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MALNUTRITION AMONG CHILDREN IN KALYANA KARNATAKA REGION OF KARNATAKA: A COMPARATIVE ANALYSIS OF NFHS-4 AND 5 DATA

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ABSTRACT

Child malnutrition refers to a child's insufficient intake of vitamins and minerals for their healthy development throughout early childhood. However, in India, malnutrition is a significant public health issue due to inadequate nutrition food, poor breastfeeding practices, delayed introduction of complementary foods, and insufficient protein in the diet. The United Nations International Children's Emergency Fund (UNICEF) reported in 2006 that inadequate nutrition, unsanitary environments, and lack of hygiene standards contribute to malnutrition children. The National Family Health Survey-5 (2019-20) found that there was no substantial improvement in the nutritional condition of children aged 0 to 5. In India 35.5 % of children were reported as stunted, 19.5% were wasted, and 32.1% were underweight. Karnataka is an average-performing state in terms of nutritional status of children, with malnutrition levels being close to the national average. However, malnutrition is a challenging task for many districts in Karnataka, particularly in Koppal, Yadgiri, and Raichur. In view of this present study, it aims to understand the nutrition status among 0-5-year children in Kalyana Karnataka region and know the cumulative change in nutrition status among these children by districts. The data collected from the National Family Health Survey NFHS-4 (2014-2015) and NFHS-5 (2019-20) was used for the analysis. The findings could help policy-making bodies to improve child malnutrition in the Kalyana Karnataka region which helps to take necessary steps to reduce malnourished children in the upcoming days. The study examines the nutritional status of malnourished children aged 0-5 in Kalyana Karnataka using NFHS-4 and NFHS-5 data.

The study found that child malnutrition in Karnataka was relatively improved compared to the NFHS-4 survey between 2014-2015 and 2019-20. The stunted children showed a slight decline of 0.8 points, while wasted children showed a decrease of about 6.6 points. Underweight children showed a moderate decrease of 2.3 points. Although the study found that most of the districts in Kalyana Karnataka showed improvements in their nutritional status compared to the previous survey. However, some districts, such as Yadgiri and Raichur, reported significant progress in reducing child wasting. Districts like Bidar and Yadgiri also showed modest improvements.

Districts like Kalaburagi and Ballari experienced the largest reduction in the prevalence of underweight children, while districts like Koppal, and Bidar reported moderate declines. Raichur had the smallest decrease of - 0.5%, indicating that efforts to improve the nutritional status in this district might need to be further strengthened. There has been a decrease in child malnutrition in Karnataka, but few districts have not improved. To reduce child malnutrition, the respective district administration needs to focus on improving it. Breastfeeding and complementary food practices are crucial for infant growth and development, and if a child does not receive sufficient feeding and complementary food between ages 0 and 5, it can lead to poor mortality. Therefore, mothers should be encouraged and educated to provide early breastfeeding and complementary food to improve nutritional status and reduce the risk of child mortality.

KEYWORDS: *Child Malnutrition, Kalyana Karnataka, NFHS,*

INTRODUCTION

The term "child malnutrition" refers to the situation in which a child's consumption of vitamins and minerals is lower than what is required for the child's healthy development throughout the early years of childhood. Some of the symptoms that point out that a child's health being inadequate are related to their physical growth, requirements are waste, stunting, and being underweight are all examples of these conditions.

Malnutrition among children in India is a considerable public health issues due to lack of sufficient nutrition food. However, the United Nations International Children's Emergency Fund (UNICEF) released its report in 2006, where it is reported

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incommensurate food, frequent illnesses, poor breastfeeding practices, delayed introduction of complementary foods, and insufficient protein in the diet are the main regions for malnutrition in children in India. But due to inadequate nutrition, unsanitary environments combined with a lack of hygiene standards, and other factors, children in India. Although there are several efforts by the central and state governments through the Department of Health and Family Welfare services. However, there are several programs that have been positively affecting children's health either directly or indirectly.

