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A Comparative Study of National Family Health Survey-4 and National Family Health Survey-5 of Family Planning Methods

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Introduction

An extensive, multi-round survey called the National Family Health Survey (NFHS) was carried out in a representative sample of Indian homes. The International Institute for Population Sciences (IIPS), located in Mumbai, India, ICF, located in Maryland, Calverton and the East-West Center, located in Hawaii, Honolulu, collaborated on the NFHS project. The Government of India's Ministry of Health and Family Welfare (MOHFW), which is in charge of coordinating and providing technical assistance for the NFHS, has designated IIPS as its nodal agency. With additional support from UNICEF, the United States Agency for International Development (USAID) oversees the NFHS financing. IIPS worked with many Field Organizations (FO) to administer the survey. Each FO was in charge of carrying out survey operations in one or more of the NFHS-covered states. ICF and the East-West Center provide technical assistance for the NFHS [1].

In 1992–1993, the First National Family Health Survey (NFHS–1) was carried out. With a focus on young and child women, the study gathered significant data on population, health, and nutrition. The NFHS-1 was conducted with the assistance of 18 Population Research Centres (PRCs), situated in reputable universities and institutions. The survey's national and state-level reports have all been made public (48) [1].

All 26 states in India participated in NFHS-2 in 1998–1999, which included additional questions about the quality of healthcare, domestic abuse, women's health, anaemia, nutrition, status, and family planning services. In 2005–2006, researchers conducted the Third National Family Health Survey (NFHS-3). For the survey in 29 Indian states, five population research centres were enlisted by 18 research organisations. Technical help for the HIV component of NFHS-3 is being provided by NACO and NARI, while funding for NFHS-3 is being provided by UNICEF, UNFPA, USAID, DFID, and the Bill and Melinda Gates Foundation [1].

The National Family Health Survey (NFHS-4) from 2015–16 provides information on the population of India, nutrition, and health as well as that of every state and union territory. The clinical,

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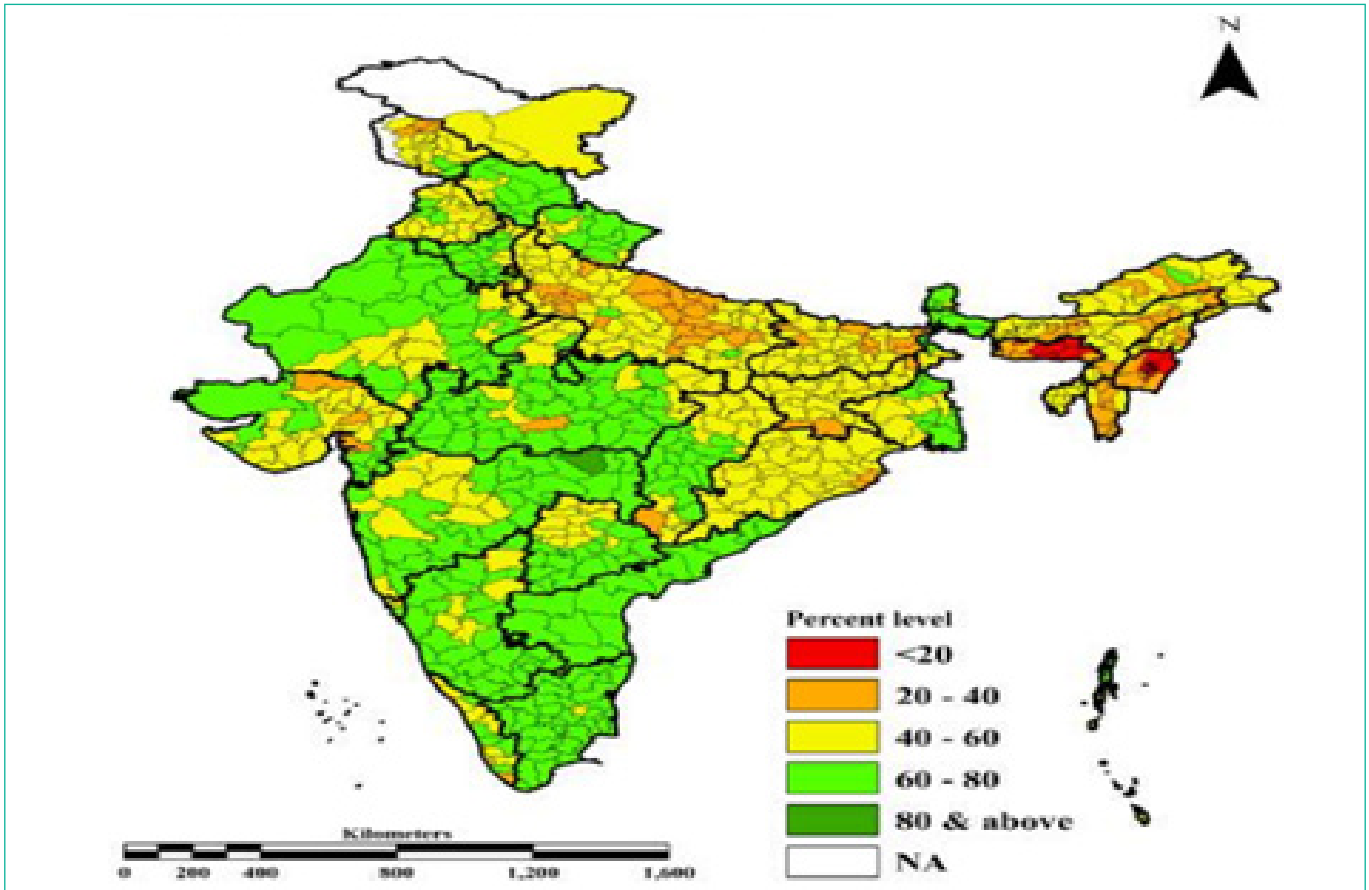

