# Use of Different Family Planning Methods and Availability of Family Planning Services in Different Districts (Health Circles) of Maharashtra

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#### **Abbreviation**

NPP: National Population Policy

NHP: National Health Policy

NHM: National Rural Health Mission

ICPD: International Conference on Population and Development

MDG: Millennium Development Goals

SDG: Sustainable Development Goals

MOHFW: Ministry of Health and Family Welfare

**IUCDs:** Intrauterine Contraceptive Devices

NFHS: National Family Health Survey

HMIS: Health Management Information System

FP: Family Planning

SC: Sub Center

PHC: Primary Health Center

CHC: Community Health Center

SDH: Sub District Hospital

DH: District Hospital

NG: Not Given

#### **Abstract**

The study delves into the landscape of family planning (FP) services and contraceptive methods in Maharashtra, as outlined in various figures. Notably, Chatrapati Sambhajinagar leads with 99% of its facilities offering FP services, while Nagpur and Amarawati lag behind at 48.2% and 53%, respectively. Female sterilization dominates FP methods, with minimal contribution from Non-Scalpel Vasectomies (NSVs), indicating limited male involvement. Circles like Latur and Nashik exhibit varying degrees of female sterilization uptake, while Nashik consistently leads in Intrauterine Contraceptive Device (IUCD) usage. Antara contraceptive usage varies across circles, with Pune showing prominence. Nashik also leads in Oral Pills usage, while Mumbai dominates in Condom usage. Weekly Pills and Emergency Pills see Nashik and Pune as prominent contributors, respectively, with Mumbai consistently reporting the lowest usage percentages. These findings shed light on the regional variations and preferences in contraceptive methods, highlighting areas for targeted interventions and improvement strategies in family planning services across Maharashtra.

# Use of Different Family Planning Methods and Availability of Family Planning Services in Different Districts (Health Circles) of Maharashtra

#### Introduction

Population growth is the problem for the India. Since 1971 to 2011, during 40 years' population growth is recorded from 420 million to 1200 million. In respect to the population, recently India to China it is estimated India (1428.6 million population) will overtake to China (1425.7 million population) (World Population Report 2023). It is predicted that India's population will be the 167 corer by 2050. Around 68% of India's population is in the age group of 15-64 years' and 26% in the age group of 10-24 years, making India one of the largest working population country in the world.

Since the independent of the country it is showing decadal growth of 21.6 percent during 9151-61, 24.8% during 1961-71, 23.9% in 1971-81, 21.5% during 1981-91 and 17.7% during 1991-2001 (Karamer, 2021). Looking at the rapid growth in population policy makers feels to adopt family planning programme. Thus, India was the first country in the world to have launched a National Programme for Family Planning in 1952. Over the decades, the programme has undergone transformation in terms of policy and actual programme implementation and currently being repositioned to not only achieve population stabilization goals but also promote reproductive health and reduce maternal, infant & child mortality and morbidity.

Since the inception of the family planning programme in the country. There was no significance declined has been noticed in the growth of the population. Rather there was increase in the percentage of previous decade was recorded. Till 1971-81 there was 24.66 (Census of India A 02) percent growth was recorded but during 1981-91 there was 0.79 points decline in the percentage of growth of population and till 2011 it has recorded 17.70 percent decadal growth.

The objectives, strategies and activities of the Family Planning division are designed and operated towards achieving the family welfare goals and objectives stated in various policy documents (NPP: National Population Policy 2000, NHP: National Health Policy 2017, and NHM: National Rural Health Mission) and to honour the commitments of the Government of India (including ICPD: International Conference on Population and Development, MDG:

Millennium Development Goals, SDG: Sustainable Development Goals, and others) (MOHFW 2023 ).

