

Urban-Rural Disparity in Family Planning Use in India, 1992-2021

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Abstract

This paper analyses urban-rural disparity in family planning use in India and in its constituent states and Union Territories during 1992-1993 through 2019-2021. The analysis reveals that urban-rural disparity in family planning use in India has decreased significantly largely because of relatively slow increase in family planning use in the urban population of the country as compared to the rural population. The paper also reveals that urban-rural disparity in the use of traditional family planning methods has increased in recent years because of relatively more rapid increase in the use of traditional methods in the urban population as compared to the rural population. The paper calls for reinvigorating family planning services delivery system in the urban population of the country. The paper also reveals significant variation in urban-rural disparity in family planning use across states/Union Territories of the country.

Introduction

The urban-rural disparity in family planning use in India is well-known. According to the latest National Family Health Survey 2019-2021 (NFHS-5), more than 69 per cent of the currently married women in the reproductive age group (15-49 years) in the urban population or their husband were practising a family planning method at the time of the survey compared to around 65 per cent currently married women in the reproductive age group in the rural population (Government of India, 2021). In 1992-1993, these proportions were 51 per cent and 37 per cent respectively (Government of India, 1997). The urban-rural disparity in use is also not the same for different family planning methods which can be grouped into two categories – modern family planning methods and traditional family planning methods. Modern family planning methods are defined as technological products or medical procedures that affect the natural reproduction process (Hubacher and Trussell, 2015) and include contraceptive pills, condoms (male and female), intrauterine device (IUD),

sterilisation (male and female), injectables, hormone implants, patches, diaphragms, spermicidal agents (foam/jelly), and emergency contraception. Modern family planning methods are further divided into permanent methods (male and female sterilisation) and modern spacing methods (all modern methods other than male and female sterilisation). Traditional family planning methods, on the other hand, include those methods that regularly track cervical mucus, such as the Billing's method, those that track a woman's body temperature, frequent and regular breastfeeding during the first six months after birth, and abstinence during certain times of the menstrual cycle. The context of the use of permanent methods, modern spacing methods and traditional family planning methods are different. Permanent methods are nearly cent per cent effective in preventing conception, but they are not reversible. Modern spacing methods are reversible but the effectiveness of different modern spacing methods in preventing conception is different for different methods. Traditional family planning methods are also reversible, but they are mostly considered less effective in preventing conception (International Institute for Population Sciences, 2010), although it is argued that they can be highly effective if used with dedication and proper knowledge (Johnson-Hanks, 2002). According to the National Family Health Survey, 58.5 per cent of the currently married women in the reproductive age group or their husband were using a modern family planning method in the urban population corresponding to 55.5 per cent in the rural population in 2019-2021. In 1992-1993, these proportions were 45 per cent and 33 per cent respectively. It is, however, not necessary that use of different family planning methods is always high either in the urban as compared to the rural or in the rural as compared to the urban population. There may be a possibility that use of a family planning method is higher in urban than in rural population, but use of other family planning method is higher in rural than in urban population. The sum of the urban-rural difference in the use of different family planning methods, therefore, may not reflect the true urban-rural disparity in family planning use. There is, therefore, the need to measure the urban-rural disparity in the use of different family planning methods separately, and then combine the method-specific urban-rural disparity in use into a single index of urban-rural disparity in family planning use. This paper is an attempt in this direction.

Reasons for urban-rural disparity in family planning use are not known. The literature is scanty on the urban-rural difference in the use of different family planning methods. The urban-rural disparity in the use of different family planning methods reflects the difference in the choices and preferences of urban couples as compared to choices and preferences of rural couples about different family planning methods. The urban-rural disparity in the use of different family planning methods may also reflect the difference in the availability and access to different family planning methods in urban and rural populations. There are some studies in India which have analysed the urban-rural difference in family planning use (Majumdar et al, 1972; Reddy, 1984; Gore and Katkuri, 2016; Nagdeve and Bharti, 2003). These studies, however, focus on either a specific population group or a specific family planning method. There is, to the best of our knowledge, no study which has analysed the urban-rural disparity in family planning use in India through a pan-India perspective. Such an analysis is relevant to understand the impact of official family planning

policies and programmes and for strengthening the family planning services delivery system. It can be conjectured that urban-rural disparity is different for different family planning methods and the contribution of the urban-rural disparity in use of different methods to the urban-rural disparity in family planning use may be different because of the proportionate share of different methods in total family planning use is different.

In this paper, we develop an index to measure the urban-rural disparity in family planning use that considers both urban-rural disparity in the use of different family planning methods and the proportionate share of different methods in total family planning use. We use the disparity index so developed to analyse urban-rural disparity in family planning use in India and in its constituent states/Union Territories during the period 1992-1993 through 2019-2021 using the data available through the National Family Health Survey. To the best of our knowledge, the present analysis is the first to highlight the urban-rural disparity in family planning use in India and has relevance to strengthening the family planning services delivery system which largely remains official in its organisation and implementation.

The paper is organised as follows. The next section of the paper develops the index of urban-rural disparity in family planning use. Section three describes the data source used in the analysis. The paper is based on the estimates of the prevalence of modern spacing methods, permanent methods, and traditional family planning methods available from the five rounds of the National Family Health Survey that have been carried out in 1992-1993; 1998-1999; 2005-2006; 2015-2016; and 2019-2021. Section four discusses patterns and trends in the prevalence of different family planning methods in urban and rural populations. The urban-rural disparity in family planning use is presented and discussed in section five of the paper. Section six decomposes the change in urban-rural disparity in family planning use into change in urban-rural disparity in different methods, and the change in family planning method mix. The last section of the paper summarises main findings of the analysis and discusses their relevance for improving the family planning services delivery system in the country in the context of meeting the family planning needs of the people.

Urban-Rural Disparity in Family Planning Use

The measurement of urban-rural disparity in family planning use is essentially an arbitrary procedure. Ideally, there should be no urban-rural disparity in the use of different family planning methods. There are, however, both endogenous and exogenous factors because of which family planning use is different in urban and rural populations. The main endogenous factor is the organisation of family planning services in urban and rural populations. The delivery of family planning services in India is an integral component of the public health care delivery system. In the rural population of the country, a nested, three tier public health care delivery system is in place in which every rural habitation is nested into the health sub-centre; every health sub-centre is nested into the primary health centre;

and every primary health centre is nested into the community health centre. This nested system ensures, at least on paper, that every rural currently married woman of reproductive age is mapped into the family planning services delivery system. Moreover, an extension approach is adopted for the delivery of family planning services in the rural population. In the urban areas, nested public health care delivery system does not exist, and the delivery of family planning services is essentially clinic or hospital-based which does not ensure mapping of every currently married urban woman of reproductive age into the family planning services delivery system.

There are many exogenous factors also that influence family planning use in urban and rural populations. The use of different family planning methods is found to be directly related to the educational status of women and the level of woman education is higher in urban than in rural population. The availability and access to different family planning methods, especially, modern spacing methods, is also better in urban than in rural population. It is also argued that urban-rural disparity in family planning use may be because of the difference in the number of children desired. Urban-rural disparity in the use of different family planning methods may be viewed as the inequality that reflects the inability of either urban or rural women in achieving their desired family size because of problems of availability and accessibility of family planning methods. Finally, a range of social and cultural factors also influence family planning use in urban and rural populations.

The urban-rural disparity in family planning use can be measured in both absolute and relative terms. In absolute terms, urban-rural disparity in family planning use is the sum of the arithmetic difference between the prevalence of different family planning methods in urban and rural populations. If u_i is the prevalence of method i in the urban population and r_i is the prevalence in the rural population, then the absolute urban-rural disparity in family planning use is defined as

$$AD = \sum_{i=1}^n AD_i = \sum_{i=1}^n (u_i - r_i) \quad (1)$$

Where n is the number of family planning methods available. The method-specific urban-rural difference in prevalence, AD_i , can be both positive and negative. When $u_i > r_i$, $AD_i > 0$. When $u_i < r_i$, $AD_i < 0$. When $u_i = r_i$, $AD_i = 0$. The larger the deviation of AD_i from 0 the greater the urban-rural disparity in the use of family planning method i . AD is the algebraic sum of method-specific AD_i . An advantage of AD is that the change in AD between two points in time can be decomposed into the change in AD_i as follows

$$\nabla AD = AD^2 - AD^1 = \sum_{i=1}^n (u_i^2 - u_i^1) - (r_i^2 - r_i^1) = \sum_{i=1}^n \nabla u_i - \nabla r_i = \sum_{i=1}^n \nabla AD_i \quad (2)$$

On the other hand, in relative terms, the urban-rural disparity in family planning use, RD , is defined as the ratio of family planning prevalence in the urban population to the family planning prevalence in the rural population

$$RD = u/r \quad (3)$$

Where u is the family planning prevalence in urban population and r is the family planning prevalence in the rural population. When there is no disparity in family planning use, $RDI=1$. When $u>r$, $RD>1$. When $u<r$, $RD<1$. The larger the deviation of RD from 1 the greater the urban-rural disparity in family planning use.

The use of the arithmetic difference between or the ratio of urban to rural family planning prevalence to measure urban-rural disparity in family planning use is, however, hazardous because both are highly influenced by the level of family planning use and the two tend to change in opposite directions with the change in the level of use often leading to contradictory evidence of the trend in urban-rural disparity (Preston and Weed, 1976). The magnitude of both arithmetic difference and ratio is necessarily limited by the magnitude of family planning prevalence in urban and rural areas since the prevalence ranges between 0 and 1. The limitations of the arithmetic difference and the ratio in measuring urban-rural disparity can be circumvented by using the logit transformation of the prevalence. The logit of the prevalence p is defined as

$$\text{logit}(p) = \ln\left(\frac{p}{1-p}\right) \text{ for } p \in (0,1) \quad (4)$$

The logit transformation maps probability or prevalence which range between 0 and 1 to real numbers which range between $-\infty$ and $+\infty$. On the other hand, square of the logit transformation maps probability The urban-rural disparity in the use of the family planning method i , D_i , may now be defined as

$$D_i = \text{logit}(u_i) - \text{logit}(r_i) = \ln\left(\frac{u_i}{1-u_i}\right) - \ln\left(\frac{r_i}{1-r_i}\right) = \ln\left[\frac{u_i/(1-u_i)}{r_i/(1-r_i)}\right] \quad (5)$$

When $u_i=r_i$, $D_i=0$ and there is no urban-rural disparity in the use of method i . It may be noticed that D_i can be both positive and negative. When D_i is positive, use of method i is higher in urban population compared to rural population. When D_i is negative, use of method i is higher in rural population compared to urban population and the larger the deviation of D_i from 0, the larger the urban-rural disparity in the use of method i . The advantage of using the logit transformation in constructing the urban-rural disparity index D_i is that the use of logit transformation reduces the effect of the level of family planning use. Notice that $\text{logit}(p_i)$ is nothing but the logarithm of the odds of family planning use. It is well known that the odds of family planning use are exorbitantly high when the level of family planning use is very high. Similarly, the odds of family planning use are very low when the level of family planning use is very low. The use of logit transformation reduces the level effect by significantly reducing very high values of odds ratio when the level of family planning use is very high.

