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Section 1: Executive Summary

India has a significant portion of the globe’s maternal and child mortality. Despite a rapidly growing economy, in 2012, India accounted for nearly 20% of maternal mortality and 30% of all neonatal (up to 28 days of age) deaths worldwide. Common causes of maternal death are severe bleeding, infections, and eclampsia. These causes can typically be avoided with timely diagnosis and intervention by skilled practitioners in a clinical setting. Institutional deliveries offer the benefit of trained and accredited health care providers, hygienic conditions, and life-saving medical equipment.

Increasing institutional deliveries has become a key strategy in India to decrease maternal mortality. In recent years, central and state government policies have focused on factors thought to affect use of institutional deliveries. Such policies include the national Janani Surakshi Yojana (JSY) program that provides financial coverage to women who deliver at a public facility, the Chiranjeevi Yojana (CY) program in Gujarat is a public private partnership designed to offer alternatives to pregnant women where the public sector is not able provide designated services.

Despite these policies, progress has been slow in increasing institutional deliveries within the public sector. Our study aims to better understand the nuanced social, behavioral, and institutional factors that affect a woman’s decisions during her pregnancy. We conducted over 250 interviews with different actors, ranging from health officials; public health workers like ASHAs; doctors and nurses at public and private health facilities; village elders and headmen; midwives (dais) and experienced women in villages; pregnant women; mothers-in-law; husbands; and other members of the family. These actors and their roles in the local health care system are identified in Sections 5 and 7.

Our field research involved two states: Uttar Pradesh (UP) and Gujarat. UP was selected because it has had limited uptake and implementation of the national JSY program, and because it is considered a high-focus state by the Government of India. In contrast, Gujarat is a low-focus state for JSY due to its higher rates of institutional delivery. The Gujarat government has also implemented the statewide CY program to increase institutional deliveries. In UP, our local partner was Save the Children, a non-governmental organization that promotes children’s rights and development in developing countries and secretariat to the RMNCH+A Coalition, and in Gujarat our partner was a private hospital participating in the Chirajeevi scheme. These partners facilitated our meetings with administrators and local health facilities. The details of our research methodology can be found in Section 4.

For our analysis of interview data, we used the manual sorting and thematic analyses described in IDEO’s human-centered design toolkit. This method helped us refine the relationships between actors and processes, cluster data by location and actor type, and develop concrete themes that we found to be the major barriers to institutional deliveries. Finally, we generated insights for each theme, explained in detail in Section 7. Based on each of these insights, we formulated opportunity areas. We hope that our suggested opportunity areas will encourage policymakers, health care workers, researchers, and non-government organizations to pursue further research in the identified issues around institutional deliveries and ultimately create improved policies for mothers and babies in India. A brief summary of our themes, barriers to institutional deliveries, and insights is presented below. A full description of each theme and insight can be found in Section 7.
1. Financial Costs and Incentives

Financial considerations are a key component in decisions surrounding use of institutional delivery, particularly for families with limited resources. Families are presented with an array of options for seeking maternal health care, each with varying associated costs. One option includes JSY, a centrally funded program that provides a cash incentive of up to Rs 1400 to mothers who deliver their babies at select government institutions. Despite this financial incentive, for low-socioeconomic status (SES) households, the additional costs of delivering at a government hospital, including transportation, gifts for staff, and unexpected medical expenses, may disincentivize the use of the public health system in favor of home deliveries. In addition, the financial incentive program may deter middle-SES households in high focus states from using the public health system for fear that they will appear to be beneficiaries of a public handout.

2. Quality of Care

In general, people believe they will receive a high quality of care if they pay for services, and private hospitals are perceived to have a higher quality of care. Women and their families define high quality of care as value of time, respect for patients, and well-equipped and clean facilities. Furthermore, health service providers in leadership positions who provide patient-centered and high quality clinical care have the ability to positively impact the culture of health care delivery, which influences the woman’s decision-making process.

3. Influencers

In the joint family structure, mothers-in-law are the primary decision-makers about where to deliver, and their decisions supersede the woman’s choice. There appear to be opportunity areas for ASHAs and other health care workers to speak with the mothers-in-law directly.

4. Familiarity, Trust, and Experience

Some of the mothers-in-law’s beliefs about women having home deliveries come from traditions and prior home deliveries that perpetuate this culture. Additionally, some women fear going to hospitals because they believe they will be subjected to unwanted procedures and surgeries like cesarean section, sterilization, and episiotomy stitches. Past exposure to a negative outcome at a hospital can strongly dissuade a community from seeking institutional deliveries. However, women who are familiar with and trust their ASHAs see her as an accessible agent of the public health system and are more likely to use the ASHA (both as a resource and to navigate the health care system). We found that a woman and her family’s exposure to other successful institutional deliveries over time increases their desirability of institutional deliveries.

5. Dai and ASHA Dynamics

Because of the presence of multiple community-level actors, women hear conflicting messages from dais and ASHAs about institutional delivery. There are, however, opportunities to incorporate dais into the
public health care system. We observed that despite their traditional role of performing home deliveries, some dais have encouraged women to deliver at an institution.

6. Marginalized Communities

While ASHAs can be successful in encouraging institutional deliveries in communities where they have developed strong relationships, such strong relationships do not exist in all villages. There is clear variation in rates of institutional deliveries among different castes and religions. Specifically, the lack of Muslim health care workers contributes to the isolation that Muslim communities feel from the public health care system. Despite isolation from the public health system and community norms against institutional deliveries and family planning, we found that Muslim women do desire the services of health care workers. In such communities, biases of health care workers influence how the healthcare workers respond to marginalized communities. However, there are encouraging accounts of health care workers who proactively engage marginalized communities, and are therefore seen as more accessible to the community.