Map 1: Any contraceptive method used by currently married women age 15-49 years, NFHS-5 data.

anthropometric, and biochemical (CAB) component of the NFHS-4 provided crucial estimations of the prevalence of several biomarker tests and measurements, including excessive blood sugar levels, anaemia, hypertension, and HIV [2].

The National Family Health Survey 2019-21 (NFHS-5) is the fifth survey in the series, and as of March 31st, 2017, it provides information on population, nutrition, and health for India, each state/union territory (UT), and 707 districts. The primary objective of the National Family Health Survey's 2019–21 cycle was to deliver essential data on health and family welfare, as well as information on emerging issues in these areas. Maternal and child health, fertility rates, infant and child mortality, and other health and family welfare indicators by baseline T2 traits at the national and state levels are a few examples of this data [3].

According to information published by the United Nations, India's population is projected to reach 1.406 billion people in 2022, growing at a pace of 1.15%. The birth rate is 18.2 births per 1000 people, while the mortality rate is 7.3 per 1000 people. In 2022, there will be 730 million people overall, with 675 million of them being female and 51.95% of them being male. As a result, there are 52% men and 48% women in the population.0 to 24 years age group accounts for the majority of the Indian population falls in the. This accounts for a staggering 607 million. The following age group, which comprises 434 million people, is 25 to 44. India's population has increased dramatically since it became independent from British control in 1947. By 2022, it is predicted that the country's population would soar to a mind-boggling 1.5 billion, from 321 million shortly before independence to 1.4 billion now. This will make it one of just two countries in all of Asia with a population of more than 1 billion (the other being China). The reasons are simple: reproduction rates are still high, and the population is expanding geometrically. Other contributing variables include a longer life expectancy and female literacy rate, rising urbanisation, and improved living standards [4].

People can choose the spacing between their pregnancies and have as many children as they'd want, if any, through contraception. Humans have the fundamental rights to have contraceptive information and services. The number of fatalities connected to pregnancy and maternal illness can be lowered through the prevention of unintended pregnancies. Important health benefits of family planning are avoiding pregnancy among elderly women who also face elevated risks, as well as postponing births in young girls who are more at risk of health issues from early motherhood [5].

In this article, we evaluated India's NFHS 4 and 5, which since 2015 have been conducting and have collected data on various forms of contraception. We list and evaluate the various methods of contraception covered by these surveys throughout time. Based on our findings, we emphasise the factors that should be taken into account to increase the value of these surveys. Given the changing population load in India, we anticipate that they will be able to provide more accurate, timely, and useful information on the various contraceptive techniques used in the population.

Objectives

1) To study the contraception prevalence from NFHS 5 data.