The urban-rural disparity in family planning use may now be constructed as the algebraic sum of method-specific urban-rural disparity in use, D_i . This sum, however, may not reflect the true urban-rural disparity in family planning use as D_i may be positive for some methods, but negative for others so that the sum of D_i of different methods may be

equal to either zero or close to zero. To circumvent this problem, we construct the urban-rural disparity index in terms of the square of D_i values. Constructing the urban-rural disparity index as the sum of square of D_i values gives more weight to that method in which urban-rural disparity in use is high compared to that method in which the urban-rural disparity in use is low. This implies that the decrease in urban-rural disparity in the use of those methods in which the disparity in use is high leads to a faster decrease in urban-rural disparity in family planning use compared to those methods in which the disparity in use is low. This is a desirable property of the disparity index.

The sum of square of D_i values, however, gives equal weight to all family planning methods irrespective of their proportionate share in total family planning use. It is logical to argue that more weight should be given in the construction of the disparity index to that method which has a high proportionate share compared to that method which has low proportionate share in total family planning use. If w_i is the proportionate share of method i in total family planning use, then the index D of urban-rural disparity in family planning use may be constructed as

$$D = \sum_{i=1}^n w_i * D_i^2 \quad (6)$$

The index D may be constructed by measuring the urban-rural disparity in the use of different family planning methods separately or by measuring urban-rural disparity in the use of three categories of family planning methods: 1) modern spacing methods; 2) permanent methods; and 3) traditional methods. The reason for grouping different family planning methods into three categories is that the context of using three categories of family planning methods is essentially different. Permanent methods are used only when the family formation process is complete, or the desired family size is achieved as these methods are not reversible. Modern spacing methods are reversible and are used primarily to delay the first birth or to space the interval between successive births. Traditional methods are also reversible, but their use is generally argued to reflect the unmet need of modern spacing methods because of the limited availability and access of these methods. Traditional family planning methods do not require any supply network. They are also not supported by the official family planning efforts.

In the present analysis, we have grouped different family planning methods into three categories: 1) modern spacing methods; 2) permanent methods; and 3) traditional family planning methods. We have calculated the prevalence of permanent methods as the proportion of currently married women aged 15-49 years or their husband using any permanent method (female or male sterilisation). On the other hand, the prevalence of modern spacing methods is calculated as the difference between the prevalence of modern methods (permanent and spacing) and the prevalence of permanent methods. Finally, the prevalence of traditional methods is calculated as the difference between all methods (modern and traditional) prevalence and prevalence of modern methods. This strategy is adopted as many family planning methods are grouped into other methods in the calculation of the prevalence.

Data

The analysis is built upon the estimates of the prevalence of different family planning methods in urban and rural populations available through different rounds of the National Family Health Survey (NFHS). The National Family Health Survey programme was instituted by the Government of India in 1992 to generate key indicators of health and family planning based on the statistically representative household survey. Five rounds of the survey have so far been carried out (Government of India, 1995; 2000; 2007; 2017; 2021). The first three rounds of the NFHS provided estimates of the prevalence of different family planning methods in urban and rural populations for the country and for the constituent states and Union Territories of the country. The fourth and the fifth rounds of the NFHS provided estimates of method-specific prevalence rates for the districts of the country for the total population but not for urban and rural populations because of sample size restrictions so that district level analysis of the urban-rural disparity in family planning use is not possible. Details about the organisation of NFHS are given elsewhere (Government of India, 2021) and not repeated here. The population of the country has been divided into urban and rural populations according to the criteria of classifying a settlement as an urban settlement adopted at the time of 2011 population census. The population of all urban settlements constitutes the urban population. Settlements which are not classified as urban settlement are rural settlements and the total population of all rural settlements constitutes the rural population of the country.

Family Planning Use in Urban and Rural Population

Estimates of the prevalence of modern spacing methods, permanent methods, and traditional methods in urban and rural populations of the country and in its constituent states and Union Territories are presented in the Appendix table 1. The prevalence of modern spacing methods and the prevalence of traditional methods in India has always been higher in the urban population. However, prevalence of permanent methods was higher in the urban population up to 2005-2006 only. After 2005-2006, prevalence of permanent methods has become higher in the rural population. Combining all methods, the urban-rural difference in family planning use has always been higher in the urban population of the country. Among constituent states and Union Territories, Maharashtra is the only state/Union Territory where family planning use has always been higher in the rural population. In 17 states/Union Territories, family planning use has always been higher in the urban population whereas in 16 states/Union Territories, family planning use has been higher in urban population at one time but in rural population at other time.

The prevalence of different family planning methods has varied widely in both urban and rural populations across states/Union Territories. During 2019-2021, prevalence of permanent methods was higher in the rural population in 26 states/Union Territories

whereas prevalence of modern spacing methods was higher in rural population in only 7 states/Union Territories and prevalence of traditional methods in 6 states/Union Territories. There are only two states/Union Territories – Andaman and Nicobar Islands and Sikkim - where family planning use has been higher in the rural population throughout the period under reference. Similarly, there are only two states – Jharkhand and Tripura – where family planning use has always been higher in the urban population. In the remaining states/Union Territories, urban-rural difference in the use of modern spacing methods permanent methods and traditional methods has been in different direction.

Prior to 2015-2016, there was no state/Union Territory in the country where the prevalence of modern spacing methods was higher in the rural population than in the urban population. However, in 2015-2016 and 2019-2021, there were 7 states/Union Territories where use of modern spacing methods was higher in rural as compared to the urban population. Similarly, there were 10 states where use of permanent methods was relatively high in rural than in urban population in 1992-1993. This number decreased to 9 in 1998-1999 but increased to 17 in 2005-2006 and 22 in 2015-2016. On the other hand, the number of states/Union Territories where use of traditional methods was relatively high in the rural population decreased from 3 in 1992-1993 to 1 in 1998-1999 but increased to 5 in 2005-2006 and 7 in 2015-2016. In 2019-2021, the use of traditional methods was higher in the rural population as compared to the urban population in 6 states/Union Territories.

The change in the urban-rural difference in family planning prevalence is due to the change in the urban-rural difference in the prevalence of modern spacing methods, permanent methods, and traditional methods. In India, the increase in the use of all three categories of family planning methods has been more rapid in the rural population than the increase in the urban population (Table 1). The urban-rural difference in family planning use in the country decreased by more than 10 per cent points between 1992-1993 and 2019-2021 and most of this decrease is attributed to the decrease in the urban-rural difference in the use of permanent methods as the increase in the use of these methods in the urban population has been very slow relative to the increase in the rural population. There are only 8 states – Andhra Pradesh, Arunachal Pradesh, Assam, Haryana, Karnataka, Mizoram, Tripura, and Uttar Pradesh – where the increase in use of all the three categories of family planning methods has been more rapid in the rural population as compared to the urban population between 1993-1993 and 2019-2021. On the other hand, there is no state in the country where the increase in the use of all the three categories of family planning methods has been more rapid in the urban population as compared to the the rural population. As such, in all but three states, urban-rural difference in family planning use has narrowed down over time. The three states where urban-rural difference in family planning use has widened between 1992-1993 and 2019-2021 are Goa, Gujarat, and Maharashtra. Table 1 suggests that the trend in the use of modern spacing methods, permanent methods and traditional family planning methods has been different in different states. Table 1 also suggests that, within each state, the trend in the use of modern spacing methods, permanent methods and traditional methods has, in general, been different.

Table 1: Increase in the prevalence of family planning methods in urban and rural populations in India and states/Union Territories between 1992-1993 and 2019-2021.

	Increase in urban population				Increase in rural population				Urban-Rural difference in increase			
	p_s	p_p	p_t	p	p_s	p_p	p_t	p	p_s	p_p	p_t	p
India (IN)	0.103	0.029	0.050	0.182	0.131	0.091	0.063	0.285	-0.028	-0.062	-0.013	-0.103
Andaman & Nicobar Islands (AN)	na	na	na	na	na	na	na	na	na	na	na	na
Andhra Pradesh (AP)	-0.029	0.176	-0.005	0.142	-0.024	0.302	-0.002	0.276	-0.005	-0.126	-0.003	-0.134
Arunachal Pradesh (AR)	0.154	0.004	0.017	0.175	0.212	0.088	0.087	0.387	-0.058	-0.084	-0.070	-0.212
Assam (AS)	0.220	-0.133	-0.096	-0.009	0.321	-0.043	-0.072	0.206	-0.101	-0.090	-0.024	-0.215
Bihar (BI)	0.065	0.013	0.120	0.198	0.066	0.188	0.094	0.348	-0.001	-0.175	0.026	-0.150
Chandigarh (CD)	na	na	na	na	na	na	na	na	na	na	na	na
Chhattisgarh (CH)	na	na	na	na	na	na	na	na	na	na	na	na
Daman & Diu (DD)	na	na	na	na	na	na	na	na	na	na	na	na
Dadra & Nagar Haveli and Daman & Diu (DN)	na	na	na	na	na	na	na	na	na	na	na	na
Delhi (DE)	0.078	-0.051	0.131	0.158	0.122	-0.031	0.069	0.160	-0.044	-0.020	0.062	-0.002
Dadra and Nagar Haveli (DA)	na	na	na	na	na	na	na	na	na	na	na	na
Goa (GO)	0.225	0.058	-0.072	0.211	0.221	-0.087	0.033	0.167	0.004	0.145	-0.105	0.044
Gujarat (GU)	0.139	-0.089	0.118	0.168	0.092	-0.016	0.071	0.147	0.047	-0.073	0.047	0.021
Haryana (HA)	0.138	-0.035	0.052	0.155	0.181	0.004	0.077	0.262	-0.043	-0.039	-0.025	-0.107
Himachal Pradesh (HP)	0.108	-0.145	0.085	0.048	0.135	-0.029	0.064	0.170	-0.027	-0.116	0.021	-0.122
Jammu & Kashmir (JA)	0.089	-0.055	-0.086	-0.052	0.235	-0.089	-0.008	0.138	-0.146	0.034	-0.078	-0.190
Jharkhand (JH)	na	na	na	na	na	na	na	na	na	na	na	na
Karnataka (KA)	0.049	0.148	-0.021	0.176	0.059	0.154	-0.008	0.205	-0.010	-0.006	-0.013	-0.029
Kerala (KE)	0.001	-0.068	-0.001	-0.068	-0.004	0.020	-0.029	-0.013	0.005	-0.088	0.028	-0.055
Ladakh (LA)	na	na	na	na	na	na	na	na	na	na	na	na
Lakshadweep (LK)	na	na	na	na	na	na	na	na	na	na	na	na