7. Transportation

Despite the best efforts of health care workers and pregnant women, institutional deliveries are sometimes inhibited by inadequacies in transport infrastructure, which are exacerbated by bad weather and inconvenient times of day. Transportation to health facilities in rural India has, however, been improved by GVK Emergency Management and Research Institute (GVK EMRI), also referred to as 108, a public private partnership that provides free of charge integrated emergency transport service in India. Awareness and use of 108 ambulances for institutional deliveries have increased since its launch in 2005. However, we found that few end-users express confusion about who can call and how to call.

Government programs may not have reached their full potential to improve institutional deliveries because of a number of nuanced factors affecting a woman’s labor and delivery decision. With further research in the above identified areas and continued dedication in the public health system, every woman in India might someday have access to the highest quality care during her pregnancy, delivery, and post-natal period.
Section 2:  Background

State of Maternal Health in India

Improvements in maternal and child mortality became a focus of global health efforts with the establishment of the eight UN Millennium Development Goals (MDGs) in 2010. Goal 5 lays out the target of reducing the global maternal mortality rate (MMR) by three quarters (from 440 to 109 for developing regions) between the years of 1990 and 2015. Goal 4 establishes a target of reducing mortality of children under-five years old by two-thirds in the same timeframe.

India accounts for a significant portion of global maternal and child mortality rates. Despite a rapidly growing economy, in 2012 India had nearly 20% of maternal mortality and 30% of all neonatal (up to 28 days of age) deaths worldwide. According to Sample Registration Data (SRS), between 2007 and 2009, India’s MMR was 212 per 100,000 live births, nearly double the MDG goal of 109 and ten times the United States’ MMR of 21.

The SRS data are generally considered to be underestimates, and experts estimate that true MMR is 1.5 times higher than the given value. Furthermore, the SRS data show large regional variation in MMR within the country. The large northern states of Assam and Uttar Pradesh lead with MMRs of 390 and 359 per 100,000, respectively. Southern states tend to have lower MMRs, with Kerala reporting 81 and Tamil Nadu reporting 97 per 100,000, roughly on par with middle-income countries. Despite failing to achieve the UN MDG, it should be noted that recent decades have seen some progress; India’s MMR has decreased nearly three-fold since its 1990 MMR of 600.

Institutional Delivery

Nearly 60% of maternal deaths worldwide are caused by severe bleeding (25%), infections (15%), and eclampsia (8%). These are complications that are both largely preventable and treatable. The majority of deaths due to these complications occur during labor, delivery, or within the first 24 hours postpartum, and may be attributable to delivery in the home. In India, anemia is a particularly important indirect cause of maternal mortality because of its unusually high prevalence rate—58% among pregnant women. Anemia contributes to maternal death during childbirth by increasing the risks of hemorrhage, septicemia, and eclampsia.

Maternal deaths from these conditions can typically be avoided with timely diagnosis and intervention by skilled practitioners in a clinical setting. Institutional deliveries have trained and accredited health care providers, hygienic conditions, and life-saving medical equipment. Within this setting, health care providers are able to provide, at a minimum, first level care, which includes preventive strategies, labor monitoring, timely diagnosis and intervention, basic emergency obstetric care (EmOC), and referral to comprehensive EmOC. Studies suggest that use of first level care for deliveries can prevent maternal deaths and bring down MMRs.

Institutional deliveries are likely to yield benefits to neonatal survival as well. The top causes of neonatal death are prematurity and low birth weight, neonatal infections, and birth asphyxia and trauma. These are effectively treated or managed in a clinical setting. Notably, 91% of neonatal deaths in India occurred in rural settings and 77.8% occurred outside a medical facility.

Government Policies to Improve Maternal Health

Given the evidence supporting institutional delivery as a predictor of maternal health outcomes, increasing institutional deliveries has become a key
strategy to decreasing maternal mortality. In recent years, central and state government policies in India have emphasized improving maternal and child health by addressing the factors thought to affect institutional delivery use. Many of these programs are predicated on the tiered rural health structure established in 1947 post-independence India, which follows the general political structure of state, district, taluka, block, gram panchayat, and village. Under this structure, the Subcenter (SC) provides primary care at the village level and is staffed by a trained Auxiliary Nurse Midwife (ANM); the Primary Health Center (PHC) provides secondary care at the subdistrict (block) level; the Community Health Center (CHC) provides tertiary care at the regional (taluk) level; and the District Hospital serves a catchment area covering the entire district and bordering areas.9

In 1992, the Ministry of Health and Family Welfare established the Child Survival and Safe Motherhood (CSSM) program, a consolidation of earlier child and maternal health programs. Among its goals was the prevention of maternal mortality—promoting deliveries by trained personnel through the PHC system. However, without clear delineation of either the roles of PHC staff or the services provided by facilities, the program was poorly implemented in the field.9 The first iteration of the Reproductive and Child Health (RCH) program followed in 1997, adding nursing staff and incentivizing night staffing to make 24-hour skilled maternal care available in the PHCs.

A second iteration followed in 2005 and established the National Rural Health Mission (NRHM), a seven-year public health initiative to revitalize the rural health system with goals to “strengthen state health systems with a special focus on Reproductive and Child Health (RCH) services and Disease Control Programmes.”14 The program aimed to provide better health care to eighteen states with poor infrastructure and poor health indicators. With the dearth of obstetric and gynecologic specialists, there was a push to improve Emergency Medical Obstetric Care (EmOC). These efforts included allowing nurses and ANMs to initiate treatment for pregnancy-related complications, increasing training of physicians in EmOC, upgrading CHCs to handle obstetric complications, and increasing community outreach. NRHM also initiated a program for picking and training ASHAs in each village, whose role includes encouraging women to have institutional deliveries.9 NRHM initiatives are currently active, and a more complete list of its strategies and programs can be found in Tables 1 and 2.