2) To see the changes in utilization and practice among the selective background characteristics.

Methodology

We selected large-scale, the National Family Health Survey (NFHS 4 and 5) to provide data on contraceptive methods at the national levels in India from 2015 to 2021.

Survey Period

Survey	Survey years
NFHS-4	2015–2016
NFHS-5	2019–2021

Inclusion Criteria

1. All currently married women age 15-49 years.
2. All sexually active unmarried women age 15-49 years.
3. All currently married men, sexually active unmarried men.

Sample size

1. NFHS-5:- 636,699 households
2. NFHS-4:- 568 200 households

Since our target was to find various types of contraception prevalence in India under NFHS 4 and 5, respectively, international studies were excluded. In order to keep the updated status and the present scenario of contraception use, search was restricted to last 7 years [6].

Results

The contraceptive prevalence rate climbed to 67 % from 54 % in 2015–16 among currently married women age 15-49 in NFHS-5 (Map 1). The use of condoms/Nirodhs for sexually active, unmarried women aged 15 to 49, the rate rose from 12% in 2015–16 to 27% in 2019–21. The most widely used contemporary technique of contraception remains female sterilization. 38 percent of married women between the ages of 15 and 49 who are presently living together use female sterilisation, followed by male condoms (10%) and pills (5%). Traditional method was used by ten percent, mostly the rhythm method. The most popular technique is male condoms (27%), followed by female sterilisation (21%) among sexually active unmarried women.

The states with the lowest rates of contraceptive method usage are Bihar (56%), Mizoram (31%) and Meghalaya (27%) while the states with the highest rates are Himachal Pradesh, Odisha and West Bengal (74% each). Except for Sikkim and Tripura among the states, only a very small percentage of currently married women in the northeastern area use contraceptive methods. Among the union territories, Chandigarh (77%) and Ladakh (51%) had the greatest and lowest rates of contraceptive method usage, respectively. Contraceptive methods across districts in India showed a large variation in the use of modern, somewhere between 11 and 81 percent. West Khasi Hills (15%), Ukhrul (12%), East Khasi Hills (12%), Imphal West (16% each), and South West Khasi Hills (16% each) are the districts with the lowest use of contemporary contraceptives. Nagpur (81%), Balod, Indore, Chikmagalur (each at 80%), and Chamarajanagar (79%), are the districts with the greatest use of modern contraceptive methods. Hysterectomy was done by three percent of women age 15-49 years. 34.6 years was the median age for hysterectomy among women age 15-49 years. Private health facilities were the preferred site for the women (70%) who have undergone a hysterectomy. The two states with the highest rates of hysterectomy are Andhra Pradesh (9%), followed by Telangana (8%), while Sikkim (0.8%) and Meghalaya (0.7%) have the lowest rates. The public health sector provided almost seven in 10 (68%) modern methods of contraceptives to the user and the rest provided by the private healthcare industry, which includes trust hospitals/clinics or NGOs (25%), as well as other sources (7%), such stores, their husband, family, and friends. Less urban users (55%) than rural users (74%) acquire contraceptive techniques from the public health sector. The main source is public health for male and female sterilisation, injectables and IUDs/PPIUDs, whereas the main source of condoms/Nirodhs, pills and injectables is private health. The least likely state to use the public health sector as a source for modern contraceptives was Tripura (39%), followed by Delhi (44%), Manipur (49%), and Assam (49% each). In contrast, 85% of those who use contemporary contraceptive methods in Chhattisgarh and Madhya Pradesh and 81% in Karnataka got their method via the public health system. Ladakh (92%), Andaman & Nicobar Islands (83%) and Puducherry (83%) all have relatively high rates of usage of contemporary contraceptive techniques in the public health sector. In comparison to Uttarakhand (12%), Mizoram (67%) has two-thirds of the male condom users, followed by Sikkim (62%) and Kerala (53%) who got their technique from the public health sector. Emergency contraceptive pills were used by less than one percent of women. The private health sector, primarily pharmacies or drugstores are the major source of emergency contraceptive pills [3].

