

# Holistic intervention to reduce anaemia burden in Madhya Pradesh

*April 2022*



# Anaemia prevalence has increased across India despite an improvement in the delivery of maternal and child health and nutrition services



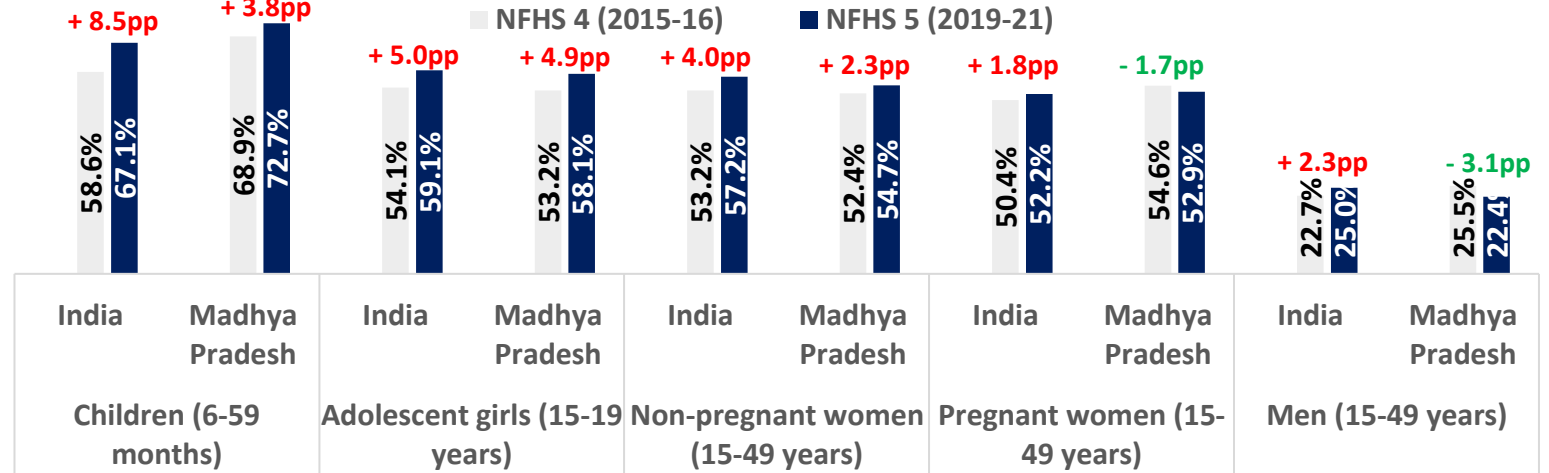
Madhya Pradesh

Population: 72 Million<sup>1</sup>  
 Rural Population: 52 Million<sup>1</sup>  
 U6 Population: 10.5 million<sup>1</sup>  
 Pregnant Women: 2.6 million<sup>1</sup>  
 Adolescent Girls: 7.9 million<sup>1</sup>  
 Infant Mortality Rate: 41.3<sup>2</sup>

- **Maternal schooling, household socio-economic status, and nutrition and health interventions** are key drivers for anaemia reduction.<sup>3</sup>
- Although IFA consumption has been on the rise over the past few years, but **India's anaemia burden has not reduced.**
- With an **increase in coverage and delivery of nutrition and health interventions in Madhya Pradesh**, there has been a reduction in anaemia amongst pregnant women and slow rise in children and non pregnant women.