Percentage of underweight children in the 0-5 age group remains high in India; on the other hand, the backward states like Bihar, Jharkhand, Meghalaya, and Uttar Pradesh still have the highest number of underweight children. About 40 percent of the children are stunted, according to the National Family Health Survey-5 (2019–20). All the State and union territories still have high levels of wasted children as per global standards. In the same way, the underweight children of the above-mentioned States have not improved much. However, it was claimed that less than 25 percent of children in Goa, Kerala, Manipur, Punjab, Sikkim, and Tamil Nadu were stunted.

As per National Family Health Survey-5 (2019–20) found that in Karnataka there has been no substantial improvement in the nutritional condition of children who are between the ages of 0 and 5. There are 35.5 percent of children reported as stunted, and 19.5 percent of children were found wasted, similarly about 32.1 percent of children were seen underweight. As per National Family Health Survey (NFHS-4) around 36.2 percent of children are stunted, 26.1 percent are wasted, and 35.8 percent are underweight. Although the Human Development Report, Karnataka, 2022, reported that malnutrition status is high in North Karnataka and the Kalyan Karnataka Region, it means that there is a regional imbalance in nutrition status in Karnataka.

Karnataka is an average-performing State in terms of the nutritional status of the children, with malnutrition levels being close to the national average. Malnutrition is a challenging task for many districts in Karnataka; especially for the districts like Koppal, Yadgiri, and Raichur. The incidence of malnourished children and anemic women in these districts are high. On the other hand, Mandya, Kolar, and Ramanagara districts had a low share of malnourished children and anemic women. Lack of nutrition food is the main cause of child malnutrition. Underweight, stunted, wasted, and poor health growth is the main symptoms of child malnutrition.

Further malnutrition directly affects the brain development of the children. Malnutrition during infants and early childhood is believed to have a long-term impact on both the physical growth and mental health of malnourished children. The nutritional status of Karnataka, as per the National Family Health Survey (NFHS-5), shows that there is an improvement in the nutritional status of children.

OBJECTIVES

1. To understand the nutrition status among 0 -5-year children in Kalyana Karnataka region.
2. To know the cumulative change in nutrition status among 0-5-year children in Kalyana Karnataka region by districts.

NEED FOR THE STUDY

Kalyana-Karnataka is a backward region located in the Northern part of Karnataka. The region comprises seven backward districts, such as Bidar, Yadgiri Raichur, Koppal,
Kalaburagi, Ballari and Vijayanagar(a newly formed district). However, the 98th Constitutional Amendment Act of 2012 which was introduced under Article 371-J, which provides separate provisions for the Kalyana-Karnataka region, in the Constitution.

There is a lack of improvement in malnutrition in many districts in Karnataka, especially in Kalyana Karnataka. In view of this, there is a need to study the above objective with a view to understanding the factors and figures relating to malnutrition among children in Kalyana Karnataka region by the district. This will positively help to make corrective measures.

DATA SOURCE AND METHODOLOGY

For the study, secondary sources of data have been used, and required data was collected from the National Family Health Survey NFHS-4 (2014-2015) and NFHS-5 (2019-20). The present study investigates comparative analyses of child malnutrition among children under five years in Kalyana Karnataka region. The children under the age of five years have been studied as per the anthropometric indices height-for-age (stunting), weight-for-height (wasting), and weight-for-age (underweight), which are available in the NFHS fact sheet. For the analysis, the change between NFHS-4 and 5 has been traced out using the details of NFHS-4 and 5 survey fact sheets.
The outcomes of the study would help policy-making bodies to improve child malnutrition in Kalyana Karnataka region and to take necessary steps to reduce malnourished children in Karnataka in the upcoming days.

