POSHAN
Led by IFPRI
Partnerships and Opportunities to Strengthen and Harmonize Actions for Nutrition in India
Data Note
No. 58 | DECEMBER 2022
ANDHRA PRADESH

State Nutrition Profile: Andhra Pradesh

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[1]. 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.

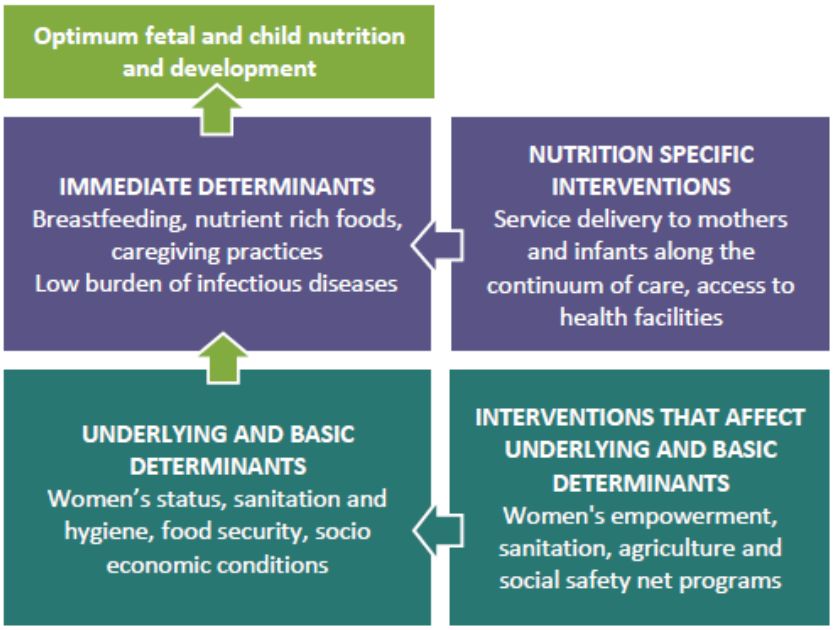
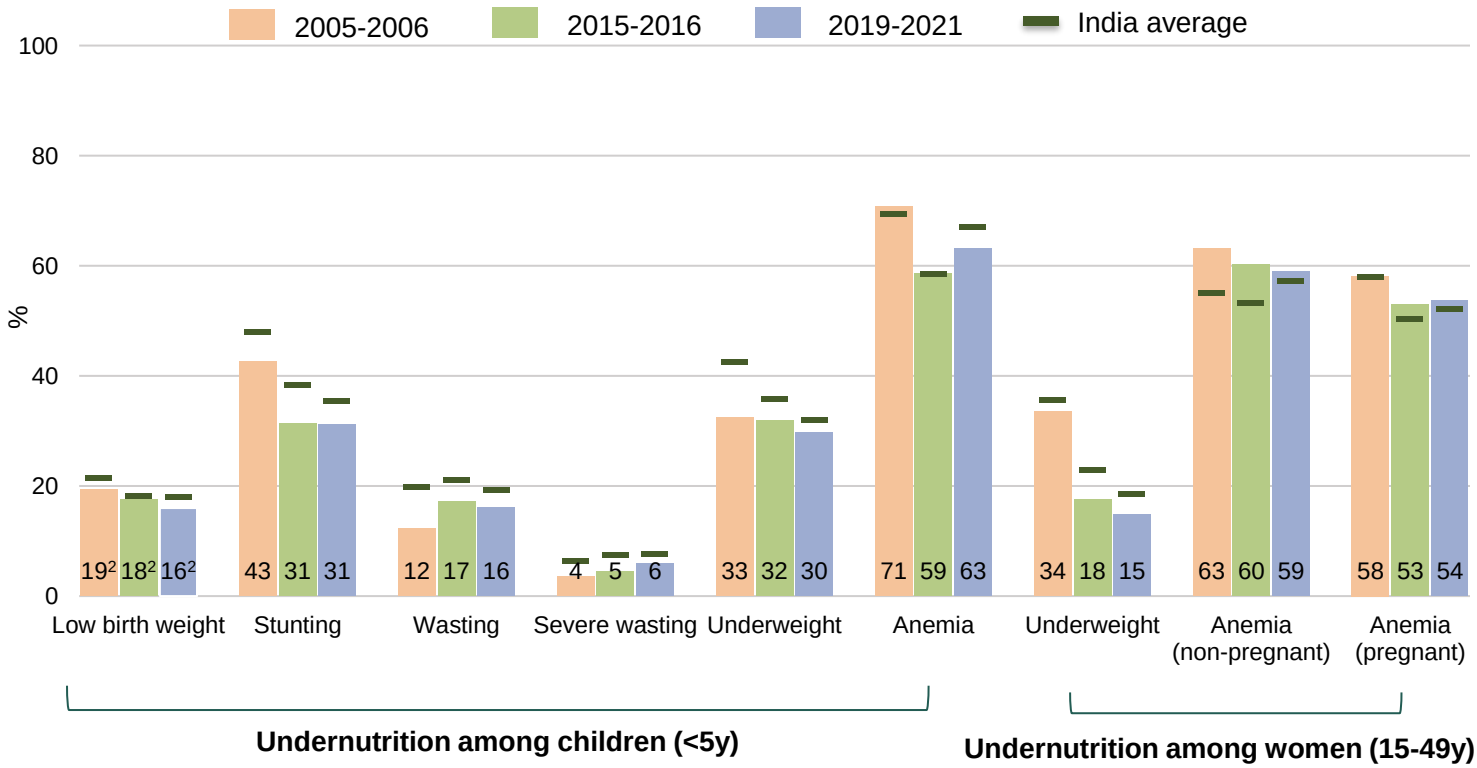


Figure 1. Trends in undernutrition outcomes 2005-2006, 2015-2016, 2019-2021

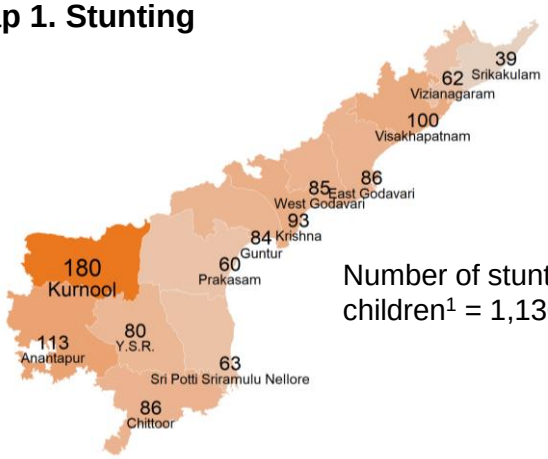


Source: NFHS-3 (2005-2006) national report and data [IFPRI estimates], NFHS-4 (2015-2016) national report, and NFHS-5 (2019-2021) national and state factsheets. Anemia among non-pregnant and pregnant women for 2005-2006 are IFPRI estimates using woman dataset. [1]WHO. Nutrition Landscape Information 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).

[2]In NFHS-3, NFHS-4, and NFHS-5, 28.2%, 4.1%, and 1.9% of data were missing, respectively.

