

Can the Management of Uncomplicated Diarrhea at the ADDOs in Tanzania be Further Improved?

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Problem statement: The accredited drug dispensing outlet (ADDO) program has increased access to affordable quality medicines and pharmaceutical services in retail drug outlets in underserved areas of Tanzania. Program monitoring and evaluation have showed improved medicine availability and dispensing; however, anecdotal evidence suggested continuing problems with diarrhea management.

Objective: To determine how ADDO dispensers manage uncomplicated diarrhea in children under five

Design: Quantitative data collection was performed in 2010 using a mystery shopper scenario in the Ruvuma region, where the program had operated for seven years, in the Singida region with one year of ADDO operations, and in the Mara region, which had no ADDOs (control). Ruvuma data from 2004 came from a retrospective record review.

Setting: 30 randomly selected ADDOs from Ruvuma, 60 each in Singida and in Mara

Intervention: Ruvuma and Singida dispensers received training in 2003 and 2009, respectively, on how to manage uncomplicated diarrhea in children under five as part of ADDO accreditation. ADDO dispensers in both regions received supportive supervision on diarrhea management. Drug shop workers in Mara received no training or supervision.

Outcome measures: Percentage of uncomplicated diarrhea encounters in which antibiotics or appropriate treatment using oral rehydration solution were dispensed

Results: In Ruvuma in 2010, cases managed according to treatment guidelines did not change from the 2004 levels of 29%; in Singida, the percentage of encounters in which uncomplicated diarrhea was managed appropriately rose from 20% at baseline in 2009 to 42% at endline; no change was observed in Mara (25% at baseline compared with 27% at endline). The percentage of uncomplicated diarrhea encounters that included dispensing of an antibiotic declined from 98% at baseline to 76% at endline in Singida, while it remained constant in Mara (87% at baseline and 84% at endline). The percentage of diarrhea cases in which metronidazole was dispensed by ADDOs in Ruvuma declined from 53% in 2004 to 42% in 2010.

Conclusions: Managing uncomplicated diarrhea with oral rehydration solution increased and antibiotic dispensing decreased after the ADDO intervention in Ruvuma and Singida; however, practices still fall well short of the recommended national treatment guidelines. Qualitative research suggests that other factors beyond ADDO dispensing skills and knowledge may fuel these practices, such as the prescribing practices at public and private health facilities, consumer pressure and preference for metronidazole, and profit motive. Stakeholders recommended further assessments to understand the ADDO dispenser/health facility prescribers and consumer dynamics and its impact on antibiotics use in diarrhea management.

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