

The contribution of dark-green leafy vegetables to total micronutrient intake of two- to five-year-old children in a rural setting[#]

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Abstract

This study determined the contribution of dark-green leafy vegetables (DGLV) to total micronutrient intake of two- to five-year-old children residing in two neighbouring rural villages in KwaZulu-Natal where production and consumption of these vegetables were promoted. A repeated cross-sectional study that included five repeated 24 h dietary recalls per study period was done during February (n=79), May (n=74), August (n=75) and November (n=78) of 2005 by interviewing the caregivers. Consumption of spinach (mostly Swiss chard) and *imifino* (a collective term for various dark-green leaves) complemented each other, with *imifino* being consumed mostly during the first and last quarter of the year, and spinach (mostly Swiss chard) during the 3rd quarter. The proportion of children who consumed DGLV during the 5 d recall period ranged from 36% (May survey) to 86% (February survey), and the average number of times that children consumed it ranged from 1.4 (May survey) to 2.2 (February survey). The average portion size consumed was approximately ½ cup (87 ± 56 g for spinach; 87 ± 38 g for *imifino*). For children consuming DGLV, these vegetables contributed significantly to dietary intake of calcium (21 to 39% of total intake), iron (19 to 39%), vitamin A (42 to 68%) and riboflavin (9 to 22%).

In conclusion, DGLV made a significant contribution towards total nutrient intake of the children for several of the micronutrients. This contribution can potentially be increased should these vegetables be consumed more frequently and by a larger proportion of the children.

Keywords: dark-green leafy vegetables, dietary intake, micronutrients, children, rural, South Africa