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

Map 1. Stunting



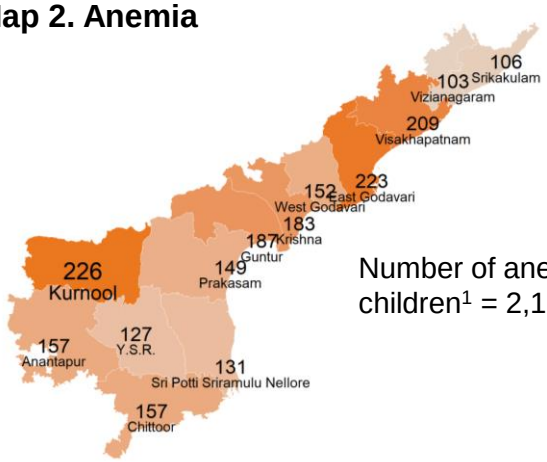
Number of stunted children[1] = 1,130,459

Note: Number in '000s in the above figure

	Highest burden districts	
1	Kurnool	179,685
2	Anantapur	112,943
3	Visakhapatnam	99,556
4	Krishna	92,534
5	Chittoor	86,363

No. of districts with public health concern[2]: 12 of 13

Map 2. Anemia



Number of anemic children[1] = 2,111,369

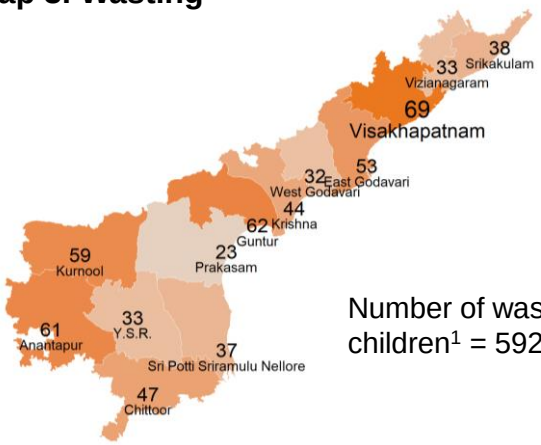
Note: Number in '000s in the above figure

	Highest burden districts	
1	Kurnool	226,296
2	East Godavari	223,410
3	Visakhapatnam	209,442
4	Guntur	187,010
5	Krishna	183,263

No. of districts with public health concern[2]: 13 of 13

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

Map 3. Wasting



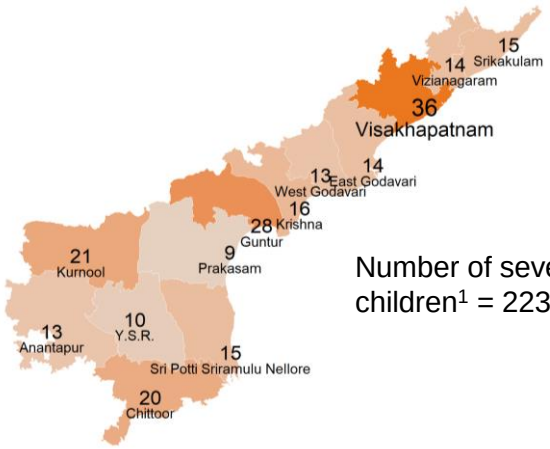
Number of wasted children[1] = 592,566

Note: Number in '000s in the above figure

	Highest burden districts	
1	Visakhapatnam	69,047
2	Guntur	62,489
3	Anantapur	60,550
4	Kurnool	59,421
5	East Godavari	53,240

No. of districts with public health concern[2]: 12 of 13

Map 4. Severe Wasting



Number of severely wasted children[1] = 223,705

Note: Number in '000s in the above figure

	Highest burden districts	
1	Visakhapatnam	35,968
2	Guntur	28,436
3	Kurnool	21,349
4	Chittoor	20,077
5	Krishna	16,147

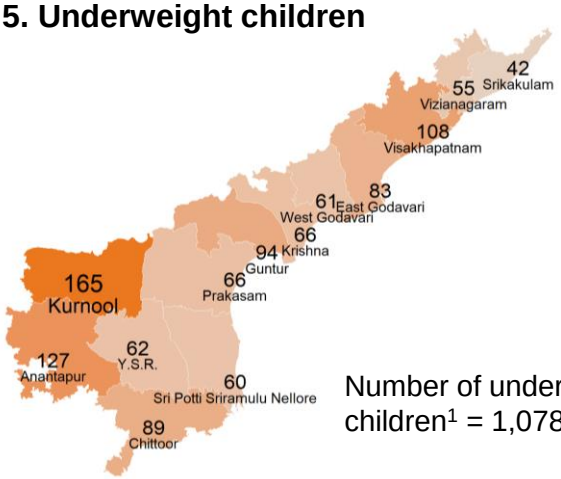
No. of districts with public health concern[2]: 13 of 13

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. [1]The total number of children <5 years is 3,707,691.

[2]Public health concern is defined as ≥20% for stunting, ≥40% for anemia, ≥10% for wasting, and ≥2% for severe wasting (WHO 2011).

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

Map 5. Underweight children



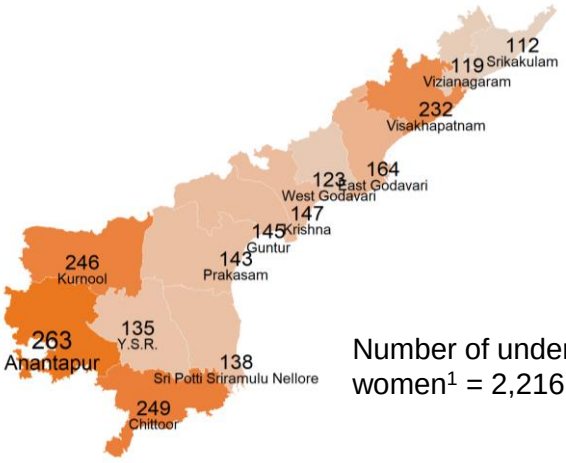
Number of underweight children[1] = 1,078,332

Note: Number in '000s in the above figure

	Highest burden districts	
1	Kurnool	164,741
2	Anantapur	127,374
3	Visakhapatnam	107,584
4	Guntur	94,436
5	Chittoor	88,913

No. of districts with public health concern[2]: 13 of 13

Map 6. Underweight women



Number of underweight women[1] = 2,216,690

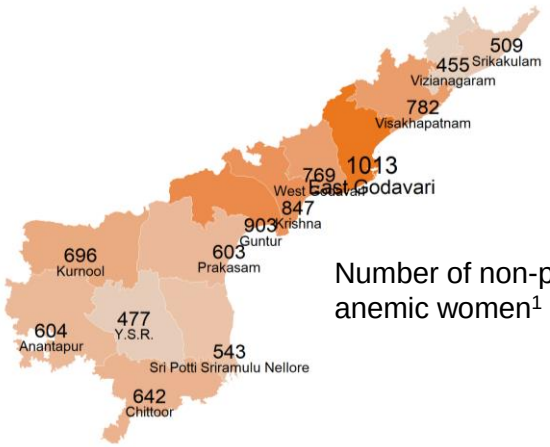
Note: Number in '000s in the above figure

	Highest burden districts	
1	Anantapur	263,108
2	Chittoor	249,145
3	Kurnool	245,821
4	Visakhapatnam	232,064
5	East Godavari	163,528

