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## Epidemiological Determinants of Malnutrition Status among Geriatric Population Residing at High Altitude Region of Rural Uttarakhand, India

Ritika Khandelwal, Umesh Kapil and Aakriti Gupta  
*All India Institute of Medical Sciences, NEW DELHI, India*

### Abstract

**Background:** High prevalence of Malnutrition exists amongst the geriatric population in India. Evidence on malnutrition is available from the plain regions of the country. However there is lack of scientific evidence on malnutrition status of geriatric population residing at high altitude regions of Uttarakhand, India.

**Materials and methods:** A community based cross-sectional study was conducted during 2015–2016 in District Nainital. Thirty clusters were identified using population proportionate to size sampling method; 30 geriatric subjects were selected from each cluster. Study population included 980 geriatric aged 60 years and above. Nutritional status of the geriatric population was assessed using Mini Nutritional Assessment (MNA) tool. Standard procedures were used to determine the height, weight, MCC and MUAC. The BMI was calculated from the measurements of weight (kg) and height (cm) ( $\text{kg}/\text{m}^2$ ). Data was entered in MS Excel 2007 and analyzed using SPSS version 20.0.

**Results:** The MNA revealed that only 22.4% geriatric subjects had satisfactory nutritional status, 14.3% were malnourished and 63.3% were “at risk” of malnutrition. High prevalence of malnutrition was found among subjects belonging to age group of 60–70 years (58.9%), illiterate (74.5%) with family monthly income (1866–5546;43.3%), financially dependent (75.2%), with loss of appetite (71.6%), with chewing problem (63.1%) and who consumed < 2 full meals daily. (73.1%; all  $p < 0.0001$ ;) in comparison to the subjects who had satisfactory nutritional status.

**Conclusions:** The present findings revealed that the high prevalence of malnutrition amongst the geriatric population in India. The risk factors identified were financial dependency, dietary intake, loss of appetite and chewing problem. Interventions to decrease these risk factors possibly may lead to reduction in malnutrition among geriatric population.

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### Conflict of Interest

There is no conflict of interest.