

**Presented at the International Nutritional Anemia Consultative Group (INACG), Peru, November 2004:**

**Efficacy of daily vs weekly home fortification of weaning foods with sprinkles among infants and young children in Bangladesh**

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**Background:** Daily home fortification of weaning foods with micronutrients supplied as 'Sprinkles' is efficacious in the treatment and prevention of iron deficiency anemia (IDA) among infants and young children. However, there is evidence suggesting that a weekly regimen of conventional iron supplementation (iron drops) can be as efficacious as daily use. **Objective:** To compare the efficacy of daily vs. once a week home fortification of weaning foods with micronutrient Sprinkles over 8 weeks among 12-24 month old anemic infants (Hb < 110 g/L). **Methods:** In a rural location in Bangladesh, 13 villages with anemic infants (hemoglobin <110 g/L) were randomly assigned to either daily (n=70, 12.5-mg iron), or weekly (n=66, 30-mg iron once a week and placebo sachets for remaining 6 days) doses of Sprinkles. Hemoglobin concentration (Hb), serum ferritin (sFt) and transferrin receptor (sTfR) were assessed twice – at baseline and at 8 weeks. Hb was assessed on a drop of capillary blood by HemoCue®. Venous blood samples were collected to measure sFt by radioimmunoassay and sTfR by enzymelinked immunosorbent assay methods.

**Results:** Overall, Hb increased in the daily and weekly groups by 16 g/L and 12 g/L (p<0.000) and anemia decreased by 54% and 53%, respectively (p<0.000). At 8 weeks, although Hb was higher in daily (p=0.072), anemia prevalence did not differ between the groups (p=1.00). In a subset of infants with initial Hb <100 g/L (n=39 daily and 34 weekly), there was an increment in Hb by 21 g/L and 16 g/L (p=0.05) and the prevalence of anemia (Hb <100 g/L) decreased by 85% and 62% (p=0.034) in the daily and weekly groups, respectively. In this same sub-set, sFt increased by 11 µg/L and 6 µg/L in daily and weekly groups (p=0.025), while sTfR decreased by 3.1 mg/L and 2.8 mg/L in daily and weekly groups, respectively (p=0.325).

**Conclusion:** Although both daily and weekly use of Sprinkles was efficacious, daily administration resulted in better iron stores and superior Hb response in moderately anemic infants.