

### State Nutrition Profile: Telangana

#### ABOUT THIS DATA NOTE

This *Data Note* describes the trends for a set of key nutrition and health outcomes, determinants, and coverage of interventions. The findings are based on data from multiple rounds of the National Family Health Surveys using estimates from reports, factsheets, or unit level data. In addition to standard prevalence-based analyses, this *Data Note* includes headcount-based analyses aligned to the POSHAN Abhiyaan monitoring framework to provide evidence that helps identify priority districts and the number of districts where public health concerns exist as per the WHO guidelines<sup>1</sup>. This *Data Note* also includes a color-coded dashboard to compare the coverage of nutrition interventions by district. It concludes with key takeaways for children, women, and men, and identifies areas for improvement.

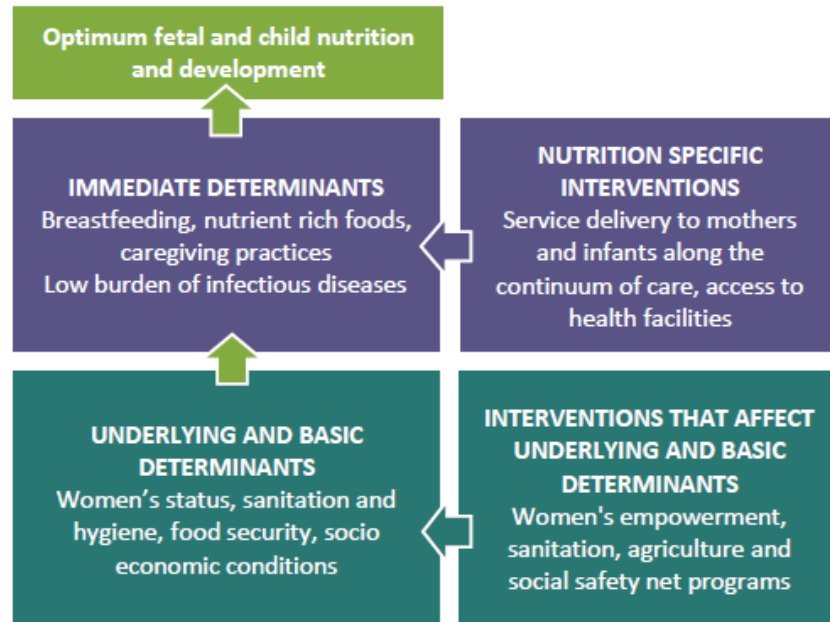
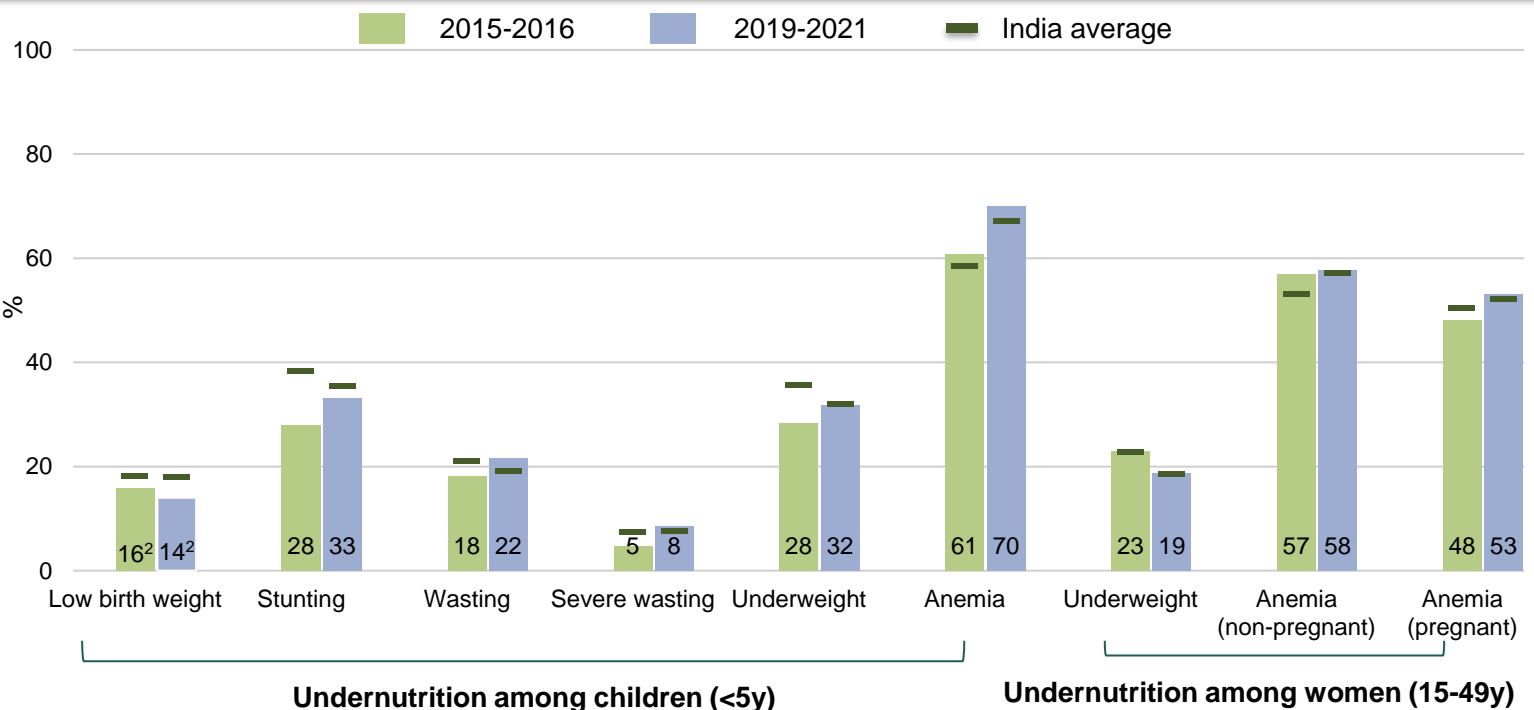


Figure 1. Trends in undernutrition outcomes 2015-2016, 2019-2021



Source: NFHS-4 (2015-2016) national report, and NFHS-5 (2019-2021) national and state factsheets.

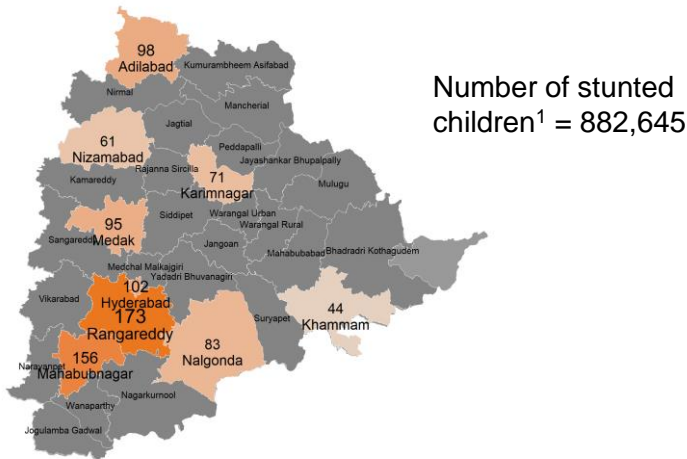
Note: Telangana state was formed in 2014; therefore, NFHS 3 (2005-06) data are not available for the state.

<sup>1</sup>WHO. Nutrition Landscape Information System (NLIS). Help Topic: Malnutrition in children. Stunting, wasting, overweight, and underweight. (<https://apps.who.int/nutrition/landscape/help.aspx?menu=0&helpid=391&lang=EN>).

<sup>2</sup>In NFHS-4 and NFHS 5, 3.7% and 1.9% of data were missing, respectively.

# Map 1 & 2. Number of stunted & anemic children <5y, 2019-2021

## Map 1. Stunting



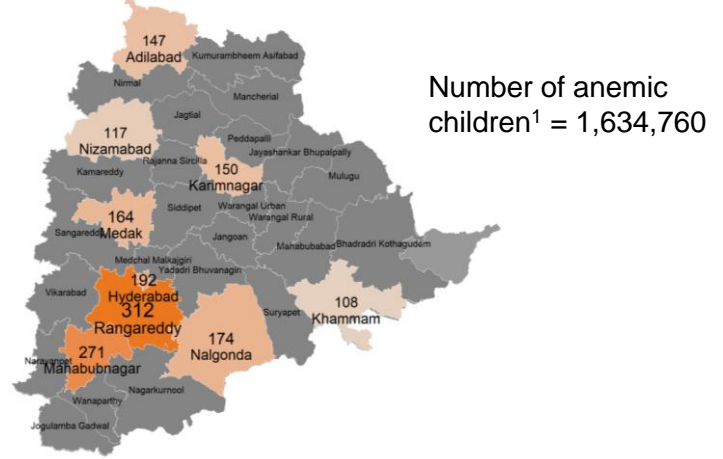
Note: Number in '000s in the above figure

