPHWs supervised per visit: V1 (20); V2 (19); V3 (11).
- Performance improvement scores progressively improved from the first supervision visit, with an average score improvement of 11-points between all visits. Highest score improvement was 19 points from V1 to V3.
- FPHWs were able to perform and correctly interpret results of multi-species RDTs, appropriately treat malaria and record information in registers.

Conclusion

- When adequately trained, supplied and supervised, FPHWs in Bangladesh were able to perform RDTs correctly, accurately diagnose and treat *Pf*, *Pv* and mixed malaria cases in the community and keep registers appropriately.
- In depth and comprehensive supervision immediately after training improved health worker performance and is essential to consolidate the impact of the training.
- Coordination and cooperation between the Family Welfare and Health Departments was critical in delivering effective training and supervision.