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Balanced Nutrition and Its Role in Promoting a Healthy Lifestyle

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Abstract

Balanced nutrition is essential for maintaining health and promoting a sustainable lifestyle. In India, rapid urbanization, reliance on processed foods, and socio-cultural factors challenge the achievement of adequate nutrition. Balanced diets ensure appropriate intake of macronutrients, micronutrients, and other essential dietary components while respecting regional, cultural, and life-stage variations. Proper nutrition from infancy through adulthood supports growth, cognitive development, immune function, and prevention of chronic diseases such as obesity, diabetes, and cardiovascular disorders. National policies, dietary guidelines, and flagship programs, including POSHAN Abhiyaan and Integrated Child Development Services, aim to address nutrient deficiencies and promote food security. However, gaps remain in dietary quality, accessibility, and awareness, particularly among vulnerable populations. Community engagement, nutrition education, and monitoring mechanisms are pivotal for encouraging healthy dietary behaviors. The integration of sustainable food systems, culturally sensitive interventions, and policy support can bridge these gaps and enhance overall public health outcomes. By fostering dietary diversity and nutrient adequacy, balanced nutrition contributes not only to individual well-being but also to social equity, economic development, and environmental sustainability. Holistic approaches remain critical to ensuring optimal nutrition across the lifecycle.

Keywords: Balanced nutrition, dietary diversity, public health, micronutrients, food security, India, sustainable diet.

1. Introduction

Nutrition plays a central role in the pursuit of individual and community well-being. In particular, balanced nutrition is vital in shaping healthy lifestyle patterns and addressing sedentary attitudes that are prevalent in modern society. All too often, demographic, geographical, or sociocultural factors may conspire to hinder public health efforts to secure the food, nutrition, and sustainability needs of people. Such considerations have particular resonance in India, where rapid urbanization has increased reliance on processed or ultra-processed foods that displace fruit, vegetables, whole grains, and other traditional staples. The challenge is compounded by the need to support diverse food cultures and assess nutrient adequacy against local dietary patterns. More than the provision of workable food and nutrition standards, India requires coherent policies to promote the balanced nutrition necessary for a healthy lifestyle and environmental sustainability.

Balanced nutrition is broadly defined as having the requisite amount of macronutrients, micronutrients, and other dietary components, along with the right proportions across food groups. Balanced nutrition involves attention not only to the absolute supply of food and nutrients but also to their quality and safety. High-quality diets are essential for economic development, social equity,

environmental sustainability, and the attainment of SDGs (Singh et al., 2015). However, the way these objectives are pursued needs to align with the diverse patterns, traditions, and rituals that characterize Indian diets. As a starting point, success of wide-ranging food and nutrition interventions in India hinges on carefully defining the stages of life addressed; the target population most likely to benefit; and the pivotal food decisions made, including the key actors involved in those choices, their own thoughts, and the degree of influence they wield.

2. Conceptual Foundations of Balanced Nutrition

The concept of balanced nutrition comprises optimal food composition and energy balance for promoting health. As the goal is to fulfill all nutrients' requirements without excess, food quality and nutrient density are also important. Diet quality indices enable surveillance of nutritional quality and the adequacy of food supplies in terms of both energy and nutrients. Since food choices are influenced by socio-cultural factors, norms for balanced diets require regional specification (Singh et al., 2015).

A balanced diet refers to daily consumption of an appropriate number of prescribed food items from different groups. A customary concept, it varies across diverse regions, reiterating the need for further regional specification. Food items belonging to different groups can be alternated as long as the prescribed number is maintained. Considering that energy intake serves as a universally accepted objective criterion, the focus is on the distribution of macronutrients such as carbohydrates, fats, and proteins without excess, together with the supply of essential micronutrients. India's public policies are supposed to fulfil public health objectives such as maintaining good nutrition and health.

3. Dietary Guidelines and Public Health Goals in India

The relationship between dietary guidelines and public health goals was initially studied as part of India's Second National Health Policy in 2002. Recognised as a bridge between food and nutrition, diet and health, and diet and disease, national dietary guidelines would serve as vehicles for health promotion, dietary pattern improvement, food security enhancement, and poverty alleviation while also supporting government schemes in nutrition-sensitive sectors such as health, education, sanitation, urban development, rural development, agriculture, and women and child development ((Hong Nguyen et al., 2021)). Diet-related diseases accounted for 20% of the burden of disease in India in 2016, and nutrition-sensitive outcomes remained critical for public health. The research and negotiations generated the food-based dietary guidelines for the Indian population in 2011, with further refinements being promoted subsequently.

