

Data Note

No. 66 | MARCH 2022

GUJARAT

State Nutrition Profile: Gujarat

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 estimates using unit-level data, data from national and state reports from the National Family Health Survey (NFHS)-3 (2005-2006) and NFHS-4 (2015-2016), and data from state factsheets and reports from NFHS-5 (2019-2021). 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 number of districts in the state with public health concern as per the WHO guidelines. 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.

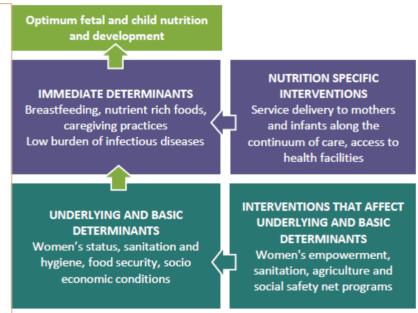
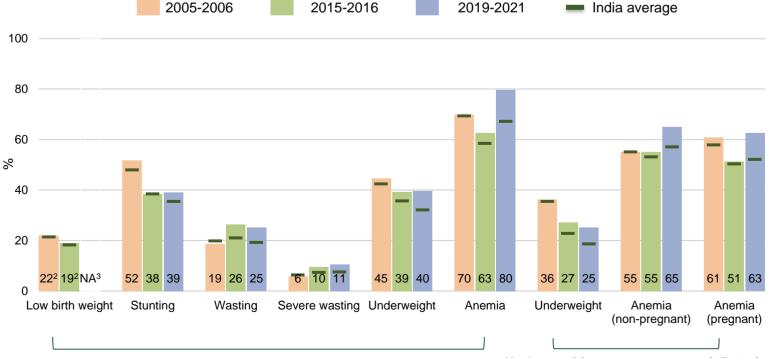


Figure 1. Trends in undernutrition outcomes: 2005-2006, 2015-2016, 2019-2021

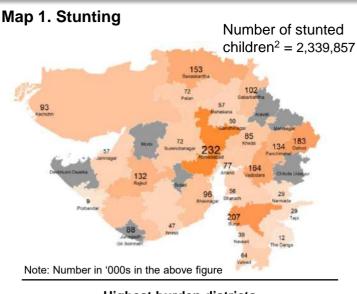


Undernutrition among children (<5y)

Undernutrition among women (15-49y)

Source: NFHS-3 (2005-2006) national report and data [IFPRI estimates] 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. ¹WHO. Nutrition Landscape Information System (NLiS). Help Topic: Malnutrition in children. Stunting, wasting, overweight, and underweight. (help Topic: Malnutrition in children. Stunting, wasting, overweight, and underweight. (helpid=391&lang=EN). ¹In NFHS-3, 47.0% of data were missing and 10.7% of data were missing in NFHS-4. ³NA refers to the unavailability of data for a particular indicator in the specified NFHS round.

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



	Highest burden districts			
1	Ahmadabad	232,221		
2	Surat	207,246		
3	Dahod	182,940		
4	Vadodara	164,380		
5	Banas Kantha	152,911		

No. of districts with public health concern¹: 32 of 33

Number of anemic children² = 4,332,282 278 Batterkerthi 97 Peten 141 Satterkerthi 145 Anemagier Divernance 135 Anemagier Divernance 236 Rajhert 35 Pertrander 236 Rajhert 35 Beller 36 Beller 37 Anemagier 140 302 Anemagier 140 Anem

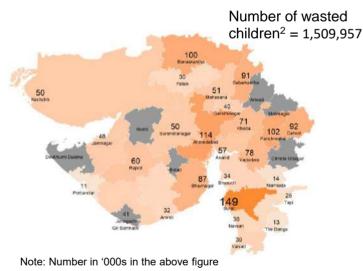
	Highest burden districts		
1	Surat	431,131	
2	Ahmadabad	423,087	
3	Vadodara	301,610	
4	Banas Kantha	278,243	
5	Dahod	259,133	

Note: Number in '000s in the above figure

No. of districts with public health concern¹: 33 of 33

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

Map 3. Wasting

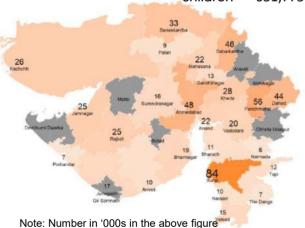


Highest burden districts			
1	Surat	149,263	
2	Ahmadabad	114,475	
3	Panch Mahals	101,938	
4	Banas Kantha	99,980	
5	Dahod	91,966	

No. of districts with public health concern¹: 33 of 33

Map 4. Severe Wasting

Number of severely wasted children² = 631,775

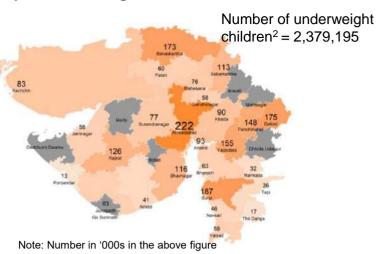


	Highest burden districts		
1	Surat	84,391	
2	Panch Mahals	56,252	
3	Ahmadabad	48,407	
4	Sabar Kantha	45,584	
5	Dahod	44,329	

