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**Using sprinkles™ to supplement micronutrients and probiotics to reduce diarrhea-related morbidity among Pakistani children: a triple blind community based placebo controlled trial**

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**Background:** Literature suggests that daily prophylactic supplementation with zinc or probiotics may reduce diarrhea-related morbidity and mortality. An impediment to their use, however, has been absence of a reliable strategy for wide-spread distribution. We recently developed Sprinkles, a complementary food fortificant of micronutrients delivered daily via a single-dose-sachet. **Objective:** To examine the effect of the daily use of micronutrients (including zinc) or the same micronutrients plus a heat-killed strain of lactic acid bacteria (LAB) on longitudinal prevalence of diarrhea (LPD), a surrogate measure for mortality. **Methods:** This community-based trial took place in an urban slum of Karachi, Pakistan. 75 children at high-risk for diarrhea-related-mortality identified as: (a) age between 6 to 12 months; and (b) history of  $\geq 1$  episode of diarrhea in the past 2 weeks, were randomly assigned to micronutrients, micronutrients plus LAB or a placebo, to be administered daily for 2 months. LPD was defined as the percentage of days on which a child had diarrhea. Other outcomes were days of fever per child, hemoglobin and serum ferritin concentrations. **Results:** LPD in the micronutrient group was significantly less; 15% (SD = 10%) child-days compared to 26% (SD = 19%) child-days and 26% (SD = 20%) child-days, for micronutrient plus LAB and placebo groups respectively. A similar trend was observed for days of fever per child. **Conclusion:** The daily provision of micronutrients, including zinc, reduces diarrhea-related-morbidity; heat-killed LAB has negative effects.