

Data Note

No. 45 | SEPTEMBER 2021

JAMMU AND KASHMIR

State Nutrition Profile: Jammu and Kashmir

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 here are based on data from the National Family Health Survey (NFHS) 3 (2005-2006), 4 (2015-2016), and 5 (2019-2020). In addition to standard prevalence-based analyses, this Data Note includes headcount-based analyses aligned to the POSHAN Abhiyaan monitoring framework and uses data from NFHS-5 to provide evidence that helps identify priority districts and number of districts in the state with public health concern as per the WHO guidelines.1 The Data Note includes a color-coded dashboard to compare the coverage of nutrition interventions across all the districts in the state. It concludes with key takeaways for children, women, and men and identifies areas where the state has potential to improve.

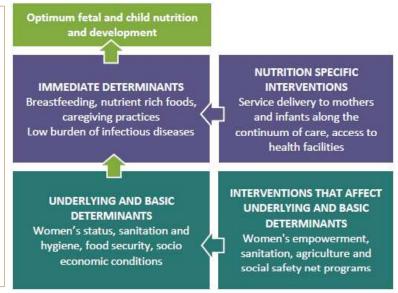
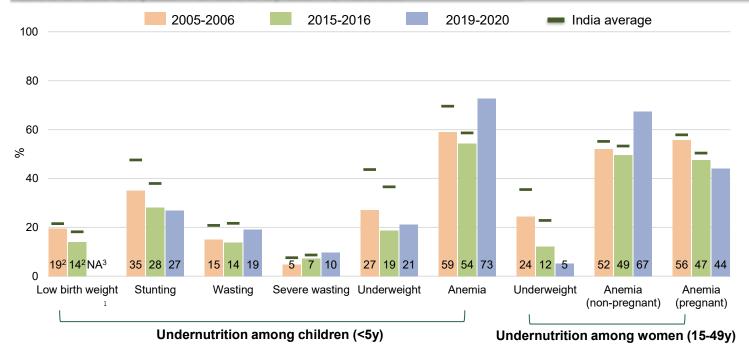


Figure 1. Trends in undernutrition outcomes 2005-2006, 2015-2016, 2019-2020



Source: NFHS-3 (2005-2006), NFHS-4 (2015-2016), and NFHS-5 state factsheets (2019-2020).

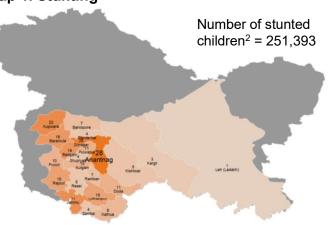
Note: Adult nutrition outcomes are based on the woman dataset, while child nutrition outcomes are based on all child data.

¹WHO. Nutrition Landscape Information System (NLiS). Help Topic: Malnutrition in children.

(https://apps.who.int/nutrition/landscape/help.aspx?menu=0&helpid=391&lang=EN).

Map 1 & 2. Number of stunted & anemic children <5y, 2019-2020

Map 1. Stunting

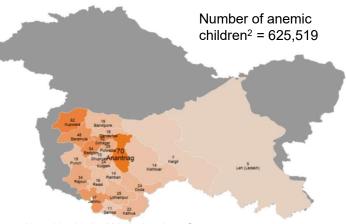


Note: Number in '000s in the above figure

Highest burden districts			
1	Anantnag	27,578	
2	Srinagar	24,680	
3	Kupwara	21,982	
4	Jammu	20,718	
5	Badgam	19,025	

No. of districts with public health concern¹: 18 of 20

Map 2. Anemia



Note: Number in '000s in the above figure

	Highest bur	den districts
1	Anantnag	69,576
2	Kupwara	62,491
3	Badgam	54,203
4	Srinagar	51,730
5	Baramulla	48,307

No. of districts with public health concern¹: 20 of 20

Map 3 & 4. Number of wasted children <5y, 2019-2020

Map 3. Wasting

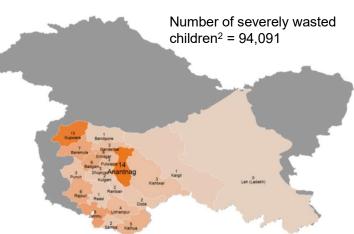


Note: Number in '000s in the above figure

	Highest burde	en districts
1	Anantnag	24,350
2	Kupwara	22,158
3	Srinagar	13,911
4	Baramulla	13,902
5	Jammu	13,812

No. of districts with public health concern1: 19 of 20

Map 4. Severe Wasting



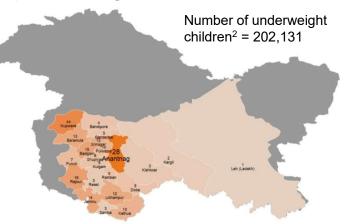
Note: Number in '000s in the above figure

	Highest bur	den districts
1	Anantnag	13,691
2	Kupwara	12,977
3	Jammu	7,980
4	Baramulla	6,722
5	Badgam	6,460

No. of districts with public health concern¹: 20 of 20

Map 5 & 6. Number of underweight children (<5y) & women (15-49y), 2019-2020

Map 5. Underweight children

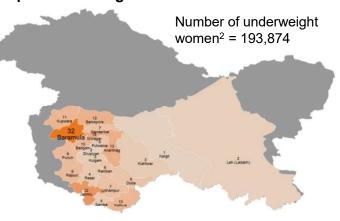


Note: Number in '000s in the above figure

Highest burden districts			
1	Anantnag	27,675	
2	Kupwara	22,512	
3	Rajouri	16,039	
4	Badgam	14,623	
5	Jammu	13,505	

No. of districts with public health concern¹: 11 of 20

Map 6. Underweight women



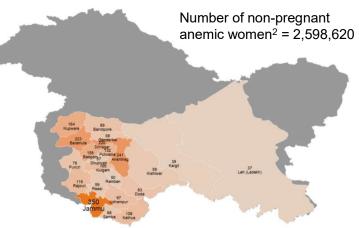
Note: Number in '000s in the above figure

	Highest burden distri	cts
1	Baramulla	32,372
2	Jammu	21,545
3	Srinagar	14,648
4	Anantnag	13,044
5	Bandipore	12,389

No. of districts with public health concern¹: 2 of 20

Map 7 & 8. Number of anemic women (15-49y), 2019-2020

Map 7. Anemia among non-pregnant women



Note: Number in '000s in the above figure

Highest burden districts			
1	Jammu	349,848	
2	Anantnag	240,841	
3	Baramulla	223,242	
4	Srinagar	219,726	
5	Kupwara	164,023	

No. of districts with public health concern¹: 20 of 20

Map 8. Anemia among pregnant women



Note: Number in '000s in the above figure

Highest burden districts			
1	Srinagar	37,940	
2	Jammu	30,289	
3	Baramulla	13,105	
4	Anantnag	12,408	
5	Udhampur	7,306	

No. of districts with public health concern¹: 14 of 20

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 (2019-2020; all child/woman data) 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.¹Public 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). ²The total number of children <5 years is 937,413, pregnant women 15-49 years is 374,141, and non-pregnant women 15-49 years is 3,452,875.

