



सत्यमेव जयते
Government of India

Ministry of Health and Family Welfare

NATIONAL FAMILY HEALTH SURVEY - 5

2019-21

DISTRICT FACT SHEET

MADURAI
TAMIL NADU



(स्थापना / Established in 1956)

बेहतर भविष्य के लिए क्षमता निर्माण
Capacity Building for a Better Future

International Institute for Population Sciences
(Deemed University)

Introduction

The National Family Health Survey 2019-21 (NFHS-5), the fifth in the NFHS series, provides information on population, health, and nutrition for India and each state/union territory (UT). Like NFHS-4, NFHS-5 also provides district-level estimates for many important indicators.

The contents of NFHS-5 are similar to NFHS-4 to allow comparisons over time. However, NFHS-5 includes some new topics, such as preschool education, disability, access to a toilet facility, death registration, bathing practices during menstruation, and methods and reasons for abortion. The scope of clinical, anthropometric, and biochemical testing (CAB) has also been expanded to include measurement of waist and hip circumferences, and the age range for the measurement of blood pressure and blood glucose has been expanded. However, HIV testing has been dropped. The NFHS-5 sample has been designed to provide national, state/union territory (UT), and district level estimates of various indicators covered in the survey. However, estimates of indicators of sexual behaviour; husband's background and woman's work; HIV/AIDS knowledge, attitudes and behaviour; and domestic violence are available only at the state/union territory (UT) and national level.

As in the earlier rounds, the Ministry of Health and Family Welfare, Government of India, designated the International Institute for Population Sciences, Mumbai, as the nodal agency to conduct NFHS-5. The main objective of each successive round of the NFHS has been to provide high-quality data on health and family welfare and emerging issues in this area. NFHS-5 data will be useful in setting benchmarks and examining the progress the health sector has made over time. Besides providing evidence for the effectiveness of ongoing programmes, the data from NFHS-5 help in identifying the need for new programmes with an area specific focus and identifying groups that are most in need of essential services.

Four Survey Schedules - Household, Woman's, Man's, and Biomarker - were canvassed in local languages using Computer Assisted Personal Interviewing (CAPI). In the Household Schedule, information was collected on all usual members of the household and visitors who stayed in the household the previous night, as well as socio-economic characteristics of the household; water, sanitation, and hygiene; health insurance coverage; disabilities; land ownership; number of deaths in the household in the three years preceding the survey; and the ownership and use of mosquito nets. The Woman's Schedule covered a wide variety of topics, including the woman's characteristics, marriage, fertility, contraception, children's immunizations and healthcare, nutrition, reproductive health, sexual behaviour, HIV/AIDS, women's empowerment, and domestic violence. The Man's Schedule covered the man's characteristics, marriage, his number of children, contraception, fertility preferences, nutrition, sexual behaviour, health issues, attitudes towards gender roles, and HIV/AIDS. The Biomarker Schedule covered measurements of height, weight, and haemoglobin levels for children; measurements of height, weight, waist and hip circumference, and haemoglobin levels for women age 15-49 years and men age 15-54 years; and blood pressure and random blood glucose levels for women and men age 15 years and over. In addition, women and men were requested to provide a few additional drops of blood from a finger prick for laboratory testing for HbA1c, malaria parasites, and Vitamin D3.

Readers should be cautious while interpreting and comparing the trends as some States/UTs may have smaller sample size. Moreover, at the time of survey, *Ayushman Bharat AB-PMJAY* and *Pradhan Mantri Surakshit Matritva Abhiyan* (PMSMA) were not fully rolled out and hence, their coverage may not have been factored in the results of indicator 12 (percentage of households with any usual member covered under a health insurance/financing scheme) and indicator 33 (percentage of mothers who received 4 or more antenatal care check-ups).

