

Case Study 4A.

Bangladesh — An integrated Health-Nutrition-WASH project in a peri-urban area

Introduction

According to UN estimates, in 2011 more than 100 million children under five worldwide (15.7%) were underweight and more than 70% of the world's wasted children lived in Asia, most in south-central Asia, where an estimated 10.1% (36.1 million) were affected (Black et al, 2013). The prevalence of acute malnutrition, defined by the weight-for-height z-score (WHZ) of < -2 , was 11% in northern Bangladesh (FSNSP, 2013).

Between November 2011 and December 2014, Terre Des Hommes (TDH) implemented a comprehensive health and nutrition services project in line with Bangladesh's National Nutrition Service Operational Plan for women, infants and young children living in the nine wards of Kurigram Municipality of Kurigram District, northern Bangladesh.

The study describes the changes in the prevalence of malnutrition, comparing an integrated WASH intervention site and a comparison site, based on service data available from a community health project in a peri-urban area of Kurigram Municipality.

Methodology

WASH activities were integrated in only two of the nine wards with a high prevalence of acute malnutrition among children under five years of age (29.0% prevalence of a mid-upper arm circumference [MUAC] of < 125 mm and 30.1% with a weight-for-age score [WAZ] of < -2). The activities included installation of WASH infrastructures and intensified hygiene awareness within the community-based health project considered as the intervention site. The remaining seven wards became the comparison site, having similar ecological and demographic characteristics, child care practices, hygiene behavior and sanitation coverage.

Project interventions

Community-based health project activities

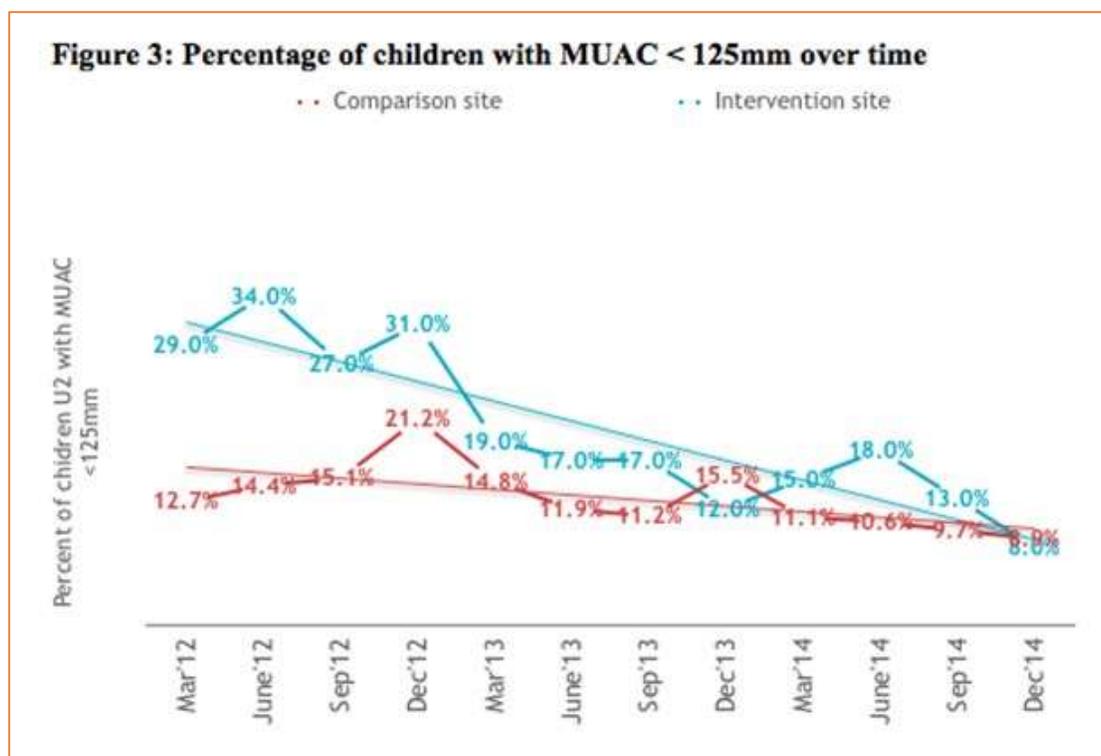
- Growth monitoring of children under two years of age
- Community management of acute malnutrition (CMAM) for children under five
- Facility-based integrated management of childhood illness (IMCI)
- Management of complicated cases of severe acute malnutrition (SAM)
- Identification of pregnant and lactating women and referral for antenatal and postnatal care
- Behavior change communication (BCC) of infant and young child feeding (IYCF) practices and reproductive health-related issues, including early marriage and family planning
- CMAM activities in maternal and child health centers
- Community-based outpatient therapeutic program (OTP) centers at household level

WASH activities

- Construction of 119 community-managed, deep-tube wells and 1,280 household pour-flush twin pit latrines
- Monthly BCC campaigns to improve environmental hygiene in all nine wards
- Participatory hygiene and sanitation transformation follow-up on the importance of handwashing, safe drinking water, safe disposal of excreta, household environmental hygiene and diarrhea prevention (using mothers' group discussions, public theatre, music, songs and visual education materials)
- Monthly children's club meetings and individual household visits to promote proper use and maintenance of the newly installed infrastructure

Results

- There was an overall reduction of prevalence of malnutrition in the municipality due to the monthly BCC campaigns (see the figure)
- Prevalence figures for acute malnutrition reveal that the rate of change was significantly higher in the integrated WASH intervention sites compared to comparison site
- The increase in household coverage for improved toilets is estimated at 29.4% while household access to improved water source increased by 27.6%



Lessons Learned

- Behavior change communication activities and cooking demonstrations contributed to the overall reduction in malnutrition in Kurigram Municipality
- Effective growth monitoring activities are critical for measuring the impact of WASH interventions on Nutrition
- Randomized trial studies could clearly show the impact of WASH in Nutrition
- Provision of WASH hardware facilities greatly contributes to behavior change in fecal matter disposal