

## Exclusive breastfeeding up to six months: Are we getting the right figures?

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**Introduction:** Exclusive breastfeeding (EBF) is recommended up to six months of age and is usually estimated by the 24-recall method which actually overestimates the real rate. EBF rate in Sri Lanka up to 4 months of age is 75% and up to 6 months of age is 51% according to data of the Sri Lanka Demographic & Health Survey 2006/07. Deuterium oxide dose-to-mother technique could be utilised for assessment of intake by babies of breastmilk as well as intake of water from sources other than breastmilk.

**Objective:** To determine the actual EBF rates at 3 and 6 months of age of infants in Sri Lanka using deuterium oxide dose-to-mother technique.

**Method:** Thirty healthy mother-infant dyads were followed up for a six month period from birth and breast milk intake was measured at 3 and 6 months using deuterium isotope analysis. Further, an interviewer administered questionnaire asked about the feeding history.

**Results:** The average milk intake at 3 months was  $772 \pm 134$  g/day<sup>1</sup> (range 587-1057) and  $800 \pm 174$  g/day<sup>1</sup> (range 500-1113) at 6 months ( $p=0.30$ ). The non-milk oral intake at 3 months was  $91 \pm 45$  g/day<sup>1</sup> (range 2-166) and  $128 \pm 63$  g/day<sup>1</sup> (range 25-304) at 6 months ( $p=0.01$ ). Breastfeeding practices revealed that only 40% ( $n=12$ ) of mothers at 3 months and 30% ( $n=9$ ) of mothers at 6 months were practising EBF. It confirmed that the EBF rate among study subjects was 50% at 3 months and 27% at 6 months, with the cut-off of 82.5 g/day<sup>1</sup> of non-milk oral intake.

**Conclusions:** A decrease in EBF was noted between 3 and 6 months using deuterium oxide dose-to-mother technique. Further, the EBF rates in this study sample are much lower than the presently reported value for Sri Lanka using recall method.

**Key words:** Exclusive breastfeeding, deuterium oxide dose-to-mother, milk intake, non-milk oral intake, body composition, fat mass