This fact sheet provides information on key indicators and trends for Madurai. Due to the Covid-19 situation and the imposition of lockdown, NFHS-5 fieldwork in phase 2 States/UTs was conducted in two parts. NFHS-5 fieldwork for Tamil Nadu was conducted from 6th January 2020 to 21st March 2020 prior to the lockdown and from 21st December 2020 to 31st March 2021 post lockdown by School of Public Health, SRM University. In Madurai, information was gathered from 914 households, 844 women, and 131 men.

Madurai, Tamil Nadu - Key Indicators

Indicators	NFHS-5 (2019-21)	NFHS-4 (2015-16)
Population and Household Profile		
	Total	Total
1. Female population age 6 years and above who ever attended school (%)	83.9	80.9
2. Population below age 15 years (%)	19.9	23.8
3. Sex ratio of the total population (females per 1,000 males)	1,079	1,007
4. Sex ratio at birth for children born in the last five years (females per 1,000 males)	815	726
5. Children under age 5 years whose birth was registered with the civil authority (%)	100.0	98.1
6. Deaths in the last 3 years registered with the civil authority (%)	97.9	na
7. Population living in households with electricity (%)	98.9	99.4
8. Population living in households with an improved drinking-water source ¹ (%)	98.7	92.6
9. Population living in households that use an improved sanitation facility ² (%)	80.1	56.3
10. Households using clean fuel for cooking ³ (%)	91.2	75.8
11. Households using iodized salt (%)	88.4	81.8
12. Households with any usual member covered under a health insurance/financing scheme (%)	66.3	50.5
13. Children age 5 years who attended pre-primary school during the school year 2019-20 (%)	(24.9)	na
Characteristics of Women (age 15-49 years)		
14. Women who are literate ⁴ (%)	83.9	na
15. Women with 10 or more years of schooling (%)	58.6	48.9
Marriage and Fertility		
16. Women age 20-24 years married before age 18 years (%)	11.5	18.5
17. Births in the 5 years preceding the survey that are third or higher order (%)	0.5	0.9
18. Women age 15-19 years who were already mothers or pregnant at the time of the survey (%)	4.0	12.0
19. Women age 15-24 years who use hygienic methods of protection during their menstrual period ⁵ (%)	98.2	88.6
Current Use of Family Planning Methods (currently married women age 15-49 years)		
20. Any method ⁶ (%)	69.7	44.5
21. Any modern method ⁶ (%)	68.4	43.2
22. Female sterilization (%)	58.3	38.5
23. Male sterilization (%)	0.0	0.0
24. IUD/PPIUD (%)	6.4	3.4
25. Pill (%)	0.6	0.4
26. Condom (%)	3.1	0.8
27. Injectables (%)	0.0	0.0
Unmet Need for Family Planning (currently married women age 15-49 years)		
28. Total unmet need ⁷ (%)	8.7	14.6
29. Unmet need for spacing ⁷ (%)	4.2	5.6
Quality of Family Planning Services		
30. Health worker ever talked to female non-users about family planning (%)	21.5	35.1
31. Current users ever told about side effects of current method ⁸ (%)	88.0	68.9

Note: Major indicators are highlighted in grey.

LHV = Lady health visitor, ANM = Auxiliary nurse midwife
na = Not available

() Based on 25-49 unweighted cases

* Percentage not shown; based on fewer than 25 unweighted cases

¹Piped water 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, community RO plant.

²Flush to piped sewer system, flush to septic tank, flush to pit latrine, flush to don't know where, ventilated improved pit (VIP)/biogas latrine, pit latrine with slab, twin pit/composting toilet, which is not shared with any other household. This indicator does not denote access to toilet facility completely.

³Electricity, LPG/natural gas, biogas.

⁴Refers to women who completed standard 9 or higher and women who can read a whole sentence or part of a sentence.

⁵Locally prepared napkins, sanitary napkins, tampons, and menstrual cups are considered to be hygienic methods of protection.

⁶Any method includes other methods that are not shown separately; Any modern method includes other modern methods that are not shown separately.