Since NFHS-4, practically all Phase-1 States and UTs have seen a drop in Total Fertility Rates (TFR). The replacement level of fertility (2.1) has been reached in 19 of the 22 States/UTs. There are now just 3 states with TFR over replacement levels: Bihar (3.0), Meghalaya (2.9) and Manipur (2.2). With an increasing number of living children the use of contraceptive among currently married women rises from 17% of females without live children to 52% of females with a kid and 82% of females with 3 children in NFHS-5 data. According to NFHS-5 statistics, 66 percent of women who work for pay use a contemporary form of contraception compared to 53 percent of women who are unemployed. Increase in the Women's level of schooling shows decline the number of children per woman. According to NFHS- 4 statistics, women with less than 12 years of education have 3.1 kids on average, against 1.7 kids for women with at least 12 years of education. Women in the lowest wealth quintile had an average of 1.6 more children than women in the highest quintile, whereas modern contraceptive use increased with income, going from 51% of women in the lowest quintile to 59% of women in the highest quintile (TFR of 3.2 children versus 1.5 children).

Modern contraception is used by almost sixty-four percent of Buddhist/Neo-Buddhist women, as opposed to forty-seven percent of Muslim women in NFHS-5 data. According to NFHS- 4 statistics, the TFR varies by gender, with Muslims having the highest TFR

at 2.6 children per woman and Jains having the lowest at 1.2. The majority of women who become sterilized who did so by the time, they are 25.7 years old, which is the same as in NFHS-4. Meghalaya, Mizoram, and Bihar have the lowest rates of contraceptive use among the states, while West Bengal, Odisha, and Himachal Pradesh have the highest rates (74 percent each). Except for Sikkim and Tripura, all of the smaller states in the northeast area have relatively low rates of presently married women who utilise contraceptive methods.

According to NFHS-5 data, Chandigarh (77%) and Ladakh (51%) are the two union territories with the lowest and highest rates of contraceptive use, respectively. In contrast, 23 states and union territories, including all of the southern states, had fertility below the 2.1 children per woman replacement criterion, according to NFHS-4 statistics. Contraceptive Prevalence Rate (CPR) has grown dramatically across most States and UTs, with West Bengal and Himachal Pradesh having the highest rates (74 %). In practically all States and UTs, there has been a rise in the use of contemporary contraceptive techniques. 68 percent of people who use contemporary contraceptives got them via the public health system. Half of the female users of contraceptives in the five years prior to the poll stopped using it within less than a year. A desire to get pregnant is the main reason for stopping (11 percent). Most Phase-1 States/UTs have seen a decline in the number of unmet family planning requirements. Family planning strategies are now less often unfulfilled, from 13% in NFHS-4 to 9% in NFHS-5. The greatest rates of unmet demand for family planning techniques are spotted in Meghalaya (27%) and Mizoram (12%). In most states, fewer than 10% of the criterion is unmet, with the exception of Punjab, Maharashtra, Gujarat, Bihar, Jharkhand, Uttar Pradesh, Kerala, Arunachal Pradesh, Assam, Sikkim, and Manipur, where it varies between 10% and 15%. Delhi, Karnataka, Telangana and Andhra Pradesh (5%) have the fewest unmet needs (6 percent each). In every state with the exception of Meghalaya and Mizoram, the proportion has decreased to less than 10%. Hysterectomy rates among women are 3%. Seventy percent (70%) of hysterectomies were carried out at a private hospital. Half of the women who started taking a contraceptive method in the 5 years before to the poll quit using it in less than a year. A desire to get pregnant is the main reason for stopping (11 percent). Comparing "other methods" to IUDs/PPIUDs (35%), the rates of contraceptive cessation for any reason were greater for condoms/ Nirodhs (61%) and injectables (66%) than for rhythm (60%) and withdrawal (59%) and tablets (55%). The desire to get pregnant was the most frequent reason for stopping the method's use. Only 7% of the times a woman who used a contraceptive had to stop because she chose another technique. The percentages of discontinuing any method of contraception range from 9% in Karnataka (where almost all users were sterilised) to 66% in Uttar Pradesh. The states of Punjab, Madhya Pradesh, Chhattisgarh, Kerala, Karnataka, Uttar Pradesh, and Bihar have the highest discontinuation rates (between 60 and 68 percent) for any spacing plan [3].

