



Anemia - A cause of Concern: Experience from Haryana

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Abstract: National Family Health Survey showed that anemia is a major public health challenge in India especially for women and children. At the national level, the findings of the NFHS-5 reveal that there has been an increase in the prevalence of anemia among women and children compared to the previous NFHS-4 survey that was conducted in 2015-16. Various initiatives has been undertaken by government of India to control the prevalence and incidence of anemia in among all age groups especially women and adolescents There is need to spread awareness in the society about good eating habits and healthy living conditions. Anemia and Nutritional status further be improved through community participation in health and fitness activities.

National Family Health Survey showed that anemia is a major public health challenge in India especially for women and children. According to the NFHS- 5, the depressing message from the anemia-affected population is that 67 percent of children and 57 per cent of women are suffering from anemia due to lack of nutritious food. It is a vicious cycle that can increase the morbidity, mortality and a health burden for the country. Prevalence of anemia results in poor psychological development that leads to lower performance and productivity among children. Mortality rate among infants and those under five years of age has improved but prevalence of anemia has increased. UNICEF has also supported the Ministry of Health and Family Welfare in conceptualizing and convening the development of Anemia Mukht Bharat.

Anemia Scenario:

India at Glance:

At the national level, the findings of the NFHS-5 reveal that there has been an increase in the prevalence of anemia among women and children compared to the previous NFHS-4 survey that was conducted in 2015-16. The increase in anemia among pregnant women is by 1.8 percentage points, among all women in the reproductive age is 3.9 percentage points, and among adolescent women by 5 percentage points. Among children, the increase is the highest of 8.5 percentage points and is now closer to the levels recorded in NFHS-3 from 2005-06 when the prevalence was 70 percent (various NFHS Reports). Nearly 67 percent children under the age group of 6 to 59 months are anemic in India. Whereas, 57 percent non pregnant women in the age group 15 to 49 years are anemic. Adolescent's girls in the age groups of 15 to 19 years, 59 percent are anemic. Among the men anemia is lowest with age group of 15 to 49 years, the prevalence of anemia has been recorded about 25 percent and the adolescent boys, it is about 31 percent.

Among children aged 6 to 59 months, anemia is the most prevalent in Gujarat among the larger states with

nearly 80 percent of the children in the age group diagnosed with anemia. The prevalence in Gujarat increased by 17.1 percentage points compared to 62.6 percent recorded in NFHS-4.

Haryana at Glance: The state of Haryana is the land of rich culture and agricultural prosperity. It is surrounded by Himachal Pradesh in North, Uttar Pradesh in East, Punjab in West, and Rajasthan in South and adjacent to the National Capital, Delhi, the State surrounds it from three sides. Haryana contributes significant amount of wheat and rice to the Central Pool i.e. a national repository system of surplus food grain. Haryana is India's 4th largest producer of cotton. Haryana has also made rapid strides in development of industrial sector.

Some Health indicators of Haryana: Human development within creased social welfare and well being of the people is the ultimate objective of development planning. In any developing and emerging economy, health sector plays a significant role. Education, Health and Women Empowerment are the main indicators of healthy society.

Nearly 91 percent prevalence of anemia and 5 percent cases of severe anemia has been noticed by Kant et al among pregnant women in Ballabgarh district of Haryana. However, the study done by Mangla and Singla in Sonapat district of Haryana found the prevalence of anemia among pregnant women to be 98 percent and that of severe anemia, 15.88 percent. According to ICDS Haryana report, 0.17 percent children below age of 6 are severely under weight and nearly 8 percent are of moderate grade while 90 are found to under normal grade. It has been scientifically proven that physical growth and development are impaired in children who have high iron deficiency. In Haryana, nearly having 95 percent institutional births 70 percent children between age 6-59 months are anemic (HB<11g/dl), 61 percent non-pregnant women age 15-49 years are anemic(HB < 12) as per NFHS-5.

