

# POLICY BRIEF: ANAEMIA IN WOMEN



### What is Anaemia?

Anaemia in women is a pressing **global** health concern that not only results in an increased mortality but also has serious repercussions on the economic productivity of a country. Anaemia is a condition that occurs when the number of **red blood cells** or hemoglobin levels in the body is lower than normal, leading to **low** oxygen-carrying capacity, and further affecting the **physiological** functioning of an individual. It could also be influenced by specific physiologic needs and requirements associated with a person's age, gender, residential elevation above sea level (altitude), social habits (smoking), and physiological demands (different stages of pregnancy). [1]

### What are the causes of Anaemia?

Anaemia is multi-factorial in etiology. Nutritional deficiencies, particularly **iron deficiency**, are one of the most common causes of anaemia, especially in developing countries. Besides this, haemoglobinopathies, infectious diseases such as malaria, tuberculosis, HIV and parasitic infections are also some of the major contributors of anaemia. The following table summarizes the different causes and types of anaemia [2],[3],[4]:

TYPES OF ANAEMIA	CAUSES
<p style="text-align: center;"><b>Nutritional Anaemia</b></p>	<p>Deficiency of micronutrients</p> <ul style="list-style-type: none"> <li>• Iron</li> <li>• Zinc</li> <li>• Folic acid</li> <li>• Copper</li> <li>• Vitamin A, B12 and C</li> </ul>
<p style="text-align: center;"><b>Non-nutritional Anaemia</b></p>	<ul style="list-style-type: none"> <li>• Blood loss due to physiological functions (menstruation, pregnancy etc.)</li> <li>• Intestinal infections such as hookworm infestation</li> <li>• Other infectious diseases such as malaria, tuberculosis, HIV etc.</li> <li>• Iron loss due to underlying conditions such as celiac disease</li> </ul>
<p style="text-align: center;"><b>Anaemia due to genetic disorders or rare physiological conditions</b></p>	<p>Genetic transfer of carrier/genes from parents causing anaemia in offspring</p> <ul style="list-style-type: none"> <li>• Sickle Cell Disease</li> <li>• Thalassemia</li> </ul>

## Why is it important to address Anaemia in women?

Anaemia affects millions of people [5] and is an indicator of **poor nutrition** and **poor health**. Not only does it lead to impaired health and quality of life, but also reduces **work capacity** in adults, thereby affecting the economic development of a country [6]. The effects of anaemia are **intergenerational**.

Hence, it is essential to take effective measures and prevent anaemia, especially among adolescent girls and women of reproductive age group. The following table outlines the effects of anaemia among children, adolescent girls, pregnant women, and lactating mothers-

EFFECTS ON ANEMIA IN DIFFERENT LIFE STAGES			
Childhood [6]	Adolescence [7]	Pregnancy [6]	Motherhood (Postpartum)[8], [9]
Poor cognitive development	Physical and developmental delays	Adverse reproductive/birth outcomes	Impaired physical work capacity
Poor motor development	Fertility related issues	Preterm delivery	Low work efficiency
Poor learning outcomes	Anaemia related complications during pregnancy	Low birth weight infants	Fatigue
		Decreased iron stores for newborn	Reduced immune function

