MIDTERM EVALUATION RESULTS

This cross-sectional study examines outcomes associated with an integrated community case management (CCM) program for malaria and diarrhea implemented in two districts of Cameroon.

WHAT IS CCM?

Community Case Management (CCM) is a strategy to prevent child deaths in settings where access to facility-based care is limited. CCM involves clinical diagnosis and treatment provided by trained and supervised community health workers (CHWs) – who promote timely treatment seeking, encourage appropriate home care, and facilitate referrals to facilities. Integrated CCM may include the treatment of malaria (with ACTs), pneumonia (with antibiotics) and diarrhea (with ORS and zinc). A CCM intervention typically includes training and supervision of CHWs, appropriate treatment, and behavior change communications targeting mothers / caregivers. Child deaths are prevented by addressing access to, quality of, and demand for CCM services within a favorable social and policy environment (Figure 1).

HOW IS THE CIDA-FUNDED CCM PROJECT WORKING IN CAMEROON?

The program integrates treatment for malaria and diarrhea; national policy does not permit CHWs to distribute antibiotics. The Ministry of Health and the PSI affiliate (ACMS) recruited and trained 456 CHWs for the intervention districts, Doume and Nguelemendouka. Training took place in September and October 2009. Two CHWs were trained per village – serving a total of 213 villages. After completing training, CHWs received pre-packaged ACTs and ORS + zinc for treating children in their catchment areas. When children present with illness, CHWs use IMCI guidelines to assess the cause of illness and its severity. Children with danger signs are referred to health facilities. When CHWs diagnose uncomplicated malaria or diarrheal disease, treatment is provided free of charge.

MIDTERM EVALUATION

In 2010, one year after program launch, a midterm evaluation of the CCM program in Cameroon was conducted. A census was carried out in the two intervention districts (9,605 households) and 1 neighboring comparison district of Abong Mbang (7,349 households). Information on recent illness and treatment seeking behavior was collected for all children under five. The study also collected information on household demographics in order to construct an index of relative household wealth; caregiver awareness of and experiences with CHWs; and contextual factors to assess comparability of intervention and comparison areas. A 10-year birth history among all women of reproductive age was used to estimate all-cause child mortality.

MAIN FINDINGS

INTERVENTION COVERAGE

Figure 2. Percentage of children under five with fever in the past two weeks who received antimalarial and ACT treatment, and source of treatment, across intervention and comparison areas

In intervention areas, children with fever are 9 times more likely to receive treatment with an ACT (43%) as compared with children in comparison areas (5%). Intervention-area children treated with ACT typically receive this treatment from CHWs.

Figure 3. Percentage of children under five with diarrhea in the past two weeks who received ORS, and source of ORS, across intervention and comparison areas

In intervention areas, children with diarrhea are 9 times more likely to receive ORS (61%) as compared with children in comparison areas (7%). Intervention-area children treated with ORS typically receive this treatment from CHWs.

EQUITABLE COVERAGE

In comparison areas, higher socioeconomic status (SES) was significantly associated with: 1) public health care for fever; 2) ACT treatment for fever; and 3) zinc supplementation for diarrhea. In intervention areas, these disparities were either equalized or favored the poorest households. For example, the children living in the poorest households were more likely to receive treatment with an ACT as compared with children living in the relatively wealthiest households. Equity (no significant difference across SES) was achieved in the intervention areas for the following indicators: 1) public health care (CHW or public health facility) for fever and diarrhea; 2) treatment of fever with any antimalarial; and 3) treatment of diarrhea with ORS and zinc. Case management coverage that is equitable or favors the poorest appears to be due to high program uptake, particularly among caregivers living in the poorest households. Awareness of the CHW program and accessing CHWs services within the past year were highest among the poorest caregivers in intervention areas.

CONCLUSIONS

Results demonstrate that trained and supervised CHWs with a continuous supply of effective medicines, supplied through the existing district level supply chain, can dramatically improve equitable access to treatment for malaria and diarrhea in a remote part of Cameroon after just one year of implementation. CCM is an important strategy for achieving MDG 4. ACMS will carry out an end-line survey in 2012 at which point a reduction in all-cause child mortality is expected.

For more information on PSI’s work in integrated case management of malaria, pneumonia and diarrhea, please contact Jane Miller, jmiller@psi.org. For more information on this study, please contact Megan Littrell, mlittrell@psi.org.