Figure 2. Trends in overweight/obesity & NCDs¹ 2005-2006, 2015-2016, 2019-2020

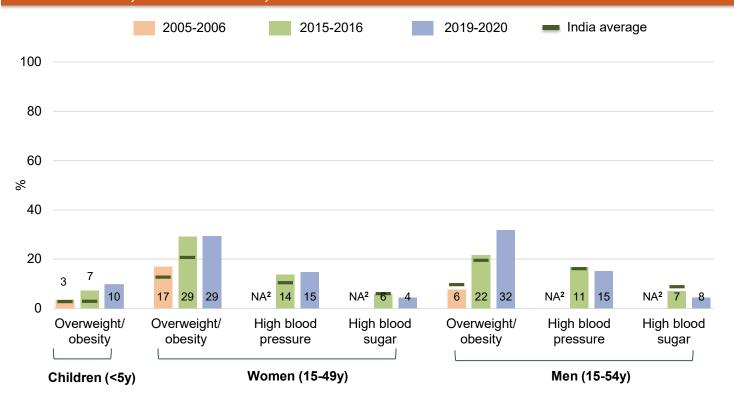


Table 1. Overweight/obesity & NCDs¹ at district-level 2015-2016, 2019-2020

Category	Outcomes	Worst performing districts (pp) ⁵	Best performing districts (pp) ⁵	Highest burden districts (thousands) ³	No of districts with public health concern ⁴ (total=20)
		Difference between (2019-2020) & (2015- 2016)	Difference between (2019-2020) & (2015- 2016)	2019-2020	2019-2020
Children <5 years	Overweight/ obesity	Kishtwar: +16.7 Kulgam: +15.9	Baramula: -7.6 Shupiyan: -5.8	Srinagar: 9 Badgam: 8	5
	Overweight/ obesity	Kathua: +13.6 Doda: +12.7	Srinagar: -13 Badgam: -6.1	Jammu: 196 Srinagar: 116	18
Women (15-49 years)	High blood pressure	Kathua: +7.8 Udhampur: +7.0	Kishtwar: -3.7 Srinagar: -3.3	Jammu:71 Baramulla: 53	1
	High blood sugar	Kathua: +3.4 Ramban: +2.8	Srinagar: -5.8 Shupiyan: -4.6	Jammu: 18 Anantnag: 15	0
	Overweight /obesity	Data not available a	nt district level		
Men (15-54 years)	High blood pressure	Udhampur: +8.2 Pulwama: +6.2	Ganderbal: -13.8 Rajouri: -10.7	Jammu: 85 Srinagar: 48	1
	High blood sugar	Ramban: +2.7 Udhampur: +2.0	Srinagar: -11.8 Jammu: -8.6	Jammu: 17 Kathua: 16	0

Source: NFHS-3 (2005-2006), NFHS-4 (2015-2016), and NFHS-5 state and district factsheets (2019-2020). pp: percentage points. Note: Adult nutrition outcomes are based on the woman/man dataset, while child nutrition outcomes are based on all child data.

¹NCDs: non-communicable diseases. ²NA refers to the unavailability of data for a particular indicator in the specified NFHS round. ³Burden: 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 (2019-2020) and projected population for 2019 was estimated using Census 2011.

⁴Public health concern is defined as prevalence ≥15% for overweight/obesity (children), ≥20% for overweight/obesity (women and men), ≥ 20% high blood pressure (women and men), and ≥20% high sugar (women and men) (WHO 2011). ⁵The difference is calculated only between districts that are comparable between 2015-2016 and 2019-2020. All districts in Jammu and Kashmir are comparable across both periods.

Figure 3. Trends in immediate determinants (%) 2005-2006, 2015-2016, 2019-2020

Category	Immediate determinants	2005-2006	2015-2016	2019-2020
	Early initiation of breastfeeding	32	50	56
	Exclusive breastfeeding	43	65	62
	Timely introduction of complementary foods ^o	32	54	42
DVOE	Continued breastfeeding at 2 years	100	82	
IYCF practices	Adequate diet ^o	= 11	24	1 4
	Eggs and/or flesh foods consumption, 6-23m	21	3 44	
	Sweet beverage consumption, 6-23m	1 4	39	
	Bottle feeding of infants, 6-23m	27	27	
Maternal	Women with body mass index <18.5 kg/m2º	29	1 1	5
determinants	Consumed IFA 100+ days	17	31	30
Diagram	Diarrhea in the last two weekso	1 3	8	6
Diseases	ARI in the last two weeks ^o	9 1	■ 6	4

Table 2. Immediate determinants at district-level 2015-2016, 2019-2020

Category	Immediate determinants	Worst performing Best performing districts (pp) ² districts (pp) ²		Top coverage districts (%)¹	
		Difference between (2019-2020) & (2015-2016)	Difference between (2019-2020) & (2015-2016)	2019-2020	
	Early initiation of breastfeeding	Rajouri: -18.8 Kishtwar: -9.6	Srinagar: +34.8 Doda: +26.0	Srinagar: 69.2 Kulgam: 74.7	
IYCF	Exclusive breastfeeding	Samba: -19.3 Udhampur: -16.6	Punch: +21.4 GayaKulgam +16.7	Gopalganj: 83.5 Sheohar: 83.5	
practices	Timely introduction of complementary foods ⁰	Data not available at district level			
	Adequate diet⁰	Samba: -25.5 Kulgam: -22.2	Badgam: +6.1 Shupiyan: +2.0	Kathua: 24.6 Bandipora: 21.7	
Maternal determinants	Women with BMI<18.5 kg/m2 ^o	Bandipore: +3.6 Srinagar: +2.5	Udhampur: -16.0 Rajouri: -15.9	Shopian: 2.0 Kulgam: 2.1	
determinants	Consumed IFA 100+ days	Udhampur: -31.3 Kathua: -24.5	Anantnag: +20.6 Kishtwar: +17.5	Jammu: 51.4 Samba: 46.5	
Diagonal	Diarrhea in the last two weeks ⁰	Udhampur: +9.2 Baramula: +6.4	Ramban: -44.2 Kishtwar: -40.5	Reasi: 0.9 Srinagar: 1.2	
Diseases	ARI in the last two weeks ⁰	Anantnag: +3.4 Udhampur: +3.0	Ramban: -16.6 Kishtwar: -14.8	Kulgam: 0.0 Doda: 0.0	

pp: percentage points. Source: NFHS-3 (2005-2006), NFHS-4 (2015-2016), and NFHS-5 state and district factsheets and state reports (2019-2020).