DISCUSSION AND ANALYSIS

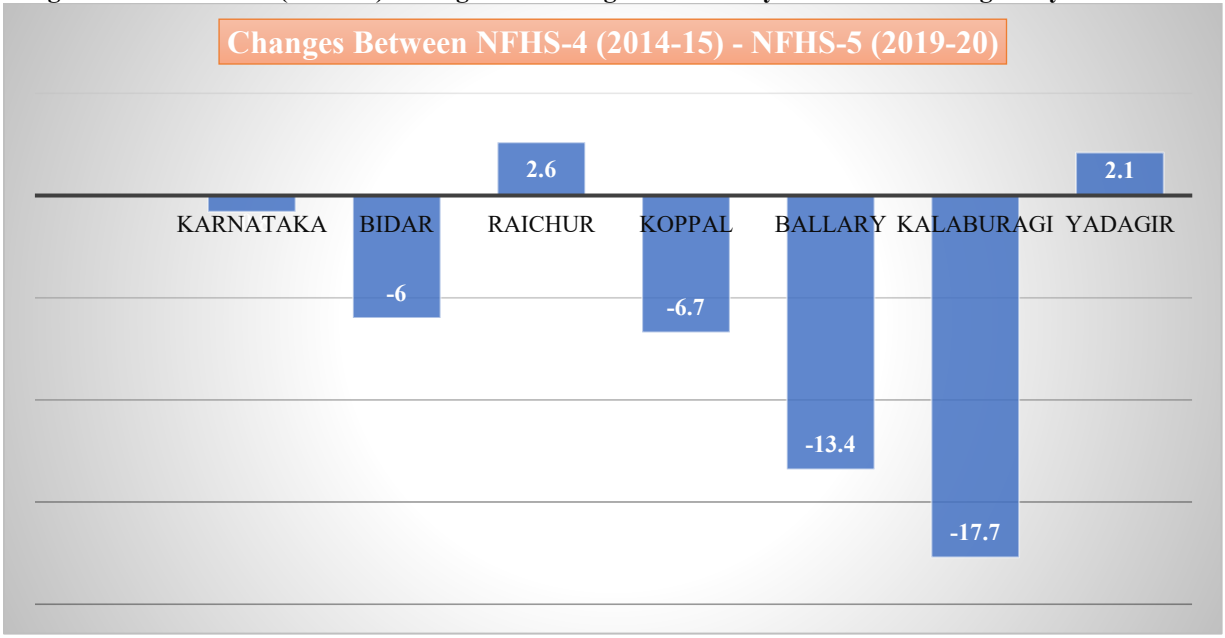
For the study, comparative analysis has been done among malnourished children aged 0-5 in Kalyana Karnataka region by the districts. The study investigates changes and trends of malnourished children using anthropometric indices, stunting (height for age), wasting (weight for height), and underweight (weight for age) which are available from NFHS-4 and NFHS-5.

The study confirms that overall, in Karnataka, child malnutrition was relatively improved between NFHS-4 (2014–2015) and NFHS-5 (2019–20). The stunted children showed a slight decline of 0.8 points. The wasted children relatively improved, with a decrease of about 6.6 points, and their underweight status showed a moderate decrease of 2.3 points. On the other hand, in order to have a more in-depth comprehension of these shifts, analyses have been done through anthropometric index in a comparative

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manner with each individual district of Kalyana Karnataka region.

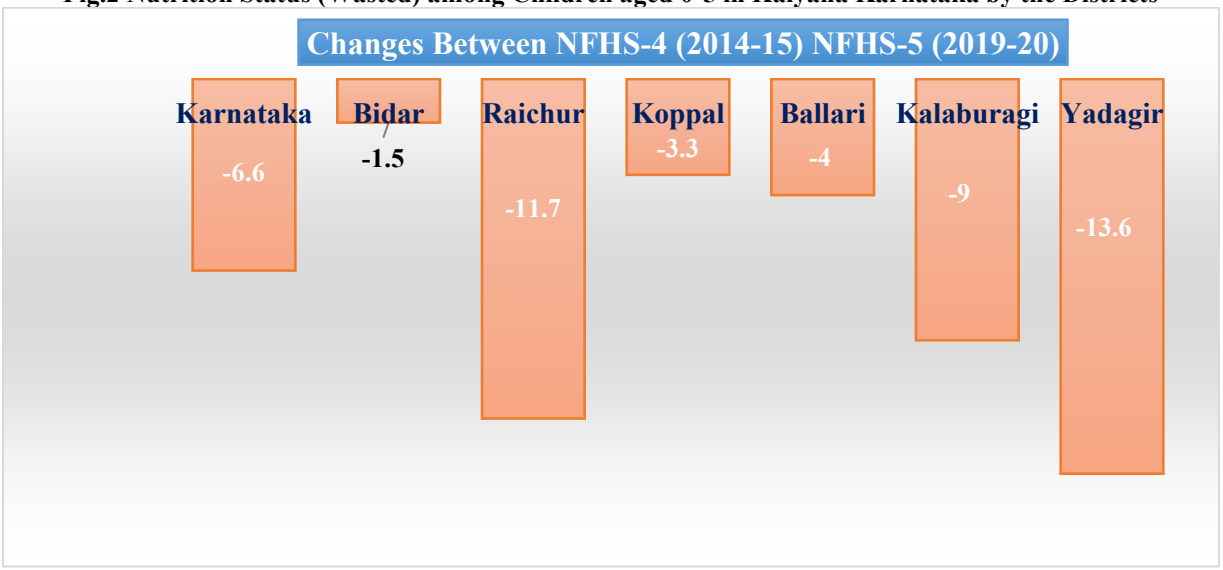
Fig.1 Nutrition Status (Stunted) among Children Aged 0-5 in Kalyana Karnataka region by the districts