No. of districts with public health concern¹: 33 of 33

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

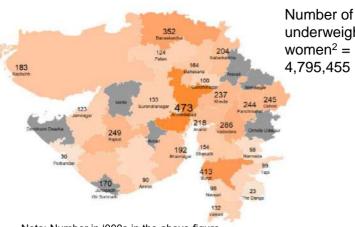
Map 5. Underweight children



	Highest burden districts	s
1	Ahmadabad	222,409
2	Surat	186,579
3	Dahod	175,331
4	Banas Kantha	172,907
5	Vadodara	155,054

No. of districts with public health concern¹: 33 of 33

Map 6. Underweight women



underweight women² = 4,795,455

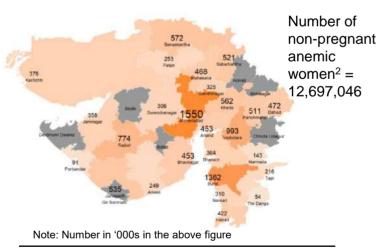
Note: Number in '000s in the above figure

Highest burden districts			
1	Ahmadabad	473,479	
2	Surat	412,714	
3	Banas Kantha	352,015	
4	Vadodara	285,934	
5	Rajkot	249,091	

No. of districts with public health concern¹: 33 of 33

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

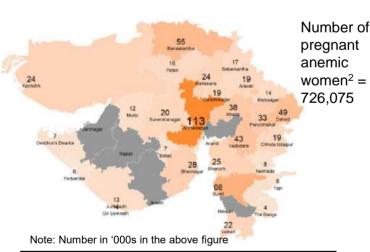
Map 7. Anemia among non-pregnant women



	Highest burden districts		
1	Ahmadabad	1,549,788	
2	Surat	1,361,955	
3	Vadodara	993,244	
4	Rajkot	774,097	
5	Banas Kantha	571,665	

No. of districts with public health concern¹: 33 of 33

Map 8. Anemia among pregnant women



	Highest burden districts	
1	Ahmadabad	112,607
2	Surat	67,582
3	Banas Kantha	55,395
4	Dahod	49,296
5	Vadodara	43,215

No. of districts with public health concern¹: 28 of 33

Figure 2. Trends in overweight/obesity & NCDs¹ 2005-2006, 2015-2016, 2019-2021

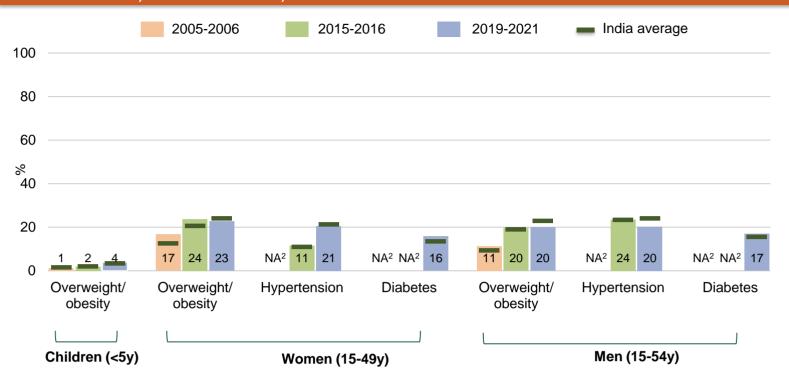


Table 1. Overweight/obesity & NCDs¹ at district-level 2015-2016, 2019-2021

Category	Outcomes	Worst performing districts (pp)	Best performing districts (pp)	Highest burden districts (thousands) ⁴	No of districts with public health concern ⁵ (total=33)
		Difference between (2019-2021) & (2015-2016) ³	Difference between (2019-2021) & (2015-2016) ³	2019-2021	2019-2021
Children <5 years	Overweight/ obesity	Amreli +6.3 Dohad +5.2	Valsad: -3.5 The Dangs -1.1	Surat: 30 Ahmadabad: 30	0
	Overweight/ obesity	Gandhinagar: +7.4 Kachchh: +5.7	Surat: -9.4 Navsari: -4.4	Ahmadabad: 735 Surat: 493	19
Women (15-49 years)	Hypertension	The Dangs: +15.9 Tapi: +12.3	Not Available ⁶	Surat: 460 Ahmadabad: 452	16
	Diabetes	NA ²		Ahmadabad: 496 Surat: 287	1
	Overweight /obesity	Data not available a	t district-level		
Men (15-54 years)	Hypertension	Mahesana: +12.5 Valsad: +10.5	Amreli: -9.4 Kachchh: -8.3	Surat: 532 Ahmadabad: 393	16
	Diabetes	NA ²		Ahmadabad: 489 Surat: 380	3

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. Hypertension among men are IFPRI estimates for NFHS-4 using man dataset. Hypertension among women was estimated at the district-level for NFHS-4 using woman dataset.

NFHS-4 using woman dataset.

NCDs: non-communicable diseases. ²NA refers to the 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.