Family planning refers to the methods and techniques used by individuals or couples to control the number and spacing of their children. The choice of a family planning method depends on personal preferences, health considerations, and individual circumstances. There are various methods of family planning, which can be broadly categorized into two main types: contraceptive methods and non-contraceptive methods. Here is an overview of both types:

Figure 1: Family Planning and Contraceptive Methods currently in practice

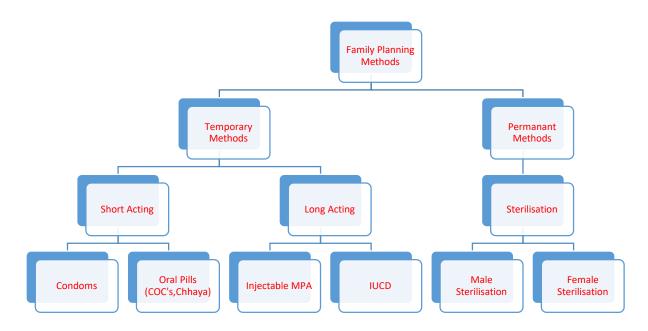


Figure 1 illustrates the current utilization of family planning and contraceptive methods. These methods can be broadly categorized into two types: temporary and permanent. Couples wishing to delay the expansion of their family typically opt for temporary methods. Within this category, there are long-acting methods and short-acting methods. Short-acting methods include condoms, oral pills, and emergency pills, while long-acting methods encompass injectable and intrauterine contraceptive devices (IUCDs). On the other hand, permanent sterilization methods, namely male sterilization and female sterilization, are chosen by eligible couples seeking to limit the size of their families.

#### **Review of Literature**

Family planning programme is one of the very important programme of the Ministry of Health and Family Welfare Government of India. Under which various health facilities are providing

basket of choice of modern methods of family planning. Hence, it is important to understand regional disparities of the various methods of family planning is being used in Maharashtra.

Thirty years of government-sponsored family planning in India have failed to produce the substantial drop in population growth envisioned by policy makers in the early years. Result of the study is just conveying knowledge and techniques may not motivate couples go for small family size, unless there is focus on economic development (Rosanna 1984).

There is a need to strengthen the coordination of all its aspects, focusing on planning, programmes, monitoring, training and procurement. The quality of care in family planning must be a major focus area to ensure the success of family planning programmes. Furthermore, there is a need for greater male participation both as enablers and beneficiaries and also address the sexual and reproductive needs of the youth (Muttreja and Singh 2018)

Study was done way back in 1987 to review the trends in family planning behaviour in the state of Maharashtra. Although sterilization is the contraceptive method of choice, the goal of the government to lower the net reproduction rate by the year 1991, in Maharashtra is unlikely to be achieved, given current family size norms and most families' desire for two sons (Bhate and Srikantan 1987).

This study examined male perceptions and awareness about family planning. The study also investigated male involvement in family planning and contraceptive use decision-making. Almost two thirds of the surveyed men (64%) had heard about modern family planning. Results show that the current use of any modern family planning method, including male and female methods, was 18.4%. Among the currently used modern methods, the major modern family planning method was male sterilization (67%), followed by oral pills (11%) and male condom use (10%). This study indicated that the acceptance of male modern family planning methods is very high (Jungari and Paswan 2019).

Findings indicate a strong son preference. At every parity, women with sons only desired fewer children and were more likely to use contraception. Among women who desired more children, there was no indication that women with sons only desired a balanced sex composition. Contraception was 20% among couples with no son, 50% among those with one living son, and 81% among those with two living sons. If sex preferences were completely eliminated in the Punjab, there would be a 9% decline in desired family size from 3.05 children to 2.77 children (Malhi and Singh 1995).

The study was conducted to find out the unmet need of family planning among the married woman of reproductive age in a rural area. Study reviled 27.7% of the respondents had unmet need for family planning. The reasons for unmet need were lack of knowledge, health concerns & Religious belief (Wasnik, et al 2013).

This study is aimed to view the determine of the social correlates of unmet need in a Community setting. In West Bengal unmet need for family planning was 8% as per NFHS-3 (2005–2006), Unmet need was more in rural area than urban, lower age group than higher, Muslims than Hindus, lower level of literacy (including illiterates) than higher and also increase of joint families than nuclear families (Haldar, et al 2012).

#### **Need of the Study**

Since inception of family planning programme in the country. Maharashtra is one of the state is implementing national programme as an agenda of the country. Prevalence of the use of contraceptive is 66 percent in the Maharashtra. There are some districts the prevalence rate is below the state average. In Maharashtra most common contraceptive used is condom (10%) followed by oral pills and IUCD (NFHS 5). Therefore, to understand the trend of use of different family planning methods and availability of family planning services in different districts of Maharashtra is important.

