MLE Measurement, Learning & Evaluation Project for the Urban Reproductive Health Initiative

Measurement, Learning & Evaluation of the Urban Health Initiative: Uttar Pradesh, India, Baseline Survey 2010

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This report presents the findings from an analysis of the baseline survey results from urban samples in six cities in Uttar Pradesh, India. The report was written by the Measurement, Learning & Evaluation (MLE) Project of the Urban Reproductive Health Initiative. The MLE project is being implemented by the Carolina Population Center at the University of North Carolina at Chapel Hill, the International Center for Research on Women, and the African Population and Health Research Center. The Urban Health Initiative (UHI) is being implemented in India by a consortium led by FHI 360.

The opinions expressed in this report are those of the authors and do not necessarily reflect the views of the donor organization, the Bill & Melinda Gates Foundation. Additional information about this report may be obtained from:

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Cover photograph by Ilene Speizer of the MLE Project shows a family in Lucknow, Uttar Pradesh, that makes baskets to sell at market.

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It is the hope of the authors and the MLE Project that this research will enhance the results of work focusing on the reproductive health of the urban poor in India.

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List of Abbreviations

ASFR	age-specific fertility rates
BMGF	Bill and Melinda Gates Foundation
COP	combined oral contraceptive pill
CPC	Carolina Population Center
CPR	contraceptive prevalence rate
DHS	Demographic Health Survey
DMPA	depot medroxyprogesterone acetate
EC	emergency contraception
ESI	Employers State Insurance
FP	family planning
GIS	geographic information system
GPS	global positioning system
HV	high-volume
ICRW	International Center for Research on Women
IUD	intrauterine device
JSY	Janani Surakhsa Yojana
LAM	lactational amenorrhea method
NFHS	National Family Health Survey
NRHM	National Rural Health Mission
NS	non-slum
NSV	no-scalpel vasectomy
OBC	other backward class
PSU	primary sampling unit
RH	reproductive health
RMP	recognized medical practitioner
SC	scheduled caste
SSA	sub-Saharan Africa
SDP	service delivery points
ST	scheduled tribe
TFR	total fertility rate
UHI	Urban Health Initiative
UP	Uttar Pradesh

Executive Summary

Background

With the world rapidly urbanizing, the health of the urban poor requires increased attention. In India, 41 percent of the population will be living in urban areas by 2030. Although the Indian economy is growing, urban poverty is not improving. Instead, as urbanization and the Indian population increase, urban poverty is expected to intensify. One of the most cost-effective instruments to reduce urban poverty—and achieve all eight of the United Nation's Millennium Development Goals—is family planning. Based on this premise, the Bill & Melinda Gates Foundation established the Urban Reproductive Health Initiative, with the goal of contributing to a significant increase in modern contraceptive prevalence rates in selected cities of Kenya, Nigeria, Senegal, and Uttar Pradesh, India. This is to be accomplished through the implementation of robust supply and demand interventions that improve the quality of family planning services; integrate family planning into maternal and child health services, and HIV/AIDS services; increase contraceptive demand; increase the role of the private sector in the provision of contraceptives; and increase government commitment to family planning. The foundation's initiative focuses particular attention on the urban poor. By reaching urban women of greatest need, this comprehensive strategy is expected to increase contraceptive use among women in urban and peri-urban areas and potentially diffuse to rural areas to which urban women are linked by cultural or familial ties. In India, the initiative's activities are implemented by a consortium of organizations led by FHI 360.

To evaluate the impact of the interventions, the foundation concurrently initiated the Measurement, Learning & Evaluation (MLE) Project for the Urban Reproductive Health Initiative, an independent evaluation team that conducts impact assessments of the initiative's programs in the four countries. A key objective of the MLE project is to undertake a rigorous impact evaluation of the country programs, identifying the most effective and cost-efficient programmatic approaches to improving contraceptive use among the urban poor. The study design uses a combination of repeated cross-sectional data (surveying a new representative sample of respondents at multiple points in time) and longitudinal data (surveying the same respondents at multiple points in time) in a hybrid study design. In order to establish baseline indicators against which future impact of the project will be assessed, a baseline survey of women, men, and service delivery points[1] was carried out in 2010 at the initial stage of the project. The study covers six cities in the state of Uttar Pradesh. Four cities (Agra, Aligarh, Allahabad, and Gorakhpur) were initial intervention cities while two (Moradabad and Varanasi) were delayed intervention cities and served as control cities.

Results

Household Population Distribution: A total of 118,911 individuals were enumerated in the 30,927 sampled households across the six cities. In each city, around 30 percent of the population is below age 15 and half of the females are of child-bearing age. The sex ratio for children under age six ranged from 844 girls per 1,000 boys (Agra) to 1,031 per 1,000 (Allahabad).

Socioeconomic Profile: Women's education varied widely among the cities. The proportion of women with no education ranged from 42 percent (Aligarh) to 22 percent (Allahabad). The men were generally more educated; Aligarh had the highest proportion of men with no education (20 percent) and Gorakhpur and Allahabad had the lowest proportion (11 percent each). The population was more than 75 percent Hindu in each city with the exception of Aligarh and Moradabad, which, with approximately 66 and 61 percent Hindu respectively, had considerably larger Muslim populations. Generally

[1] In the survey of service delivery points (SDP), all public health facilities, high-volume private health facilities and select non-high-volume private facilities, pharmacies, and retail outlets were included. For each primary sampling unit (PSU), the most preferred private facility and pharmacy were selected from the list of facilities which women reported visiting for family planning or maternal and child health services during the individual survey. These preferred pharmacies and facilities were those mentioned most by women in each PSU.

speaking, "other backwards castes," "scheduled castes," and "other castes" comprised the largest percentages of the populations in each city. Agra had the highest percentage of "scheduled caste" (30 percent) and Varanasi the lowest (11 percent). Gorakhpur had the highest percentage of "other backwards castes" (47 percent). Allahabad had the highest proportion of "other" (45 percent).

Marriage and Fertility: About one-third of the women were married before the legal age of 18; the most common age at marriage was between 18 and 20 for each city. The total fertility rate (TFR) ranged from 2.8 in Varanasi to 4.0 in Aligarh. TFR was higher among the poorest economic quintile as compared with the richest, with the greatest difference found in Aligarh, where the TFR was 3.11 among the richest quintile and 5.27 among the poorest. About a quarter of the women in each city wanted another child at some point in the future. Between 50 percent and 70 percent of women said that their ideal number of children would be two; two children was also the most frequently cited ideal number by men, although more men favored three children than did women. A sizeable proportion of men and women in each city reported wanting more sons than daughters, particularly among the poorest economic quintile (e.g., 43 percent of the poorest men in Agra compared with 20 percent of the richest). More than two-thirds of women and men in each city would prefer to have at least one daughter (63 percent of both men and women, Allahabad; 89 percent of men, Gorakhpur; 79 percent of women, Moradabad).

Family Planning: Both women and men in all cities were able to name at least one method of family planning when asked if they knew specific methods. Based only on spontaneous mention of contraceptive methods, knowledge about any method ranged from 88 percent to 96 percent. When probed, more than 90 percent of women in each city knew about female and male sterilization, the oral contraceptive pill, the IUD, and injectables. When probed, more than 90 percent of men knew about these methods with the exception of injectables; male respondents with knowledge about injectables ranged from 65 percent (Agra) to 81 percent (Gorakhpur). Television was the first source of information about contraceptives for the majority of women (72 percent in Aligarh; 86 percent in Allahabad).

Current use of a modern family planning method ranged from 38 percent of women (Aligarh) to 53 percent (Varanasi), though there were differences between economic quintiles. In Aligarh, for example, only 27 percent of the poorest women reported current use of a modern method, compared with 50 percent of the richest. The most popular modern methods were female sterilization and condoms. In Agra, Allahabad, Gorakhpur and Varanasi, female sterilization was the most popular modern method (46 percent to 54 percent of modern method users). Condoms were the most popular method in Aligarh and Moradabad (50 percent and 54 percent of modern users, respectively). No other method exceeded 10 percent of modern method use in any of the cities.

Among women not currently using contraception, reasons for nonuse varied. About one-fifth of women were trying to get pregnant and slightly less than one-fifth were currently pregnant. Between 15 percent and 26 percent were menopausal or had undergone a hysterectomy. Method-specific reasons were cited by 7 percent to 18 percent of women. Less than 1 percent of women in each city cited lack of knowledge, distance from facilities, or cost as reasons for nonuse (except Aligarh, where 1.7 percent cited lack of knowledge). Of nonusers, between 19 percent (Moradabad) and 31 percent (Allahabad) reported that they intended to use contraception within the next 12 months. Unmet need across cities was about 16 percent but higher among the poorest quintile (e.g., 35 percent of women in Aligarh). The majority of unmet need is for limiting.

Maternal and Child Health: For births in the three years prior to the survey, the largest portions of women in Agra, Allahabad, Gorakhpur, and Varanasi delivered in a private facility (41 percent to 56 percent). In Aligarh and Moradabad, the largest proportions of women delivered at home (39 percent and 37 percent, respectively). For every city, both private facilities and home were cited more frequently than public facilities.

Polio vaccination coverage was extensive for children born in the three years prior to the survey. Between 78 percent (Varanasi) and 95 percent (Moradabad) of children received polio drops within

their first two weeks of life; the remainder received them after the first two weeks.

Media Exposure on Family Planning: Around 90 percent of women watch television in Agra, Allahabad, Gorakhpur, and Varanasi; only in Aligarh (77 percent) and Moradabad (85 percent) were the proportions lower. Among those who reported watching television, three-fourths reported that they had seen some family planning-related information on the television in the past three months. Far fewer women reported exposure to radio in four of the cities (ranging from 1 percent in Moradabad to 8 percent in Gorakhpur). Radio exposure was higher in Varanasi (18 percent) and Allahabad (22 percent). Among women who listened to the radio, more than two-thirds in all six cities reported they had heard some family planning information on the radio in the past three months.

Family Planning Services Provided by Facilities: All the high-volume (HV) public and private facilities in each city currently provide modern methods, except Varanasi, where 8 percent of the HV private facilities do not provide any modern method of FP. Most non-HV public facilities provide modern methods but non-HV private facilities frequently do not (40 percent in Gorakhpur; 79 percent in Varanasi). Public facilities were more likely to stock the methods they provided than were HV private and other private facilities, but the public facilities were also more likely to have experienced a stock-out in the 30 days prior to the survey. Method-specific stock-outs for public facilities ranged from 0 percent to 18 percent across cities, except for Gorakhpur, where the majority of public facilities had experienced stock-outs in oral contraceptive pills, condoms, and other methods. None of the private facilities that provide methods in any city had a stock-out in the 30 days prior to the survey.

Restricted access to family planning by providers for non-medical reasons is wide-spread. In every city, non-medical barriers exist for each of the five methods assessed. Furthermore, each method is subject to each of the four non-medical barriers assessed. The only exception was in Moradabad and Varanasi, where providers did not report restricting use of condoms based on age. More than 80 percent of doctors in every city limited access to sterilization based on marital status, parity, spousal consent.

Chapter 1: Introduction

1.1. Background

Family planning (FP) is one of the most cost-effective development instruments to achieve all eight of the United Nation's Millennium Development Goals (Cates, 2010; Cleland, Bernstein, Ezeh, Faundes Glasier & Innis, 2006; Potts & Fotso, 2007; Allen, 2007). While FP programs had considerable impact on increasing voluntary FP use and reducing fertility in many parts of the world from the 1970s through to the 1990s, these programs have received less attention at the global level in recent years even as contraceptive use remains low in much of sub-Saharan Africa (SSA) and parts of South Asia despite high levels of unmet need (Cleland et al., 2006). The Bill and Melinda Gates Foundation (BMGF) reproductive health (RH) strategy aims to reduce maternal and infant mortality and unintended pregnancy in the developing world by increasing access to high-quality, voluntary FP services. The RH strategy is being implemented at the country level through the foundation's Urban Reproductive Health Initiative, which aims to increase modern contraceptive use in selected urban areas of four countries in SSA and south Asia—India, Kenya, Nigeria, and Senegal. In India, the initiative – called the Urban Health Initiative (UHI) – has been introduced in select cities of Uttar Pradesh state. The Urban Health Initiative aims to:

- integrate quality family planning services with postpartum, and postabortion services;
- expand access to quality family planning services in targeted health facilities, especially for the urban poor;
- test novel private-public partnerships and innovative private sector approaches to increase access to and use of family planning by urban poor;
- create demand for sustained use of contraceptives, especially among marginalized urban populations; and
- increase funding, financial mechanisms, and a supportive policy environment to ensure continuity of family planning supplies and services for the urban poor.

By reaching urban women with greatest need, this comprehensive strategy is expected to increase contraceptive use among women in urban and peri-urban areas, and potentially diffuse to rural areas to which urban women are linked, an outcome that has been observed elsewhere (Cleland, 2001; Lindstrom & Munoz-Franco, 2005). Additionally, the impact evaluation component of the initiative – conducted by the Measurement, Learning & Evaluation (MLE) Project – will provide much-needed evidence on what approaches work best to improve contraceptive use in urban India, as well as information on the cost-effectiveness of the different strategies being implemented.

With the world rapidly urbanizing, the health of the urban poor requires increased attention. In India, 41 percent of the population will be living in urban areas by 2030.

1.2. Why Urban Poor?

With the world rapidly urbanizing, the health of the urban poor requires increased attention. In India, 41 percent of the population will be living in urban areas by 2030. Despite a growing economy, urban poverty levels have not gone down. Though rural poverty remains higher than urban poverty, the gap between the two has been closing. In short, as urbanization and the Indian population increase, so will urban poverty (Ministry of Housing and Urban Poverty Alleviation, 2009).

Compared with their counterparts in rural areas, urban dwellers, on average, have better health, including reproductive health (Montgomery, 2009; International Institute for Population Sciences & Macro International, 2008). But averages obscure vast disparities among socioeconomic classes in urban areas. By many indicators, the urban poor fare worse than both urban estimates *and* the rural non-poor estimates (Montgomery, 2009). In Uttar Pradesh, the fertility rate for the urban poor is higher than the average rural rate (4.3 vs. 4.1) and is almost double that of the urban non-poor (2.5) (Urban Health Resource Centre, 2011). The 2005–2006 National Family Health Survey 3 (NFHS 3) found

that while nearly 50 percent of the urban non-poor use a modern family planning method, only a quarter of the urban poor do so. This corresponds with the unmet need for family planning calculated by the NFHS 3, which was 30 percent among the urban poor and 15 percent for the urban non-poor in 2005.

The reasons behind the disparities in fertility and contraception between the poor and non-poor in urban India have not been fully explored, but some evidence does exist. Some of the variation may be attributed to sociocultural norms. Factors such as son preference, gender norms, communication between couples, and women's autonomy may play a role in contraceptive use (Jejeebhoy, 2004; Khan and Patel, 1997; International Institute for Population Sciences & Macro International, 2007; Bloom, Gupta & Wypij, 2001). Different fertility preferences may also play a factor; poorer economic quintiles tend to report higher desired fertility than wealthier quintiles. Much of the disparity, however, can be attributed to additional barriers faced by the urban poor in achieving their desired fertility. Previous research has found that lack of knowledge about FP and lack of geographic access to at least some contraceptive methods are *not* primary barriers to contraceptive use in urban India (International Institute for Population Sciences & Macro International, 2007). Other access barriers may contribute to unmet need for family planning, such as direct and indirect cost. Direct costs might be experienced in the form of fees for services and supplies at private providers. Indirect costs include expenses and loss of income a person must incur in order to obtain a service, such as transportation costs and lost wages. Access to a wide array of methods and brands may be another barrier. While temporary methods such as condoms and pills are widely available in urban areas, they may not be the socially marketed, less expensive brands that are more affordable for the poor (Urban Health Resource Centre, 2011).

Quality of care is yet another barrier to family planning use. In a recent study evaluating quality of care in urban India, providers in poor areas were found to be significantly less competent than those in non-poor areas (Das & Hammer, 2007). Private providers, which include a broad spectrum of providers from private hospitals to individual providers (trained or untrained), were less knowledgeable than public providers. This has further implications for the urban poor, as they are more likely than their wealthier counterparts to visit private facilities instead of public ones (Das & Hammer, 2007; Matthews, Channon, Neal, Osrin, Madise & Stones, 2010). This may be in part due to a lack of public facilities in poor areas. It may also be that when accessing public sector care, the urban poor are likely to encounter facilities that are understaffed and not fully functioning (Matthews et al., 2010; Hazarika, 2010). Discrimination and social exclusion may be another quality-related barrier. The poor may experience a lower quality of care than the non-poor even at the same facility (Matthews et al., 2010). Discrimination may also deter poor patients from seeking services to begin with, so as to avoid substandard and potentially offensive treatment (Ministry of Housing and Urban Poverty Alleviation, 2009).

Migration from rural to urban areas and back presents another barrier, as it can limit the ability of a program to reach and sustain contact with the migrant segment of the population. However, once the population is reached, migration may create opportunities for diffusion of knowledge and demand to rural areas.

The data from the baseline surveys presented in this report support the design and implementation of the Urban Health Initiative's program activities. UHI is implementing several interventions that have shown to increase contraceptive use in other settings (Mwaikambo, Speizer, Schurmann, Morgan & Fikree, 2011; Urban Health Initiative, 2009) but need additional evidence in the urban Indian context. The UHI approach includes both supply and demand interventions. Supply-side interventions include private sector involvement through social marketing and social franchising as well as quality improvement through training of providers on technical and counseling skills. Integration of FP with other services, such as postpartum and postabortion care, is another focus. On the demand side, UHI's interventions include media campaigns, community mobilization, and peer outreach. The longitudinal design of UHI's impact evaluation, implemented by MLE, will allow changes in the contraceptive prevalence rate (CPR) and fertility rates in the study's intervention groups to be attributed to specific interventions, thereby adding to

the evidence of what strategies for providing FP services are appropriate for urban India.

1.3. Evaluation of the UHI

The Measurement, Learning & Evaluation (MLE) Project is evaluating the impact and effectiveness of the Urban Health Initiative using rigorous impact evaluation methods. The MLE project addresses the evaluation gap for urban FP initiatives by:

- explicitly examining intra-urban differences in program impacts through comparison of the wealthy and poor;
- using a strong program framework to examine steps along the causal pathway and assessing the plausibility of program effects on outcomes;
- using a longitudinal design to ensure the highest possible standard of evidence with minimal disruption to program implementation; and
- developing study tools and methods that permit generalization beyond the particular intervention areas and countries under study.

In short, the MLE project uses innovative methods to evaluate the impact of the initiative on modern contraceptive use in diverse urban populations.

In India, the study covers six cities: Agra, Aligarh, Allahabad, and Gorakhpur are serving as the initial intervention cities; Moradabad and Varanasi are serving as delayed intervention cities. The study has a longitudinal design with baseline, midline, and endline surveys at two-year intervals. In order to establish baseline indicators against which future impact of the project will be assessed, a baseline survey at household and facility levels was carried out in 2010, at the initial stage of the project.

1.4. Project Setting: Uttar Pradesh and the Focus Cities

According to the 2001 national census, the state of Uttar Pradesh (UP) had a population of approximately 166.2 million, which accounted for nearly 16 percent of India's total population. Around 21 percent of the population (34 million) were living in urban areas. Of this urban population, 31 percent, or 11 million people, were estimated to be living in poverty in urban UP, which is the largest number of urban poor within a single state (Agarwal, Kaushik & Srivasatav, 2006). With urban areas growing faster than rural areas, it is estimated that almost 30 percent of the population will be urban by 2016 (National Institute of Urban Affairs, 2000).

Demographically, UP is one of the least advanced states of the country. When comparing health indicators in UP to national averages, UP is often much worse off with a state-wide total fertility rate (TFR) of 3.8 compared to the country average of 2.7 (International Institute for Population Sciences & Macro International, 2007); birth rate of 30.1 per 1000 people against the national average of 23.5 per 1000 (Vital Statistics Division, 2007); and an infant mortality rate of 71 deaths per 1000 live births compared to the nationwide 57 deaths per 1000 live births.

Figure 1.1 provides a map of the six study cities. The following demographic profiles of the cities are based on a series of fact sheets produced by UHI (Urban Health Initiative, 2010).