No. of districts with public health concern[2]: 12 of 13

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

Map 7. Anemia among non-pregnant women



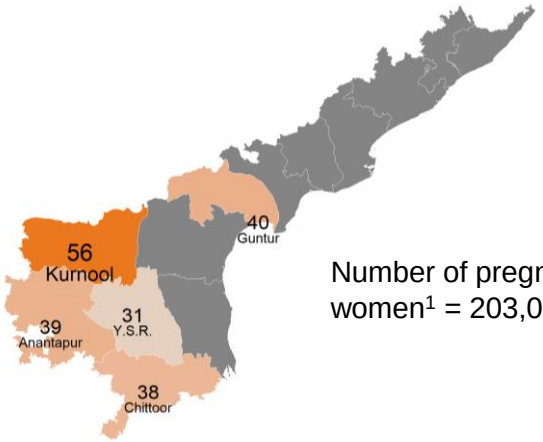
Number of non-pregnant anemic women[1] = 8,842,244

Note: Number in '000s in the above figure

	Highest burden districts	
1	East Godavari	1,013,230
2	Guntur	903,152
3	Krishna	846,540
4	Visakhapatnam	781,549
5	West Godavari	768,838

No. of districts with public health concern[2]: 13 of 13

Map 8. Anemia among pregnant women[2]



Number of pregnant anemic women[1] = 203,041

Note: Number in '000s in the above figure

	Highest burden districts	
1	Kurnool	55,500
2	Guntur	39,869
3	Anantapur	39,275
4	Chittoor	37,715
5	Y.S.R.	30,682

No. of districts with public health concern[2]: 5 out of 5

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.
[1]The total number of children <5 years is 3,707,691, pregnant women 15-49 years is 815,116, and non-pregnant women 15-49 years is 13,919,948.
[2]Public health concern is defined as ≥20% for underweight (children), ≥10% for underweight (women), ≥40% for anemia among non-pregnant women, and ≥40% for anemia among pregnant women (WHO 2011). Note: Gray areas in Map 8 indicate districts for which data are not available. Data on anemia among pregnant women are only available for 5 districts.

Figure 2. Trends in overweight/obesity & NCDs[1] 2005-2006, 2015-2016, 2019-2021

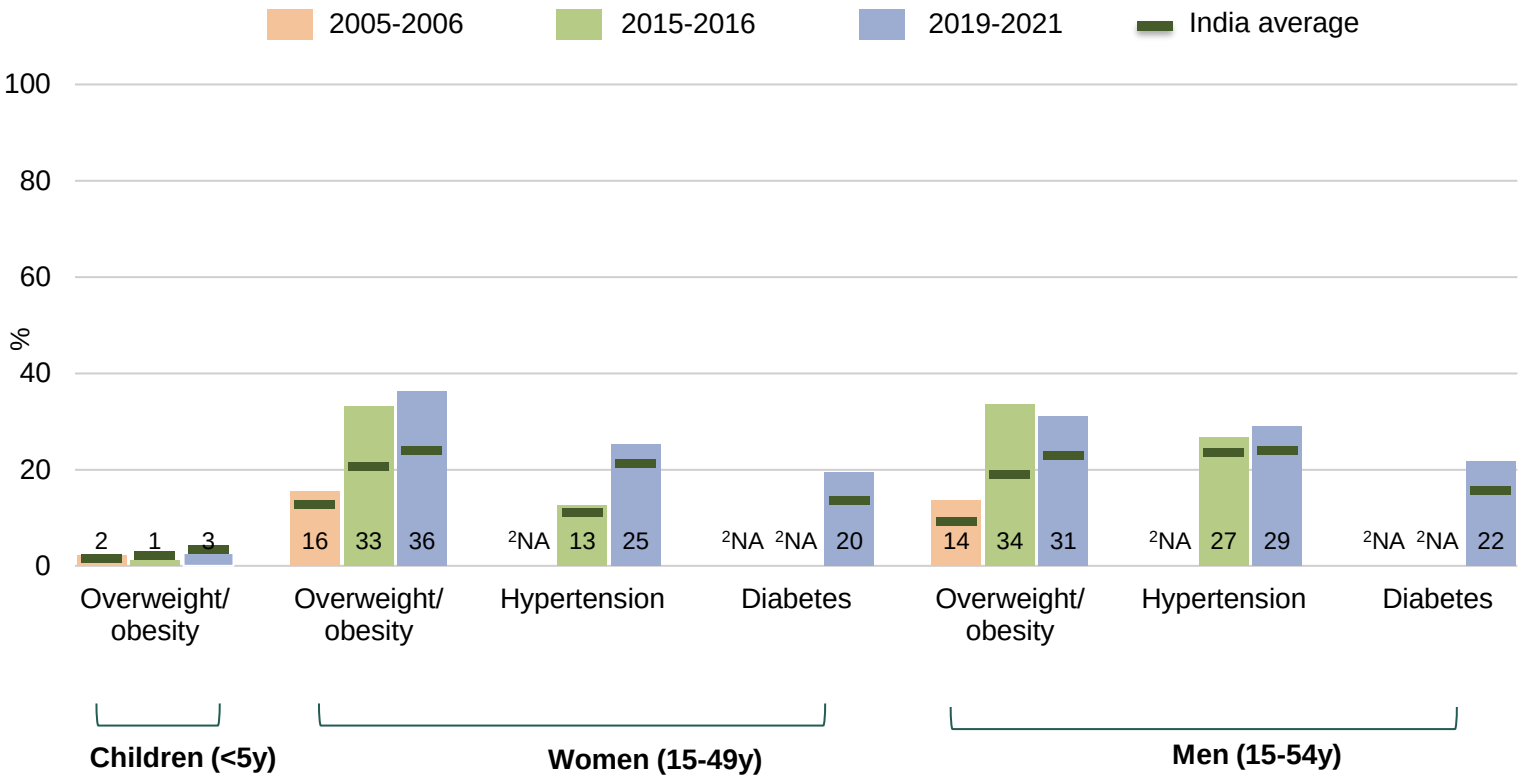


Table 1. Overweight/obesity & NCDs[1] at district-level 2015-2016, 2019-2021

Category	Outcomes	Worst performing districts (pp)	Best performing districts (pp)	Highest burden districts (thousands)[4]	No of districts with public health concern[5] (total=13)
		Difference between (2019-2021) & (2015-2016)[3]	*Difference between (2019-2021) & (2015-2016)[3]*	*2019-2021*	*2019-2021*
Children <5 years	Overweight/ obesity	Visakhapatnam: +4.8 W. Godavari[6]: +4.6	Y.S.R.: -1.2 Nellore[6] : -1.0	Visakhapatnam: 15 W.Godavari[6]: 14	0
Women (15-49 years)	Overweight/ obesity	E. Godavari[6]: +8.0 Prakasam : +7.0	Krishna: -5.0 Visakhapatnam: -5.0	E.Godavari[6]: 711 Guntur: 701	13
	Hypertension	Prakasam: +17.1 Kurnool: +15.3	Not Applicable[7]	E.Godavari[6]:465 Guntur: 390	13
	Diabetes	*Not Available[2]*		E.Godavari[6]: 348 Guntur: 343	6
Men (15-54 years)	Overweight /obesity	*Not Available[2]*			
	Hypertension	Krishna: +9.8 Guntur: +9.4	Vizianagaram: -8.4 Y.S.R.: -6.9	E. Godavari[6]: 560 Guntur: 510	13
	Diabetes	*Not Available[2]*		E. Godavari[6]: 480 Guntur: 422	8

pp: percentage points. Source: NFHS-3 (2005-2006) national report, NFHS-4 (2015-16) national report and data [IFPRI estimates], and NFHS-5 (2019-2021) national and state factsheets.