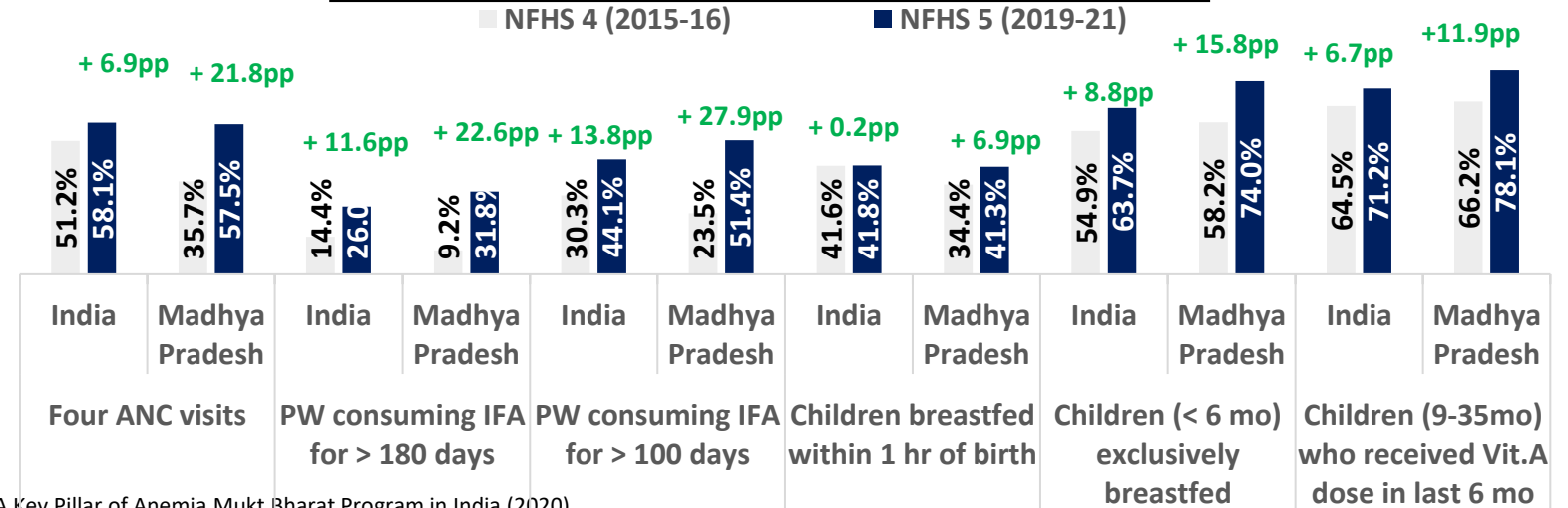
## Increase in anaemia prevalence in Madhya Pradesh lower than national average