³The difference is calculated only between districts that are comparable between 2015-2016 and 2019-2021. Only 16 out of 33 districts in Gujarat are comparable between the two time periods. ⁴Burden: The headcount was calculated as the product of the overnutrition prevalence and the total eligible projected population for each district in 2019. Prevalence estimates were obtained from NFHS-5 (2019-2021) district factsheets, and the projected population for 2019 was estimated using Census 2011. ⁵Public health concern is defined as prevalence ≥15% for overweight/obesity (children), ≥20% for overweight/obesity (women and men), ≥20% for hypertension (women and men), and ≥20% for diabetes(women and men). ⁶Prevalence did not increase or decrease in any of the districts.

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	Best performing	Top coverage districts (%) ²	
	determinants	districts (pp) Difference between (2019-2021) & (2015-2016) ³	districts (pp) Difference between (2019-2021) & (2015-2016) ³	2010-2021	
Maternal	Underweight women	Kachchh: +4.4 Surat: +2.6	Narmada: -13.3 The Dangs: 10.3	Porbandar: 15.8 Jamnagar: 17.3	
determinants	Consumed IFA 100+ days	Bharuch: -12.9 Gandhinagar: -6.8	Dohad: +51.5 Patan: +46.7	Navsari: 79.1 The Dangs: 78.9	
	Early initiation of breastfeeding	NA ¹			
YCF	Exclusive breastfeeding	Dohad: -23.8 The Dangs: -4.3	Porbandar: +20.5 Narmada: +12.0	Amreli: 88.2 The Dangs: 76.2	
oractices	Timely introduction of complementary foods	NA ¹			
	Adequate diet	Mahesana: -4.6 Amreli: -4.0	The Dangs: +14.6 Porbandar: +14.5	The Dangs: 16.5 Valsad:16.0	
Diagona	Diarrhea in the last two weeks	Gandhinagar: 11.7 Mahesana: 9.4	Patan: -7.7 The Dangs: -6.5	Ahmadabad: 1.8 Surat: 3.1	
Diseases	ARI in the last two weeks	Navsari: +2.9 The Dangs: +2.1	Surat: -3.0 Anand: -2.8	4 Districts ⁴ : 0.0	

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 factsheets (2019-2021). Adequate diet was estimated for NFHS-3 using last child data. Early initiation of breastfeeding, dietary diversity, minimum meal frequency, egg and/or flesh consumption, sweet beverage consumption, and bottle feeding of infants were estimated for NFHS-3 and -4 using last child data. Consumption of IFA 100+ days and consumption of IFA 180+ days was estimated for NFHS-3 using woman data. pp: percentage points.

Note: Data on early initiation of breastfeeding (children born in last 2 years), 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 (2021-21)/state report. Definition of early initiation of breastfeeding is based on WHO guidelines. ¹NA refers to the unavailability of data for a particular indicator in the specified NFHS round. ²For all indicators, top coverage districts refer to the districts with the highest prevalence in immediate determinants, except for underweight women, 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. ³The difference is calculated only between districts that are comparable between 2015-2016 and 2019-2021. Only 16 out of 33 districts in Gujarat are comparable between the two time periods. ⁴Surat, Devbhumi Dwarka, Anand, Banas Kantha.

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

Category	Underlying determinants	2005-2006	2015-2016	2019-2021
	Women with ≥10 years of education	24	33	34
Maternal determinants	Women 20-24 years married before age of 18 years	33	25	22
	Women 15-19 years with child or pregnant		<u> </u>	<u> </u>
	HHs with improved drinking water source	90	96	97
	HHs using improved sanitation facility	44	64	74
	HHs with hand washing facility		67	
Household determinants	Open defecation	45	29	1 9
	Safe disposal of feces	38	59	
	HHs with BPL card	25	32	33
	HHs with electricity	89	96	98