- State the research question or hypothesis.

#### **Objective**

- > To understand the availability of family planning services in different districts of Maharashtra
- To understand the availability and adequacy of Human resource and their training status
- > To Understand the trend of the use of family planning methods in the different districts of Maharashtra

#### Methodology

The usage of different methods of family planning will be evaluated based on the secondary data available filled by the facilities on the HMIS portal, such as number of NSV performed, number of mini lap, number of laparoscopic surgeries took place, number of IUCD inserted, number if condom, oral pills, antra, emergency pills, etc. are used during in the particular financial year.

The assessment of various family planning methods will be conducted by analysing secondary data available through the information provided by facilities on the HMIS portal. This data encompasses metrics such as the count of NSV procedures, mini laparotomies, laparoscopic surgeries, and the insertion of IUCDs. Additionally, it includes the quantity of condoms, oral pills, Antara contraceptives, emergency pills, and other relevant information recorded during a specific financial year.

Data used of three consecutive years i.e. 2020-21, 2021-22 and 2022-23. Univariate analysis is used for the examination and interpretation of the data

#### Variables

Family planning and contraceptive methods are being used in the different health circles of the Maharashtra i.e. Female Sterilisation, NSV, IUCD, Oral Pills, Condom, Antara, Weekly Pills and Emergency Pills. Considered total of each method used in the Maharashtra and from that percentage of each circle contributing to particular method.

#### **Data Analysis**

To conclude this study, a comprehensive descriptive analysis was conducted, focusing on health division-specific basic tabulation of findings and charting. This involved a meticulous examination and presentation of data to unveil key patterns and trends within each health division. The process included detailed tabulations and graphical representations, providing a clear visual insight into the observed outcomes.

## Result Availability of Family Planning Services

Table 1: District wise Distribution of facilities by the availability of FP services

District	Yes	No	Total	Percentage
Akola	37	28	65	56.92
Amravati	93	82	175	53.14
Buldhana	80	46	126	63.49
Washim	24	11	35	68.57
Yavatmal	75	20	95	78.95
Chhatrapati Sambhajinagar	97	1	98	98.98
Hingoli	29	5	34	85.29
Jalna	42	12	54	77.78
Parbhani	43	7	50	86.00
Kolhapur	88	32	120	73.33
Ratnagiri	60	10	70	85.71

Sangli	66	21	87	75.86	
Sindhudurg	41	7	48	85.42	
Beed	59	19	78	75.64	
Dharashiv	45	8	53	84.91	
Latur	50	9	59	84.75	
Nanded	77	22	99	77.78	
Mumbai	53	31	84	63.10	
Mumbai Suburban	145	33	178	81.46	
Bhandara	36	27	63	57.14	
Chandrapur	71	26	97	73.20	
Gadchiroli	60	14	74	81.08	
Gondia	46	27	73	63.01	
Nagpur	81	87	168	48.21	
Wardha	40	26	66	60.61	
Ahmednagar	106	8	114	92.98	
Dhule	42	12	54	77.78	
Jalgaon	83	30	113	73.45	
Nandurbar	56	23	79	70.89	
Nashik	144	43	187	77.01	
Pune	180	36	216	83.33	
Satara	94	10	104	90.38	
Solapur	90	11	101	89.11	
Palghar	76	24	100	76.00	
Raigad	50	22	72	69.44	
Thane	117	28	145	80.69	
Maharashtra	2576	858	3434	75.01	

Source: HMIS portal

Table 1 depicts the data of district wise facilities are having FP services. Among all 35 districts Chatrapati Sambhajinagar is having highest 99 % facilities of the district is having family planning services. Followed by Ahmednagar district 93 % and Nagpur is lowest 48.2%, followed by Amarawati 53%.

Table 2: Total Number of health facilities available in the Maharashtra

	SC	РНС	СНС	SDH	DH	Total
Rural Health Statistics	10673	1853	256	NG	NG	NG
HMIS Report 2020-21 &2021-22	10669	3524	448	98	83	14822

According to the HMIS Report 2020-21 & 2021-22 publish by the MoHFW. The total number of health facilities are 14822. Whereas according to the HMIS portal information (Table 1) there are 3434, 75 % health facilities are providing FP and contraceptive services in the state

of Maharashtra. It is being seen from the table that there is a mismatch in the number of facilities given in the rural health statistics and HMIS portal.