Agra: With a population of around 1.2 million, Agra is one of the largest cities of UP and is located in its southwest corner. About 82 percent of the population is Hindu, while 15 percent are Muslims. The overall literacy rate is high at 70 percent. Caste-wise, scheduled caste (SC) constitutes 21 percent of the population. [2] The child population (0-6 years) constitutes 14 percent of the total and the sex ratio in this age group is around 900 girls per 1000 boys. A vulnerability assessment of the city conducted by various agencies estimates that over 50 percent of

[2] The constitution of India classifies some of its citizens based on their social and economic condition as scheduled caste (SC), scheduled tribe (ST), and other backward class (OBC). The purpose of creating this distinction is to uplift the social, economic, and educational status of these groups through various programs and schemes. The SC group includes those previously considered "untouchables." The ST category includes tribal groups or communities with indications of distinctive culture, geographical isolation, and shyness of contact. The OBC category includes those who are low on social, educational, and economic criteria, but are not considered to be a SC or ST.

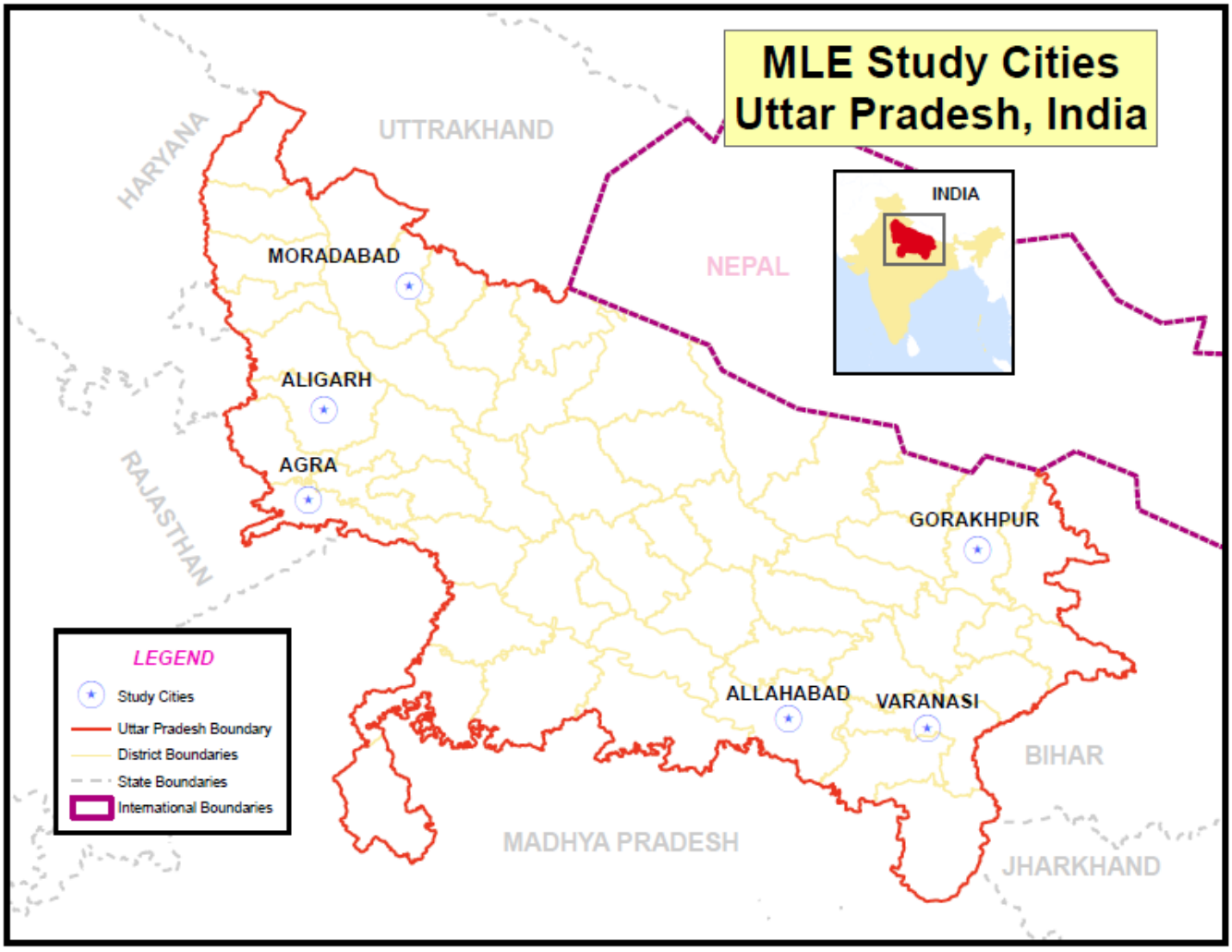

Figure 1.1: Map of MLE study cities, Uttar Pradesh, India.

residents live in slums and squatter settlements, much higher than the government figure.

Health services in Agra are provided by a variety of sources including the public sector, the private sector, as well as a few charitable hospitals that provide subsidized health services to the poor. Among the public sector facilities are central government health facilities that include a railway hospital, the Employers State Insurance (ESI) and cantonment hospitals and dispensaries. Additionally, primary health care in the city is provided through 20 first-tier centers including 15 urban health posts (D-type) located in various parts of the city.

Aligarh: Aligarh is located in the western part of UP and has a population of 670,000. About 12 percent of the population is under the age of six. About 81 percent of the population is Hindu and 18 percent belongs to the SC category. The literacy rate of the city is 64 percent. It is estimated that 69 percent of the urban population is below the poverty line. According to the District Urban Development Authority, Aligarh has around 128 registered slums with a total population of 380,000.

Similar to Agra, health services in Aligarh are provided by both the public sector and by the private sector (hospitals, nursing homes, and clinics). In addition, there are approximately 587 non-registered private providers catering to the large slum population of the city, according to a list compiled by the United Nations Children's Fund. Primary health care in the city is provided through 11 urban

health posts and seven health and family welfare sub-centers, located in various parts of the city.

Allahabad: Allahabad has a population of around 980,000 and a literacy rate of 81 percent, which is higher than many other cities in UP. The city has a relatively poor overall sex ratio at 807 females to 1000 males. Approximately 10 percent of the total population falls between 0-6 years. The scheduled caste population constitutes 12 percent of the city population. Allahabad has 185 slums with a population of 320,000, which is about one-third of the city's population.

In Allahabad, first-tier centers including 12 urban health posts, three urban family welfare centers, and 30 dispensaries provide primary health care. Although the public health infrastructure is fairly extensive, the private sector is an important health care provider in the city. There are 1,421 health practitioners, 272 maternity/nursing homes, six certified abortion providers and 10 certified providers of no-scalpel vasectomy (NSV) and injectable contraceptive (depot medroxyprogesterone acetate or DMPA) providers. Allahabad also has many charitable health care providers offering services at subsidized rates to the poor.

Gorakhpur: Gorakhpur is in the northeastern corner of the state of UP and has a population of around 600,000. Its average literacy rate is 78 percent, which is higher than the state average of 65 percent. In terms of religious composition, the majority of the population (70 percent) is Hindu, followed by Muslims (21 percent). Approximately 12 percent of the population belongs to the scheduled caste category. One-third of the city's population lives in slums.

Primary health care is provided by 21 first-tier health centers. The city has a flourishing private health sector. According to information available with district health authority, there are over 400 private doctors and 87 nursing homes/maternity homes in the city. In addition, a small number of charitable hospitals provide subsidized health services to the poor.

Moradabad: Moradabad has a population of around 640,000. It has an overall literacy rate of 51.5 percent. The overall sex ratio of the city is 885 females to 1000 males, which is lower than the state average of 898. Around 11 percent of its population resides in slum dwellings.

Moradabad has both public and private health services, including health centers managed by religious and charitable institutions. There are several government and private hospitals and nursing homes, in addition to individual private practitioners. At the first tier, the city has 13 urban health posts. In addition, it has five urban health posts that focus on reproductive and child healthcare services. Health care facilities also include two government-run secondary/tertiary-level hospitals, one of which is exclusively for women, and 40 maternity/nursing homes, 40 abortion/NSV providers and 34 DMPA providers.

Varanasi: Varanasi is one of the largest cities in UP, with a population of about 1.09 million. The sex ratio of 891 females to 1000 males is slightly lower than the state average. Its overall literacy rate is 77 percent. Varanasi has 227 slums spread across the city, both on government and private land. The total population in slums is about 460,000, which is about 38 percent of the city's total population.

Public sector health services in Varanasi include facilities of the state Department of Medical, Health and Family Welfare and Varanasi Municipal Corporation, besides central government, ESI, railway, and cantonment facilities. There are 21 urban health posts, 19 district/joint hospitals, six ESI dispensaries, one medical college, one medical care unit, two railway hospitals and one defense hospital. In the private sector, there are 83 maternity/nursing homes, 21 private health posts/clinics, four abortion clinics, 1,077 registered providers and 56 NSV/DMPA providers. In addition, there are a small number of charitable hospitals.

Chapter 2: Methodology

A key objective of the MLE project is to undertake a rigorous impact evaluation of the Urban Reproductive Health Initiative country programs. Specifically, MLE is evaluating the success of both demand-side interventions (those that increase the desire for FP services) and supply-side interventions (those that increase the quality of and access to FP services). The MLE evaluation comprises three design elements that allow researchers to measure programmatic impact across cities, over time, and among the urban poor and non-poor.

2.1. Three Evaluation Design Elements

Impact across Cities: MLE is taking advantage of the delayed implementation of programmatic activities in some cities to undertake a *quasi-experimental* study. Researchers evaluate four UHI-targeted cities (Agra, Allahabad, Aligarh, and Gorakhpur) that receive immediate interventions and two cities (Moradabad and Varanasi) that serve as comparison cities, as they will be delayed in receiving UHI interventions. An assessment of these cities along with the original set of intervention cities adds variation that provides more precise measures of program impact.

The project uses a quasi-experimental design in which data collection commenced simultaneously in the six cities. Two types of data are being collected in all cities: individual-level household data on women and men; and service delivery point data. A standard set of instruments and indicators have been developed for use at the individual household and facility levels; they were reviewed by the UHI country team and adapted to the local context. The study design has both longitudinal and cross-sectional components. In this part of the report, we focus on the longitudinal survey and describe tracking procedures designed to minimize sample attrition.

Impact over Time: MLE uses a combination of repeated cross-sectional data (surveying a new representative sample of respondents at multiple points in time) and longitudinal data (surveying the same respondents at multiple points in time) in a *hybrid study design*. This hybrid approach maximizes the strengths of both types of data; rigorous cross-sectional surveys provide the attitudes and behaviors of a representative sample of the cities' population at a given point in time, while longitudinal data measure the causal impact of program components on outcomes of interest. In particular, by including the same women over time, the MLE project can examine women's exposure to the UHI program and how this exposure relates to changes in their actual contraceptive use behaviors, controlling for their baseline fertility and FP experiences. MLE will also collect longitudinal data from a sample of health and FP facilities that provide services to women and men—service delivery points (SDPs)—and examine access to and quality of FP services at these facilities over the study period.

Impact among the Urban Poor: To identify the impact of UHI interventions among the urban poor, MLE has structured the sampling of respondents to identify programmatic outcomes among both slum and non-slum populations. In India, the sample frame was based on slum maps that provided the geographic coordinates for the location of each registered/identified slum in each study city. The maps were used to divide the study cities into areas identified as slum and non-slum. From the slum areas, a sample of enumeration areas (or primary sampling units) was selected. In the non-slum areas, a similar approach was used to select at random a sample of non-slum enumeration areas. This selection approach also includes an over-sample of the urban poor, with half of the sample coming from slum areas (whereas in study cities, approximately a fifth to a fourth of the populations live in slum areas). By using study weights, a sample is representative of an entire study city.

2.2. Survey Components

Two types of data were collected in the six study cities during baseline data collection: individual-level data and service delivery point data.

Individual Surveys: MLE conducted confidential surveys with currently married women age 15-49 years in all six cities and currently married men age 18-54 years in the four intervention cities using structured questionnaires. These include questions

on basic demographic characteristics (such as age, ethnicity, family structure, and migration practices) of respondents, their experience with FP methods, their awareness of FP messages, and their fertility desires. In addition, data were collected on their current health care experiences, including how they pay for health care and when and where they seek services for themselves and their children. At baseline, the contact information of women was also collected, so as to locate them at mid-term and endline surveys.

To ensure that the urban poor are fully represented in this study, geographic information system (GIS) data were utilized to map the location of urban slums and non-slum areas onto maps of the study cities using country-specific definitions of what constitutes a slum. As the residents of urban slums are predominantly poor, these geographic data served as approximate measures of where poor populations live. From the GIS data, researchers designed sampling frames that captured both urban poor and non-poor populations and systematically selected members from both groups as survey respondents from these geographically-determined sampling frames.

SDP Surveys: The MLE baseline survey included data collection at a wide range of public and private SDPs, including hospitals, maternity centers and health clinics. In each selected facility, a facility audit and provider interviews were conducted. Through the facility audits, we obtained information on the services that are provided at each location and the availability of FP methods and prescription requirements. Interviews with health care providers identified providers' training, standard operating procedures with clients, and referral mechanisms. In those facilities that were of higher volume, as identified by the UHI program, client exit interviews were also undertaken to identify women's reasons for their FP or maternal or child health visit, the types of services received, counseling practices, and general perceptions of quality of care. In addition, a pharmacy audit was undertaken in about 100 pharmacies in each study city and a brief audit was undertaken with registered medical providers and retail outlets within the communities where women live.

2.3. Sampling Design and Implementation

The study involved a multi-stage sampling design. In this section, the sample size for the six cities in UP, as well as the sampling procedures, are presented.

Sample Size Determination: The target sample for each of the cities was 3,000 completed interviews with eligible women (currently married women ages 15-49). In order to attain this, a sample of 3,992 households was selected. Similarly, for men, the target sample was 1,500 completed interviews with eligible men (currently married men 18-54 years of age). In order to attain this, a sample of 2,312 households was selected; these households were distinct from those in the women's sample. For both the women's and men's sample, the sample size was equally divided between slum and non-slum populations to get an adequate sample of the urban poor.

GIS Processing and Mapping: GIS maps were used for developing the sampling frames based on three spatial datasets (slum data, ward boundary data, and QuickBird Satellite imagery). These sources were used as inputs to processing and mapping in each of the six cities. The study area was defined as the outer boundary of all populated wards, based on the ward polygon maps. Several of the study area cities contained wards that were attributed as "cantonments" and contained population estimates of zero. The cantonment polygons were excluded from the study area.

In order to achieve equal sample from slums and non-slums, each city was divided into a set of slum and non-slum (NS) sampling units. First, the source slum polygons were processed to create viable slum primary sampling units (PSUs). From these, 64 of the slum PSUs were randomly selected and subsequently mapped, and then subtracted from the study area of each city. From the remaining area, NS polygons were delineated in GIS and 64 NS PSUs were randomly selected. The boundaries of the selected NS PSUs were adjusted to ensure that they were valid and then mapped.

While developing the PSU maps for sampling, care was taken to ensure that each PSU contained about 100 to 200 households, their polygons did not overlap each other, and polygons were navigable. Extensive processing of the input data was done to ensure this.

Due to the graphic nature of spatial data processing, it is often easier to understand GIS through illustrations rather than text. Figure 2.1 shows an illustrative, fictional example of a source slum and ward data map (top) and a fictional example of a final PSU map with the GIS coordinates (bottom).

Household Survey: Using PSU maps, a mapping and household listing operation was carried out in each of the selected PSUs, which provided the necessary frame for selecting households. The household mapping and listing operation involved preparing up-to-date notional and layout sketch maps assigning numbers to structures, recording addresses of these structures, identifying residential structures, and listing the names of heads of all the households in residential structures in each of the selected PSU.

In each PSU, 30 households were selected using systematic random sampling for the women's survey. After removing the 30 households from the list, 20 households were selected for the men's survey in each PSU. All the selected households were visited during the main survey, and no replacements were made if a selected household was absent during data collection. In the selected household, all eligible women or men were interviewed.

SDP Survey: In the SDP survey, all public health facilities, high-volume private health facilities and select non-high-volume private facilities, pharmacies and retail outlets were included. For each PSU, the most preferred[3] private facility and pharmacy were selected from the list of facilities that women reported visiting for FP or maternal and child health services during the individual survey. At each selected SDP, a global positioning system (GPS) point was recorded using a GPS device.

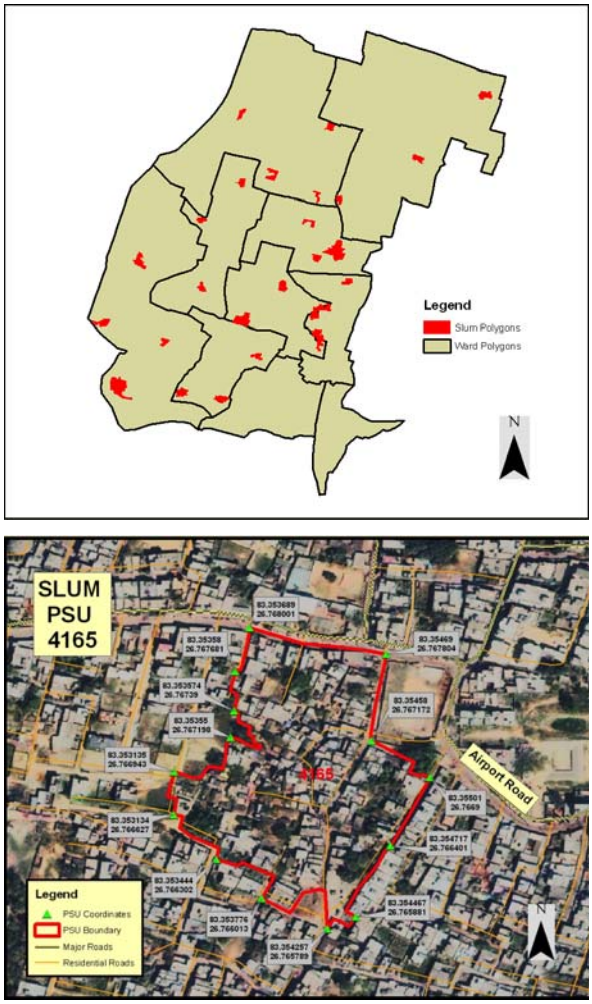

Figure 2.1: Source slums and ward data map (top) and slum PSU with GIS coordinates (bottom).

Achieved Sample Sizes: Table 2.1 gives the achieved sample sizes in the household and SDP surveys. A total of 17,643 women were interviewed against the intended 18,000. The achieved sample was lowest in Allahabad (2,670), and highest in Aligarh (3,112). Similarly, in case of men, the sample was less than required in Allahabad (1,280 against 1,500). In other cities, it was more than 1,500.

The facility audit covered 27 high-volume public facilities, of which more than one-third (11) were in Varanasi, six were in Moradabad, and the remaining cities had two or three. A far larger number of high-volume private facilities were surveyed (93 in all), with the highest number in Varanasi and Aligarh, with 25 and 20, respectively. "Other public

[3] Preferred facility/provider refers to a facility/provider mentioned most by women in a PSU.

Table 2.1: Number of Interviews and Audits by Type and City, Urban Health Initiative, India, 2010

	Individual Interviews		Facility Audit				Pharmacy Audit	Provider Interviews	Exit Interviews	Retail Outlets	RMP
	Women	Men	HV Public	HV Private	Other Public	Other Private					
Agra	3,007	1,682	2	14	15	91	104	280	683	23	12
Aligarh	3,112	1,873	3	20	14	72	73	238	677	58	33
Allahabad	2,670	1,280	3	11	18	84	77	324	471	49	19
Gorakhpur	3,022	1,593	2	11	17	88	86	274	583	69	14
Moradabad	2,817	NA	6	12	11	86	71	226	442	74	52
Varanasi	3,015	NA	11	25	25	91	106	411	634	67	10
Total	17,643	6,428	27	93	100	512	517	1753	3,490	340	140

Notes: HV=high volume, RMP=recognized medical practitioner, NA=not applicable (men's data were not collected in the delayed intervention cities).

facilities" (totaling 100) ranged from 25 in Varanasi to 11 in Moradabad. The highest number of facility audits were carried out at "other private facilities" (512 in all), which were primarily small maternity centers and clinics, with Varanasi and Agra having the highest number, with 91 each.

In the pharmacy audit and provider interviews, Varanasi had the largest number in each sample, with 106 pharmacy audits (of a total 517 pharmacies) and 411 provider interviews (of a total of 1,753).

Exit interviews were conducted with a total of 3,490 women who had visited the facility for family planning or maternal and child health services.