### Highest burden districts

1	Ranga Reddy	173,073
2	Mahbubnagar	155,653
3	Hyderabad	102,126
4	Adilabad	98,116
5	Medak	94,749

No. of districts with public health concern<sup>2</sup>: 31 of 31

## Map 2. Anemia



Note: Number in '000s in the above figure

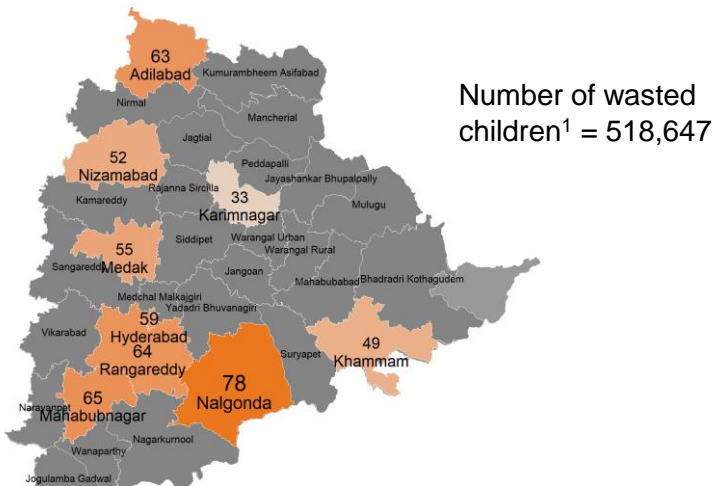
### Highest burden districts

1	Ranga Reddy	311,768
2	Mahbubnagar	271,114
3	Hyderabad	191,931
4	Nalgonda	174,275
5	Medak	163,680

No. of districts with public health concern<sup>2</sup>: 31 of 31

# Map 3 & 4. Number of wasted children <5, 2019-2021

## Map 3. Wasting



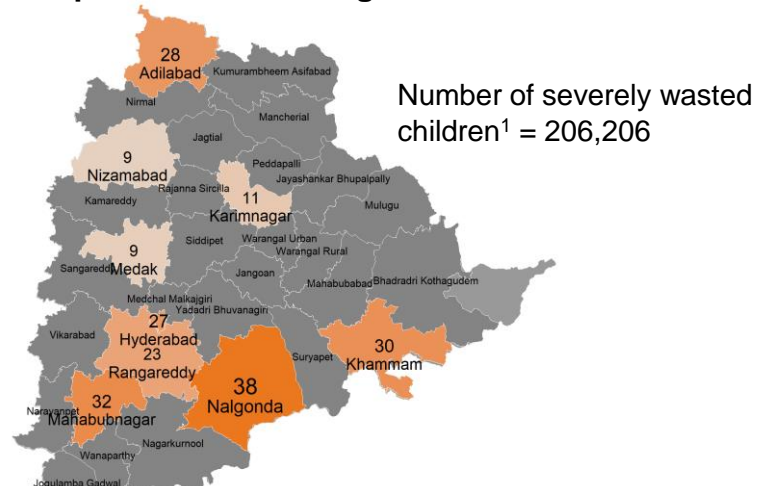
Note: Number in '000s in the above figure

### Highest burden districts

1	Nalgonda	77,602
2	Mahbubnagar	65,038
3	Ranga Reddy	63,643
4	Adilabad	63,335
5	Hyderabad	59,462

No. of districts with public health concern<sup>2</sup>: 31 of 31

## Map 4. Severe Wasting



Note: Number in '000s in the above figure

### Highest burden districts

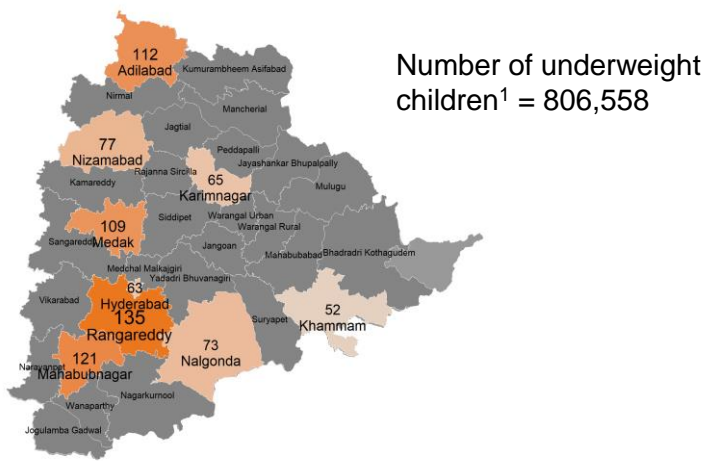
1	Nalgonda	37,759
2	Mahbubnagar	31,788
3	Khammam	29,717
4	Adilabad	27,696
5	Hyderabad	26,875

No. of districts with public health concern<sup>2</sup>: 31 of 31

Source: IFPRI estimates - The headcount was calculated as the product of the undernutrition prevalence, and the total eligible projected population for each district in 2019. Prevalence estimates were obtained from NFHS-5 (2019-2021) district factsheet, and the projected population for 2019 was estimated using Census 2011. Note: Grey area in Maps 1-4 indicates districts for which data are not available. <sup>1</sup>The total number of children <5 years is 2,754,280. <sup>2</sup>Public health concern is defined as  $\geq 20\%$  for stunting,  $\geq 40\%$  for anemia,  $\geq 10\%$  for wasting, and  $\geq 2\%$  for severe wasting (WHO 2011).

# Map 5 & 6. Number of underweight children (<5y) & women (15-49y), 2019-2021

## Map 5. Underweight children



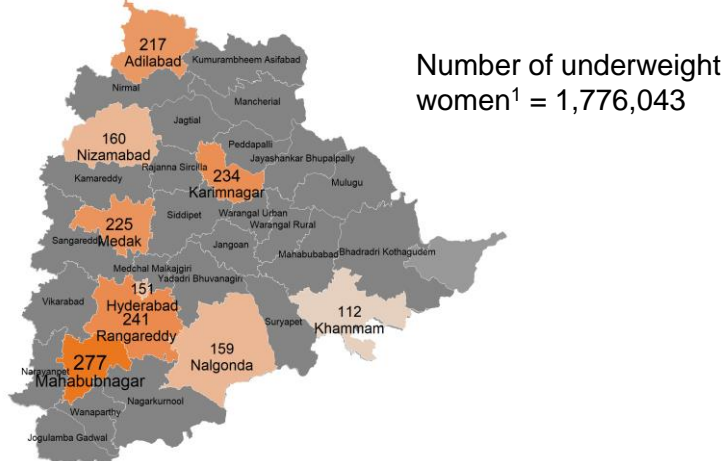
Note: Number in '000s in the above figure

### Highest burden districts

1	Ranga Reddy	135,070
2	Mahbubnagar	120,576
3	Adilabad	111,642
4	Medak	109,326
5	Nizamabad	76,910

No. of districts with public health concern<sup>2</sup>: 30 of 31

## Map 6. Underweight women



Note: Number in '000s in the above figure

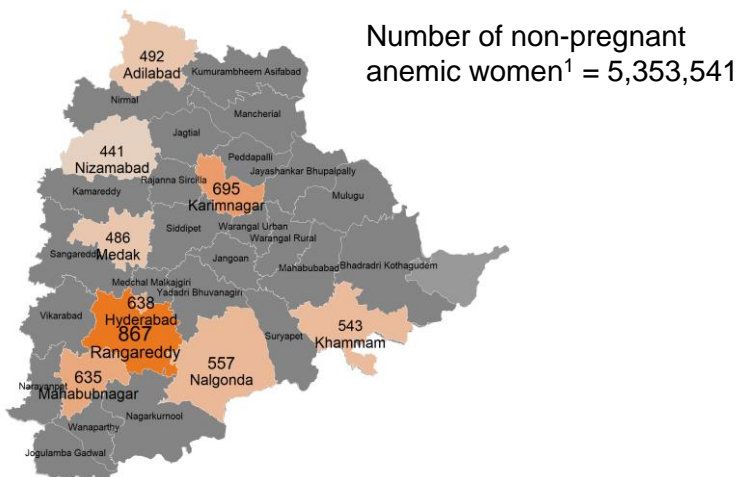
### Highest burden districts

1	Mahbubnagar	276,716
2	Ranga Reddy	240,986
3	Karimnagar	234,382
4	Medak	225,217
5	Adilabad	216,810

No. of districts with public health concern<sup>2</sup>: 31 of 31

# Map 7 & 8. Number of anemic women (15-49y), 2019-2021

## Map 7. Anemia among non-pregnant women



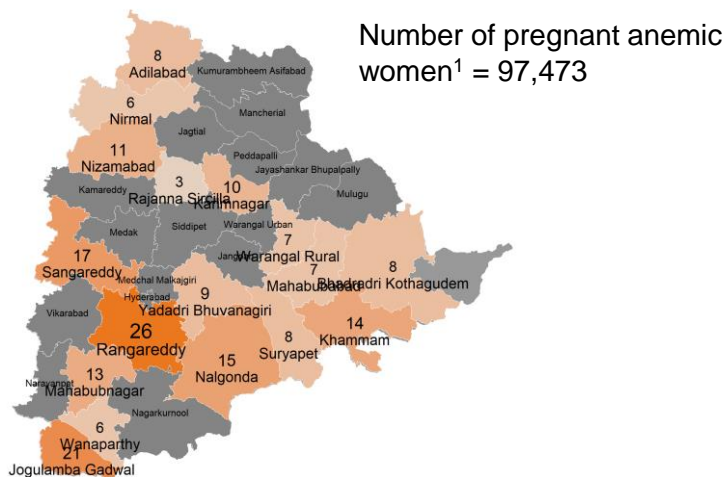
Note: Number in '000s in the above figure

