POSHAN Abhiyaan

Insights from Ranking of Key Performance Indicators, NFHS 2015–16 and NFHS 2019–21

INDIA POLICY insights

If you can see a problem, you can solve it.

Introduction

POSHAN Abhiyaan, launched on March 8, 2018, is the Government of India's flagship programme to reduce stunting, undernutrition, anemia, low birth weight, and malnutrition in pregnant women, adolescent girls, lactating mothers, and children (0–6 years) through the targeted use of technology, the convergence of government services, and community involvement. Under the Integrated Child Development Services (ICDS) initiative, POSHAN Abhiyaan aims to progressively scale up particular programme activities and interventions.

POSHAN Abhiyaan also maps other malnutrition-related schemes in India to enable programme synergies through various means, including ICT-enabled Real-Time Monitoring (ICT-RTM), strengthening service delivery convergence, incentivising states and UTs to meet set targets, and optimising the functioning of Anganwadi centres (AWCs). Mission POSHAN 2.0, an umbrella project introduced in the Union Budget 2021–22, combines supplemental nutrition programmes, POSHAN Abhiyaan, and ICDS (which also controls Anganwadi Services, the Scheme for Adolescent Girls, and the National Crèche Scheme), and strengthens these activities even further.

Objective

"Once a problem can be seen, it can be solved." With this motivation, this policy brief aims to present an overview of key performance indicators (KPIs) in the POSHAN Abhiyaan programme. For this purpose, we offer a KPI Index of state and district rankings to facilitate a rapid review of the POSHAN Abhiyaan to date and promote awareness of the programme across states and districts. This effort is part of the broader objective of the India Policy Insights (IPI) team to promote evidence-based policy deliberation, formulation and action using its comprehensive online geo-visual data platform.

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Data and Method

This analysis uses data from the National Family Health Survey (NFHS 2019–21 and NFHS 2015–16), which provides a diverse range of salient indicators for reviewing the performance of India's developmental policies and programmes. The following method was used to calculate the Key Performance Indicators (KPI) for the POSHAN Abhiyaan. The first step was reviewing and selecting the indicators most relevant for the POSHAN Abhiyaan. Second, we identified which indicators were available for NFHS 2015–16 and NFHS 2019–21 and determined whether they were available for most districts. Indicators that met both criteria were then selected and are listed as follows:

- Children under 5 years who are wasted (%)
- Children under 5 years who are severely wasted (%)
- Children under 5 years who are stunted (%)
- Children under 5 years who are underweight (%)
- Children age 6–59 months who are anemic (%)
- All women age 15–19 years who are anemic (%)

These selections reflect commonly occurring forms of nutritional deprivation among children and adolescents in India. All indicators are transformed in the same direction (either positive or negative). To develop the KPI index, these indicators were then normalised to enable the comparison of districts across multiple indicators: states and districts were given a value between 0 and 1, with 0 being allotted to the lowest-performing district/state and 1 to the highest-performing district/state. Each indicator was normalised using the standard min-max method. After repeating this process for every indicator, the KPI for a district/state was calculated by taking a simple average of the normalised values for each indicator.

To review the district-level distribution of prevalence for each indicator, we also present a box plot based on NFHS 2019–21. To identify which indicators were *slow-moving*, the difference between the median for each indicator's values can be compared in the box plot. The indicators with the lowest median values are among the *slow-moving* indicators.

Table 1: POSHAN Abhiyaan KPI Index Values and Rankings for Indian States, NFHS 2019–21