[1]NCDs: non-communicable diseases. [2]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. [3]The difference is calculated only between districts that are comparable between 2015-2016 and 2019-2021. [4]Burden: The headcount was calculated as the product of the prevalence and the total eligible projected population for each district in 2019. Prevalence estimates were obtained from NFHS-5 (2019-2021) district factsheets, and projected population for 2019 was estimated using Census 2011. [5]Public health concern is defined as prevalence ≥15% for overweight/obesity (children), ≥20% for overweight/obesity (women and men), ≥ 20% hypertension (women and men), and ≥20% diabetes (women and men) (WHO 2011). [6]District codes: Nellore: Sri Potti Sriramulu Nellore; E. Godavari: East Godavari; W. Godavari: West Godavari. [7]Prevalence did not decrease in any district.

Figure 3. Trends in immediate determinants (%) 2005-2006, 2015-2016, 2019-2021

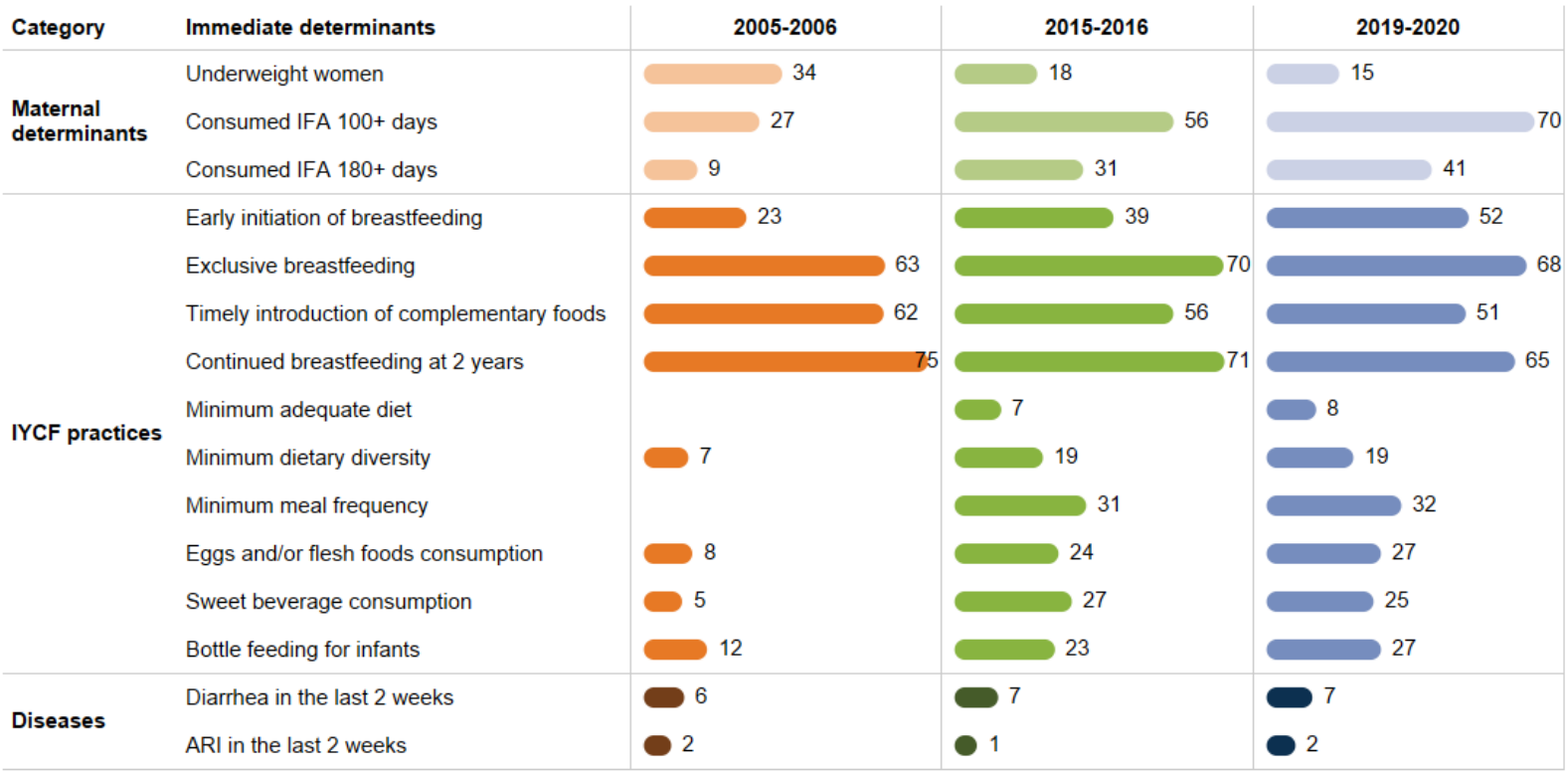


Table 2. Immediate determinants at district-level 2015-2016, 2019-2021

Category	Immediate determinants	Worst performing districts (pp) *Difference between (2019-2021) & (2015-2016)[1]*	Best performing districts (pp) *Difference between (2019-2021) & (2015-2016)[1]*	Top coverage districts (%)[2] *2019-2021*
Maternal determinants	Underweight women	Anantapur: +1.7	Vizianagaram: -9.0 Srikakulam: -6.7	Guntur: 9.6 W. Godavari[3]: 10.1
	Consumed IFA 100+ days	Krishna: -13.9	Guntur: +38.5 W. Godavari[3]: +38.0	W.Godavari[3]: 82.8 Nellore[3]: 76.1
IYCF practices	Early initiation of breastfeeding	Krishna: -8.4 Chittoor: -5.7	Kurnool: +42.6 Prakasam: +41.1	Prakasam: 73.2 Kurnool: 72.5
	Exclusive breastfeeding	Nellore[3]: -17.0 Kurnool: -10.8	Y.S.R.: +0.7	Kurnool: 78.1 Y.S.R.: 77.4
	Timely introduction of complementary foods	*Not Available[4]*		
	Minimum adequate diet	Anantapur: -12.7 Vizianagaram: -8.6	Krishna: +14.3 Srikakulam: +9.7	Krishna: 20.3 Srikakulam: 13.4
Diseases	Diarrhea in the last 2 weeks	Nellore[3]: +7.7 Srikakulam: +6.0	W. Godavari[3]: -3.8 Prakasam: -3.4	Anantapur: 2.5 W. Godavari[3]: 2.7
	ARI in the last 2 weeks	Kurnool: +4.2 Nellore[3]: +3.9	*Not Applicable[5]*	Guntur: 1.0 W. Godavari[3]: 1.0

pp: percentage points. Source: NFHS-3 (2005-2006) national and state reports and data [IFPRI estimates], NFHS-4 (2015-2016) state report and data [IFPRI estimates], and NFHS-5 (2019-21) national and state reports, factsheets, and data [IFPRI estimates].
Note: Definitions of IYCF indicators are based on WHO guidelines.
[1]The difference is calculated only between districts that are comparable between 2015-2016 and 2019-2021.
[2]For all indicators, top coverage districts refer to the districts with the highest prevalence in immediate determinants, except for underweight women, 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.
[3]District codes: Nellore: Sri Potti Sriramulu Nellore; E. Godavari: East Godavari; W. Godavari: West Godavari.
[4]Indicates unavailability of data for a particular indicator in the specified NFHS round.
[5]Prevalence did not decrease for any district.