### Highest burden districts

1	Ranga Reddy	866,903
2	Karimnagar	695,183
3	Hyderabad	637,565
4	Mahbubnagar	635,293
5	Nalgonda	556,813

No. of districts with public health concern<sup>2</sup>: 31 of 31

## Map 8. Anemia among pregnant women



Note: Number in '000s in the above figure

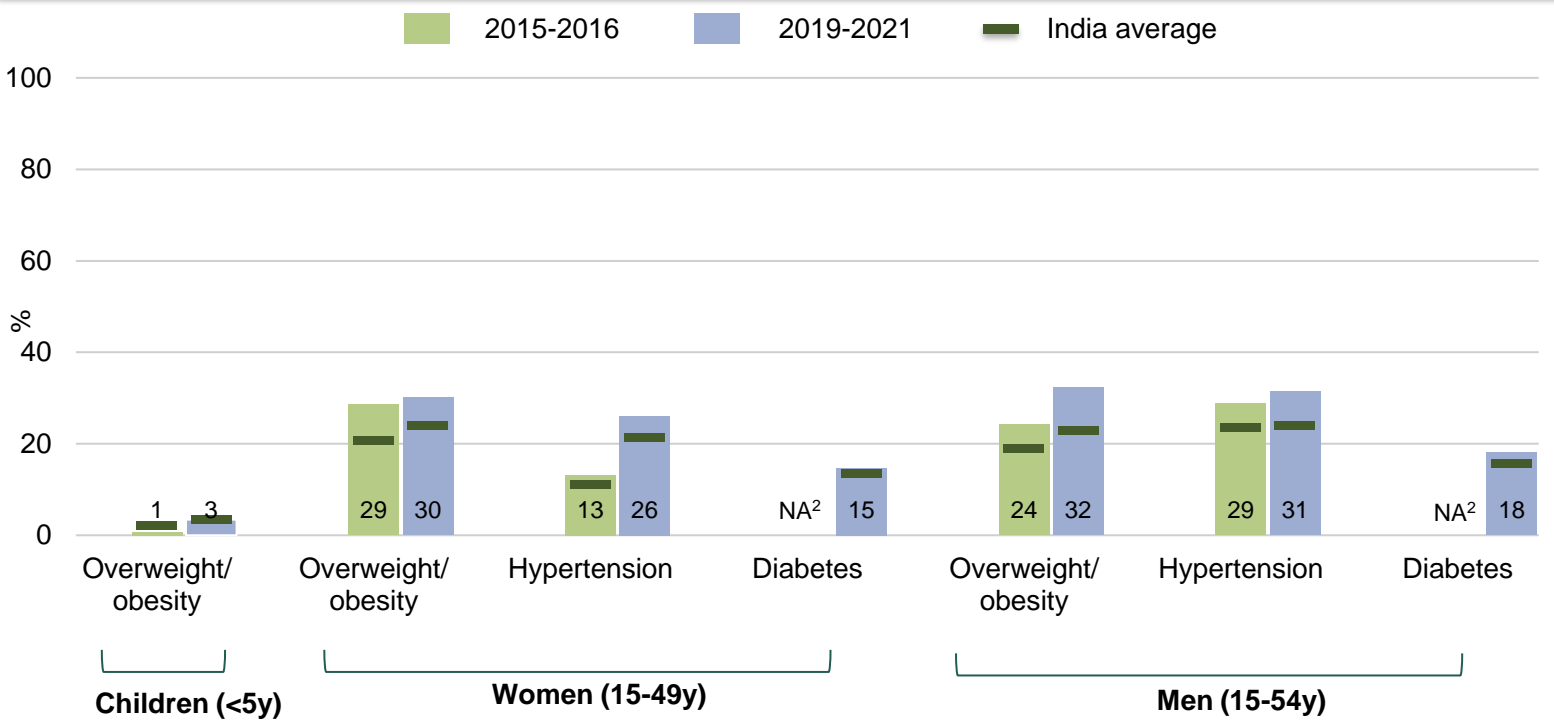
### Highest burden districts

1	Ranga Reddy	25,555
2	Nalgonda	15,231
3	Khammam	13,922
4	Mahbubnagar	12,757
5	Nizamabad	11,374

No. of districts with public health concern<sup>2</sup>: 14 of 31

Source: IFPRI estimates - The headcount was calculated as the product of the undernutrition prevalence and the total eligible projected population for each district in 2019. Prevalence estimates were obtained from NFHS-5 (2019-2021) district factsheet and projected population for 2019 was estimated using Census 2011. Note: Gray area in Maps 5-8 indicates districts for which data are not available. <sup>1</sup>The total number of children <5 years is 2,754,280, pregnant women 15-49 years is 770,426, and non-pregnant women 15-49 years is 9,996,449. <sup>2</sup>Public health concern is defined as  $\geq 20\%$  for underweight (children),  $\geq 10\%$  for underweight (women),  $\geq 40\%$  for anemia among non-pregnant women, and  $\geq 40\%$  for anemia among pregnant women (WHO 2011).

# Figure 2. Trends in overweight/obesity & NCDs<sup>1</sup> 2015-2016, 2019-2021



## Table 1. Overweight/obesity & NCDs<sup>1</sup> at district-level 2015-2016, 2019-2021

Category	Outcomes	Worst performing districts (pp) <sup>5</sup>	Best performing districts (pp) <sup>5</sup>	Highest burden districts (thousands) <sup>3</sup>	No of districts with public health concern <sup>4</sup> (total=31)
		<i>Difference between (2019-2021) &amp; (2015-2016)</i>	<i>Difference between (2019-2021) &amp; (2015-2016)</i>	2019-2021	2019-2021
Children <5 years	Overweight/obesity	<i>Districts not comparable</i>		Ranga <sup>6</sup> : 18 Mahbubnagar: 15	0
	Overweight/obesity			Ranga <sup>6</sup> : 657 Hyderabad: 620	29
Women (15-49 years)	Hypertension	<i>Districts not comparable</i>		Ranga <sup>6</sup> : 460 Hyderabad: 367	30
	Diabetes			Hyderabad: 258 Ranga <sup>6</sup> : 247	1
	Overweight/obesity	<i>Data not available at district-level</i>			
Men (15-54 years)	Hypertension			Ranga <sup>6</sup> : 625 Hyderabad: 555	31
	Diabetes	<i>Districts not comparable</i>		Hyderabad: 357 Ranga <sup>6</sup> : 349	3

pp: percentage points. Source: NFHS-4 (2015-16) national report and data [IFPRI estimates] and NFHS-5 (2019-2021) national and state factsheets.

Note 1: Telangana state was formed in 2014; therefore, NFHS 3 (2005-06) data are not available for the state.

<sup>1</sup>NCDs: non-communicable diseases.

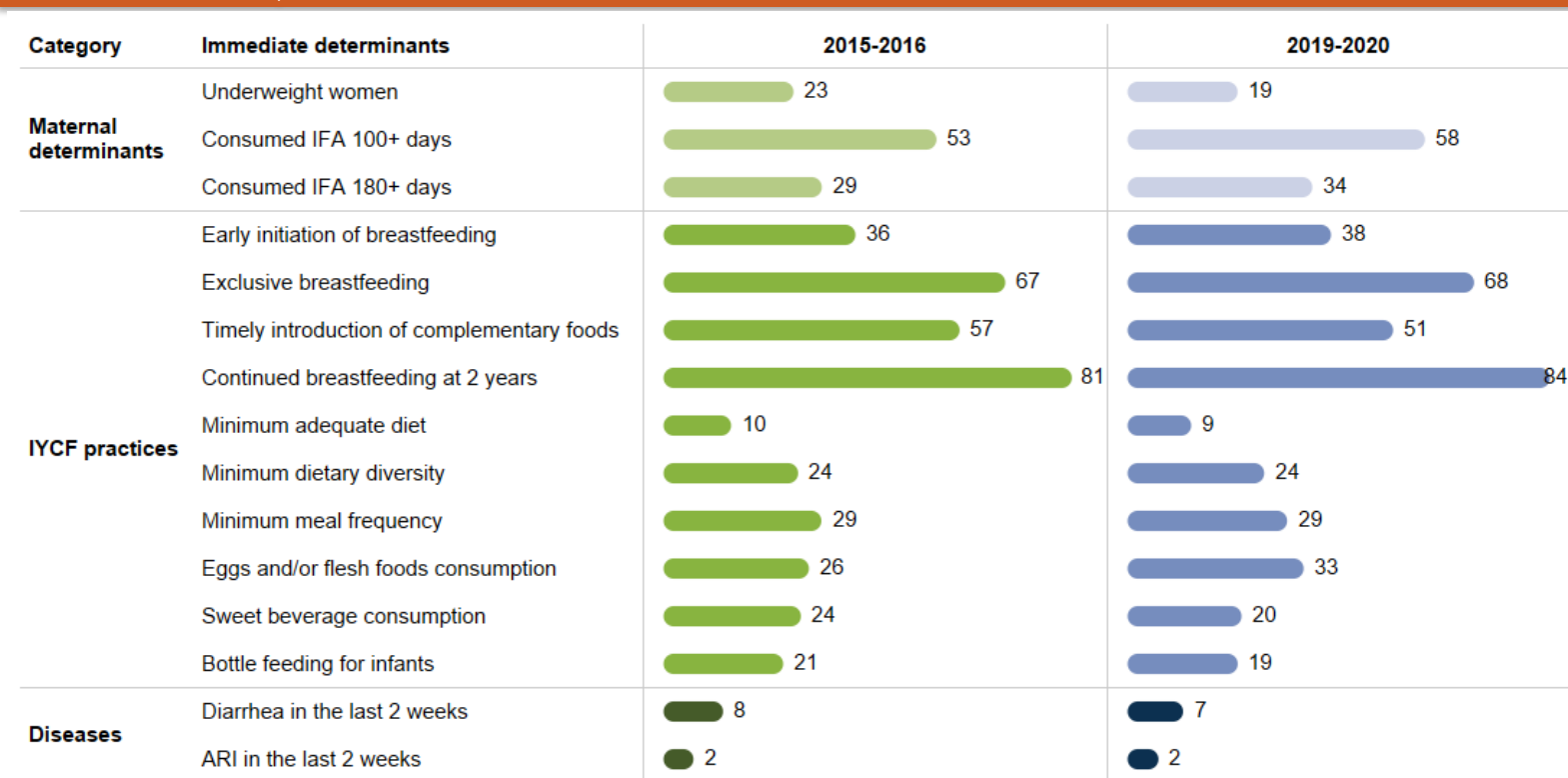
<sup>2</sup>Indicates unavailability of data for a particular indicator in the specified NFHS round. Diabetes data for NFHS-4 are not included in the NFHS-5 factsheet because definition of diabetes is not comparable between NFHS-4 and -5.