Source: ***National Family Health Survey (NFHS-4 ,2014-15) and (NFHS-5 ,2019-20).***

Fig.1 shows that there were both positive and negative improvements have been seen in terms of stunted children across district of Kalyana, Karnataka region. Overall, the state experienced a slight decrease of 0.8 percent of stunted children. Out of 6 districts, 4 districts have decreased the number of stunted children, namely Kalaburagi, Ballari, Koppal and Bidar. Kalaburagi district had the largest decrease among these districts, with a decline with 17.7 percent, and followed by Ballari 13.4 percent. Similarly, Bidar and Koppal districts also experienced a decrease of 6. and 6.07 percent, respectively. On the other hand, only two districts, Raichur and Yadgiri, there has been an increase in stunted children. The progress of Raichur's was moderate at 2.6 percent, while Yadgiri saw a smaller increase with 2.1 percent.

Fig.2 Nutrition Status (Wasted) among Children aged 0-5 in Kalyana Karnataka by the Districts



Source: ***National Family Health Survey (NFHS-4 ,2014-15) and (NFHS-5 ,2019-20).***

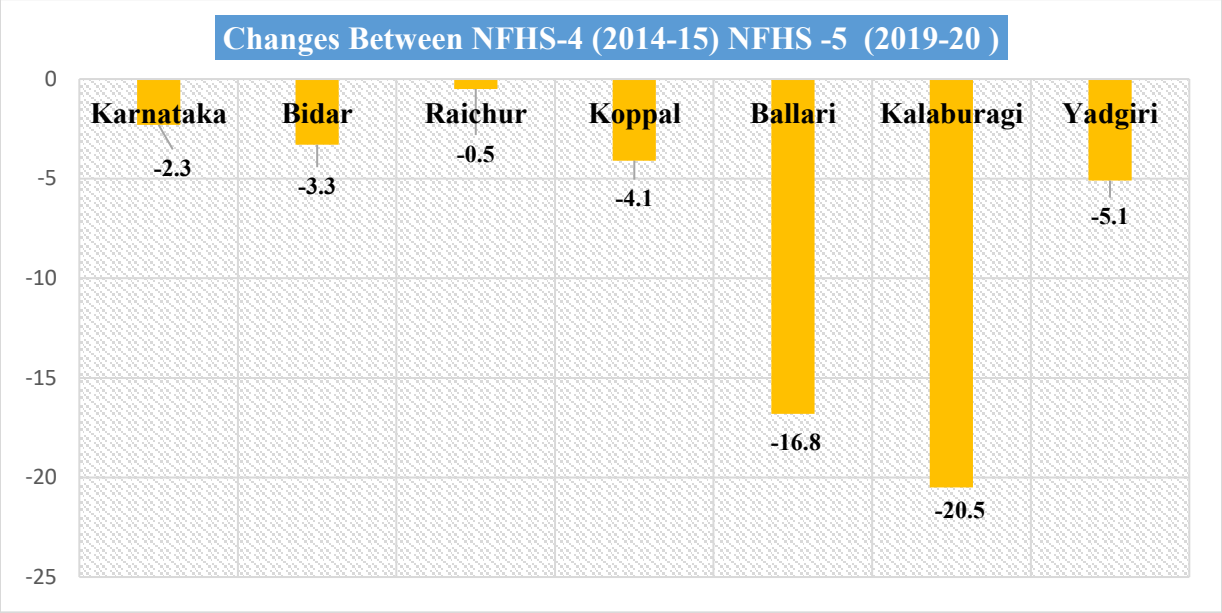
The study shows that the overall progress in nutritional status with regards to wasted children in Karnataka showed relatively good improvement and decreased by about 6.6 points compared to the NFHS-4. However, there has been a positive trend in reducing

