Mid-Level Health Provider and Community Health Worker Pediatric Training Using Video-Based and Adapted IMCI for Water-Based Health Care Delivery in Rural Bangladesh

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BACKGROUND

Figure 1: The Chars in Northern Bangladesh

- 1 in 19 children in Bangladesh die before age 5
- Scarcity of resources and lack of standardized training in rural settings make providing quality health care to sick children a serious challenge.
- The Char region in Northern Rural Bangladesh is home to between 5 and 8 million people. This region is remote, rural, and has little access to healthcare services.

- Integrated Management of Childhood Illness (IMCI): WHO and UNICEF protocols that incorporate preventive and curative elements.
- Friendship is a local , nongovernmental organization that provides primary and secondary health care to the people of the chars through a water-based health delivery system using a fleet of ships.
- Staff on the boats and in the char communities have diverse education levels, medical training, and experience in pediatrics.

OBJECTIVES

1) To pilot a pediatric curriculum to standardize training of Friendship mid-level health providers (MLP) and community health workers (CHW).
2) To evaluate the effectiveness of the program by administering examinations pre and post training.
3) To build capacity within the NGO by developing a customized curriculum and creating local staff trainers of this curriculum.

METHODS

Modified IMCI protocols were developed

Protocols were designed to develop local trainer-of-trainers (ToT)

5 pediatric residents have piloted 4 modules: 1) IMCI Overview, 2) Malnutrition, 3) Respiratory Care, 4) Diarrhea and Dehydration.

Modules include written materials and videos in Bangla with training instructions, didactic lectures, mock cases, physical exam audio primers, and real patient encounters.

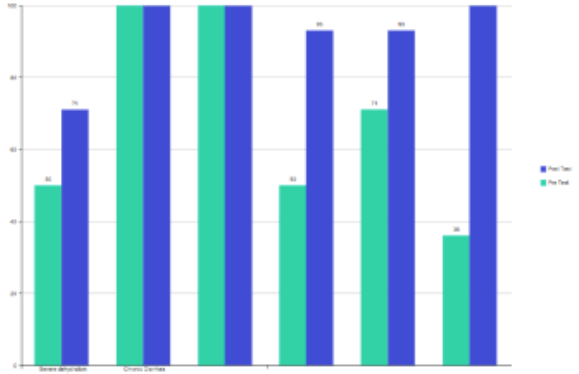
Written examinations were administered before and after completion of training modules. Three and 6 month post-training assessments are scheduled for the first group trained.

Thirty-five MLP and CHW were trained.

RESULTS

Figure 2: Still Images from Child Respiratory Diseases Training Module

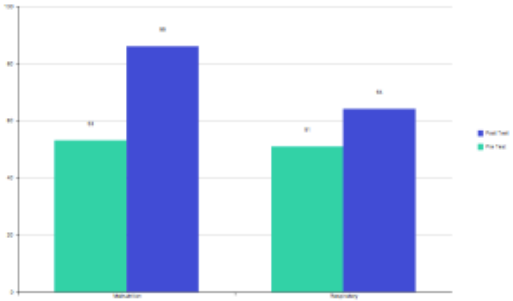
Figure 3: Mid-Level Provider Diarrhea Written Assessment by Question Topic and Type with Improvement Post Training in All Categories (N=14 MLP)



Question Topic and Type

RESULTS CONTINUED

Figure 3: Mid-Level Provider Training Written Assessments with Improvement after Video-Based Training in Paired Test Analysis*



Training Topic

*Malnutrition Training N= 14 MLP; Non Parametric, Paired Wilcox Signed Rank Test, **p value 0.002**

*Respiratory Training N= 17 MLP; Non Parametric, Paired Wilcox Signed Rank Test, **p value 0.005**

USIONS

odified IMCI curriculum:

vides standardized training for Friendship

orporates video-based teaching to target CHW erstanding

velops a local ToT to ensure sustainability

s the potential to be replicated in other water-locked remote areas in Bangladesh and world-wide

ular assessment:

tistically significant improvement

ggests that the method of and assessment of training ffective for MLP in the Char region.

ENCES

S. et al. Integrated Management of Childhood Illness (IMCI) in sh: early findings from a cluster-randomized study. The Lancet 2004 5-1602.