## What does the data say about Anaemia among women in India?

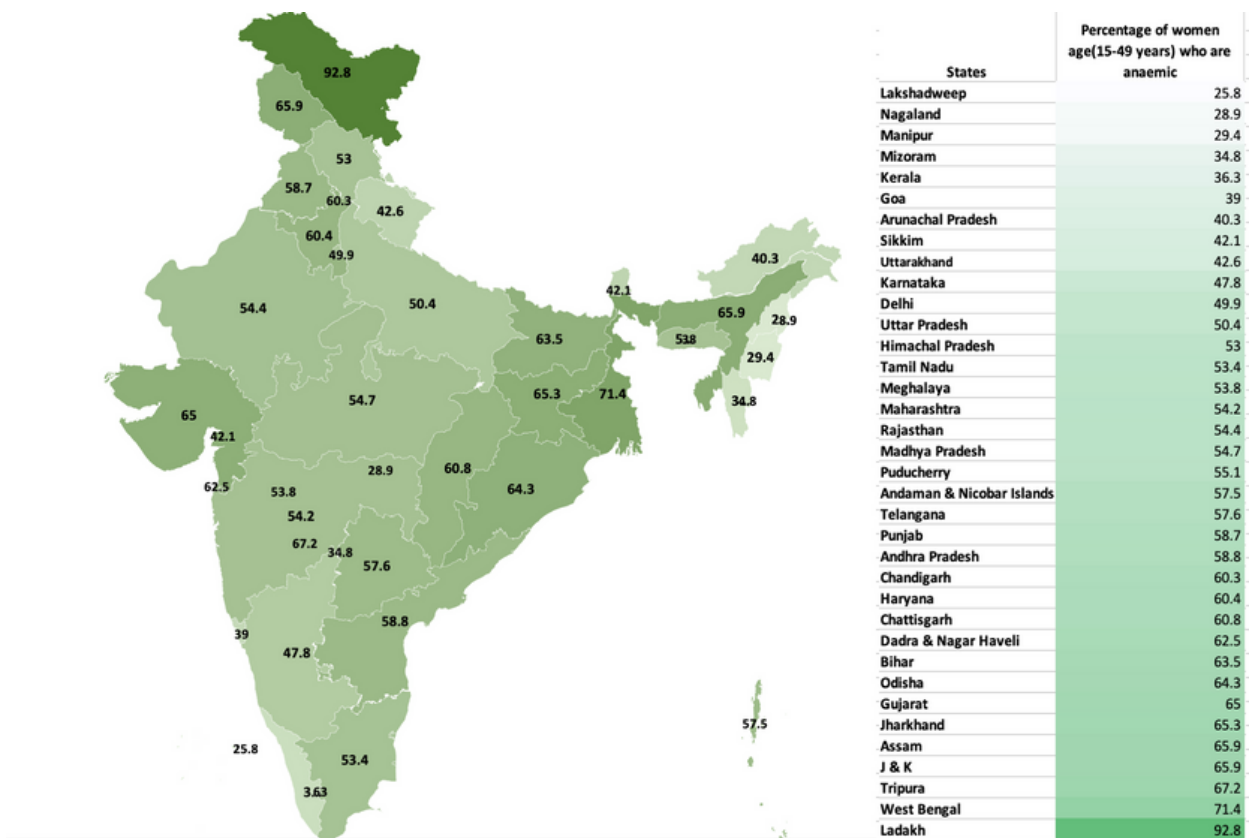
According to **National Family Health Survey 2019-2021 (NHFS 5)**, anaemia in women continues to be the major worrying trend at an all-India level, with more than half of **women in the age group 15-49 years being anemic (57%)** [8]. This is despite the jump in the proportion of women who consumed **iron folic acid (IFA)** for 100 days or more when they were pregnant, from **30%** in 2015-2016 to **44%** in 2019-2021[10].

INDICATOR	INDIA (NFHS-4)	INDIA (NFHS-5)
All women age 15-49 years who are anaemic	53%	57%
All women age 15-19 years who are anaemic	59%	54%
Pregnant women age 15- 49 years who are anaemic	50%	52%
Non-pregnant women age 15-49 years who are anaemic	53%	57%
Mothers who consumed iron folic acid for 100 days or more when they were pregnant (%)	30%	44%

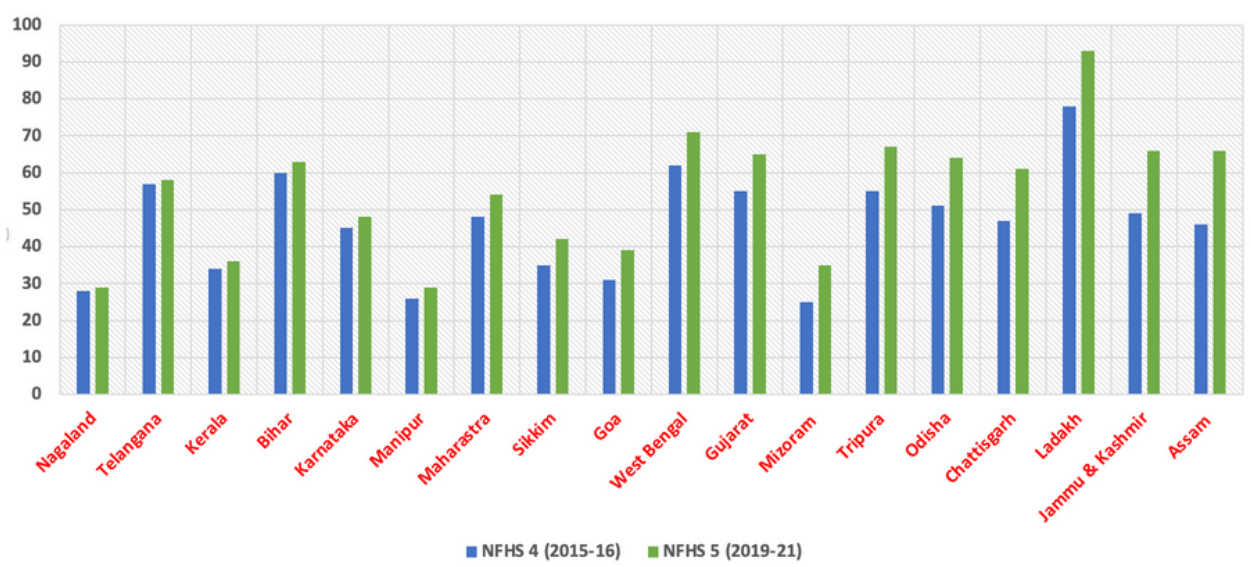
In 2019-21, during the fifth round of NFHS survey it was found that **there are 25 States and Union Territories, where more than half of the women aged 15-49 years are anaemic.**