Figure 2: Share of Female Sterilisation among permanent sterilisation in Maharashtra during 2020-21, 2021-22, 2022-23

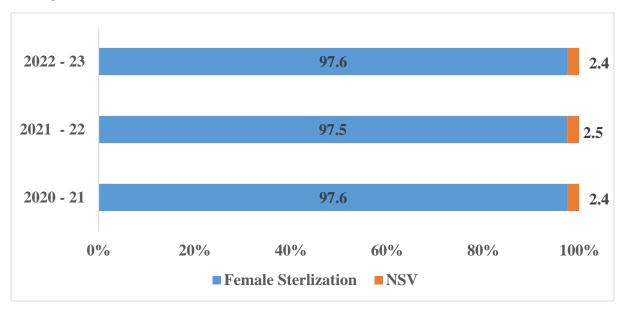
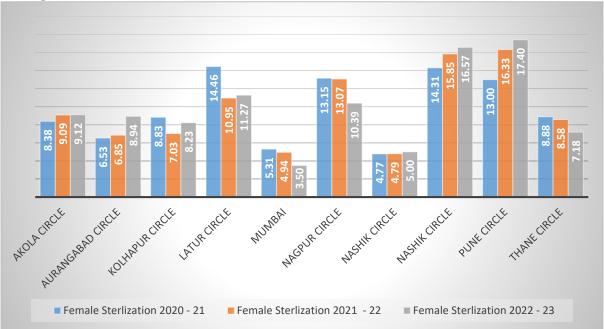


Figure 2 depicts the share of female sterilisation and NSV's conducted in the state of Maharashtra during 2020-21, 2021-22 and 2022-23. The share of female sterilisation among the total sterilisation (female sterilisation and NSV) is almost same 97.62%, 97.48% and 97.61% for the year 2020-21, 2021-22 and 2022-23 respectively. Pertaining to the share of NSV 0.2%, 0.3% and 0.3% during the year 2020-21, 2021-22 and 2022-23 respectively. This clear indicative that the contribution of male in respect to the family planning is very less.

Figure 3: Share of Female Sterilisation among permanent sterilisation in Maharashtra during 2020-21, 2021-22, 2022-23



In Figure 3, the distribution of female sterilization as a proportion of total permanent sterilization is illustrated. In the 2020-21 period, the Latur circle exhibited the highest percentage at 14.46%, while the Nashik circle reported the lowest at 4.77%. Moving on to the subsequent year, 2021-22, the Pune circle took the lead with 16.33% female sterilization, while the Mumbai circle recorded a comparatively lower percentage of 4.96%. The trend continued into 2022-23, where the Pune circle maintained its superior performance with 17.40%, while the Mumbai circle had a further decline to 3.50% in female sterilization.

The data reveals a consistent and commendable performance by the Pune circle over the two consecutive years, indicating its effectiveness in female sterilization programs. On the contrary, the Mumbai circle experienced a dip in performance during the years 2021-22 and 2022-23, suggesting a need for closer examination and potential intervention to improve the efficiency of female sterilization efforts in that region.

Figure 4: Share of NSV (Male) Sterilisation among permanent sterilisation in Maharashtra during 2020-21, 2021-22, 2022-23

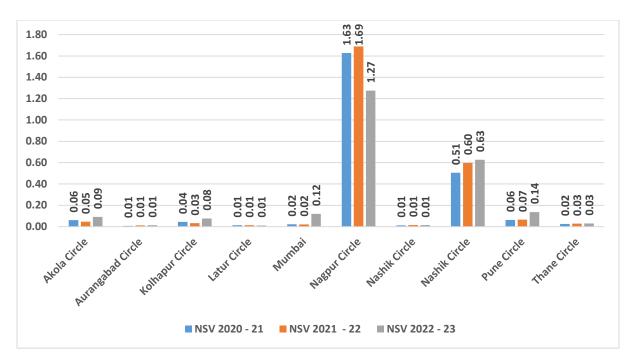


Figure 4 provides an overview of the distribution of Non-Scalpel Vasectomies (NSVs) in relation to the total permanent sterilization in Maharashtra. The Nagpur circle emerges as the leading contributor, conducting NSVs at percentages of 1.63%, 1.69%, and 1.27% in the years 2020-21, 2021-22, and 2022-23, respectively. In contrast, the Aurangabad, Latur, and Nashik circles demonstrate the lowest contribution to permanent sterilization, with percentages of 0.1% for each of the mentioned years.