2.4. Survey Questionnaires

The MLE baseline survey was comprised of nine separate data collection tools described below. The questionnaires were translated in Hindi and back-translated. All tools were pilot tested and finalized.

Individual Survey: Data were collected at the household level as well as for individual women or men in the selected household:

- **Household questionnaire—**The household questionnaire listed all usual residents in each selected household plus any visitors who stayed in the household the night before interview. For each listed person, basic information was collected on age, sex, marital status, relationship to the head of household, education level attained and employment status. Information was also collected on basic characteristics of the home, household assets, consumer expenditures, and follow-up contact information.
- **Women's questionnaire—**The women's questionnaire collected information from currently married women ages 15-49 years, who were usual residents of the selected household or visitors who stayed in the selected household the night before the interview. The questionnaire collected information on background characteristics, reproductive behavior, knowledge and use of contraception, media exposure and interpersonal communication, maternal and child health, contact with health personnel, gender inequity measures, and follow-up information.
- **Men's questionnaire—**The men's questionnaire collected information from currently married men, ages 18-54 years, who were usual residents of the selected household or visitors who stayed in the selected household the night before the interview. The questionnaire collected information on background characteristics, reproductive behavior, knowledge and use of contraception, sources of family

planning, media exposure and interpersonal communication and gender inequity measures.

Service Delivery Point Survey: The SDP survey included facility audits and provider interviews at select health facilities, audits of selected pharmacies and outlets, and exit interviews with FP and maternal, newborn, and child health clients at high volume facilities. The questionnaires were in both English and Hindi.

- **Facility audit—**A manager was interviewed at each of the public and private health facilities, pharmacies and retail outlets. The audit questionnaire for the health facility included questions on service statistics, type of services and providers, quality of care, standard operating procedures, stocking, and availability of each FP method. The questionnaires for the pharmacy, retail outlets, and recognized medical practitioners (RMPs) were shorter and included the FP methods stocked and sold as well as stock-outs for each method.
- **Provider interviews—**Provider interviews were conducted in all selected public and private facilities. A sample of providers was selected from the list of those providing FP and/or maternal, newborn, and child health services. Various types of providers were selected, including physicians, nurses, auxiliary staff and auxiliary nurse midwives. The questionnaire collected information on training, knowledge, and provision of family planning methods; topics covered during counseling; availability of family planning methods and necessary equipment; provider barriers; and integration of family planning with other services.
- **Exit interviews—**At high-volume SDPs that provide FP and maternal, newborn, and child health services, exit interviews were conducted with women ages 18 and older visiting the facility for services. All women receiving the targeted type of services were eligible for participation in the exit interviews. The questionnaire collected information on characteristics of the client, contraceptive use, topics covered during counseling, services received, client satisfaction, media exposure, and integration of family planning with other services.

2.5. Recruitment, Training, and Fieldwork

Senior professionals of the ACNielsen ORG-MARG and Fact Indepth in Lucknow, UP, conducted the training of field staff, including interviewers and supervisors for the main survey. The training consisted of classroom training, demonstration and practice interviews, as well as actual field practice. The classroom training included instructions on interviewing techniques and survey field procedures, a detailed review of each item in the questionnaires, and instruction and mock interviews between participants. It also included training on research ethics. Special guest lectures on FP and on reproductive and child health were also arranged.

Seven to eight teams conducted the main fieldwork in each of the cities. Each team consisted of one field supervisor, one female field editor, two female interviewers, and two male interviewers. A separate team of investigators was trained for the SDP survey. The fieldwork for individual and SDP surveys was carried out from January through August 2010.

2.6. Data Entry and Processing

Completed questionnaires for the MLE baseline survey were sent to the office of the ORG-MARG and Fact Indepth in Lucknow for data processing which consisted of office editing, coding, data entry and machine editing. Data was double entered in CSPro to ensure data quality.

Chapter 3: Household Population Distribution

This section presents the age and sex composition of the population in the sampled households, sex ratios

for the total population and child sex ratios (0-6 years) for all the six cities. A total of 118,911 individuals were enumerated in the 30,927 sampled households across the six cities.

Data on age distribution indicates that 28 percent (in Allahabad) to 34 percent (in Aligarh) of the total population is less than 15 years of age. Further, half of the female population is in the reproductive age group in all the cities. In the sampled households, 6 percent to 8 percent of the population is in the 60+ age category. Table 3.1 shows percent distribution of the household population by age, sex, and city as well as the child sex ratio for all ages and for children 0-6, by city.

The child sex ratio is affected by both the sex ratio at birth as well as differential child mortality for children under age six. An imbalanced child sex ratio may indicate both skewed sex ratio at birth as well as differential child mortality between boys and girls and can be an important indicator for gender quality. Given the declining trends in the ratio of girls to boys in India, it is an important value to monitor at the city level and is calculated for all the six cities.

The overall sex ratio for Aligarh and Allahabad was below 900 females to 1000 males (862 and 895, respectively), while Gorakhpur had the highest at 949. The sex ratio of the population below six years of age was below 900 girls to 1000 boys for Agra and Aligarh (844 and 860, respectively), while it was above 900 in other cities, with Allahabad having the highest at 1,031. All of the cities had better or equivalent child sex ratios than overall sex ratios, except for Agra, where the overall sex ratio was 903, but only 844 for children. Imbalanced child sex result from higher mortality among girls aged 0-6 compared to boys as well as possible sex selection during pregnancy. Son preference is often the underlying factor. Differences between the child sex ratio and the overall sex ratio could indicate changes in gender attitudes and sex preference over time.

Table 3.1: Percent Distribution of the Household Population by Age, Sex, and City, Urban Health Initiative, India 2010

	Agra			Aligarh			Allahabad			Gorakhpur			Moradabad			Varanasi		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	9.8	9.6	9.7	10.4	9.9	10.2	7.7	9.1	8.4	8.5	8.5	8.5	8.6	8.9	8.8	8.7	9.1	8.9
5-9	10.3	9.7	10.0	11.6	10.9	11.2	8.7	9.4	9.0	10.2	10.1	10.1	10.3	10.4	10.4	11.3	10.8	11.0
10-14	12.7	12.7	12.7	12.3	12.7	12.5	10.2	10.5	10.3	12.0	11.6	11.8	12.6	11.8	12.2	12.5	12.0	12.2
15-19	13.4	12.6	13.0	13.3	13.0	13.2	13.5	11.7	12.7	12.7	12.5	12.6	13.4	13.3	13.4	12.1	12.8	12.4
20-24	10.9	10.9	10.9	11.1	10.5	10.8	12.5	10.7	11.7	10.1	10.6	10.3	11.4	11.1	11.3	10.3	9.8	10.1
25-29	7.9	8.0	8.0	7.4	7.6	7.5	9.3	9.1	9.2	8.4	8.8	8.6	8.3	8.1	8.2	7.8	8.6	8.2
30-34	6.1	6.4	6.3	6.0	6.4	6.2	6.8	7.0	6.9	6.4	6.8	6.6	6.5	7.1	6.8	6.5	7.1	6.8
35-39	5.6	6.7	6.1	6.1	5.9	6.0	6.8	6.7	6.7	6.8	6.8	6.8	6.3	5.9	6.1	6.7	6.5	6.6
40-44	5.2	5.5	5.4	4.8	5.4	5.1	4.9	5.5	5.2	4.7	5.0	4.9	4.8	5.4	5.1	5.1	5.3	5.2
45-49	4.9	3.9	4.4	4.8	3.7	4.3	4.7	4.4	4.6	5.1	4.4	4.7	4.9	4.2	4.6	5.0	4.3	4.7
50-54	3.6	3.8	3.7	2.9	3.4	3.1	3.7	3.8	3.8	3.4	3.9	3.6	3.7	3.8	3.8	3.5	3.2	3.4
55-59	3.2	3.8	3.5	2.6	3.4	3.0	3.3	3.8	3.5	3.7	4.1	3.9	3.0	3.5	3.3	2.9	3.5	3.2
60-64	2.7	2.5	2.6	2.5	3.1	2.8	2.8	2.9	2.8	3.1	2.6	2.9	2.8	2.7	2.8	2.5	2.8	2.6
65-69	1.5	1.5	1.5	1.9	1.6	1.8	1.8	2.1	2.0	2.0	1.9	1.9	1.3	1.6	1.5	2.3	1.7	2.0
70 +	2.4	2.3	2.3	2.3	2.6	2.4	3.2	3.3	3.2	2.9	2.7	2.7	2.1	2.2	2.1	2.8	2.5	2.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	10396	9385	19781	10817	10111	20928	9523	8525	18048	10406	9878	20284	10102	9359	19461	10628	9781	20409
Sex ratio, all ages*			903			862			895			949			926			920
Sex ratio, age 0-6 years*			844			860			1031			946			939			920

* Females per 1000 males.

Chapter 4: Socioeconomic Profile of Respondents

Educational attainment, social background and household wealth are important determinants of the utilization of reproductive health care services offered through various service providers in the government and private sector. This chapter presents a socioeconomic profile of the currently married women surveyed in the six cities in UP and of currently married men in four of the cities surveyed. As has been noted, women and men included in the survey are not couples but are from separate households. Also mentioned in the methodology section, men's data were not collected in the delayed intervention cities (Moradabad and Varanasi). The percentage distribution of ever-married women and men by education, religion, caste and wealth index is shown in table 4.1.

Both women's and men's education have a strong bearing on reproductive health care, contraceptive behavior and fertility. The proportion of currently married women who had completed at least 12 years of schooling ranged fairly widely from a high of 45.5 percent in Allahabad to 26.1 percent in Agra and 27.6 percent in Aligarh. Allahabad had the lowest proportion of women with no education (22 percent); the city with the highest proportion of uneducated women was Aligarh with 42.3 percent.

The distribution of male education levels across the four cities appeared to mirror the female levels: men with the highest education level—having completed at least 12 years of schooling—were the largest proportion of all males in Allahabad (half the male population) while the lowest was in Agra with 30.7 percent. Similarly, the proportion of males with no education was highest in Aligarh (one-fifth) while Gorakhpur had the lowest proportion (10.9 percent). Though the distribution of education was similar, a higher proportion of women than men had never attended school, across all cities (figure 4.1).

As to the religion of the people surveyed, Hindus accounted for more than 80 percent of the male and female populations in Agra, Allahabad, and Gorakhpur; around 66 percent of the male and female population in Aligarh; and 61 percent and 77 percent of the women surveyed in Moradabad and Varanasi, respectively. The rest of the population was largely Muslim, with "other/none" accounting for less than 1.5 percent of the populations in all the cities.

Caste and tribal affiliations are also important social characteristics, which mold beliefs and practices related to reproductive and child health care. Caste may also affect people's access to services, government schemes and social entitlements. Vulnerability is often defined by belonging to lower caste groups.

Hindus account for more than 80 percent of the male and female populations in Agra, Allahabad, and Gorakhpur; around 66 percent of the male and female population in Aligarh; and 60 percent and 77 percent of the women surveyed in Moradabad and Varanasi, respectively.

The others surveyed were primarily Muslim, with "other/none" accounting for less than 1.5 percent of the populations in all the cities.

Agra had the largest proportion of scheduled castes in its sample, with 30 percent of females and 29 percent of males; in the other cities, the proportions varied from 11 percent in Varanasi (for women only) to 22 percent in Aligarh, and 11 percent in Gorakhpur (for men only). In all the cities, the two largest groups were "other backward classes" and "other."

"Other backward classes" accounted for a large share of the population surveyed in Varanasi, Moradabad and Gorakhpur. They formed over half (54 percent) and almost half (49 percent) of the female populations in Varanasi and Moradabad, respectively, and around 46 percent of the male and female populations in Gorakhpur; but only 32 percent in Agra.

Table 4.1: Background Characteristics of Currently Married Women and Men, Urban Health Initiative, India, 2010

	Agra		Aligarh		Allahabad		Gorakhpur		Moradabad		Varanasi	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Education												
No education	38.0	15.1	42.3	20.1	22.0	11.3	26.9	10.9	36.0	NA	32.1	NA
<5 classes complete	3.1	6.7	2.2	5.8	3.0	4.5	2.3	5.5	2.0	NA	4.3	NA
5-7 classes complete	9.6	11.8	9.7	9.6	8.9	10.1	8.8	9.2	9.2	NA	11.7	NA
8-9 classes complete	11.1	17.6	9.5	16.2	9.0	13.8	11.3	16.2	12.3	NA	12.1	NA
10-11 classes complete	12.1	17.7	8.8	12.9	11.7	9.7	11.9	13.3	10.5	NA	11.7	NA
12 + classes complete	26.1	30.7	27.6	35.4	45.5	50.5	38.8	44.6	29.9	NA	28.1	NA
Missing	0.1	0.6	0.0	0.0	0.0	0.2	0.1	0.3	0.0	NA	0.0	NA
Religion												
Hindu	85.8	87.0	65.6	67.1	80.2	84.2	80.8	81.7	61.2	NA	77.2	NA
Muslim	12.8	12.3	33.4	32.2	19.0	15.4	18.5	16.9	37.4	NA	22.2	NA
Other/None	1.4	0.8	1.0	0.7	0.9	0.4	0.8	1.4	1.4	NA	0.6	NA
Caste/Tribe												
Scheduled caste	30.4	29.5	20.7	22.1	15.2	17.7	12.6	11.3	13.5	NA	11.5	NA
Scheduled tribe	0.4	0.5	0.0	0.0	0.0	0.0	0.2	0.3	0.1	NA	0.9	NA
Other backward class	32.2	31.9	39.3	36.6	40.0	39.3	47.3	45.3	48.7	NA	54.2	NA
Other	36.8	38.0	39.2	40.8	44.7	42.9	39.9	42.9	37.2	NA	33.5	NA
Don't know	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	NA	0.0	NA
Missing	0.1	0.0	0.8	0.4	0.0	0.1	0.1	0.1	0.5	NA	0.0	NA
Wealth Index												
Lowest	18.0	17.6	17.5	18.3	14.6	18.7	18.3	19.8	17.5	NA	19.0	NA
Second	19.5	19.1	19.4	19.0	18.3	19.1	20.2	21.3	19.1	NA	19.1	NA
Middle	19.9	20.8	20.5	20.0	22.0	18.9	20.0	19.5	20.1	NA	20.2	NA
Fourth	21.1	22.9	20.7	20.9	23.4	21.0	21.2	20.6	20.9	NA	20.3	NA
Highest	21.5	19.7	21.9	21.8	21.8	22.3	20.4	18.8	22.3	NA	21.5	NA

Note: NA=not applicable (men's data were not collected in the delayed intervention cities).

"Other castes" formed over 40 percent of the male and female populations in Allahabad and Gorakhpur, and ranged from a high of around 44 percent in Allahabad to 33 percent (of the female population) in Varanasi. Less than 1 percent of the respondents belonged to scheduled tribe.

The economic well-being of a household not only influences knowledge of the benefits of reproductive health care, it also improves accessibility to available health care facilities. As a proxy to household economic well-being, a household wealth index has been constructed using data from a list of consumer durables possessed by the household. The wealth index is divided into quintiles, i.e. five equally sized groups, each with 20 percent of the whole population. The index ranked from lowest to highest, which correspond to the first and fifth quintile values, respectively.

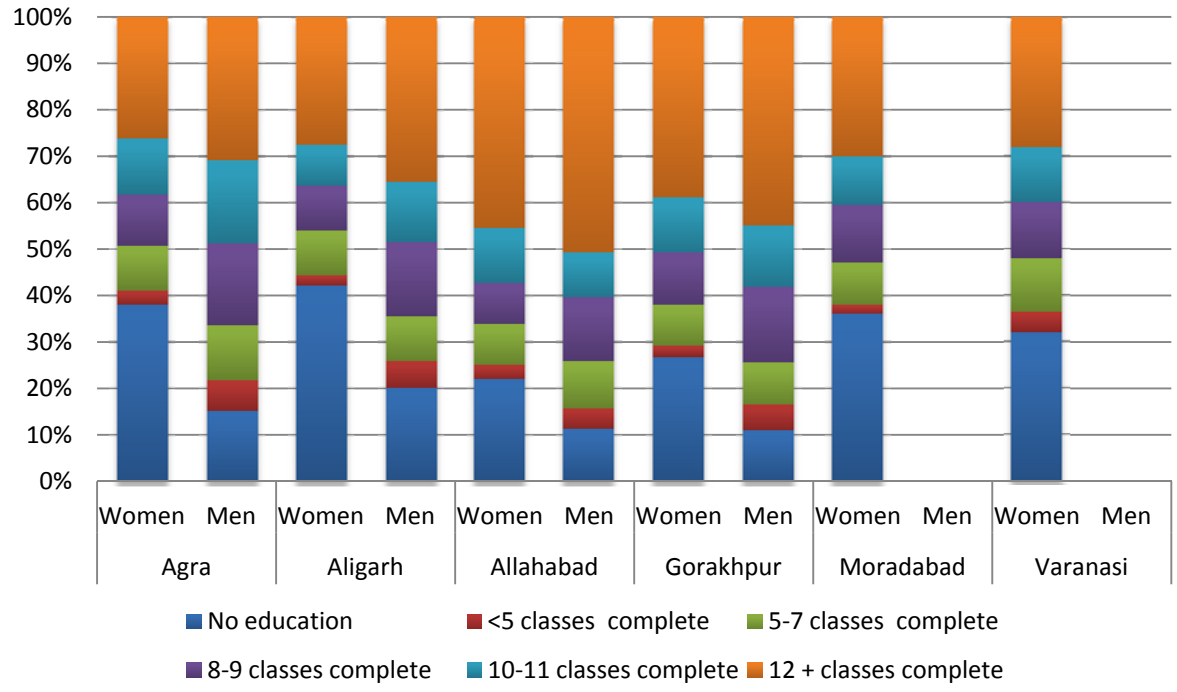

Figure 4.1: Distribution of women and men by education for six cities.

Chapter 5: Marriage and Fertility

This section provides information on age at marriage, age at first cohabitation, fertility rates, fertility preferences, planning status of last birth and the ideal number of children married women and men would like to have. It also provides information on child gender preferences.

5.1. Age at Marriage or Cohabitation

Early marriage leads to high fertility and increased population momentum, the two largest drivers of population growth. It also contributes to high maternal and child mortality (Jain & Kurz, 2007). In addition, girls who marry at a young age do so with limited experience and information on reproductive and sexual health. Early marriage is also associated with poor educational attainment and limiting girls' economic opportunities and security.

While age at marriage has increased in many places, the pace of change has been slow in India (UNICEF, 2009). An analysis of three rounds of India's National Family Health Survey by the International Center for Research on Women (ICRW) shows that the proportion of girls in India marrying before age 18 declined only modestly between 1992 and 2006, from 54 percent to 47 percent (Das Gupta, Mukherjee, Singh, Pande & Basu, 2008). Moreover, specific states such as Rajasthan and UP (both of which have populations larger than most countries) continue to show relatively high rates of early marriage, ranging from 40 percent to 57 percent of 20-24 year old women married before the age of 18.

Data on women's age at first marriage and their age at first cohabitation with their husbands is presented in table 5.1.

Among the women covered in the survey, around one-third were married before the legal minimum marriage age of 18 years, ranging from 22 percent in Moradabad to 40 percent in Varanasi (figure 5.1); and well over two-thirds were married by the age of 20 years, ranging from 68 percent in Allahabad to 81 percent in Varanasi. In Gorakhpur and Varanasi, more than 10 percent of the women were married before they were 15 years old. In all cities, less than 10 percent of women delayed marriage to age 25 or older.

More women in Varanasi and Gorakhpur, as compared to the other four cities, married at younger ages; approximately 40 percent were married before the legal minimum age of 18 years. In Varanasi, 81 percent of women were married by the age of 20; only 4 percent married at age 25 years or older. Gorakhpur had a very high proportion (37 percent) of under-age marriages, with almost 12 percent of the women married before they were 15 years old.

Around 30 percent of women had first cohabitated before they were 18 years (except in Moradabad, where this proportion was only 22 percent). In Varanasi, 35 percent of the women had cohabitated before completing 18 years of age. Around 3 percent or 4 percent of the women had cohabitated even before the age of 15 in all the six cities.

At least two-fifths of the women across the six cities reported that their age at first cohabitation was between 18 to 20 years. First cohabitation at over 25 years was very low at around 7 percent overall, with only 4 percent of the women in Varanasi and 5 percent in Agra.