<sup>3</sup>Burden: The headcount was calculated as the product of the overweight/obesity and NCDs prevalence, and the total eligible projected population for each district in 2019. Prevalence estimates were obtained from NFHS-5 (2019-2021) and projected population for 2019 was estimated using Census 2011.

<sup>4</sup>Public health concern is defined as prevalence  $\geq 15\%$  for overweight/obesity (children),  $\geq 20\%$  for overweight/obesity (women and men),  $\geq 20\%$  hypertension (women and men), and  $\geq 20\%$  diabetes (women and men) (WHO 2011).

<sup>5</sup>The difference is calculated only between districts that are comparable between 2015-2016 and 2019-2021. No districts in Telangana are comparable. <sup>6</sup>District codes: Ranga: Ranga Reddy.

# Figure 3. Trends in immediate determinants (%) 2015-2016, 2019-2021

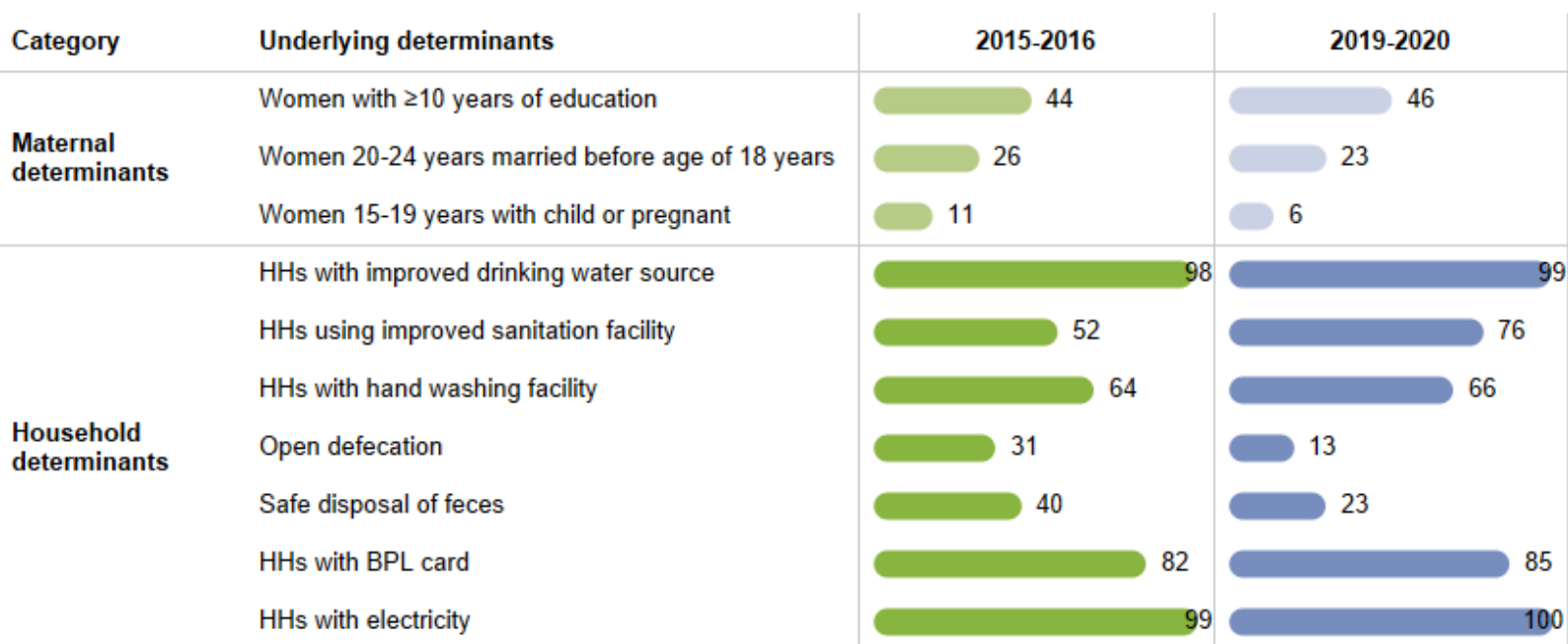


## Table 2. Immediate determinants at district-level 2015-2016, 2019-2021

Category	Immediate determinants	Worst performing districts (pp) <sup>2</sup>	Best performing districts (pp) <sup>2</sup>	Top coverage districts (%) <sup>1</sup>
		<i>Difference between (2019-2021) &amp; (2015-2016)</i>	<i>Difference between (2019-2021) &amp; (2015-2016)</i>	<i>2019-2021</i>
Maternal determinants	Underweight women	<i>Districts not comparable</i>		Hyderabad: 12.4 Khammam: 12.8
	Consumed IFA 100+ days			Hyderabad: 72.2 Mahabubnagar: 69.1
IYCF practices	Early initiation of breastfeeding	<i>Districts not comparable</i>		Mahabubabad: 58.1 Hyderabad: 53.4
	Exclusive breastfeeding			Jangoan: 79.3 Jogulamba <sup>3</sup> : 76.7
	Timely introduction of complementary foods			Not Available <sup>4</sup>
	Minimum adequate diet			Nizamabad: 18.5 Suryapet: 15.4
Diseases	Diarrhea in the last 2 weeks	<i>Districts not comparable</i>		Hyderabad: 1.0 Nagarkurnool: 3.6
	ARI in the last 2 weeks			Nirmal: 0.0 Jagitial: 0.4

pp: percentage points.  
Source: NFHS-4 (2015-2016) state report and data [IFPRI estimates] and NFHS-5 factsheets (2019-21) national and state reports, factsheets, and data [IFPRI estimates].  
Note: Definitions of IYCF indicators are based on WHO guidelines.  
2: Telangana state was formed in 2014; therefore, NFHS 3 (2005-06) data are not available for the state.  
1: For all indicators, top coverage districts refer to the districts with the highest prevalence in immediate determinants, except for women with a BMI of 18.5 kg/m<sup>2</sup>, diarrhea in the last 2 weeks, and ARI in the last 2 weeks, for which it refers to the districts with the lowest prevalence in coverage.  
2: The difference is calculated only between districts that are comparable between 2015-2016 and 2019-2021. No districts in Telangana are comparable.  
3: District codes: Jogulamba: Jogulamba Gadwal.  
4: Indicates unavailability of data for a particular indicator in the specified NFHS round.

# Figure 4. Trends in underlying determinants (%) 2015-2016, 2019-2021



## Table 3. Underlying determinants at district-level 2015-2016, 2019-2021

Category	Underlying determinants	Worst performing districts (pp) <sup>2</sup>	Best performing districts (pp) <sup>2</sup>	Top coverage districts (%) <sup>1</sup>
		<i>Difference between (2019-2021) &amp; (2015-2016)</i>	<i>Difference between (2019-2021) &amp; (2015-2016)</i>	<i>2019-2021</i>
Maternal determinants	Women with ≥10 years education			Hyderabad: 63.2 Medchal <sup>3</sup> : 59.3
	Girls 20-24 years married before age of 18 years	<i>Districts not comparable</i>		Medchal <sup>3</sup> : 10.2 Hyderabad: 10.6
	Women 15-19 years with child or pregnant			Siddipet: 1.0 Kamareddy: 1.1
Household determinants	HHs with improved drinking water source			Medchal <sup>3</sup> : 99.9 Medak: 99.9
	HHs with improved sanitation facility	<i>Districts not comparable</i>		Medchal <sup>3</sup> : 86.2 Khammam: 84.5
	HHs with electricity			Medchal <sup>3</sup> : 100.0 Hyderabad: 99.9

pp: percentage points.

Source: NFHS-4 (2015-2016) national and state reports and data [IFPRI estimates], and NFHS-5 (2019-2021) state and district factsheets, state report, and data [IFPRI estimates].