Figure 4. Trends in underlying determinants (%) 2005-2006, 2015-2016, 2019-2021

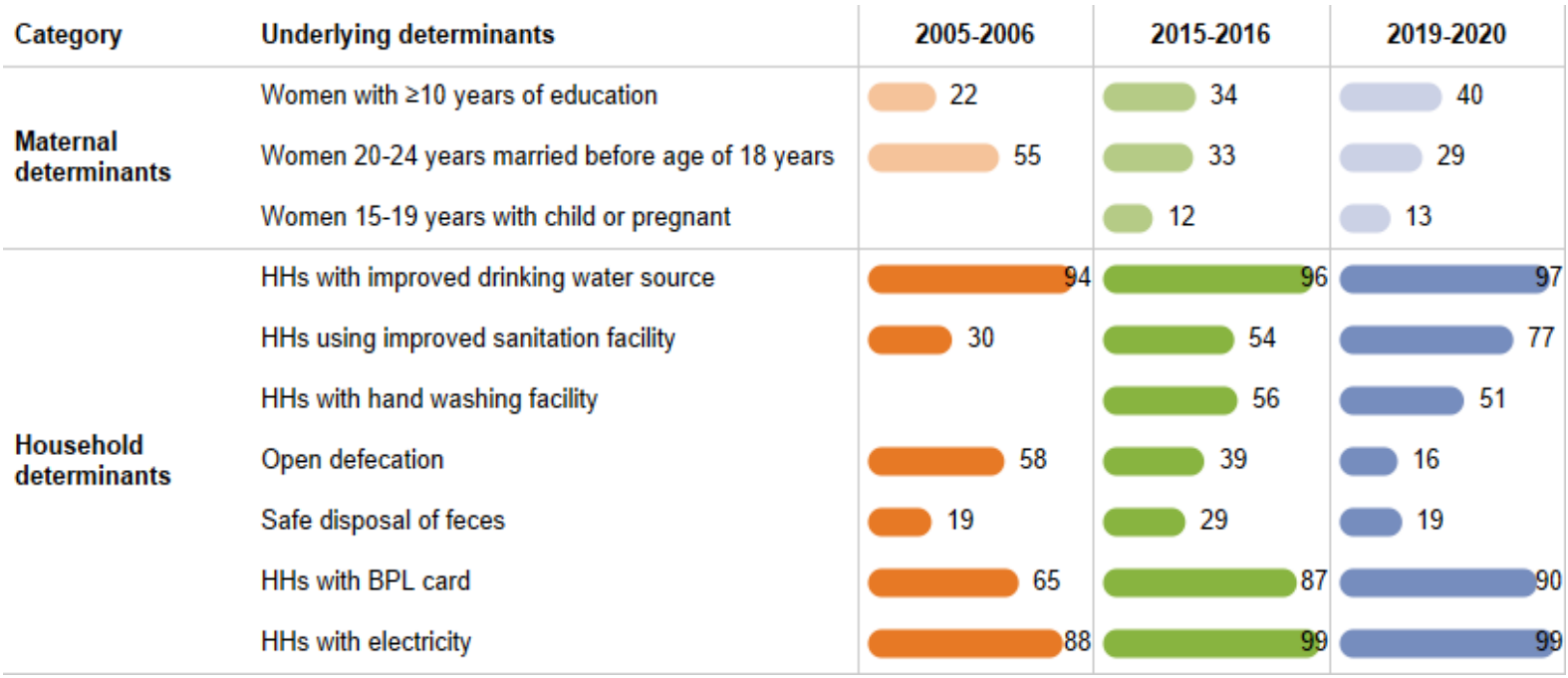
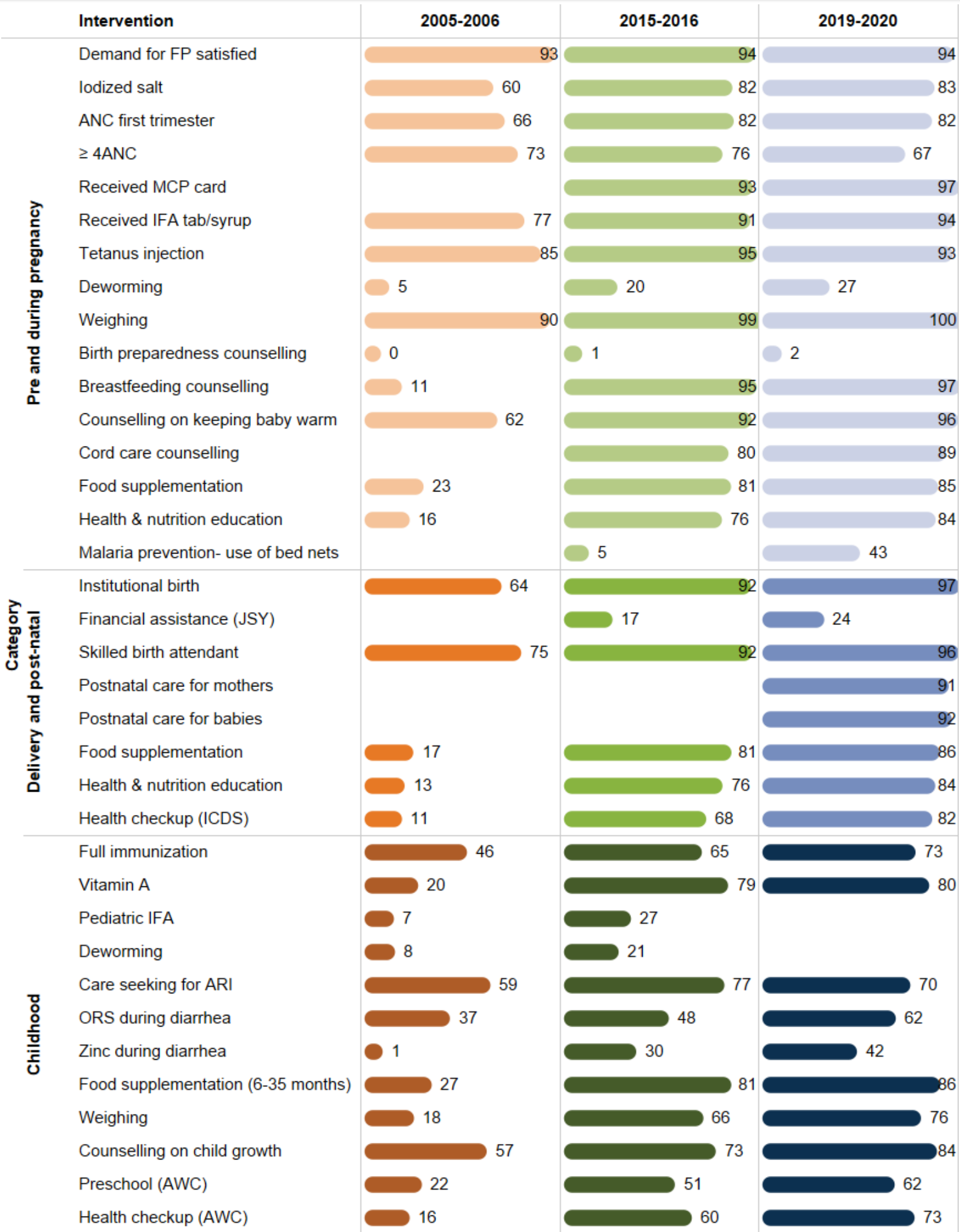