⁷Unmet need for family planning refers to fecund women who are not using contraception but who wish to postpone the next birth (spacing) or stop childbearing altogether (limiting). Specifically, women are considered to have unmet need for spacing if they are:

- At risk of becoming pregnant, not using contraception, and either do not want to become pregnant within the next two years, or are unsure if or when they want to become pregnant.

- Pregnant with a mistimed pregnancy.

- Postpartum amenorrhoeic for up to two years following a mistimed birth and not using contraception.

Women are considered to have unmet need for limiting if they are:

- At risk of becoming pregnant, not using contraception, and want no (more) children.

- Pregnant with an unwanted pregnancy.

- Postpartum amenorrhoeic for up to two years following an unwanted birth and not using contraception.

Women who are classified as infecund have no unmet need because they are not at risk of becoming pregnant. Unmet need for family planning is the sum of unmet need for spacing plus unmet need for limiting.

⁸Based on current users of female sterilization, IUD/PPIUD, injectables, and pills who started using that method in the past 5 years.

Madurai, Tamil Nadu - Key Indicators

Indicators	NFHS-5 (2019-21)	NFHS-4 (2015-16)
Maternal and Child Health	Total	Total
Maternity Care (for last birth in the 5 years before the survey)		
32. Mothers who had an antenatal check-up in the first trimester (%)	70.0	55.9
33. Mothers who had at least 4 antenatal care visits (%)	89.5	69.5
34. Mothers whose last birth was protected against neonatal tetanus ⁹ (%)	85.6	63.5
35. Mothers who consumed iron folic acid for 100 days or more when they were pregnant (%)	71.0	65.4
36. Mothers who consumed iron folic acid for 180 days or more when they were pregnant (%)	59.7	48.2
37. Registered pregnancies for which the mother received a Mother and Child Protection (MCP) card (%)	100.0	93.5
38. Mothers who received postnatal care from a doctor/nurse/LHV/ANM/midwife/other health personnel within 2 days of delivery (%)	91.4	74.7
39. Average out-of-pocket expenditure per delivery in a public health facility (Rs.)	3,317	3,203
40. Children born at home who were taken to a health facility for a check-up within 24 hours of birth (%)	*	*
41. Children who received postnatal care from a doctor/nurse/LHV/ANM/midwife/other health personnel within 2 days of delivery (%)	94.5	na
Delivery Care (for births in the 5 years before the survey)		
42. Institutional births (%)	100.0	98.3
43. Institutional births in public facility (%)	70.0	65.9
44. Home births that were conducted by skilled health personnel ¹⁰ (%)	0.0	1.2
45. Births attended by skilled health personnel ¹⁰ (%)	100.0	100.0
46. Births delivered by caesarean section (%)	43.8	37.0
47. Births in a private health facility that were delivered by caesarean section (%)	66.1	55.5
48. Births in a public health facility that were delivered by caesarean section (%)	34.3	28.8
Child Vaccinations and Vitamin A Supplementation		
49. Children age 12-23 months fully vaccinated based on information from either vaccination card or mother's recall ¹¹ (%)	(88.8)	(61.0)
50. Children age 12-23 months fully vaccinated based on information from vaccination card only ¹² (%)	(92.9)	(65.7)
51. Children age 12-23 months who have received BCG (%)	(95.5)	(96.1)
52. Children age 12-23 months who have received 3 doses of polio vaccine ¹³ (%)	(90.8)	(77.5)
53. Children age 12-23 months who have received 3 doses of penta or DPT vaccine (%)	(93.6)	(79.5)
54. Children age 12-23 months who have received the first dose of measles-containing vaccine (MCV) (%)	(95.5)	(77.3)
55. Children age 24-35 months who have received a second dose of measles-containing vaccine (MCV) (%)	(42.4)	na
56. Children age 12-23 months who have received 3 doses of rotavirus vaccine ¹⁴ (%)	(69.9)	na
57. Children age 12-23 months who have received 3 doses of penta or hepatitis B vaccine (%)	(89.4)	(53.6)
58. Children age 9-35 months who received a vitamin A dose in the last 6 months (%)	66.6	71.1
59. Children age 12-23 months who received most of their vaccinations in a public health facility (%)	(92.8)	(83.5)
60. Children age 12-23 months who received most of their vaccinations in a private health facility (%)	(7.2)	(16.5)
Treatment of Childhood Diseases (children under age 5 years)		
61. Prevalence of diarrhoea in the 2 weeks preceding the survey (%)	4.3	9.1
62. Children with diarrhoea in the 2 weeks preceding the survey who received oral rehydration salts (ORS) (%)	*	*
63. Children with diarrhoea in the 2 weeks preceding the survey who received zinc (%)	*	*
64. Children with diarrhoea in the 2 weeks preceding the survey taken to a health facility or health provider (%)	*	*
65. Prevalence of symptoms of acute respiratory infection (ARI) in the 2 weeks preceding the survey (%)	0.6	2.5
66. Children with fever or symptoms of ARI in the 2 weeks preceding the survey taken to a health facility or health provider (%)	*	(88.3)

