

## Nutritional Status of Adolescents Residing in Kalyan Karnataka Region

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### ABSTRACT:

Nutrition is crucial for teenagers, as it helps meet their energy and nourishment needs during their transition from childhood to adulthood. Adolescence is a time of transition, and factors such as socioeconomic status, cultural views, and eating habits can affect teenagers' nutritional status. A well-nourished woman has a robust immune system, mental and physical capacity, and a higher chance of producing healthy babies and young children. Child malnutrition is a major issue in the Kalyana Karnataka Region, with 35.2% of children under five being undernourished.

Pregnant women's anemia prevalence increased from NFHS 2 to NFHS 3, but may have decreased from NFHS 3 to NFHS 4. Karnataka may have made progress in treating anemia in pregnant women, but more work is needed to improve maternal health outcomes and lower the incidence of anemia. To further lower the prevalence of anemia among pregnant women in Karnataka, specific measures such as expanding access to folic acid and iron supplements, encouraging maternal nutrition, and increasing antenatal care services may be implemented.

This study's foundation is secondary data. The purpose of this article is to shed light on the factors that contribute to teenage girls' malnutrition in the Kalyan, Karnataka, region. steps made to address the problem and find a solution.

**Key words:** Kalyan Karnataka, Nutrition, Adolescent.

### INTRODUCTION:

The six underdeveloped districts of Northern Karnataka—Gulbarga, Bidar, Raichur, Koppal, Yadgir, and Bellary—are included in the Kalyan Karnataka area. The 98th Constitutional Amendment Act of 2012 introduced Article 371-J, which stipulated unique provisions for the Kalyan Karnataka region of the state of Karnataka, into the Constitution.

Consuming nutritious meals is crucial for everyone, but teenagers in particular need to do so. It's critical to consume enough high-quality food of the correct kinds to meet one's demands

for energy and nourishment while the body is still developing. Meeting one's nutritional demands can be achieved by eating three regular meals a day, along with a few snacks.

Because adolescence is a time of transition from childhood to adulthood marked by changes in physical, physiological, and psychosocial aspects of life, it is more likely to be associated with nutritional issues. Socioeconomic status, cultural views, availability of healthy food options and eating habits, are just a few of the numerous variables that affect teenagers' nutritional status.

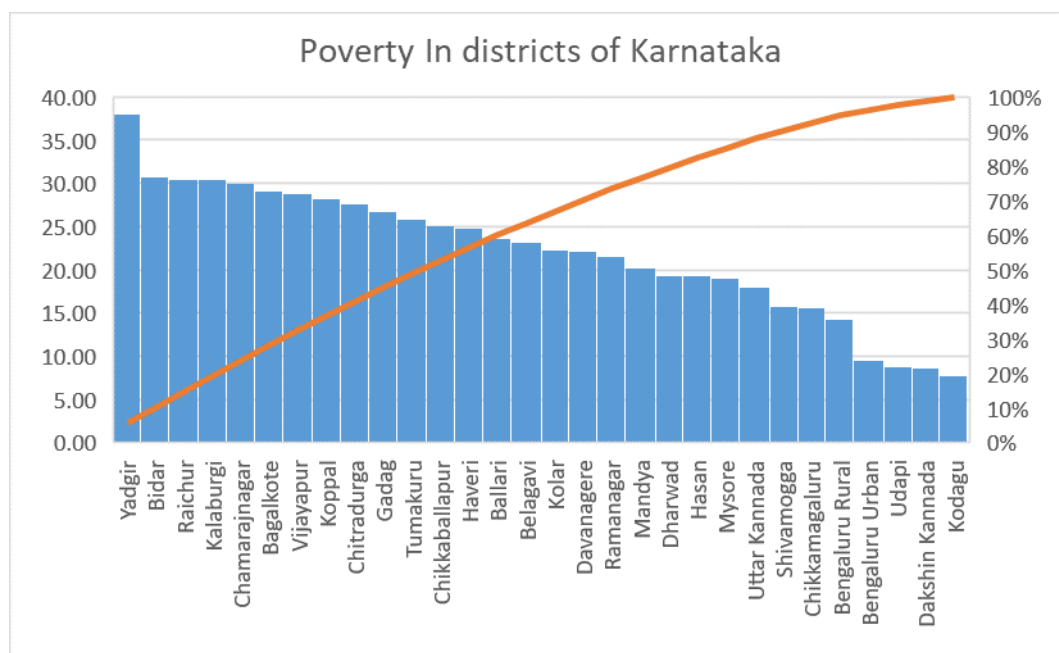
A woman's nutritional state can serve as a reliable indicator of her overall health. In addition to satisfying her extra nutritional needs during pregnancy or lactation, a well-nourished woman has a robust immune system and nutrient reserves to mitigate the consequences of infection. A well-fed woman possesses the mental and physical capacity to work hard, support her family, and actively engage in public life. Furthermore, a woman who eats healthily has a higher chance of producing babies and young children who also eat healthily and follow her along the path to prosperity and good health. The three hazards of undernutrition—underweight and short stature, micronutrient deficiencies, and overweight—threat women worldwide; therefore, this is not the reality that many women face. Child malnutrition is one of the main effects of poverty, resulting in issues including stunting and wasting. 35.2% of children under the age of five were, according to 2019 data from the Union Ministry of Health and Family Welfare. Adolescent females had a higher prevalence of anemia (44.5%). The mean age of the adolescents was 14 years.