	Increase in urban population				Increase in rural population				Urban-Rural difference in increase			
	p_s	p_p	p_t	p	p_s	p_p	p_t	p	p_s	p_p	p_t	p
Madhya Pradesh (MA)	0.099	0.077	0.061	0.237	0.063	0.440	-0.118	0.385	0.036	-0.363	0.179	-0.148
Maharashtra (MH)	-0.257	0.376	0.010	0.129	0.078	0.031	0.013	0.122	-0.335	0.345	-0.003	0.007
Manipur (MN)	-0.023	-0.100	0.295	0.172	0.072	-0.102	0.339	0.309	-0.095	0.002	-0.044	-0.137
Meghalaya (MY)	0.061	-0.128	0.007	-0.060	0.132	-0.024	-0.010	0.098	-0.071	-0.104	0.017	-0.158
Mizoram (MZ)	0.053	-0.325	-0.008	-0.280	0.138	-0.307	-0.001	-0.170	-0.085	-0.018	-0.007	-0.110
Nagaland (NG)	0.267	0.012	0.125	0.404	0.229	0.100	0.119	0.448	0.038	-0.088	0.006	-0.044
Odisha (OD)	0.147	-0.126	0.274	0.295	0.179	-0.015	0.230	0.394	-0.032	-0.111	0.044	-0.099
Puducherry (PD)	na	na	na	na	na	na	na	na	na	na	na	na
Punjab (PU)	0.070	-0.119	0.105	0.056	0.103	-0.094	0.073	0.082	-0.033	-0.025	0.032	-0.026
Rajasthan (RA)	0.190	-0.026	0.107	0.271	0.150	0.197	0.088	0.435	0.040	-0.223	0.019	-0.164
Sikkim (SI)	na	na	na	na	na	na	na	na	na	na	na	na
Tamil Nadu (TA)	-0.015	0.210	-0.028	0.167	0.035	0.178	-0.010	0.203	-0.050	0.032	-0.018	-0.036
Telangana (TE)	na	na	na	na	na	na	na	na	na	na	na	na
Tripura (TR)	0.253	-0.112	-0.083	0.058	0.300	-0.085	-0.050	0.165	-0.047	-0.027	-0.033	-0.107
Uttar Pradesh (UP)	0.212	-0.022	0.166	0.356	0.217	0.057	0.167	0.441	-0.005	-0.079	-0.001	-0.085
Uttarakhand (UT)	na	na	na	na	na	na	na	na	na	na	na	na
West Bengal (WB)	0.230	0.015	-0.088	0.157	0.249	-0.019	-0.057	0.173	-0.019	0.034	-0.031	-0.016

p Prevalence of all family planning methods

p_s Prevalence of modern spacing methods

p_p Prevalence of permanent methods

p_t Prevalence of traditional methods

na Not available

Source: Authors' calculations

Table 2 presents urban-rural odds ratio in family planning use in India and states/Union Territories. In the country, the odds of using a family planning method in the urban population was more than 77 per cent higher than the odds of using a family planning method in the rural population in 1992-1993 which reduced to around 18 per cent in 2019-2021 (Figure 1). On the other hand, the odds of using a modern spacing method in the urban population was 3.76 times higher than the odds of using a modern spacing method in 1992-1993 which reduced to 1.43 times in 2019-2021 whereas the odds of using a permanent method in the urban population was around 1.19 times higher than the odds of using a permanent method in the rural population. This means that the probability of using a permanent method in the urban population was about 19 per cent higher than the probability of using a permanent method in the rural population. The odds ratio of the use of permanent methods in urban and rural populations reduced to 1.03 in 2005-2006 which means that probability of using a permanent method in the urban population was only 3 per cent higher than the probability of using a permanent method in the urban population. In 2015-2016, the odds ratio of the use of permanent methods in urban and rural population further decreased to around 0.98 and to almost 0.90 in 2019-2021. An odds ratio of 0.98 implies that the probability of using a permanent method in the urban population is 2 per cent lower than the probability of using a permanent method in the rural population whereas an odds ratio of 0.90 implies that the probability of using a permanent method in the urban population is 10 per cent lower than the probability of using a permanent method in the rural population. In other words, the prevalence of permanent family planning methods in India is now higher in the rural population as compared to the urban population.

As regards the use of traditional family planning methods, the odds of using a traditional method in the urban population was 1.56 times the odds of using a traditional method in the rural population in 1992-1993 which means that the probability of using a traditional family planning method in the urban population was almost 56 per cent higher than the probability of using a traditional family planning method in the rural population. However, the urban-rural difference in the prevalence of traditional family planning methods decreased quite rapidly after 1992-1993 so that, by 2015-2016, the probability of using a traditional family planning method in the urban population was less than 4 per cent higher than the probability of using a traditional family planning method in the rural population. However, after 2015-2016, there has been more rapid increase in the prevalence of traditional methods in the urban population as compared to that in the rural population so that, in 2019-2021, the probability of using a traditional family planning method in the urban population was almost 8 per cent higher than the probability of using a traditional family planning method in the rural population of the country. It appears that the increase in the use of modern spacing methods and permanent family planning methods in the urban population of the country has not been able to keep pace with the increase in the use of these methods in the rural population of the country in the last 30 years.

In many states/Union Territories, urban-rural odds ratio in family planning use was less than 1 in 2019-2021 meaning that family planning use in the urban population of these

states/Union Territories was lower than that in the rural population. The most notable of these states/Union Territories is Sikkim where odds of family planning use in the urban population was more than 63 per cent lower than that in the rural population. In Dadra & Nagar Haveli and Daman & Diu also, odds of family planning use in the urban population are almost 33 per cent lower than that in the rural population. By contrast, odds of family planning use in the urban population are more than 66 per cent higher than that in the rural population in Goa and 50 per cent in Tripura.

There is high degree of volatility in the urban-rural odds ratio in family planning use over time and across states/Union Territories and considerable inconsistency in the trend in this ratio in many states/Union Territories. There appear state/Union Territory specific factors that may be responsible for the observed volatility in the urban-rural disparity in the use of different family planning methods. These factors are largely unknown. One of these factors may be the difference in the organisation of family planning delivery services in urban and rural populations in different states/Union Territories. There may also be exogenous factors such as the degree of urbanisation, composition of the urban population by size class of urban settlements and the difference in the level of social and economic development in urban and rural areas in different states/Union Territories.

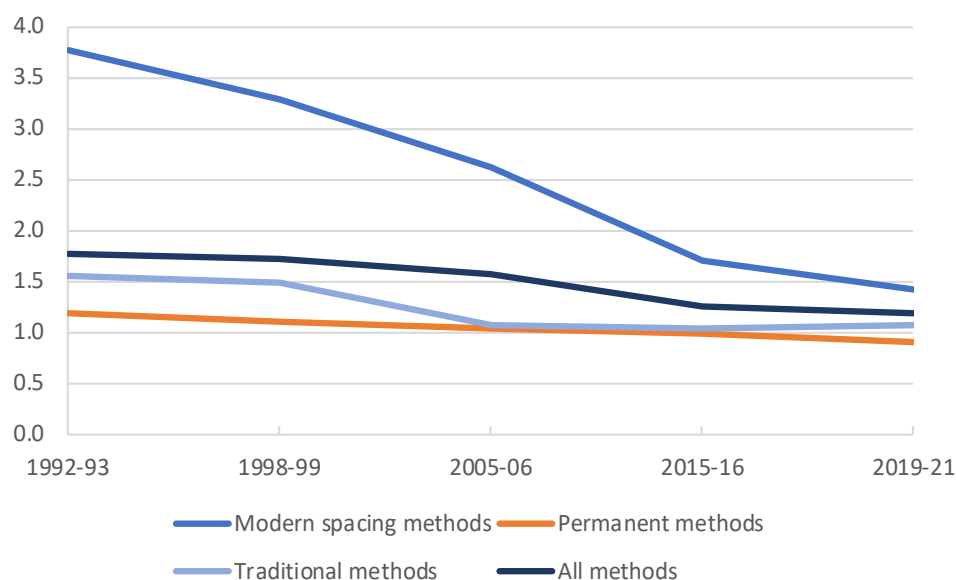


Figure 1: Urban-Rural odds ratio in the use of all methods, modern spacing methods, permanent methods, and traditional family planning use in India, 1992-1993 through 2019-2021.

Source: Authors

Table 2: Urban-rural odds ratio in family planning use in India and states/Union Territories, 1992-1993 through 2019-2021.

Country/State/Union Territory	Period	Urban-Rural odds ratio in			
		Modern spacing methods	Permanent methods	Traditional methods	All methods
India	1992-1993	3.765	1.186	1.559	1.772
	1998-1999	3.284	1.109	1.493	1.723
	2005-2006	2.621	1.034	1.071	1.577
	2015-2016	1.701	0.983	1.037	1.249
	2019-2021	1.427	0.899	1.078	1.184
Andaman & Nicobar Islands	1992-1993	na	na	na	na
	1998-1999	na	na	na	na
	2005-2006	na	na	na	na
	2015-2016	0.556	0.708	0.508	0.569
	2019-2021	0.904	0.551	0.597	0.432
Andhra Pradesh	1992-1993	1.504	1.554	3.357	1.687
	1998-1999	5.673	1.021	2.213	1.239
	2005-2006	4.597	0.919	0.832	1.005
	2015-2016	7.085	0.867	na	0.928
	2019-2021	2.826	0.923	5.020	0.981
Arunachal Pradesh	1992-1993	1.903	1.644	3.549	2.486
	1998-1999	1.366	1.576	2.048	1.798
	2005-2006	1.734	0.771	1.564	1.260
	2015-2016	0.985	0.651	0.512	0.722
	2019-2021	1.010	0.810	1.029	0.902
Assam	1992-1993	2.481	1.914	1.419	2.468
	1998-1999	1.318	1.118	1.551	1.563
	2005-2006	2.199	1.127	0.957	1.621
	2015-2016	1.056	1.058	1.102	1.124
	2019-2021	0.842	1.049	1.348	1.030
Bihar	1992-1993	4.796	2.226	2.591	2.994
	1998-1999	4.419	1.661	1.777	2.144
	2005-2006	2.700	1.559	2.127	2.238
	2015-2016	2.609	1.474	4.074	1.804
	2019-2021	1.900	0.859	1.508	1.374
Chandigarh	1992-1993	na	na	na	na
	1998-1999	na	na	na	na
	2005-2006	na	na	na	na
	2015-2016	na	na	na	na
	2019-2021	na	na	na	na
Chhattisgarh	1992-1993	na	na	na	na
	1998-1999	na	na	na	na
	2005-2006	5.418	1.076	1.917	1.898
	2015-2016	2.404	0.869	1.598	1.245
	2019-2021	1.481	0.968	1.071	1.235