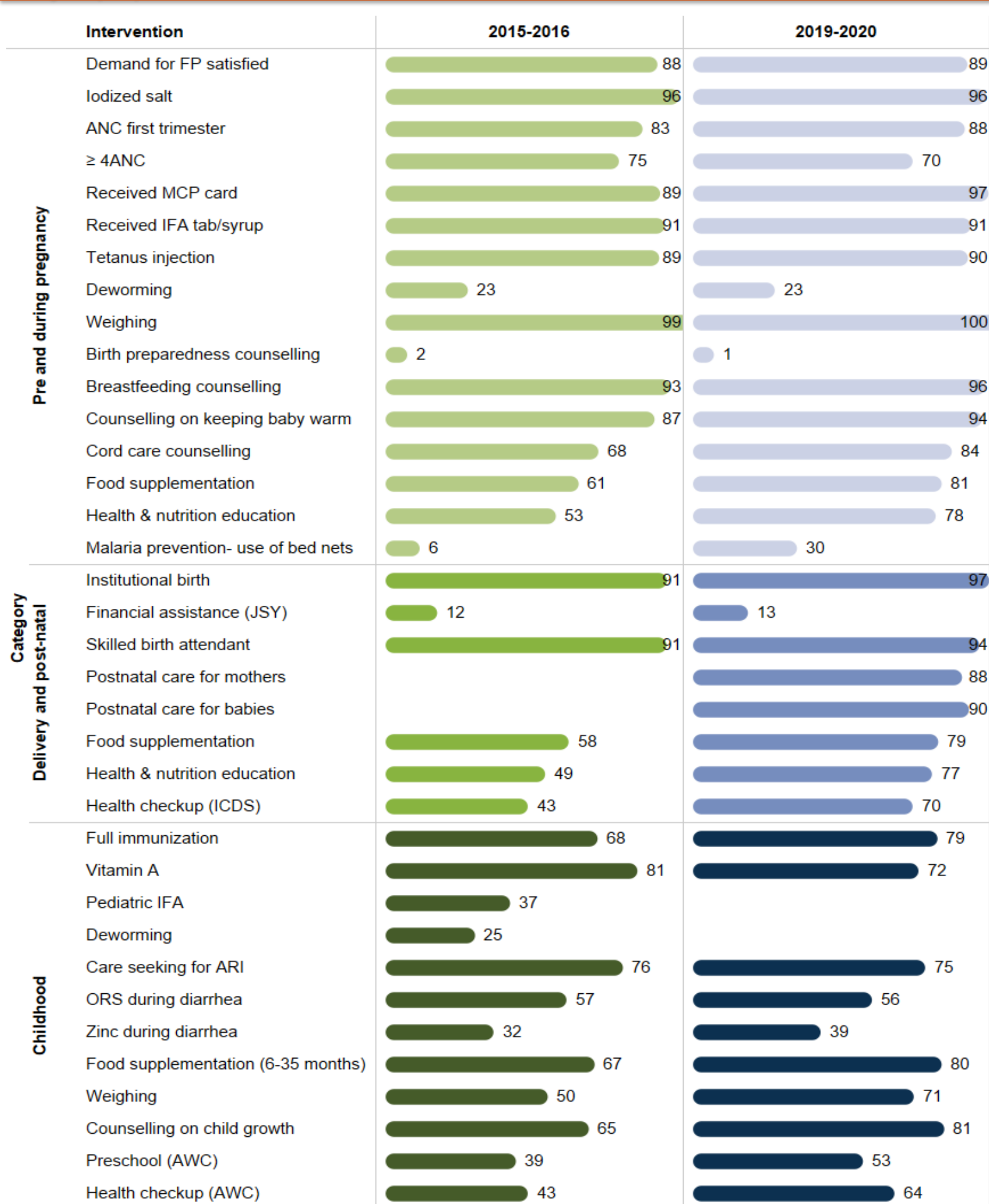
Note 1: Telangana state was formed in 2014; therefore, NFHS 3 (2005-06) data are not available for the state.

<sup>1</sup>For all indicators, top coverage districts refer to the districts with the highest prevalence in underlying determinants, except for women 20-24 years married before 18 years and women 15-19 years with child or pregnant for which it refers to the districts with the lowest prevalence in coverage.

<sup>2</sup>The difference is calculated only between districts that are comparable between 2015-2016 and 2019-2021. No districts in Telangana are comparable.

<sup>3</sup>District codes: Medchal: Medchal-Malkajgiri.

Figure 5. Trends in coverage of interventions across the first 1000 days (%), 2015-2016, 2019-2021



Source: NFHS-4 (2015-2016) national and state reports and data [IFPRI estimates] and NFHS-5 (2019-2021) state factsheet, state and national report, and data [IFPRI estimates].

Note 1: Telangana state was formed in 2014; therefore, NFHS 3 (2005-06) data are not available for the state.

Note 2: Refer to district dashboard for the inter-district variability in the coverage of interventions.