### Anemia across different age groups<sup>2</sup>



## Increase in coverage of services in Madhya Pradesh higher than national average

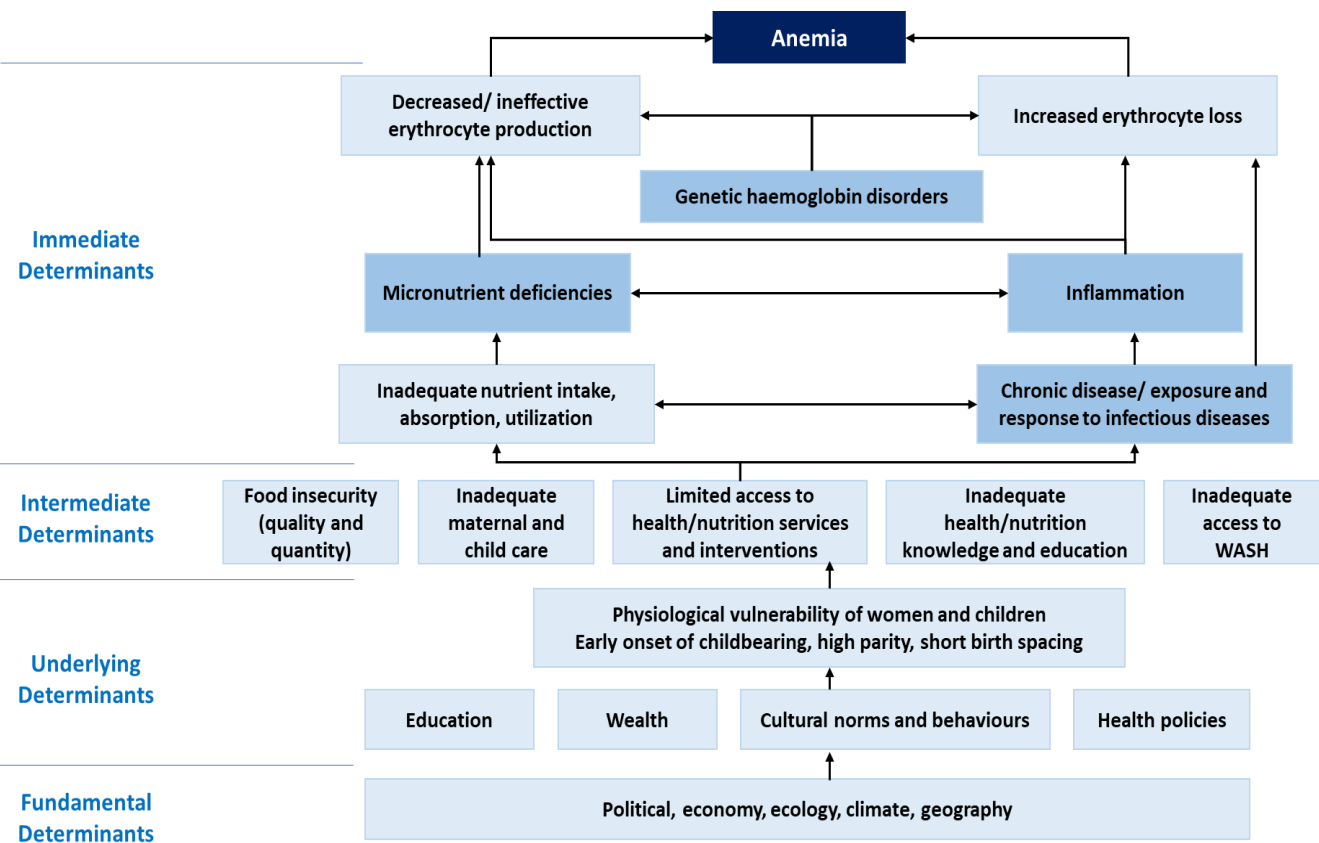
### Maternal and Child Health and Nutrition Services<sup>2</sup>



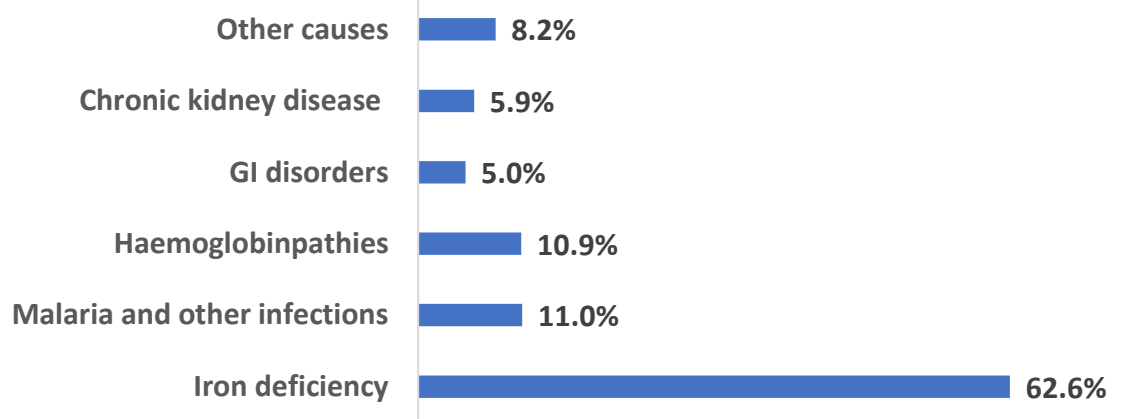


# While iron deficiency is a major cause of anaemia, there are multiple other factors that contribute to high prevalence of anaemia

