

Assessing Demographic Trends and Challenges in North East India: Insights from NFHS-5

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Abstract:

Despite India's attainment of the national goal of replacement fertility (2.1) after 75 years of Independence, certain regions, particularly five states including two North East (NE) states - Meghalaya and Manipur, have not met this target. This paper investigates the demographic indicators of population growth in North East India using data from NFHS-5 (2019-21), focusing on currently married women aged 15-49. It examines various parameters such as total fertility rate, literacy rate, sex ratio, marriage age, infant and child mortality, contraceptive use, and unmet family planning needs. The study reveals that Meghalaya, with a total wanted fertility rate of 2.7, leads the country, indicating disparities primarily among tribal and backward communities. Although some improvements are observed in infant and child mortality rates, literacy, and total fertility, challenges persist, particularly in achieving demographic balance in sex ratio. Moreover, there are notable variations in contraceptive use and unmet family planning needs across different states, possibly influenced by rural-urban disparities.

Keywords: Replacement fertility, wanted fertility, contraceptives, unmet needs, tribal.

Introduction:

India, a nation with a population of 1.21 billion in 2011 and a projected increase to approximately 1.7 billion by 2050, holds the position of the most populous country globally (United Nations, 2015). Despite concerted efforts, India has encountered challenges in achieving its national goal of replacement fertility, set at 2.1 children per woman by 2010, as part of a broader objective to achieve a stable population by 2045, aligning with sustainable development goals. Initiated in 1952, the National Family Planning (FP) Programme aimed at advocating responsible parenthood and endorsing a two-child norm through the autonomous choice of family planning methods (Kapoor & Patel, 2019). However, the adoption and adherence to these methods vary significantly within communities, contributing to the addition of over 70,000 children to the Indian population daily (Park, 2011).

Between 2001 and 2011, India witnessed a population surge of 17.7%, adding 181 million individuals, while the global total fertility rate declined to 2.6 children in 2005-2010 (Pande and Majumdar, 2017). The Ministry of Home Affairs (2011) reported a more than fourfold increase in contraceptive usage in India over four decades (1965-2009), rising from 13% of married women in 1970 to 56% in 2006. Despite these efforts, the total fertility rate decreased from 5.7 in 1996 to 2.7 in 2006 but remains elevated for sustained population growth. Concurrently, the United Nations estimates that while the world population grew at an annual rate of 1.23% during 2001-2010, India's population expanded at 1.64% per annum during 2001-2011.

In 2013, India's total fertility rate (TFR) stood at 2.3 births per woman (ORGI, 2014), with 13 out of 17 Indian states and Union Territories achieving or surpassing replacement level in the initial phase of NFHS-4 (Shekher et al., 2014). Notably, TFR ranges from 1.2 births per woman in Sikkim to 3.4 births per woman in Bihar. Recent studies underscore the inverse relationship between fertility and higher socio-economic status, illustrated by Kerala's successful fertility control through socio-economic development in the late 20th century (Das & Kumar, 2020). Kerala boasts an overall contraception prevalence of 70.3%, primarily associated with age and parity rather than literacy (Pawar et al., 2019).

Despite comprehensive endeavours targeting rural and underprivileged communities over seven decades of independence, the North Eastern States continue to grapple with socio-demographic challenges. This study aims to scrutinize recent variations in fertility indicators within the North Eastern Region of India. Notably, there has been a significant decrease in the TFR to 2.0 children per woman in NFHS-5 (2019-21) from 2.2 children per woman in NFHS-4 (2015-16), marking an achievement of the replacement fertility threshold of 2.1 children.

Materials and Methods:

In the context of NFHS-5, this study encompasses the eight North Eastern (NE) States of India: Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura. Leveraging data from NFHS-5 (2019-21), pertaining to information collected from currently married women aged 15-49 years, various fertility indicators are scrutinized. These indicators encompass total fertility rate, literacy rate, sex ratio, marriage age, infant and child mortality, contraceptive use, and unmet family planning needs. Additionally, prior data from NFHSs (1-4) are also harnessed to analyse trends and shifts in these indicators over time.