The variation in quality of facilities and hospital staff among states and districts remains an ongoing challenge; however, efforts to standardize care have been put in place. For example, the obstetric facilities within the Indian public health delivery system, known as First Referral Units (FRUs), must meet certain requirements, including 24-hour staffing to provide around-the-clock care at the community health level. Most recently, the Indian Public Health Standards (IPHS) issued guidelines for the government health facilities at which deliveries take place, in order to improve the provision of maternal care with requirements such as labor rooms and sterile environment.9

NRHM also launched programs to address the monetary barriers to health care. Janani Suraksha Yojana (JSY, Safe Motherhood Scheme) is a centrally funded program that aims to improve prenatal, perinatal, and postnatal care for poor women. The main mechanism is to provide a cash incentive of up to Rs.1400 to mothers who deliver their babies at select government institutions.9,15 JSY has varied in its implementation efforts, depending on states’ existing rates of institutional delivery. Poorly performing states with low rates of institutional delivery, such as UP, are designated as high focus under JSY and offer larger cash incentive packages of Rs.1400 to all rural
women irrespective of socio economic status who deliver in a public institution and a Rs.600 bonus to the ASHA who accompanies her. In high-performing states, designated as low focus because institutional delivery rates are high, only below-poverty line (BPL) rural women (and their first two live births) qualify for Rs.700 to go toward their delivery in a public hospital.\textsuperscript{16}

In addition to centrally operated programs, individual states have implemented their own programs, some running in parallel with national programs. Gujarat’s state-run program, Chiranjeevi Yojana (CY), contracts private obstetricians to perform deliveries for socioeconomically disadvantaged women free of cost, in exchange for a fixed payment per delivery.\textsuperscript{17} A more complete timeline of government efforts can be seen in Figure 1.

\begin{table}[h!]
\centering
\begin{tabular}{|l|}
\hline
1. Train and enhance capacity of Panchayati Raj Institutions (PRIs) to own, control, and manage public health services. \\
2. Promote access to improved health care at household level through the female health activist (ASHA). \\
3. Create a health plan for each village through the Village Health & Sanitation Committee of the Panchayat, in order to: 
- disseminate, encourage, and empower the community by addressing its health seeking behavior outcomes 
- generate community demand for health care services, and 
- monitor quality and appropriateness of health care services. \\
4. Strengthen Subcenters through better human resource development, clear quality standards, better community support, an untied fund to enable local planning and action, and more Multi Purpose Workers (MPWs). \\
5. Strengthen existing PHCs through better staffing and human resource development policy, clear quality standards, better community support, and an untied fund to enable the local management committee to achieve these standards. \\
6. Meet the goal of one CHC (30-50 beds) being available for every 100,000 people. \\
7. Implement an inter sector district health plan prepared by the District Health Mission, with a focus on drinking water, sanitation, hygiene, and nutrition. \\
\hline
\end{tabular}
\caption{Overview of NRHM Strategies}
\end{table}
| 8. Integrate vertical health and family welfare programs at national, state, district, and block levels. |
| 9. Provide technical support to the National, State, and District Health Missions for public health management. |
| 10. Strengthen capacities for data collection, assessment and review for evidence based planning, monitoring, and supervision. |
| 11. Create transparent policies for human resources. |
| 12. Develop preventive health care at all levels, including promoting healthy lifestyle, reducing consumption of tobacco and alcohol, etc. |
| 13. Promote the non-profit sector, particularly in underserved areas. |
| 14. Regulate the private sector to ensure availability of quality service to citizens at a reasonable cost. |
| 15. Promote public private partnerships to meet public health goals. |
| AYUSH covers Ayurveda, Yoga & Naturopathy, Unani, Siddha, and Homeopathy. Because such systems of medicine and practices are well accepted, easily available, prepared from locally available resources, economical, and comparatively safe, they will be integrated into the National Health Care Delivery System. AYUSH personnel will work within the health infrastructures in separate spaces at the PHCs, CHCs, etc. |
| 17. Reorient medical education to support rural health issues, including regulation of medical care and medical ethics. |
| 18. Carry out effective risk pooling and social health insurance in order to provide accessible, affordable, accountable, and good quality hospital care to the poor. |
Janani Suraksha Yojana (JSY)\textsuperscript{16}

A national conditional cash transfer scheme to incentivize women of low socioeconomic status to give birth in a health facility.

After delivery in a government or accredited private health facility, eligible women receive Rs. 600 in urban areas and Rs. 700 in rural areas. Women are eligible for the cash benefit only for their first two live births, and only if they have a government-issued BPL card or if they are from a scheduled (low) caste or tribe.

In ten high-focus states (including Uttar Pradesh but not Gujarat), all women—irrespective of socioeconomic status and parity—are eligible for the cash benefit of Rs. 1000 in urban areas and Rs. 1400 in rural areas.

Reproductive and Child Health Programme-II (RCH-II)\textsuperscript{19}

A national program introduced in 2005 that focuses on addressing the reproductive health needs of the population through evidence-based technical intervention through a wide range of service delivery network. The objective is to reduce three critical health indicators: total fertility rate, infant mortality rate, and maternal mortality rate.

Pulse polio programme\textsuperscript{20}

First launched in 1995, children 0 to 5 years are given polio drops during national and sub-national immunization rounds every year. All states have developed a Rapid Response Team (RRT) to respond to any polio outbreak in the country.

In UP, every newborn child is identified and vaccinated during the polio immunization campaigns and is tracked for eight subsequent rounds.

Sterilization compensation scheme\textsuperscript{21}

A compensation that is offered to sterilization and IUD insertion users.