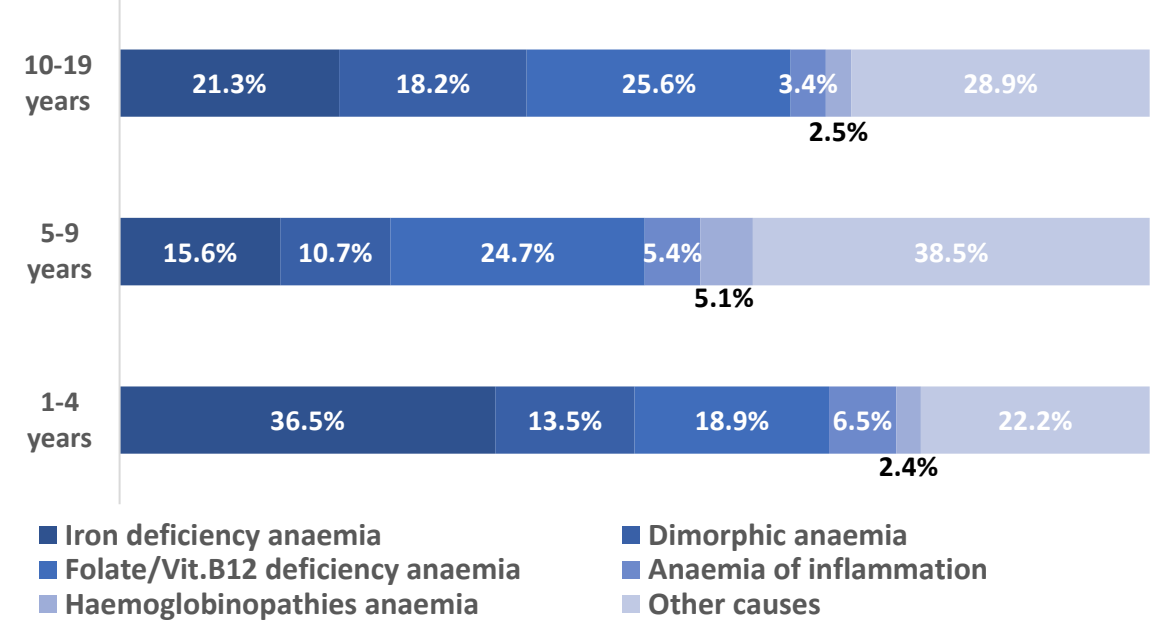
## Determinants of anaemia: A conceptual model<sup>1</sup>



