

*MG GEETA AND P KRISHNAKUMAR

Department of Pediatrics,
Govt. Medical College,
Kozhikode (Calicut),
Kerala, India.

*geetakkumar@gmail.com

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Undernutrition Amongst Under-five Children Belonging to High Income Group Communities in India

According to RSOC (2013-2014) data, high prevalence of stunting (26.7%) and wasting (13.0%) exists amongst under-five children belonging to highest wealth index communities. India possibly cannot achieve the 2025 Global nutrition targets for reducing the rate of stunting and wasting amongst Under-five children, unless efforts are also directed towards this group.

Keywords: National Family Health Survey, Global Nutrition targets, Stunting, Wasting, Undernutrition

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The World Health Assembly in the year 2012, adopted the 2025 Global nutrition targets, to which India is a signatory. These targets are aimed to achieve: (i) 40% reduction in the number of U5 who are stunted (target I) *i.e.* from the present level of 38.7% [1] to 23%; and (ii) reduction and maintenance in childhood wasting to less than 5% (target VI) from the present level of 15.1% [1] by 2025. In order to achieve these targets, the Government of India is strengthening the nutrition and health interventions directed towards low income group communities. This is due to the common belief that undernutrition is a result of the cumulative effects of inadequate food intake, lack of safe drinking water, poor sanitation and hygiene practices,

low parental education status, poor infant and young child feeding (IYCF) practices, monetary constraints and other related detrimental factors present in the poor households [2,3]. Since these common etiological factors of undernutrition are possibly missing in the highest wealth index (HWI) communities, the rate of undernutrition is expected to be low.

We conducted a secondary analysis of National Family Health survey-3 (NFHS-3) (2005-2006) [4] and Rapid Survey of Children (RSOC) (2013-2014) [1] data to assess the prevalence of stunting and wasting amongst Under-five children belonging to the HWI families. Socioeconomic status as defined by highest and lowest wealth index was compared with the prevalence of stunting and wasting as defined by Z score below -2SD score amongst under-five children. We further assessed the trend in reduction of stunting and wasting over a decade (2005-2014).

We found high prevalence of stunting (27%) and wasting (13%) amongst the HWI families as per RSOC. No reduction in the prevalence of stunting and wasting was seen amongst under-five children belonging to HWI families during the decade of 2005-2014 (**Table I**).

Inadequate IYCF practices, being an important determinant of stunting and underweight amongst under-five children, may have resulted in high undernutrition amongst HWI families. According to RSOC, only 62% mothers belonging to HWI families practiced exclusive breastfeeding for 6 months. Complementary foods were provided to only 62.1% children aged 6-8 months, and

only 26.5% children aged 6-23 months consumed complementary foods with minimum dietary diversity (four or more food groups). Although the rate of decline in under nutrition amongst under-five children have accelerated since 2006 (**Table I**), with high rates of stunting and wasting in HWI families, India is unlikely to achieve the WHO Global Nutrition targets. There is a need to direct health and nutritional education based interventions on optimal IYCF practices [5-7] to HWI communities also, to reduce the prevalence of undernutrition in the country.

AAKRITI GUPTA AND *UMESH KAPIL

Department of Human Nutrition,

All India Institute of Medical Sciences, New Delhi, India.

**umeshkapil@gmail.com*

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TABLE I PREVALENCE OF STUNTING AND WASTING AMONGST UNDER-FIVE CHILDREN

<i>Indicators of Undernutrition</i>	<i>NFHS-3 (2005-2006)</i>	<i>RSOC (2013-2014)</i>	<i>% reduction</i>
<i>Stunting</i>			
Highest Wealth Index	25.3	26.7	-1.4
Lowest Wealth Index	59.9	50.7	9.2
<i>Wasting</i>			
Highest Wealth Index	12.7	13	-0.3
Lowest Wealth Index	25	17	8

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