3.1. National Policy and Programs

Contemporary India faces diverse and complex nutrition challenges. Undernutrition persists alongside a steep rise in overweight and obesity, partially driven by dietary changes. Shift towards less nutritious food and unhealthy dietary patterns contributes to increased diabetes, hypertension, heart disease, and other chronic ailments, compromising quality of life and productivity, stressing the healthcare system, and constraining economic development. India's first policy framework on nutrition—issued in 1993—acknowledged these multi-faceted challenges, emphasizing the provision of fortified complementary foods, dual supplementation with iron-folic acid and calcium, behaviour-change communication, and education coupled with cash transfers to promote food security. Operationalized through flagship initiatives, current policies remain inadequately aligned with national dietary guidance and are not supported by programme-specific recommendations that prioritize different population groups. The formulation of State Action Plans for Nutrition, as envisaged under the POSHAN Abhiyaan, furthermore requests comprehensive guidance across the complete life cycle (Hong Nguyen et al., 2021).

3.2. Major Dietary Patterns and Nutrient Adequacy

Patterns of dietary consumption in India differ widely in accordance with regional, cultural, socioeconomic, and seasonal traits. Nationally representative data show major dietary patterns of vegetarian, mixed vegetarian, and non-vegetarian exist, with a substantial proportion of individuals still consuming non-vegetarian foods alongside predominant vegetarian diets. Estimates indicate that 51% of the Indian population is vegetarian mainly for religious reasons, 25% consume a mixed vegetarian pattern and approximately a quarter opt for non-vegetarian foods (Sharma et al., 2020). Analysis of regional patterns reveals marked differences in the availability and consumption of food groups with far reaching implications for dietary adequacy assessments; states which typically exhibit lower consumption of requirements from one or more food groups are also typically those with a high prevalence of under nutrition.

4. Breastfeeding, Complementary Feeding, and Early Nutrition

Nutrition in the early years is critical for future health outcomes. Complementary feeding practices in India often fall short of guidelines, and adequate nutrition is crucial during this period. Recommendations for breastfeeding, complementary feeding, and timely modification of complementary foods improve growth, development, and health outcomes (Avula et al., 2017). Exclusive breastfeeding for the first six months, along with continued breastfeeding and consumption of a variety of energy-dense, nutrient-rich complementary foods, is essential (G. Chellaiyan et al., 2020). Periodic growth monitoring helps mothers sustain and modify complementary feeding practices. Factors contributing to the early introduction of complementary foods include maternal employment, lack of awareness, and cultural beliefs.

5. Nutritional Needs across the Lifecycle

Men, women, and children have different nutritional requirements at different ages. Physiological and social changes make each age group susceptible to specific deficiencies of macronutrients and micronutrients, which further define a balanced nutrition programme. Enforcement of balanced nutrition must begin early, and the first two years after birth see the highest incidence of growth stunting. A study covering 13 states of India from 2005 to 2016 finds that over 36% of children under six years are stunted (Khan et al., 2023). Balanced nutrition through feeding also helps enhance the cognitive and behavioural development of children. Children are heavily dependent on family feeding patterns, and India still has poor nutritional outcomes since wider policies are absent.

5.1. Infancy and Early Childhood

To maintain optimal health and well-being, infants require carefully planned energy and nutrient provision that supports growth, development, and body composition (Khandelwal et al., 2022). Feedings should provide energy and micronutrients in line with the WHO 1996 Handbook's recommendations, complemented by food sources rich in protein, riboflavin, iron, zinc, and vitamin A (Athavale et al., 2020). National health surveys show continuing maternal and child malnutrition across diverse backgrounds; careful monitoring of food choices and growth data through community programs helps identify nutrition shortfalls (Bhagwat et al., 2019). Formative research in India indicates gender-based variation in dietary preferences, often stemming from cultural beliefs around marriages, ceremonial practices, economic conditions, post-delivery support from kin, and media exposure, necessitating focused interventions and materials.

Energy and nutrient requirements during infancy and early childhood for boys and girls are summarized in Table 1. Established guidelines recommend initiation of breastfeeding during the first hour after birth and exclusive breastfeeding until six months of age to optimize growth and development. Continued breastfeeding is advised up to the age of two to support psychosocial development and reduce the incidence of childhood illnesses. Minimum Acceptable Diet, as defined by the WHO, is understood to include dietary diversity and meal frequency. Data indicate that less than 40 per cent of urban and around 23 per cent of rural children receive a Minimum Acceptable Diet.