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## **SOCIOECONOMIC STATUS OF KALYAN KARNATAKA:**

### **Poverty Indicator:**

Following an extensive study on 35 different parameters, the Nanjundappa Committee of 2001 divided the taluks of North Karnataka (Kalyan Karnataka) into four groups based on their level of backwardness: relatively developed, backward, more backward, and most backward.



Source: [https://www.reddit.com/r/karnataka/comments/17rmhdv/spatial\\_poverty\\_in\\_karnataka/#lightbox](https://www.reddit.com/r/karnataka/comments/17rmhdv/spatial_poverty_in_karnataka/#lightbox)

There are significant variations in poverty levels across different districts. Districts like Yadgir, Raichur, Kalaburgi, and Bidar have relatively high poverty rates, with over 30% of their populations living in poverty, while districts like Kodagu, Bengaluru Urban, and Dakshin Kannada have notably lower poverty rates, with less than 10% of their populations living in poverty. Poverty often restricts access to nutritious food items due to financial constraints, leading to malnutrition issues, including undernutrition.

Table 1: Per Capita Income (PCI)

District	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	PCI Growth(in per cent)
Ballari	1,08,454	1,14,138	1,16,897	1,34,150	1,50,319	1,61,715	1,73,529	60
Bidar	70,543	70,339	73,892	85,713	98,754	1,00,234	1,11,750	58.41
Kalaburagi	67,886	71,085	65,493	83,619	92,098	99,322	1,00,446	47.96
Koppal	73,916	75,598	74,134	82,787	96,036	1,00,497	1,10,886	50.02
Raichur	73,851	76,498	78,057	90,530	95,451	1,05,654	1,16,389	57.6
Yadagiri	69,014	69,177	68,928	81,845	1,03,677	97,353	1,12,937	63.64
State	1,26,976	1,32,880	1,42,267	1,61,912	1,88,765	2,05,697	2,22,002	74.84

Source: Economic Survey of Karnataka

All the districts of Kalyan Karnataka have shown growth in PCI over the years, with growth rates ranging from 47.96% to 63.64%. The PCI growth in the six districts that make up the KK Region is notably slower than the state. There was a rise in divergence with state PCI as a result of the six districts in the KK Region's slower PCI growth. While the state of Karnataka

has experienced significant growth in PCI over the years, some districts, such as Yadagiri, have outpaced the state's average growth rate. Per Capita Income influences nutrition outcomes through its impact on purchasing power, access to nutritious foods, healthcare access, education, awareness, and food security.

Higher PCI can also translate into better access to healthcare services, including preventive care, maternal and child health services, and nutrition counseling. Individuals with higher incomes are more likely to afford medical consultations, dietary supplements, and other healthcare interventions that promote good nutrition and overall health.