# Intervention coverage at district level, 2019-2021

<20%      20-<40%      40-<60%      60-<80%      >=80%      Not Available

District name	Pre-pregnancy		Pregnancy										Delivery & postnatal										Early childhood																
	Demand for FP satisfied	Indexed sate	ANC first trimester	≥4 ANC	Received MCP card	Received IFA tab/syrup	Tetanus injection	Deworming	Weighting	Birth preparedness counselling	Breastfeeding counselling	Counseling on keeping baby warm	Cord care counselling	Food supplementation	Health & nutrition education	Malaria prevention- use of bed nets	Institutional birth	Financial assistance (JSY)	Skilled birth attendant	Postnatal care for mothers	Postnatal care for babies	Food supplementation	Health & nutrition education	Health checkup	Full immunization	Vitamin A	Paediatric IFA	Deworming	Care seeking for ARI	ORS during diarrhea	Zinc during diarrhea	Food supplementation (6-35 months)	Weighting	Counseling on child growth	Preschool at AWC	Health checkup			
Telegana	89.4	95.8	88.5	70.4	96.7	90.6	89.6	22.6	99.8	1.5	95.6	94.4	84.0	80.5	78.4	30.3	97.0	13.3	93.6	87.6	90.0	79.3	77.1	70.4	79.1	72.4	24.2	21.2	74.8	56.3	38.5	80.5	70.8	81.4	53.2	64.1			
Adilabad	84.1	97.6	89.7	74.8	94.1	80.4	90.9	29.7	99.5	1.9	94.1	91.9	80.4	86.8	84.4	43.3	94.1	13.2	93.9	83.4	80.3	86.6	83.4	79.4	69.3	85.7	30.4	24.3	75.0	65.0	42.7	89.8	80.4	85.5	70.6	79.9			
Bhadrachal Kothagudem	94.0	97.7	92.8	70.1	98.6	90.6	91.2	31.9	99.4	0.4	94.0	94.0	91.3	89.5	88.6	43.1	97.4	18.4	94.2	87.1	85.4	90.1	88.0	83.3	80.4	73.2	24.6	26.0	82.4			89.0	81.5	75.7	70.9	80.9			
Hyderabad	89.9	97.4	87.9	69.9	94.4	90.8	89.6	20.8	100.0	0.4	100.0	100.0	97.2	52.6	52.6	27.9	98.3	6.7	94.6	91.2	94.9	51.6	51.2	44.2	73.8	62.0	22.3	22.7			54.0	46.7	88.7	32.3	43.4				
Jagtial	79.8	96.5	94.6	81.9	95.5	88.6	87.9	18.3	99.4	0.0	92.0	92.0	80.4	90.6	87.8	18.0	94.4	19.8	91.9	84.1	89.9	86.8	84.4	76.5	77.7	72.5	22.2	14.5	73.0			87.7	75.7	75.9	60.3	74.9			
Jangoan	93.2	96.8	89.7	65.4	98.9	94.4	86.1	21.7	99.4	0.8	96.7	92.4	86.2	91.3	88.2	37.2	99.6	5.3	90.1	85.6	96.5	88.5	87.2	81.0	84.2	80.8	22.2	22.9	81.0			95.4	80.1	79.0	60.1	74.5			
Jayashankar Bhupalapally	89.7	97.7	94.6	72.7	94.0	85.1	94.1	24.1	99.4	0.9	95.1	93.1	85.4	91.9	90.6	37.5	99.5	13.6	95.1	89.1	89.6	92.4	90.7	89.1	87.9	70.5	21.4	23.7	71.2			95.7	86.5	78.6	68.9	83.9			
Jogulamba Gadwal	95.8	85.3	88.3	72.9	96.5	86.6	92.6	21.8	100.0	2.2	96.4	91.0	91.3	90.3	84.6	25.8	94.2	12.1	91.7	88.3	88.2	88.7	83.2	81.9	86.9	75.0	25.4	17.8	88.7			78.6	69.9	85.5	58.3	69.3			
Kamareddy	85.3	93.6	87.5	79.5	96.8	93.4	90.6	23.6	100.0	1.7	93.4	89.9	77.2	90.2	86.4	24.6	97.1	18.1	93.2	86.8	89.0	88.2	85.4	79.9	75.5	79.6	23.3	23.0	72.8			86.6	80.5	85.1	70.9	76.9			
Karimnagar	84.6	99.1	92.3	69.6	88.2	91.8	85.2	17.1	100.0	0.6	91.8	91.8	67.1	79.4	68.3	34.6	98.4	9.9	86.9	89.5	95.9	70.2	66.0	62.7	73.4	79.8	21.3	11.9	70.3	59.2	36.8	73.9	60.8	72.4	42.2	58.6			
Khammam	92.8	96.6	84.9	76.3	99.4	95.1	97.3	30.3	100.0	1.0	97.8	97.8	90.0	93.6	92.6	30.1	97.9	11.3	93.2	93.2	91.5	93.7	93.7	92.7	78.0	86.6	70.9	27.1	19.9	73.3			91.5	78.2	83.9	63.9	72.4		
Komaram Bheem Asifabad	87.5	92.9	80.0	68.8	96.7	92.5	91.8	26.2	99.4	0.5	93.7	91.5	87.1	87.0	85.2	48.3	82.0	22.9	83.4	85.5	81.9	85.5	82.4	77.9	76.2	75.0	30.2	29.7	59.2			92.6	83.2	75.7	69.7	80.1			
Mahabubabad	93.3	96.2	87.8	67.7	98.1	84.4	94.0	27.6	100.0	1.4	93.5	94.4	88.3	90.2	85.1	38.5	97.7	5.5	95.4	91.5	94.3	88.5	85.4	84.6	76.1	73.6	29.5	26.1	79.7			90.7	75.5	78.5	66.9	75.0			
Mahabubnagar	93.7	94.1	86.2	62.6	98.7	93.6	90.2	25.9	100.0	6.0	96.3	96.8	91.4	90.4	90.2	23.6	98.1	14.2	97.6	84.9	85.5	90.3	90.5	79.6	89.4	70.8	22.8	18.6	81.2			91.2	82.0	84.7	65.6	76.8			
Mancherial	83.1	97.7	86.7	64.7	93.6	95.4	89.6	24.5	99.5	1.0	94.5	90.8	76.8	78.7	75.9	32.4	90.1	9.4	96.9	87.7	85.3	76.1	73.8	68.4	76.0	63.9	20.0	17.9	67.5			80.9	74.7	70.1	51.7	72.1			
Medak	86.1	97.1	78.9	68.5	97.7	89.2	81.3	27.7	100.0	1.7	93.3	89.8	66.1	89.0	60.1	24.5	98.3	8.9	96.2	90.6	90.1	59.5	58.1	53.1	53.1	76.1	69.5	24.2	17.4	63.8			60.5	59.5	82.8	53.2	58.0		
Medchal-Malkajgiri	90.4	98.8	89.4	69.6	96.2	90.3	92.2	14.7	100.0	0.3	97.8	96.5	94.7	61.6	60.1	24.5	98.3	21.5	92.9	80.8	89.8	85.7	78.6	74.3	69.3	69.3	85.2	27.4	22.8	60.1	41.6	37.5			87.3	74.0	83.4	59.7	69.3
NagarKurnool	94.3	92.0	92.4	75.1	97.0	86.4	88.5	23.4	99.0	0.4	96.9	96.3	92.8	88.7	87.9	24.2	98.0	14.7	94.5	90.3	91.0	88.4	87.2	83.0	83.0	78.3	72.6	20.4	76.7			91.3	79.9	91.3	70.7	77.2			
Nalgonda	95.9	87.5	90.5	65.7	98.7	96.1	91.8	28.3	100.0	2.2	98.6	97.1	91.5	90.5	90.5	26.9	98.3	21.5	99.0	92.2	95.3	89.8	90.3	83.0	83.0	78.3	72.6	22.1	20.4	76.7			88.7	74.5	82.3	63.3	73.8		
Nirmal	88.6	95.1	85.2	69.7	96.9	87.2	91.2	24.6	100.0	0.0	94.7	96.1	84.6	84.3	82.2	33.4	96.7	10.0	91.6	87.2	91.0	84.7	81.8	74.6	75.3	84.1	27.8	23.9	56.3			88.7	74.5	82.3	63.3	73.8			
Nizamabad	81.6	96.9	87.9	78.5	96.2	90.0	80.0	22.6	100.0	4.3	94.6	91.5	70.5	84.3	82.2	38.6	97.3	12.1	91.8	79.5	85.9	77.5	73.2	72.3	86.1	83.0	26.3	24.9	67.0	56.6	42.2	86.3	74.5	80.8	54.0	73.8			
Peddapalli	87.0	97.8	83.5	77.9	92.9	88.4	87.0	25.7	100.0	2.2	96.6	96.7	88.7	83.3	76.9	34.9	96.5	19.1	96.2	87.6	89.8	81.5	78.7	74.7	73.1	66.3	19.1	20.3	72.3			82.4	79.5	81.7	62.5	76.7			
Rajanna Sircilla	83.8	98.5	90.4	67.1	99.0	90.8	96.3	26.7	100.0	1.1	96.9	97.8	88.4	92.4	89.8	33.0	97.6	10.5	95.4	89.9	90.1	87.3	87.0	71.4	84.1	73.3	26.0	21.6	72.7			93.5	82.7	81.1	74.8	80.6			
Ranga Reddy	90.1	98.2	95.5	75.1	95.3	83.4	90.3	17.4	99.5	0.6	94.0	93.3	85.2	68.2	68.3	26.7	97.2	15.5	92.7	89.8	90.0	67.3	65.4	61.3	85.8	67.8	29.6	23.5	72.2			82.4	79.5	81.7	62.5	76.7			
Sangareddy	87.1	97.5	82.8	66.4	98.3	92.9	89.5	10.4	100.0	1.4	91.3	87.5	64.5	83.2	78.5	32.1	93.0	19.7	95.1	84.7	89.0	76.6	74.8	66.0	78.5	74.0	20.5	13.9	77.8	53.1	50.7	82.9	69.5	71.6	56.7	60.0			
Siddipet	85.6	98.5	86.1	62.6	98.9	94.3	89.8	23.0	100.0	0.7	99.3	97.3	75.4	83.9	80.3	38.9	99.7	18.2	90.5	74.1	85.9	82.3	77.9	75.0	63.1	81.0	17.1	19.3	71.1			84.7	76.3	78.9	67.9	69.4			
Suryapet	94.8	93.0	92.7	70.4	99.7	97.8	87.1	20.6	100.0	1.5	98.2	97.2	88.9	96.7	94.6	18.5	95.9	16.2	94.2	88.6	88.7	94.1	94.7	81.9	70.4	70.2	24.0	23.3	61.6			89.0	81.4	84.2	63.6	76.5			
Vikarabad	93.8	89.1	78.0	54.8	98.7	93.0	83.2	18.0	99.5	1.3	93.7	94.2	69.3	85.2	79.8	37.7	95.0	9.1	86.7	80.8	86.9	79.7	74.3	61.1	86.2	66.1	17.0	17.3	77.8	44.5	31.6	88.6	79.5	80.8	62.5	70.4			
Wanaparthy	93.6	93.5	91.4	62.8	100.0	95.9	92.6	23.8	100.0	3.0	97.1	94.9	87.2	92.1	91.2	19.6	99.0	13.8	96.6	87.6	83.6	89.8	89.7	79.1	87.0	71.4	22.6	16.9	82.3			87.4	79.6	86.3	72.5	79.1			
Warangal Rural	83.0	97.4	86.8	70.4	98.7	89.7	82.3	20.7	100.0	1.7	92.1	92.1	83.4	94.0	86.8	31.1	100.0	18.3	94.5	93.8	90.5	93.9	84.6	80.8	79.0	83.7	29.8	29.3	69.8	25.8	41.7	89.1	78.4	73.0	62.1	74.1			
Warangal Urban	84.1	96.6	88.4	71.3	96.4	92.8	96.2	19.6	100.0	1.2	95.7	94.9	90.0	74.0	70.6	26.7	99.7	11.2	93.0	92.6	92.3	70.4	67.9	59.2	70.1	78.5	23.7	19.9	81.5			74.6	59.8	82.7	45.8	57.4			
Yadadri Bhuvanagiri	92.4	98.7	92.1	67.2	97.9	91.9	91.5	28.2	100.0	2.4	98.2	97.5	92.2	93.3	90.5	24.8	97.7	9.0	94.1	93.2	94.9	91.0	89.1	85.3	76.7	69.6	30.8												

# Table 4. Intervention coverage at district-level 2015-2016, 2019-2021

Category	Interventions	Worst performing districts (pp) <sup>1</sup> <i>Difference between (2019-2021) &amp; (2015-2016)</i>	Best performing districts (pp) <sup>1</sup> <i>Difference between (2019-2021) &amp; (2015-2016)</i>	Top coverage districts (%) <i>2019-2021</i>
Pregnancy	ANC first trimester			Ranga Reddy: 95.5 Jagitial: 94.6
	≥4 ANC visits	<i>Districts not comparable</i>		Jagitial: 81.9 Kamareddy: 79.5
	Received MCP Card			Wanaparthy: 100.0 Suryapet: 99.7
	Tetanus injection			Khammam: 97.3 Rajanna Sircilla: 96.3
Delivery and post-natal	Institutional birth			Warangal Rural: 100.0 Warangal Urban: 99.7
	Skilled birth attendant	<i>Districts not comparable</i>		Nalgonda: 99.0 Mahabubnagar: 97.6
	Postnatal care for mothers			Warangal Rural: 93.8 Yadadri Bhuvanagiri: 93.2
	Postnatal care for babies			Jangoan: 96.5 Karimnagar: 95.9
Early childhood	Full immunization	<i>Districts not comparable</i>		Mahabubnagar: 89.4 Jayashankar <sup>2</sup> : 87.9
	Vitamin A supplementation			Adilabad: 85.7 Medak: 85.2
	Care seeking for ARI	<i>Data not available at district-level</i>		Jogulamba <sup>2</sup> : 88.7 Nagarkurnool: 86.6
	ORS treatment during diarrhea	<i>Data not available at district-level</i>		Adilabad: 65.0 Karimnagar: 59.2
	Zinc treatment during diarrhea	<i>Data not available at district-level</i>		Sangareddy: 50.7 Adilabad: 42.7

## Key takeaways

**Children:** Stunting and wasting prevalence increased by 5 and 4 percentage points (pp) respectively, between 2016 and 2021. Underweight and anemia increased by 4pp and 9pp respectively between 2016 and 2021.