State	2015–16		2019–21		Rank Change
	KPI	Rank	KPI	Rank	
Manipur	0.917	2	0.919	1	▲ 1
Mizoram	0.949	1	0.837	2	▼ -1
Kerala	0.766	4	0.773	3	▲ 1
Sikkim	0.693	5	0.755	4	▲ 1
Punjab	0.615	7	0.719	5	▲ 2
Arunachal Pradesh	0.586	10	0.718	6	▲ 4
Uttarakhand	0.476	16	0.712	7	▲ 9
Tamil Nadu	0.535	13	0.667	8	▲ 5
Haryana	0.364	23	0.648	9	▲ 14
Goa	0.609	8	0.616	10	▼ -2
Nagaland	0.827	3	0.606	11	▼ -8
Meghalaya	0.472	17	0.582	12	▲ 5
Himachal Pradesh	0.664	6	0.564	13	▼ -7
Andhra Pradesh	0.517	14	0.528	14	= 0
Odisha	0.493	15	0.491	15	= 0
Rajasthan	0.372	22	0.484	16	▲ 6
Tripura	0.605	9	0.474	17	▼ -8
Uttar Pradesh	0.377	21	0.433	18	▲ 3
Madhya Pradesh	0.258	27	0.424	19	▲ 8
Karnataka	0.343	24	0.422	20	▲ 4
Chhattisgarh	0.421	19	0.422	21	▼ -2
West Bengal	0.456	18	0.384	22	▼ -4
Telangana	0.548	12	0.382	23	▼ -11
Assam	0.565	11	0.336	24	▼ -13
Maharashtra	0.380	20	0.270	25	▼ -5
Jharkhand	0.111	28	0.266	26	▲ 2
Bihar	0.280	26	0.235	27	▼ -1
Gujarat	0.290	25	0.176	28	▼ -3
Union Territories (UTs)					
Chandigarh	0.541	6	0.787	1	▲ 5
Puducherry	0.559	4	0.770	2	▲ 2
A & N Islands	0.550	5	0.717	3	▲ 2
NCT of Delhi	0.559	3	0.648	4	▼ -1
Lakshadweep	0.691	1	0.625	5	▼ -4
Jammu & Kashmir	0.675	2	0.460	6	▼ -4
DNH & DD	0.176	8	0.354	7	▲ 1
Ladakh	0.495	7	0.336	8	▼ -1

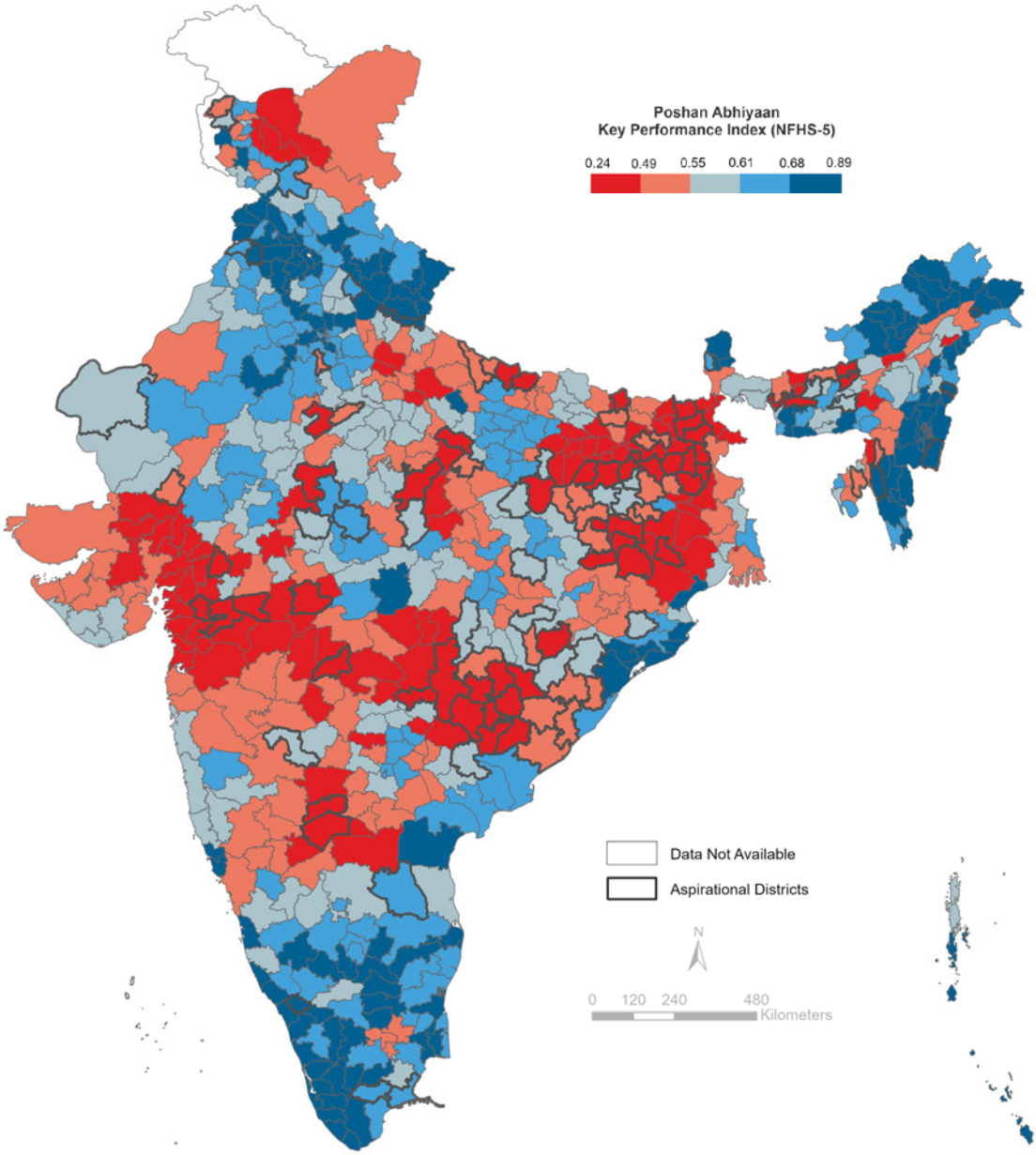
Table 2a: 10 Highest Ranking Districts (as per NFHS 2019–21)