Discussion

The usage of contemporary family planning contraceptives increased from 47.8% to 56.5%. during the NFHS-4 (2015–16) and NHFS-5 (2019–20) surveys. According to NFHS-5 data, increased contraceptive usage nationwide has played a significant role in reducing the number of unintended births and, therefore, India's total fertility rate to below replacement level. Experts note that while the usage of contraception has increased in 30 of the 36 states and UTs, considering their vast populations, the outcomes in Uttar Pradesh and Bihar have been particularly encouraging. The prevalence of present-day contraceptives use has increased by about two thirds in Bihar, from NFHS-4(23.3 %) to NFHS-5(44.4 %). Three key factors— via means of contraception, the rising marriage age, and abortions— are responsible for the decline in fertility. In Bihar, the average age at which a girl marries is still young; in NFHS-4, 43% of girls were married before the age of 18, and 41% under the age of 18 in NFHS-5. The increased use of contemporary contraceptives, however, has been a success. This indicates a drive by the state government to promote family planning programmes. The rise in education, which has resulted in an increase in contraceptive usage and family planning, is, nevertheless, what is most important in the case of Bihar. The hike in the marriage age has been good news for UP. In UP, 16% of females under the age of 18 were married, according to the most recent poll. In NFHS-4, 21% of women under the age of 18 were married, a figure that has dropped by 5 percentage points in five years. With a switch from sterilisation to reversible contraception, UP has also demonstrated a very excellent balanced mix of contraceptive methods. Currently, sterilisation makes up 40% of its contraception mix, while reversible contraceptive options make up 60%. From 31.7% in 2015–16 to 44.5 % in 2019–20, more people in UP are using contraception. Additionally, a 0.4% marginal decline in female sterilisation has been seen in UP. The states with the largest increases in contraceptive use in NFHS-5 over NFHS 4 were Goa (35.3%), Nagaland (24%), Dadra and Nagar Haveli and Daman and Diu (24%), Bihar (21%) and Arunachal Pradesh (20.6%). Additionally, Rajasthan has seen a considerable 9% increase in the usage of contraception. At least 60 percent of women use contraception in the following states: Karnataka, Andhra Pradesh, Telangana, Tamil Nadu, Madhya Pradesh, Maharashtra, Puducherry, Himachal Pradesh, West Bengal, Chhattisgarh, Rajasthan, Goa, and Haryana. The biggest decreases were seen in Punjab and Ladakh, while the lowest rates of contraceptive usage were found in Meghalaya (22.5%) and Manipur (18.2%). Women, according to data, prefer smaller families. If women had more access to contraception and more decision-making power, they would become pregnant even less frequently, even as the usage of contraceptives has grown, showing improved efficacy of India's family planning programme. India's population control efforts will take a clear course correction if the four states of Madhya Pradesh, Bihar, Rajasthan, and UP experience TFR adjustment. The adoption of current contraceptive techniques is one of the key causes behind a decline in TFR. Even if the country's average marriage age for women hasn't altered significantly, family planning programmes are having an influence, with certain states having as many as 30–40% of women being married before turning 18. A nation reaches replacement levels once 60 percent of women utilise contraception. Since there are still worries about overpopulation, family planning has seen the biggest improvement. These findings, however, demonstrate that it is possible to attain with more effective contraception.

Recommendation

Since national health surveys need a lot of resources, it makes sense to make the most of the information they can provide about how to increase the use of contraception in India. We suggest that

collaboration might enhance the design of national health surveys in India, much like the consultative development process that underlies the National Health Survey in Brazil[6]. We have a number of suggestions. First, India should conduct a single, comprehensive national health survey every five years rather than several, infrequent surveys with overlapping objectives. This might include information on extra significant reasons for stopping contraceptive, unmet needs, and lost to follow-up. The sample sizes should be designed to produce estimates for all indicators at the state level and estimates for critical indicators at the district level. In order to satisfy monitoring criteria and offer comparable data across time, it is also necessary to standardise data collecting on the important factors. To improve the relevance and use of the data, effective collaborations with a wider variety of pertinent stakeholders, including the academic community, should be developed. Fourth, thorough procedures ought to be made public. Fifth, in order to expeditiously complete the essential responsibilities of creating policies and creating a more effective health system, individual-level data from these surveys should be made available to the public. Sixth, taking into account the integration of home survey data with administrative and health care consumption data, ideally done by using geographic coding techniques. With benefits for survey management and prompt dissemination of results, India may eventually also think about a continuous design for its national health survey.

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