Note: Immediate determinants are based on the last child data; data on continued breastfeeding at 2 years, egg and/or flesh foods consumption, sweet beverage consumption, and bottle feeding of infants not available in NFHS-5 factsheets (2019-20)/state report

Olndicator definition differs slightly between NFHS-4 and NFHS-5. 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/m2, diarrhea in the last two weeks, and ARI in the last two weeks, for which it refers to the districts with the lowest prevalence in coverage. The difference is calculated only between districts that are comparable between 2015-2016 and 2019-2020. All districts in Jammu and Kashmir are comparable across both periods.

Figure 4. Trends in underlying determinants (%) 2005-2006, 2015-2016, 2019-2020

Category	Underlying determinants	2005-2006	2015-2016	2019-2020
	Women who are literate ^o	43	66	77
Maternal	Women with ≥10 years education ^o	21	33	51
determinants	Girls 20-24 years married before age of 18 years ^o	42	33	5
	Women 15-19 years with child or pregnant		3	1
	HHs with improved drinking water source ^o	76	87	92
	HHs with improved sanitation facility ^o	1 9	47	76
	HHs with hand washing facility	i	75	
Household determinants	Open defecation ^o	41	24	6
	Safe disposal of feces	33	54	
	HHs with BPL card ^o	28	38	55
	HHs with electricity ^o	93	96	99

Table 3. Underlying determinants at district-level 2015-2016, 2019-2020

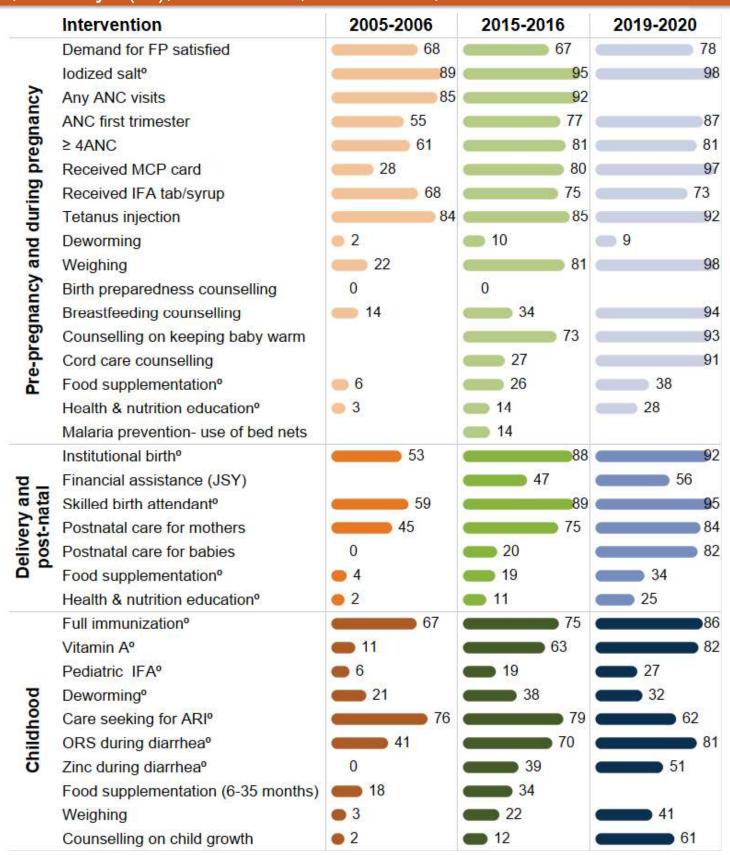
Category	Underlying determinants	Worst performing districts (pp) ³	Best performing districts (pp) ³	Top coverage districts (%) ²
		Difference between (2019-2020) & (2015-2016)	Difference between (2019-2020) & (2015-2016)	2019-2020
	Women who are literate⁰	Samba: -4.9	Ramban: +26.8 Doda: +25.0	Jammu: 91.5 Kathua: 87.7
Maternal	Women with ≥10 years education ^o	Not applicable ¹	Anantnag: +34.8 Shupiyan: +28.3	Jammu: 90.8 Kathua: 84.9
determinants	Girls 20-24 years married before age of 18 years ⁰	Not applicable ¹	Punch: -37.9 Rajouri: -36.7	Pulwama: 0.5 Kathua: 1.4
	Women 15-19 years with child or pregnant	Srinagar: +1.6 Badgam: +0.2	Kishtwar: -5.8 Doda: -4.6	Pulwama: 0.0 Kathua: 0.0
	HHs with improved drinking water source ⁰	Ramban: -8.2 Kulgam: -3.3	Udhampur: +14.6 Rajouri: +12.6	Jammu: 99.9 Anantnag: 99.3
Household determinants	HHs with improved sanitation facility ⁰	Not applicable ¹	Anantnag: +39.7 Udhampur: +37.5	Pulwama: 91.6 Srinagar: 86.8
	HHs with electricity⁰	Baramula: -1.3 Ganderbal: -0.2	Reasi: +9.4 Doda: +8.3	Srinagar: 100.0 Jammu: 100.0

pp: percentage points. Source: NFHS-3 (2005-2006), NFHS-4 (2015-2016), and NFHS-5 state and district factsheets and state reports (2019-2020). Note: Underlying determinants are based on the last child data; safe disposal of feces not available in NFHS-5 factsheets (2019-20)/state report and data on HHs with hand washing facility not available in NFHS-3 (2005-06) and NFHS-5 factsheets (2019-20)/state report. Data on open defecation and HHs with BPL card for 2019-2020 are taken from NFHS-5 state reports.

⁰Indicator definition differs slightly between NFHS-4 and NFHS-5. ¹Prevalence did not increase or decrease in any of the districts.

²For all indicators, top coverage districts refer to the districts with the highest prevalence in underlying determinants, except for girls 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. ³The difference is calculated only between districts that are comparable between 2015-2016 and 2019-2020. All districts in Jammu and Kashmir are comparable across both periods.

Figure 5. Trends in coverage of interventions across the first 1,000 days (%), 2005-2006, 2015-2016, 2019-2020



Source: NFHS-3 (2005-2006), NFHS-4 (2015-2016) & NFHS-5 state factsheets and state reports (2019-2020). ⁰Indicator comparable between NFHS-3 and NFHS-4 but differs slightly from NFHS-5.