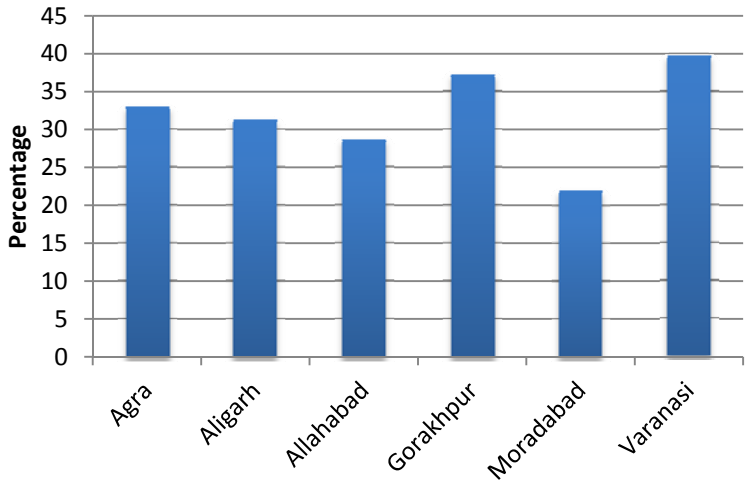

Figure 5.1: Percentage of currently married women married before 18 years of age.

Table 5.1: Age at First Marriage and First Cohabitation among Currently Married Women by City, Urban Health Initiative, India, 2010

	Agra	Aligarh	Allahabad	Gorakhpur	Moradabad	Varanasi
Age at marriage						
<15	6.7	4.8	6.1	11.8	3.6	10.5
15-17	26.3	26.5	22.6	25.5	18.4	29.3
18-20	43.8	44.0	39.0	35.7	46.8	41.2
21-24	18.0	18.6	22.9	18.6	22.8	14.9
25-29	5.0	5.8	8.3	7.8	7.6	3.8
30+	0.1	0.4	1.1	0.6	0.7	0.4
Age at first cohabitation						
<15	3.9	3.7	3.1	2.7	3.0	4.4
15-17	26.3	27.0	23.5	25.4	18.8	30.2
18-20	45.9	44.1	40.3	42.6	46.8	44.4
21-24	18.5	18.8	23.4	20.7	22.9	16.6
25-29	5.1	5.6	8.6	7.9	7.7	3.9
30+	0.2	0.4	1.0	0.6	0.8	0.4
Don't know	0.2	0.3	0.1	0.2	0.0	0.1

5.2. Fertility Levels

Estimates on age-specific fertility rates (ASFR) and TFR by wealth for the six cities are given in table 5.2. The ASFR for a specific age group gives the number of births for 1,000 currently married women; it is calculated by dividing the number of births to women in that age group during a period by the number of years lived by women in that age group during the same time period. The TFR is a summary measure based on the ASFRs that indicates the number of children a woman would bear during her reproductive years if she were to experience the ASFRs prevailing at the time of the survey. All TFRs and ASFRs calculated for this report pertain to married women only, as unmarried women were not surveyed.

As shown in figure 5.2, Aligarh has the highest overall TFR (around four births per currently married woman), while Varanasi has the lowest (2.8 births). Across the cities, the TFR is highest for the poorest wealth quintile (ranging from 5.3 in Aligarh

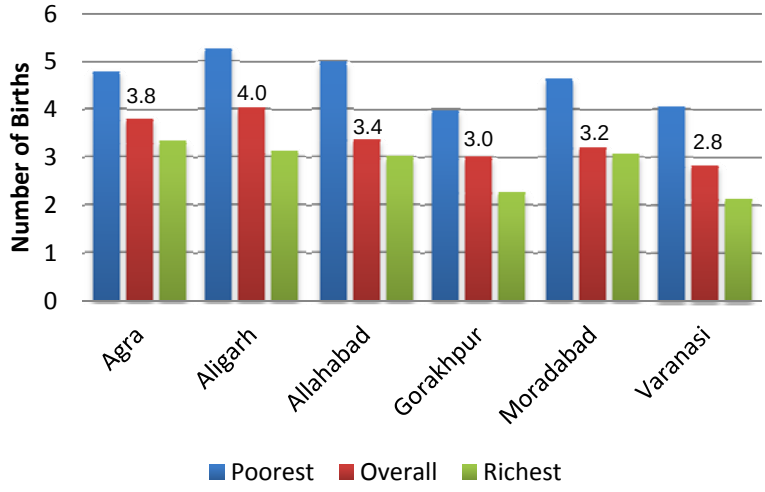

Figure 5.2: Total fertility rate by wealth quintiles.

to 4 in Gorakhpur). There does not appear to be a pattern for the other wealth quintiles, although the richest women in Varanasi, Gorakhpur and Aligarh have the lowest TFRs in their cities.

The data on the ASFR show that the peak child-bearing age across all the cities is ages 20-24 years, where the ASFR ranges from 278.2 births per 1,000 currently married woman in Agra to 185.8 in Moradabad. There is considerable amount of early childbearing between the ages of 15 and 19 years, with ASFRs from a high of 221.3 births per 1,000 currently married women in Agra to a low of 110.6 in Moradabad. Fertility falls from the age of 35 years and tapers off in the oldest age group (table 5.2).

5.3. Fertility Preferences

The survey looked at fertility preferences in the six cities. To obtain information on fertility preferences, all non-pregnant women were asked if they would like to have (a/another) child or would prefer not to have any (more) children. Women who were pregnant were asked if they would like to have another child or prefer not to have any more children after delivering the one they were carrying. Women who expressed a desire for additional children were asked how long they would like to wait before the birth of their next child. Men were also asked the same questions on fertility preferences.

The information on fertility preferences among both women and men across the six cities is presented in table 5.3.

Over 40 percent of the women across the cities said that they did not want any (more) children; in Aligarh, 55 percent of women reported not wanting any more children. An additional 13 percent to 29 percent of the women said they could not have a/another child because either they or their spouse had been sterilized.

> Fertility preference provides important information on the proportion of women who want to delay childbearing and also the proportion who want to limit childbearing, underscoring the need for improved FP services.

Table 5.2: Age-Specific Fertility Rates by City and Total Fertility Rates by Wealth and City, Urban Health Initiative, India, 2010

	Agra	Aligarh	Allahabad	Gorakhpur	Moradabad	Varanasi
Age-specific fertility rates per 1,000						
15-19	221.31	197.02	178.22	174.50	110.62	123.74
20-24	278.21	274.04	252.54	207.28	185.79	203.06
25-29	151.70	185.79	147.36	148.34	237.15	154.57
30-34	72.52	106.89	76.37	50.60	70.76	65.57
35-39	32.95	31.62	16.06	16.63	36.08	14.46
40-44	3.50	7.74	4.05	4.16	0.00	6.34
45-49	0.00	3.65	0.00	0.77	0.00	0.00
Total fertility rate by wealth						
Poorest	4.79	5.27	4.98	3.99	4.65	4.07
Poor	2.93	4.62	3.25	2.50	3.22	3.28
Middle	3.50	4.22	3.13	3.05	2.83	2.81
Rich	3.23	3.58	2.81	3.00	3.23	2.75
Richest	3.33	3.11	3.01	2.27	3.06	2.14

Approximately one-fourth of the women in each city said they would like to have a/another child at some time, although more women (around 14 percent) opted for a birth after two years, rather than sooner (around 10 percent). Agra had the highest proportion of women (13 percent) who wanted a/another child within two years' time. Gorakhpur had the highest proportion of women (15.4 percent) who wanted a child after two years (figure 5.3).

Table 5.3 also provides information on fertility preferences among the men in four cities (barring Moradabad and Varanasi). The largest proportion of men (ranging from 55 percent in Aligarh to 42 percent in Gorakhpur) said they did not want (more) children. Around 30 percent of the men in each city wanted another child, but like the women, most wanted to postpone the (next) birth for two years. However, a small proportion (9 to 14 percent) wanted a child within two years. About one-fourth of the men in Agra, Allahabad and Gorakhpur could not have children because they or their wife were infecund or had been sterilized; in Aligarh, this ratio was far lower at 14.7 percent of the men.

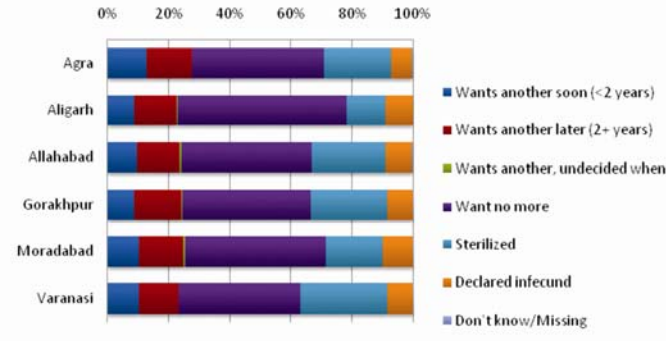

Figure 5.3: Distribution of currently married women with fertility preferences.

Table 5.3: Percent Distribution of Fertility Preferences among Currently Married Women and Men by City, Urban Health Initiative, India, 2010

WOMEN

Desire for children	Agra	Aligarh	Allahabad	Gorakhpur	Moradabad	Varanasi
Wants another soon (<2 years)	12.7	8.8	9.7	8.7	10.4	10.2
Wants another later (2+ years)	14.8	13.8	13.8	15.4	14.3	13.0
Wants another, undecided when	0.1	0.4	0.7	0.5	0.7	0.1
Want no more	43.4	55.0	42.7	42.0	46.2	40.0
Sterilized	22.0	12.7	24.3	25.1	18.5	28.5
Declared infecund	6.9	9.1	8.6	8.2	9.9	8.2
Don't know/Missing	0.3	0.0	0.3	0.1	0.1	0.1
Total %	100.0	100.0	100.0	100.0	100.0	100.0
Number	3007	3112	2670	3022	2817	3015

MEN

Desire for children	Agra	Aligarh	Allahabad	Gorakhpur	Moradabad	Varanasi
Wants another soon (<2 years)	10.2	14.2	9.3	11.9	NA	NA
Wants another later (2+ years)	16.9	16.7	20.7	16.5	NA	NA
Wants another, undecided when	0.8	0.2	0.1	0.4	NA	NA
Want no more	46.3	53.5	43.7	42.5	NA	NA
Sterilized/Infecund	23.7	14.7	25.1	27.7	NA	NA
Don't know/Missing	2.1	0.6	1.2	1.1	NA	NA
Total %	100.0	100.0	100.0	100.0	NA	NA
Number	1682	1873	1280	1593	NA	NA

Note: NA=not applicable (men's data were not collected in the delayed intervention cities).

5.4. Fertility Planning

Each woman who had given birth since 2007, as well as each woman who was pregnant at the time of the survey, was asked whether the last birth/current pregnancy was wanted at that time (planned), wanted at a later time (mistimed), or not wanted at all. Table 5.4 shows the distribution of births since 2007 and current pregnancies by city, and the planning status of these births.

As the data show, 15 percent to 30 percent of the last births since 2007 or current pregnancies were unplanned; that is, either unwanted at the time the woman became pregnant or not wanted at all (highest was in Varanasi at 30 percent and lowest of about 15 percent in Gorakhpur). Half of the women with unplanned pregnancies in Varanasi wanted a child later, while half did not want more children. Among the cities, Gorakhpur and Moradabad had the largest share of women (83 percent) who wanted their pregnancies at the time they occurred.

Aligarh and Varanasi were the cities with the largest share of pregnant women (around 15 percent) who had not wanted more children. Moradabad was the city with the lowest proportion of such women, with only 8.8 percent. There was some variation across cities in the proportion of women who wanted a child later, ranging from a low of 5 percent in Gorakhpur to 14 percent in Varanasi.

5.5 Ideal Number of Children

To ascertain people's perception of the ideal number of children, all married women and men who had at least one living child were asked, "If you could go back to the time you did not have any children, and could choose exactly the number of children to have in your whole life, how many would that be?" Women and men with no children were asked, "If you could choose exactly the number of children to have in your whole life, how many would that be?" Table 5.5 provides information on the ideal number of children as reported by women and men by city.

Across all cities, the majority of women considered two to be the ideal number of children, with the proportion ranging from around 51 percent of the women in Aligarh to 69 percent in Allahabad. This presents an interesting contrast to TFR, which ranged between 2.8 in Varanasi to 4.0 in Aligarh. Over two-fifths of the women (42 percent) in Aligarh felt that the ideal number of children was three or four. The proportion was lower in the other five cities, with Allahabad being the lowest with only 21 percent of the women stating that they would prefer to have three or four children (figure 5.4). Very small proportions of women (around 3 percent) felt that ideally they would like to have five or more children (not shown).

Men's view of the ideal number of children appeared to mirror the women's, as the majority of men thought that two was the ideal number. In Aligarh, only 43 percent of the men thought two was the ideal number of children (in contrast to Allahabad where the proportion was 62 percent). As in the case of the women, the men in Aligarh wanted larger families—as it had the largest proportion of men (compared to the other three cities) considering three or more children as the ideal. While about one-fifth of the men in Agra and Allahabad felt three was the ideal number of children, a larger proportion in Aligarh (28 percent) and Gorakhpur (27 percent) felt similarly. However, a fairly large proportion of men

Table 5.4: Planning Status of Last Birth* since 2007 among Currently Married Women by City, Urban Health Initiative, India, 2010

	Planning status of birth (%)				Total %	Number of births
	Wanted then	Wanted later	Wanted no more	Missing		
Agra	80.2	8.9	9.9	1.0	100.0	1146
Aligarh	77.1	7.3	15.6	0.0	100.0	1255
Allahabad	77.9	11.8	10.4	0.0	100.0	858
Gorakhpur	83.2	4.9	10.5	1.4	100.0	973
Moradabad	82.7	8.4	8.8	0.0	100.0	934
Varanasi	70.1	13.8	15.4	0.7	100.0	945

* Including current pregnancies as last birth if currently pregnant.

Table 5.5: Percent Distribution of Ideal Number of Children among Currently Married Women and Men by City, Urban Health Initiative, India, 2010

WOMEN

Ideal number of children	Agra	Aligarh	Allahabad	Gorakhpur	Moradabad	Varanasi
0	2.7	0.1	0.4	2.5	0.0	1.7
1	2.4	3.9	8.9	4.3	4.0	4.5
2	60.4	50.9	69.2	66.0	55.0	57.4
3	21.0	26.7	15.6	17.5	25.3	22.9
4	10.6	15.4	5.1	6.9	13.3	9.8
5	0.6	2.2	0.6	0.3	1.2	1.9
6+	0.1	0.9	0.2	0.0	1.1	0.7
Other	2.0	0.0	0.0	2.4	0.1	1.0
Don't know	0.2	0.0	0.0	0.0	0.0	0.0
Missing	0.0	0.0	0.0	0.0	0.0	0.0
Total %	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	3007	3112	2670	3022	2817	3015.0

MEN

Ideal number of children	Agra	Aligarh	Allahabad	Gorakhpur	Moradabad	Varanasi
0	5.3	1.7	2.9	3.4	NA	NA
1	3.4	3.6	7.2	2.7	NA	NA
2	52.6	42.6	61.8	57.6	NA	NA
3	23.3	27.9	18.1	26.8	NA	NA
4	11.2	17.2	7.7	6.9	NA	NA
5	1.6	2.9	1.0	0.6	NA	NA
6+	2.7	4.1	1.4	2.0	NA	NA
Total %	100.0	100.0	100.0	100.0	NA	NA
Number of men	1682	1873	1280	1593	NA	NA

Note: NA = not applicable (men's data were not collected in the delayed intervention cities).

in Aligarh (17 percent) stated that four children was the ideal number, compared to only 7 percent in Gorakhpur and 8 percent in Allahabad. About 3 to 4 percent of the men wanted more than five children in Aligarh and Agra; in other cities it was less than 3 percent. Very few men thought that having one child was the ideal number of children, the highest being in Allahabad with 7 percent of men.

5.6. Son Preference

Son preference is highly prevalent in India due to extreme patriarchal norms around lineage, old age security, and rituals. The main manifestations of son preference are elimination of female fetuses, willful neglect of girls, and female infanticide. These practices result in outcomes of skewed sex ratios at birth, skewed child sex ratios, excess female infant and child mortality, and higher morbidity and lower use of health care for surviving daughters compared to sons.

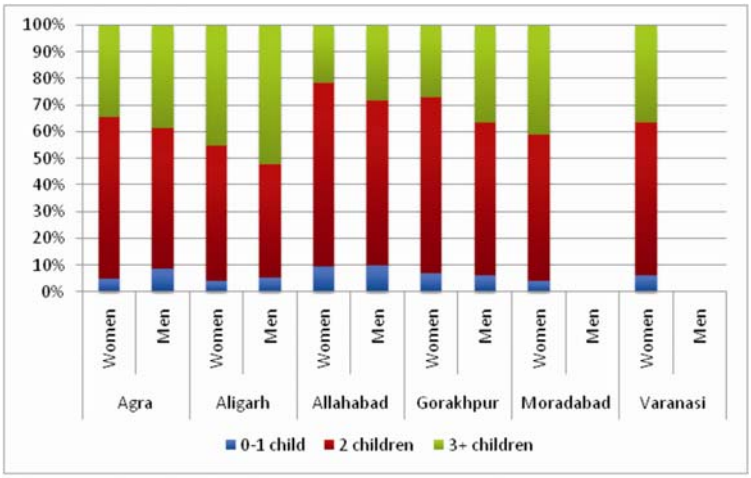

Figure 5.4: Distribution of currently married women and men by ideal number of children.

Respondents' preference for girls or boys was determined by asking their ideal number of children and, of the ideal number of children, how many they would like to be boys, girls, or either sex. Table 5.6 indicates sex preferences among men and women, according to their income categories.

Preference for Daughters or Son: Among both women and men, there was an overwhelming preference for having more sons than daughters (figure 5.5). More than 20 percent of the women in Agra, Aligarh, Moradabad and Varanasi wanted more boys (only 12 percent of the women in Allahabad did), while only around 2 percent to 3 percent of women overall wanted more daughters. The preference for sons was even more marked among the men surveyed in the four cities, where around 30 percent (only 20 percent in Allahabad) wanted more sons against only 1 percent who wanted more daughters.

An analysis by income groups showed that the son preference was stronger among the poorer groups, so that a larger proportion of both women and men in the poorest group wanted more sons than daughters compared to the wealthier quintiles. The spread is notable in cities like Aligarh where one-third of the poorest women want more sons, compared to only 9 percent of the richest women; or 23 percent of the poorest women in Allahabad against only 5 percent of the richest. Among men, the range of preference is widest in Agra where 43 percent of the poorest quintile want more sons compared to 20 percent of the richest; and Aligarh where the percentages are 37 and 19 percent, respectively.

Interestingly, the proportion of women and men who expressed a desire for more daughters than sons also decreased in general as wealth quintile rose. Thus while 3 percent of the poorest women in Gorakhpur wanted more daughters than sons, less than 1 percent of the richest quintile expressed this wish. Similarly about 1 percent of men in the poorest category wanted more daughters than sons, compared to only about 1 percent in the richest category. In Agra, about 4 percent of men in the poorest wealth quintile want more daughters than sons, whereas less than 1 percent of men in the wealthiest quintile report the same.

At Least One Daughter: There was a fair spread in the proportion of women across all income groups who want at least one daughter, from 63 percent in Allahabad to 79 percent in Moradabad. However, this spread was even more pronounced for the men in the four cities surveyed: only 63 percent of males overall in Allahabad wanted at least one daughter, while 89 percent of the men in Gorakhpur expressed this sentiment.

Interestingly, when this information is analyzed by income groups, the proportions of both women and men in every city who wanted at least one daughter decrease at higher income quintiles (see table 5.6).

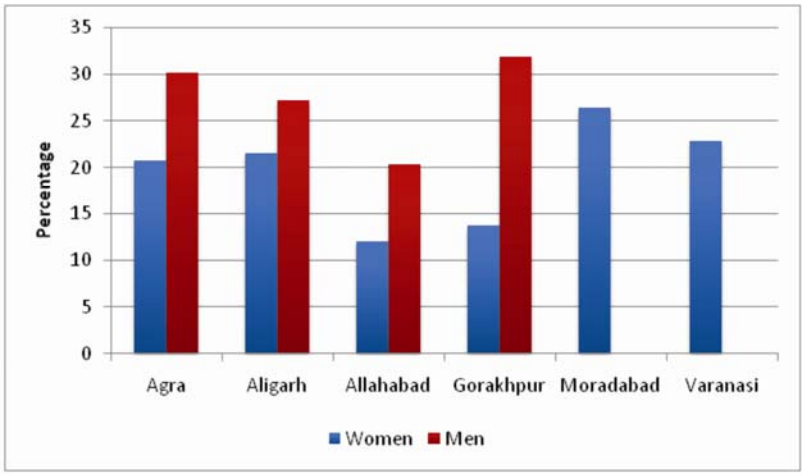

Figure 5.5: Percentage of currently married women and men who want more sons than daughters.