Table 3. Underlying determinants at district-level 2015-2016, 2019-2021

Category	Underlying determinants	Worst performing districts (pp)	Best performing districts (pp)	Top coverage districts (%)[2]
		Difference between (2019-2021) & (2015-2016)[1]	*Difference between (2019-2021) & (2015-2016)[1]*	*2019-2021*
Maternal determinants	Women with ≥10 years education	Y.S.R.: -1.7	W. Godavari[3]: +10.7 Kurnool: +8.5	W. Godavari[3]: 46.5 Krishna: 46.2
	Women 20-24 years married before age of 18 years	Anantapur: +8.3 Vizianagaram: +4.1	Nellore[3]: -14.8 Prakasam: -8.8	W. Godavari[3]: 22.1 Nellore[3]:23.8
	Women 15-19 years with child or pregnant	Anantapur: +8.4 Guntur: +7.1	E.Godavari[3]: -6.6 Srikakulam: -6.3	Srikakulam: 5.5 E. Godavari[3]: 6.2
Household determinants	HHs with improved drinking water source	Chittoor: -1.3 Kurnool: -0.7	Srikakulam :+5.8 Prakasam: +4.5	Y.S.R.: 99.9 Guntur: 99.3
	HHs using improved sanitation facility	*Not Applicable[4]*	Srikakulam: +38.2 Chittoor: +33.7	Y.S.R.: 85.4 Guntur: 83.4
	HHs with electricity	E.Godavari[3]: -0.6 Guntur: -0.4	Srikakulam: +1.6 Nellore[3]: +0.9	Srikakulam: 99.9 Kurnool: 99.9

pp: percentage points.
Source: NFHS-3 (2005-2006) national and state reports and data [IFPRI estimates], 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].
[1]The difference is calculated only between districts that are comparable between 2015-2016 and 2019-2021.
[2]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 age of 18 years and women 15-19 years with child or pregnant for which it refers to the districts with the lowest prevalence in coverage.
[3]District codes: Nellore: Sri Potti Sriramulu Nellore; E. Godavari: East Godavari; W. Godavari: West Godavari.
[4]Prevalence did not decrease in any of the districts.

Figure 5. Trends in coverage of interventions across the first 1,000 days (%), 2005-2006, 2015-2016, 2019-2021



Source: NFHS-3 (2005-2006) national and state reports and data [IFPRI estimates], 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: Refer to district dashboard for the inter-district variability in the coverage of interventions.

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

District name	Pre-pregnancy		Pregnancy													Delivery & postnatal								Early childhood									
	Demand for FP satisfied	Iodized salt	ANC first trimester	≥4 ANC	Received MCP card	Received IFA tab/syrup	Tetanus injection	Deworming	Weighing	Birth preparedness counselling	Breastfeeding counselling	Counselling 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)	Weighing	Counselling on child growth	Preschool at AWC	Health checkup
Andhra Pradesh	93.5	83.1	81.7	67.5	96.5	94.1	92.8	27.2	99.9	1.7	96.7	95.8	89.2	85.0	83.7	43.4	96.5	24.4	96.1	90.7	92.3	85.9	83.5	81.9	73.0	80.3	21.6	18.7	70.2	62.5	41.8	86.0	75.9	84.4	61.9	72.5
Anantapur	91.4	88.6	80.3	66.6	100.0	94.3	97.5	13.2	100.0	0.7	99.0	99.0	95.2	89.0	86.7	52.7	94.7	36.8	98.3	89.1	87.3	88.0	85.8	82.7	81.8	75.7	14.4	12.0	84.1			89.1	80.9	90.4	72.9	83.3
Chittoor	91.8	85.5	80.3	65.3	98.2	95.4	97.8	17.9	100.0	0.0	96.0	96.0	91.6	91.6	89.1	41.6	97.1	35.5	97.6	93.8	95.2	90.9	88.4	86.0	66.6	76.9	14.2	10.4	84.4			86.2	81.9	87.9	70.7	82.2
East Godavari	89.3	81.2	76.3	51.0	91.4	94.1	87.0	24.8	100.0	2.8	96.1	94.7	73.9	72.2	73.3	48.6	96.6	18.1	89.9	91.9	93.5	74.0	74.4	74.5	59.0	81.4	21.8	26.2	63.7	72.9	23.0	70.6	61.2	73.1	62.1	61.1
Guntur	95.6	85.8	89.4	62.5	96.0	96.9	90.3	29.8	100.0	1.5	97.9	97.8	89.5	88.3	84.0	40.4	98.6	22.7	95.5	94.0	97.2	88.1	82.9	85.2	76.2	80.2	25.5	20.4				87.9	75.0	91.9	65.9	75.5
Krishna	95.7	87.5	81.5	73.3	96.4	97.8	95.8	24.4	100.0	0.6	98.4	97.9	85.7	89.5	87.4	40.3	98.9	13.9	98.0	88.3	90.3	89.1	84.8	77.2	90.0	81.0	18.2	16.8	45.8			93.8	78.1	86.0	65.5	77.1
Kurnool	96.8	70.4	78.6	74.3	95.6	89.8	91.3	18.6	99.5	5.7	97.2	96.7	90.6	87.6	87.2	33.5	88.5	20.6	90.6	87.8	87.3	86.1	84.1	85.1	67.0	79.1	20.9	17.6	73.1			87.1	77.6	85.5	68.6	80.4
Prakasam	93.2	85.5	84.7	73.4	92.8	93.8	92.2	23.1	100.0	3.8	97.7	96.7	89.0	79.9	78.8	46.8	97.4	7.2	97.9	90.1	90.3	78.2	77.0	76.1	51.9	79.9	21.3	12.8	64.9			83.8	73.9	82.0	67.3	73.1
Sri Potti Sriramulu Nello	95.7	85.6	89.0	73.0	92.8	92.5	94.2	40.5	100.0	0.0	98.0	95.8	96.6	84.2	84.2	38.9	97.0	16.6	100.0	95.5	94.3	87.3	87.7	84.9	65.3	77.0	32.2	28.0	72.3			90.2	79.9	82.9	72.5	78.8
Srikakulam	92.5	76.5	79.7	78.4	100.0	98.8	94.4	39.8	100.0	0.0	97.0	95.3	90.6	90.6	89.5	40.1	97.9	27.1	96.4	90.8	97.7	88.7	86.5	85.3	82.8	69.6	10.6	17.9	79.7			86.9	74.1	80.7	59.7	70.7
Visakhapatnam	93.0	82.2	79.4	58.6	97.0	95.5	88.0	36.8	100.0	2.4	97.8	95.9	87.8	81.3	77.8	55.5	95.3	44.4	94.4	84.8	90.9	80.0	76.6	71.9	76.5	91.3	22.9	19.0	72.3			81.6	69.4	82.0	58.0	67.4
Vizianagaram	91.4	85.0	76.1	71.4	98.8	94.5	91.3	15.1	99.5	0.4	100.0	98.7	88.1	95.5	95.5	49.1	99.0	33.4	97.6	83.9	89.2	94.4	88.4	84.3	76.8	85.9	19.5	10.5	83.5			95.9	88.8	92.3	82.2	88.3
West Godavari	95.6	83.4	82.2	62.7	100.0	94.2	95.3	33.2	100.0	1.0	88.3	90.4	89.0	83.2	83.2	35.3	98.7	16.4	98.5	94.8	96.4	83.8	82.8	82.7	80.0	73.9	20.2	16.0	71.9			84.4	73.6	77.5	64.7	76.0
Y.S.R.	91.7	80.2	84.4	82.8	97.7	87.0	93.4	42.6	100.0	1.5	93.8	89.2	92.6	85.1	83.5	41.4	99.4	21.9	100.0	92.3	91.3	87.3	83.3	85.8	83.0	90.1	37.2	32.0	60.3			90.5	79.9	79.0	64.0	78.1

Source: NFHS-5 district factsheets and state reports (2019-21) and data [IFPRI estimates].