This data underscores Nagpur's consistent and relatively high involvement in NSV procedures over the three years. The comparatively low percentages from Aurangabad, Latur, and Nashik circles may indicate a need for increased focus or targeted efforts to promote and conduct NSVs in these regions. Analysing the distribution of NSVs across circles can guide interventions and resource allocation to ensure a more balanced and effective approach to permanent sterilization methods in Maharashtra.

Figure 5: Share of use of IUCD as contraceptive among family planning methods in Maharashtra during 2020-21, 2021-22, 2022-23

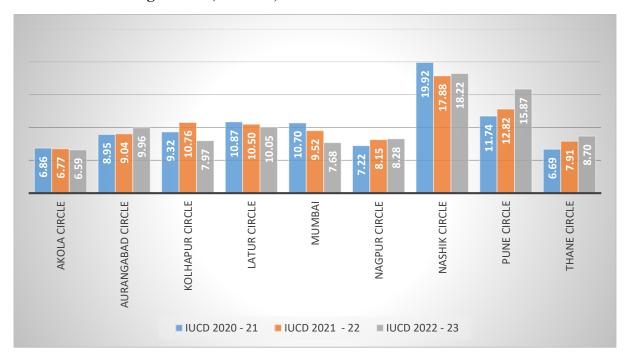


Figure 5 defines the distribution of the use of Intrauterine Contraceptive Devices (IUCD) within family planning methods in Maharashtra. The Nashik circle emerges as the predominant contributor, accounting for the highest percentages at 19.92%, 17.88%, and 18.22% in the years 2020-21, 2021-22, and 2022-23, respectively. On the other end of the spectrum, the Akola circle exhibits the lowest utilization of IUCD contraceptives, with percentages of 6.86%, 6.77%, and 6.59% in the corresponding years.

This data highlights Nashik's consistent lead in the adoption of IUCD as a family planning method, suggesting a positive trend in contraceptive choices within the region. Conversely, the lower percentages in Akola circle may indicate a potential area for targeted efforts to increase awareness and promote the use of IUCD contraceptives. A deeper analysis of the factors influencing these patterns can inform strategies to enhance the adoption of IUCD and improve family planning outcomes in Maharashtra.

Figure 6: Share of use of Antara as contraceptive among family planning methods in Maharashtra during 2020-21, 2021-22, 2022-23

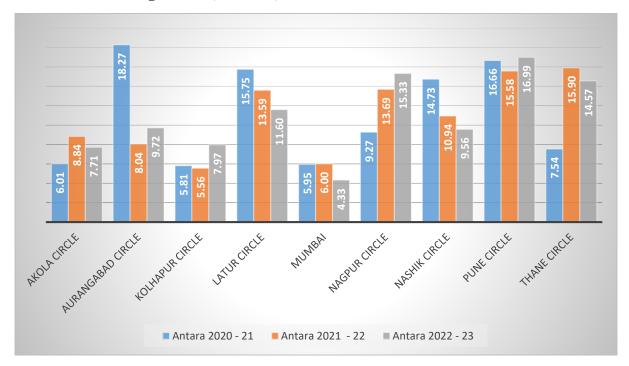


Figure 6 provides insights into the utilization of the Antara contraceptive across various health circles in Maharashtra. In the fiscal year 2020-21, the Aurangabad circle stands out as the top contributor, representing the highest percentage at 17.66%. Moving to the subsequent year, 2021-22, the Thane circle takes the lead with a contribution of 15.90%, while in 2022-23, Pune emerges as the highest contributor with 16.99% in the use of Antara contraceptive.

Conversely, Nashik consistently reports the lowest usage percentages, with figures of 3.36%, 1.85%, and 2.23% in the years 2020-21, 2021-22, and 2022-23, respectively.