Results and Discussion:

The findings from NFHS-4 (2015-16) revealed that the majority of the population in the North Eastern (NE) States, particularly Assam (2.2), Manipur (2.6), Meghalaya (3.0), Mizoram (2.3), and Nagaland (2.7), did not meet the national fertility target, except for Sikkim (1.2) and Tripura (1.7). However, two NE States, Manipur (2.2) and Meghalaya (2.9), fell short of achieving the replacement fertility target of 2.1 children according to NFHS-5 (2019-21). Nevertheless, both Meghalaya and Sikkim achieved a commendable reduction of 0.8 children in their total fertility rate (TFR) over the past decade (2005-2015), while Tripura reduced it by 0.5 children. Assam and Manipur exhibited a marginal reduction of 0.2 children in TFR during the same period. The rural-urban disparity may play a role in variations in fertility indicators, with Meghalaya showing the highest disparity in TFR (1.8), with 1.7 in urban areas and 3.5 in rural areas, followed by Manipur and Assam with a rural-urban difference of 0.8 children each. In contrast, Sikkim demonstrated the lowest difference of 0.1 children, as illustrated in Table 1 of the survey report. NFHS-4 (2015-16) confirmed that urban fertility remained below replacement level in the study population. Insights from Shekhar et al. (2014) in NFHS-4 highlighted that urban fertility levels were at or below replacement level (2.1 children) in 15 States and 2 Union Territories, with the exception of Bihar (2.4 children).

Despite some advancement in infant and child mortality rates, literacy, and total fertility, there persists a demographic disparity in sex ratio. Variations in contraceptive use and unmet family planning needs over the past decade vary among NE states. Concerning total unmet need, the states under examination can be categorized into two groups: those with rates below 20% (Assam at 14.2% and Tripura at 10.7%) and those above 20% (Manipur at 30.1%, Sikkim at 21.7%, and Meghalaya at 21.2%), according to NFHS-4. Moreover, Meghalaya exhibits the highest unmet need for spacing at 15.3%, followed by Manipur at 12.7%. These two states also record the highest total unmet need for family planning methods in the country, as per the NFHS-4 report. The lowest unmet need for spacing in the region is observed in Tripura (4.1%).

A significant finding is the increase in unmet need for spacing from NFHS-3 (2005-06) to NFHS-4 (2015-16) in all NE states considered, except Meghalaya, which recorded 15.3% in NFHS-4 and 23.2% in NFHS-3. Notably, Manipur witnessed a notable decrease of more than half in the utilization of family planning methods from 50% (NFHS-3) to 24% (NFHS-4). A similar decline is noted in the utilization of any modern family planning methods (24% to 13%). Despite declines from NFHS-3, Infant Mortality Rates (IMRs) in NE States have not met the national target, as evidenced in NFHS-4, with figures for Assam (48), Manipur (22), Meghalaya (30), Sikkim (29), and Tripura (27) compared to NFHS-3 figures of 66, 30, 44, 34, and 51, respectively. Emerging trends in fertility indicators over the past decade are discernible, yet many still fall short of national socio-demographic objectives.

Conclusion:

In summary, when we look at the fertility indicators in the North Eastern (NE) States using data from NFHS-4 (2015-16) and NFHS-5 (2019-21), we see both progress and ongoing challenges. While some states have successfully lowered their total fertility rates (TFRs) in the past decade, others are still struggling to reach the replacement fertility target. The differences in TFR between rural and urban areas are quite clear, with Meghalaya having the largest gap. This highlights the need for specific interventions in rural regions. Despite improvements in certain demographic aspects like infant mortality rates and literacy, demographic disparities, particularly in sex ratio, persist throughout the NE States. Variations in contraceptive use and unmet family planning needs underscore the necessity for customized approaches to address the unique challenges in each state. Meghalaya and Manipur stand out for their significant unmet needs in family planning, indicating the urgent need for enhanced intervention efforts in these areas.

The rise in unmet needs for spacing between NFHS-3 and NFHS-4 across most NE states emphasizes the importance of continuously monitoring and evaluating family planning initiatives. Notably, Manipur has seen a considerable decline in the adoption of family planning methods, indicating the need for targeted initiatives to enhance access and awareness. Despite identifiable trends in fertility indicators over the past decade, many NE states still fall

short of achieving national socio-demographic objectives. To overcome these hurdles, we need comprehensive and sustained endeavours aimed at improving access to reproductive healthcare services, boosting awareness, and addressing the socio-economic factors influencing fertility. Only through collaborative action can the NE States make significant strides toward achieving their demographic targets and ensuring the welfare of their populations.