After a vasectomy in a government health facility, eligible men receive Rs. 1100. After a tubectomy in a government health facility, eligible women receive Rs. 250 or Rs. 600 in a high-focused state.
Compensation is also offered for the motivator and the hospital staff, as well as for the supplies. After a vasectomy or tubectomy in a private health facility provided free of charge, the facility received Rs. 1300 and 1350 respectively. Compensation is also offered for the motivator. After an IUD insertion in a government health facility, eligible women receive Rs. 20.

| Janani Shishu Suraksha Karyakarm (JSSK)\(^{22}\) | Introduced in 2011, the initiative entitles all pregnant women delivering in public health institutions to free and no-expense delivery, including caesarean section. Additionally, both the mother and the newborn can receive the following provisions until 30 days after birth: (1) free and zero expense treatment, (2) free drugs and consumables, (3) free diagnostics and diet, (4) free provision of blood, (5) free transport from home to health institutions, (6) free transport between facilities in case of referral, (7) free transportation from institutions to home, and (8) exemption from all kinds of user charges. |
| Rashtriya Bal Swasthya Karyakram (RBSK)\(^{23}\) | An initiative aimed at early identification and early intervention for children from birth to 18 years, covering the 4 Ds: defects at birth, deficiencies, diseases, and developmental delays including disability. First level of screening is done at all delivery points through existing MOs, staff nurses and ANMs. Between 48 hours to 6 weeks, the screening of newborns is done by the ASHA at home. At 6 weeks of age to 6 years, outreach screening is done by a dedicated mobile block level team at Anganwadi centers, and at from 6 to 18 years of age, screening is done at school. |
Government policies focused on maternal and child health, such as JSY, have addressed financial barriers to institutional delivery. However, studies have questioned the gains made by JSY in child and maternal mortality. Evaluations of JSY show variable uptake by state, ranging from 44% of eligible women receiving payments in Madhya Pradesh to only 7% in UP, both high focus states. Uptake was higher for women with 1-11 years of education as compared to those with no education. Furthermore, JSY uptake was higher among the middle quintiles of wealth, while those with the least economic resources did not use JSY. Younger women and those giving birth to their first child tended to have higher levels of uptake. In most low-performing states, disadvantaged castes (scheduled caste, scheduled tribe, other backward class) had higher uptake, while Muslims had significantly lower uptake than other religious groups. Uptake of JSY is associated with increased usage of Antenatal Care (ANC) and institutional delivery and decreased neonatal mortality. Notably, uptake of JSY is not associated with significant changes in maternal mortality.16

JSY shows some promise in incentivizing institutional deliveries among BPL women, but variability in implementation and uptake suggests that JSY is not maximally reaching the intended beneficiaries. This variability may be due to differences in awareness, infrastructure, and geographic isolation.16 Furthermore, while JSY seems to be achieving its goals in part, the program continues to exclude the poorest, least educated, and most disadvantaged women. Rectifying this disparity will require redoubling of targeted efforts to reach the most disadvantaged groups. Additionally, the poor quality of emergency transportation and communication systems render many PHCs incapable of providing adequate EmOC. Many states are unprepared to handle an influx of patients in their hospitals9 and will have to rapidly adapt if JSY is expanded. Funding for programs is grossly inadequate,amounting to less than US$ 1 allocated per birth, and what funding is available is often tied up in bureaucratic delays.

Gujarat’s Chiranjeevi Yojana has met with mixed success as well. Between the years of 2006 and 2010, institutional deliveries increased from 68% to 92%, with the majority of this increase occurring in the public sector. In this same time period, the proportion of private sector deliveries funded by CY increased from 9% to 20%. However, the impact of CY was variable across districts, and an association between declines in MMR and CY was found only in a limited number of districts.16
Barriers to Institutional Delivery

While rates of institutional deliveries are improving, the government efforts have failed to close large gaps. The third National Family Health Survey (NFHS-3) shows improvement in the use of institutional deliveries from 26% in 1992 to 39% in 2006. However, much of this improvement was in the unregulated private sector with minor change in public hospital usage, indicating that changing behaviors may have little to do with government efforts. Since 1992, private institutional deliveries have increased from 11% to 20% while deliveries in public hospitals have only grown from 15% to 18%. Trust hospitals, or privately funded charity institutions, continue to account for < 1% of deliveries. With the growth of private sector obstetric care, high costs could leave poor and BPL women with limited access to quality maternal care. Large disparities remain in institutional delivery usage. Conventionally, the factors that affect institutional delivery use include maternal education level, maternal economic status, geographic region, distance to hospitals, and birth order.

The Aim of Our Study

Despite several government policies, there has been only slow progress in increasing institutional deliveries within the public sector, suggesting a disconnect between the policymakers and the beneficiaries of these policies. While current government policy efforts have addressed some important conventional factors, they have not sufficiently addressed major variations in institutional delivery rates that may be attributable to more nuanced and sociocultural factors that impact decision-making at the community level. In order to do this, it is critical to take the time to see the world through the eyes of those intended to benefit from a program/policy and understand from their perspective what truly motivates their choices (in this case, about where to have their babies). Without this understanding, programs and policies will not have their intended impact.

Our study aimed to better understand the beneficiaries of the government policies by examining the nuanced social, behavioral, and institutional factors that affect the decisions of a woman and her family during pregnancy. We have much to gain by understanding how a woman perceives and uses the programs and policies intended to benefit her during pregnancy and delivery. Further, we must identify the factors that motivate her choice of where to deliver. Without this understanding, government programs and policies will not have their intended impact.