Country/State/Union Territory	Period	Urban-Rural odds ratio in			
		Modern spacing methods	Permanent methods	Traditional methods	All methods
Dadra & Nagar Haveli	1992-1993	na	na	na	na
	1998-1999	na	na	na	na
	2005-2006	na	na	na	na
	2015-2016	1.847	0.658	0.098	0.728
	2019-2021	na	na	na	na
Dadra & Nagar Haveli and Daman & Diu	1992-1993	na	na	na	na
	1998-1999	na	na	na	na
	2005-2006	na	na	na	na
	2015-2016	na	na	na	na
	2019-2021	1.925	0.401	1.589	0.663
Daman & Diu	1992-1993	na	na	na	na
	1998-1999	na	na	na	na
	2005-2006	na	na	na	na
	2015-2016	3.112	0.420	na	0.608
	2019-2021	na	na	na	na
Delhi	1992-1993	1.165	1.065	1.248	1.248
	1998-1999	1.567	0.713	1.470	1.146
	2005-2006	1.924	0.548	1.276	1.127
	2015-2016	1.085	0.739	1.019	0.868
	2019-2021	0.951	0.942	1.776	1.310
Goa	1992-1993	1.796	0.746	2.971	1.314
	1998-1999	1.710	1.109	1.308	1.424
	2005-2006	1.924	0.864	1.489	1.335
	2015-2016	1.838	4.098	1.068	3.185
	2019-2021	1.229	1.499	0.826	1.662
Gujarat	1992-1993	3.824	0.829	2.096	1.231
	1998-1999	3.912	0.672	2.418	1.220
	2005-2006	2.842	0.678	0.947	1.080
	2015-2016	2.532	0.601	2.923	1.016
	2019-2021	2.351	0.593	1.878	1.385
Haryana	1992-1993	4.162	0.672	2.527	1.576
	1998-1999	3.370	0.536	2.033	1.343
	2005-2006	2.903	0.395	2.473	1.217
	2015-2016	1.325	0.600	1.237	0.762
	2019-2021	1.655	0.552	1.292	1.031
Himachal Pradesh	1992-1993	4.400	0.723	2.080	1.787
	1998-1999	4.741	0.533	1.670	1.424
	2005-2006	3.619	0.403	1.684	1.063
	2015-2016	1.612	0.668	1.633	1.033
	2019-2021	2.123	0.411	1.683	1.060

Country/State/Union Territory	Period	Urban-Rural odds ratio in			
		Modern spacing methods	Permanent methods	Traditional methods	All methods
Jammu and Kashmir	1992-1993	3.654	0.881	1.751	2.107
	1998-1999	1.924	2.001	1.184	2.716
	2005-2006	1.361	1.683	2.320	2.509
	2015-2016	1.349	1.567	0.725	1.576
	2019-2021	1.028	1.048	0.705	0.967
Jharkhand	1992-1993	na	na	na	na
	1998-1999	na	na	na	na
	2005-2006	3.130	2.188	3.633	3.819
	2015-2016	1.976	1.107	1.710	1.411
	2019-2021	1.246	1.004	1.316	1.273
Karnataka	1992-1993	3.191	0.880	2.268	1.188
	1998-1999	4.077	0.774	4.497	1.109
	2005-2006	3.857	0.613	2.307	0.821
	2015-2016	2.879	0.672	4.532	0.771
	2019-2021	1.631	0.860	1.605	1.068
Kerala	1992-1993	1.226	1.123	1.370	1.348
	1998-1999	1.340	1.008	1.087	1.105
	2005-2006	1.739	0.869	0.949	1.019
	2015-2016	1.179	0.996	1.000	1.024
	2019-2021	1.345	0.789	2.163	1.056
Ladakh	1992-1993	na	na	na	na
	1998-1999	na	na	na	na
	2005-2006	na	na	na	na
	2015-2016	na	na	na	na
	2019-2021	0.901	0.979	1.559	0.965
Lakshadweep	1992-1993	na	na	na	na
	1998-1999	na	na	na	na
	2005-2006	na	na	na	na
	2015-2016	2.603	0.613	4.837	1.642
	2019-2021	1.074	1.232	0.665	0.865
Madhya Pradesh	1992-1993	3.728	3.737	0.071	1.819
	1998-1999	6.538	1.135	1.954	1.795
	2005-2006	6.195	0.673	1.889	1.333
	2015-2016	3.590	0.654	1.822	1.016
	2019-2021	2.550	0.567	1.336	0.976
Maharashtra	1992-1993	25.716	0.067	4.269	0.945
	1998-1999	2.547	0.615	3.037	0.839
	2005-2006	4.308	0.534	2.107	0.982
	2015-2016	2.281	0.625	2.510	0.932
	2019-2021	1.887	0.675	1.745	0.969

Country/State/Union Territory	Period	Urban-Rural odds ratio in			
		Modern spacing methods	Permanent methods	Traditional methods	All methods
Manipur	1992-1993	2.760	1.078	1.339	1.830
	1998-1999	1.449	1.415	1.092	1.474
	2005-2006	1.048	1.160	1.414	1.406
	2015-2016	0.932	1.371	1.225	1.142
	2019-2021	1.058	1.349	0.941	1.013
Meghalaya	1992-1993	1.795	3.021	0.699	2.134
	1998-1999	3.170	8.687	1.522	5.173
	2005-2006	3.124	3.341	1.319	3.442
	2015-2016	0.955	2.807	2.992	1.691
	2019-2021	0.751	1.393	1.000	0.908
Mizoram	1992-1993	1.390	1.138	3.280	1.305
	1998-1999	1.640	1.562	0.398	1.888
	2005-2006	1.225	1.310	1.502	1.486
	2015-2016	1.196	1.353	na	1.356
	2019-2021	0.663	1.132	1.670	0.815
Nagaland	1992-1993	1.375	2.807	na	2.121
	1998-1999	1.917	2.078	1.781	2.481
	2005-2006	1.668	2.029	1.760	2.187
	2015-2016	1.496	1.236	1.191	1.434
	2019-2021	1.313	0.906	1.058	1.244
Odisha	1992-1993	3.999	1.343	1.546	1.734
	1998-1999	3.617	0.868	1.460	1.384
	2005-2006	2.354	0.861	1.796	1.523
	2015-2016	1.518	0.864	1.128	1.220
	2019-2021	1.168	0.795	1.302	1.194
Puducherry	1992-1993	na	na	na	na
	1998-1999	na	na	na	na
	2005-2006	na	na	na	na
	2015-2016	0.521	1.163	1.605	1.061
	2019-2021	1.626	0.772	2.248	0.974
Punjab	1992-1993	1.808	0.797	1.234	1.263
	1998-1999	2.543	0.408	1.826	1.407
	2005-2006	1.542	0.487	1.852	0.898
	2015-2016	1.449	0.670	1.393	1.068
	2019-2021	1.334	0.646	1.406	1.145
Rajasthan	1992-1993	4.552	1.852	0.271	2.267
	1998-1999	3.360	1.171	1.979	1.723
	2005-2006	4.664	1.448	1.498	2.814
	2015-2016	2.798	0.739	1.000	1.283
	2019-2021	1.852	0.684	1.125	1.135

Country/State/Union Territory	Period	Urban-Rural odds ratio in			
		Modern spacing methods	Permanent methods	Traditional methods	All methods
Sikkim	1992-1993	na	na	na	na
	1998-1999	na	na	na	na
	2005-2006	1.142	1.070	1.403	1.322
	2015-2016	0.718	0.550	2.012	0.551
	2019-2021	0.503	0.835	0.736	0.366
Tamil Nadu	1992-1993	3.184	0.728	1.780	1.070
	1998-1999	4.552	1.041	2.634	1.461
	2005-2006	2.588	0.800	1.235	0.951
	2015-2016	1.901	1.000	1.000	1.079
	2019-2021	1.241	0.838	1.346	0.916
Telangana	1992-1993	na	na	na	na
	1998-1999	na	na	na	na
	2005-2006	na	na	na	na
	2015-2016	4.061	1.041	na	1.130
	2019-2021	2.148	0.925	1.929	1.067
Tripura	1992-1993	1.784	1.594	1.293	2.235
	1998-1999	na	na	na	na
	2005-2006	1.031	0.921	1.119	1.060
	2015-2016	0.787	1.509	1.220	1.182
	2019-2021	1.039	1.653	1.122	1.503
Uttar Pradesh	1992-1993	4.549	1.326	2.708	2.347
	1998-1999	5.720	1.361	1.506	2.584
	2005-2006	3.092	1.211	0.960	1.957
	2015-2016	2.681	0.805	1.245	1.722
	2019-2021	1.607	0.712	1.098	1.345
Uttarakhand	1992-1993	na	na	na	na
	1998-1999	na	na	na	na
	2005-2006	2.859	0.496	2.100	1.408
	2015-2016	2.052	0.477	1.705	1.029
	2019-2021	1.978	0.496	1.150	1.217
West Bengal	1992-1993	2.323	0.707	1.533	1.287
	1998-1999	1.632	0.714	1.806	1.519
	2005-2006	1.404	0.794	1.411	1.352
	2015-2016	1.206	0.616	1.275	0.874
	2019-2021	1.207	0.835	1.396	1.274

Source: Authors' calculations

Urban-Rural Disparity in Family Planning Use

Estimates of the index D reflecting the urban-rural disparity in family planning use in India and in its constituent states and Union Territories are presented in table 3 along

with estimates of D_s , D_p , and D_t reflecting, respectively, the urban-rural disparity in the use of modern spacing methods, permanent methods, and traditional family planning methods. In India, the urban-rural disparity in family planning use has decreased very sharply during over time and, in 2019-2021, the index D is estimated to be 0.042 which implies that there is now virtually little urban-rural disparity in family planning use in the country. The decrease in the urban-rural disparity in use of modern spacing methods, as measured by the index D_s , decreased from 1.326 in 1992-1993 to 0.356 in 2019-2021. On the other hand, the urban-rural disparity in the use of permanent methods turned negative in 2015-2016 suggesting that the use of permanent methods became higher in the rural population of the country as compared to its urban population and the gap between the prevalence of permanent methods in rural and urban population widened further in 2019-2021. By contrast, the urban-rural disparity in the use of traditional family planning methods decreased up to 2015-16 but increased in 2019-2021 because of the more rapid increase in the use of traditional family planning methods in the urban population as compared to the increase in the rural population.