Note 1: In NFHS-5 district factsheets, estimate for indicators with sample size <25 is not reported.

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

Category	Interventions	Worst performing districts (pp)[4]	Best performing districts (pp)[4]	Top coverage districts (%)
		Difference between (2019-2021) & (2015-2016)	*Difference between (2019-2021) & (2015-2016)*	*2019-2021*
Pregnancy	ANC first trimester	E.Godavari[1]: -9.2 Krishna: -7.5	Prakasam: +11.2 Chittoor: +8.2	Guntur: 89.4 Nellore[1]: 89.0
	≥4 ANC visits	E.Godavari[1]: -26.2 Visakhapatnam: -23.2	Srikakulam: +5.7 Kurnool: +2.6	Y.S.R: 82.8 Srikakulam: 78.4
	Received MCP Card	*Not Applicable[2]*	W.Godavari[1]:+7.9 Vizianagaram: +7.7	3 districts[3]: 100.0
	Tetanus injection	E.Godavari[1]: -7.7 Visakhapatnam:-7.4	Anantapur: +8.6 W. Godavari[1]: +5.4	Chittoor: 97.8 Anantapur: 97.5
Delivery and post-natal	Institutional birth	E.Godavari[1]:-0.2	Kurnool: +13.0 Visakhapatnam: +10.3	Y.S.R.: 99.4 Vizianagaram: 99.0
	Skilled birth attendant	E.Godavari[1]: -1.9 Srikakulam: -1.2	Visakhapatnam: +12.0 Chittoor: +9.7	Y.S.R.: 100.0 Nellore[1]: 100.0
	Postnatal care for mothers	*Not Applicable[5]*	*Not Applicable[5]*	Nellore[1]: 95.5 W.Godavari[1]: 94.8
	Postnatal care for babies	*Not Applicable[5]*	*Not Applicable[5]*	Srikakulam: 97.7 Guntur: 97.2
Early childhood	Full immunization	Prakasam: -12.0 E. Godavari[1]: -1.3	Vizianagaram: +27.5 Srikakulam: +23.6	Krishna: 90.0 Y.S.R.: 83.0
	Vitamin A supplementation	Srikakulam: -24.0 Guntur: -9.3	Krishna: +19.5 Visakhapatnam: +17.1	Visakhapatnam: 91.3 Y.S.R: 90.1
	Care seeking for ARI	Y.S.R.: -23.4 Srikakulam: -8.3	*Not Applicable[2]*	Chittoor: 84.4 Anantapur: 84.1
	ORS treatment during diarrhea	*Not Applicable[2]*	E. Godavari[1]: +20.6	E. Godavari[1]: 72.9
	Zinc treatment during diarrhea	*Not Applicable[2]*	E. Godavari[1]: +9.8	E. Godavari[1]: 23.0

Key takeaways

Children: Stunting prevalence declined by 12 percentage points (pp) from 2006 to 2016 and remained stable thereafter. Wasting increased by 5pp from 2006 to 2016 and decreased by 1pp between 2016 and 2021. Underweight prevalence declined by 1pp between 2006 to 2016 and by 2pp between 2016 and 2021. Anemia prevalence declined by 12pp from 2006 to 2016 but increased by 4pp from 2016 to 2021.

Women: Underweight prevalence declined by 16pp from 2006 to 2016 and by 3pp from 2016 to 2021. Anemia prevalence among non-pregnant and pregnant women declined by 3pp and 5pp from 2006 to 2016, respectively. Anemia decreased by 1pp among non-pregnant women and increased by 1pp among pregnant women between 2016 and 2021. Overweight/obesity prevalence increased by 17pp between 2006 and 2016 and by 3pp between 2016 and 2021.

Men: Overweight/obesity increased by 20pp from 2006 to 2016 and declined by 3pp from 2016 to 2021.

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

- ***Outcomes***: Stunting (31%) and anemia in children (63%); anemia in non-pregnant (59%) and pregnant (54%) women
- ***Immediate determinants:*** Consumed IFA 180+ days (41%); minimum adequate diet (8%)
- ***Underlying determinants:*** Women with ≥10 years education (40%)
- ***Coverage of interventions:*** Deworming during pregnancy (27%); financial assistance (JSY) (24%); zinc during diarrhea (42%)

pp: percentage points. Source: NFHS-3 state and national reports and data [IFPRI estimates], NFHS-4 (2015-2016) state and national reports and data [IFPRI estimates], and NFHS-5 (2019-2021) state and national reports/factsheets and data [IFPRI estimates]. Note: Interventions' coverage are based on the last child data.[1]District codes: E. Godavari: East Godavari; W. Godavari: West Godavari; Nellore: Sri Potti Sriramulu Nellore. [2]Prevalence did not decrease/increase in any of the districts. Data on ORS and zinc treatment during diarrhea are only available for East Godavari. [3]Anantapur, Srikakulam, West Godavari. [4]The difference is calculated only between districts that are comparable between 2015-2016 and 2019-2021. [5]Indicators postnatal care for women and babies are not comparable between NFHS-4 and 5.