## Global Burden of Anaemia<sup>2</sup>



## Types of anaemia among children & adolescents in India<sup>3</sup>

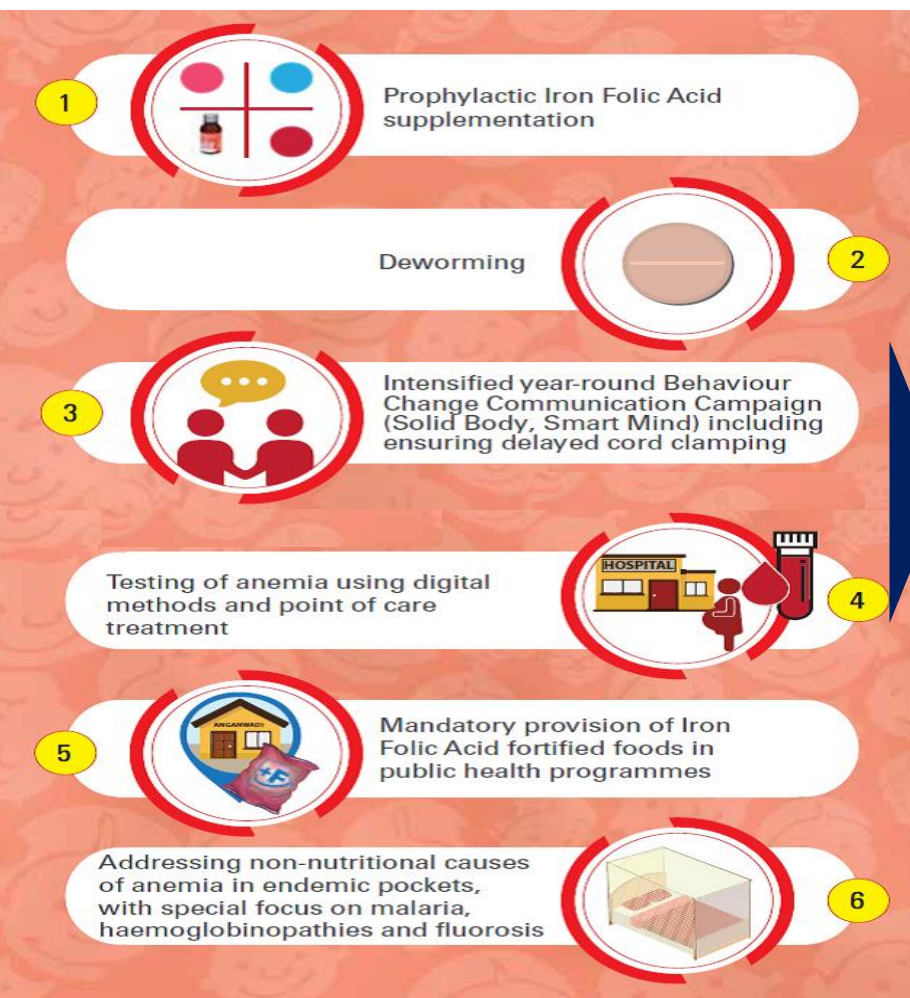


Source: 1. Anemia epidemiology, pathophysiology, and etiology in low- and middle-income countries; <https://doi.org/10.1111/nyas.14092> 2. Global Burden of Anaemia (2010), 3. Comprehensive National Nutrition Survey (2016-2018).