Need for study:

Anemia and iron deficiency is a major public health challenge in India especially for women and children. Secondly this analysis will put a light on district wise scenario prevailing in Haryana. Keeping in view the importance and role of anemia in health of country vis a vis society, this study has been planned with objectives to see the Prevalence of Anemia among Children and Women and to analyze the district wise scenario of Anemia and Nutritional Status in Haryana

Data base and Methodology: This study is based upon secondary sources of data like various rounds of NFHS, government and non- government reports. Excel formats has been used to analyze the data

1. Results and discussion:

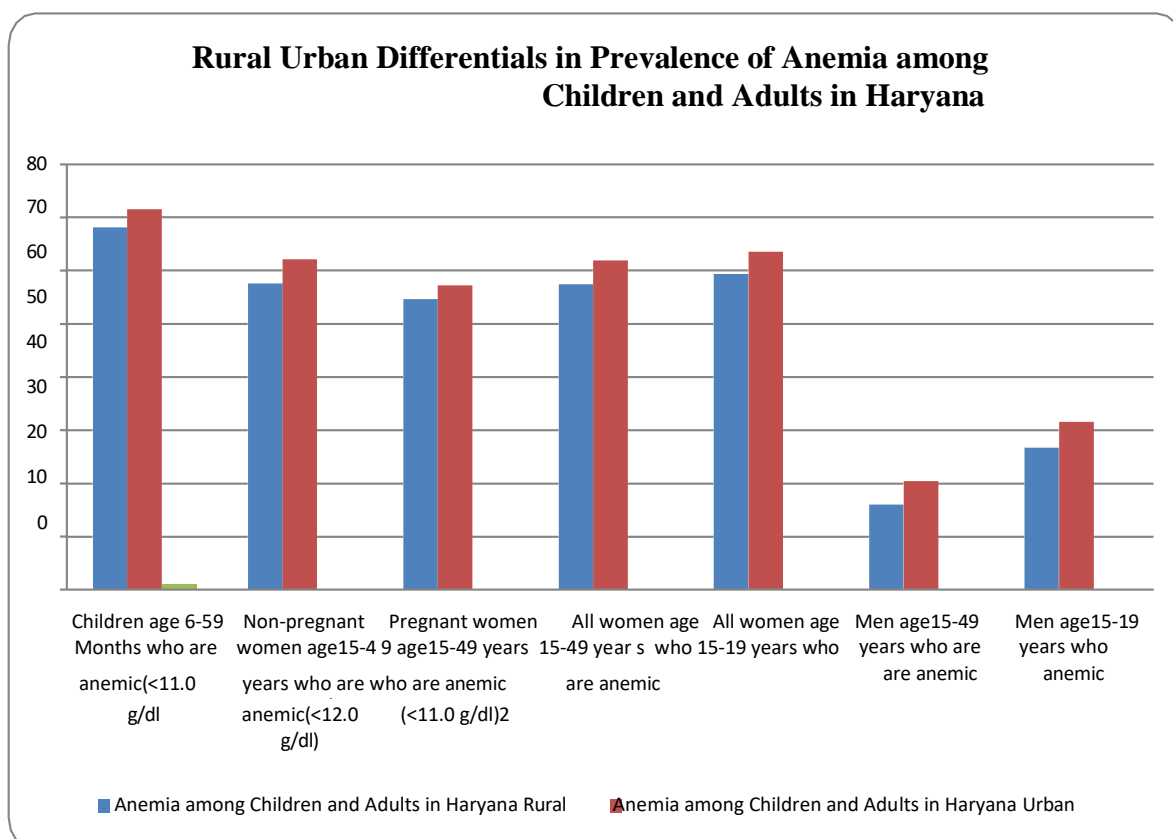
In the National Health Survey that was conducted between 2019 and 2021, nearly 6.1 lakh household were covered across the country. The sample size for the survey varied from state to state because of the differences in population and age composition. Information was gathered from 18,229 households, 21,909 women, and 3,224 men in Haryana. The representative survey also records the prevalence of anemia among men, women, and children by collecting blood samples of all men (15 to 54 years of age) and women (15 to 49 years of age)

who voluntarily give consent to the testing. For children (6 to 59 months), parents or their guardians will have to give consent.