### Health Indicators:

Table 2: Nutrition Status of Karnataka

Key indicators	NFHS-5	NFHS-4
Children under age 3 years breastfed within one hour of birth	49.1	56.3
Children age 6-8 months receiving solid or semi-solid food and breastmilk	45.8	46
Children under 5 years who are stunted (height-for-age)	35.4	36.2
Children under 5 years who are wasted (weight-for-height)	19.5	26.1
Children under 5 years who are severely wasted (weight-for-height)	8.4	10.5
Children under 5 years who are underweight (weight-for-age)	32.9	35.2
Children age 6-59 months who are anemic	65.5	60.9
All women age 15-49 years who are anemic	47.8	44.8

Source: [https://planning.karnataka.gov.in/storage/pdf-files/Reports/Economic%20Survey%202020-21\\_Eng\\_Final\\_R.pdf](https://planning.karnataka.gov.in/storage/pdf-files/Reports/Economic%20Survey%202020-21_Eng_Final_R.pdf)

Malnutrition is highly prevalent in the Kalyana Karnataka Region, according to the Economic Survey of Karnataka 2020–21. Analyzing the 2019–21 family health survey data

Several conclusions about the nutritional status can be made by comparing the data from NFHS-5 and NFHS-4.

The marginal drop in the percentage of infants who were nursed during the first hour of life—from 56.3% to 49.1%—indicates that it may be difficult to give babies instant access to vital nutrients and antibodies, which could influence their initial nutritional intake and immune system development.

Progress in treating acute and chronic malnutrition in children under five years old is demonstrated by the decline in severe wasting from 10.5% to 8.4%, the substantial decrease in wasting from 26.1% to 19.5%, and the reduction in stunting from 36.2% to 35.4%.

The percentage of underweight children has decreased from 35.2% to 32.9%, which is a favourable trend. However, a significant number of children still struggle to receive enough nourishment for normal growth and development.

Concerningly, anaemia rates among children aged 6–59 months increased from 60.9% to 65.5%, and among women aged 15–49 years, they increased from 44.8% to 47.8%. These increases underscore the ongoing difficulties in treating nutritional deficiencies, especially iron deficiency, which can have negative impacts on general health and wellbeing.

To guarantee that women and children have the best possible nutritional status, these percentages offer insights into the state of nutrition by showing areas that have improved as well as those that still require care and attention.

Table 3: State-Wise Pregnant Women Aged 15-49 Years Who Are Anaemic

State/Union Territory	(Per cent)			
	NFHS 2 (1998-99)	NFHS 3 (2005-06)	NFHS 4 (2015-16)	NFHS 5 (2019-21)
Andaman & Nicobar Islands	-	-	61.4	53.7*
Andhra Pradesh	41.8	58.2	52.9	53.7
Arunachal Pradesh	49.2	51.8	37.8	27.9
Assam	62.3	72.0	44.8	54.2
Bihar	46.4	60.2	58.3	63.1
Chandigarh	-	-	-	-
Chhattisgarh	68.3	63.1	41.5	51.8
Dadra & Nagar Haveli and Daman & Diu	-	-	62.3	60.7
Delhi	34.7	29.9	46.1	42.2
Goa	35.0	36.9	26.7*	41.0*
Gujarat	47.4	60.8	51.3	62.6
Haryana	55.5	69.7	55.0	56.5
Himachal Pradesh	31.8	38.1	50.4	42.2
Jammu & Kashmir	56.3	55.7	46.9	44.1
Jharkhand	64.0	68.5	62.6	56.8
Karnataka	48.6	60.4	45.4	45.7
Kerala	20.3	33.8	22.6	31.4

(Per cent)				
State/Union Territory	NFHS 2 (1998-99)	NFHS 3 (2005-06)	NFHS 4 (2015-16)	NFHS 5 (2019-21)
Ladakh	-	-	79.3	78.1
Lakshadweep	-	-	39.0*	20.9*
Madhya Pradesh	49.9	57.9	54.6	52.9
Maharashtra	52.6	57.8	49.3	45.7
Manipur	36.7	36.3	26.0	32.4
Meghalaya	58.6	58.1	53.3	45.0
Mizoram	45.7	48.3	27.0	34.0
Nagaland	38.2	-	32.7	22.2
Odisha	60.5	68.1	47.6	61.8
Puducherry	-	-	26.0	42.5
Punjab	37.1	41.6	42.0	51.7
Rajasthan	51.4	61.7	46.6	46.3
Sikkim	47.6	62.1	23.6	40.7
Tamil Nadu	57.1	54.7	44.4	48.3
Telangana	-	-	48.2	53.2
Tripura	53.6	57.6	54.4	61.5
Uttar Pradesh	45.8	51.5	51.0	45.9
Uttarakhand	49.8	50.8	46.5	46.4
West Bengal	56.9	62.6	53.6	62.3

Source: National Family Health Surveys (NFHS), various rounds.