5.2. Adolescence

During adolescence (10–19 years), children experience an important growth spurt to reach adult stature and sexual maturity. Early adolescence (10–14 years) is marked by growth in height and weight, followed by late adolescence (15–19 years), when weight stabilises. The average growth rate expected in early adolescence is around 6.0 cm per year. Physical activity, nutrition, accessibility of food, poverty, and psychological factors, such as stress or knowledge, also determine growth. During this stage, nutritional needs increase due to physical development, especially for girls preparing for motherhood. Iron and calcium are essential micronutrients. Iron deficiency is the most common nutritional deficiency in India to affect adolescent girls, leading to poor cognitive development, weakness, low productivity, and low immunity. Female adolescents are more prone to iron deficiency than boys because menses causes daily loss and mental stress affects appetite. The average intake of calcium does not meet the recommended dietary allowance (RDA) level, especially in girls and members of the Scheduled Castes (Parmar et al., 2022).

Adolescents tend to purchase food from outside the home. Institutional programmes of community nutrition among school-based adolescents, such as dietary education and supplementation of ready-to-eat food, can improve adolescent nutritional status (Omidvar et al., 2017). Various components of the Integrated Child Development Programme (ICDP) support early nutrition of pre-school children during the first thousand days of life. Malnutrition and inadequate hygiene during this vulnerable period threaten national growth and development. Such dedicated attention to early childhood, however, leaves late childhood, early adolescence, and late adolescence unaddressed. The Reproductive and Child Health Programme does not specifically cover the nutrition and health status of adolescent girls. India also lacks a national-level adolescent nutrition programme (Sharma et al., 2021).

5.3. Adulthood and Aging

Adulthood and aging are characterized by decreasing energy requirements while the importance of nutrient density, quality, and variety continues to increase (Khan et al., 2023). Several factors including availability, accessibility, cultural practices, occupation, lifestyle, income, social status, food preferences, health status, localities, age, and nutrition education affect dietary habits. Dietary habits of the Indian population follow varied patterns, and older adults suffer from malnutrition due to myriad factors. Nutritional requirements to be considered for dietary recommendations include protein, carbohydrate, and fats in energy requirements, dietary fibre, vitamins, minerals, and water depending on lifestyle and physiological condition. Moreover, better strategies need to be planned to guide balanced nutrition to older adults in a holistic manner. Nutrition counselling and awareness progammes can help to promote the message of balanced nutrition and the importance, components, and health benefits of balanced diet.

Balanced nutrition is critical to prevent sarcopenia and frailty due to loss of metabolism with aging. Sarcopenia increases the risk of falls leading to fracture injuries including hip fracture, which ultimately increases morbidity and mortality. Over nutrition and obesity would worsen the condition and chronic diseases associated with it. Hence maintaining a healthy, quality of life through balanced nutrition is imperative because of increased longevity in our country.

6. Food Systems, Agriculture, and Accessibility

Food systems encompass all elements and activities related to food production, processing, distribution, and consumption, along with wider socioeconomic and environmental outcomes (Ramchandra Athare et al., 2022). Currently, food systems are failing to end malnourishment or minimize environmental impacts. Globally, 8.8 percent of the population was undernourished in 2019, whilst 39 percent suffer from overweight and obesity; food systems account for up to 37 percent of greenhouse gas emissions. In India, the agriculture sector contributes 18 percent of total greenhouse gas emissions and heavily uses natural resources. Food systems are correlated with nutrient availability, affecting dietary quality. India faces a triple burden of malnutrition, with approximately 14 percent undernourished and 19.7 percent overweight or obese, especially among women in rural

and urban slums. Rather than diet quantity, malnutrition is more closely connected to food quality, highlighting the need to understand variations across India's food systems. Existing studies focus on certain components like income, education, and diet diversity but lack a holistic understanding. Addressing this gap, the present study identifies household food systems in India, analyses relevant socioeconomic factors, and estimates environmental impacts using the latest available national data.