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

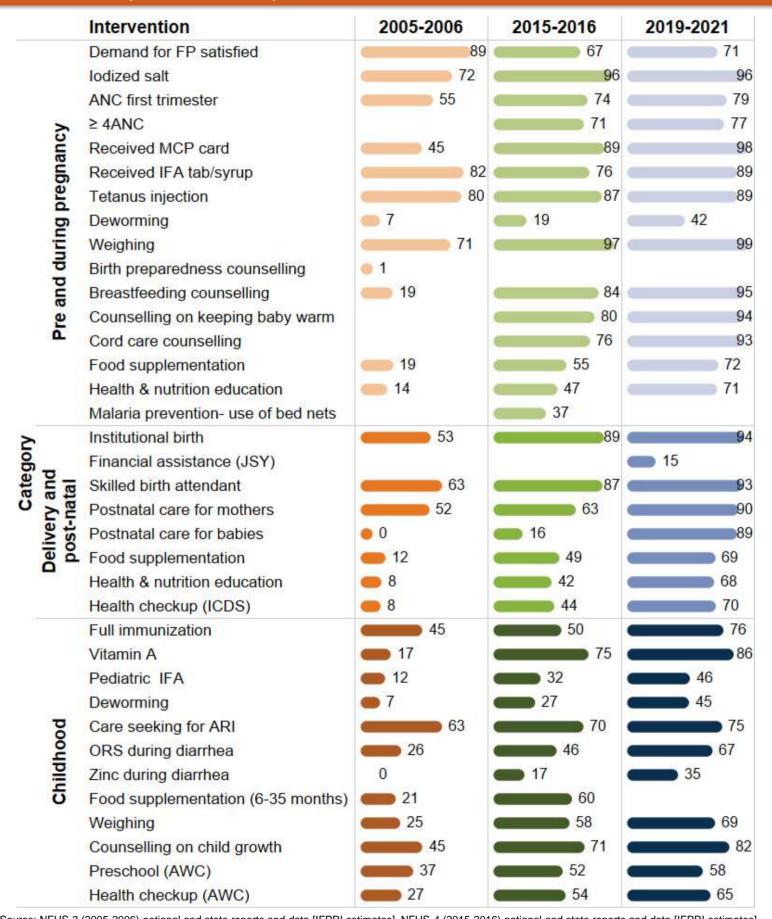
Category	Underlying determinants	Worst performing districts (pp)	Best performing districts (pp)	Top coverage districts (%) ²
		Difference between (2019-2021) & (2015-2016) ¹	Difference between (2019-2021) & (2015-2016) ¹	2019-2021
	Women with ≥10 years education	Amreli: - 6.9 Dohad: -1.9	Gandhinagar: +11.6 Kachchh: +7.2	Navsari: 47.7 Vadodara: 46.4
Maternal determinants	Women 20-24 years married before age of 18 years	Tapi: +8.1 Anand: +0.5	Gandhinagar: -17.8 Kachchh: -11.4	Jamnagar: 6.8 Morbi: 8.9
	Women 15-19 years with child or pregnant	Tapi: +2.4 Narmada: +1.2	The Dangs: -10.8 Valsad: -8.5	Gir Somnath: 0.9 Jamnagar: 1.0
	HHs with improved drinking water source	Banas Kantha: -5.3 Narmada: -1.6	The Dangs: +21.3 Dohad: +19.2	3 Districts ³ : 99.7
Household determinants	HHs using improved sanitation facility	Amreli: -2.1	The Dangs: +53.3 Tapi: +29.8	Jamnagar: 86.6 Ahmadabad: 86.4
	HHs with electricity	Narmada: -0.5 Valsad: -0.1	Dohad: +10.0 The Dangs: +7.7	Morbi: 99.9 Porbandar: 99.8

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 factsheets and report. Women 20-24 years married before age 18 was estimated for NFHS-3 using women data. pp: percentage points. Note: Safe disposal of feces not available in NFHS-5 factsheets (2021-21)/state report and data on HHs with hand washing facility not available in NFHS-3 (2005-06) and NFHS-5 factsheets (2021-21)/state report. Data on women 15-19 years with child or pregnant not available in NFHS-3 (2005-06).

¹The difference is calculated only between districts that are comparable between 2015-2016 and 2019-2021. Only 16 out of 33 districts in Gujarat are comparable between the two time periods.

²For 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 Districts Anand, Gandhinagar, Jamnagar.

Figure 5. Trends in interventions across the first 1000 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 and report. Note 1: Received MCP card, birth preparedness counselling, breastfeeding counselling, counselling on keeping baby warm, cord care counselling, and postnatal care for mothers were estimated for NFHS-3 using woman data. Malaria prevention-use of bed nets was estimated for NFHS-4 using woman data. Vitamin A-early childhood was estimated for NFHS-3 using last child data. Postnatal care for babies, food supplementation-early childhood, pediatric IFA, and deworming-early childhood were estimated for NFHS-3 and -4 using last child data. Note 2: The following information is not available in the NFHS-5 factsheets and state reports (2019-21): birth preparedness counselling, malaria prevention, and food supplementation (6-35m). Information on counselling on keeping baby warm and cord care, use of bed nets during pregnancy, and financial assistance under JSY are not available in NFHS-3 data (2005-06). Note 3: Data on demand for family planning satisfied, received IFA, deworming, weighing, counselling on breastfeeding, keeping baby warm, cord care during pregnancy, food supplementation, health and nutrition education during pregnancy and post-natal phases, financial assistance under JSY, pediatric IFA, deworming during early childhood, weight measurement during childhood, and counselling on child growth for 2019-2021 are taken from NFHS-5 state reports. Note 4: Refers to district dashboard for the inter-district variability in the coverage of interventions.