Table 5.6: Percent Distribution of Indicators of Sex Preferences among Women and Men by Wealth and City, Urban Health Initiative, India, 2010

	WOMEN			*MEN*		
	Want more sons than daughters	*Want more daughters than sons*	*Want at least one daughter*	*Want more sons than daughters*	*Want more daughters than sons*	*Want at least one daughter*
Agra						
Poorest	25.8	2.1	80.1	42.9	3.6	86.6
Poor	23.7	1.9	79.6	35.4	2.5	85.3
Middle	23.6	2.2	76.6	31.1	1.3	89.4
Rich	18.4	2.1	76.7	25.1	1.4	81.2
Richest	13.9	1.3	73.0	19.8	0.2	81.3
Overall	20.7	1.9	77.0	30.2	1.7	84.6
Aligarh						
Poorest	33.3	1.2	71.9	36.7	1.9	77.1
Poor	24.3	2.4	70.5	32.4	2.6	76.1
Middle	23.2	0.3	68.4	24.4	1.4	72.3
Rich	20.3	1.5	69.9	25.8	0.7	66.4
Richest	9.1	2.2	60.9	19.2	0.3	61.6
Overall	21.5	1.5	68.1	27.3	1.3	70.3
Allahabad						
Poorest	22.9	2.3	74.5	28.0	2.0	61.7
Poor	17.7	1.0	69.5	19.3	0.2	66.1
Middle	11.1	1.6	66.2	28.1	0.9	67.6
Rich	8.1	1.7	59.4	16.1	1.9	65.5
Richest	5.2	2.4	51.3	12.7	0.0	56.8
Overall	12.0	1.8	63.2	20.4	1.0	63.4
Gorakhpur						
Poorest	20.7	3.3	78.3	40.6	1.4	92.1
Poor	17.5	2.2	74.3	32.4	1.8	93.0
Middle	17.0	1.4	73.8	36.7	2.3	90.2
Rich	10.1	0.8	71.9	22.3	0.7	89.6
Richest	5.3	0.8	68.1	28.1	0.9	80.7
Overall	13.8	1.6	73.1	31.9	1.4	89.2
Moradabad						
Poorest	31.3	1.3	86.4	NA	NA	NA
Poor	35.2	1.3	82.9	NA	NA	NA
Middle	29.7	1.0	80.9	NA	NA	NA
Rich	24.0	0.5	74.5	NA	NA	NA
Richest	14.1	0.8	71.7	NA	NA	NA
Overall	26.4	0.9	78.9	NA	NA	NA
Varanasi						
Poorest	27.1	4.8	77.3	NA	NA	NA
Poor	24.5	3.6	80.3	NA	NA	NA
Middle	23.1	3.0	77.9	NA	NA	NA
Rich	24.4	1.6	74.0	NA	NA	NA
Richest	16.2	2.9	73.0	NA	NA	NA
Overall	22.9	3.1	76.4	NA	NA	NA

Note: NA = not applicable (men's data were not collected in the delayed intervention cities).

Chapter 6: Family Planning

Family planning has long been a priority for the Indian government. In 1952, India became the first country worldwide to implement a national population policy, with the goal of curbing population growth. The current population policy, drafted in 2000, affirms the government's commitment to voluntary family planning as part of a comprehensive package of reproductive and child heath services (National Commission on Population, 2000). Among the policy's primary objectives are achievement of universal access to information, counseling, and services for contraception and family planning, along with provision of a range of contraceptive options; and achievement of replacement level fertility through promotion of a small family norm. The government did not meet its goal of reaching replacement level fertility by 2010, but progress has been made. For example, there was an increase in modern contraceptive prevalence from 45 percent in 1992 to 56 percent in 2005, as well as a drop in unmet need from 16 percent to 13 percent between 1998 and 2005 (International Institute for Population Sciences & Macro International, 2007).

This section includes knowledge about various contraceptive methods, sources of first knowledge about contraceptives, ever and current use of contraception, intentions for future use, discussions and decision making on family planning issues, and sources of procuring modern contraceptives among women and men in the six cities studied.

6.1. Knowledge of Contraceptive Methods

Women and men were asked about their knowledge of various modern and traditional methods of family planning. Information was collected in two ways. First, respondents were asked to mention spontaneously all of the methods of family planning they had heard of. Then, for methods not mentioned spontaneously, the interviewer described the method and probed to see whether the respondent recognized it. Information was collected on knowledge about female and male sterilization, oral contraceptive pills, intrauterine devices (IUDs), male condoms, female condoms, emergency contraception (EC), and "other" modern methods (diaphragms, foam or jelly, lactational amenorrhea method [LAM], implants). Respondents were also asked about two traditional methods (rhythm and withdrawal).

Tables 6.1a and 6.1b show women's and men's knowledge of family planning methods in the six cities. Knowledge (spontaneous and probed) of any family planning method was practically universal among both women and men.

Women's spontaneous knowledge of each method was far lower than their probed knowledge, with the highest spontaneous knowledge being about female sterilization, the pill, and condoms. Similarly for men, spontaneous knowledge of contraception was lower than their probed knowledge. Men had higher spontaneous knowledge about condoms, female sterilization and male sterilization. Notably, spontaneous knowledge among the men in Aligarh of all methods appeared to be lower than in the other three cities.

Women's Knowledge of Modern Methods: Almost all the women in these six cities were aware of any method of family planning, especially modern methods. Of these methods, women were most familiar (through spontaneous or probed knowledge) with female sterilization and condoms/Nirodh (99 to 100 percent); a marginally lower proportion of women were aware of male sterilization (ranging from 95 percent in Moradabad to 99 percent in Gorakhpur), IUDs (98 to 99 percent) and injectables (91 to 95 percent).

Knowledge (spontaneous or probed) of emergency contraception among women was lower, ranging from 67.9 percent in Aligarh to 79.6 percent in Moradabad and their knowledge of 'other modern methods' (implants, diaphragms, foam or jelly) was also fairly low (17.2 percent to 37 percent). Awareness of female condoms was lowest: only 5.1 percent of women in Aligarh were familiar (spontaneous or probed) with this form of contraception and the highest proportion was 20.9 percent of the women in Varanasi.

Table 6.1a: Percent Distribution of Knowledge of Contraceptive Methods among Currently Married Women, Urban Health Initiative, India, 2010

	Agra		Aligarh		Allahabad		Gorakhpur		Moradabad		Varanasi	
	Spontaneous or probed	Spontaneous	Spontaneous or probed	Spontaneous	Spontaneous or probed	Spontaneous	Spontaneous or probed	Spontaneous	Spontaneous or probed	Spontaneous	Spontaneous or probed	Spontaneous
Any method	100.0	91.0	100.0	88.2	100.0	90.1	100.0	92.6	100.0	95.1	99.9	90.9
Modern methods												
Female sterilization	100.0	69.4	99.9	48.1	99.8	57.0	100.0	68.1	100.0	59.8	99.9	70.7
Male sterilization	98.6	28.3	95.8	6.0	98.2	11.1	99.3	14.2	95.0	10.0	98.4	32.7
Pill	99.7	63.1	99.7	62.0	99.9	67.5	99.8	54.0	99.9	66.9	99.6	62.6
IUD	98.4	32.3	97.8	23.6	98.9	39.3	99.1	26.6	99.1	32.0	98.1	45.8
Injectables	94.6	16.9	92.0	9.6	94.3	13.8	95.3	16.6	90.7	14.9	94.9	21.6
Condom/Nirodh	99.4	59.8	99.6	61.3	99.5	63.4	99.8	62.3	99.9	73.1	99.3	58.5
Female condom	9.0	0.6	5.1	0.2	13.9	0.4	10.1	0.2	9.7	1.6	20.9	2.0
Emergency contraception	75.2	11.5	67.9	3.6	78.1	6.5	78.0	3.2	79.6	5.4	73.9	9.9
Other modern method	28.9	2.8	19.7	1.6	19.4	0.4	17.2	0.8	19.7	1.6	37.0	3.5
Traditional methods												
Rhythm	94.3	19.8	74.1	6.4	80.1	9.6	95.9	15.4	78.8	11.8	85.0	15.2
Withdrawal	83.1	13.2	53.4	1.8	69.8	3.0	82.1	5.5	76.1	5.3	70.0	9.3

Table 6.1b: Percent Distribution of Knowledge of Contraceptive Methods among Currently Married Men, Urban Health Initiative, India, 2010

	Agra		Aligarh		Allahabad		Gorakhpur		Moradabad		Varanasi	
	Spontaneous or probed	Spontaneous	Spontaneous or probed	Spontaneous	Spontaneous or probed	Spontaneous	Spontaneous or probed	Spontaneous	Spontaneous or probed	Spontaneous	Spontaneous or probed	Spontaneous
Any method	99.4	93.6	100.0	87.9	100.0	94.5	100.0	95.6	NA	NA	NA	NA
Modern methods												
Female sterilization	97.7	78.5	99.5	48.0	99.7	61.1	99.8	84.7	NA	NA	NA	NA
Male sterilization	97.6	68.8	98.6	41.9	99.2	54.1	99.5	79.9	NA	NA	NA	NA
Pill	94.9	60.2	98.5	50.1	97.4	53.0	98.0	59.3	NA	NA	NA	NA
IUD	80.6	31.2	90.5	21.1	89.5	36.8	87.3	42.2	NA	NA	NA	NA
Injectables	65.0	23.4	77.6	16.8	73.3	18.5	81.6	35.2	NA	NA	NA	NA
Condom/Nirodh	99.1	86.7	99.8	84.0	99.7	88.9	99.8	88.0	NA	NA	NA	NA
Female condom	38.1	13.0	39.7	0.8	47.6	4.0	31.3	5.0	NA	NA	NA	NA
Emergency Contraception	64.6	17.6	75.5	13.6	64.9	12.0	63.4	13.6	NA	NA	NA	NA
Other modern method	31.5	1.4	13.5	1.7	25.3	1.3	43.2	0.8	NA	NA	NA	NA
Traditional methods												
Rhythm	73.1	9.3	87.1	9.6	84.5	10.6	93.6	10.2	NA	NA	NA	NA
Withdrawal	70.0	10.3	83.7	1.3	74.6	7.3	82.8	7.7	NA	NA	NA	NA

Note: NA=not applicable (men's data were not collected in the delayed intervention cities).

Women's Knowledge of Traditional methods: Across all the cities, awareness of traditional methods of contraception was lower than knowledge of modern methods. Among traditional methods, women were more aware of the rhythm method (74 percent in Aligarh to 96 percent in Gorakhpur) than withdrawal (53 percent in Aligarh to 83 percent in Agra). Spontaneous knowledge of rhythm method ranged from only 6.4 percent in Aligarh to 19.8 percent in Agra. Knowledge of withdrawal followed a similar pattern, with the lowest level of knowledge in Aligarh (1.8 percent) and the highest level of knowledge in Agra (13.2 percent).

Men's Knowledge of Modern Methods: Probed knowledge about both male and female sterilization, the pill, and condoms was almost universal among men (95 percent and above). IUDs were the second most commonly known, with knowledge ranging from 81 percent in Agra to 91 percent in Aligarh; this was followed by injectables (from 65 percent in Agra to 82 percent in Gorakhpur). The modern method that men had the least knowledge about was female condoms (31 percent in Gorakhpur to 48 percent in Allahabad) and "other" modern methods (from 13 percent in Aligarh to 43 percent in Gorakhpur). Notably, spontaneous knowledge for all methods was lower for men and women.

Men's Knowledge of Traditional Methods: Across cities, men were more aware of the rhythm method than withdrawal, both spontaneously and when probed. The proportion of men with knowledge about the rhythm method ranged from 73 percent in Agra to 94 percent in Gorakhpur, while the proportion of men who were aware of the withdrawal method ranged between 70 percent to 84 percent across the cities. Notably, 10 percent or less of men reported spontaneous knowledge of these methods.

6.2. Source of First Learning about Contraceptive Methods among Women

In order to ascertain the source of first learning about contraceptive methods, women who were aware of one or more methods of contraception were asked to mention the source from where they first learned about contraception. Table 6.2 presents information on women's source of first learning about contraception by wealth quintile.

Overall, television emerged as the first source of information about contraceptives for the majority of women (from 72 percent in Aligarh to 86 percent in Allahabad). Their husbands were the second most common source of information, from 27 percent in Allahabad to 63 percent in Agra. The next most common information sources were the doctor (15 percent in Aligarh to 41 percent in Varanasi), followed by friends (12 percent in Varanasi to 24 percent in Allahabad) and other health providers (8 percent in Moradabad to 26 percent in Gorakhpur). Newspapers and magazines were an important source in Gorakhpur (26 percent) and Allahabad (19 percent), and so was the radio in Allahabad (17 percent) and Varanasi (15 percent). Posters and peer educators were fairly low in the list of first information sources.

The analysis of these groups by wealth quintile shows that, in general, the proportion of women who received information about contraception for the first time from television was fairly high among all the groups except the poorest, and tended to increase marginally by wealth quintile. While most of the poorest women also first learned of contraception from television, their proportion was far below those in the other wealth groups. A similar pattern by wealth group was seen for those reporting a doctor was their first source (figure 6.1). There was less variation by wealth group among women who reported they first learned of contraception from their spouse.

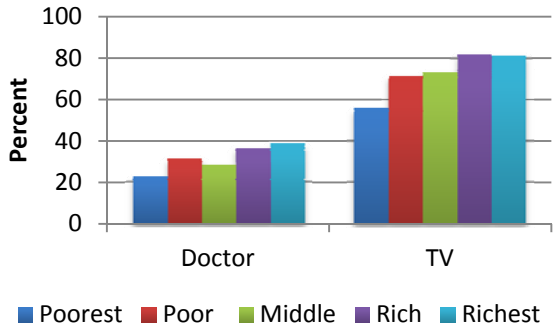

Figure 6.1: Source of first information about family planning, by wealth quintile, in Agra.

Table 6.2: Percent Distribution of Source of First Learning of Contraception among Currently Married Women by Wealth, Urban Healt Initiative, India, 2010

	Doctor	Other Health Providers	Friend	Husband	Peer Educator	Radio	TV	Newspaper/ Magazine	Poster
Agra									
Poorest	22.4	12.6	11.1	58.8	1.0	1.9	55.8	2.5	3.0
Poor	31.5	10.8	13.7	57.1	1.3	1.2	71.5	3.9	6.1
Middle	28.4	15.9	12.5	66.3	2.2	2.6	73.3	9.4	7.5
Rich	36.6	18.8	13.9	64.0	2.4	3.4	82.0	15.3	12.2
Richest	38.5	19.9	13.3	67.0	3.0	4.1	81.7	34.3	22.8
Overall	31.8	15.8	12.9	62.8	2.0	2.7	73.5	13.7	10.7
Aligarh									
Poorest	9.2	7.6	33.9	27.8	2.2	1.2	44.7	3.1	0.9
Poor	6.7	7.7	28.4	27.7	0.8	1.9	63.8	2.3	0.0
Middle	16.3	10.1	15.1	22.6	0.4	2.9	72.9	6.2	0.7
Rich	16.3	10.5	20.8	28.9	0.8	2.9	81.5	13.7	1.5
Richest	25.0	6.9	17.6	30.4	0.5	8.2	90.7	28.5	5.5
Overall	15.1	8.6	22.7	27.5	0.9	3.6	71.9	11.3	1.8
Allahabad									
Poorest	16.5	20.7	26.9	21.9	2.4	11.5	68.2	1.9	3.0
Poor	20.4	10.5	25.7	33.8	0.3	12.3	82.0	7.4	1.6
Middle	24.7	10.6	20.9	29.8	0.3	18.8	89.5	18.8	5.4
Rich	20.7	16.1	22.6	22.7	0.4	20.2	90.0	26.6	4.4
Richest	29.3	9.7	25.4	27.6	0.8	20.9	92.9	33.9	9.3
Overall	22.8	13.1	24.0	27.2	0.7	17.4	85.9	19.4	5.0
Gorakhpur									
Poorest	21.8	25.7	13.3	42.6	0.3	3.0	51.5	6.6	6.9
Poor	28.0	23.7	16.1	49.8	0.9	1.9	79.5	9.5	7.6
Middle	38.0	26.9	14.7	56.1	0.8	3.3	86.6	25.6	10.3
Rich	42.8	25.0	15.7	54.8	2.9	2.1	84.9	37.9	16.3
Richest	55.8	30.1	13.0	54.7	1.3	4.6	85.7	49.8	20.1
Overall	37.7	26.3	14.6	51.8	1.3	3.0	78.2	26.4	12.4
Moradabad									
Poorest	11.6	7.8	15.9	45.2	0.5	1.5	65.4	1.6	2.6
Poor	12.0	7.1	22.3	42.3	0.4	2.3	79.4	2.9	2.2
Middle	19.8	10.0	16.2	43.2	0.8	1.9	81.1	2.6	2.2
Rich	16.6	8.6	22.0	45.5	0.8	1.6	87.5	7.1	1.8
Richest	18.2	7.3	25.2	44.2	1.3	3.9	93.5	18.3	5.6
Overall	15.8	8.1	20.6	44.1	0.8	2.3	82.1	7.0	2.9
Varanasi									
Poorest	32.3	14.2	12.5	40.8	2.9	9.4	59.8	2.0	2.9
Poor	39.0	17.7	11.4	43.9	3.6	11.7	76.9	7.8	7.1
Middle	41.1	18.0	11.7	51.1	1.8	12.9	80.5	15.6	8.9
Rich	45.5	20.3	10.7	50.9	2.9	18.3	91.3	23.9	17.3
Richest	46.4	25.8	12.2	53.7	3.9	21.2	84.7	36.6	21.3
Overall	41.1	19.4	11.7	48.3	3.0	14.9	79.0	17.7	11.8

The source of information about family planning with the greatest variation by wealth quintile was newspapers and magazines, where across all cities the proportion increased rapidly with wealth quintile. For example, the proportion varied from nearly 7 percent among the poorest to about 50 percent among the richest in Gorakhpur, and from 2 percent among the poorest in Varanasi to about 37 percent among the richest.

6.3. Discussions and Decision Making on Family Planning

Table 6.3 provides information on women's discussion with their spouses on family planning and number of children desired. Because spousal communication is typically correlated with FP use, women were asked about who initiates these discussions, the need for consent from husbands/family to use family planning, who decides the type of family planning method used, whether they discuss the number of children they would like, as well as the frequency of such discussions in the last six months.

As table 6.3 shows, a high proportion of women (89 percent and higher) reported that they had discussed family planning with their spouse at some time. Most of these women (greater than 82 percent) said that both they and their spouses had initiated these discussions. In Aligarh and Varanasi, women report that around one tenth of the men initiated the discussion, but in the other cities, this proportion was between 2 percent to 8 percent. Notably, these high reports of discussion are seen among both users and nonusers of family planning (data not shown).

The large majority of women (81 percent and over) said they needed their husband/family's consent to use family planning. In most cases (over 90 percent), women and their spouses decide together on the type of family planning method to use.

The majority of women reported having discussed the number of children they would like to have with their spouse, which ranged from 80 percent in Varanasi to 99 percent in Aligarh and Moradabad. However, of the women that had ever discussed the number of children they would like to have with their spouse, the majority of women (from 57 percent in Aligarh to 64 percent in Gorakhpur) had not discussed this in the last six months. Around one-third of the women had discussed this once or twice during the same reference period.