7. Cultural, Social, and Economic Determinants of Diet

India's religious diversity is reflected in the multiplicity of food cultures rooted in varied historical and geographical factors (R Daniel et al., 2011). A prevalent tradition is the cultural habit of cooking and eating food all together in one single plate; generally, it is the tradition of keeping the food within the family and not sharing it with community, friends or relatives. There is deep root of these traditions in every culture which defines their eating patterns. Cooking or enjoying food with family is a cultural standard which brings everyone close to each other. Therefore, food is not just considered the basic necessity of the human body but food or cooking keeps the bond of family together. Many cultures or tradition limits the consumption of food with the individual, family or community level; hence these habits restrict the eating of food outside or/in large quantity with the community. These habits restrict the social contact outside which also restricts the knowledge about the food and food intake in the outside community or family. During early stages of growth, these traditions are followed at home but they may disappear at late stages or childhood, this may bring some changes or impact on the body growth. Certain uneven habits also affect the food consumption in diet which also brings harsh effect on the body internally. This closely relates to the cultural stage, mainly the upper and lower cultural stage of one family. Social recognition is the one of the basic pattern for every human being; thus social status or recognition plays a vital role in shaping the habit of food consumption or diet intake. During the early periods, when a human grows and aspires to enter the community stage, there are certain diets or food strongly facilitates the growth of body and background. Hence majority of the growing individuals join a certain prior recognition clubs which help them to choose their part in the society. During this stage, the person automatically and unconsciously tends to change their food intake according to the group joining which helps them to capture their part in the society. The movement of food intake also changes accordingly of status level in the society. People start sharing their food items with the group in order to adapt, this continues with the time which forms the new stage in a life. The country like India is having a large gap or differential culture in terms of eating. Standard knowledge regarding health education at early stages can restrict or minimize the extensive gaps related to the nutrition food or healthy food intake across the society. Adjustment also varies across individual which also strongly runs within the cultural level.

8. Public Health Interventions and Policy Implications

Individuals are exposed to advertisements designed to influence preferences and alter food and beverage selection for consumption. Evidence of success among populations is extensive. Implicit techniques—at times, subliminal—are designed to counteract obstacles to choosing less healthy foods (Hong Nguyen et al., 2021).

The economic burden of unhealthy diets is substantial. The problem is urgent in India, where only a minority of young adults consume healthy foods regularly and obesity is rapidly spreading. Industry actors dominate food systems and push societies to integrate contemporary food-related approaches; the offer of healthy diets plays a minor role in their strategies. Major actions on diets and food systems comprise education campaigns, interventions, and regulations that target availability, affordability, and promotion of unhealthy foods (Gupta & Singh Sachdev, 2022).

9. Role of Education, Communication, and Community Engagement

Education, communication, and community engagement are pivotal in promoting balanced nutrition. Public health interventions should maximize nutrition knowledge and identify social

networks that encourage healthy behaviors. Social support considerably influences the relationship between nutrition knowledge and diet among individuals subject to peer pressure. Enhancing community engagement and communication can improve nutrition knowledge and facilitate better dietary choices, particularly in developing countries where research on these relationships is limited (J McKinley et al., 2018).

Large swathes of the Indian population remain unaware of recommended portion sizes or the distinction between whole-grains and processed staple foods. Media channels like television, newspapers, mobile phones, and social media often promote unhelpful nutrition messages. Because such messages are disseminated through highly lenient channels, indiscriminate endorsements may cause widespread harm. Community-led initiatives like nutrition gardens have been shown to foster positive behavior change and enhance food diversity, yet such programs remain rare (Bassi et al., 2021). Community participation or led initiatives, which nurture two-way communication within a participatory framework, have proven effective in instigating such change at the grassroots level (S. Bamji et al., 2022).

10. Measurement, Monitoring, and Evaluation of Nutrition Outcomes

Monitoring and evaluation of nutrition outcomes play a vital role in assessing progress in the fight against malnutrition. The MANUS index focuses attention on balanced development of nutritional outcomes, a necessity for diverse economies such as India (Jain & B. Agnihotri, 2020). The country faces a triple burden of malnutrition—undernutrition, micronutrient deficiencies, and the rising incidence of overweight and obesity—stemming from changes in food systems and economic inequalities. The National Nutrition Mission (NNM), launched in 2018, seeks to reduce underweight, low birth weight, and anemia, as well as lower stunting among children under six years. The campaign aims to forge a societal movement for improved nutritional outcomes through targeted interventions at the district level (T. Raghu et al., 2014).