Intervention coverage at district level, 2019-2021

	Pre-													:														
District name	pregnancy						Pregi	Pregnancy						Delivery	Delivery & postnatal	tal						Early	Early childhood					
	Por FP bailzifies fles bazibol	ANC first trimester	>4 ANC	Received MCP card	Aal beveeved qurys\def	Tetanus injection	Deworming	Weighing Salving Birth preparedness	Briesstfeeding Counselling Counselling on Keeping baby warm	Cord care counselling Food supplementation Health & nutrition education	Malaria prevention- use of bed nets	hrid lanoitutitanl	(JSY) Skilled birth attendant	Postnatal care for sradentsod	Postnatal care for babies	Food supplementation Health & nutrition	education Health checkup	noitesinummi llu4	A nimetiV A limetiv	A-II SILISEIDES-I	- IAA 101 griyəəs 536C	SAC during diarrhea	Sinc during diarrhea	Food supplementation (sdrnom 2E-a)	Weighing Midel	Counselling on child growth	DWA is loodsery	4
GUJARAT	70.9 95.6	79.3	76.9	7.76	0.68	89.1	41.6 99	99.3	94.8 93.8 9	92.5 71.8 70.6		94.3 15	5.2 93.2	.2 89.7	7.88.7	69.3 68.0	3 69.5	76.3	85.6 46.	5.1 45.3	3 75.2	66.5	35.4		8.89	81.7 57	7.7 64.	7.
Ahmedabad	98.7	73.5	8'22	98.7	92.8	85.9	36.4					94.5 14	14.1 95.3	3 90.0	86.4			65.2	85.1									
Amreli	93.5	93.9	97.6	98.3	94.0	89.3	26.8					90.1	.0 81	.2 87.0	6:58			60.1	80.1								_	
Anand	92.6	74.2	64.2	9.86	9.06	91.2	26.9					96.0 23	3.0 95.2	.2 90.3	9.88			77.0	91.4		83.9	76.4	50.7					
Aravali	93.5	62.6	73.8	92.8	8.06	7.68	45.9					92.2	17.2 93.0	0.87.6	85.1			3 0.77	84.6		69.4	56.7	28.5					
Banaskantha	9.96	0.89	56.1	92.9	88.4	74.5	21.2					92.9 14	14.5 92.7	.7 86.1	87.4			43.5	75.5		67.1	70.2	37.7					
Bharuch	6.86	63.4	65.7	96.3	83.4	84.5	13.4					91.1	5.0 92.1	.1 78.8	8 81.7			80.0	9.62			57.1	13.9					
Bhavnagar	87.2	9.92	6.07	94.8	81.9	90.5	36.8					94.2 5.	5.3 96.0	0.78 0.	90.4			74.3	83.1		61.5	65.4	35.1					
Botad	2.86	82.3	82.7	98.2	81.8	82.3	30.6					93.5 14	14.6 74.5	.5 85.4	6.98 1			65.1	74.0									
Chhota Udaipur	94.3	81.9	81.2	9.66	92.2	94.5	49.2					85.7 29	.3 88	.3 91.1	87.4			81.7	0.96		68.1	67.8	41.9				_	
Dahod	97.5	84.1	9.92	98.3	91.4	90.3	51.6					94.8 15	15.6 91.7	.7 90.1	88.3			73.3	77.3		72.1	69.4	23.0					
Devbhumi Dwarka	93.4	75.2	6.07	6.86	82.9	6.96	40.6					92.5 15.	5.1 93.2	.2 87.2	87.0			66.2	85.4		85.3	76.4	20.7					
Gandhinagar	93.6	69.5	71.0	96.2	88.2	86.7	24.3					97.8	.4 89.	.3 88.2	0.68			7.7.7	81.0		74.1	73.4	16.1					
Gir Somnath	87.6	79.2	80.7	92.6	81.4	89.3	46.3					87.1 7.	7.5 91.8	8.06 8.	87.7			6.69	9.06		87.1	58.0	35.0					
Jamnagar	99.2	91.7	73.8	99.5	83.5	95.0	48.5					96.5 10	10.9 96.2	.2 92.4	1 86.4			78.4	91.5									
Junagadh	97.4	82.0	72.5		81.4	88.2	34.5					97.4 20.	0.5 97.7	.7 84.1	82.8			93.5	87.9									
Kachchh	98.0	88.8	84.2	97.8	88.2	88.8	37.6					97.4 16	16.9 97.6	.6 93.9	91.3			70.2	6.92									
Kheda	89.8	64.0	61.2	98.1	80.2	83.2	41.2					95.2 13	13.8 88.4	.4 85.1	83.2			0.69	78.1		0.09	40.9	32.6					
Mahesana	91.5	59.7	9.95	97.1	86.7	73.8	28.0					97.3 18.	.6 91	7.67 9.	83.4			9.67	9.88		6.09	9.69	5 27.3					
Mahisagar	9.96	77.2	9.92	97.4	90.2	89.4	50.6					93.0 28.	8.3 92.7	.7 90.9	91.1			80.08	8.98		71.0	87.6	46.7					
Morbi	98.1	83.8	75.1		86.2		41.9					94.8	7.4 96.4	.4 89.9	87.8			64.2	82.6									
Narmada	98.5	81.7	83.4		97.7	94.3	65.2					81.7 28	28.4 84.2	.2 87.2	87.6			82.8	88.1									
Navsari	95.1	93.4	94.7	97.6	99.5	97.6	54.1					99.3	7.8 99.1	.1 98.2	9.66			95.0	95.5		63.3							
Panchmahal	95.4	74.0	88.7	9.96	95.4	92.2	58.0					88.4 9.	9.4 84.2	.2 88.0	89.2			95.4 8	87.6		76.1	67.9	43.9					
Patan	98.1	86.2	79.8	9.66	0.06	72.9	36.1					98.6 30	0.5 97.1	.1 93.6	92.0			81.0 8	81.6		84.4							
Porbandar	0.66	93.5	92.1	99.5	94.7	96.4	46.5					100.0	10.5 96.0	9.76 0.	92.6			82.9	6.96		67.2							
Rajkot	9.86	94.0	93.5	98.2	82.4	94.8	52.4					99.3	5.7 100.0	0.0	98.3			84.9	84.2									
Sabarkantha	94.6	70.1	73.2	99.1	92.0	90.7	60.2					89.4	.6 83	6.98 0.	83.9			88.5	9.78		75.9	66.3	31.3					
Surat	2.96	92.2	93.4	97.4	94.5	95.3	51.7					97.7	11.0 98.8	8. 96.7	65.3			92.8	92.5									
Surendranagar	97.6	84.0	57.5		79.1	7.06	40.8					85.6 11	.6 83	.6 78.4	73.4			62.5	79.4		79.8	63.5	22.2					
Тарі	97.9	83.2	91.0				62.4					92.9	2.3 85.2	.2 90.0	6.68 (97.5	88.3		87.3							
The Dangs	98.2	86.4	90.2	_	_	_	52.3					15	∞ _i	-	\rightarrow			3	0.06				+					
Vadodara	94.6	80.4	+	+	-	ri Ti	37.7					-	1 95	6	-			6	91.6		73.0	52.5	22.4					
Valsad	95.7	88.3	92.5	100.0	93.5	97.5	62.2					96.5 19	.1 98	.5 95.0	93.5			91.1	9.96		96.2							