**Women:** Underweight declined by 4pp from 2016 to 2021. Anemia increased by 1pp and 5pp among non-pregnant and pregnant women respectively, between 2016 and 2021. Overweight/obesity increased by 1pp between 2016 and 2021.

**Men:** Overweight/obesity increased by 8pp between 2016 and 2021.

### Attention is needed to improve (%s in 2021):

- **Outcomes:** Anemia in children (70%), among non-pregnant women (58%) and pregnant women (53%); overweight/obesity among men and women (30-32%)
- **Immediate determinants:** Minimum adequate diet (9%) ; complementary foods (51%) ; 180 IFA (34%) and early initiation of breastfeeding (38%)
- **Underlying determinants:** Women with ≥ 10 years education (46%), early marriage(23%)
- **Coverage of interventions:** ORS during diarrhea (56%); zinc during diarrhea (39%); financial assistance (13%); deworming for pregnant women (23%); use of bed nets during pregnancy (30%)

pp: percentage points. Source: NFHS-4 (2015-2016) state and national reports and data [IFPRI estimates], and NFHS-5 (2019-2021) state and national reports and data [IFPRI estimates].

Note 1: Telangana state was formed in 2014; therefore, NFHS-3 (2005-06) data are not available for the state.

Note 2: Interventions' coverage are based on the last child data.

<sup>1</sup>The difference is calculated only between districts that are comparable between 2015-2016 and 2019-2021. No districts in Telangana are comparable.

<sup>2</sup>District codes: Jayashankar: Jayashankar Bhupalapally; Jogulamba: Jogulamba Gadwal.

# Indicator definition

Nutrition outcomes	Definition
<b>Low birth weight<sup>3,5</sup></b>	% live births in 5 years (y) preceding the survey with a reported birth weight <2.5 kilograms (kg), based on either a written record or the mother's recall
<b>Stunting</b>	% children 0-59 months (m) whose height-for-age z score < -2 standard deviations (SD)
<b>Wasting</b>	% children 0-59 m whose weight-for-height z score < -2SD
<b>Severe wasting</b>	% children 0-59 m whose weight-for-height z score < -3SD
<b>Underweight children</b>	% children 0-59 m whose weight-for-age z score < -2SD
<b>Anemia among children</b>	% children 6-59 m whose haemoglobin (Hb) <11.0 g/dl
<b>Underweight women</b>	% women 15-49 y whose Body Mass Index (BMI)<18.5 kg/m <sup>2</sup> ; sample excluded pregnant women and women with a birth in the preceding 2 m
<b>Anemia among non-pregnant women<sup>1</sup></b>	% non-pregnant women 15-49 y whose Hb<12.0 g/dl
<b>Anemia among pregnant women<sup>1</sup></b>	% pregnant women 15-49 y whose Hb<11.0 g/dl
<b>Overweight/obesity – children</b>	% children 0-59 m whose weight-for-height z score > 2SD
<b>Overweight/obesity – women</b>	% women 15-49 y whose BMI ≥25.0 kg/m <sup>2</sup> ; sample excluded pregnant women and women with a birth in the preceding 2 m
<b>Overweight/obesity – men</b>	% men 15-49 y whose BMI ≥25.0 kg/m <sup>2</sup>
<b>Hypertension among women<sup>2,3,10</sup></b>	% women 15-49 y with elevated blood pressure (systolic ≥140 mm Hg or diastolic ≥90 mm Hg) or are currently taking medication to control blood pressure
<b>Hypertension among men<sup>2,3,10</sup></b>	% men 15-54 y with elevated blood pressure (systolic ≥140 mm Hg or diastolic ≥90 mm Hg) or are currently taking medication to control blood pressure
<b>Diabetes among women<sup>10</sup></b>	% women 15-49 y with high (>140 mg/dl) or very high (>160 mg/dl) blood sugar or are currently taking medication to control blood sugar
<b>Diabetes among men<sup>10</sup></b>	% men 15-54 y with high (>140 mg/dl) or very high (>160 mg/dl) blood sugar or are currently taking medication to control blood sugar
Immediate determinants	Definition
<b>Underweight women</b>	% women 15-49 y whose BMI<18.5 kg/m <sup>2</sup> ; sample excluded pregnant women and women with a birth in the preceding 2 m
<b>Consumed IFA 100+ days<sup>1</sup></b>	% women 15-49 y who consumed iron folic acid (IFA) for 100 days or more during pregnancy for the most recent live birth in the 5 y preceding the survey
<b>Consumed IFA 180+ days<sup>1</sup></b>	% women 15-49 y who consumed IFA for 180 days or more during pregnancy for the most recent live birth in the 5 y preceding the survey
<b>Early initiation of breastfeeding<sup>1,2,3,8,9</sup></b>	% youngest children <2 y who started breastfeeding <1 hour of birth
<b>Exclusive breastfeeding</b>	% youngest children 0-5 m who were fed exclusively with breastmilk the previous day
<b>Timely introduction of complementary foods</b>	% youngest children 6-8 m living with their mother who received solid or semi-solid food and breastmilk
<b>Continued breastfeeding at 2 years<sup>1,3,4,5,6</sup></b>	% youngest children 12-23 m living with their mother who were fed breastmilk during the previous day
<b>Minimum adequate diet<sup>2,3,4,5,9,10</sup></b>	% youngest children 6-23 m who consumed a minimum acceptable diet during the previous day
<b>Minimum dietary diversity<sup>1,2,3,4,5,9</sup></b>	% youngest children 6-23 m who consumed foods and beverages from at least 5 out of 8 defined food groups during the previous day
<b>Minimum meal frequency<sup>2,3,4,5,9,10</sup></b>	% youngest children 6-23 m who consumed solid, semi-solid or soft foods (but also including milk feeds for non-breastfed children) at least the minimum number of times during the previous day
<b>Eggs and/or flesh foods consumption<sup>1,2,3,4,5,9</sup></b>	% youngest children 6-23 m who consumed egg and/or flesh food during the previous day
<b>Sweet beverage consumption<sup>1,2,3,4,5,9</sup></b>	% youngest children 6-23 m who consumed a sweet beverage during the previous day
<b>Bottle feeding for infants<sup>1,2,3,4,5,9</sup></b>	% youngest children 0-23 m who were fed from a bottle with a nipple during the previous day
<b>Diarrhea in the last 2 weeks</b>	% children <5 y who had diarrhea in the 2 weeks preceding the survey
<b>ARI in the last 2 weeks</b>	% children <5 y who had symptoms of acute respiratory infection (ARI) in the 2 weeks preceding the survey
Underlying determinants	Definition
<b>Women with ≥10 years of education</b>	% women 15-49 y with ≥10 y of schooling
<b>Women 20-24 years married before age of 18 years<sup>1</sup></b>	% women 20-24 y who were married when <18 y
<b>Women 15-19 years with child or pregnant<sup>10</sup></b>	% women 15-19 y who were mothers or pregnant at the time of the survey
<b>HHS with improved drinking water source</b>	% population living in households whose source of drinking water is piped into dwelling/yard/plot, piped to neighbour, public tap/standpipe, tube well or borehole, protected dug well, protected spring, rainwater, tanker truck, cart with small tank, bottled water, or community RO plant
<b>HHS using improved sanitation facility</b>	% population living in households using flush to pipe sewer system, flush to septic tank, flush to pit latrine, ventilated improved pit (VIP)/biogas latrine, pit latrine with slab or twin pit/composting toilet, which is not shared with any other household
<b>HHS with hand washing facility<sup>2,4,10</sup></b>	% households where a place for washing hands with water and soap was present
<b>Open defecation<sup>6,7</sup></b>	% households that have no toilet facility/defecate in open space or field
<b>Safe disposal of feces<sup>3,4,5</sup></b>	% youngest children <5 y living with their mother whose stools were disposed of safely
<b>HHS with BPL card<sup>3,5,6,7</sup></b>	% households possessing a BPL card
<b>HHS with electricity</b>	% population living in households with electricity

Note: Unless specified, state and district estimates taken from NFHS-3 national/state report for NFHS-3, NFHS-4 national/state report or NFHS-5 factsheet for NFHS-4, and NFHS-5 national/state report or factsheet for NFHS-5.