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Table - 1: Levels of Fertility Indicators in North Eastern States of India

States and Parameters	NFHS-5 (2019-21)	NFHS-4 (2015-16)	NFHS-3 (2005-06)
Total Fertility Rate (TFR)			
Arunachal Pradesh	1.8	2.1	3.0
Assam	1.9	2.2	2.4
Manipur	2.2	2.6	2.8
Meghalaya	2.9	3.0	3.8
Mizoram	1.9	2.3	2.9
Nagaland	1.7	2.7	3.7
Sikkim	1.1	1.2	2.0
Tripura	1.7	1.7	2.2
Female Literacy Rate (parenthesis-figures for male literacy rate in %)			
Arunachal Pradesh	71.3 (85.7)	65.5 (84.5)	52.7 (78.9)
Assam	75.1 (81.6)	71.8 (82.8)	63.0 (76.4)
Manipur	85.3 (93.3)	85.0 (96.0)	72.6 (91.5)
Meghalaya	87.6 (83.2)	82.8 (84.0)	69.5 (72.7)
Mizoram	94.0 (97.0)	93.5 (98.2)	94.0 (93.2)
Nagaland	83.4 (92.2)	81.0 (85.6)	75.2 (83.1)
Sikkim	87.1 (88.6)	86.6 (91.5)	72.3 (83.1)
Tripura	78.3 (83.6)	80.4 (89.5)	68.5 (77.1)

Sex Ratio at birth (parenthesis-figures for sex ratio of total population)			
Arunachal Pradesh	979	926 (958)	1071 (930)
Assam	964	929 (993)	1033 (1008)
Manipur	967	962 (1049)	1014 (1070)
Meghalaya	989	1009 (1005)	907 (1005)
Mizoram	969	949 (1013)	1025 (1004)
Nagaland	945	956 (968)	984 (991)
Sikkim	969	809 (942)	984 (936)
Tripura	1028	969 (998)	959 (1017)
Infant Mortality Rate (parenthesis-figure for under-five mortality rate)			
Arunachal Pradesh	13 (19)	23 (33)	61(88)
Assam	32 (39)	48 (56)	66 (84)
Manipur	25 (30)	22 (26)	30 (42)
Meghalaya	32 (40)	30 (40)	44 (70)
Mizoram	21 (24)	40 (46)	34 (53)
Nagaland	23 (33)	29 (37)	38 (65)
Sikkim	11 (11)	29 (32)	34 (40)
Tripura	38 (43)	27 (33)	51 (59)
Unmet Need for FP (parenthesis-figure for indicates unmet need for spacing in %)			
Arunachal Pradesh	12.4 (7.0)	21.6 (12.7)	21.2 (8.4)
Assam	11.0 (4.1)	14.2 (5.8)	12.2 (3.6)
Manipur	12.2 (4.7)	30.1 (12.7)	15.6 (5.0)
Meghalaya	26.9 (18.3)	21.2 (15.3)	35.8 (23.2)
Mizoram	18.9 (12.8)	19.9 (12.4)	18.1 (12.3)
Nagaland	9.1 (4.5)	22.2 (11.2)	28.4 (10.0)
Sikkim	11.9 (4.9)	21.7 (8.9)	20.4 (5.8)
Tripura	8.2 (2.5)	10.7 (4.1)	12.4 (3.7)
Use of any FP Methods (parenthesis-figures for use of any modern FP method in %)			
Arunachal Pradesh	59.1(47.1)	31.7(26.6)	43.2 (37.3)
Assam	60.8 (45.3)	52.4 (37.0)	56.5 (27.0)
Manipur	61.3 (18.2)	23.6 (12.7)	48.7 (23.6)
Meghalaya	27.4 (22.5)	24.3 (21.9)	24.3 (18.5)
Mizoram	31.2 (30.8)	35.3 (35.3)	59.9 (59.6)
Nagaland	57.4 (45.3)	26.7 (21.4)	29.7 (22.5)
Sikkim	69.1 (54.9)	46.7 (45.9)	57.6 (48.7)
Tripura	71.2 (49.1)	64.1 (42.8)	65.7 (44.9)