⁹Includes mothers with two injections during the pregnancy for their last birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last birth), or four or more injections (the last within 10 years of the last live birth), or five or more injections at any time prior to the last birth.

¹⁰Doctor/nurse/LHV/ANM/midwife/other health personnel.

¹¹Vaccinated with BCG, measles-containing vaccine (MCV)/MR/MMR/Measles, and 3 doses each of polio (excluding polio vaccine given at birth) and DPT or penta vaccine.

¹²Among children whose vaccination card was shown to the interviewer, percentage vaccinated with BCG, measles-containing vaccine (MCV)/MR/MMR/Measles, and 3 doses each of polio (excluding polio vaccine given at birth) and DPT or penta vaccine.

¹³Not including polio vaccination given at birth.

¹⁴Since rotavirus is not being provided across all states and districts, the levels should not be compared.

Madurai, Tamil Nadu - Key Indicators

Indicators	NFHS-5 (2019-21)	NFHS-4 (2015-16)
Child Feeding Practices and Nutritional Status of Children		
67. Children under age 3 years breastfed within one hour of birth ¹⁵ (%)	55.0	51.5
68. Children under age 6 months exclusively breastfed ¹⁶ (%)	*	*
69. Children age 6-8 months receiving solid or semi-solid food and breastmilk ¹⁶ (%)	*	*
70. Breastfeeding children age 6-23 months receiving an adequate diet ^{16, 17} (%)	(17.1)	(33.0)
71. Non-breastfeeding children age 6-23 months receiving an adequate diet ^{16, 17} (%)	*	*
72. Total children age 6-23 months receiving an adequate diet ^{16, 17} (%)	25.0	33.3
73. Children under 5 years who are stunted (height-for-age) ¹⁸ (%)	32.4	21.2
74. Children under 5 years who are wasted (weight-for-height) ¹⁸ (%)	9.5	12.7
75. Children under 5 years who are severely wasted (weight-for-height) ¹⁹ (%)	3.9	2.6
76. Children under 5 years who are underweight (weight-for-age) ¹⁸ (%)	21.5	19.5
77. Children under 5 years who are overweight (weight-for-height) ²⁰ (%)	4.7	4.1
Nutritional Status of Women (age 15-49 years)		
78. Women whose Body Mass Index (BMI) is below normal (BMI <18.5 kg/m ²) ²¹ (%)	12.2	14.9
79. Women who are overweight or obese (BMI ≥25.0 kg/m ²) ²¹ (%)	40.8	35.5
80. Women who have high risk waist-to-hip ratio (≥0.85) (%)	58.2	na
Anaemia among Children and Women		
81. Children age 6-59 months who are anaemic (<11.0 g/dl) ²² (%)	54.3	54.7
82. Non-pregnant women age 15-49 years who are anaemic (<12.0 g/dl) ²² (%)	48.3	52.7
83. Pregnant women age 15-49 years who are anaemic (<11.0 g/dl) ²² (%)	*	*
84. All women age 15-49 years who are anaemic ²² (%)	48.0	52.5
85. All women age 15-19 years who are anaemic ²² (%)	46.9	44.5
Blood Sugar Level among Adults (age 15 years and above)		
Women		
86. Blood sugar level - high (141-160 mg/dl) ²³ (%)	7.9	na
87. Blood sugar level - very high (>160 mg/dl) ²³ (%)	11.0	na
88. Blood sugar level - high or very high (>140 mg/dl) or taking medicine to control blood sugar level ²³ (%)	21.2	na
Men		