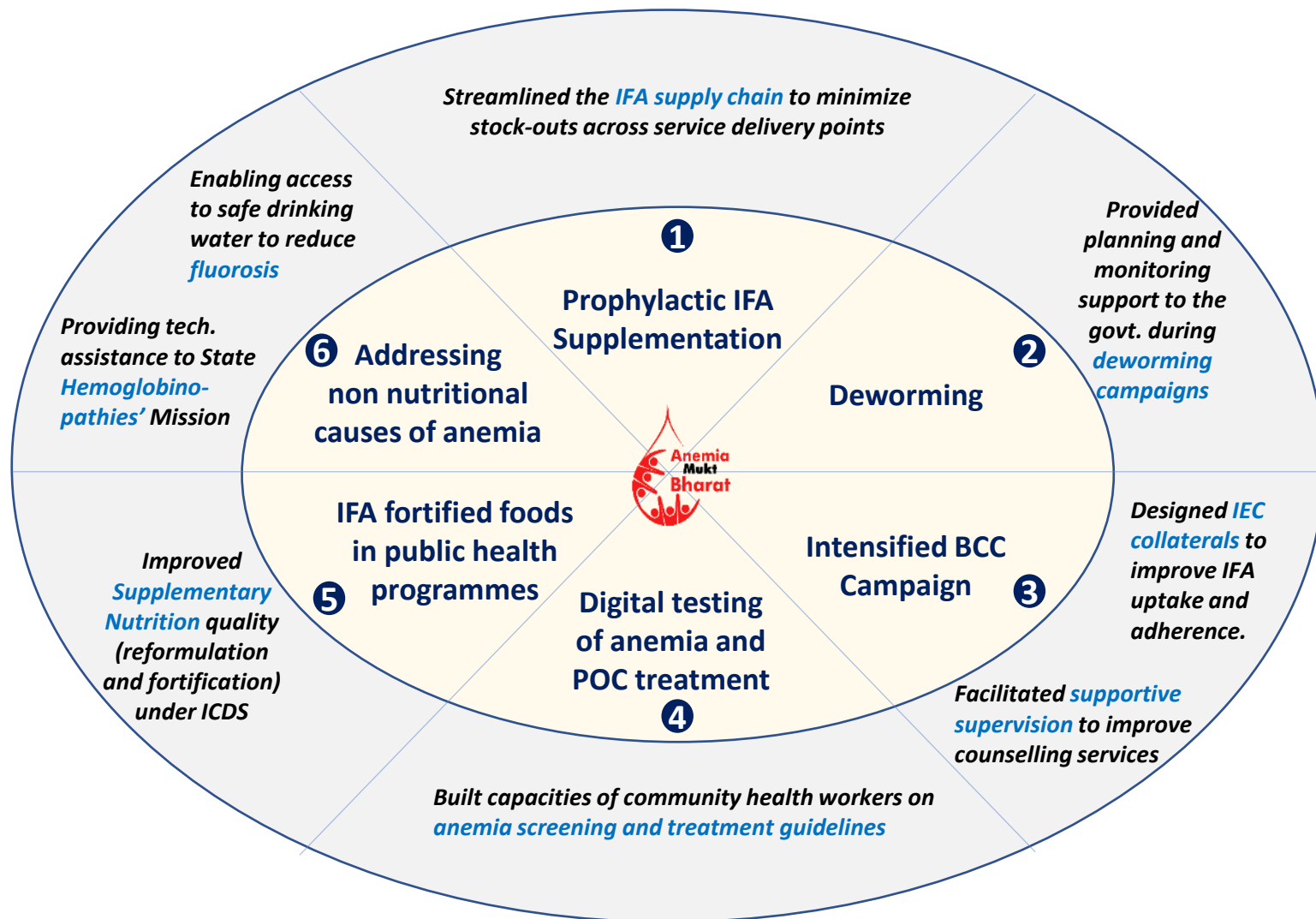
# Nutrition and anaemia programs, therefore, need to look beyond iron deficiency anaemia and focus other interventions

## Anemia Mukt Bharat (AMB) (2018)

Targets an **annual reduction in anemia by 3% in all target groups** until 2022 through a **6X6X6 strategy** to address key determinants of anaemia



## CHAI has been supporting the state of Madhya Pradesh across all the components of AMB



# CHAI has been supporting GoMP in improving quality and coverage of services under the National Iron Plus Initiative and Anemia Mukht Bharat programs

## Key challenges to address



Low accuracy in anaemia screening



Low IFA uptake due to side effects



Sub-optimal IFA procurement and distribution process



Lack of concurrent monitoring



Limited knowledge on importance of IFA

CHAI supported GoMP with wholistic interventions to enhance IFA uptake among all beneficiary categories. **Systemizing IFA supply chain and introducing robust monitoring systems** has restructured the service delivery in the anemia space

Implemented in  
**2017-2021**

Reduced IFA  
stock outs

Improved state rank  
**From Rank 6 to Rank 1**  
in IFA coverage



### 1 Anaemia Testing

*Advocated for introduction of digital Hb meters for accurate screening*

### 2 IFA Reformulation

*Advocated reformulation of IFA from Ferrous Sulphate to Ferrous Ascorbate salt*

### 5 Increasing IFA Uptake

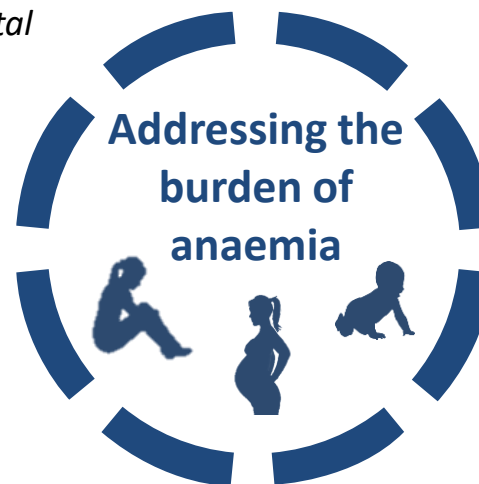
*Developed scientifically backed collaterals and supported national mass media campaign under AMB*