We interviewed expectant mothers and other key players who influence the mothers’ decisions, including their husbands and family members, community health workers, local public and private sector clinicians, block health officers, and other members of local health bureaucracies. By speaking with the various actors directly, we were able to derive insights and identify barriers to institutional deliveries from the ground-up. We hope that our insights and suggested opportunity areas will encourage policymakers, health care workers, researchers, and non-government organizations to pursue further attention and research in the critical topic of institutional deliveries and ultimately create improved future policies for mothers and babies in India.
Section 3: Anatomy of the Local Health Care System

Figure 2: Actor Map

The figure above depicts the actors involved in influencing a woman’s decision to deliver at an institution. The actors are divided into four groups: Decision-Makers, Public Health Care System Influencers, Private Health Care System Influencers, and Community-level Influencers. Family members are often the actors who make the decision for the women, sometimes in conflict with her opinion, so women and family members are depicted as the “Decision-Makers” who influence the final outcome. The Decision-Makers are placed in the center of the diagram because all other actors in the remaining three groups have the power to influence both a woman and her family. Some actors fall into two groupings and are placed on the line dividing the groups. In addition to influencing women and families, many actors also influence and have relationships with one another. A dotted line between actors depicts a direct relationship. The color of each actor bubble represents three tiers of direct contact and influence with a woman or her family. Green depicts the direct influence over a woman’s decision on where to deliver; purple denotes less direct influence, but frequent contact with a woman; and blue denotes rare direct contact with a woman, if any, before delivery.
Based on our initial literature review and findings, we developed a list of actors who are involved in facilitating or inhibiting an institutional delivery. Each of these actors ultimately plays a role in whether or not a woman seeks an institutional delivery and the outcome of that delivery. We planned to seek out these actors in the field to understand their defined roles in the institutional delivery process, their motivations for serving in these roles, and the way in which they influence a woman’s decision on whether to seek an institutional delivery. To prioritize our interviews and understand the relationships between different actors, we developed a map that categorizes actors into four groups: Public Health Care System, Private Health Care System, Community-Level Actors, and Decision-Makers. Many of the actors are involved in more than one of these groups, and we have placed them in between the two categories accordingly. For example, ASHA workers are a part of the NRHM, and thus government-level actors, but they carry out their work at the community level. They are placed on the line between Public and Community to depict their roles. We predicted that our interviews would uncover new relationships and information about these actors’ involvement in the institutional delivery process, and planned to modify the map accordingly.

The initial actor map is shown in Figure 2. Using the actor map as a guide, we then developed in-depth, structured interview questions relevant to each actor involved. The roles of each actor are described below:

**Women who are pregnant or who have had children:** Women have preferences and desires for how they receive care during their pregnancy and the delivery process. Their decisions are often, but not always, influenced by other family members and by community health workers.

**Family Members:** Family members often have decision-making power in whether a woman will deliver in a hospital or at home, and they can serve as either motivators or inhibitors of institutional deliveries. Key family members include both the husband and the mother-in-law, who commonly exert a strong influence in the household. Other family members who may have an attenuated influence include mothers, fathers-in-law, sisters-in-law, and other members of the household. Family structure is an important determinant of decision-making power. The joint family structure, most typical in the Indian village, has a married woman living in her husband’s household with the in-laws, and typically the mother-in-law has primary decision-making power. In the nuclear family structure consisting of husband, wife, and children, the husband is typically the primary decision-maker, and the wife may have some leverage to contribute to decisions.

**ASHA Workers:** The ASHA workers serve as the major link between the women in a community and the government health care providers, and they are directly involved in taking women to government health care facilities for ANC checkups and deliveries. They are usually women aged 25-45 years who have passed eighth standard in school and who come from the surrounding area in which they work. One ASHA worker typically serves between 500-1000 people. They are usually recruited and appointed through established community groups with ties to the government, such as self-help groups, the village Sarpanch, Anganwadi institutions, or the district or block program managers. In addition, ASHA workers undergo a training session at the local CHC before they begin their roles, and they participate in monthly meetings at the CHC with other ASHAs from the surrounding block.

Traditional roles of the ASHA include registering women with the PHC or CHC when they become pregnant, reporting those registrations to the ANM in
the block, encouraging and taking women to the local block PHC, CHC, or District Hospital to receive her ANC, advising women on appropriate nutrition, medications, and immunizations, counseling women on family planning options, increasing awareness in the village about the available rural health services, and accompanying a woman to the hospital for delivery. An ASHA worker is compensated with Rs. 600 from the NRHM for every woman she accompanies to the hospital for an institutional delivery.

**Auxiliary Nurse Midwives (ANM):** ANMs are trained nurses who carry out deliveries in public health care facilities. They also provide ANC services—giving out medications, postnatal care, and family planning services in the Subcenter, PHC, CHC, and District Hospitals, in addition to providing immunizations to children both in the Anganwadi Centers at the village-level and in health care facilities. There is usually one ANM assigned to a population of 5,000 people, equating to one ANM associated with each Subcenter. ANMs are also a direct point of contact for ASHA workers, encouraging them to motivate women to seek antenatal and postnatal care in addition to institutional deliveries. The ANMs hold training sessions for ASHA workers every 1-2 weeks to teach them about counseling women on proper nutrition, medications, and family planning options, and to review any challenges the ASHA has faced in her work.\(^9,28\)

**Anganwadi Workers:** Anganwadi workers are women from a village who are selected to run Anganwadi Centers. The centers serve as preschools for children below the age of 6, providing them with proper nutrition in addition to educational activities. Immunizations often take place in the Anganwadi centers, and the Anganwadi workers in turn are involved in helping the ANM and ASHA workers ensure that women obtain immunizations for their children. Additionally, Anganwadi workers are often involved in providing proper nutrition, counseling, and health education to pregnant women both for antenatal and postnatal care.\(^29\)

**Dai (Midwives):** The dai is a traditional midwife who may help with home deliveries of children (as opposed to in a health center). They also offer advice on antenatal and postnatal care for women who deliver at home. They typically come from a scheduled or other backward caste (SC/OBC) background and are often involved in cutting the umbilical cord. Dais were made part of the formal government health care system in the 1960s through a training program, but the role of the Dai is changing and in many places diminishing because of the emphasis on improving rates of institutional deliveries. Dais have now been removed from the formal government rural health structure, but still exist in many communities to help facilitate home deliveries.\(^30\)

**Informal Sector Providers:** Sometimes referred to as “quacks,” informal health providers are community-based, untrained, and unlicensed doctors who have learned medicine through experience. Villagers often visit these providers for common problems such as a cough, fever, and pain. They can sometimes act as unlicensed pharmacists, giving out medications and injections to patients.