11. Challenges and Opportunities in Achieving Diet Quality

Quality diets are fundamental to optimal nutrition, yet many Indian communities face substantial barriers in achieving dietary quality, making it impossible to meet nutrition requirements or maximise public health benefits. The quality of food consumed in early life and throughout childhood has long-lasting effects on health, social equity, and productivity at all ages. Planning or supplanting food choices with diverse foods improves daily nutrient adequacy and resource sharing. The quantity, composition, seasonality, and diversity of food systems help specify food groups of interest. Building upon such insights, complementing multiple efforts to achieve the broader objective of balanced nutrition is feasible. Strengthening specific food systems improves diet quality and nutrient adequacy while achieving environmental, health, and other policy goals (Aleksandrowicz et al., 2019). Products of the “mother of all food systems,” public policies and private-sector investments play critical roles in shaping food systems, alongside inputs of science, technology, and innovation.

The challenges of achieving accepted diet-quality standards and accessibility for disadvantaged populations constitute a substantial limitation on national nutrition plans. Strong public and private responses to this challenge can catalyse private-sector investment and accelerate long-term benefits for all stakeholders, including improved public health, escaping the epidemiological trap, climate resilience, agricultural advancement, food safety, transparency, and environmental protection (Singh et al., 2015).

12. Conclusion

The evidence presented throughout this report clearly establishes the importance of balanced nutrition to human health and the need to adopt holistic, systems-oriented approaches to achieve it. In the Indian context, specific characteristics of food systems also exert a powerful influence on dietary

quality. As many rural households face energy adequacy challenges, well-targeted dietary guidance can help assess their nutrient security while protecting food sovereignty. For other food-insecure groups, median per-capita energy intake already exceeds requirements, and promotion of dietary diversity is warranted. Strategic public action can support these objectives while also raising the quality of staple foods produced. Priority interventions include the timely implementation of fortified foods, greater investment in community health and nutrition programs, the establishment of multi-level dietary guidelines, and further development of nutrition-sensitive and climate-resilient initiatives.

Balanced nutrition encompasses not only the absolute intake of energy, macronutrients, and micronutrients but also their diverse sources. A balanced diet adheres to culturally appropriate specifications that vary across time and space. The quality of consumption determines the adequacy of nutrient intake, and dietary diversity emerges as the most common proxy for such quality. Critical trade-offs restrict the ability to achieve health, environmental, and ethical objectives simultaneously, and food systems model projections suggest that the subcontinent will experience widespread losses in nutrient adequacy and dietary diversity without substantial policy efforts. (Singh et al., 2015)

References:

1. Singh, A., Gupta, V., Ghosh, A., Lock, K., & Ghosh-Jerath, S. (2015). Quantitative estimates of dietary intake with special emphasis on snacking pattern and nutritional status of free living adults in urban slums of Delhi: Impact of nutrition transition. BMC Public Health, 16, 45. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4763040/
2. Nguyen, P. H., Kachwaha, S., Tran, L. M., Sanghvi, T., Ghosh, S., Kulkarni, B., Beesabathuni, K., Menon, P., & Sethi, V. (2021). Maternal diets in India: Gaps, barriers, and opportunities. Current Developments in Nutrition, 5(10), nzab119. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8540854/
3. Sharma, S., Akhtar, F., Singh, R. K., & Mehra, S. (2020). Dietary patterns and determinants of pregnant and lactating women from marginalized communities in India: A community-based cross-sectional study. Nutrients, 12(11), 3268. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7691489/
4. Avula, R., Oddo, V. M., Kadiyala, S., & Menon, P. (2017). Scaling-up interventions to improve infant and young child feeding in India: What will it take? Maternal & Child Nutrition, 13(S4), e12483. https://onlinelibrary.wiley.com/doi/full/10.1111/mcn.12483
5. Chellaiyan, V. G., Liaquathali, F., & Marudupandiyan, J. (2020). Healthy nutrition for a healthy child: A review on infant feeding in India. Journal of Family Medicine and Primary Care, 9(1), 8–13. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6984033/
6. Khan, J., Chattopadhyay, A., & Shaw, S. (2023). Assessment of nutritional status using anthropometric index among older adult and elderly population in India. BMC Geriatrics, 23, 492. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10415320/
7. Khandelwal, S., Kondal, D., Chakravarti, A. R., Dutta, S., Banerjee, B., Chaudhry, M., Patil, K., Swamy, M. K., Ramakrishnan, U., Prabhakaran, D., Tandon, N., & Stein, A. D. (2022). Infant young child feeding practices in an Indian maternal-child birth cohort in Belagavi, Karnataka. Frontiers in Nutrition, 9, 827692. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9104747/
8. Athavale, P., Hoeft, K. S., Dalal, R. M., Bondre, A. P., Mukherjee, P., & Sokal-Gutierrez, K. (2020). A qualitative assessment of barriers and facilitators to implementing recommended infant nutrition practices in Mumbai, India. BMC Public Health, 20, 1115. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7385866/
9. Bhagwat, B., Nooyi, S. C., Krishnareddy, H., & Murthy, S. N. (2019). Association of practices regarding infant and young child feeding with anthropometry measurements among an urban population in Karnataka, India. Indian Journal of Community Medicine, 44(2), 169–172. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6553677/
10. Omidvar, S., Bakhtiari, A., Firouzbakht, M., Nasiri Amiri, F., & Begum, K. (2017). Perceived health discomfort among adolescent girls and related factors in an urban area, South India. Journal of Clinical and Diagnostic Research, 11(9), LC17–LC21. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5651646/