Note 1: Interventions' coverage is based on the last child data.

Note 2: The following information is not available in the NFHS-5 factsheets and state reports (2019-20): receipt of at least one ANC visit, birth preparedness counselling, malaria prevention and food supplementation (6-35m). Information on use of bed nets during pregnancy is not available in NFHS-3 data (2006). Note 3: Data on food supplementation and health and nutrition education during pregnancy and post-natal care, and weight measurement during childhood and counselling on child growth for 2019-2020 are taken from NFHS-5 state reports.

Intervention coverage at district-level, 2019-2020

District name	Pre- pregnancy						۵	Pregnancy							_	Delivery & postnata	r & post	tnatal						Early o	Early childhood	p			
	97 rof bnem90 b9itzifsez flsz b9zibol	stisiv DNA ynA	ANC first trimester ≥4 ANC	PRECEIVED MCP Card	A-II bevieceA	tab/syrup Tetanus injection	Deworming	gningieW	Birth preparedness counselling Briseastfeeding gnillasnoo	Counselling on keeping baby warm Cord care counselling	Food supplementation	Health & nutrition	Malaria prevention- stan bed fo seu	htrid lenoitutitenl	Financial assistance (YSt)	Skilled birth attendant	Postnatal care for mothers	Postnatal care for seided	noitetnemelqqus boo7	education	noitezinummi llu7	A nimstiV All ointsibes4	Deworming	Lare seeking for ARI	ORS during diarrhea	e9dring diarrhea	noitetnəməlqqus boo7 (sritnom 25-3)	gnidgiəW	Counselling on child growth
JAMMU AND KASHMIR	98.1	86	86.6 80.9	9 97.3	3 72.5	5 91.9	8.8							92.4	56.4	95.1	84.2	81.5		æ	86.2 82	2.3		62.3	80.8	50.5			
Anantnag	98.3	82.	0 80	9 97.8	3 68.5	5 97.8	3 18.0							90.5	6.79	98.1	85.1	81.3		ω	83.3 88	3.3		82.3					
Badgam	6.86	83.	3.3 66.5	5 93.4	1 79.6	5 97.5	5 14.0							96.5	0.69	98.5	88.7	86.3		01	92.5 93	3.5		62.1					
Bandipore	98.5	82	.9 82	6 97.5	5 73.9	9 91.1	6.8							97.8	35.3	93.7	82.6	81.9		01	90.3 84	1.5		66.1					
Baramula	99.1	84	84.0 75.2	2 96.0	76.2	2 88.2	0.6							96.2	48.5	0.76	80.1	76.0		7	73.7 83	3.4		70.3	57.0	42.2			
Doda	7.76	98	86.3 74.3	3 98.3	3 59.6	5 79.5	6.0							73.5	43.2	75.6	71.6	71.6		9	61.7 55	5.4							
Ganderbal	7.76	98	708 6.98	.4 95.5	5 72.7	7 88.8	3 3.2							0.86	58.1	98.6	88.4	87.0		8	81.2 83	3.6		62.3					
Jammu	6.86	93	93.2 95.4	4 99.0	0.28	0.26	3.4							96.5	9.95	0.76	92.2	86.0		3	84.1 85.	9.6							
Kathua	0.86	83	83.2 31.6	6 98.1	1 76.1	1 89.4	1 44.1							97.1	31.3	98.5	81.2	77.1		1	100.0	3.3							
Kishtwar	94.7	98	80.3 76.4	4 95.8	3 80.5	5 89.3	3 15.3							91.6	36.7	94.1	75.7	75.4		U)	91.6 67	0.7		77.0					
Kulgam	8.76	98	95.5 92.2	7.76 2	62.9	9 93.1	8.0 1							6.86	63.3	9.66	91.5	97.6		01	98.1 92	5.6							
Kupwara	98.5	83.	3.7 89.3	2 99.3	3 79.3	3 96.8	3 6.2							97.1	64.6	0.66	90.5	9.68		55	93.2 89	9.0		62.3	95.9	61.0			
Pulwama	986	96	.96 9.96	2 98.9	9 71.9	90.7	6.3							8.76	57.6	98.1	95.0	93.7		3	88.8	5.2							
Punch	6.86	08	80.5 86.4	4 98.0	0.87	94.4	1 11.6							0.98	65.3	93.8	81.7	6.87		5	91.2 81	0.1		79.5					
Rajouri	0.96	82	82.5 71.9	9 95.4	1 63.4	1 94.3	3 9.0							88.8	9.99	94.4	78.7	75.8		01	95.0 81	0.1		38.0	76.7	47.4			
Ramban	986	84	84.6 79.2	2 95.9	9.07 6	5 92.9	6.8							80.4	63.1	91.7	71.3	70.1		7	78.9 70.	7.0		47.0					
Reasi	92.3	83	83.4 75.9	9 92.9	9 58.2	2 86.5	5 6.4							69.3	43.9	73.3	64.7	9.89		7	79.1 73.	3.5							
Samba	7.86	98	36.6 96.3	2 100.0	0 78.5	5 84.5	5 6.1							6.76	47.9	0.66	92.3	9.78		U)	90.9	3.5		8.69					
Shupiyan	98.5	98	80.8 86.8	8. 96.9	9 78.5	5 92.3	3 10.7							98.3	58.2	97.5	84.5	83.0		o,	92.2 69.	7.6							
Srinagar	0.66	95	95.2 85.:	1 97.8	3 62.2	92.4	1 0.5							99.2	53.2	99.2	6.06	88.8		0)	90.9	5.2							
Udhampur	96.1	38	80.1 69.8	8 97.3	3 67.1	1 93.7	7 8.1							87.2	67.3	91.1	71.2	69.1		3	85.8 80	0.1		56.4	86.2	44.3			

Not Available

%08>-09

40-<60%

Source: NFHS-5 district factsheets and state reports (2019-20).

receipt of at least one ANC visit, weighing, birth preparedness and breastfeeding counselling, counselling on keeping baby warm, cord care counselling, food supplementation, health and nutrition education and Note 1: The following information is not available in the NFHS-5 factsheets and state reports (2019-20): (1) Information on preconception and pregnancy-related indicators including demand for FP satisfied, malaria prevention; (2) Lactation-related indicators including, food supplementation and health and nutrition education; and (3) early childhood-related indicators including pediatric IFA, deworming, food supplementation (6-35m), weighing and counselling on child growth. Information on use of bed nets during pregnancy not available in NFHS-3 data (2005-2006).

Note 2: Food supplementation during early childhood is for children aged 6-35 months; counselling on child growth during early childhood is conducted after taking weight measurement.