### 3 IFA Supply Chain Strengthening

*Defined standard inventory and procurement norms; Developed and supported the implementation of IFA last mile delivery soln.*

### 4 Robust Monitoring

*Strengthened data-backed reviews through dashboards and bulletins*

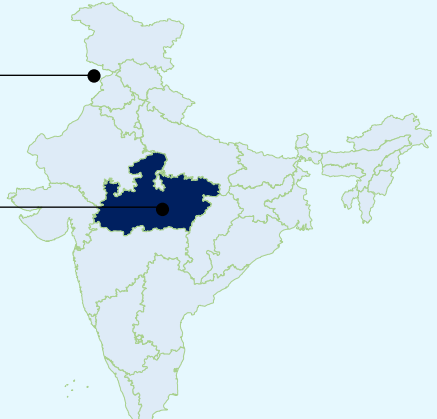


# Access to safe drinking water can contribute to reduce anaemia prevalence; CHAI is supporting the state government in providing access to safe drinking water in ~40 fluoride affected habitations across the state

## Key challenges to address

- 38 M** people suffering from preventable water borne diseases<sup>1</sup>
- 40 M** people drink water heavily contaminated with chemicals<sup>2</sup>

**In India**



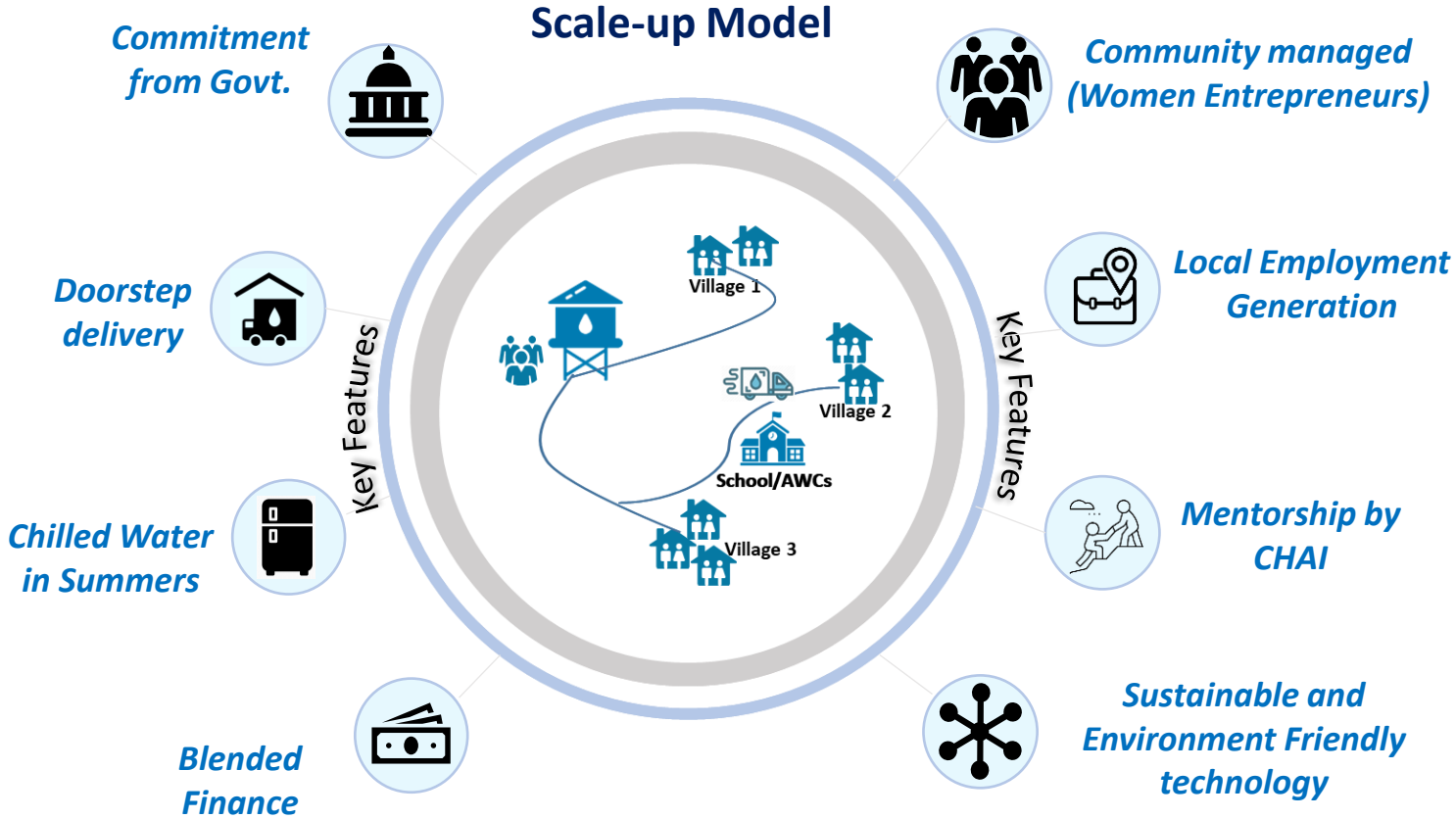
- 30%** districts categorised as high water risk due to fluoride contamination<sup>3</sup>
- ~4%** population uses any effective method of water treatment<sup>4</sup>