Among the constituent states/Union Territories of the country, urban-rural disparity in family planning use varies widely (Figure 2). In 2019-2021, urban-rural disparity in family planning use was the highest in the Union Territory of Dadra & Nagar Haveli and Daman and Diu, closely followed by Himachal Pradesh. In these two states/Union Territories, the family planning use is substantially high in the urban population as compared to the rural population. The urban-rural disparity in family planning use has also been found to be high in Gujarat, Madhya Pradesh, and Uttarakhand. In all these states/Union Territories, family planning use is substantially higher in urban population as compared to the rural population. On the other hand, there is virtually no urban-rural disparity in family planning use in Manipur. The urban-rural disparity in family planning use has also been found to be either low or very low in most of the states and Union Territories of the country. There are 10 states and Union Territories of the country where the urban-rural disparity in family planning use is found to be lower than the national average.

Table 3 also suggests that, in general, urban-rural disparity in family planning use has decreased in 2019-2021 compared to 1992-1993 in most of the states and Union Territories of the country with the decrease being the most marked in Maharashtra and Madhya Pradesh. There are only five states – Delhi, Gujarat, Himachal Pradesh, Kerala, and Mizoram – where the urban-rural disparity in family planning use has increased in 2019-2021 compared to the urban-rural disparity in family planning use in 1992-1993. The increase in the urban-rural disparity in family planning use has been the most marked in Himachal Pradesh followed by Gujarat. More importantly, in the recent years, between 2015-2016 and 2019-2021, the urban-rural disparity in family planning use has increased in 11 states and Union Territories of the country. The increase in the urban-rural disparity in family planning use during this period has again been the most marked in Himachal Pradesh. In addition to Himachal Pradesh, the urban-rural disparity in family planning use has also increased quite substantially in Kerala.

URBAN-RURAL DISPARITY IN FAMILY PLANNING USE IN INDIA

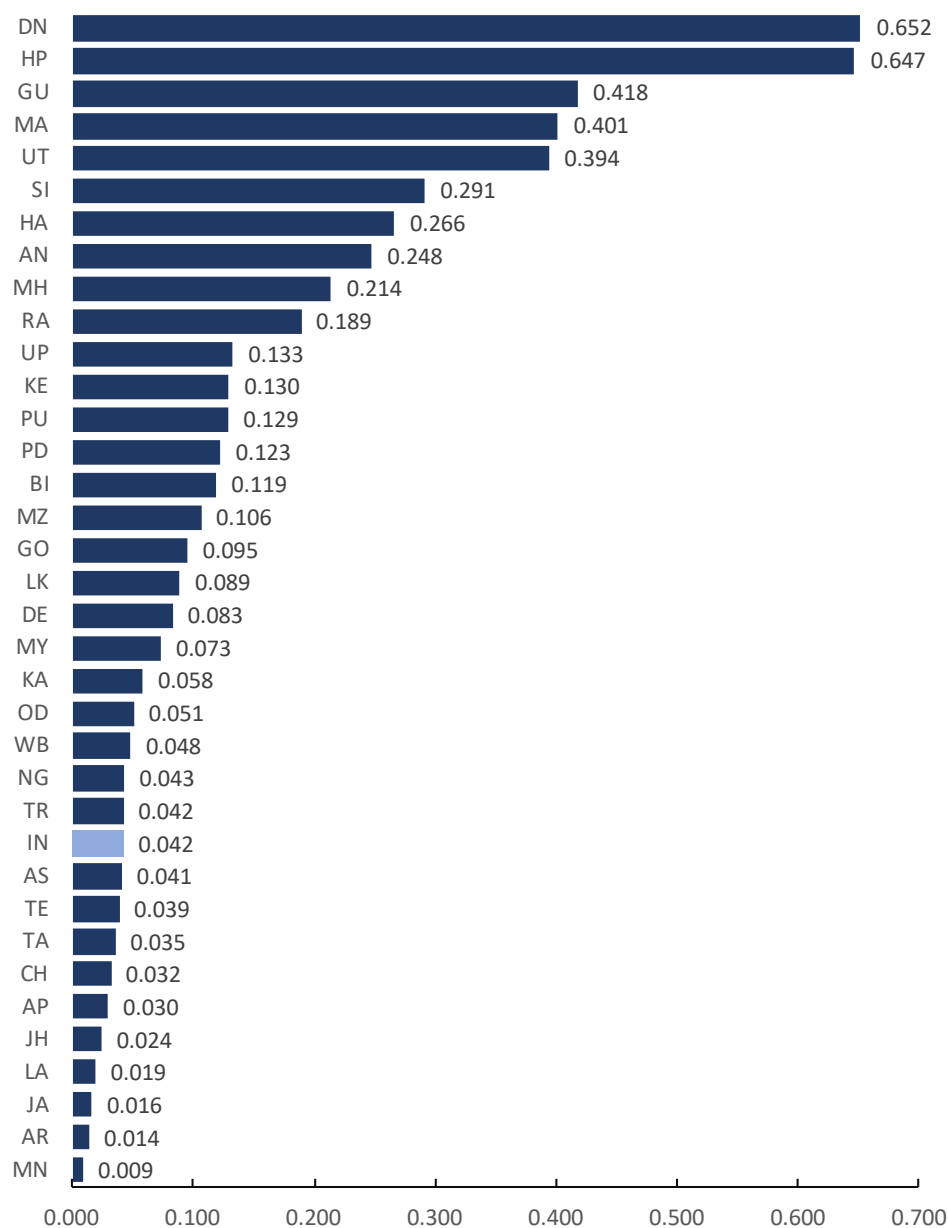


Figure 2: Urban-Rural disparity in family planning use in states/Union Territories in India, 2019-2021.

Remarks: There is no rural population in Chandigarh (CD). Dadra and Nagar Haveli (DA) and Daman and Diu (DD) are merged into Dadra & Nagar Haveli and Daman and Diu (DN)

Source: Authors

Table 3: Urban-rural disparity in the use of family planning methods, 1992-2021.

Country/State/Union Territory	Period				
	1992-1993	1998-1999	2005-2006	2015-2016	2019-2021
All family planning methods (Index <i>D</i>)					
India	0.284	0.225	0.170	0.060	0.042
Andaman and Nicobar Islands	na	na	na	0.177	0.248
Andhra Pradesh	0.204	0.104	0.048	0.054	0.030
Arunachal Pradesh	0.555	0.192	0.166	0.137	0.014
Assam	0.311	0.096	0.156	0.005	0.041
Bihar	0.892	0.439	0.358	0.300	0.119
Chandigarh	na	na	na	na	na
Chhattisgarh	na	na	0.311	0.129	0.032
Daman & Diu	na	na	na	0.909	na
Dadra & Nagar Haveli and Daman & Diu	na	na	na	na	0.657
Delhi	0.018	0.156	0.347	0.038	0.083
Dadra and Nagar Haveli	na	na	na	0.221	na
Goa	0.354	0.071	0.148	1.347	0.095
Gujarat	0.271	0.449	0.312	0.454	0.418
Haryana	0.595	0.621	0.944	0.186	0.266
Himachal Pradesh	0.442	0.634	0.991	0.188	0.647
Jammu & Kashmir	0.411	0.401	0.282	0.141	0.016
Jharkhand	na	na	0.889	0.100	0.024
Karnataka	0.172	0.274	0.370	0.223	0.058
Kerala	0.028	0.008	0.051	0.002	0.130
Ladakh	na	na	na	na	0.019
Lakshadweep	na	na	na	1.384	0.089
Madhya Pradesh	1.880	0.405	0.579	0.387	0.401
Maharashtra	7.551	0.334	0.703	0.319	0.214
Manipur	0.333	0.088	0.067	0.032	0.009
Meghalaya	0.709	2.138	1.068	0.398	0.073
Mizoram	0.054	0.215	0.065	0.069	0.106
Nagaland	na	0.451	0.355	0.093	0.043
Odisha	0.243	0.201	0.209	0.065	0.051
Puducherry	na	na	na	0.050	0.123
Punjab	0.139	0.742	0.377	0.146	0.129
Rajasthan	0.606	0.257	0.584	0.288	0.189
Sikkim	na	na	0.027	0.231	0.291
Tamil Nadu	0.262	0.223	0.113	0.023	0.035
Telangana	na	na	na	0.082	0.039
Tripura	0.163	na	0.006	0.076	0.042
Uttar Pradesh	0.744	0.782	0.360	0.338	0.133
Uttarakhand	na	na	0.718	0.513	0.394
West Bengal	0.211	0.208	0.088	0.121	0.048

URBAN-RURAL DISPARITY IN FAMILY PLANNING USE IN INDIA

Country/State/Union Territory	Period				
	1992-1993	1998-1999	2005-2006	2015-2016	2019-2021
Modern spacing methods (Index D_s)					
India	1.326	1.189	0.964	0.527	0.356
Andaman and Nicobar Islands	na	na	na	-0.600	-0.101
Andhra Pradesh	0.408	1.736	1.525	1.958	1.039
Arunachal Pradesh	0.643	0.312	0.551	-0.015	0.010
Assam	0.908	0.276	0.788	0.055	-0.172
Bihar	1.568	1.486	0.993	0.950	0.642
Chandigarh	na	na	na	na	na
Chhattisgarh	na	na	1.690	0.871	0.393
Daman & Diu	na	na	na	1.134	na
Dadra & Nagar Haveli and Daman & Diu	na	na	na	na	0.655
Delhi	0.152	0.449	0.654	0.078	-0.050
Dadra and Nagar Haveli	na	na	na	0.614	na
Goa	0.586	0.537	0.655	0.608	0.206
Gujarat	1.341	1.364	1.045	0.933	0.855
Haryana	1.426	1.215	1.066	0.282	0.504
Himachal Pradesh	1.482	1.556	1.286	0.478	0.753
Jammu & Kashmir	1.296	0.654	0.308	0.299	0.028
Jharkhand	na	na	1.141	0.681	0.220
Karnataka	1.160	1.405	1.350	1.048	0.489
Kerala	0.204	0.293	0.553	0.155	0.296
Ladakh	na	na	na	na	-0.104
Lakshadweep	na	na	na	0.945	0.071
Madhya Pradesh	1.316	1.878	1.824	1.289	0.936
Maharashtra	3.247	0.935	1.461	0.819	0.635
Manipur	1.015	0.371	0.047	-0.073	0.056
Meghalaya	0.585	1.154	1.139	-0.046	-0.287
Mizoram	0.329	0.494	0.203	0.177	-0.412
Nagaland	0.318	0.651	0.511	0.399	0.272
Odisha	1.386	1.286	0.856	0.415	0.155
Puducherry	na	na	na	-0.647	0.486
Punjab	0.592	0.933	0.433	0.370	0.288
Rajasthan	1.516	1.212	1.540	1.030	0.616
Sikkim	na	na	0.132	-0.331	-0.687
Tamil Nadu	1.158	1.516	0.951	0.616	0.216
Telangana	na	na	na	1.485	0.765
Tripura	0.579	na	0.030	-0.241	0.038
Uttar Pradesh	1.515	1.744	1.129	0.985	0.474
Uttarakhand	na	na	1.050	0.721	0.682
West Bengal	0.843	0.490	0.339	0.188	0.188