2.1 Anemia in Haryana: Overall Scenario

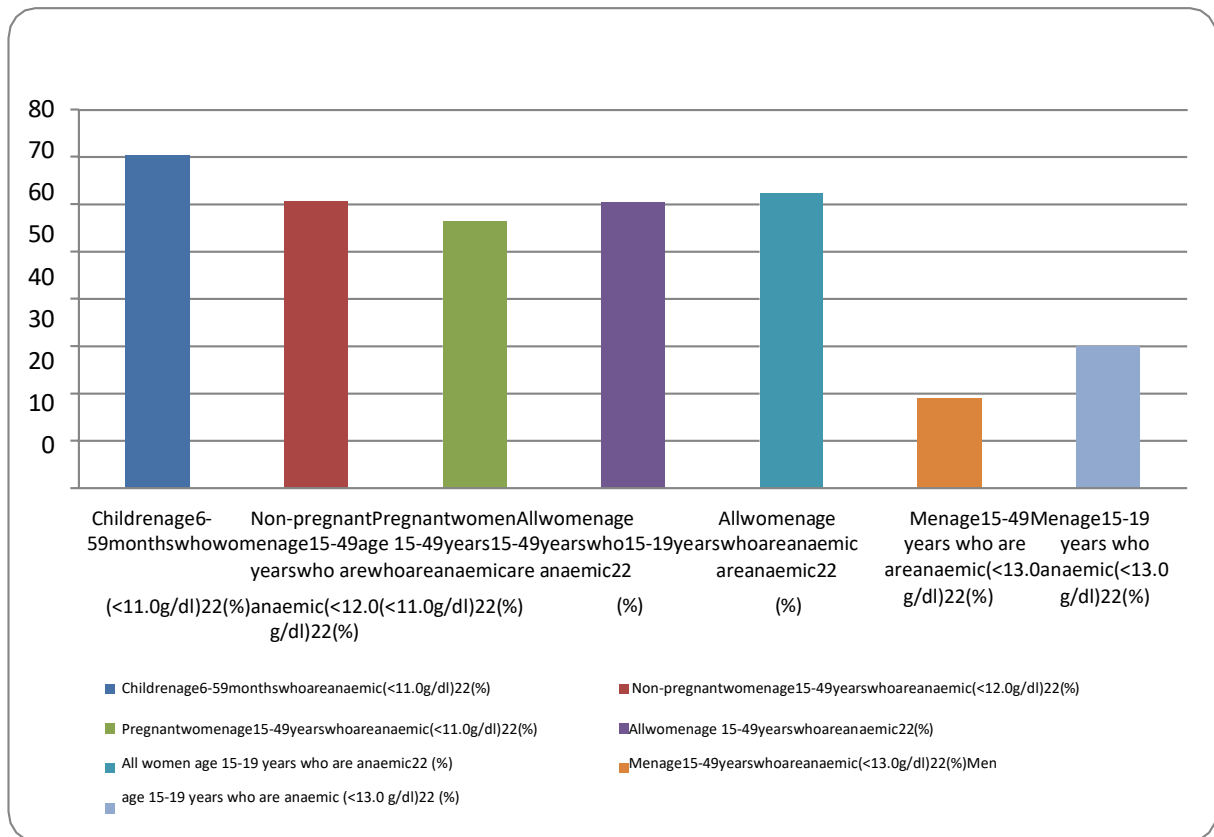
- Majority of Children in age group of 6-59 months area anemic (<11.0g/dl).
- In case of women in age group of 15-49(Non Pregnant women), nearly 60 percent are anemic. The similar situation prevails in age group of 15- 49 years where more than 63 females are anemic in urban area and 60 women in this age group percent area anemic in rural area.
- The situation is better in case of men where nearly 20 percent men anemic in age group of 19-49 years but in reduced age group of 15- 19 years, 32 percent men are anemic in urban area.
- Comparatively anemia prevails more in Urban area is than rural area and among females than the males.