Not Available

%08>-09

40-<60%

Source: NFHS-5 district factsheets and state reports (2021-21).

Note 2: The following information is not available in the NFHS-5 factsheets and state reports (2021-21): (1) Information on preconception and pregnancy-related indicators, including demand for FP satisfied, Note 1: Data on received IFA tab/syrup, deworming during pregnancy and financial assistance (JSY) for 2021-21 are taken from NFHS-5 state reports. Data on remaining indicators are taken from NFHS-5 weighing, birth preparedness and breastfeeding counselling, counselling on keeping baby warm, cord care counselling, food supplementation, health and nutrition education, and malaria prevention; (2) lactation-related indicators, including food supplementation, health and nutrition education, and health checkups; and (3) early childhood-related indicators, including pediatric IFA, deworming, food factsheets (2021-21).

supplementation (6-35m), preschool attendance, health checkups, weighing, and counselling on child growth.

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

Category	Interventions	Worst performing districts (pp)	Best performing districts (pp)	Top coverage districts (%)
		Difference between (2019-2021) & (2015-2016) ²	Difference between (2019-2021) & (2015-2016) ²	2019-2021
	ANC first trimester	Mahesana: -20.7 Bharuch: -20.1	The Dangs: +28.4 Dohad: +26.3	Rajkot: 94.0 Amreli: 93.9
	≥4 ANC visits	Mahesana: -24.7 Bharuch: -20.7	Amreli: +51.8 The Dangs: +42.7	Navsari: 94.7 Rajkot: 93.5
Pregnancy	Received MCP Card	Not applicable ¹	Surat: +20.1 Valsad: +14.3	Junagarh: 100.0 Valsad: 100.0
	Tetanus injection	Patan: -17.5 Mahesana: -14.0	Valsad: +19.1 Dohad: +18.6	Navsari: 97.6 Valsad: 97.5
	Institutional birth	Not Applicable ¹	Valsad: +21.5 The Dangs: +21.3	Porbandar: 100.0 Rajkot: 99.3
Delivery and	Skilled birth attendant	Gandhinagar: -4.8 Amreli: -2.2	The Dangs: +23.4 Valsad: +20.7	Rajkot: 100.0 Navsari: 99.1
post-natal	Postnatal care for mothers	Not Applicable ¹	The Dangs: +41.8 Valsad: +36.2	Navsari: 98.2 Rajkot: 98.1
	Postnatal care for babies	Not Applicable ¹	Surat: 82.6 Dohad: 81.9	Navsari: 99.6 Rajkot: 98.3
	Full immunization	Not Applicable ¹	Patan: +50.3 The Dangs: 47.1	Tapi: 97.5 Panch Mahals: 95.
	Vitamin A supplementation	Amreli: -10.4 Bharuch: -1.4	Narmada: +18.0 Navsari: +17.8	Porbandar: 96.9 Valsad: 96.6
Early childhood	Care seeking for ARI	Porbandar: -11.9	Patan: +27.8 Tapi: +21.4	Valsad: 96.2 Tapi: 87.3
	ORS treatment during diarrhea	Not Applicable ¹	Anand: +46.1 Bharuch: +25.1	Mahisagar: 87.6 Anand: 76.4
	Zinc treatment during diarrhea	Not Applicable ¹	Anand: +39.6 Dohad: +23.0	Anand: 50.7 Dohad: 50.7

Key takeaways

Children: Stunting and underweight prevalence declined by 14 percentage points (pp) and 6pp between 2006 and 2016 and but increased by 1pp between 2016 and 2021, respectively. Wasting increased by 7pp between 2006 and 2016 before declining by 1pp between 2016 and 2021. Anemia declined by 7pp between 2006 and 2016 but increased by 17pp between 2016 and 2021. Overweight/obesity increased by 1pp between 2006 and 2016 and between 2016 and 2021.