Table 4. Intervention coverage at district-level 2015-2016, 2019-2020

Category	Interventions	Worst performing districts (pp) ¹	Best performing districts (pp) ¹	Top coverage districts (%)
		Difference between (2019-2020) & (2015-2016)	Difference between (2019-2020) & (2015-2016)	2019-2020
	ANC first trimester	Shupiyan: -8.1 Badgam: -3.1	Doda: +44.4 Reasi: +29.3	Pulwama: 96.6 Kulgam: 95.5
	≥4 ANC visits	Kathua: -61.7 Badgam: -29.2	Doda: +37.3 Ramban: +28.2	Samba: 96.2 Pulwama: 96.2
Pregnancy	Received MCP Card	Badgam: -3.4	Doda: +45.6 Rajouri: +34.3	Samba: 100.0 Kupwara: 99.3
	Tetanus injection	Baramula: -4.4 Pulwama: -3.9	Rajouri: +26.5 Doda: +20.0	Anantnag: 97.8 Badgam: 97.5
	Institutional birth°	Anantnag: -2.0 Srinagar: -0.4	Kishtwar: +27.2 Doda: +22.0	Srinagar: 99.2 Kulgam: 98.9
Delivery and	Skilled birth attendant°	Srinagar: -0.4	Kishtwar: +26.6 Ramban: +26.6	Kulgam: 99.6 Srinagar: 99.2
post-natal	Postnatal care for mothers	Ganderbal: -3.4 Baramula: -1.7	Doda: +32.5 Rajouri: +24.0	Pulwama: 95 Samba: 92.3
	Postnatal care for babies°	Not applicable ¹	Udhampur: +25.6 Kathua: +38.1	Pulwama: 93.7 Kulgam: 92.6
	Full immunization	Baramula: -5.5 Pulwama: -3.0	Rajouri: +50.0 Bandipore: +22.6	Kathua: 100.0 Kulgam: 98.1
	Vitamin A supplementation°	Kishtwar: -11.6 Ramban: -10.5	Kathua: +48.5 Jammu: +37.6	Badgam: 93.5 Kulgam: 92.6
Early childhood	Care seeking for ARI°	Ramban: -37.8 Badgam: -34.4	Kishtwar: +4.4 Anantnag: +3.4	Anantnag: 82.3 Poonch: 79.5
	ORS treatment during diarrhea°	Baramula: -17.0 Udhampur: -0.3	Kupwara: +39.9 Rajouri: +25.1	Kupwara: 95.9 Udhampur: 86.2
	Zinc treatment during diarrhea°	Baramula: -6.6	Kupwara: +26.2 Udhampur: +7.4	Kupwara: 61.0 Rajouri: 47.4

Key takeaways

Children: Stunting and wasting prevalence declined by 7 percentage points (pp) and 1pp respectively, between 2006 and 2016; stunting continued to decline by 1pp while wasting increased by 5pp between 2016 and 2020. Underweight declined by 8pp between 2006 and 2016 and continued to decline by 3pp between 2016 and 2020. Anemia declined by 5pp between 2006 and 2016 but increased by 19pp between 2016 and 2020.

Women: Underweight declined by 12pp between 2006 and 2016 and continued to decline by 7pp between 2016 and 2020. Anemia decreased by 3pp and 9pp among non-pregnant and pregnant women respectively, between 2006 and 2016; but increased by 18pp among non-pregnant women and decreased by 3pp among pregnant women between 2016 and 2020. Overweight/obesity increased by 12pp between 2006 and 2016 and remained constant at 29 percent between 2016 and 2020

Men: Overweight/obesity increased by 16pp between 2006 and 2016 and further increased by 10pp between 2016 and 2020.

Attention is needed to improve (%s in 2020):

- Outcomes: Anemia in children (73%) non-pregnant women (67%) and pregnant women (44%)
- Immediate determinants: Timely introduction of complementary foods (42%) adequate diet (14%); 100+ IFA (30%)
- Underlying determinants: Women with ≥ 10 years education (51%)
- Coverage of interventions: Food supplementation for women (34-38%); health and nutrition education for women (36-39%); postnatal care for mothers and children (25-28%); growth monitoring of children (41%)

Source: NFHS-3 (2005-2006), NFHS-4 (2015-2016), and NFHS-5 state and district factsheets (2019-2020). pp: percentage points. Note: Interventions' coverage are based on the last child data. ⁰Indicator definition differs slightly between NFHS-4 and NFHS-5. ¹Prevalence did not increase or decrease in any of the districts. ¹The difference is calculated only between districts that are comparable between 2015-2016 and 2019-2020. All districts in Jammu and Kashmir are comparable across both periods.