Table 6.3: Percent Distribution of Family Planning and Fertility Discussion and Decision Making among Currently Married Women by City, Urban RH Initiative, India, 2010

	Agra	Aligarh	Allahabad	Gorakhpur	Moradabad	Varanasi
Ever discussed FP with spouse?						
	(n=3007)	(n=3112)	(n=2669)	(n=3022)	(n=2817)	(n=3013)
Yes	88.8	98.6	98.2	89.9	99.2	90.8
No	11.2	1.4	1.8	10.1	0.8	9.2
Who initiates discussion among those who discuss?						
	(n=2669)	(n=3062)	(n=2622)	(n=2716)	(n=2795)	(n=2735)
Self	6.1	3.6	7.5	1.1	1.1	8.0
Spouse	7.9	10.1	3.6	4.4	2.1	10.4
Both	86.0	86.3	88.9	94.4	96.8	81.6
Missing	0.0	0.0	0.0	0.1	0.0	0.0
Do you need consent of your husband or family to use FP?						
	(n=3007)	(n=3112)	(n=2669)	(n=3022)	(n=2817)	(n=3013)
Yes	85.6	81.0	88.1	81.0	81.4	84.4
No	4.1	0.5	1.4	5.1	0.6	9.5
Not applicable/never used or wanted to use	10.1	18.4	10.4	13.8	18.0	6.0
Don't know	0.2	0.1	0.1	0.1	0.0	0.1
Who decides what type of method to use?						
	(n=3007)	(n=3112)	(n=2669)	(n=3022)	(n=2817)	(n=3013)
Mainly you	1.6	2.2	1.8	1.2	0.8	3.0
Mainly husband	4.7	6.2	2.4	2.0	1.0	5.2
Jointly	92.1	91.1	95.5	94.8	98.1	90.1
Other	0.5	0.5	0.3	0.2	0.1	0.4
Missing	1.2	0.0	0.0	1.8	0.0	1.2
Have you discussed the number of children you would like to have with your spouse?						
	(n=3007)	(n=3112)	(n=2670)	(n=3022)	(n=2817)	(n=3015)
Yes	87.9	99.0	96.9	89.2	99.0	80.3
No	12.1	1.0	3.1	10.6	1.0	19.7
Missing	0.0	0.0	0.0	0.1	0.0	0.0
How often have you discussed the subject in the last six months?						
	(n=2643)	(n=3081)	(n=2587)	(n=2697)	(n=2788)	(n=2421)
Not discussed in last six months	61.7	56.9	62.7	63.7	57.4	61.0
Once or twice	32.1	35.6	32.5	32.9	34.3	31.8
More than twice	6.1	7.5	4.8	3.0	8.3	7.1
Missing	0.0	0.0	0.0	0.3	0.0	0.2

6.4. Current Use of Contraceptive Methods

All Contraceptive Methods: All of the women were asked if they or their husbands were currently using a contraceptive method and, if so, which method. The data on current use (or nonuse) of modern and traditional family planning methods was analyzed according to wealth quintile for the women interviewed, and the results for all the cities have been aggregated in table 6.4.

Across all cities, a majority of women (or their husbands) used family planning. The proportion of women not using any family planning method was slightly greater than one-third of the total. Approximately half of all the women used modern methods of family planning, while a smaller proportion, ranging on average from 8.8 percent in Varanasi to 19.1 percent in Aligarh, relied on traditional methods. There is significant inter-city variation in the use of modern contraceptives. Modern method use ranged from 38 percent in Aligarh to 53 percent in Varanasi (figure 6.2 and table 6.4).

Across all cities, the proportion of nonusers declines as wealth quintile increases: thus while 42 percent of the poorest in Allahabad used no family planning method, only 29 percent of the richest did not. The use of modern methods of family planning is highest among the highest wealth quintile and decreases steadily with decreasing wealth quintile. However, the trend was mixed for the use of traditional methods: In Allahabad, the proportion of people using traditional methods increased with wealth quintile; it decreased in Agra and Varanasi; and the remaining cities showed no uniform pattern.

Modern Contraceptive Methods: Use of specific contraceptives was also analyzed according to wealth quintile in the six cities, and the results are presented in table 6.5.

Among users of modern contraception, female sterilization is the most commonly used modern method, reported by approximately 35 percent to 55 percent of women who use a modern method. The second most commonly used modern method is condoms, accounting for approximately 30 percent to 50 percent of modern method use in each city. Condoms are the most popular in Aligarh and Moradabad (around 50 percent), while female sterilization is more popular in Varanasi (about 53 percent) and Gorakhpur (54 percent). Notably, however, these two methods show completely opposite patterns in their relation with wealth quintile: Choice of sterilization falls as wealth quintile increases among women in the six cities; however, the use of condoms increases with increasing wealth.

Of modern method users, only a small proportion of women use IUDs (between 3 percent in Gorakhpur and 8 percent in Varanasi), but across all the cities their use increases with rising wealth quintile. Similarly, the use of the pill is fairly limited (5 percent in Moradabad to 9 percent in Aligarh), but its use shows no consistent correlation with wealth across the cities. Injectables and "other" modern methods (implant, dermal patch, diaphragm and spermicide) are used less frequently, and their use shows no relationship with wealth (figure 6.3).

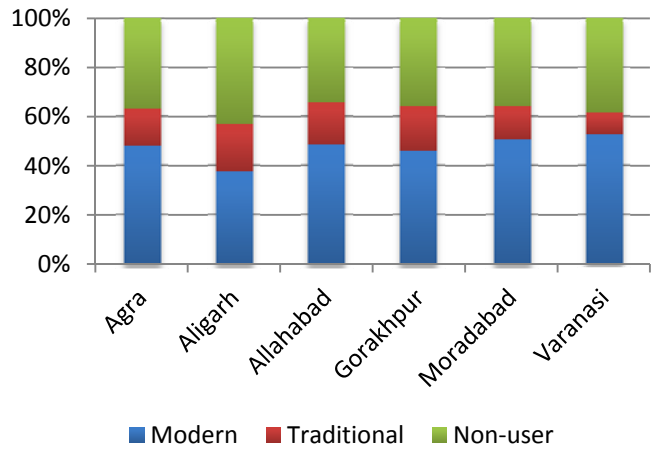

Figure 6.2: Family planning use by city.

Table 6.4: Percentage of Family Planning Use by Wealth and City, Urban Health Initiative, India, 2010

	Nonuser	Traditional*	Modern	Total
Agra				
Poorest	43.7	18.3	38.0	100.0
Poor	39.7	16.8	43.4	100.0
Middle	39.9	13.3	46.8	100.0
Rich	33.2	12.9	54.0	100.0
Richest	30.1	14.0	56.0	100.0
Overall	37.0	14.9	48.1	100.0
Aligarh				
Poorest	57.5	15.9	26.7	100.0
Poor	47.3	19.0	33.7	100.0
Middle	40.6	22.5	37.0	100.0
Rich	41.1	20.0	38.9	100.0
Richest	32.7	17.6	49.7	100.0
Overall	43.2	19.1	37.7	100.0
Allahabad				
Poorest	42.3	11.6	46.1	100.0
Poor	40.6	13.3	46.1	100.0
Middle	34.0	17.4	48.6	100.0
Rich	29.6	20.4	50.0	100.0
Richest	28.5	20.9	50.6	100.0
Overall	34.2	17.3	48.5	100.0
Gorakhpur				
Poorest	40.3	18.1	41.6	100.0
Poor	36.7	17.1	46.3	100.0
Middle	33.7	16.5	49.7	100.0
Rich	38.5	19.7	41.9	100.0
Richest	31.2	17.5	51.3	100.0
Overall	36.0	17.8	46.2	100.0
Moradabad				
Poorest	47.6	12.7	39.8	100.0
Poor	37.0	15.1	47.9	100.0
Middle	37.9	10.8	51.3	100.0
Rich	29.9	13.8	56.3	100.0
Richest	30.0	14.1	55.9	100.0
Overall	36.0	13.3	50.7	100.0
Varanasi				
Poorest	44.6	10.7	44.8	100.0
Poor	46.0	9.9	44.1	100.0
Middle	38.2	8.4	53.4	100.0
Rich	30.8	7.6	61.6	100.0
Richest	33.0	7.6	59.4	100.0
Overall	38.3	8.8	52.9	100.0

Note: *Traditional methods include rhythm and withdrawal.

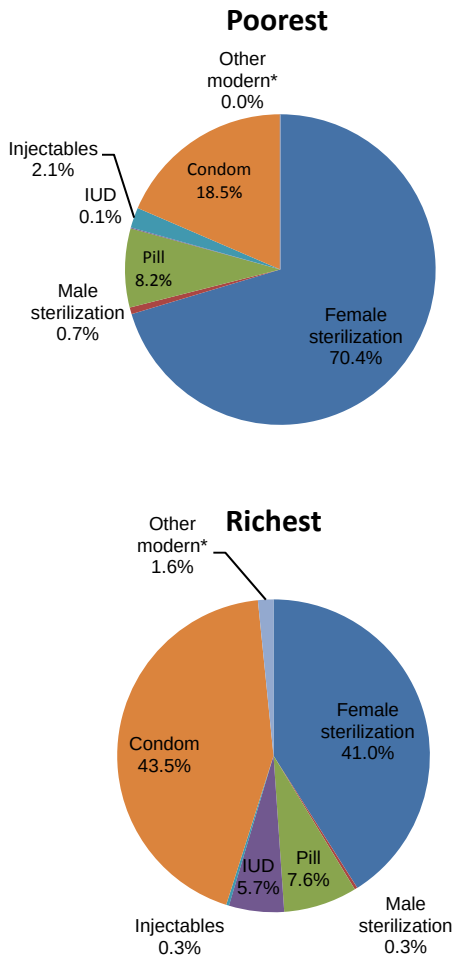

Figure 6.3: Modern method mix among the poorest and richest wealth groups in Gorakhpur.

* "Other modern" methods include implant, dermal patch, diaphragm and spermicide.

Table 6.5 : Percentage of Modern Contraceptive Method Mix by Wealth and City, Urban Health Initiative, India, 2010

	Female sterilization	Male sterilization	Pill	IUD	Injectables	Condom	Other modern*	Total
Agra								
Poorest	63.5	0.0	5.4	2.0	0.3	24.9	3.9	100.0
Poor	47.0	0.0	6.1	1.4	1.7	41.8	2.1	100.0
Middle	49.5	0.1	5.4	3.1	2.8	38.5	0.6	100.0
Rich	37.0	0.0	8.2	4.0	1.8	47.5	1.6	100.0
Richest	39.7	0.4	7.0	5.6	2.1	42.6	2.6	100.0
Overall	45.6	0.1	6.6	3.5	1.9	40.3	2.0	100.0
Aligarh								
Poorest	48.0	0.4	7.1	1.9	1.5	39.0	2.2	100.0
Poor	43.5	1.3	10.6	2.8	2.2	39.6	0.0	100.0
Middle	35.4	0.0	8.3	4.9	0.4	50.9	0.1	100.0
Rich	28.0	0.0	11.9	4.5	0.6	55.1	0.0	100.0
Richest	24.1	0.0	5.3	13.1	0.4	57.0	0.2	100.0
Overall	33.5	0.3	8.5	6.4	0.9	50.1	0.3	100.0
Allahabad								
Poorest	75.6	0.1	7.4	1.6	0.0	15.3	0.0	100.0
Poor	62.9	0.1	7.1	1.9	0.5	27.1	0.4	100.0
Middle	57.4	0.1	2.2	3.9	1.5	32.9	1.9	100.0
Rich	38.7	0.0	6.0	8.8	1.4	43.6	1.5	100.0
Richest	27.5	1.4	10.4	14.3	1.3	45.1	0.0	100.0
Overall	49.6	0.4	6.6	6.8	1.0	34.8	0.9	100.0
Gorakhpur								
Poorest	70.3	0.7	8.2	0.1	2.1	18.5	0.0	100.0
Poor	66.4	0.5	5.4	0.8	0.8	24.6	1.5	100.0
Middle	54.0	0.0	6.3	3.0	0.0	36.8	0.0	100.0
Rich	42.1	0.1	8.6	4.8	0.9	41.0	2.6	100.0
Richest	41.0	0.3	7.6	5.7	0.3	43.5	1.6	100.0
Overall	54.0	0.3	7.2	3.0	0.8	33.6	1.2	100.0
Moradabad								
Poorest	47.4	0.0	4.5	0.4	0.3	47.4	0.1	100.0
Poor	45.6	0.1	5.3	0.6	0.2	48.1	0.1	100.0
Middle	36.0	0.0	5.3	4.5	0.0	53.1	1.1	100.0
Rich	29.8	0.0	5.7	5.2	0.0	58.8	0.5	100.0
Richest	30.1	0.0	3.1	7.5	0.0	57.5	1.9	100.0
Overall	36.4	0.0	4.7	4.1	0.1	53.8	0.8	100.0
Varanasi								
Poorest	60.9	1.5	8.9	1.5	0.1	26.2	0.9	100.0
Poor	56.7	0.5	5.4	5.9	0.0	28.8	2.8	100.0
Middle	56.8	0.0	4.6	9.3	0.5	28.4	0.5	100.0
Rich	51.2	1.0	4.8	6.9	0.5	34.3	1.3	100.0
Richest	44.7	0.0	4.7	15.0	0.9	34.7	0.0	100.0
Overall	53.2	0.5	5.5	8.3	0.5	31.0	1.0	100.0

Note: *Other modern methods include implant, dermal patch, diaphragm, and spermicide.

6.5. Sources of Current Contraceptive Method

All women who reported that they currently used a modern method of family planning were asked to mention the source from which they availed it the last time. Table 6.6 provides information on their sources of contraceptives.

Public health facilities, including medical colleges, were the most common sources for family planning in Allahabad (36 percent), Gorakhpur (40 percent) and Varanasi (about 39 percent). Contribution of private hospitals/clinics ranged from nearly 11 percent in Moradabad to about 23 percent in Agra; in no cities were private facilities the most frequent source of method. The pharmacy or drugstore was the main source of contraceptives for approximately 35 percent of women in both Agra and Moradabad. Pharmacies were cited as the main source of method by at least 20 percent of women in each city except for Allahabad (about 11 percent). Husbands were reported as the main source of contraception for women in Aligarh (about 34 percent) and a major source in Allahabad (nearly 28 percent) and Moradabad (about 20 percent), but for only about 10 percent of women in Agra, Gorakhpur, and Varanasi. Approximately 6 percent of the women in Allahabad and Varanasi relied on NGOs/trust hospitals and clinics as their source of their method of contraception, but very few women in the other cities did so.

There is wide variation across the cities on source, which varies depending on type of contraception. The variation in source for condoms, the pill, and sterilization (male and female) in each city are shown in figures 6.4-6.6.

Across all six cities, women most frequently cite the pharmacy or their husbands as their source for condoms (figure 6.4). Based on men's data (not shown), men also cited pharmacies as their primary source for obtaining condoms, suggesting that women's husbands may also be obtaining condoms from pharmacies. Less than 10 percent of women mention the public or private sector as their source of condoms.

The public sector is the most frequently mentioned source of sterilization across the six cities, ranging from 57 percent to 80 percent (figure 6.5). The private sector accounts for the majority of the remaining sterilizations, though some variability is seen across the cities. When source of sterilization is investigated by wealth quintile, use of the public sector for sterilization is more common among the poor and therefore use of the private sector increases as wealth quintile increases (data not shown). The main source of pills is the pharmacy across the cities (figure 6.6).

Table 6.6: Percent Distribution of Source of All Current Modern Contraceptive Methods among Currently Married women, Urban Health Initiative, India, 2010

	Agra	Aligarh	Allahabad	Gorakhpur	Moradabad	Varanasi
Govt/municipal hospital	23.7	21.0	29.5	25.3	31.2	29.7
Medical college hospitals	1.3	5.6	3.7	1.8	0.0	3.9
Other public sector facility	3.4	1.2	2.8	12.9	2.3	5.7
NGO/trust hospital/clinic	1.7	1.5	6.1	0.4	0.2	6.6
Private hospital, clinic, doctor	23.3	13.2	18.0	19.6	10.7	19.5
Pharmacy/drug store	34.7	22.3	11.4	26.2	34.6	22.6
Husband	9.3	34.5	27.9	11.1	20.1	8.5
Other private source	0.4	0.3	0.2	0.7	0.4	1.5
Other	0.5	0.1	0.0	0.0	0.0	0.0
Don't know	1.7	0.3	0.4	1.7	0.4	2.0
Missing	0.0	0.0	0.0	0.3	0.0	0.0

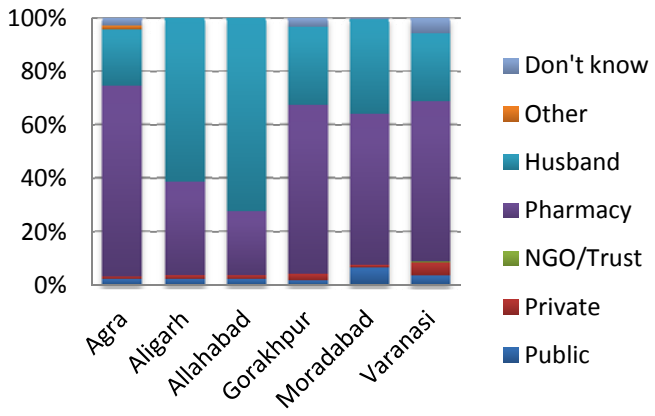

Figure 6.4: Source of condoms by city.

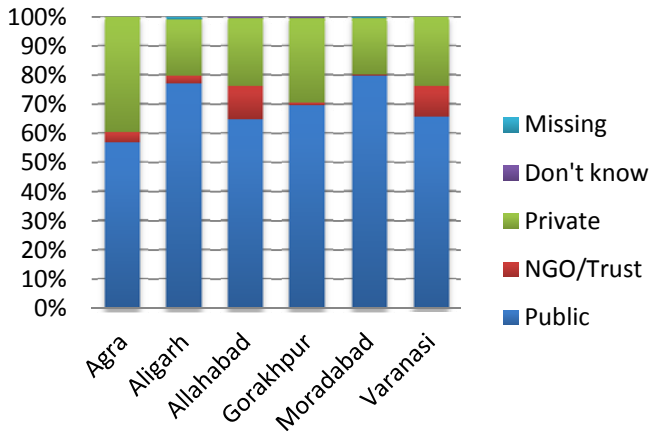

Figure 6.5: Source of sterilization by city.

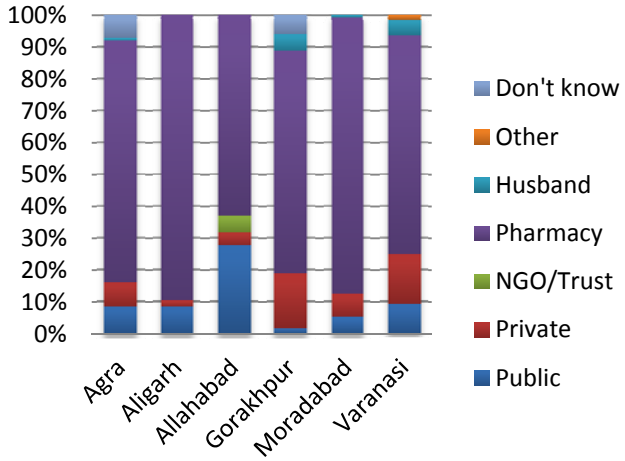

Figure 6.6: Source of pills by city.*

Note: * The *n*'s are small for sources of pills.

6.6. Reason for Nonuse

Women's reasons for not using any family planning method were ascertained from all the women who were not using any method at the time of the survey. This information is crucial for understanding obstacles to contraceptive use, so that suitable programs can be designed. The reasons for not using any family planning method are presented in table 6.7.

There were no large variations in the fertility-related reasons given by non-using women across the six cities for not using family planning methods. The most commonly mentioned reason was that they were menopausal or had had a hysterectomy: this was stated by around one fifth or more of the women in all the cities, except for Agra, where only 15 percent of the women quoted this reason. A slightly lower percentage of women (a little under a fifth) were nonusers because they were trying to get pregnant, although only 16 percent of the women in Aligarh gave this reason. Around 15 percent to 20 percent of the women were already pregnant, so they were not using any family planning methods.

Other reasons cited by women showed some variation across the cities, such as postpartum amenorrhea (which ranged from 16 percent in Aligarh to 6 percent in Varanasi) and method-related problems (given by 18 percent of the women in Varanasi but only 5 percent in Moradabad and 6 percent in Allahabad). A smaller proportion of women (ranging from 2 percent in Moradabad to 9 percent in Varanasi) said they had faced opposition to the use of family planning methods.

Between 1 percent and 7 percent of women across the cities said they were not using any method of contraception as they wanted as many children as possible or because they were breastfeeding. Another reason cited by some women was that sex was infrequent (from 3 percent in Allahabad to 11 percent in Gorakhpur) or that their husbands were away (1 percent in Moradabad to 10 percent in Allahabad).

