

The effectiveness of the “Step by Step” foot care project in reducing rates of amputation among persons with diabetes-associated foot ulcers, Dar es Salaam, Tanzania

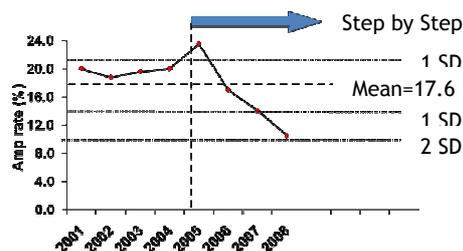
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Background: Diabetic foot complications are associated with substantial morbidity (e.g., amputations), mortality, and healthcare costs in Tanzania. To address this problem, the Step by Step Foot program was instituted in 14 regions in 2005. **Objectives:** to determine whether the Step by Step intervention was effective in reducing rates of amputation among persons with foot ulcers who were referred to the Muhimbili National Hospital diabetes clinic in Dar es Salaam. **Methods:** The “Step by Step” program included the following: (i) training of healthcare practitioners (HCP) in diabetic foot management; (ii) enhancing the ability of HCP to transfer knowledge and expertise to other HCP; (iii) education modules aimed at reducing rates of foot complications and early detection. We monitored secular trends in amputation rates among MNH referrals during 2001-2008 (study period). The denominator was the annual number of foot referrals to MNH. **Results:** During the study period, the mean annual amputation rate was 17.6%. Before Step by Step, amputation rates for MNH referrals increased >1 standard deviation (SD) above the mean. After Step by Step, amputation rates decreased significantly to almost 2 SD below the mean in 2008 (see figure).



Conclusion: Institution of the Step by Step Foot Project in Dar es Salaam, improved foot ulcer management and significantly reduced overall rates of lower limb amputations among MNH referrals. These data underscore the importance of surveillance activities in measuring outcomes of interventions.