**Sarpanch:** The Sarpanch is the village chief, and he is responsible for maintaining sanitation and infrastructure within a village or group of villages, in addition to serving as a point of contact for villagers who are facing hardships or challenges.

**Medical Officers:** The Medical Officers are licensed physicians (MBBS, BAMS, BHS) who are employed by the government at the public health facilities. There are usually 1-2 MOs staffed at a PHC, and 3-4 MOs staffed at a CHC. One Medical Officer is appointed to become the Superintendent of the facility based on seniority and/or experience.
Superintendent: The Superintendent is the senior most administrator in a CHC (which serves approximately 200,000 people). The Superintendent runs the facility, manages staff, and reports outcomes to the district level. The Superintendent also signs off on JSY incentives for women and ASHA workers, and organizes monthly meetings with all the ASHAs in the block. He is the liaison between the policymakers at the district level and above, and the community level health care staff.

Block Program Managers: Block Program Managers provide managerial, administrative, and other support for the NRHM program implementation in a given block. They also communicate block level data with the district-level officers.

District Program Managers: District Program Managers provide managerial, administrative and other support for NRHM programs to be implemented in a given district.

Chief Medical Officer (CMO): A CMO is the senior most administrator of the public health facilities and NRHM programs within the district. The CMO’s headquarters are within the District Hospital.

Private Doctors: Private Doctors are licensed physicians (MBBS, BAMS, BHS) who work in the private health care system. They are either employed by a private or trust hospital, or have started their own practice.
The Rural Health Structure

The NRHM has developed a tiered structure of facilities to manage health challenges faced by the community. The facility with the most basic resources and lowest staffing is the Subcenter, which typically deals with small problems at the village cluster level. The facility with the highest capacity to manage serious health complications is the District Hospital or Medical College. The different facilities are described in more detail in Table 3. Many patients may start at one facility, but be transferred to the next highest tier if they have a complication or problem that cannot be managed.

Table 3: India’s Public Health Care System

<table>
<thead>
<tr>
<th>Type of Center</th>
<th>Population Served</th>
<th>Frequency</th>
<th>Staffing</th>
<th>Beds</th>
<th>Health Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subcenter</td>
<td>3000-5000</td>
<td>1 per 5-20 villages</td>
<td>1 ANM + 1 male health worker</td>
<td>0</td>
<td>immunizations, basic medications, infection control, diarrhea</td>
</tr>
<tr>
<td>Primary Health Center</td>
<td>20-30,000</td>
<td>1 per 6 Sub-center, 2 per block</td>
<td>1 MO + 14 support staff</td>
<td>4-6</td>
<td>antenatal care</td>
</tr>
<tr>
<td>Community Health Center</td>
<td>100-300,000</td>
<td>1 per block</td>
<td>4 specialists + 21 support staff</td>
<td>30</td>
<td>normal deliveries (with minor complications), specialty care labor room, OT, X-ray</td>
</tr>
<tr>
<td>First Referral Unit</td>
<td>300-500,000</td>
<td>variable</td>
<td>1 surgical specialist + emergency care staff (in addition to CHC staffing)</td>
<td>30</td>
<td>24 hour emergency care, including EmOC, 24 hour blood storage, deliveries, C-sections</td>
</tr>
<tr>
<td>District Hospital</td>
<td>2-3 million</td>
<td>1 per district</td>
<td>Multi-specialty, surgeons, 1 chief female superintendent (in addition to CHC staffing)</td>
<td>100-150</td>
<td>deliveries with or without major complications, C-sections, sterilizations</td>
</tr>
</tbody>
</table>
Uttar Pradesh (UP) and Gujarat were chosen as the two states in which to focus our work.

We selected UP because it is a high-focus state for JSY, with only moderate success in the uptake and implementation of JSY. UP has a rural health infrastructure and facilities in place, but it has not seen a significant increase in the rates of institutional deliveries since the implementation of NRHM and JSY.\(^\text{16}\) We partnered with the non-governmental organization Save the Children, who helped us connect with the Chief Medical Officers (CMOs) in multiple districts in UP and set up site visits at a number of CHCs. Within UP, we visited the districts of Bareilly and Allahabad because our partner organization has contacts in those locations.

In contrast to UP, Gujarat is a low-focus state for JSY and has implemented a statewide program to promote institutional deliveries called Chiranjeevi Yojana (CY). Through CY, the government pays obstetricians in the private sector to perform a set number of deliveries for BPL families, with the aim of improving the quality of care that lower income mothers and infants receive during the delivery process. The program is cashless for the women, and each private doctor or hospital that participates gets paid Rs. 25,000 for every 100 deliveries. While the success of CY is reported as mixed in the literature, rates of institutional deliveries in Gujarat are higher than in Uttar Pradesh.

We partnered with a private facility within the Mehsana District that operates CY as well as a private cash incentive program to promote higher rates of institutional deliveries. The Hospital has reported almost 100% rates of institutional deliveries in the surrounding areas. We visited the Hospital to learn what aspects of their model have contributed to widespread success in promoting institutional deliveries, and to understand how the hospital interfaces with government programs. We visited villages and CHCs in the Mehsana district to identify any characteristics of the government-run programs that have contributed to high use of institutional deliveries and improved health outcomes.