This data highlights the dynamic distribution of Antara contraceptive usage across health circles in Maharashtra. The variation in the highest contributors each year suggests that the adoption of this contraceptive method is subject to regional dynamics and may be influenced by factors specific to each health circle. Further analysis of the underlying factors contributing to these patterns can guide targeted interventions to promote the use of Antara contraceptive and enhance family planning strategies in the respective circles.

Figure 7: Share of use of Oral Pill among family planning methods in Maharashtra during 2020-21, 2021-22, 2022-23

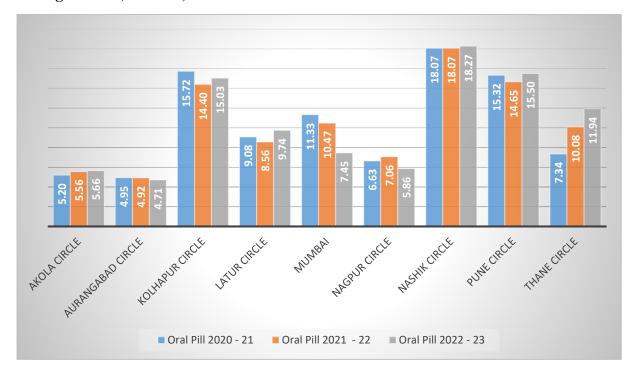


Figure 7 outlines the distribution of the utilization of Oral Pills as a contraceptive method in family planning across different health circles in Maharashtra. The Nashik circle consistently emerges as the leading contributor, reporting the highest percentages at 18.07%, 18.07%, and 18.27% in the years 2020-21, 2021-22, and 2022-23, respectively. In contrast, the Aurangabad circle consistently demonstrates the lowest usage percentages for Oral Pills contraceptives, with figures of 4.95%, 4.92%, and 4.71% in the corresponding years.

This data underscores the significant regional variations in the adoption of Oral Pills as a contraceptive method in Maharashtra. Nashik's consistently high percentages suggest a prevalent preference for this method within that health circle. On the other hand, the consistently lower usage in Aurangabad may indicate a need for targeted awareness campaigns or interventions to increase the acceptance and use of Oral Pills as a family planning method in that particular region. Further analysis of the contributing factors can guide strategies for promoting contraceptive choices and family planning in different health circles.

Figure 8:Share of use of Condoms as contraceptive among family planning methods in Maharashtra during 2020-21, 2021-22, 2022-23

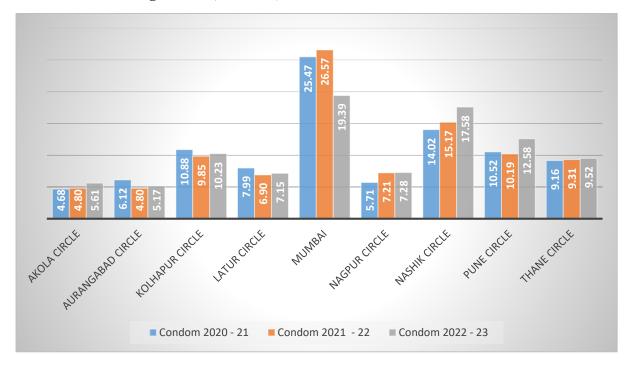


Figure 8 illustrates the distribution of Condom usage as a contraceptive method in family planning across various health circles in Maharashtra. The Mumbai circle consistently stands out as the leading contributor, reporting the highest percentages at 25.47%, 26.57%, and 19.39% in the years 2020-21, 2021-22, and 2022-23, respectively. Conversely, the Aurangabad circle consistently demonstrates the lowest utilization percentages for Condom contraceptives, with figures of 6.12%, 4.80%, and 5.17% in the corresponding years.

These findings underscore the pronounced regional disparities in the adoption of Condoms as a family planning method in Maharashtra. Mumbai's consistently high percentages suggest a prevalent preference for Condoms within that health circle. Conversely, the consistently lower usage in Aurangabad may indicate the need for targeted initiatives to raise awareness and promote the use of Condoms for family planning in that particular region. A more in-depth analysis of the contributing factors can guide strategies to enhance contraceptive choices and family planning practices in different health circles.