89. Blood sugar level - high (141-160 mg/dl) ²³ (%)	9.5	na
90. Blood sugar level - very high (>160 mg/dl) ²³ (%)	11.3	na
91. Blood sugar level - high or very high (>140 mg/dl) or taking medicine to control blood sugar level ²³ (%)	22.7	na
Hypertension among Adults (age 15 years and above)		
Women		
92. Mildly elevated blood pressure (Systolic 140-159 mm of Hg and/or Diastolic 90-99 mm of Hg) (%)	15.9	na
93. Moderately or severely elevated blood pressure (Systolic ≥160mm of Hg and/or Diastolic ≥100mm of Hg) (%)	5.4	na
94. Elevated blood pressure (Systolic ≥140 mm of Hg and/or Diastolic ≥90 mm of Hg) or taking medicine to control blood pressure (%)	25.6	na
Men		
95. Mildly elevated blood pressure (Systolic 140-159 mm of Hg and/or Diastolic 90-99 mm of Hg) (%)	22.4	na
96. Moderately or severely elevated blood pressure (Systolic ≥160mm of Hg and/or Diastolic ≥100mm of Hg) (%)	6.0	na
97. Elevated blood pressure (Systolic ≥140 mm of Hg and/or Diastolic ≥90 mm of Hg) or taking medicine to control blood pressure (%)	31.8	na
Screening for Cancer among Women (age 30-49 years)		
98. Ever undergone a screening test for cervical cancer (%)	12.1	na
99. Ever undergone a breast examination for breast cancer (%)	2.4	na
100. Ever undergone an oral cavity examination for oral cancer (%)	0.4	na
Tobacco Use and Alcohol Consumption among Adults (age 15 years and above)		
101. Women age 15 years and above who use any kind of tobacco (%)	0.8	na
102. Men age 15 years and above who use any kind of tobacco (%)	20.3	na
103. Women age 15 years and above who consume alcohol (%)	0.4	na
104. Men age 15 years and above who consume alcohol (%)	24.5	na

¹⁵Based on the last child born in the 3 years before the survey.

¹⁶Based on the youngest child living with the mother.

¹⁷Breastfed children receiving 4 or more food groups and a minimum meal frequency, non-breastfed children fed with a minimum of 3 Infant and Young Child Feeding Practices (fed with other milk or milk products at least twice a day, a minimum meal frequency that is, receiving solid or semi-solid food at least twice a day for breastfed infants 6-8 months and at least three times a day for breastfed children 9-23 months, and solid or semi-solid foods from at least four food groups not including the milk or milk products food group).

¹⁸Below -2 standard deviations, based on the WHO standard.

¹⁹Below -3 standard deviations, based on the WHO standard.

²⁰Above +2 standard deviations, based on the WHO standard.

²¹Excludes pregnant women and women with a birth in the preceding 2 months.

²²Haemoglobin in grams per decilitre (g/dl). Among children, prevalence is adjusted for altitude. Among women, prevalence is adjusted for altitude and for smoking status, if known. As NFHS uses the capillary blood for estimation of anaemia, the results of NFHS-5 need not be compared with other surveys using venous blood.

²³Random blood sugar measurement.

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