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child wasting across Kalyana Karnataka, but the extent of improvement is varies by district, with some areas showing more substantial progress than others.

Districts such as Yadgiri and Raichur found that the highest improvement (-13.6%, and -11.7 %), respectively there was significant progress in reducing child wasting in these districts. On the other hand, Kalaburagi has a substantial decrease of -9.0%, reflecting a positive trend in reducing child wasting. When it comes to Ballari and Koppal districts, there is a modest improvement (- 4.0% and -3.3%, respectively). Bidar district has evident for little reduction at -1.5%, indicating that the progress in reducing child wasting in this district has not improved.

Nutrition Status (Underweight) among Children Aged 0–5 in Kalyana Karnataka by the Districts



Source: ***National Family Health Survey (NFHS-4 ,2014-15) and (NFHS-5 ,2019-20)***

Nutritional status with regards to underweight the study found that there is a good improvement has seen with a 2.3-point decrease in underweight children in Karnataka. Kalaburagi and Ballari districts experienced the largest reduction in the prevalence of underweight children, the reduction was **(-**20.5%) and (-16.8%) respectively. It shows significant progress in addressing child malnutrition. On the other hand, Yadgiri**,** Koppal and Bidar reported moderate declines, with a decrease of -5.1 %**,** -4.1 %**,** and -3.30 **%** respectively. Raichur had the smallest decrease of **-** 0.5%**,** which indicates that further efforts need to be done to improve the nutritional status in this strengthening further.

The study highlighted that most of the districts were improved in terms of wasted children in Kalyana Karnataka compared to the previous survey. Districts like Bidar and Yadagir**,** while improving, did not achieve reductions as substantial as Kalaburagi or Ballari. On the other hand, Raichur stands out as needing additional focus, as it barely improved over the five-year period.

MAJOR FINDINGS

The study found that overall, in Kalyana Karnataka region, child malnutrition was relatively improved.

- The study found that Kalaburagi district had the largest decrease of stunted children among the 6 districts, with a decline of 17.7 percent, and secondly, Ballari district had a notable decrease of 13.4 percent.
- When it comes to the Raichur and Yadgiri district there has been an increase in stunted children. Raichur's growth was moderate at 2.6 percent, while Yadgiri saw a smaller increase of 2.1 percent. However, the district authority needs appropriate program and policy interventions to be taken.
- The study highlighted that districts such as Yadgiri and Raichur reported the highest improvement in reducing wasted children (-13.6%), and (-11.7 %), respectively. Bidar district has the smallest reduction of wasting children at -1.5%, indicating that the progress in reducing child wasting in this district has been relatively not improved. This has been drawn attention to the district authority concerned.
- Kalaburagi and Ballari experienced the largest reduction in the prevalence of underweight children, with a (-20.5%) and (- 16.8%) decrease respectively.
- Raichur had the smallest decrease of - 0.5%, indicating that efforts to improve the underweight status in this district might need further strengthening.

CONCLUSION

By investigating the issue of malnutrition of children under the age of 0-5 years in Kalyana Karnataka region had shown that

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there has been a decrease in child malnutrition in Karnataka trend has also been observed in Kalyana Karnataka. However, few of the districts have not improved. Therefore, to reduce child malnutrition, the respective district administration needs to focus on improving it. The growth and development of infants depend on breastfeeding and complementary food practices; however, if a child does not receive sufficient feeding and complementary food between the ages of 0 and 5, it leads to child malnutrition. Child malnutrition can lead to poor mortality. Therefore, to improve nutrition status and reduce the risk of child mortality, the mother should be encouraged and educated to provide early breastfeeding and complementary food.

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