11. Sharma, S., Akhtar, F., Singh, R. K., & Mehra, S. (2021). Comparing reproductive health awareness, nutrition, and hygiene among early and late adolescents from marginalized populations of India: A community-based cross-sectional survey. Frontiers in Pediatrics, 9, 698881. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8394421/
12. Chiplonkar, S. A., & Agte, V. V. (2007). Association of micronutrient status with subclinical health complaints in lactovegetarian adults. Journal of Health, Population and Nutrition, 25(3), 287–295. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2606995/
13. Bamji, M. S., Murty, V. V. S., & Sudhir, P. D. (2021). Nutritionally sensitive agriculture—An approach to reducing hidden hunger. Proceedings of the Indian National Science Academy, 87(4), 571–584. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7529091/
14. Athare, T. R., Pradhan, P., Singh, S. R. K., & Kropp, J. P. (2022). India consists of multiple food systems with socioeconomic and environmental variations. Frontiers in Sustainable Food Systems, 6, 891389. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9416984/
15. Daniel, C. R., Prabhakaran, D., Kapur, K., Graubard, B. I., Devasenapathy, N., Ramakrishnan, L., George, P. S., Shetty, H., Ferrucci, L. M., Yurgalevitch, S., Chatterjee, N., Reddy, K. S., Rastogi, T., Gupta, P. C., Mathew, A., & Sinha, R. (2011). A cross-sectional investigation of regional patterns of diet and cardio-metabolic risk in India. Nutrition Journal, 10, 12. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3042918/
16. Gupta, P., & Sachdev, H. P. S. (2022). The escalating health threats from ultra-processed and high fat, salt, and sugar foods: Urgent need for tailoring policy. Indian Journal of Medical Research, 155(2), 211–216. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8964373/
17. McKinley, C. J., Limbu, Y. B., Gautam, R., Achiwar, A. K., Dubey, P., & Jayachandran, C. (2018). Nutrition knowledge, personal motivation, and food label use among Indian adults with multiple chronic conditions: A moderated mediation model. Journal of Consumer Behaviour, 17(6), e1–e12. https://onlinelibrary.wiley.com/doi/abs/10.1002/cb.1744
18. Bassi, S., Bahl, D., Arora, M., Tullu, F. T., Dudeja, S., & Gupta, R. (2021). Food environment in and around schools and colleges of Delhi and National Capital Region (NCR) in India. Frontiers in Public Health, 9, 730579. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8477491/
19. Bamji, M. S., Murty, V. V. S., & Sudhir, K. P. D. (2022). Promotion of food and nutrition security through farm technologies and behavioural change communication, targeting women. Proceedings of the Indian National Science Academy, 88(2), 187–198. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9034740/
20. Jain, A., & Agnihotri, S. B. (2020). Assessing inequalities and regional disparities in child nutrition outcomes in India using MANUSH – A more sensitive yardstick. PLOS ONE, 15(8), e0237211. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7427294/
21. Raghu, T (2014). Assessment of food and nutrient intake of communities across three agro-biodiversity hotspots in India. Proceedings of the Nutrition Society of India, 75, 83–84. https://www.researchgate.net/publication/268529930
22. Aleksandrowicz, L., Green, R., Joy, E. J. M., Harris, F., Hillier, J., Vetter, S. H., Smith, P., Kulkarni, B., Dangour, A. D., & Haines, A. (2019). Environmental impacts of dietary shifts in India: A modelling study using nationally-representative data. Environment International, 126, 207–215. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6437131/

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