Women: Underweight declined by 9pp from 2006 to 2016 and continued to decline by 2pp from 2016 to 2021. Anemia in non-pregnant women stagnated from 2006 to 2016 but increased by 10pp from 2016 to 2021. Anemia in pregnant women declined by 10pp from 2006 to 2016 but increased by 12pp from 2016 to 2021. Overweight/obesity increased by 7pp from 2006 to 2016 and declined by 1pp from 2016 to 2021.

Men: Overweight/obesity increased by 9pp from 2006 to 2016 and remained stable thereafter.

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

- Outcomes: Stunting (39%), wasting (25%), underweight (40%) and anemia in children (80%); anemia in women (63-65%)
- Immediate determinants: Underweight women (38%); 180+ IFA (43%); complementary feeding (42%); adequate diet (6%)
- *Underlying determinants:* Women with ≥10 years education (34%); households with improved sanitation (74%)
- **Coverage of interventions:** Deworming women and children (42-45%); financial assistance JSY (15%); pediatric IFA (46%); zinc during diarrhea (35%)

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 reports/factsheets. Postnatal care for babies was estimated for NFHS-4 using last child data at the state- and district-level. pp: percentage points. Note: Interventions' coverage are based on the last child data. ¹Prevalence did not decrease in any of the districts. ²The difference is calculated only between districts that are comparable between 2015-2016 and 2019-2021. Only 16 out of 33 districts in Gujarat are comparable between the two time periods.

Indicator definition

Nutrition outcomes	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 on 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 Underweight children	Percentage of children aged 0-59 months who are wasted i.e., weight-for-height z score < -3SD 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)
Underweight women	Percentage of women aged 15-49 whose Body Mass Index (BMI) is below normal (BMI <18.5 kg/m²); sample excluded pregnant women and women with a birth in the preceding 2 months.
Anemia among non-pregnant women*	Percentage of non-pregnant women aged 15-49 who are anemic (<12.0 g/dl)
Anemia among pregnant women* Overweight/obesity - children	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	Percentage of women aged 15-49 who are overweight or obese (BMI ≥25.0 kg/m2); sample excluded pregnant women and women with a birth in the preceding 2 months.
Overweight/obesity – men	Percentage of men aged 15-49 who are overweight or obese (BMI ≥25.0 kg/m²)
Hypertension among women^*%	Percentage of women aged 15-49 with elevated blood pressure (Systolic ≥140 mm Hg or diastolic ≥90 mm Hg) or is currently taking medication to control blood pressure.
Hypertension among men^*	Percentage of men aged 15-54 with elevated blood pressure (Systolic ≥140 mm Hg or diastolic ≥90 mm Hg) or is currently taking medication to control blood pressure.
Diabetes among women ^{^0}	Percentage of women aged 15-49 with high (>140 mg/dl) or very high (>160 mg/dl) blood sugar or taking medicine to control blood sugar.
Diabetes among men ^{^0}	Percentage of men aged 15-54 with high (>140 mg/dl) or very high (>160 mg/dl) blood sugar or taking medicine to control blood sugar.
Immediate determinants	
Underweight women	Percentage of women aged 15-49 whose Body Mass Index (BMI) is below normal (BMI <18.5 kg/m²); sample excluded pregnant women and women with a birth in the preceding 2 months.
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
Consumed IFA 180+ days*	Percentage of mothers aged 15-49 who consumed iron folic acid for 180 days or more during the last pregnancy in last five years preceding the survey
Early initiation of breastfeeding#*	Percentage of children breastfed within one hour of birth for the last child born in the 2 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	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 living with mother 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
Dietary diversity*®	Percentage of youngest children 6-23 months of age who were fed a diet that met minimum dietary diversity during the previous day.
Minimum meal frequency*@	Percentage of youngest children 6-23 months of age who were fed the minimum recommended number of times during the previous day
Eggs and/or flesh foods consumption ^{\$ * #}	Percentage of youngest children 6–23 months of age who consumed egg and/or flesh food during the previous day
Sweet beverage ^{\$ * #}	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
Diarrhea in the last two weeks	Percentage of children under age 5 who had diarrhea in the 2 weeks preceding the survey
ARI in the last two weeks	Percentage of children under age 5 who had symptoms of acute respiratory infection (ARI) in the 2 weeks preceding the survey
Underlying determinants	
Women with ≥10 years education	Percentage of women aged 15-49 with 10 or more years of schooling
Women 20-24 years married before age of 18 years*	Percentage of women aged 20-24 years who were married before age 18 years
Women 15-19 years with child or pregnant ^A	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	Population living in households with an improved drinking-water source
source HHs using improved sanitation facility	Population living in households that use an improved sanitation facility
HHs with hand washing facility ^{\\$}	Percentage of households in which a place for washing hands was observed.
Open defecation [®] %	Percentage of households that have no toilet facility/defecates in open
Safe disposal of feces ^{\$%} HHs with BPL card ^{@%}	Percentage of youngest children living with mother whose stools were disposed of safely Percentage of households with BPL card
HHs with electricity	Population living in households with electricity
<u> </u>	to far NELIC 2 taken from either NELIC 2 national or state reports