<sup>1</sup>Indicator estimated using NFHS-3 unit-level data (state level)

<sup>2</sup>Indicator estimated using NFHS-4 unit-level data (state level)

<sup>3</sup>Indicator estimated using NFHS-4 unit-level data (district level)

<sup>4</sup>Indicator estimated using NFHS-5 unit-level data state level

<sup>5</sup>Indicator estimated using NFHS-5 unit-level data (district level)

<sup>6</sup>Indicator estimated using NFHS-4 unit-level data for union territories as their summary reports are not available (state level)

<sup>7</sup>Indicator estimated using NFHS-5 unit-level data for union territories as their summary reports are not available (state level)

<sup>8</sup>Indicator estimated using NFHS-5 unit-level data for union territories as their summary reports are not available (district level)

<sup>9</sup>Indicator constructed following WHO guidelines

<sup>10</sup>Indicator not available in NFHS-3 and/or 4 tool or not comparable between NFHS-3/4 and 5

# Indicator definition

Interventions	Definition
<b>Demand for FP satisfied</b> <sup>1,3,5</sup>	% currently married women 15-49 years (y) with demand for family planning (FP) satisfied by modern methods
<b>Iodized salt</b>	% households using iodized salt
<b>ANC first trimester</b>	% women 15-49 y who received antenatal care (ANC) during the first trimester for the most recent live birth in the 5 y preceding the survey
<b>≥ 4ANC<sup>1</sup></b>	% women 15-49 y who received ≥4 ANC visits for the most recent live birth in the 5 y preceding the survey
<b>Received MCP card<sup>10</sup></b>	% women 15-49 y who received a mother and child protection (MCP) card during pregnancy for the most recent live birth in the 5 y preceding the survey
<b>Received IFA tab/syrup<sup>3,8</sup></b>	% women 15-49 y who received IFA (given or purchased) during pregnancy for the most recent live birth in the 5 y preceding the survey
<b>Tetanus injection<sup>1</sup></b>	% women 15-49 y whose most recent live birth in the 5 y preceding the survey was protected against neonatal tetanus
<b>Deworming- pregnancy<sup>3,8</sup></b>	% women 15-49 y who took deworming medication during pregnancy for the most recent live birth in the 5 y preceding the survey
<b>Weighing- pregnancy<sup>3,5,6,7</sup></b>	% women 15-49 y who were weighed during ANC for the most recent live birth in the 5 y preceding the survey
<b>Birth preparedness counselling<sup>1,2,3,4,5</sup></b>	% women 15-49 y with a child 0-60 months (m) who had ≥1 contacts with a community health worker in the 3 m preceding the survey and were advised on birth preparedness
<b>Breastfeeding counselling<sup>1,3,5,6,7</sup></b>	% women 15-49 y who met with a community health worker in the last 3 m of pregnancy for the most recent live birth in the 5 y preceding the survey and were advised on breastfeeding
<b>Counselling on keeping baby warm<sup>1,5,6,7</sup></b>	% women 15-49 y who met with a community health worker in the last 3 m of pregnancy for the most recent live birth in the 5 y preceding the survey and were advised on keeping the baby warm
<b>Cord care counselling<sup>5,6,7,10</sup></b>	% women 15-49 y who met with a community health worker in the last 3 m of pregnancy for the most recent live birth in the 5 y preceding the survey and were advised on cord care
<b>Food supplementation – pregnancy<sup>3,5</sup></b>	% women 15-49 y with a child <6 y who received food supplements from ICDS during pregnancy
<b>Health &amp; nutrition education – pregnancy<sup>5</sup></b>	% women 15-49 y with a child <6 y who received health and nutrition education from ICDS during pregnancy
<b>Malaria prevention- use of bed nets<sup>2,4,5,10</sup></b>	% women 15-49 y who slept under a treated bed net during pregnancy of the most recent live birth in the 5 y preceding the survey
<b>Institutional birth</b>	% live births in the 5 y preceding the survey to women 15-49 y delivered in a health facility
<b>Financial assistance (JSY)<sup>6,7,8,10</sup></b>	% women 15-49 y who received financial assistance under Janani Suraksha Yojana (JSY) for the most recent live birth that took place in a health facility in the 5 y preceding the survey
<b>Skilled birth attendant</b>	% live births in the 5 y preceding the survey to women 15-49 y that were assisted by a skilled provider
<b>Postnatal care for mothers<sup>10</sup></b>	% women 15-49 y who received postnatal care from a doctor/nurse/LHV/auxiliary nurse midwife (ANM)/midwife/other health personnel <2 days of delivery for the most recent live birth in the 5 y preceding the survey
<b>Postnatal care for babies<sup>10</sup></b>	% most recent live births in the 5 y preceding the survey to women 15-49 y with a postnatal check for the newborn from a doctor/nurse/LHV/ANM/midwife/other health personnel <2 days of delivery
<b>Food supplementation – postnatal<sup>3,5</sup></b>	% women 15-49 y with a child <6 y who received food supplements from ICDS during breastfeeding
<b>Health &amp; nutrition education – postnatal<sup>3,5</sup></b>	% women 15-49 y with a child <6 y who received health and nutrition education from ICDS during breastfeeding
<b>Health checkup (ICDS)<sup>3,5</sup></b>	% women 15-49 y with a child <6 y who received a health check-up from ICDS during breastfeeding
<b>Full immunization</b>	% children 12-23 m fully vaccinated based on information from either vaccination card or mother's recall
<b>Vitamin A – early childhood<sup>1</sup></b>	% children 9-35 m who received a vitamin A dose in the 6 m preceding the survey
<b>Pediatric IFA<sup>3,4,5,10</sup></b>	<sup>11</sup> % children 6-59 m who were given iron supplements in the 7 days preceding the survey <sup>12</sup> % children 6-36 m who were given iron supplements in the 7 days preceding the survey
<b>Deworming – early childhood<sup>3,4,5,10</sup></b>	<sup>11</sup> % children 6-59 m who received deworming medication in the 6 m preceding the survey <sup>12</sup> % children 6-36 m who received deworming medication in the 6 m preceding the survey
<b>Care seeking for ARI</b>	% children <5 y with fever or symptoms of ARI in the 2 weeks preceding the survey taken to a health facility or health provider
<b>ORS during diarrhea</b>	% children <5 y with diarrhea in the 2 weeks preceding the survey who received Oral Rehydration Solutions (ORS)
<b>Zinc during diarrhea</b>	% children <5 y with diarrhea in the 2 weeks preceding the survey who received zinc
<b>Food supplementation (children 6-35 months)<sup>1,2,3,4,5</sup></b>	% youngest children 6-35 m who received food supplements from ICDS in the 12 m preceding the survey
<b>Weighing – early childhood<sup>3,5</sup></b>	% children <5 y who were weighed at an anganwadi centre (AWC) or ICDS centre in the 12 m preceding the survey
<b>Counselling on child growth<sup>3,5,10</sup></b>	% mothers with a child <5 y who received counselling from an ICDS/anganwadi worker or ANM after they were weighed at an AWC in the 12 m preceding the survey
<b>Preschool (AWC)<sup>3,5</sup></b>	% children 36-71 m who went for early childhood care/preschool at an AWC in the 12 m preceding the survey
<b>Health checkup (AWC)<sup>3,5</sup></b>	% children <6 y who received health checkups from an AWC in the 12 m preceding the survey

Note: Unless specified, state and districts estimates taken from NFHS-3 national/state report for NFHS-3, NFHS-4 national/state report or NFHS-5 factsheet for NFHS-4, and NFHS-5 national/state report or factsheet for NFHS-5.

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<sup>9</sup>Indicator constructed following WHO guidelines

<sup>10</sup>Indicator not available in NFHS-3 and/or 4 tool or not comparable between NFHS-3/4 and 5

<sup>11</sup>Definition as per NFHS-3 and 4 construction

<sup>12</sup>Definition as per NFHS-5 construction

Led by IFPRI 

## AUTHORS

**Anita Christopher**, Research Analyst, IFPRI  
**Rati Kapoor**, Data Manager, IFPRI  
**Samuel Scott**, Research Fellow, IFPRI  
**S.K. Singh**, Professor, IIPS  
**Rakesh Sarwal**, Additional Secretary, NITI Aayog  
**Neena Bhatia**, Senior Specialist, NITI Aayog  
**Robert Johnston**, Nutrition Specialist UNICEF  
**William Joe**, Assistant Professor, IEG  
**Esha Sarswat**, Communications Specialist, IFPRI  
**Purnima Menon**, Senior Research Fellow, IFPRI  
**Phuong Hong Nguyen**, Senior Research Fellow, IFPRI

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## ABOUT POSHAN

Partnerships and Opportunities to Strengthen and Harmonize Actions for Nutrition in India (POSHAN) is a multi-year initiative that aims to support the use of data and evidence in decision-making for nutrition in India. It is supported by the Bill & Melinda Gates Foundation and led by IFPRI in India.  
<http://poshan.ifpri.info/>

## ABOUT DATA NOTES

POSHAN Data Notes focus on data visualization to highlight geographic and/or thematic issues related to nutrition in India. They draw on multiple sources of publically available data.

## CONTACT US

Email: [IFPRI-POSHAN@cgiar.org](mailto:IFPRI-POSHAN@cgiar.org)

## IFPRI-NEW DELHI INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

NASC Complex, CG Block,  
Dev Prakash Shastri Road,  
Pusa, New Delhi 110012, India  
T+91.11.66166565  
F+91.11.66781699

## IFPRI-HEADQUARTERS INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

1201 Eye Street, NW,  
Washington, DC 20005 USA  
T. +1.202.862.5600  
F. +1.202.467.4439  
Skype: IFPRIhomeoffice  
[ifpri@cgiar.org](mailto:ifpri@cgiar.org)  
[www.ifpri.org](http://www.ifpri.org)

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