Original Article

Total Fertility Rate Over Two Decades in India: Trend Analysis from a National Survey

Ashima Aggarwal[1], Immanuel Joshua[2]

[1]Research Scientist, [2]Senior Resident, Department of Community Medicine, School of Public Health, PGIMER, Chandigarh, India

Abstract

Background: The decline in total fertility rate (TFR) in India represents a major demographic shift, moving from traditionally high fertility rates, high infant mortality, and cultural expectations, to lower birth rates driven by modernization, advancements in healthcare, and evolving social norms. **Objectives:** The objective of the study is to analyze the TFR trends of India over two decades using the National Family Health Survey (NFHS) data. **Materials and Methods:** This study analyzes the TFR trends using secondary data from five rounds of the NFHS-1 to NFHS-5, applying the World Health Organization definition of TFR. Descriptive statistics and percentage point changes were calculated to compare national, regional, and state-level trends from the baseline NFHS round to NFHS-5. Geospatial data visualization was done using QGIS. **Results:** The TFR in India has declined from 3.4 in NFHS-1 to below the replacement level (TFR = 2) in NFHS-5, though states such as Bihar (3.0), Uttar Pradesh (2.4), and Meghalaya (2.9) still record higher TFRs. The national TFR has fallen by 41.17%, with states such as Sikkim (62.96%) and Arunachal Pradesh (57.14%) showing the largest percentage reductions. Kerala, with the least reduction (10%), already achieved replacement levels in NFHS-1. **Conclusion:** Maintaining a stable TFR is essential for balancing economic growth, social stability, and sustainable development. While some states show remarkable progress, others require targeted interventions. Countries need to ensure that their fertility policies are aligned with demographic goals to avoid extremes of either rapid population growth or decline.

Key words: National Family Health Survey, total fertility rate, trend analysis