	2015–16		2019–21	
	KPI	Rank	KPI	Rank
Imphal West, Manipur	0.861	7	0.884	1
Siang, Arunachal Pradesh	0.678	112	0.882	2
Bishnupur, Manipur	0.843	10	0.871	3
Lower Dibang Valley, Arunachal Pradesh	0.630	181	0.858	4
Bageshwar, Uttarakhand	0.579	288	0.848	5
Aizawl, Mizoram	0.929	2	0.847	6
Alappuzha, Kerala	0.814	19	0.840	7
Kozhikode, Kerala	0.735	61	0.834	8
Ukhrul, Manipur	0.833	12	0.832	9
Thoubal, Manipur	0.806	23	0.830	10

Table 2b: 10 Lowest Ranking Districts (as per NFHS 2019–21)

	2015–16		2019–21	
	KPI	Rank	KPI	Rank
Narmada, Gujarat	0.366	658	0.329	695
Nandurbar, Maharashtra	0.308	692	0.328	696
Saraikela-Kharsawan, Jharkhand	0.338	677	0.309	697
Chhota Udaipur, Gujarat	0.542	373	0.302	698
Karimganj, Assam	0.623	203	0.301	699
Tapi, Gujarat	0.461	517	0.286	700
Dohad, Gujarat	0.440	562	0.278	701
Pashchimi Singhbhum, Jharkhand	0.186	704	0.262	702
Panch Mahals, Gujarat	0.426	587	0.248	703
The Dangs, Gujarat	0.206	703	0.248	704

Map 1: POSHAN Abhiyaan KPI Index Values and Rankings for Indian Districts, NFHS 2019–21