Country/State/Union Territory	Period				
	1992-1993	1998-1999	2005-2006	2015-2016	2019-2021
	Permanent methods (Index D_p)				
India	0.171	0.103	0.034	-0.019	-0.106
Andaman and Nicobar Islands	na	na	na	-0.344	-0.595
Andhra Pradesh	0.441	0.020	-0.084	-0.143	-0.081
Arunachal Pradesh	0.497	0.455	-0.261	-0.429	-0.211
Assam	0.649	0.111	0.119	0.055	0.048
Bihar	0.800	0.507	0.444	0.390	-0.152
Chandigarh	na	na	na	na	na
Chhattisgarh	na	na	0.073	-0.142	-0.032
Daman & Diu	na	na	na	-0.868	na
Dadra & Nagar Haveli and Daman & Diu	na	na	na	na	-0.913
Delhi	0.063	-0.339	-0.601	-0.307	-0.059
Dadra and Nagar Haveli	na	na	na	-0.420	na
Goa	-0.293	0.103	-0.146	1.407	0.405
Gujarat	-0.187	-0.398	-0.389	-0.512	-0.522
Haryana	-0.397	-0.623	-0.930	-0.508	-0.594
Himachal Pradesh	-0.324	-0.629	-0.908	-0.405	-0.888
Jammu & Kashmir	-0.127	0.694	0.521	0.449	0.047
Jharkhand	na	na	0.783	0.101	0.004
Karnataka	-0.127	-0.256	-0.490	-0.398	-0.151
Kerala	0.116	0.008	-0.140	-0.008	-0.237
Ladakh	na	na	na	na	-0.021
Lakshadweep	na	na	na	-0.483	0.209
Madhya Pradesh	1.318	0.127	-0.397	-0.427	-0.568
Maharashtra	-2.698	-0.487	-0.627	-0.467	-0.393
Manipur	0.075	0.347	0.148	0.296	0.299
Meghalaya	1.105	2.162	1.206	1.033	0.332
Mizoram	0.130	0.446	0.270	0.304	0.124
Nagaland	1.032	0.731	0.708	0.206	-0.099
Odisha	0.295	-0.142	-0.149	-0.146	-0.230
Puducherry	na	na	na	0.150	-0.259
Punjab	-0.227	-0.896	-0.720	-0.403	-0.437
Rajasthan	0.616	0.158	0.370	-0.307	-0.380
Sikkim	na	na	0.067	-0.600	-0.180
Tamil Nadu	-0.318	0.040	-0.223	0.002	-0.176
Telangana	na	na	na	0.041	-0.078
Tripura	0.466	na	-0.082	0.414	0.503
Uttar Pradesh	0.282	0.308	0.192	-0.221	-0.339
Uttarakhand	na	na	-0.700	-0.737	-0.702
West Bengal	-0.347	-0.337	-0.231	-0.482	-0.181

URBAN-RURAL DISPARITY IN FAMILY PLANNING USE IN INDIA

Country/State/Union Territory	Period				
	1992-1993	1998-1999	2005-2006	2015-2016	2019-2021
	Traditional methods (Index D_t)				
India	0.444	0.401	0.068	0.040	0.075
Andaman and Nicobar Islands	na	na	na	-0.699	-0.515
Andhra Pradesh	1.211	0.795	-0.183	2.122	1.613
Arunachal Pradesh	1.267	0.717	0.447	-0.670	0.028
Assam	0.350	0.439	-0.043	0.094	0.299
Bihar	0.952	0.575	0.754	1.473	0.410
Chandigarh	na	na	na	na	na
Chhattisgarh	na	na	0.651	0.481	0.069
Daman & Diu	na	na	na	5.168	na
Dadra & Nagar Haveli and Daman & Diu	na	na	na	na	0.463
Delhi	0.222	0.385	0.244	0.021	0.574
Dadra and Nagar Haveli	na	na	na	-2.117	na
Goa	1.089	0.268	0.398	0.066	-0.191
Gujarat	0.740	0.883	-0.055	1.061	0.630
Haryana	0.927	0.709	0.905	0.206	0.256
Himachal Pradesh	0.732	0.513	0.521	0.487	0.520
Jammu & Kashmir	0.560	0.169	0.842	-0.321	-0.350
Jharkhand	na	na	1.290	0.536	0.274
Karnataka	0.819	1.504	0.836	1.393	0.473
Kerala	0.314	0.083	-0.053	-0.026	0.772
Ladakh	na	na	na	na	0.444
Lakshadweep	na	na	na	1.562	-0.407
Madhya Pradesh	-2.641	0.670	0.636	0.601	0.290
Maharashtra	1.451	1.111	0.745	0.916	0.557
Manipur	0.292	0.088	0.347	0.198	-0.061
Meghalaya	-0.358	0.420	0.277	1.123	0.000
Mizoram	1.188	-0.922	0.406	1.610	0.513
Nagaland	na	0.577	0.565	0.175	0.056
Odisha	0.436	0.378	0.586	0.127	0.264
Puducherry	na	na	na	0.518	0.810
Punjab	0.210	0.602	0.616	0.325	0.341
Rajasthan	-1.307	0.682	0.404	-0.007	0.118
Sikkim	na	na	0.339	0.776	-0.306
Tamil Nadu	0.576	0.968	0.211	-0.032	0.297
Telangana	na	na	na	3.118	0.657
Tripura	0.257	na	0.113	0.198	0.115
Uttar Pradesh	0.996	0.409	-0.041	0.219	0.094
Uttarakhand	na	na	0.742	0.523	0.140
West Bengal	0.427	0.591	0.345	0.239	0.334

Remarks: na – data not available

Source: Authors' calculations

The change in the urban-rural disparity in family planning use is the result of the change in the urban-rural disparity in modern spacing methods, permanent methods, and traditional family planning methods. There is, however, a high degree of volatility in the change, over time in the urban-rural disparity in the use of modern spacing methods, permanent methods, and traditional methods across states/Union Territories as well as within each state/Union Territory (Table 3). In general, urban-rural disparity in the use of modern spacing methods has decreased while urban-rural disparity in the use of permanent methods has turned negative in most of the states and Union Territories while it remains positive in majority of states/Union Territories in case of traditional methods.

Discussion and Conclusions

The present analysis is probably the first to analyse the urban-rural disparity in family planning use in India. The available evidence suggests that family planning use has always been higher in the urban population as compared to the rural population of the country but the urban-rural disparity in family planning use has decreased rapidly over time. The primary reason behind the decrease in the urban-rural disparity in family planning use has been the slow increase in family planning use in the urban population relative to the rural population of the country. There has, however, been little attempt to measure the urban-rural disparity in family planning use and to explore the factors responsible for the disparity in the urban-rural disparity in family planning use in the country. The evidence world over suggests that family planning use in the urban population is higher than the family planning use in the rural population because of a number of factors. An important factor that contributes to higher family planning use in the urban population is the easy availability and access to a range of family planning methods, especially modern spacing methods. In addition, higher level of education, especially of women, and better life-style factors in the urban population as compared to the rural population are also responsible for relatively higher family planning use in the urban population. However, the reasons behind relatively slow increase in family planning use in India, as revealed through the present analysis are not known at present. The family planning use in India remains low by international standards and one possible reason may be the slow increase in the use of family planning methods in the urban population of the country.

The relatively higher family planning use in the urban population in India is primarily due to higher use of modern spacing methods. This is expected as the availability and access to modern family planning methods is generally better in the urban population as compared to the rural population. However, the urban-rural gap in the use of modern spacing methods has narrowed down considerably in the country because of the faster increase in the use of these methods in the rural population relative to the urban population. It appears that the family planning services delivery system in the urban population is not able to meet the need of modern spacing methods of the urban

population. The use of traditional methods has also increased recently more rapidly in the urban population as compared to the rural population which also supports the view that the family planning services delivery system is not able to meet the need of modern spacing methods of the urban population as the use of traditional methods is seen as a reflection of the unmet need for modern spacing methods. It appears that the availability of and access to modern spacing methods is not uniform in different sub-groups of the urban population and there are sub-groups where availability of and access to modern spacing methods is compromised. The urban population of the country is highly heterogeneous. Urban settlements in India are divided into six categories based on their population size: 1) urban settlements having at least 100 thousand population; 2) urban settlements having population in the range of 50000-99999; 3) urban settlements having population in the range of 20000-49999; 4) urban settlements having population in the range 10000-19999; 5) urban settlements having population in the range 5000-9999; and 6) urban settlements with a population of less than 5000 (Government of India, 2001). There is little information about the variation in family planning use across different size class of urban settlements. At the same time, within the same urban settlement, family planning use may be different in different population sub-groups, especially urban poor, and urban non-poor. The increase in the urban population in the country has primarily been the result of large rural to urban migration in search of better livelihood opportunities. It appears that this migrant population remains devoid of the access to modern family planning methods.

The use of permanent family planning methods in India is now higher in the rural population as compared to the urban population which also indicates that the family planning services delivery system in the urban population is not in good shape. One reason is that the family planning services delivery system is a part of the public health care system in the country and the presence of the public health care system in the urban population, especially, the primary health care system, may be termed as notional, at best. There is heavy concentration of private health care facilities in the urban population, especially in large, metropolitan urban settlements. The services available from these private health facilities are costly and beyond the reach of the urban poor. Under the National Health Mission, there are attempts to strengthen urban primary health care services including family planning services but there remains substantial scope for improvement.

The urban-rural disparity in family planning use is found to be exceptionally high in four states - Himachal Pradesh, Gujarat, Madhya Pradesh, and Telangana - and in the Union Territory of Dadra & Nagar Haveli and Daman & Diu. The high urban-rural disparity in family planning use in these states and Union Territories is the result of the low family planning use in the rural population. On the other hand, the urban-rural disparity in family planning use is found to be low in most of the states and Union Territories. It appears that there are state-specific factors that influence the urban-rural disparity in family planning use. An understanding of state-specific factors responsible for the prevailing urban-rural disparity in family planning use may help in reducing the urban-rural disparity in family planning use at the state/Union Territory level.

From the policy perspective, the present analysis calls for reinvigorating the family planning services delivery system in the urban population of the country. The current policy of family planning services delivery in India does not distinguish between family planning services delivery in the urban population and family planning services delivery in the rural population. We recommend that the approach for the delivery of family planning services in the country should be different for urban and rural populations because the organisation of the family planning services delivery in the urban population is different from the organisation of family planning services delivery in the rural population. The recent increase in the use of traditional family planning methods in the urban population of the country also justifies adopting such a stratified approach for the delivery of family planning services delivery in urban and rural populations. Although India has now achieved the replacement fertility, yet role of family planning in India's development is going to remain crucial because of health and other benefits of family planning and because of the important role of family planning in managing the future population growth in the country.