Indicator definition

Low birth weight Percentage of live births in the five years preceding the survey with a reported birth weight less than 2.5 kg, based or either a written record or the mother's recall Stunting among children Percentage of children aged 0-59 months who are stunted i.e., height-for-age z score < -2SD Wasting among children Percentage of children aged 0-59 months who are wasted i.e., weight-for-height z score < -2SD Severe wasting among children Percentage of children aged 0-59 months who are wasted i.e., weight-for-height z score < -3SD Underweight children Percentage of children aged 0-59 months who are underweight i.e., weight-for-age z score < -2SD Percentage of children aged 0-59 months who are anemic i.e., (Hb <11.0 g/dl) Underweight women Anemia among non-pregnant women Anemia among pregnant women Overweight/obesity - children Overweight/obesity - children Overweight/obesity - women Overweight/obesity - women Overweight/obesity - men High blood pressure among women High blood pressure among women High sugar level among women High sugar level among women Percentage of live births in the five years preceding the survey with a reported birth weight less than 2.5 kg, based or either a written record or the mother's recall Percentage of children aged 0-59 months who are wasted i.e., height-for-height z score < -2SD Percentage of hon-pregnant wom aged 15-49 who are anemic i.e., weight-for-height z score < -2SD Percentage of non-pregnant women aged 15-49 who are anemic (<11.0 g/dl) Percentage of children aged 0-59 months who are anemic (<11.0 g/dl) Percentage of children aged 0-59 months who are overweight i.e., weight-for-height z score < -2SD Percentage of children aged 15-49 who are anemic i.e., (Hb <11.0 g/dl) Percentage of children aged 15-49 who are anemic (<12.0 g/dl) Percentage of men aged 15-54 who are overweight i.e., weight-for-height z score < 2SD Percentage of men aged 15-54 who are overweight or obese (BMI ≥25.0 kg/m2) Percentage of men aged 15-54 with elevated bloo
either a written record or the mother's recall Stunting among children Percentage of children aged 0-59 months who are stunted i.e., height-for-age z score < -2SD Percentage of children aged 0-59 months who are wasted i.e., weight-for-height z score < -2SD Severe wasting among children Percentage of children aged 0-59 months who are wasted i.e., weight-for-height z score < -3SD Underweight children Percentage of children aged 0-59 months who are underweight i.e., weight-for-age z score < -2SD Anemia among children Percentage of children aged 0-59 months who are underweight i.e., weight-for-age z score < -2SD Percentage of children aged 6-59 months who are anemic i.e., (Hb <11.0 g/dl) Percentage of women aged 15-49 whose Body Mass Index (BMI) is below normal (BMI <18.5 kg/m2) Percentage of non-pregnant women aged 15-49 who are anemic (<12.0 g/dl) Percentage of pregnant women aged 15-49 who are anemic (<11.0 g/dl) Percentage of children aged 0-59 months who are overweight i.e., weight-for-height z score > 2SD Overweight/obesity - children Overweight/obesity - women Overweight/obesity - men High blood pressure among women^h High blood pressure among men^h Percentage of men aged 15-54 who are overweight or obese (BMI ≥25.0 kg/m2) Percentage of women aged 15-49 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg) Percentage of men aged 15-54 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg)
Wasting among children Severe wasting among children Percentage of children aged 0-59 months who are wasted i.e., weight-for-height z score < -2SD Percentage of children aged 0-59 months who are wasted i.e., weight-for-height z score < -3SD Underweight children Percentage of children aged 0-59 months who are underweight i.e., weight-for-age z score < -2SD Anemia among children Percentage of children aged 6-59 months who are anemic i.e., (Hb <11.0 g/dl) Percentage of women aged 15-49 whose Body Mass Index (BMI) is below normal (BMI <18.5 kg/m2) Anemia among non-pregnant women Anemia among pregnant women Percentage of non-pregnant women aged 15-49 who are anemic (<12.0 g/dl) Percentage of pregnant women aged 15-49 who are anemic (<11.0 g/dl) Percentage of children aged 0-59 months who are overweight i.e., weight-for-height z score > 2SD Overweight/obesity - women Overweight/obesity - women Percentage of men aged 15-54 who are overweight or obese (BMI ≥25.0 kg/m2) Percentage of men aged 15-49 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg) Percentage of men aged 15-54 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg)
Severe wasting among childrenPercentage of children aged 0-59 months who are wasted i.e., weight-for-height z score < -3SDUnderweight childrenPercentage of children aged 0-59 months who are underweight i.e., weight-for-age z score < -2SD
Underweight children Anemia among children Underweight women Percentage of children aged 0-59 months who are underweight i.e., weight-for-age z score < -2SD Percentage of children aged 6-59 months who are anemic i.e., (Hb <11.0 g/dl) Percentage of women aged 15-49 whose Body Mass Index (BMI) is below normal (BMI <18.5 kg/m2) Anemia among non-pregnant women Anemia among pregnant women Overweight/obesity - children Overweight/obesity - women Overweight/obesity - women Overweight/obesity - men High blood pressure among women^ High blood pressure among men^ Percentage of children aged 0-59 months who are underweight i.e., weight-for-age z score < -2SD Percentage of women aged 15-49 whose Body Mass Index (BMI) is below normal (BMI <18.5 kg/m2) Percentage of non-pregnant women aged 15-49 who are anemic (<12.0 g/dl) Percentage of pregnant women aged 15-49 who are anemic (<11.0 g/dl) Percentage of children aged 0-59 months who are overweight i.e., weight-for-height z score > 2SD Overweight/obesity - women Overweight/obesity - men High blood pressure among women^ High blood pressure among men^ Percentage of men aged 15-49 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg) Percentage of men aged 15-54 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg)
Anemia among children Underweight women Percentage of children aged 6-59 months who are anemic i.e., (Hb <11.0 g/dl) Percentage of women aged 15-49 whose Body Mass Index (BMI) is below normal (BMI <18.5 kg/m2) Anemia among non-pregnant women Anemia among pregnant women Overweight/obesity - children Overweight/obesity - women Overweight/obesity - women Overweight/obesity - men High blood pressure among women^ High blood pressure among men^ Percentage of children aged 6-59 months who are anemic i.e., (Hb <11.0 g/dl) Percentage of non-pregnant women aged 15-49 who are anemic (<12.0 g/dl) Percentage of pregnant women aged 15-49 who are overweight i.e., weight-for-height z score > 2SD Overweight/obesity - women Percentage of men aged 15-54 who are overweight or obese (BMI ≥25.0 kg/m2) Percentage of men aged 15-49 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg) Percentage of men aged 15-54 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg)
Underweight women Percentage of women aged 15-49 whose Body Mass Index (BMI) is below normal (BMI <18.5 kg/m2) Anemia among non-pregnant women Percentage of non-pregnant women aged 15-49 who are anemic (<12.0 g/dl) Anemia among pregnant women Percentage of pregnant women aged 15-49 who are anemic (<11.0 g/dl) Overweight/obesity - children Percentage of children aged 0-59 months who are overweight i.e., weight-for-height z score > 2SD Overweight/obesity - women Percentage of men aged 15-54 who are overweight or obese (BMI ≥25.0 kg/m2) Percentage of men aged 15-49 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg) Percentage of men aged 15-54 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg)