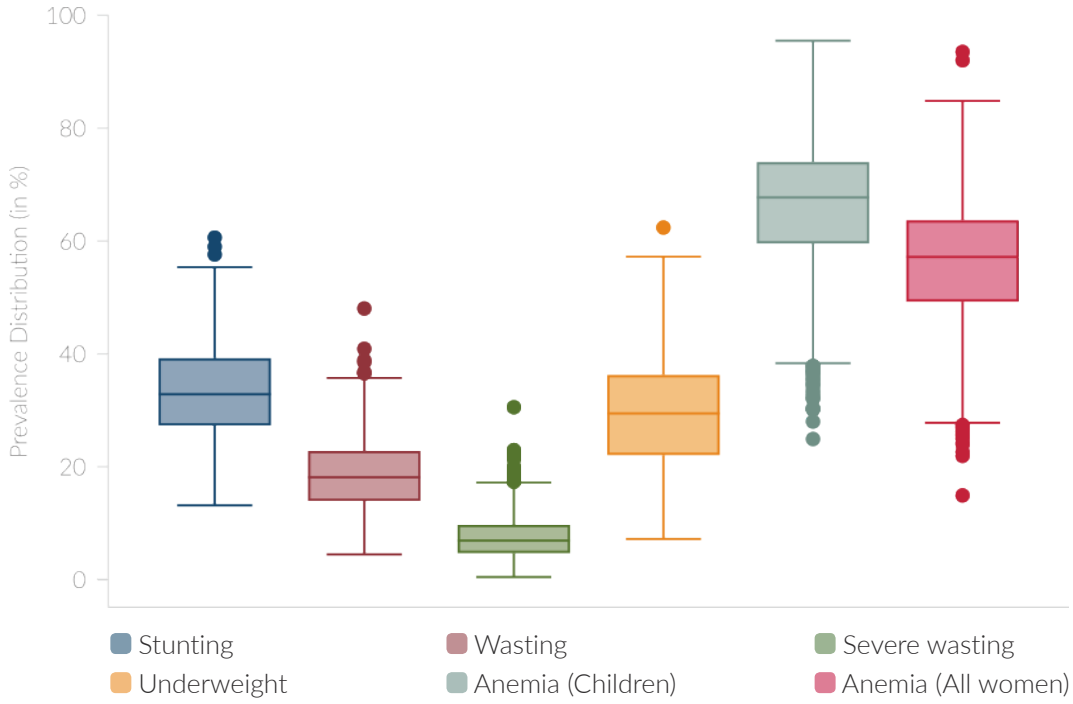
Key Findings

Manipur (KPI 0.919), Mizoram (0.837) and Kerala (0.773) are among the best performing states in the POSHAN Abhiyaan KPI index for NFHS 2019–21 (Table 1). In contrast, Gujarat (0.176), Bihar (0.235), and Jharkhand (0.266) have relatively low KPI index values and are at the bottom of the state-level rankings. (These states display more or less similar rankings in NFHS 2015–16.) For change in KPI index rank, the states of Haryana, Uttarakhand and Madhya Pradesh show improvement of 15, 10 and 8 places, respectively. Conversely, Assam, Jammu & Kashmir and Telangana slip in their rankings by 13, 12 and 11. Chandigarh (0.787) and Ladakh (0.336) are the highest and lowest performers among union territories in 2019–21.

The district-level KPI index rankings for NFHS 2019–21 are led by the Imphal West district of Manipur (0.884), followed by the Siang (0.882) district of Arunachal Pradesh and the Bishnupur (0.871) district of Manipur (Table 2a). With a KPI index value of 0.248, the Dangs district of Gujarat places at the bottom of the district level rankings (Table 2b). It is followed by Panch Mahals (0.248) from the same state and Pashchimi Singhbhum (0.262) from Jharkhand as two other low performers. Seven out of the top ten districts are from the North-eastern states of Manipur, Mizoram and Arunachal Pradesh. Notably, four of the top ten districts are from Manipur. In contrast, six of the ten poorest-performing districts are from Gujarat.

Finally, among the six KPIs reviewed here, the indicator *children age 6–59 months who are anemic* shows the highest disparities across districts (standard deviation of 12.1).

Figure 1: Box plot for distribution of prevalence across districts, NFHS 2019–21



Note: The median value is denoted by the horizontal line in the box. The lower and upper end of the box represents 25th and 75th percentile, respectively. Whisker lengths are suggestive of distribution bias towards lower or upper end.

Conclusion and Recommendations

- A large number of districts continue to have a high prevalence of undernutrition. An enhanced focus on achieving a faster reduction in high burden districts is necessary. The list of lagging districts across target indicators under POSHAN can be viewed from the IPI dashboard for specific policy action.
- Strategically customised programmatic resources and support should be directed toward districts with an extremely high prevalence of anemia. These districts can be determined by examining the slow-moving indicators under POSHAN. Anemia among women and children is amongst the challenging indicators as per NFHS 2019–21.
- Low prevalence districts should initiate sub-district level reviews and monitoring of POSHAN Abhiyaan indicators to identify geographical pockets of deprivation and reach out to vulnerable socioeconomic groups with targeted resources and support measures. The top ten districts can pilot this approach to outline sub-district monitoring strategies and replicate best practices from other better-performing districts.
- Severe wasting or severe acute malnutrition (SAM) is a life-threatening condition for children which should be regularly monitored through sub-national reviews of programme reporting and data. The high prevalence districts can be identified through the IPI dashboard, and program activities can be initiated by the concerned departments of the state governments.

Contributions

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India Policy Insights (IPI) is a web-based knowledge platform for policy research in population health and development. IPI provides tools to visualize and analyze performance of policy indicators at district, parliamentary and assembly constituency, and village levels in India, with the aim of fostering evidence-based policy deliberation, formulation and action. It is led by the *Geographic Insights Lab* at the *Harvard Center for Population and Development Studies*, *Center for Geographic Analysis* at *Harvard*, and *Korea University*.

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