Indicator definition

Nutrition outcomes	Definition
Low birth weight[3,5]	% 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
Stunting	% children 0-59 months (m) whose height-for-age z score < -2 standard deviations (SD)
Wasting	% children 0-59 m whose weight-for-height z score < -2SD
Severe wasting	% children 0-59 m whose weight-for-height z score < -3SD
Underweight children	% children 0-59 m whose weight-for-age z score < -2SD
Anemia among children	% children 6-59 m whose haemoglobin (Hb) <11.0 g/dl
Underweight women	% women 15-49 y whose Body Mass Index (BMI)<18.5 kg/m^2; sample excluded pregnant women and women with a birth in the preceding 2 m
Anemia among non-pregnant women[1]	% non-pregnant women 15-49 y whose Hb<12.0 g/dl
Anemia among pregnant women[1]	% pregnant women 15-49 y whose Hb<11.0 g/dl
Overweight/obesity – children	% children 0-59 m whose weight-for-height z score > 2SD
Overweight/obesity – women	% women 15-49 y whose BMI ≥25.0 kg/m2; sample excluded pregnant women and women with a birth in the preceding 2 m
Overweight/obesity – men	% men 15-49 y whose BMI ≥25.0 kg/m^2
Hypertension among women[2,3,10]	% 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
Hypertension among men[2,3,10]	% 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
Diabetes among women[10]	% 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
Diabetes among men[10]	% 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**
Underweight women	% women 15-49 y whose BMI<18.5 kg/m^2; sample excluded pregnant women and women with a birth in the preceding 2 m
Consumed IFA 100+ days[1]	% 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
Consumed IFA 180+ days[1]	% 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
Early initiation of breastfeeding[1,2,3,8,9]	% youngest children <2 y who started breastfeeding <1 hour of birth
Exclusive breastfeeding	% youngest children 0-5 m who were fed exclusively with breastmilk the previous day
Timely introduction of complementary foods	% youngest children 6-8 m living with their mother who received solid or semi-solid food and breastmilk
Continued breastfeeding at 2 years[1,3,4,5,6]	% youngest children 12-23 m living with their mother who were fed breastmilk during the previous day
Minimum adequate diet[2,3,4,5,9,10]	% youngest children 6-23 m who consumed a minimum acceptable diet during the previous day
Minimum dietary diversity[1,2,3,4,5,9]	% youngest children 6-23 m who consumed foods and beverages from at least 5 out of 8 defined food groups during the previous day
Minimum meal frequency[2,3,4,5,9,10]	% 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
Eggs and/or flesh foods consumption[1,2,3,4,5,9]	% youngest children 6-23 m who consumed egg and/or flesh food during the previous day
Sweet beverage consumption[1,2,3,4,5,9]	% youngest children 6-23 m who consumed a sweet beverage during the previous day
Bottle feeding for infants[1,2,3,4,5,9]	% youngest children 0-23 m who were fed from a bottle with a nipple during the previous day
Diarrhea in the last 2 weeks	% children <5 y who had diarrhea in the 2 weeks preceding the survey
ARI in the last 2 weeks	% children <5 y who had symptoms of acute respiratory infection (ARI) in the 2 weeks preceding the survey
Underlying determinants	**Definition**
Women with ≥10 years of education	% women 15-49 y with ≥10 y of schooling
Women 20-24 years married before age of 18 years[1]	% women 20-24 y who were married when <18 y
Women 15-19 years with child or pregnant[10]	% women 15-19 y who were mothers or pregnant at the time of the survey
HHs with improved drinking water source	% 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
HHs using improved sanitation facility	% 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
HHs with hand washing facility[2,4,10]	% households where a place for washing hands with water and soap was present
Open defecation[6,7]	% households that have no toilet facility/defecate in open space or field
Safe disposal of feces[3,4,5]	% youngest children <5 y living with their mother whose stools were disposed of safely
HHs with BPL card[3,5,6,7]	% households possessing a BPL card
HHs with electricity	% 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.

[1]Indicator estimated using NFHS-3 unit-level data (state level)
[2]Indicator estimated using NFHS-4 unit-level data (state level)
[3]Indicator estimated using NFHS-4 unit-level data (district level)
[4]Indicator estimated using NFHS-5 unit-level data state level
[5]Indicator estimated using NFHS-5 unit-level data (district level)
[6]Indicator estimated using NFHS-4 unit-level data for union territories as their summary reports are not available (state level)
[7]Indicator estimated using NFHS-5 unit-level data for union territories as their summary reports are not available (state level)
[8]Indicator estimated using NFHS-5 unit-level data for union territories as their summary reports are not available (district level)
[9]Indicator constructed following WHO guidelines
[10]Indicator not available in NFHS-3 and/or 4 tool or not comparable between NFHS-3/4 and 5

Indicator definition

Interventions	Definition
Demand for FP satisfied[1,3,5]	% currently married women 15-49 years (y) with demand for family planning (FP) satisfied by modern methods
Iodized salt	% households using iodized salt
ANC first trimester	% 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
≥ 4ANC[1]	% women 15-49 y who received ≥4 ANC visits for the most recent live birth in the 5 y preceding the survey
Received MCP card[10]	% 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
Received IFA tab/syrup[3,8]	% 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
Tetanus injection[1]	% women 15-49 y whose most recent live birth in the 5 y preceding the survey was protected against neonatal tetanus
Deworming- pregnancy[3,8]	% women 15-49 y who took deworming medication during pregnancy for the most recent live birth in the 5 y preceding the survey
Weighing- pregnancy[3,5,6,7]	% women 15-49 y who were weighed during ANC for the most recent live birth in the 5 y preceding the survey
Birth preparedness counselling[1,2,3,4,5]	% 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
Breastfeeding counselling[1,3,5,6,7]	% 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
Counselling on keeping baby warm[1,5,6,7]	% 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
Cord care counselling[5,6,7,10]	% 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
Food supplementation – pregnancy[3,5]	% women 15-49 y with a child <6 y who received food supplements from ICDS during pregnancy
Health & nutrition education – pregnancy[5]	% women 15-49 y with a child <6 y who received health and nutrition education from ICDS during pregnancy
Malaria prevention- use of bed nets[2,4,5,10]	% 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
Institutional birth	% live births in the 5 y preceding the survey to women 15-49 y delivered in a health facility
Financial assistance (JSY)[6,7,8,10]	% 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
Skilled birth attendant	% live births in the 5 y preceding the survey to women 15-49 y that were assisted by a skilled provider
Postnatal care for mothers[10]	% 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
Postnatal care for babies[10]	% 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
Food supplementation – postnatal[3,5]	% women 15-49 y with a child <6 y who received food supplements from ICDS during breastfeeding
Health & nutrition education – postnatal[3,5]	% women 15-49 y with a child <6 y who received health and nutrition education from ICDS during breastfeeding
Health checkup (ICDS)[3,5]	% women 15-49 y with a child <6 y who received a health check-up from ICDS during breastfeeding
Full immunization	% children 12-23 m fully vaccinated based on information from either vaccination card or mother's recall
Vitamin A – early childhood[1]	% children 9-35 m who received a vitamin A dose in the 6 m preceding the survey
Pediatric IFA[3,4,5,10]	[11]% children 6-59 m who were given iron supplements in the 7 days preceding the survey [12]% children 6-36 m who were given iron supplements in the 7 days preceding the survey
Deworming – early childhood[3,4,5,10]	[11]% children 6-59 m who received deworming medication in the 6 m preceding the survey [12]% children 6-36 m who received deworming medication in the 6 m preceding the survey
Care seeking for ARI	% children <5 y with fever or symptoms of ARI in the 2 weeks preceding the survey taken to a health facility or health provider
ORS during diarrhea	% children <5 y with diarrhea in the 2 weeks preceding the survey who received Oral Rehydration Solutions (ORS)
Zinc during diarrhea	% children <5 y with diarrhea in the 2 weeks preceding the survey who received zinc
Food supplementation (children 6-35 months)[1,2,3,4,5]	% youngest children 6-35 m who received food supplements from ICDS in the 12 m preceding the survey
Weighing – early childhood[3,5]	% children <5 y who were weighed at an anganwadi centre (AWC) or ICDS centre in the 12 m preceding the survey
Counselling on child growth[3,5,10]	% 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
Preschool (AWC)[3,5]	% children 36-71 m who went for early childhood care/preschool at an AWC in the 12 m preceding the survey
Health checkup (AWC)[3,5]	% 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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[6]Indicator estimated using NFHS-4 unit-level data for union territories as their summary reports are not available (state level)

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[9]Indicator constructed following WHO guidelines

[10]Indicator not available in NFHS-3 and/or 4 tool or not comparable between NFHS-3/4 and 5

[11]Definition as per NFHS-3 and 4 construction

[12]Definition as per NFHS-5 construction

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Disclaimer: The maps used in this Data Note are based on the districts in NFHS-5 factsheets/reports . The boundaries shown do not imply any official endorsement or acceptance by IFPRI.

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.

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