Figure 9: Share of use of Weekly Pill as contraceptive among family planning methods in Maharashtra during 2020-21, 2021-22, 2022-23

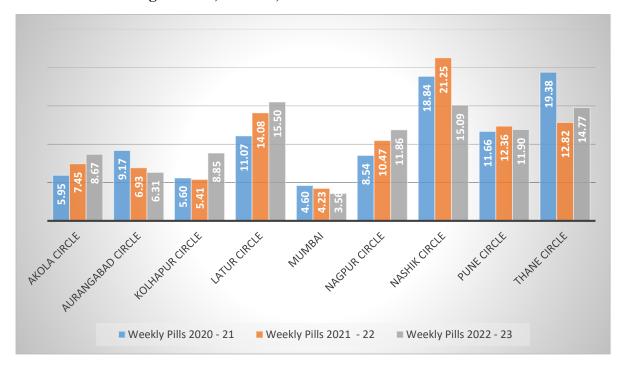
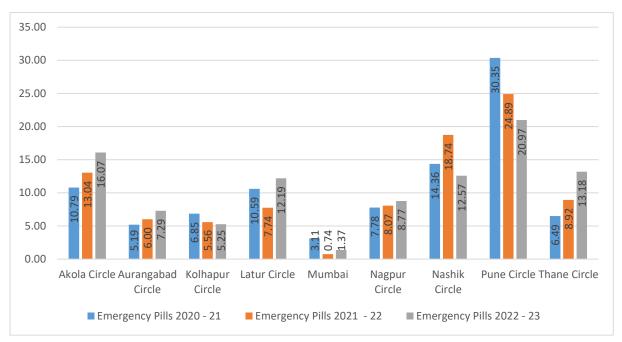


Figure 9 provides an overview of the utilization of Weekly Pills as a contraceptive method in family planning across different health circles in Maharashtra. The Nashik circle consistently emerges as the primary contributor, reporting the highest percentages at 18.84%, 21.25%, and 15.09% in the years 2020-21, 2021-22, and 2022-23, respectively. Conversely, the Mumbai circle consistently demonstrates the lowest utilization percentages for Weekly Pills contraceptives, with figures of 4.60%, 4.23%, and 3.56% in the corresponding years.

This data highlights the regional variations in the preference for Weekly Pills as a family planning method in Maharashtra. Nashik's consistently high percentages suggest a prevalent inclination towards Weekly Pills within that health circle. On the other hand, the consistently lower usage in Mumbai may indicate the need for targeted initiatives to raise awareness and promote the use of Weekly Pills for family planning in that particular region.

Figure 10 illustrates the distribution of Emergency Pills usage as a contraceptive method in family planning across different health circles in Maharashtra. The Pune circle consistently emerges as the leading contributor, reporting the highest percentages at 30.35%, 24.89%, and 20.97% in the years 2020-21, 2021-22, and 2022-23, respectively. In contrast, the Mumbai circle consistently demonstrates the lowest utilization percentages for Emergency Pills contraceptives, with figures of 3.11%, 0.74%, and 1.37% in the corresponding years.

Figure 10: Share of use of Emergency Pill as contraceptive among family planning methods in Maharashtra during 2020-21, 2021-22, 2022-23



These findings highlight the pronounced regional disparities in the adoption of Emergency Pills as a family planning method in Maharashtra. Pune's consistently high percentages suggest a prevalent reliance on Emergency Pills within that health circle. Conversely, the consistently lower usage in Mumbai may indicate the need for targeted initiatives to raise awareness and promote the use of Emergency Pills for family planning in that particular region.

Further analysis could explore the factors influencing these trends, including cultural preferences, awareness campaigns, and healthcare accessibility, to inform strategies for enhancing contraceptive choices and family planning practices in different health circles.

#### **Discussion and Findings**

The results of the analysis provide valuable insights into the utilization of various family planning methods across different health circles in Maharashtra over the years 2020-21, 2021-22, and 2022-23. In the context of the objectives, several key interpretations can be made:

#### **Female Sterilization Trends**

The consistently high performance of the Pune circle in female sterilization in certain health circles may demonstrate superior efficiency in implementing permanent sterilization programs. The lower percentages in the Mumbai circle indicate a potential deviation from expected

trends, prompting further investigation into the factors contributing to the dip in performance during the years 2021-22 and 2022-23. (R)

#### Non-Scalpel Vasectomy (NSV) Patterns

Nagpur's consistent leadership in NSV procedures exhibit higher involvement in non-traditional sterilization methods. The lower NSV percentages in Chatrapati Sambhajinagar, Latur, and Nashik circles suggest a need for targeted efforts to promote and conduct NSVs in these regions, aligning with the research question on regional variations in permanent sterilization methods.