Note: Unless specified, indicators values for NFHS-3 taken from either NFHS-3 national or state reports.

^Indicator cannot be constructed using unit-level NFHS-3 data. Olndicator cannot be constructed using unit-level NFHS-4 data. Indicator not available in NFHS-5 factsheet/report. Oldicator not available in NFHS-5 factsheet but in NFHS-5 report. Indicator not available in NFHS-4 unit-level data. Indicator constructed based on WHO guidelines.

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 salt	Percentage of households using iodized salt
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 ^{0\$}	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 (for the last pregnancy 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 warm ^{@%}	Percentage of women who met with a community health worker in the last three months of pregnancy and received
Cord care counselling [®]	advice on keeping the baby warm for their most recent live birth in the five years preceding the survey Percentage of women who met with a community health worker in the last three months of pregnancy and received
Food supplementation -	advice on cord care for their most recent live birth in the five years preceding the survey Among children under 6 years, percentage whose mother received specific benefits from AWC during pregnancy:
pregnancy ^{@%}	supplementary food
Health & nutrition education – pregnancy ^{@%}	Among children under 6 years, percentage whose mother received specific benefits from AWC during pregnancy: health and nutrition education
Malaria prevention- use of bed nets ^{\\$*}	Percentage of women who used mosquito net during the pregnancy for their most recent live birth in the 5 years preceding the survey
Institutional birth	Percentage 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
Skilled birth attendant	Percentage of births attended by skilled health personnel for births in the 5 years before the survey
Postnatal care for mothers*	Percentage of mothers who received postnatal care from a doctor/nurse/LHV/ANM/midwife/other health personnel within 2 days of delivery for their most recent live birth in the five years preceding the survey
Postnatal care for babies*	Percentage of children who received postnatal care from a doctor /nurse /LHV /ANM /midwife /other health personnel within 2 days of delivery for last birth in the 5 years before the survey
Food supplementation – postnatal ^{@%}	Among children under 6 years, percentage whose mother received specific benefits from AWC while breastfeeding: supplementary food
Health & nutrition education – postnatal ^{@%}	Among children under 6 years, percentage whose mother received specific benefits from AWC while breastfeeding: health and nutrition education
Health checkup (ICDS) ^{@%}	Among children under 6 years, percentage whose mother received specific benefits from AWC while breastfeeding: health checkup.
Full immunization	Percentage of children aged 12-23 months fully vaccinated based on information from either vaccination card or mother's recall
Vitamin A – early childhood*	Percentage of children aged 9-35 months who received a vitamin A dose in the last 6 months
Pediatric IFA*@%	Percentage of youngest children aged 6-23 months who received iron supplements in the past 7 days preceding the survey.
Deworming – early childhood*@%	Percentage of youngest children aged 6-23 months who received deworming tablets in the last 6 months preceding the survey.
Care seeking for ARI	Percentage 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 diarrhea	Percentage of children under age 5 years with diarrhea in the 2 weeks preceding the survey who received ORS
Zinc during diarrhea	Percentage of children under age 5 years with diarrhea in the 2 weeks preceding the survey who received zinc
Food supplementation (children 6-35 months) \$*	Percentage of youngest children aged 6-35 months who received food supplements from AWC in the 12 months preceding the survey
Weighing – early childhood ^{@%} Counselling on child growth ^{@%}	Percentage of youngest children under age 5 who were weighed at AWC in the 12 months preceding the survey 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.
Preschool at AWC ^{@%}	in the 12 months preceding the survey Percentage of children age 36-71 months who went for early childhood care/preschool at an AWC in the 12 months preceding the survey.
Health checkup (AWC) ^{@%}	Percentage of children age under 6 years who received health checkups from an AWC in the 12 months preceding the survey
Note: Uplace aposition indicators value	as for NEHS-3 taken from either NEHS-3 national or state reports

Note: Unless specified, indicators values for NFHS-3 taken from either NFHS-3 national or state reports.

^Indicator cannot be constructed using unit-level NFHS-3 data. Olndicator cannot be constructed using unit-level NFHS-4 data. Indicator not available in NFHS-5 factsheet/report. Indicator not available in NFHS-5 factsheet but in NFHS-5 report. Indicator not available in NFHS-4 report. Indicator estimated using NFHS-3 and/or NFHS-4 unit-level data Indicator constructed based on WHO guidelines.

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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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