Anemia among non-pregnant women Anemia among pregnant women Anemia among pregnant women Anemia among pregnant women Overweight/obesity - children Overweight/obesity - women Overweight/obesity - women Overweight/obesity - men High blood pressure among women^ High blood pressure among men^ Percentage of non-pregnant women aged 15-49 who are anemic (<12.0 g/dl) Percentage of pregnant women aged 15-49 who are overweight i.e., weight-for-height z score > 2SD Overweight/obesity - women Percentage of men aged 15-54 who are overweight or obese (BMI ≥25.0 kg/m2) Percentage of men aged 15-49 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg) Percentage of men aged 15-54 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg)
women Anemia among pregnant women Overweight/obesity - children Overweight/obesity - women Overweight/obesity - men High blood pressure among women^ High blood pressure among men^ High blood pressure among men^ Percentage of pregnant women aged 15-49 who are anemic (<12.0 g/dl) Percentage of pregnant women aged 15-49 who are overweight i.e., weight-for-height z score > 2SD Percentage of men aged 15-54 who are overweight or obese (BMI ≥25.0 kg/m2) Percentage of men aged 15-54 who are overweight or obese (BMI ≥25.0 kg/m2) Percentage of women aged 15-49 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg) Percentage of men aged 15-54 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg)
Overweight/obesity - children Overweight/obesity - women Overweight/obesity - women Overweight/obesity - men Overweight/obesity - men High blood pressure among women^ High blood pressure among men^ Overweight/obesity - men Overweight or obese (BMI ≥25.0 kg/m2) Overweight/obesity - men Overweigh
Overweight/obesity - women Overweight/obesity - men High blood pressure among men^ Percentage of men aged 15-54 who are overweight or obese (BMI ≥25.0 kg/m2) Percentage of men aged 15-54 who are overweight or obese (BMI ≥25.0 kg/m2) Percentage of men aged 15-49 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg) Percentage of men aged 15-54 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg)
Overweight/obesity - men High blood pressure among women Percentage of men aged 15-54 who are overweight or obese (BMI ≥25.0 kg/m2) Percentage of men aged 15-49 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg) Percentage of men aged 15-54 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg)
High blood pressure among women [^] Percentage of women aged 15-49 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg) High blood pressure among men [^] Percentage of men aged 15-54 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg)
High blood pressure among men^ Percentage of men aged 15-54 with elevated blood pressure (Systolic >140 mm Hg or diastolic >90 mm Hg)
High sugar level among women. Percentage of women aged 15.40 with elevated blood pressure (Systolic >140 mm Hg or diastolic >00 mm Hg)
riigh sagai level among women in the citating of women aged 13-43 with citating blood pressure (Oystolic 7140 min rig of diastolic 730 min rig)
High sugar level among men^ Percentage of men aged 15-54 with high blood sugar levels (141-160 mg/dl)
Immediate determinants
Early initiation of breastfeeding Percentage of children under aged 3 years breastfed within one hour of birth for the last child born in the 3 years before the survey
Exclusive breastfeeding Percentage of youngest children under age 6 months living with mother who were exclusively breastfed
Timely introduction of complementary foods ⁰ Timely introduction of previous day; ² Percentage of youngest children aged 6-8 months living with mother who received solid or semi-solid food and breastmilk
Continued breastfeeding at 2 years\$ Percentage of youngest children 12–23 months of age who were fed breast milk during the previous day
Adequate diet Percentage of youngest children 6–23 months of age who consumed a minimum acceptable diet during the previous day
Eggs and/or flesh foods Percentage of youngest children 6–23 months of age who consumed egg and/or flesh food during the previous day
consumptions Sweet beverages Percentage of youngest children 6–23 months of age who consumed a sweet beverage during the previous day
Bottle feeding for infants ^{\$} Percentage of youngest children 0–23 months of age who were fed from a bottle with a nipple during the previous day
Women with body mass index 1Percentage of women aged 15-49 with a youngest child < 5 years who have BMI below normal (BMI <18.5 kg/m²);
<18.5 kg/m ^{2 0} ² Percentage of women aged 15-49 whose BMI is below normal (BMI <18.5 kg/m ²)
Consumed IFA 100+ days Percentage of mothers aged 15-49 who consumed iron folic acid for 100 days or more during the last pregnancy in last five years preceding the survey
Diarrhea in the last two weeks ⁰ 1Percentage of youngest children under age five who had diarrhea in the two weeks preceding the survey; 2Percentage of children under age 5 who had diarrhea in the 2 weeks preceding the survey
¹ Percentage of youngest children under age five who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey; ² Percentage of children under age five who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey
Underlying determinants
¹ Percentage of women aged 15-49 with a birth in five years preceding the survey who are literate i.e., those who completed standard 6 or higher and can read a whole sentence; ² Percentage of women aged 15-49 who are literate i.e., those who completed standard 9 or higher and can read a whole sentence or part of a sentence.
Women with ≥10 years education ⁰ 1Percentage of women aged 15-49 with a birth in five years preceding the survey with 10 or more years of schooling 2Percentage of women aged 15-49 with 10 or more years of schooling
Girls 20-24 years married before age of 18 years ¹ Percentage of women aged 20-24 years with a birth in five years preceding the survey who were married before age 18 years; ² Percentage of women aged 20-24 years who were married before age 18 years
Women 15-19 years with child or pregnant Percentage of currently married women aged 15-49 who had their first birth before age 20 years and in the five years preceding the survey
HHs with improved drinking water source ⁰ 1Percentage of youngest children under age 5 living in household that use an improved source of drinking water; 2Population living in households that use an improved sanitation facility
HHs with improved sanitation facility ⁰ 1Percentage of youngest children under age 5 living in household that uses improved toilet facility; ² Population living in households that use an improved sanitation facility
HHs with hand washing facility* Percentage of youngest children under age 5 living in household that had soap and water for washing hands
Open defecation [®] Percentage of youngest children under age 5 living in household that has no toilet facility/defecates in open
Safe disposal of feces ^{\$} Percentage of youngest children living with mother whose stools were disposed of safely
HHs with BPL card [®] Percentage of youngest children under age 5 living in households with BPL card 1 Descentage of youngest children under age 5 living in household that has electricity 2 Deputation living in household.
HHs with electricity ⁰ 1Percentage of youngest children under age 5 living in household that has electricity; ² Population living in household with electricity