In both UP and Gujarat, we visited a wide variety of CHCs, PHCs, Subcenters, and villages to identify characteristics that define high-performing, moderate-performing, and low-performing blocks and villages around their use of NRHM and institutional deliveries. We defined performance of a block or village as the rate of institutional deliveries. We identified high-performing and low-performing facilities with help from the Chief Medical Officers (CMOs) and District Program Managers (DPMs). We chose villages through discussions with ASHA workers at the health facilities. The ASHA workers helped us identify high-performing and low-performing villages from their own observations of which areas already have high use of institutional deliveries and which areas pose more difficulties in encouraging institutional deliveries. In addition, we visited both Hindu and Muslim villages, as well as villages with a Subcenter and villages without a Subcenter. Within each district, we tried to identify what characteristics were associated with the high-performing areas, and what barriers existed in the moderate- and low-performing areas through semi-structured interviews with a variety of actors, focus group discussions with women and health workers, and observations.
TABLE 4: Public Health and Maternal Health Care Indicators for Bareilly, Allahabad and UP*

<table>
<thead>
<tr>
<th>Health Indicator</th>
<th>Bareilly</th>
<th>Allahabad</th>
<th>UP Averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>% institutional deliveries</td>
<td>15.2</td>
<td>25</td>
<td>26.6</td>
</tr>
<tr>
<td>Mean maternal age at birth</td>
<td>19.3</td>
<td>19.6</td>
<td>19.7</td>
</tr>
<tr>
<td>Mean maternal education</td>
<td>1.78</td>
<td>1.59</td>
<td>1.60</td>
</tr>
<tr>
<td>Mean wealth index</td>
<td>-0.13</td>
<td>0.054</td>
<td>-.054</td>
</tr>
<tr>
<td>% Villages with trained birth attendant</td>
<td>70</td>
<td>93.7</td>
<td>81.6</td>
</tr>
<tr>
<td>% Villages with SC</td>
<td>97</td>
<td>92.1</td>
<td>88.9</td>
</tr>
<tr>
<td>% Villages with PHC</td>
<td>23</td>
<td>26.3</td>
<td>31.9</td>
</tr>
<tr>
<td>% Villages with District Hospital</td>
<td>0</td>
<td>0</td>
<td>1.56</td>
</tr>
<tr>
<td>% Villages with private hospital</td>
<td>18</td>
<td>23.7</td>
<td>18.3</td>
</tr>
<tr>
<td>% Villages with primary school (govt)</td>
<td>97</td>
<td>89.5</td>
<td>87.4</td>
</tr>
<tr>
<td>% Villages with primary school (private)</td>
<td>97</td>
<td>84.2</td>
<td>91.6</td>
</tr>
</tbody>
</table>

* Data from DHLS.

Studying the Actors in the Health Care System: Qualitative Methods

In both Uttar Pradesh and Gujarat, we used a qualitative, interview-based approach to collect data, adopting multiple data collection mechanisms like in-depth, semi-structured interviews with individuals and focus group discussions to ensure the reliability of data and subsequent analysis. A translator was used in most interview settings. Data was recorded as field notes. During fieldwork, to mitigate the risk of interview bias, multiple researchers from the field team took notes. Researchers met after the completion of individual analysis for debriefing and discussion. This method was adopted as a safeguard to minimize subjective individual interpretations. While we did not collect quantitative health-related statistics in the field, we did corroborate our interviews by looking at monthly district and block-level data, including rates of institutional deliveries, sterilizations and family planning methods, immunizations, and maternal and infant mortality.

The different types of data collected were as follows:

Government Official Interviews

Through facilitation by Save the Children in UP and a private hospital in Gujarat, we had structured and pre-planned interviews with government officials at the state, district, and block level. These interviews were typically about one hour long. They involved all the team members from Stanford and the Institute for Socio-Economic Research on Development and Democrac (ISERDD), and were translated from Hindi/Gujarati to English. The aim of these interviews was to understand the vision and outlook of the policymakers who are in charge of the design and implementation of health care programs at the state and center. These interviewees provided on the ground perspective of their community’s health status, and gave their viewpoint on the
barriers to institutional delivery and the state of maternal and neonatal health in their respective state, block, or district.

We also interviewed officials in the state health ministry, district and block level health officials, and officials in the hierarchy of the National Rural Health Mission. These interviews were structured, planned in advance, and were conducted either at the secretariat or the district headquarters for the CMHOs.

**Health Facility Interview**

We conducted interviews with the Superintendents and Medical Officers in public hospitals and health facilities run by the government. These included District Hospitals, Community Health Centers (CHCs), and Primary Health Centers (PHCs). When we first arrived at a given health facility, we introduced our group and our purpose to the Superintendent, who then described the health facility and often gave us a tour. The Superintendent then introduced us to other staff involved at the facility, including other MOs, ANMs, ASHA workers, Health Education Officers, and patients.

We made both planned and unannounced visits to CHCs and PHCs. Planned visits allowed for more formal discussions with Medical Officers and nurses, while unannounced visits gave a more accurate representation of the center’s functionality and capacity since the centers did not have a chance to prepare in advance for the visits. The pre-planned interviews were organized by our partners. In Gujarat, however, we had no official access to the state bureaucracy, and we identified and visited facilities with no prior planning.

**Village Interviews**

We conducted interviews at both the village and household level. We chose villages based on demographics and physical location. We made all attempts to include villages that were at varying distances from health facilities, and villages that had various religious compositions, including Muslim villages, Hindu villages, low caste villages, and villages with mixed populations. We often selected specific villages based on input from the ASHA workers we met at the health facilities. This was done to be representative of a sample village, capturing insights from both the average and outlier villages.

While visiting the villages, our team of eight split up into two teams and met with different actors, including women, husbands, mothers-in-law, other in-laws, ASHA workers, Anganwadis, ANMs, Sarpanches, and dais. These interviews would either take the form of semi-structured interviews with one or two actors, or a focus group discussion consisting of three to six women, men, or both. They would take around 1 to 1.5 hours each. The translator was instrumental in these interviews, providing the questions and answers in Hindi, English, and Gujarati to the participants.