Indicators	Rural	Urban	Total
Children age 6-59 months who are anemic (<11.0 g/dl)	68.1	71.5	70.4
Non-pregnant women age15-49 years who are anaemic (<12.0 g/dl)	57.5	62.1	60.6
Pregnant women age 15-49 years who are anemic (<11.0 g/dl) ²	54.6	57.2	56.5
All women age15-49 years who are anemic	57.4	61.9	60.4
All women age 15-19 years who are anemic	59.3	63.5	62.3
Men age 15-49 years who are anemic	16.0	20.4	18.9
Men age 15-19 years who are anemic	26.7	31.5	29.9



2.2 Rural Urban Differentials:

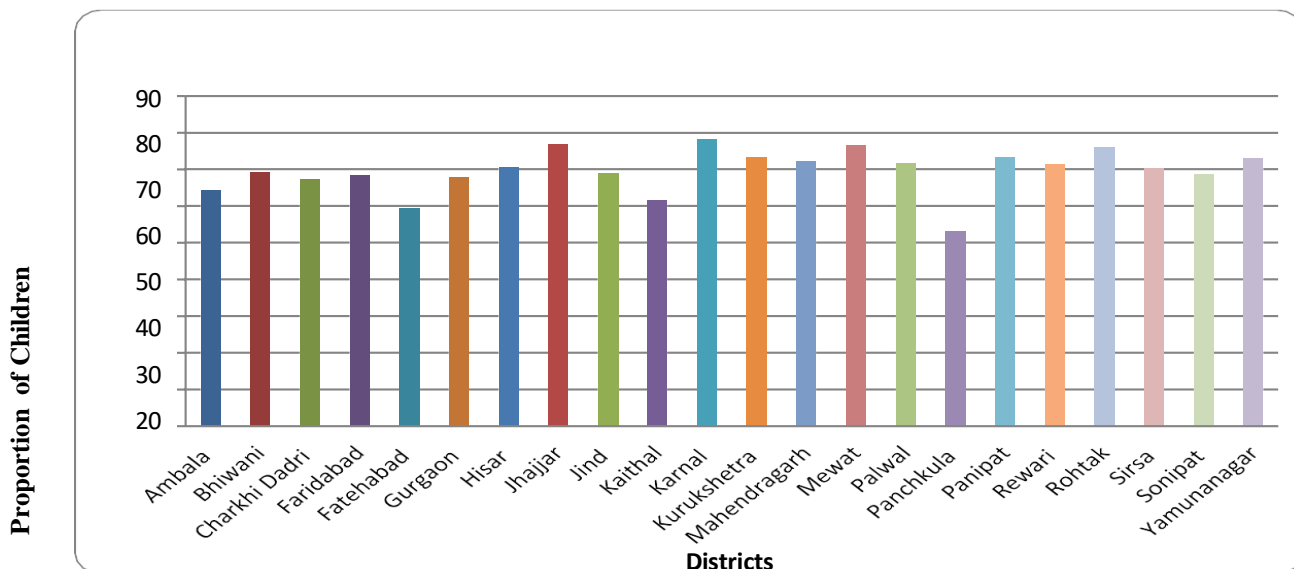
- There is urban rural differential in anemia among all the age groups in Haryana. Anemia is more prevalent in urban Haryana in comparison to rural Haryana.
- All the age groups witnessed higher anemia in urban Haryana as per NFHS-5 survey.



Anemia among Children and Adults (Women and Men)

2.3 District Wise Differentials in Anemia among Children

- Anemia among the age group of 6 to 59 months is quite serious issue as more than 60 percent of children in these age groups are suffering from anemia.
- Highest prevalence of anemia has been recorded in Karnal (78.3 percent), Jhajjar district (76.9 percent), Mewat district (76.4 percent) and Kurukshetra (73.7 percent).
- Lowest prevalence has been recorded in Panchkula district with 53 percent children in the age group of 6 to 59 months are anemic.



District Wise Differentials in Anemia among Children age 6-59 months who are anemic(<11.0g/dl)

Table: 2 District Wise Differentials in Anemia among Children under age of 5 years and Women in Haryana