**In Madhya Pradesh**

CHAI developed a unique to provide access to safe drinking water to vulnerable populations by establishing Community Water Treatment Plants and engaging community-based institutions for operationalizing the plants

**Pilot Implemented 2018** ————— **Reached**

**3.5K** Consumers  
**2.1M** Liters of water distributed



Source: 1. [India Water Portal](#)  
2. [The HinduBusinessLine](#)  
3. NRDWP, 4. CHAI baseline survey

# India is estimated to have the second highest burden of Sickle Cell Anaemia across the globe; CHAI is supporting the state of Madhya Pradesh fight sickle cell anaemia

## Problem



- In Madhya Pradesh, **89 tribal blocks across 22 districts** have high prevalence of sickle cell disease<sup>3</sup>.
- The prevalence of **sickle cell trait** is as high as **31% in certain tribal communities**<sup>4</sup>.

## Intervention

- **Task Force Committee** formed in June 2021 under the guidance of the State Health Commissioner, with Mission Director of the state's National Health Mission division as chairperson.
- **State Hemoglobinopathies Mission:** Constituted and inaugurated on 02 November 2021 by the Hon'ble Chief Minister.
- **Initiation of a pilot study for the Prevention, Screening, and Management of Sickle Cell Disease in Tribal districts** by Hon'ble Prime Minister on 15 Nov'21

## CHAI's support

As a member of the state task force, CHAI has been supporting the state on:

- Developing **operational guidelines\***
- Coordinating **clinical protocol** development
- Customizing available **IEC material**
- **Building capacity of master trainers** on IEC usage
- **Monitoring support** for pilot implementation

*\*Launched by Governor (MP) in February 2022*

**Duration:**  
06 months

**Target Population:** Children (6M to 18 Yrs) and Pregnant Women

**Area:** 2 districts (Alirajpur, Jhabua)

## Key Activities

Community survey

Awareness campaign

Community mobilization

Screening for Sickle Cell Trait/Disease

Treatment and management

Confirmatory testing for Sickle Cell Disease

Genetic Counselling



**Thank you!**