References

- Gore S, Katkuri S (2016) A study to assess contraceptive use among married women in urban and rural areas: a comparative study. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology* 5(9): 2978-2982
- Government of India (1997) *National Family Health Survey (MCH and Family Planning), India 1992-93*. Bombay, International Institute for Population Sciences.
- Government of India (2000) *National Family Health Survey (NFHS-2), 1998-99: India*. Mumbai, International Institute for Population Sciences.
- Government of India (2001) *Census of India 2011. Provisional Population Totals*. New Delhi, Office of the Registrar General and Census Commissioner.
- Government of India (2007) *National Family Health Survey (NFHS-3), 2005-06: India: Volume I*. Mumbai, International Institute for Population Sciences.
- Government of India (2010) *District Level Household and Facility Survey (DLHS-3), 2007-08: India*. Mumbai, International Institute for Population Sciences.
- Government of India (2017) *National Family Health Survey (NFHS-4), 2015-16: India*. Mumbai, International Institute for Population Sciences.
- Government of India (2021) *National Family Health Survey (NFHS-5) 2019-21. India Fact Sheets*. Mumbai, International Institute for Population Sciences.
- Hubacher D, Trussell J (2015) A definition of modern contraceptive methods. *Contraception* 92: 420-421.
- Johnson-Hanks J (2002) On the modernity of traditional contraception: time and the social context of fertility. *Population and Development Review* 28: 229-249.

- Majumdar M, Mullick BC, Moitra A, Mosley KT (1972) Use of oral contraceptives in urban, rural, and slum areas. *Studies in Family Planning* 3: 227-232.
- Nagdeve D, Bharati D (2003) Urban-rural differentials in maternal and child health in Andhra Pradesh, India. *Rural and Remote Health* 3: 146.
- Preston SH, Weed JA (1976) Causes of death responsible international and intertemporal variation in sex mortality differentials. *World Health Statistics Quarterly* 29(3): 144-188.
- Reddy PJ (1984) Differential contraceptive use among the slum and non-slum dwellers: a study of Hyderabad city. *Health and Population Perspectives and Issues* 7(2): 115-28.

Appendix table 1: Prevalence of modern spacing methods, permanent methods, and traditional methods of family planning in urban and rural areas of India and states/Union Territories, 1992-2021.

Country/State/Union Territory	Year	Urban				Rural			
		Modern spacing methods	Permanent methods	Traditional methods	All methods	Modern spacing methods	Permanent methods	Traditional methods	All methods
India	1992-93	0.117	0.336	0.058	0.511	0.034	0.299	0.038	0.371
	1998-99	0.134	0.378	0.07	0.582	0.045	0.354	0.048	0.447
	2005-06	0.169	0.389	0.082	0.640	0.072	0.381	0.077	0.530
	2015-16	0.153	0.360	0.059	0.572	0.096	0.364	0.057	0.517
	2019-21	0.220	0.365	0.108	0.693	0.165	0.390	0.101	0.656
Andaman & Nicobar Islands	1992-93	na	na	na	na	na	na	na	na
	1998-99	na	na	na	na	na	na	na	na
	2005-06	na	na	na	na	na	na	na	na
	2015-16	0.060	0.352	0.016	0.428	0.103	0.434	0.031	0.568
	2019-21	0.175	0.310	0.059	0.544	0.190	0.449	0.095	0.734
Andhra Pradesh	1992-93	0.043	0.513	0.010	0.566	0.029	0.404	0.003	0.436
	1998-99	0.049	0.574	0.011	0.634	0.009	0.569	0.005	0.583
	2005-06	0.027	0.645	0.005	0.677	0.006	0.664	0.006	0.676
	2015-16	0.014	0.667	0.003	0.684	0.002	0.698	0	0.700
	2019-21	0.014	0.689	0.005	0.708	0.005	0.706	0.001	0.712
Arunachal Pradesh	1992-93	0.137	0.153	0.105	0.395	0.077	0.099	0.032	0.208
	1998-99	0.152	0.275	0.046	0.473	0.116	0.194	0.023	0.333
	2005-06	0.200	0.194	0.079	0.473	0.126	0.238	0.052	0.416
	2015-16	0.152	0.083	0.030	0.265	0.154	0.122	0.057	0.333
	2019-21	0.291	0.157	0.122	0.570	0.289	0.187	0.119	0.595
Assam	1992-93	0.109	0.227	0.287	0.623	0.047	0.133	0.221	0.401
	1998-99	0.124	0.182	0.228	0.534	0.097	0.166	0.160	0.423
	2005-06	0.229	0.143	0.288	0.660	0.119	0.129	0.297	0.545
	2015-16	0.283	0.101	0.165	0.549	0.272	0.096	0.152	0.520

Country/State/Union Territory	Year	Urban				Rural			
		Modern spacing methods	Permanent methods	Traditional methods	All methods	Modern spacing methods	Permanent methods	Traditional methods	All methods
Bihar	2019-21	0.329	0.094	0.191	0.614	0.368	0.090	0.149	0.607
	1992-93	0.085	0.307	0.033	0.425	0.019	0.166	0.013	0.198
	1998-99	0.071	0.283	0.035	0.389	0.017	0.192	0.020	0.229
	2005-06	0.094	0.319	0.093	0.506	0.037	0.231	0.046	0.314
	2015-16	0.053	0.268	0.024	0.345	0.021	0.199	0.006	0.226
Chandigarh	2019-21	0.150	0.320	0.153	0.623	0.085	0.354	0.107	0.546
	1992-93	na	na	na	na	na	na	na	na
	1998-99	na	na	na	na	na	na	na	na
	2005-06	na	na	na	na	na	na	na	na
	2015-16	na	na	na	na	na	na	na	na
Chhattisgarh	2019-21	0.365	0.193	0.217	0.775	na	na	na	na
	1992-93	na	na	na	na	na	na	na	na
	1998-99	na	na	na	na	na	na	na	na
	2005-06	0.135	0.454	0.065	0.654	0.028	0.436	0.035	0.499
	2015-16	0.131	0.442	0.044	0.617	0.059	0.477	0.028	0.564
Dadra & Nagar Haveli	2019-21	0.172	0.477	0.064	0.713	0.123	0.485	0.060	0.668
	1992-93	na	na	na	na	na	na	na	na
	1998-99	na	na	na	na	na	na	na	na
	2005-06	na	na	na	na	na	na	na	na
	2015-16	0.068	0.234	0.002	0.304	0.038	0.317	0.020	0.375
Dadra & Nagar Haveli and Daman & Diu	2019-21	na	na	na	na	na	na	na	na
	1992-93	na	na	na	na	na	na	na	na
	1998-99	na	na	na	na	na	na	na	na
	2005-06	na	na	na	na	na	na	na	na
	2015-16	na	na	na	na	na	na	na	na
	2019-21	0.228	0.309	0.098	0.635	0.133	0.527	0.064	0.724

Country/State/Union Territory	Year	Urban				Rural			
		Modern spacing methods	Permanent methods	Traditional methods	All methods	Modern spacing methods	Permanent methods	Traditional methods	All methods
Daman & Diu	1992-93	na	na	na	na	na	na	na	na
	1998-99	na	na	na	na	na	na	na	na
	2005-06	na	na	na	na	na	na	na	na
	2015-16	0.096	0.220	0.003	0.319	0.033	0.402	0	0.435
	2019-21	na	na	na	na	na	na	na	na
Delhi	1992-93	0.316	0.233	0.058	0.607	0.284	0.222	0.047	0.553
	1998-99	0.284	0.28	0.076	0.640	0.202	0.353	0.053	0.608
	2005-06	0.337	0.228	0.106	0.671	0.209	0.350	0.085	0.644
	2015-16	0.277	0.196	0.057	0.530	0.261	0.248	0.056	0.565
	2019-21	0.394	0.182	0.189	0.765	0.406	0.191	0.116	0.713
Goa	1992-93	0.093	0.274	0.145	0.512	0.054	0.336	0.054	0.444
	1998-99	0.100	0.294	0.133	0.527	0.061	0.273	0.105	0.439
	2005-06	0.140	0.246	0.127	0.513	0.078	0.274	0.089	0.441
	2015-16	0.100	0.216	0.016	0.332	0.057	0.063	0.015	0.135
	2019-21	0.318	0.332	0.073	0.723	0.275	0.249	0.087	0.611
Gujarat	1992-93	0.109	0.381	0.037	0.527	0.031	0.426	0.018	0.475
	1998-99	0.137	0.396	0.085	0.618	0.039	0.494	0.037	0.570
	2005-06	0.196	0.381	0.099	0.676	0.079	0.476	0.104	0.659
	2015-16	0.137	0.275	0.059	0.471	0.059	0.387	0.021	0.467
	2019-21	0.248	0.292	0.155	0.695	0.123	0.410	0.089	0.622
Haryana	1992-93	0.204	0.283	0.093	0.580	0.058	0.370	0.039	0.467
	1998-99	0.229	0.305	0.138	0.672	0.081	0.450	0.073	0.604
	2005-06	0.337	0.228	0.100	0.665	0.149	0.428	0.043	0.620
	2015-16	0.236	0.315	0.049	0.600	0.189	0.434	0.040	0.663
	2019-21	0.342	0.248	0.145	0.735	0.239	0.374	0.116	0.729
Himachal Pradesh	1992-93	0.243	0.387	0.074	0.704	0.068	0.466	0.037	0.571
	1998-99	0.257	0.382	0.104	0.743	0.068	0.537	0.065	0.670