#### **Intrauterine Contraceptive Device (IUCD) Usage**

The dominance of Nashik in IUCD usage is consistent with the expectation that regional preferences may influence the adoption of specific contraceptive methods. The lower percentages in Akola circle highlight a potential gap in IUCD awareness, indicating the need for targeted interventions to enhance acceptance.

#### **Antara Contraceptive Adoption**

Pune and Thane's higher adoption of Antara contraceptives supports the hypothesis that awareness campaigns and targeted efforts can influence the usage of specific family planning methods. Nashik's consistently lower usage suggests a potential need for interventions to promote the adoption of Antara contraceptives in that region.

#### Oral Pills as a Contraceptive Method

Nashik's consistent lead in oral pill usage that regional preferences may impact the choice of contraceptive methods. The lower percentages in Aurangabad circle indicate a potential gap in awareness and promotion of oral pills, warranting further exploration.

#### **Condom Utilization Patterns**

Mumbai's consistent high condom usage and accessibility contribute to the adoption of specific contraceptive methods. The lower percentages in Aurangabad circle highlight the need for targeted interventions to promote condom usage in that region.

#### Weekly Pills as a Contraceptive Method

Nashik's consistent dominance in weekly pill usage aligns that regional preferences may influence the choice of family planning methods. The lower percentages in Mumbai indicate potential variations in awareness and acceptance of weekly pills, prompting further investigation.

#### **Emergency Pills Adoption**

Pune's consistent lead in emergency pill usage supports the hypothesis that targeted awareness campaigns can influence the adoption of specific contraceptive methods. Mumbai's consistently lower usage suggests a need for interventions to improve accessibility and promote the use of emergency pills in that region.

#### Conclusion

In summary, the results provide micro insights into the regional variations and trends in family planning method adoption in Maharashtra. The interpretations highlight the importance of tailored interventions, ongoing awareness campaigns, and improved accessibility to enhance family planning outcomes across diverse health circles. Further research and targeted initiatives are recommended to address specific gaps identified in the analysis.

#### **Recommendations**

- Importance of sustained efforts and awareness campaigns for maintaining high female sterilization rates.
- NSVs may face challenges in acceptance. There are some beliefs among male that if they
  accept NSV. They may feel week and not able to do day to day work efficiently.
  Therefore, efforts are needed to create awareness about the NSV and its benefits.
- Literature often emphasizes the effectiveness and low user dependence of IUCDs.
   Nashik's high percentages align with this, while Akola's lower usage may indicate a need for targeted awareness campaigns.
- The findings align with literature indicating regional variations in oral pill preferences. Further analysis can explore cultural factors influencing these patterns.
- Mass awareness is required regarding the contraceptive methods i.e. Antara, IUCD,
   NSV, Weekly pills, emergency pills.
- Overall the findings align with existing literature on the importance of targeted interventions, cultural factors, and regional preferences in shaping family planning method adoption. While Pune demonstrated consistent success, areas with lower adoption rates, such as Nashik and Akola, may benefit from tailored awareness campaigns and improved access to diverse contraceptive methods. The findings underscore the need for ongoing research and interventions to enhance family planning outcomes in diverse regional contexts.

#### Limitations of the study

Researcher has used the HMIS data for the study. HMIS gathered the data mainly from the public facilities. Private facilities data is not available for analysis. Therefore, the results are not representing the whole society. Also HR entering the data at facility level may also having limited knowledge of the different methods and there use in family planning, it results the mechanical data entry. Similarly, as said above researcher used HMIS data for the study. The on the training of the HR in family planning is not available on the web portal. Therefore, could not able to do the analysis on one of the objectives of the study. Though the validation check committees are available at the facility levels and at the district level. Still there are errors in the data. There is inconstancy for the number of health facilities are having family planning services and contraceptive methods. All facilities not entering data on the web portal.

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