As per the NFHS-5 survey, **the highest prevalence of anaemic women (aged 15-49 years) is highest for Ladakh at 93%, followed by West Bengal at 71%. A high prevalence rate above 62% has been reported for North-Eastern states of Tripura, Assam and Jammu & Kashmir, Jharkhand, Gujarat, Odisha, Bihar and the Union Territory of Dadra and Nagar Haveli.**

Percentage of women (age 15-49 years) who are anaemic -NFHS-5 data.



States/UTs which saw a rise in anaemia among women age 15-49 years (in NFHS-5 as compared to NFHS 4)



Some states have seen a **steep rise in the percentage of anaemic women (age 15-49 years) in 2015-16 (NFHS 4) as compared to 2019-21 (NFHS 5)**. Assam has seen **almost 20% increase** in this percentage as per NFHS 5 data as compared to NFHS 4 data, followed by **Jammu and Kashmir, Ladakh, Chattisgarh, Odisha, Tripura, Gujarat and Mizoram**.

### What are the policies/programs in place to address Anaemia at the national level?

Over the years, the Government of India has taken several steps to target anaemia among women. These policies include the following-

<b>MINISTRY OF HEALTH AND FAMILY WELFARE</b>
Anaemia Mukh Bharat Programme
National Deworming Day
Health Management Information System and Mother Child Tracking System
Pradhan Mantri Surakshit Matritva Abhiyan
Operationalization of blood banks
Universal screening of pregnant women for anaemia and provision of iron and folic acid tablets as a part of ante-natal care.
Village Health and Nutrition Days
Long Lasting Insecticide Nets and Insecticide Treated Bed Nets
National Guidelines for prevention of hemoglobinopathies

<b>MINISTRY OF WOMEN AND CHILD DEVELOPMENT</b>
Poshan 2.0
Diet diversity via supplementary nutrition
PoshanVatikas or Nutrigardens
Provision of IFA at the Anganwadi Centres
SBCC Activities such as 'Godhbharai' and 'AnnaprashanDiwas', Rashtriya Poshan Maah, Poshan Pakhwadas, T3 camps (test, treat, talk)
<b>FORTIFICATION OF GRAINS VIA FOOD STARNDARD AND SAFETY AUTORITY OF INDIA</b>
FSSAI operationalized the Food Safety and Standards (Fortification of Foods) Regulations, 2018, for fortifying wheat flour and rice (with Iron, Vitamin B12, and Folic Acid), milk and edible oil (with Vitamins A and D) and double-fortified salt (with Iodine and Iron) to reduce the high burden of micronutrient malnutrition and anaemia in India
Centrally Sponsored Pilot Scheme on "Fortification of rice and its distribution under Public Distribution System"

## What are the strategies that can be adopted for anaemia prevention in India?

### Diet Diversification



### Supplementation



### Fortification



The burden of anaemia can be reduced by taking a more holistic approach that would include diet diversification, supplementation, and food fortification-

DIET DIVERSIFICATION	SUPPLEMENTATION	FORTIFICATION
Ongoing SBCC campaigns under the AMB Program and Poshan 2.0, can be further augmented to create awareness among the community about diet diversity	Strengthen the supply chain system and better demand forecasting to ensure last-mile delivery of IFA tablets.	Devising a social and behavior change communication strategy to sensitize and educate the masses about the benefits of consuming fortified foods.
Encouraging consumption of micronutrient rich foods such as dark green leafy vegetables, lentils, millets	Mobilize the women of reproductive age group by counseling of newly-weds and engaging them in VHNDs	Ensuring the continued supply of fortified staples.
Enhancing existing social safety net programs to be nutrition-sensitive and include eggs, milk, fruits, and vegetables in preparation of HCM, THR & MDM	Lay emphasis on compliance by ensuring that IFA is consumed by the target beneficiaries.	Creating demand for fortified foods in open markets.
	Counseling sessions for mothers & care providers on anaemia, IFA-related myths, and misconceptions	Evidence generation about the effect of fortification on anaemia and iron levels, in the Indian context.



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