A very small proportion (about 1 percent or less) said that they lacked knowledge about these methods, lacked access, or that these methods cost too much. A substantial proportion of women (10 percent to 15 percent) said they did not know why they were nonusers, or quoted reasons "other" than those mentioned.

Table 6.7: Percent Distribution of Reasons* for Nonuse of Contraception among Currently Married Women by City, Urban Health Initiative, India, 2010

	Agra	Aligarh	Allahabad	Gorakhpur	Moradabad	Varanasi
Menopausal/hysterectomy	15.3	18.7	23.0	20.7	25.9	19.2
Trying to get pregnant	18.5	15.8	19.6	18.3	22.3	19.5
No sex/infrequent sex	9.5	6.9	3.3	10.6	5.3	8.5
Husband away	1.4	1.9	9.6	7.1	0.9	2.0
Already pregnant	18.7	19.8	15.1	15.9	17.5	14.3
Breastfeeding	3.7	2.0	2.7	2.1	1.2	5.9
Wants as many children as possible	6.7	0.9	3.5	4.5	1.5	6.9
Postpartum amenorrhea	6.4	15.6	13.2	8.6	10.4	6.1
Has faced opposition to use	3.7	5.0	2.7	2.6	2.4	9.3
Lacks knowledge	0.5	1.7	0.3	0.2	0.4	0.3
Method-related reasons	16.8	6.9	6.1	12.1	4.9	18.4
Lack of access/too far	0.1	0.0	0.3	0.1	0.0	0.2
Costs too much	0.9	0.3	0.0	0.2	0.0	0.6
Other reasons/don't know	12.2	15.1	9.3	9.5	14.3	9.8

Note: *Percentages do not sum to 100 because women could give multiple reasons.

6.7. Intention to Use Contraception

Women who were not using contraception at the time of the survey were asked about their intention to use a family planning method in the next 12 months. Figure 6.7 shows the intention to use contraception in the next 12 months across the cities.

Across all the cities, the proportion of women who either did not intend to use contraception in the next 12 months or did not know if they would was higher than the proportion of women who intended to use FP in the next 12 months.

Between 19 percent (Moradabad) and 31 percent (Allahabad) of women reported that they intended to use contraception within the next 12 months; however, the majority of women either said they did not intend to use contraception in the next year (ranging from 30 percent in Allahabad to 59 percent in Varanasi), or that they did not know (ranging from 16 percent in Varanasi to 41 percent in Aligarh and Moradabad).

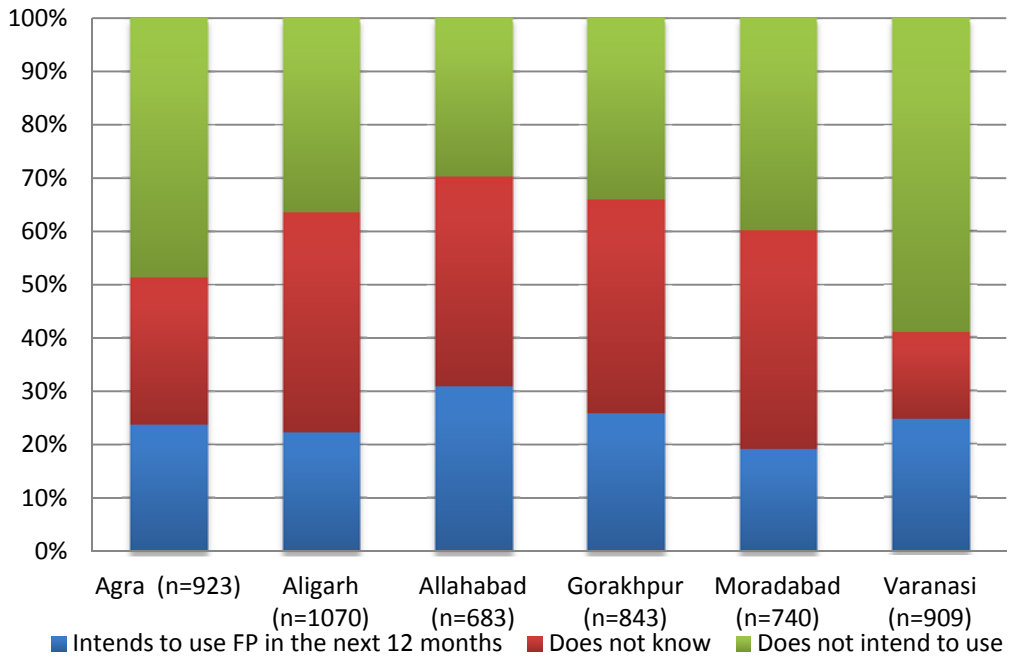

Figure 6.7: Future intention to use contraception among currently married women not using contraception, by city.

6.8. Unmet Need for Contraception

Data on the unmet need for family planning methods indicates the gap in demand and provision of family planning services. The unmet need for spacing refers to women who lack a method to space their births satisfactorily, i.e., pregnant women whose current pregnancy was mistimed and fecund women who are not pregnant, who are not using any method of family planning but want to wait two or more years for their next birth. Unmet need for limiting refers to women who want to limit their childbearing, i.e., pregnant women whose pregnancy was unwanted, and fecund women who are not pregnant and are not using any method of family planning, but want no more children. Data on unmet need for spacing and limiting by wealth quintiles is given in table 6.9 for all six study cities.

Overall the unmet need for family planning is around 16 percent across cities, and is highest in Aligarh at 20 percent. Analysis of the data by wealth shows that unmet need is highest among women in the poorest quintile (e.g., about 35 percent among the poorest quintile in Aligarh), and tends to decrease with wealth (e.g., to only 12 percent among the richest quintile in Aligarh).

On average, among all the women who reported an unmet need for a family planning method, twice as many felt a need for limiting as for spacing their births. Around 5 percent of the women in the six cities felt an unmet need for spacing, while 8 percent to15 percent reported an unmet need for limiting births. Aligarh had the highest unmet need for limiting at 15 percent (figure 6.8).

Analysis of the data on unmet need for limiting births by wealth quintiles showed that the unmet need tended to decrease as income increased; the poorest quintile tended to have the largest proportion of women reporting an unmet need for limiting and the wealthiest the least. As many as 29 percent of the women in the lowest quintile in Aligarh reported this unmet need compared with only 8 percent in the highest wealth quintile, while the range in Gorakhpur was only from 15 percent in the poorest wealth quintile to 6 percent in the wealthiest.

The unmet need for spacing also tended to decrease as wealth increased in the six cities, however the second lowest quintile (“poor”) in three cities had the largest proportion of women reporting an unmet need for spacing, while in the other three cities the poorest reported this unmet need.

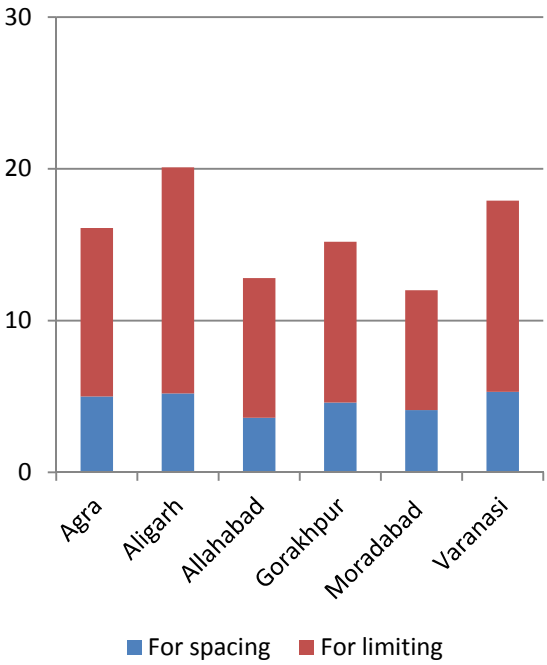

Figure 6.8: Percentage of unmet need for family planning, by city.

Table 6.9: Unmet Need* for Family Planning by Wealth and City, Urban Health Initiative, India, 2010

	For spacing	For limiting	No unmet need
Agra			
Poorest	4.6	16.0	79.5
Poor	7.4	11.9	80.7
Middle	5.5	11.5	82.9
Rich	4.2	9.3	86.5
Richest	3.3	7.8	89.0
Overall	5.0	11.1	83.9
Aligarh			
Poorest	6.6	28.6	64.8
Poor	6.4	14.5	79.1
Middle	5.3	14.5	80.2
Rich	4.7	11.0	84.3
Richest	3.6	8.2	88.3
Overall	5.2	14.9	79.9
Allahabad			
Poorest	3.8	16.4	79.8
Poor	3.5	9.7	86.7
Middle	4.7	9.4	86.0
Rich	3.3	6.8	90.0
Richest	2.7	6.4	91.0
Overall	3.6	9.2	87.2
Gorakhpur			
Poorest	3.8	14.7	81.6
Poor	5.6	8.0	86.3
Middle	3.8	11.3	85.0
Rich	5.4	12.8	81.9
Richest	4.4	6.4	89.2
Overall	4.6	10.6	84.8
Moradabad			
Poorest	6.2	14.1	79.8
Poor	3.5	8.7	87.8
Middle	4.2	9.4	86.4
Rich	4.2	5.1	90.7
Richest	3.0	3.7	93.3
Overall	4.1	7.9	88.0
Varanasi			
Poorest	6.5	18.8	74.7
Poor	7.7	14.2	78.1
Middle	5.0	12.4	82.6
Rich	4.1	9.5	86.4
Richest	3.3	8.8	87.9
Overall	5.3	12.6	82.2

Note: * Unmet need for spacing includes pregnant women whose pregnancy was mistimed; and fecund women who are not pregnant, are not using any method of family planning, and say they want to wait two or more years for their next birth. Unmet need for limiting refers to pregnant women whose pregnancy was unwanted; and fecund women who are not pregnant, are not using any method of family planning, and want no more children. Excluded from the unmet need category are pregnant women who became pregnant while using a method (these women are in need of a better method of contraception).

Chapter 7: Maternal and Child Health

Under the MLE survey in 2010, information on indicators relating to maternal and child health were collected from women who had given birth during or after 2007. Findings related to place of delivery and polio immunization of their most recent birth from women in the six cities are presented in this section.

7.1. Place of Delivery

In addition to providing information on overall reproductive health, place of delivery provides another indication of whether—and where—women may be accessing the health system. Institutional births are increasingly recognized as an important strategy to reduce maternal and neonatal mortality in India; they also connect a woman with the health care system, thereby providing an opportunity for counseling on and provision of FP. To incentivize institutional deliveries and postpartum FP counseling, the Government of India has implemented Janani Surakhsa Yojana (JSY), a conditional cash transfer scheme. During data collection, women in the six cities surveyed were asked about the place of delivery for their youngest child born since 2007 (table 7.1).

The majority of deliveries in the six cities took place in a private hospital or nursing home. Over half the women surveyed in Agra and Allahabad (around 55 percent each) to around one-third (36 percent) in Moradabad identified this as the place of last birth. The public sector contribution was highest in Gorakhpur and Moradabad (around 26 percent) and lowest in Agra (16 percent). In Varanasi, 6 percent women reported NGO/trust hospital as the place of births of their youngest child.

As shown in figure 7.1, a substantial proportion of births (highest in Aligarh at 39 percent to lowest in Allahabad at 23 percent) occurred at home in these cities.

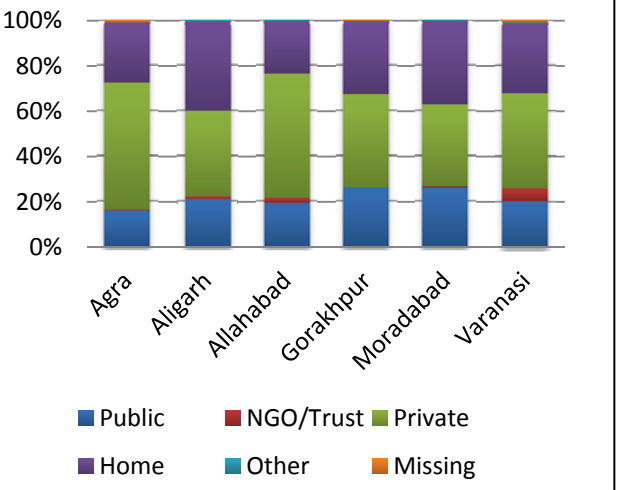

Figure 7.1: Place of deliveries in last three years, by type of facility.

Table 7.1: Percent Distribution of Place of Delivery in the Last Three Years among Currently Married Women by City, Urban Health Initiative, India, 2010

	Agra	Aligarh	Allahabad	Gorakhpur	Moradabad	Varanasi
Public facilities	15.5	20.6	19.2	25.7	26.2	20.2
NGO or trust hospital/clinic	0.6	1.1	2.2	0.3	0.5	5.7
Private hospital/ nursing home	56.2	38	55.1	41.4	35.9	42
Home	26.4	39.4	23.1	32.1	37.1	30.5
Other	0.1	0.8	0.5	0.3	0.4	0.6
Missing	1.1	0	0	0.4	0	1
Total	100	100	100	100	100	100
Number of women	1039	1110	765	844	845	848

7.2. Polio Vaccination Coverage

All the women who had given birth after 2007 in the survey sample in the six cities were asked whether their youngest child had been immunized against polio and when the child had received the polio drops. This information provides another indicator of a family's health seeking behavior as well as identifies women's contact with the health care system and possible opportunities for FP counseling and provision.

As table 7.2 shows, around 80 to 90 percent of the women reported that their youngest child had received polio drops within the first two weeks of their birth; the range was from around 95 percent of the women in Moradabad to 78 percent in Varanasi. The remaining women said their youngest child had received the polio vaccination after two weeks of birth. The high coverage for zero doses may be due to the Pulse Polio campaign established by the government of India in 1995 to eradicate polio by annually providing all children under age five with a polio vaccination.

Table 7.2: Percent Distribution of Polio Vaccination within Two Weeks after Birth in the Last Three Years among Currently Married Women by City, Urban Health Initiative, India, 2010

	Received in first two weeks	Received later than 2 weeks	Number of women
Agra	83.5	16.5	871
Aligarh	87.5	12.5	984
Allahabad	87.5	12.5	691
Gorakhpur	81.1	18.9	763
Moradabad	94.5	5.5	749
Varanasi	78.2	21.8	719

Chapter 8: Media Exposure on Family Planning

This section provides information on women's exposure to radio and television and to family planning messages/information through these forms of media.

Very few women reported exposure to radio in four of the cities (ranging from 1 percent in Moradabad to 8 percent in Gorakhpur); a far larger proportion of women in Varanasi (18 percent) and Allahabad (22 percent) listened to the radio.

Among women who listened to the radio, more than two-thirds across all the cities reported they had heard some family planning information on the radio in the past three months. Given the small sample size in Moradabad, data should be interpreted cautiously. Almost 80 percent of the women in Varanasi and 77 percent of the women in Gorakhpur had heard family planning information on the radio in the past three months; however, in Allahabad, only 63 percent of the women had heard information on family planning in the past three months.

In contrast to the low radio exposure among women in these cities, a large majority of women reported watching television. Around 90 percent of women watched television in four of the cities surveyed; only in Aligarh and Moradabad the proportions were lower at 77 percent and 85 percent, respectively.

Over three-fourths of the women who watched television reported that they had seen some family planning related information on the television in the past three months. The proportion was highest in Gorakhpur and Varanasi, where 85 percent and 82 percent of the women, respectively, said they had seen FP information on television in the last three months.

Table 8.1: Percent Distribution of Recent Exposure to Family Planning in the Media among Currently Married Women by City, Urban Health Initiative, India, 2010

	Agra	Aligarh	Allahabad	Gorakhpur	Moradabad	Varanasi
Do you listen to the radio?						
	(n=3007)	(n=3112)	(n=2670)	(n=3022)	(n=2817)	(n=3015)
Yes	3.5	3.3	22.4	7.5	1.1	17.9
No	96.6	96.7	77.6	92.4	98.9	82.1
Missing	0.0	0.0	0.0	0.1	0.0	0.0
Have you heard any family planning information on the radio in the past three months?						
	(n=104)	(n=104)	(n=598)	(n=228)	(n=31)	(n=539)
Yes	74.1	67.9	62.5	76.5	70.5	78.5
No	26.0	32.1	37.5	22.7	29.5	21.2
Missing	0.0	0.0	0.0	0.8	0.0	0.3
Do you watch television?						
	(n=3007)	(n=3112)	(n=2670)	(n=3022)	(n=2817)	(n=3015)
Yes	90.4	77.4	92.8	88.3	84.8	89.6
No	9.6	22.7	7.2	11.7	15.2	10.4
Have you seen any family planning related information on the TV in the past three months?						
	(n=2419)	(n=2407)	(n=2479)	(n=2668)	(n=2388)	(n=2702)
Yes	79.4	72.8	76.4	84.5	77.4	82.4
No	20.6	27.2	23.7	15.6	22.6	17.6

Chapter 9: Family Planning Services Provided by Facilities

Unlike the rural public health system in India, which is now much strengthened through the National Rural Health Mission (NRHM), the urban public health system is still lacking the standards and institutional infrastructure to provide primary health care to the fast growing urban population, especially the urban poor. As mentioned in the introduction chapter, primary health care is largely provided through urban health posts (or urban family welfare centers) of the Department of Health, Employee State Insurance Corporation dispensaries, Municipal Corporation clinics, and clinics run by other government departments/schemes such as Central Government Health Scheme, Department of Railways, and Department of Defence. In addition, the tertiary care units such as district hospital and medical colleges also provide primary health care to urban population. Further, the private health care sector in all the study cities are vibrant and account for large share of all health care delivery. However, quality services may not be accessible to the poor.

This section presents findings from the facility survey, which includes data from all public health facilities, high volume private facilities, select other private facilities, and pharmacies. It also includes data from providers' interviews. Data from exit interviews is not presented in this report.

This section describes the availability of FP services, training of providers, and providers' bias in providing different FP methods.

9.1. Facilities Providing Modern Family Planning Methods

Table 9.1 shows the proportion of health facilities that currently provide any FP method, by type of health facility. All the high-volume (HV) facilities (both public and private) in all cities currently provide some modern family planning methods, except for Varanasi, where 8 percent of the high-volume private facilities do not provide any modern method of family planning.

Among the other categories, the "other public facilities" tend to provide some modern family planning methods except for Aligarh and Gorakhpur, where 7 percent and 6 percent, respectively, of these facilities do not provide any modern methods.

With respect to "other private facilities," Varanasi has a very large proportion (79 percent) that do not provide any method, followed by Gorakhpur (40 percent) and Agra (29 percent).

At least four modern family planning methods are provided by all the HV private facilities in four cities (Aligarh, Allahabad, Gorakhpur, and Moradabad) and by all the HV public facilities in Agra and Allahabad. In Varanasi, very few "other private facilities" tended to provide modern methods.

9.2. Type of Methods Provided at Public and Private Facilities

Though the facilities surveyed generally appear to provide a good number of contraceptive methods, it is important to determine the actual availability of the methods provided at the facilities. Many facilities may offer prescriptions or referrals for family planning methods, rather than providing the method at the time of visit, as they do not stock all methods. Table 9.2 provides information on the type of family planning methods (IUD, combined oral contraceptive pill [COP], and condoms) provided and stocked at public and private facilities in the six cities surveyed.[4]

[4] The implant is not currently available in India.

Table 9.1: Percent of Facilities Providing Modern Methods by Facility Type and Number of Methods Provided, Urban Health Initiative, India, 2010

	*Number of Methods Provided**				*Number of Facilities*
	No methods	1 method	2-3 methods	4+ methods	
Agra					
HV public	0.0	0.0	0.0	100.0	2
HV private	0.0	0.0	35.7	64.3	14
Other public	0.0	0.0	100.0	0.0	15
Other private	28.6	17.6	18.7	35.2	91
Aligarh					
HV public	0.0	0.0	33.3	66.7	3
HV private	0.0	0.0	0.0	100.0	20
Other public	7.1	0.0	92.9	0.0	14
Other private	6.9	0.0	52.8	40.3	72
Allahabad					
HV public	0.0	0.0	0.0	100.0	3
HV private	0.0	0.0	0.0	100.0	11
Other public	5.6	5.6	55.6	33.3	18
Other private	7.1	3.6	41.7	47.6	84
Gorakhpur					
HV public	0.0	0.0	50.0	50.0	2
HV private	0.0	0.0	0.0	100.0	11
Other public	5.9	0.0	76.5	17.7	17
Other private	39.8	17.1	18.2	25.0	88
Moradabad					
HV public	0.0	0.0	16.7	83.3	6
HV private	0.0	0.0	0.0	100.0	12
Other public	0.0	0.0	90.9	9.1	11
Other private	18.6	5.8	59.3	16.3	86
Varanasi					
HV public	0.0	9.1	18.2	72.7	11
HV private	8.0	8.0	0.0	84.0	25
Other public	0.0	8.0	76.0	16.0	25
Other private	79.1	7.7	12.1	1.1	91

Note: * Facilities providing methods includes those which stock the method, give referrals for methods, or write prescriptions for methods.