Comparing Karnataka to these other states, the state's overall performance in treating anemia in pregnant women appears to be mediocre. Even while it does better than certain states, like as Andhra Pradesh, there is still opportunity for development, particularly in comparison to states with lower incidence of anemia like Kerala. In order to further lower the prevalence of anemia among pregnant women in Karnataka, specific measures such as expanding access to folic acid and iron supplements, encouraging maternal nutrition, and increasing antenatal care services may be implemented.

Table 4: Percentage of Anaemic women (15-19 years) in the KKRegion and State

District	NFHS -4 (15-16)	NFHS-5 (19-20)	Increase(per cent)
Raichur	62.2	64.8	2.6
Yadagiri	46.4	61.8	15.4
Kalaburagi	46.6	61.4	14.8
Ballari	49.7	58.5	8.8
Koppal	49.1	55.3	6.2
Bidar	49.4	51.7	2.3
Karnataka State	45.3	49.4	4.1

Source: National Family Health Survey

The prevalence of anemia increased significantly in Yadagiri district, rising from 46.4% in NFHS-4 to 61.8% in NFHS-5, a noteworthy increase of 15.4%. The prevalence of anemia rose noticeably from 46.6% to 61.4% in the Kalaburagi district, a substantial increase of 14.8%. The data indicates a worrying pattern of increasing anemia prevalence among adolescent females in this particular district.

Anaemia prevalence increased 8.8% in Ballari district (from 49.7% to 58.5%), and 6.2% in Koppal district (from 49.1% to 55.3%). These percentages show a noticeable worsening of the anemia prevalence among adolescent women in these areas, however not as much as in Yadagiri and Kalaburagi.

These percentage numbers show how the prevalence of anemia in adolescent women in the Karnataka region's KK region is evolving, showing regions of serious concern and emphasizing the need for focused initiatives to address this public health issue.

### MEASURES TAKEN BY GOVERNMENT OF KARNATAKA:

A package of six services is offered by the centrally sponsored Integrated Child Development Services (ICDS) program: supplementary nutrition, health check-ups, immunizations, nutrition and health education for mothers, and non-formal pre-school education for children aged three to six. The program's beneficiaries receive supplementary nutrition in accordance with updated feeding guidelines, and 48.45 lakh people are expected to benefit between November 2020 and January 21 of 2020.

Three instalmentstotalling Rs. 5,000 are deposited to the accounts of expectant and nursing mothers under the Mathru Vandana Scheme. under beneficiary transfer that is direct. Up until the end of November 2020, 311573 beneficiaries spent a total of Rs. 12154.66 lakhs to receive the benefits.

The PoshanAbiyan program is being carried out to enhance the nutritional status of kids, teenage girls, expectant mothers, and nursing mothers and to lower the prevalence of anaemia in young kids, adolescent girls, and women. It also aims to reduce stunting and malnutrition in children.

## CONCLUSION:

To help treat anaemia in female adolescents, particularly in children from lower socioeconomic backgrounds in the Kalyan, Karnataka region, iron-fortified meals and supplements should be included in the school lunch program. In order to evaluate the detrimental effects of anaemia and the effectiveness of preventative measures among adolescents, a thorough longitudinal study must be conducted. Nutrition and general health outcomes within a population can be greatly enhanced by policies and initiatives targeted at raising PCI and decreasing economic disparities. Additionally, the negative consequences of low PCI on nutrition in disadvantaged communities can be lessened with focused activities that focus on food assistance programs, nutrition education, and healthcare access.

Campaigns for Nutrition Education and Awareness shall be run by the government and NGOs. The value of balanced diets, breastfeeding, micronutrient supplements, and good hygiene practices can be increased by establishing comprehensive community-focused nutrition education programs in schools, healthcare facilities, and other settings.

Improving food security initiatives can guarantee disadvantaged groups, especially women and children, have access to wholesome food. Examples of these initiatives include the Public Distribution System (PDS), midday meal programs, and mother and child nutrition initiatives.

Encouraging income-generating activities, career development, and microfinance programs can enable people and communities to rise out of poverty, increasing their purchase power for wholesome foods.

To ensure accountability and make well-informed decisions, it is imperative to establish comprehensive monitoring and evaluation processes that can effectively track progress, identify gaps, and quantify the effectiveness of nutrition interventions.

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