Country/State/Union Territory	Year	Urban				Rural			
		Modern spacing methods	Permanent methods	Traditional methods	All methods	Modern spacing methods	Permanent methods	Traditional methods	All methods
Jammu and Kashmir	2005-06	0.357	0.355	0.025	0.737	0.133	0.577	0.015	0.725
	2015-16	0.216	0.288	0.073	0.577	0.146	0.377	0.046	0.569
	2019-21	0.351	0.242	0.159	0.752	0.203	0.437	0.101	0.741
	1992-93	0.226	0.275	0.143	0.644	0.074	0.301	0.087	0.462
	1998-99	0.168	0.429	0.083	0.680	0.095	0.273	0.071	0.439
	2005-06	0.190	0.368	0.125	0.683	0.147	0.257	0.058	0.462
Jharkhand	2015-16	0.251	0.309	0.090	0.650	0.199	0.222	0.120	0.541
	2019-21	0.315	0.220	0.057	0.592	0.309	0.212	0.079	0.600
	1992-93	na	na	na	na	na	na	na	na
	1998-99	na	na	na	na	na	na	na	na
	2005-06	0.144	0.355	0.101	0.600	0.051	0.201	0.030	0.282
	2015-16	0.096	0.329	0.042	0.467	0.051	0.307	0.025	0.383
Karnataka	2019-21	0.137	0.377	0.146	0.660	0.113	0.376	0.115	0.604
	1992-93	0.087	0.404	0.029	0.520	0.029	0.435	0.013	0.477
	1998-99	0.084	0.480	0.035	0.599	0.022	0.544	0.008	0.574
	2005-06	0.090	0.502	0.016	0.608	0.025	0.622	0.007	0.654
	2015-16	0.042	0.429	0.009	0.480	0.015	0.528	0.002	0.545
	2019-21	0.136	0.552	0.008	0.696	0.088	0.589	0.005	0.682
Kerala	1992-93	0.069	0.504	0.109	0.682	0.057	0.475	0.082	0.614
	1998-99	0.062	0.512	0.081	0.655	0.047	0.510	0.075	0.632
	2005-06	0.111	0.474	0.104	0.689	0.067	0.509	0.109	0.685
	2015-16	0.048	0.458	0.028	0.534	0.041	0.459	0.028	0.528
	2019-21	0.070	0.436	0.108	0.614	0.053	0.495	0.053	0.601
	1992-93	na	na	na	na	na	na	na	na
Ladakh	1998-99	na	na	na	na	na	na	na	na
	2005-06	na	na	na	na	na	na	na	na

Country/State/Union Territory	Year	Urban				Rural			
		Modern spacing methods	Permanent methods	Traditional methods	All methods	Modern spacing methods	Permanent methods	Traditional methods	All methods
Lakshadweep	2015-16	na	na	na	na	na	na	na	na
	2019-21	0.291	0.169	0.046	0.506	0.313	0.172	0.030	0.515
	1992-93	na	na	na	na	na	na	na	na
	1998-99	na	na	na	na	na	na	na	na
	2005-06	na	na	na	na	na	na	na	na
Madhya Pradesh	2015-16	0.048	0.099	0.153	0.300	0.019	0.152	0.036	0.207
	2019-21	0.096	0.214	0.208	0.518	0.090	0.181	0.283	0.554
	1992-93	0.116	0.346	0.015	0.477	0.034	0.124	0.176	0.334
	1998-99	0.123	0.402	0.027	0.552	0.021	0.372	0.014	0.407
	2005-06	0.179	0.384	0.048	0.611	0.034	0.481	0.026	0.541
Maharashtra	2015-16	0.136	0.354	0.027	0.517	0.042	0.456	0.015	0.513
	2019-21	0.215	0.423	0.076	0.714	0.097	0.564	0.058	0.719
	1992-93	0.443	0.065	0.021	0.529	0.030	0.508	0.005	0.543
	1998-99	0.116	0.451	0.018	0.585	0.049	0.572	0.006	0.627
	2005-06	0.188	0.452	0.027	0.667	0.051	0.607	0.013	0.671
Manipur	2015-16	0.158	0.449	0.032	0.639	0.076	0.566	0.013	0.655
	2019-21	0.186	0.441	0.031	0.658	0.108	0.539	0.018	0.665
	1992-93	0.172	0.144	0.127	0.443	0.070	0.135	0.098	0.303
	1998-99	0.128	0.186	0.135	0.449	0.092	0.139	0.125	0.356
	2005-06	0.153	0.095	0.297	0.545	0.147	0.083	0.230	0.460
Meghalaya	2015-16	0.091	0.038	0.121	0.250	0.097	0.028	0.101	0.226
	2019-21	0.149	0.044	0.422	0.615	0.142	0.033	0.437	0.612
	1992-93	0.078	0.199	0.042	0.319	0.045	0.076	0.059	0.180
	1998-99	0.183	0.206	0.064	0.453	0.066	0.029	0.043	0.138
	2005-06	0.176	0.191	0.070	0.437	0.064	0.066	0.054	0.184
	2015-16	0.152	0.124	0.052	0.328	0.158	0.048	0.018	0.224
	2019-21	0.139	0.071	0.049	0.259	0.177	0.052	0.049	0.278

Country/State/Union Territory	Year	Urban				Rural			
		Modern spacing methods	Permanent methods	Traditional methods	All methods	Modern spacing methods	Permanent methods	Traditional methods	All methods
Mizoram	1992-93	0.096	0.462	0.013	0.571	0.071	0.430	0.004	0.505
	1998-99	0.141	0.506	0.004	0.651	0.091	0.396	0.010	0.497
	2005-06	0.180	0.460	0.003	0.643	0.152	0.394	0.002	0.548
	2015-16	0.190	0.194	0	0.384	0.164	0.151	0	0.315
	2019-21	0.149	0.137	0.005	0.291	0.209	0.123	0.003	0.335
Nagaland	1992-93	0.082	0.124	0	0.206	0.061	0.048	0	0.109
	1998-99	0.182	0.196	0.089	0.467	0.104	0.105	0.052	0.261
	2005-06	0.168	0.150	0.101	0.419	0.108	0.080	0.060	0.248
	2015-16	0.152	0.103	0.059	0.314	0.107	0.085	0.050	0.242
	2019-21	0.349	0.136	0.125	0.610	0.29	0.148	0.119	0.557
Odisha	1992-93	0.079	0.372	0.023	0.474	0.021	0.306	0.015	0.342
	1998-99	0.125	0.327	0.088	0.540	0.038	0.359	0.062	0.459
	2005-06	0.187	0.314	0.093	0.594	0.089	0.347	0.054	0.490
	2015-16	0.223	0.260	0.130	0.613	0.159	0.289	0.117	0.565
	2019-21	0.226	0.246	0.297	0.769	0.200	0.291	0.245	0.736
Puducherry	1992-93	na	na	na	na	na	na	na	na
	1998-99	na	na	na	na	na	na	na	na
	2005-06	na	na	na	na	na	na	na	na
	2015-16	0.030	0.585	0.008	0.623	0.056	0.548	0.005	0.609
	2019-21	0.091	0.521	0.046	0.658	0.058	0.585	0.021	0.664
Punjab	1992-93	0.239	0.304	0.085	0.628	0.148	0.354	0.070	0.572
	1998-99	0.352	0.188	0.178	0.718	0.176	0.362	0.106	0.644
	2005-06	0.292	0.226	0.099	0.617	0.211	0.375	0.056	0.642
	2015-16	0.328	0.325	0.112	0.765	0.252	0.418	0.083	0.753
	2019-21	0.309	0.185	0.190	0.684	0.251	0.260	0.143	0.654
Rajasthan	1992-93	0.085	0.383	0.003	0.471	0.020	0.251	0.011	0.282

Country/State/Union Territory	Year	Urban				Rural			
		Modern spacing methods	Permanent methods	Traditional methods	All methods	Modern spacing methods	Permanent methods	Traditional methods	All methods
Sikkim	1998-99	0.12	0.349	0.035	0.504	0.039	0.314	0.018	0.371
	2005-06	0.207	0.413	0.037	0.657	0.053	0.327	0.025	0.405
	2015-16	0.225	0.355	0.062	0.642	0.094	0.427	0.062	0.583
	2019-21	0.275	0.357	0.110	0.742	0.170	0.448	0.099	0.717
	1992-93	na	na	na	na	na	na	na	na
	1998-99	na	na	na	na	na	na	na	na
Tamil Nadu	2005-06	0.25	0.267	0.114	0.631	0.226	0.254	0.084	0.564
	2015-16	0.209	0.148	0.012	0.369	0.269	0.24	0.006	0.515
	2019-21	0.289	0.147	0.119	0.555	0.447	0.171	0.155	0.773
	1992-93	0.098	0.347	0.064	0.509	0.033	0.422	0.037	0.492
	1998-99	0.085	0.466	0.031	0.582	0.02	0.456	0.012	0.488
	2005-06	0.067	0.525	0.016	0.608	0.027	0.58	0.013	0.62
Telangana	2015-16	0.041	0.494	0.006	0.541	0.022	0.494	0.006	0.522
	2019-21	0.083	0.557	0.036	0.676	0.068	0.600	0.027	0.695
	1992-93	na	na	na	na	na	na	na	na
	1998-99	na	na	na	na	na	na	na	na
	2005-06	na	na	na	na	na	na	na	na
	2015-16	0.020	0.563	0.005	0.588	0.005	0.553	0	0.558
Tripura	2019-21	0.042	0.627	0.021	0.690	0.020	0.645	0.011	0.676
	1992-93	0.139	0.254	0.318	0.711	0.083	0.176	0.265	0.524
	1998-99	na	na	na	na	na	na	na	na
	2005-06	0.273	0.171	0.224	0.668	0.267	0.183	0.205	0.655
	2015-16	0.255	0.176	0.237	0.668	0.303	0.124	0.203	0.63
	2019-21	0.392	0.142	0.235	0.769	0.383	0.091	0.215	0.689
Uttar Pradesh	1992-93	0.138	0.158	0.024	0.320	0.034	0.124	0.009	0.167
	1998-99	0.176	0.190	0.082	0.448	0.036	0.147	0.056	0.239
	2005-06	0.232	0.192	0.139	0.563	0.089	0.164	0.144	0.397

Country/State/Union Territory	Year	Urban				Rural			
		Modern spacing methods	Permanent methods	Traditional methods	All methods	Modern spacing methods	Permanent methods	Traditional methods	All methods
Uttarakhand	2015-16	0.247	0.151	0.158	0.556	0.109	0.181	0.131	0.421
	2019-21	0.350	0.136	0.190	0.676	0.251	0.181	0.176	0.608
	1992-93	na	na	na	na	na	na	na	na
	1998-99	na	na	na	na	na	na	na	na
	2005-06	0.361	0.231	0.061	0.653	0.165	0.377	0.03	0.572
West Bengal	2015-16	0.293	0.191	0.055	0.539	0.168	0.331	0.033	0.532
	2019-21	0.415	0.180	0.140	0.735	0.264	0.307	0.124	0.695
	1992-93	0.111	0.254	0.253	0.618	0.051	0.325	0.181	0.557
	1998-99	0.182	0.282	0.270	0.734	0.12	0.355	0.170	0.645
	2005-06	0.206	0.293	0.256	0.755	0.156	0.343	0.196	0.695
	2015-16	0.303	0.227	0.160	0.690	0.265	0.323	0.130	0.718
	2019-21	0.341	0.269	0.165	0.775	0.300	0.306	0.124	0.730

p Prevalence of all family planning methods

p_s Prevalence of modern spacing methods

p_p Prevalence of permanent methods

p_t Prevalence of traditional methods

na Not available

Source: Government of India (1997; 2000; 2007; 2017; 2021)