The large majority of public facilities covered in the survey provided and stocked some modern methods, especially condoms. Public facilities providing and stocking condoms ranged from 78 percent (Varanasi) to 100 percent (Agra). The oral pill was next best stocked with 88 to 100 percent of these facilities in five cities (apart from Varanasi) stocking these. A relatively smaller proportion of facilities provide and stock the IUD (65 to 84 percent provided these), except for Agra where 100 percent of the facilities provided and stocked this method. In Aligarh, Allahabad and Moradabad, a high proportion of public facilities (ranging from 18 percent to 29 percent) did *not* provide IUDs.

Most public facilities that provided oral pills and condoms tended to stock them, except for Varanasi and Moradabad, where around 11 percent of the public facilities provided the methods but did not stock them. The stocking and provision of modern contraceptive methods in private facilities differed notably from that in public facilities. In private facilities, methods that are commonly available at pharmacies, such as condoms and oral pills, are more likely to be provided but not stocked than facility-based methods like the IUD, which are both provided and stocked.

Among IUDs, combined oral pills, and condoms, the IUD was the most-stocked and provided modern method across HV private facilities in all cities. Around half the HV private facilities in each city (and 73 percent in Allahabad) provided and stocked IUDs, while the provision and stocking of condoms was much lower, ranging from 8 percent and 10 percent in Varanasi and Aligarh, respectively, to a high of 46 percent in Allahabad. HV private facilities' provision and stocking of the combined oral pill tended to mirror that of condoms. Across cities, Allahabad appeared to have the largest share of HV private facilities that provided and stocked modern family planning methods.

Table 9.2: Percent Availability of Provided Methods at Health Facilities, Urban Health Initiative, India, 2010

	Public Facilities			*HV Private Facilities*			*Other Private Facilities*		
	Provide and stock method	Provide method but do not stock	Do not provide	Provide and stock method	Provide method but do not stock	Do not provide	Provide and stock method	Provide method but do not stock	Do not provide
Agra		N = 16			N = 14			N = 91	
IUD	100.0	0.0	0.0	50.0	14.3	35.7	29.7	9.9	60.4
COP*	100.0	0.0	0.0	35.7	14.3	50.0	19.8	19.8	60.4
Condom	100.0	0.0	0.0	35.7	7.1	57.1	22.0	26.4	51.7
Aligarh		N = 17			N = 20			N = 72	
IUD	64.7	5.9	29.4	50.0	50.0	0.0	13.9	16.7	69.4
COP*	88.2	0.0	11.8	20.0	80.0	0.0	26.4	65.3	8.3
Condom	94.1	0.0	5.9	10.0	80.0	10.0	23.6	68.1	8.3
Allahabad		N = 21			N = 11			N = 84	
IUD	76.2	4.8	19.1	72.7	27.3	0.0	33.3	17.9	48.8
COP*	90.5	0.0	9.5	54.6	45.5	0.0	21.4	69.1	9.5
Condom	95.2	0.0	4.8	45.5	54.6	0.0	9.5	70.2	20.2
Gorakhpur		N = 19			N = 11			N = 88	
IUD	84.2	0.0	15.8	45.5	54.6	0.0	9.1	18.2	72.7
COP*	89.5	0.0	10.5	27.3	72.7	0.0	10.2	30.7	59.1
Condom	94.7	0.0	5.3	27.3	27.3	45.5	5.7	26.1	68.2
Moradabad		N = 17			N = 12			N = 86	
IUD	76.5	5.9	17.7	58.3	41.7	0.0	11.6	7.0	81.4
COP*	88.2	11.8	0.0	25.0	75.0	0.0	2.3	77.9	19.8
Condom	88.2	11.8	0.0	16.7	83.3	0.0	3.5	70.9	25.6
Varanasi		N = 36			N = 25			N = 91	
IUD	77.8	11.1	11.1	40.0	44.0	16.0	7.7	8.8	83.5
COP*	75.0	11.1	13.9	8.0	60.0	32.0	3.3	2.2	94.5
Condom	77.8	8.3	13.9	8.0	8.0	84.0	1.1	2.2	96.7

Note: * Combined oral contraceptive pill.

More "other private facilities" were surveyed in each city than public facilities or HV private facilities. The provision and stocking of family planning commodities was lower in "other private facilities" than in the other two types of facilities, especially the public facilities. This may in part be due to "other private facilities" including a range of types of private providers, including even small clinics for a private clinician which may not maintain a consistent supply of contraceptive methods.

Figure 9.1 shows availability of contraceptives at other (non-HV) private facilities. The large majority (84 percent to 97 percent) of other private facilities in Varanasi provided none of the three family planning methods (of the three methods, the most commonly provided and stocked by the other private facilities in this city was the IUD). A majority of the non-HV private facilities in Agra and Gorakhpur also did not supply any of the three methods.

9.3. Stock of Methods in Public and Private Facilities

The number of public and high-volume private facilities that stock specific methods and the proportion of these which had a stock-out in the 30 days preceding the survey are given in table 9.3, categorized by the type of method.

Most public facilities tended to stock three methods: IUDs, combined oral pills, and condoms. Emergency contraceptives were stocked in a few public facilities, as were injectables and the progestin-only pills. Private facilities also stocked only these six family planning methods. None of the public facilities stocked implants, dermal patches, or female condoms (not presented in the table).

None of the private facilities that stock methods reported stock-outs of any of the methods that they provided in the last 30 days, though as table 9.2 shows, far fewer private facilities keep the methods in stock. On the other hand, for almost every method stocked, some proportion of public facilities in all the cities reported having a stock-out over the past month. All public facilities that stock methods reported having a stock-out of condoms over the past month and, apart from Moradabad, a stock-out of the combined oral pill as well.

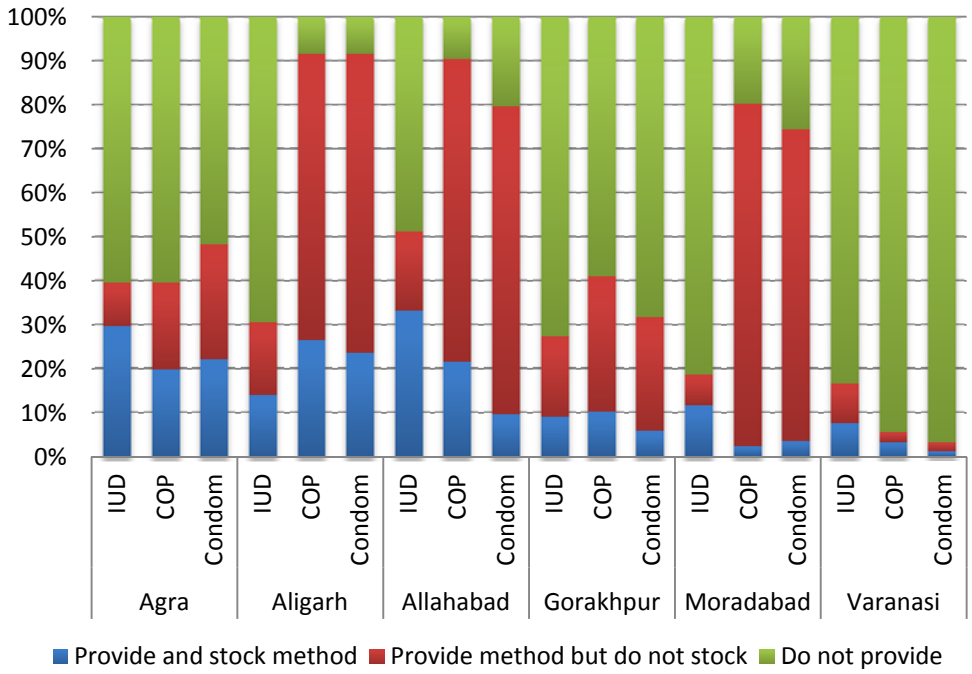

Figure 9.1. Availability of methods at other (non-HV) private facilities.

Table 9.3: Percent of Public and High-Volume Private Facilities that Have Had a Stock-Out in the Last 30 Days, Urban Health Initiative, India, 2010

	Public Facilities		*High-Volume Private Facilities*	
	Number of facilities that stock method	Percent of facilities with a stock-out in the last 30 days	Number of facilities that stock method	Percent of facilities with a stock-out in the last 30 days
Agra	N = 16		N = 14	
IUD	16	6.3	7	0.0
Injectables	0	0.0	6	0.0
Combined oral pill	16	6.3	5	0.0
Progestin only pill	0	0.0	1	0.0
Emergency contraceptives	1	0.0	4	0.0
Condom	16	6.3	5	0.0
Aligarh	N = 17		N = 20	
IUD	11	0.0	10	0.0
Injectables	0	0.0	8	0.0
Combined oral pill	15	13.3	4	0.0
Progestin only pill	1	0.0	3	0.0
Emergency contraceptives	0	0.0	3	0.0
Condom	16	6.3	2	0.0
Allahabad	N = 21		N = 11	
IUD	16	18.8	8	0.0
Injectables	0	0.0	7	0.0
Combined oral pill	19	15.8	6	0.0
Progestin only pill	1	0.0	3	0.0
Emergency contraceptives	0	0.0	4	0.0
Condom	20	15.0	5	0.0
Gorakhpur	N = 19		N = 11	
IUD	16	56.3	5	0.0
Injectables	1	0.0	5	0.0
Combined oral pill	17	76.5	3	0.0
Progestin only pill	0	0.0	1	0.0
Emergency contraceptives	5	40.0	2	0.0
Condom	18	77.8	3	0.0
Moradabad	N = 17		N = 12	
IUD	13	7.7	7	0.0
Injectables	0	0.0	4	0.0
Combined oral pill	15	0.0	3	0.0
Progestin only pill	0	0.0	1	0.0
Emergency contraceptives	1	0.0	3	0.0
Condom	15	6.7	2	0.0
Varanasi	N = 36		N = 25	
IUD	28	7.1	10	0.0
Injectables	1	0.0	8	0.0
Combined oral pill	27	3.7	2	0.0
Progestin only pill	0	0.0	1	0.0
Emergency contraceptives	1	0.0	0	0.0
Condom	28	7.1	2	0.0

9.4. Training of Providers

Capacity building of providers on family planning to provide quality services is high on the agenda in NRHM. However, it is difficult to articulate the actual implementation and involvement of providers posted at urban facilities in the training. Table 9.4 shows the proportion of providers who received any pre-service training and in-service training on family planning in each city by type of facility—HV public, HV private, "other public," and "other private".

A very small proportion of providers in some cities (Allahabad, Gorakhpur, and Moradabad)

reported receiving pre-service training across facility type. None of the providers in the HV public facilities in Allahabad and Moradabad received pre-service training, and less than 10 percent at other facility types in Allahabad were trained. In Aligarh, Moradabad, and Varanasi, a higher proportion of providers at "other public facilities" had received pre-service training compared to those at other facility types. In Agra, Aligarh, and Varanasi, public facilities have the best record on pre-service training, as they tended to have the largest proportion of providers who had received such training.

The situation was better for the provision of in-service training on family planning. The proportion of providers who received in-service training was higher in the three cities that had reported low proportions of pre-service training (Allahabad, Gorakhpur, and Moradabad), to around one-third of all providers in the various facilities. Agra and Aligarh had the highest proportion of in-service trained providers, with half of those at HV public facilities trained, and around two-thirds in the other public institutions trained. Both categories of private facilities across the cities generally appeared to have lower proportions of trained providers.

Table 9.4: Number of Providers Interviewed and Proportion of Provider Training by Facility Type and City, Urban Health Initiative, India, 2010

	Number of Providers Interviewed	*Receiving Pre-service Training (%)*	*Receiving In-service FP Training (%)*
Agra			
HV public	10	60.0	50.0
HV private	46	41.3	26.1
Other public	36	11.1	66.7
Other private	188	11.2	27.1
Aligarh			
HV public	14	42.9	50.0
HV private	89	14.6	22.5
Other public	29	55.2	69.0
Other private	106	19.8	32.1
Allahabad			
HV public	28	0.0	32.1
HV private	70	8.6	12.9
Other public	44	2.3	40.9
Other private	182	1.7	20.3
Gorakhpur			
HV public	8	12.5	25.0
HV private	59	18.6	30.5
Other public	44	15.9	65.9
Other private	163	12.9	7.4
Moradabad			
HV public	28	0.0	39.3
HV private	52	7.7	34.6
Other public	20	20.0	35.0
Other private	126	0.8	11.9
Varanasi			
HV public	56	30.4	26.8
HV private	89	20.2	6.7
Other public	89	40.4	22.5
Other private	177	36.7	14.1

Note: HV=high volume.

9.5. Provision of Family Planning Methods by Doctors

Table 9.5 presents the number of doctors who provide different methods of family planning and the percentage of them who restrict a client's eligibility for a method for reasons of parity, marital status, spousal consent, or age. Denying access to contraceptives for reasons that are not medically based can lead to mistimed or unwanted pregnancies. Such unwarranted restrictions frequently go against the policies of the Government of India. Non-medical restrictions on family planning prescription and provision can significantly influence the actual access to methods.

An age barrier was defined as a provider's restriction of access to contraceptives to clients between the ages of 19 to 49 for pills, IUD, condom, and injectables (in other words, the provider limits or denies access for women between those ages). This conservative definition is based on the legal age at marriage in India (18 years of age). For sterilization, the age range was 23 to 49 years, based on minimum age guidelines for sterilization as defined by the Government of India.

The definition of a parity barrier was whether the provider required that a client must already have children (any number) before supplying a method. Barriers for partner consent and marital status were defined as being when a provider answered positively that they restricted access to contraceptives based on these issues.

Of the family planning methods presented, doctors restricted access to sterilization and IUDs most frequently based on age, parity, marital status, and spousal consent. While government guidelines state that women should be between 22 and 49 years of age, married, have at least one child more than 1 year of age, and should provide informed consent before the procedure, the guidelines clearly mention that spousal consent is not required (Ministry of Health & Family Welfare, 2006). During the interview, more than three-fourths of doctors across all six cities reported that they would restrict a client's access to sterilization due to low parity, being unmarried, age, or lacking consent of the spouse. As shown in Figure 9.2, more than 80 percent of doctors interviewed in every city limit access to sterilization based on lack of spousal consent. In the case of the IUD, a similar proportion of doctors restrict access to the IUD based on parity, age and marital status, though generally, a lesser proportion restrict access based on spousal consent.

For injectables, there is wide inter-city variation in the proportion of doctors who impose restrictions of parity, marital status and spousal consent, and lesser variation for age. In Varanasi, only 21 percent of doctors restrict access to injectables due to parity, while in Agra 56 percent do so. A large proportion of doctors (up to 81 percent in Aligarh) restrict clients' access to injectables based on marital status. While the majority of doctors do not require spousal consent for use of injectables in the other cities, in Agra 76 percent of the doctors require this.

In Varanasi, Agra, and Aligarh, a fairly large proportion of providers (over 40 percent) restrict a client's access to condoms based on marital status. These three cities and Gorakhpur had the highest proportion of doctors (61 percent to 73 percent) who restrict clients' access for the pill by marital status.

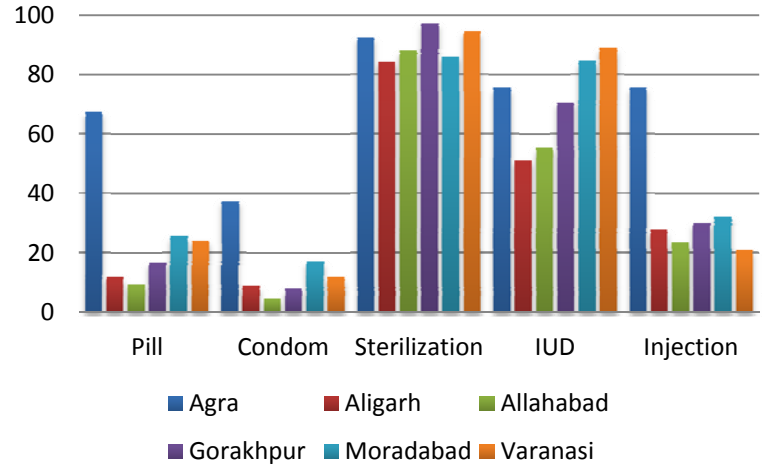

Figure 9.2: FP restrictions by providers based on spousal consent, by method.

Table 9.5: Number of Doctors Who Provide Each Method and Percent Who Restrict Clients' Eligibility to Use a Method for Reasons of Parity, Marital Status, or Spouse's Consent, by Method, Urban Health Initiative, India, 2010

	Agra		Aligarh		Allahabad		Gorakhpur		Moradabad		Varanasi	
	Number that provide method	*Percent that restrict*	*Number that provide method*	*Percent that restrict*	*Number that provide method*	*Percent that restrict*	*Number that provide method*	*Percent that restrict*	*Number that provide method*	*Percent that restrict*	*Number that provide method*	*Percent that restrict*
Parity												
Pill	44	47.7	59	15.3	83	19.3	40	30.0	51	17.7	29	20.7
Condom	41	14.6	57	7.0	88	9.1	25	4.0	53	0.0	17	0.0
Sterilization	26	88.5	32	96.9	50	100.0	39	97.4	29	96.6	37	83.8
IUD	49	81.6	45	84.4	65	89.2	41	82.9	39	97.4	45	86.7
Injection	36	55.6	47	44.7	55	32.7	30	46.7	28	50.0	24	20.8
Marital status												
Pill	45	73.3	59	67.8	84	44.1	44	61.4	51	54.9	31	58.1
Condom	40	40.0	57	43.9	88	22.7	26	7.7	53	20.7	17	41.2
Sterilization	27	100.0	32	93.8	50	100.0	39	100.0	29	96.6	37	100.0
IUD	49	98.0	45	97.8	65	98.5	41	92.7	39	100.0	45	97.8
Injection	33	78.8	47	80.9	55	50.9	30	76.7	28	53.6	24	75.0
Spouse's consent												
Pill	43	67.4	59	11.9	84	9.5	42	16.7	51	25.5	29	24.1
Condom	40	37.5	57	8.8	88	4.6	25	8.0	53	17.0	17	11.8
Sterilization	27	92.6	32	84.4	50	88.0	39	97.4	29	86.2	37	94.6
IUD	49	75.5	45	51.1	65	55.4	41	70.7	39	84.6	45	88.9
Injection	33	75.8	47	27.7	55	23.6	30	30.0	28	32.1	24	20.8
Age*												
Pill	45	80.0	59	94.9	84	78.6	40	92.5	51	60.8	29	82.8
Condom	41	17.1	57	29.8	88	6.8	25	32.0	53	7.6	17	11.8
Sterilization	26	65.4	32	90.6	50	86.0	39	94.9	29	96.6	37	94.6
IUD	49	83.7	45	93.3	65	95.4	41	90.2	39	87.2	45	97.8
Injection	36	75.0	47	93.6	55	78.2	30	83.3	27	70.4	24	87.5

* For sterilization, the age range was 23-49 years old. For all other methods, it was 19-49.

Conclusion

This report represents a significant effort to collect and present credible information that is useful for people interested in the reproductive health of individuals living in urban areas and especially those with interest in UP or in India. The findings in this report are based on data collected from 17,643 women and 6,428 men in six cities of UP and provide an in-depth, quantitative examination of the factors that influence contraceptive use and fertility.

It is increasingly important to make evidence-based decisions on where and how to use human and financial resources to make the largest improvement in reproductive health. Given the increasing urbanization of India and the intensification of urban poverty, increased attention should be given to identifying strategies that assure that urban dwellers, and specifically the urban poor, have access to and take advantage of effective, high-quality FP and reproductive health services that assist them in achieving their reproductive goals.

We hope the findings from this survey on households, women, men, and health facilities from six cities in UP will be used for program planning and resource allocation. The data from this survey can help guide program planners and policy-makers as they determine which policies and programs are likely to lead to the desired reproductive health outcomes.

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