Sr.	Districts	Children age 6-59 months who are anemic (<11.0 g/dl	Non Pregnant womenage15-49 years who are anemic (<12.0g/dl)2	Pregnant women age 15-49years who are anemic	All Women age15-49 years who are anemic	All women age15-19 years who are anemic
1	Ambala	64.2	46.5	33.8	46.1	49.2
2	Bhiwani	69.2	66.8	55.1	66.4	67.1
3	Charkhi Dadri	67.2	73.1	62.4	72.6	71.1
4	Faridabad	68.4	54.8	30.9	54.2	55.9
5	Fatehabad	59.3	62.5	59.0	62.3	66.5
6	Gurgaon	67.7	68	55.9	67.5	77.6
7	Hisar	70.5	64	58.7	63.8	63.6
8	Jhajjar	76.9	59.9	65.7	60.1	65.2
9	Jind	68.9	59.5	62.7	59.6	50.7
10	Kaithal	61.4	62.5	43.2	61.5	64.3
11	Karnal	78.3	62.1	53.2	61.9	61.5
12	Kurukshetra	73.7	57.5	46.3	57.1	57.7
13	Mahendragarh	72.3	61.2	62.8	61.2	67.3
14	Mewat	76.4	61.1	55.3	60.6	66.4
15	Palwal	71.6	57.2	56.8	57.2	66.4
16	Panchkula	53.1	57.4	-	57.1	59.7
17	Panipat	73.4	66.8	69.0	66.9	64.8
18	Rewari	71.3	61.9	59.3	61.8	66.3
19	Rohtak	76.2	64.8	77.1	65.8	71.8
20	Sirsa	70.1	62.1	-	61.9	63.1
21	Sonipat	68.7	53.0	61.0	53.3	64.9
22	Yamunanagar	72.9	56.3	62.2	56.6	60.4

2.4 District Wise Differentials Anemia among all Women in age group of 15-49 years:

- It has been witnessed from the data that more than fifty percent of women in this age group are anemic.
- While the younger age group of 15-19 years is more affected by anemia. In this age group prevalence of anemia is comparatively high.
- It has been noticed that prevalence of anemia is comparatively high in Charkhi Dadri, Rohatak, Gurugaon etc. district while Ambala, Faridabad and Jind, followed by Kurukshetra district portrait little better picture in lower age group.

2.5 District Wise Differentials Anemia among Adolescent's Girls 15-19 Years:

- District Gurgaon recorded highest prevalence of anaemia (77.6 percent) followed by Rohtak (--), Charkhi-Dadri (71.1 percent) and Bhiwani (67.1 percent).
- More than 50 percent prevalence of anemia recorded in all the districts of Haryana except Ambala with 49.2 percent anemia adolescent's girls. Jind witnessed half of its girls adolescents in this age group are anemic which is the second most lowest figure in the district Haryana

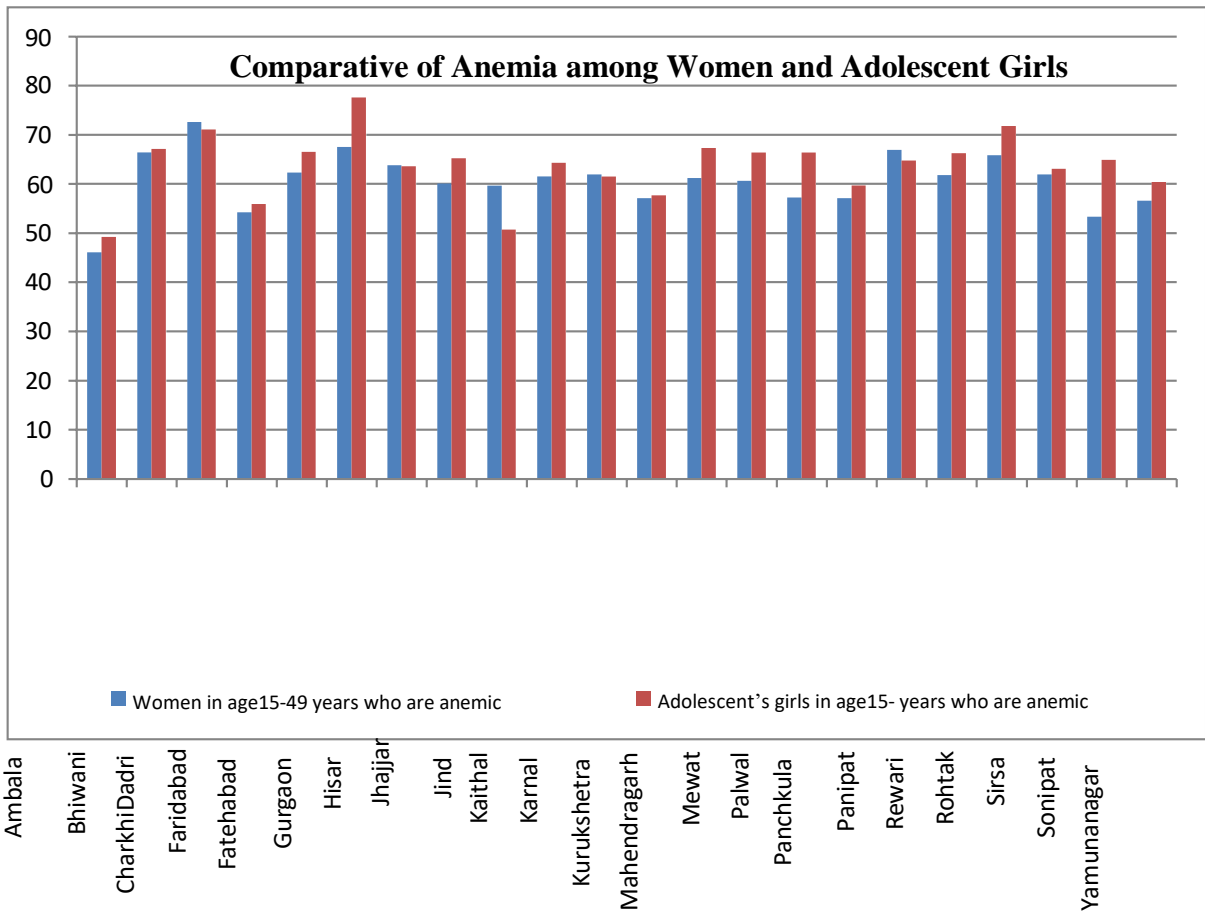
2.6 District Wise differentials in Anemia among Pregnant Women age 15-49 years:

- NFHS-5 recorded anemia among pregnant women age 15-49 years who are anemic (<11.0g/dl). It has been witnessed from the data Charkhi Dadri district with 73 percent anemic pregnant women followed by 66.8 percent in both districts Bhiwani and Panipat districts.
- District Ambala portrait little better picture by recording at 46.5 percent anemic pregnant women. Rest of the districts reported to have prevalence of more 50 percent.

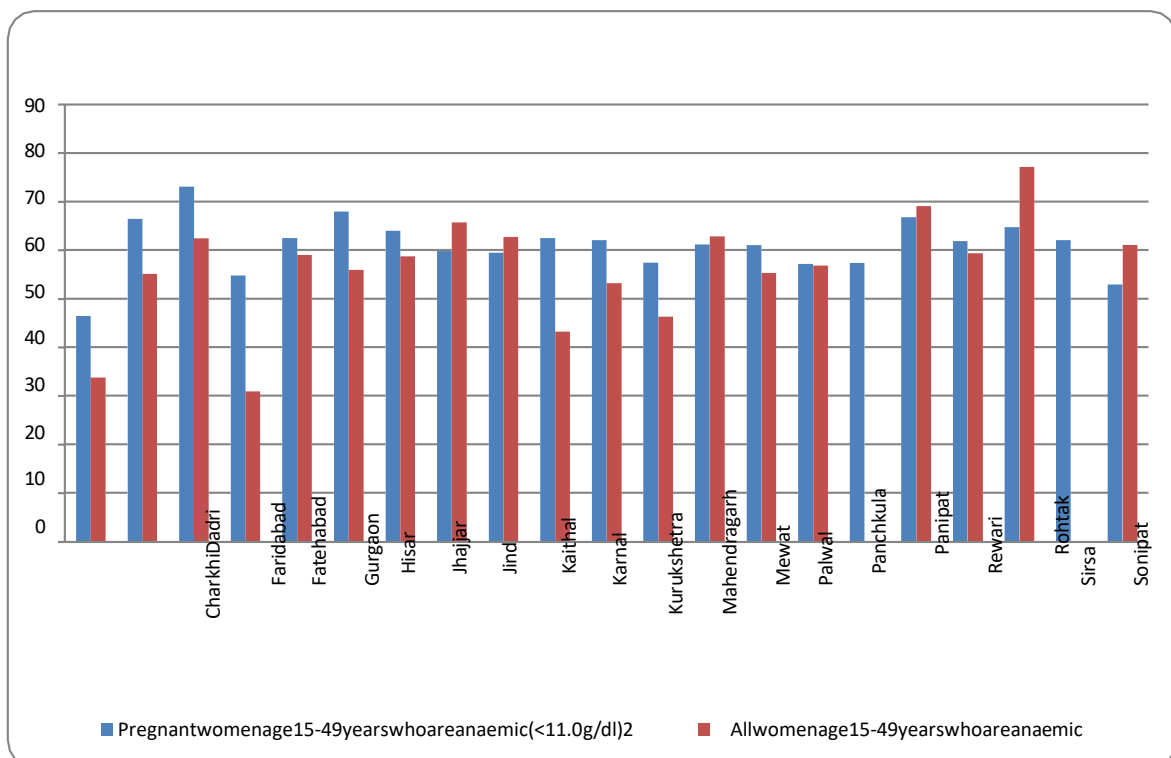
2.7 District Wise differentials Anemia among non pregnant Women age 15-49 years:

- Among non pregnant women, the situation is little better as mild improvement in proportion of anemic women in this age group has been observed from the data sets.
- Among all the districts, the least prevalence of anemia in non-pregnant women, witnessed in district Faridabad with 31 percent and in Ambala nearly 34 percent.
- More prevalence of anemia has been observed in District Rohtak (nearly 77 percent), Panipat (69 percent) followed by Mahendergarh (62.8 percent)
- Despite the various measures by government anemia problem is quite serious in Haryana. Prevalence of anemia has its own repercussions on health of women and the society. Anemia is more prevalent in pregnant women in comparison to non-pregnant

Differential in Anemia among Women: Pregnant Vis a Vis Non Pregnant in Haryana



Comparative of Anemia among Women and Adolescent Girls



Summary and conclusion:

National Family Health Survey has shown that anemia deficiency is a major public health challenge in India especially for women and children. NFHS -5 survey recorded the prevalence of anemia among men, women, and children by collecting blood samples. Here in this study has relied on NFHS-5 data to see the prevalence of anemia. Despite the various measures taken by the government anemia problem is quite acute in Haryana, which reflects the contradiction with the generally prosperous profile of the state of Haryana. Majority of women in Haryana are anemic as per survey reports. Prevalence of anemia has its own repercussions on health of women and the society. Anemia is more prevalent in pregnant women in comparison to non-pregnant women.

Policy Implication:

Various initiatives has been undertaken by government of India to control the prevalence and incidence of anemia in among all age groups especially women and adolescents. National Nutritional and Anemia Control Program (NNACP) was launched at sub centre level and school levels. Although this program very well considered all aspects of supplementation of iron across all age groups, consumption of iron rich food and treatment of severe anemic cases which has no doubt improved the situation in Haryana but there is need to do more on awareness front among the communities. There is need to spread awareness in the society about good eating habits and healthy living conditions. Anemia and Nutritional status further be improved through community participation in health and fitness activities. While the staff posted at HWC (Health and Well Centre) have been taking a keen interest in wellness and fitness activities at village levels. However, they find it difficult to fight the inherent patriarchal and traditional biases which prevail against women and the girl child which is clearly reflected in the acute prevalence of anemia in such a prosperous state.

References:

NFHS Reports, Fact Sheets and GOI reports

Kant S, Malhotra S, HaldarP, kaur R, kumar, "Anemia among pregnant women attending antenatal clinic at secondary health care facility in district Faridabad, Haryana." (Google Scholar)

Mangla M, S singlaD. "Prevalence of anemia among pregnant women in rural India: A longitudinal observational study". (Google Scholar)

WWW.unicef.org(UNICEF/WHO/WorldBank Joint Child Malnutrition Estimates, 2021 Edition)

ANNEXURE1**TheNFHS Classification of Anaemia**

Classification	Normal	Mild
Men	13g/dLandmore	12 -12.9g/dL
Women(NonPregnantWomen)	12g/dLandmore	10-11.9g/dL
PregnantWomen	11g/dLand more	10-10.9g/dL
Children	11g/dLand more	10-10.9g/dL