[^] Indicator not available in NFHS-3. \$ Indicator not available in NFHS-5 factsheets/state reports ⁰Indicator comparable between NFHS-3 and NFHS-4 but differs slightly from NFHS-5. [@] Indicator not available in NFHS-5 factsheets but available in NFHS-5 states reports.
¹ Definition per NFHS-3/NFHS-4. ² Definition as per NFHS-5 factsheet.

Indicator definition

Interventions Definition Demand for FP satisfied@ Percentage of currently married women aged 15-49 with demand for family planning satisfied by modern methods lodized salt⁰ ¹Percentage of women aged 15-49 living in HHs that use iodized salt; ²Percentage of households using iodized salt Any ANC visits\$ Percentage of women aged 15-49 with a live birth in the five years who received at least one ANC for the last birth ANC first trimester Percentage of women (15-49 years of age) attended by any provider during the first trimester of pregnancy that led to the birth of the youngest child in the last 2 years ≥ 4ANC Percentage of mothers aged 15-49 who had at least 4 antenatal care visits for last birth in the 5 years before the survey Received MCP card Percentage of mothers who registered last pregnancy in the 5 years preceding the survey for which she received a Mother and Child Protection (MCP) card Received IFA tab/syrup@ Percentage of women who received IFA (given or purchased) tablets during the pregnancy for their most recent live birth in the 5 years preceding the survey Tetanus injection Percentage of women whose last birth was protected against neonatal tetanus (for last birth in the five years preceding the survey) Deworming- pregnancy@ Percentage of women who took an intestinal parasite drug during the pregnancy for their most recent live birth in the 5 years preceding the survey Weighing- pregnancy@ Percentage of women aged 15-49 with a live birth in the five years preceding the survey who were weighed during ANC for the last birth Birth preparedness counselling\$ Percentage of women who had at least one contact with a health worker in the three months preceding the survey and were counselled on birth preparedness; calculated among women aged 15-49 who gave birth in the five years preceding the survey Breastfeeding counselling@ Percentage of women who met with a community health worker in the last three months of pregnancy and received advice on breastfeeding (for the last pregnancy in the five years preceding the survey) Counselling on keeping baby Percentage of women who met with a community health worker in the last three months of pregnancy and received advice on keeping the baby warm for their most recent live birth in the five years preceding the survey Cord care counselling\@ Percentage of women who met with a community health worker in the last three months of pregnancy and received advice on cord care for their most recent live birth in the five years preceding the survey Percentage of youngest children under age 5 whose mother received supplementary food from AWC during Food supplementation pregnancy@ pregnancy; ³Among children under 6 years, percentage whose mother received specific benefits from AWC during pregnancy: supplementary food Health & nutrition education -Percentage of mothers who received health and nutrition education from an Anganwadi Centre (AWC) during last pregnancy in the five years preceding the survey; 3Among children under 6 years, percentage whose mother received pregnancy@ specific benefits from AWC during pregnancy; health and nutrition education Malaria prevention- use of bed Percentage of women who used mosquito net during the pregnancy for their most recent live birth in the 5 years nets^\$ preceding the survey Institutional birth⁰ ¹Percentage of women aged 15-49 who gave birth in health/institutional facility for their most recent live birth in the 5 years preceding the survey; ²Percentage of live births to women aged 15-49 in the five years preceding the survey that took place in a health/institutional facility Financial assistance (JSY)@ Percentage of women who received financial assistance under JSY for their most recent live birth that took place in institutional facility in the 5 years preceding the survey ¹Percentage of women whose last delivery was attended by a skilled health personnel for their most recent live birth Skilled birth attendant⁰ in the 5 years preceding the survey; ²Percentage of births attended by skilled health personnel for births in the 5 years before the survey Percentage of mothers who received postnatal care from a doctor/nurse/LHV/ANM/midwife/other health personnel Postnatal care for mothers within 2 days of delivery for their most recent live birth in the five years preceding the survey Percentage of children who received postnatal care from a doctor /nurse /LHV /ANM /midwife /other health personnel Postnatal care for babies within 2 days of delivery for last birth in the 5 years before the survey Food supplementation - postnatal@ Percentage of youngest children under age 5 whose mother received supplementary food from AWC while breastfeeding; ³Among children under 6 years, percentage whose mother received specific benefits from AWC while breastfeeding: supplementary food Health & nutrition education -Percentage of youngest children under age 5 whose mother received health check-ups from AWC while postnatal@ breastfeeding; 3Among children under 6 years, percentage whose mother received specific benefits from AWC while breastfeeding: health and nutrition education Full immunization⁰ Percentage of youngest living children aged 12-23 months fully vaccinated based on information from either vaccination card or mother's recall; ²Percentage of children aged 12-23 months fully vaccinated based on information from either vaccination card or mother's recall Vitamin A - early childhood⁰ Percentage of youngest children aged 6-59 months who received Vitamin A supplementation in the last 6 months preceding the survey; 2 Percentage of children aged 9-35 months who received a vitamin A dose in the last 6 months Pediatric IFA⁰@ Percentage of youngest children aged 6-59 months who received iron supplements in the past 7 days preceding the survey Deworming - early childhood^{o@} Percentage of youngest children aged 6-59 months who received deworming tablets in the last 6 months preceding the survey Care seeking for ARI⁰ Percentage of youngest children under age 5 years with fever or symptoms of ARI in the 2 weeks preceding the survey taken to a health facility or health provider; ²Percentage of children under age 5 years with fever or symptoms of ARI in the 2 weeks preceding the survey taken to a health facility or health provider ORS during diarrhea0 ¹Percentage of youngest children under age 5 years with diarrhea in the 2 weeks preceding the survey who received oral rehydration salts (ORS); 2Percentage of children under age 5 years with diarrhea in the 2 weeks preceding the survey who ORS Zinc during diarrhea⁰ Percentage of youngest children under age 5 years with diarrhea in the 2 weeks preceding the survey who received zinc; ²Percentage of children under age 5 years with diarrhea in the 2 weeks preceding the survey who received zinc Food supplementation (children 6-Percentage of youngest children aged 6-35 months who received food supplements from AWC in the 12 months 35 months)\$ preceding the survey Weighing - early childhood@ Percentage of youngest children under age 5 who were weighed at AWC in the 12 months preceding the survey Counselling on child growth@ Percentage of youngest children under age 5 whose mother received counselling from an AWC after child was weighed in the 12 months preceding the survey

[^]Indicator not available in NFHS-3. Indicator not available in NFHS-5 factsheets/state reports. Indicator not available in NFHS-5 factsheets but available in NFHS-5 states reports. Indicator comparable between NFHS-3 and NFHS-4 but differs slightly from NFHS-5.
Indicator not available in NFHS-5 factsheets but available in NFHS-5 factsheets but available in NFHS-5 states reports.

Led by IFPRI

AUTHORS

Anita Christopher, Research Analyst, IFPRI Rasmi Avula. 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

Purnima Menon, Senior Research Fellow, IFPRI

Phuong Hong Nguyen, Senior Research Fellow, IFPRI

SUGGESTED CITATION

Christopher, A., R. Avula, S.K. Singh, R. Sarwal, N. Bhatia, R. Johnston, W. Joe, P. Menon, and P.H. Nguyen. 2021. *State Nutrition Profile: Jammu & Kashmir*. POSHAN Data Note 45. New Delhi, India: International Food Policy Research Institute.

ACKNOWLEDGEMENTS

Financial support for this Data Note was provided by the Bill & Melinda Gates Foundation through POSHAN, led by the International Food Policy Research Institute. The funder played no role in decisions about the scope of the analysis or the contents of the Note.

We thank Long Quynh Khuong (Independent Researcher) for creating the maps, Nishmeet Singh (IFPRI) and Anjali Pant (IFPRI) for working with the dataset and Julie Ghostlaw (IFPRI) & Abhilasha Vaid (Consultant) for editing and reviewing the Note.

PARTNERS

Institute of Economic Growth (IEG)
International Institute for Population Science (IIPS)
NITI Aayog
UNICEF









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.

CONTACT US

Email: 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 www.ifpri.org

This publication has been prepared by POSHAN. It has not been peer reviewed. Any opinions stated herein are those of the author(s) and do not necessarily reflect the policies of the International Food Policy Research Institute.

Copyright © 2021 International Food Policy Research Institute. All rights reserved. For permission to republish, contact ifpri-copyright@cgiar.org.