**Health Worker Interviews**

Our first point of contact was a village health worker—an ANM, ASHA, or Anganwadi. These interviews served two purposes. First, they allowed us to establish a point of first contact to talk about health care use, challenges, and realities of the village. Second, the ANM, ASHA, and Anganwadi were trusted contacts in the

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1 A week-long training session was conducted before field research, which was conducted by ethnographic interview specialists at ISERDD. This included developing interview discussion guides for each actor in the system as well as field trials and simulations in New Delhi. Sample interview guides loosely guided our interviews and can be found in Appendix A.
village and could introduce us to different women and families.

Interviews with ANMs were mostly individual interviews, while those with ASHAs and Aanganwadis were a mix of individual interviews and focus groups of 4-5. Larger focus group interviews were conducted at CHCs during ASHA meetings and consisted of 15-30 ASHAs. These interviews lasted between 30 minutes to an hour, depending on the group size. In UP, we found that the ASHA was the de facto primary health worker in the village. In Gujarat, both the Anganwadi and the ASHA had a significant and equivalent presence in the village. The interviews with these health workers helped us gain insight into the actual duties and responsibilities of these workers, and juxtapose them with their duties on-paper.

**Family Interviews**

In every village we visited, we spoke to family members. This included mothers of varying ages, pregnant women, the in-laws of the mother, and men (husbands and other senior male family members). These interviews were conducted in teams of two to three people, and they were held either as a focus group of two to three people or an in-depth interview with one person. Whenever possible, we spoke to each type of family member to gain his or her specific insight on health care services, preferences, opinions on public and private health, and decision-making within the family structure.

**Observations**

At least one member of our team spent time in the facilities and villages we visited, making detailed observations on communication between health staff and patients, timeliness of service delivery, hygiene and cleanliness of environment, and any other noticeable components that may affect use and quality of health care.

*Summary statistics of the interviews and their location are given below:*

**TABLE 5: Number of Public Health Facilities Visited**

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Uttar Pradesh</th>
<th>Gujarat</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Hospitals</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Community Health Centers</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Primary Health Centers</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Additional PHCs and PPCs</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Private Hospitals</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>
### TABLE 6: Public and Private Health Facilities Visited, by State and District

<table>
<thead>
<tr>
<th>State</th>
<th>District</th>
<th>Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>UP</td>
<td>Lucknow</td>
<td>CHC Gosaiganj and Malihabad</td>
</tr>
<tr>
<td>UP</td>
<td>Bareilly</td>
<td>DH Bareilly, CHC Bithri Chainpur, FRU Fareedpur, CHC Bhamora, CHC Kuandanda, PHC Langura</td>
</tr>
<tr>
<td>UP</td>
<td>Allahabad</td>
<td>DH Allahabad, CHC Kaudihar, APHC Aanapur, CHC Kaundhihara, CHC Handia, PHC Handia,</td>
</tr>
<tr>
<td>Gujarat</td>
<td>Mahasena</td>
<td>Alka, Jatan, Shraddha, CHC Kheralu, PHC Pancha, Jeevanjyot Trust, PHC Hadol, PHC Sahpur</td>
</tr>
</tbody>
</table>

### TABLE 7: Number of Interviews Conducted, by Actor, Interview Type and State

<table>
<thead>
<tr>
<th>Actor</th>
<th>Interview Type</th>
<th>Total</th>
<th>Uttar Pradesh</th>
<th>Gujarat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health official</td>
<td>Personal Interview</td>
<td>10</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Superintendent</td>
<td>Personal Interview</td>
<td>11</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Medical Officers</td>
<td>Personal Interview</td>
<td>25</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>ASHA</td>
<td>Personal Interview</td>
<td>8</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Focus Group</td>
<td>25</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Large Town Hall</td>
<td>80</td>
<td>80</td>
<td>0</td>
</tr>
<tr>
<td>ASHA</td>
<td>Personal Interview</td>
<td>8</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Anganwadi</td>
<td>Focus Group</td>
<td>25</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Pregnant Women/Mothers</td>
<td>Large Town Hall</td>
<td>80</td>
<td>80</td>
<td>0</td>
</tr>
<tr>
<td>ASHA</td>
<td>Personal Interview</td>
<td>8</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Experienced Women</td>
<td>Focus Group</td>
<td>25</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Nurse</td>
<td>Large Town Hall</td>
<td>80</td>
<td>80</td>
<td>0</td>
</tr>
<tr>
<td>ASHA</td>
<td>Personal Interview</td>
<td>8</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Family Members (Male)</td>
<td>Focus Group</td>
<td>25</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Headman (Village, Gram)</td>
<td>Large Town Hall</td>
<td>80</td>
<td>80</td>
<td>0</td>
</tr>
</tbody>
</table>
Analyzing the Qualitative Data:

We analyzed the interview data using manual sorting and thematic analysis described in IDEO’s human-centered design toolkit. This method helped us refine the relationships between actors and processes, cluster data by location and actor type, and develop themes that represent the major barriers to ID. Finally, we generated insights for each theme. Based on each of these insights, we formulated opportunity areas for research and actions which can be pursued by the stakeholders.

Figure 3: Flowchart Diagram of Research Methodology
Section 5: Observed Roles of Actors

Table 8 depicts the actors we interviewed, their assigned and conventional roles in institutional deliveries (as defined by NRHM and previous literature), and any differences in their actual role in either promoting or preventing an institutional delivery based on observations from the field.

The first column lists the actor type, the second column lists their assigned or defined role, and the third lists any deviations from the conventional role that were observed in the field. If the deviation from the actor’s conventional role promotes an institutional delivery, it is denoted with a (+). If the deviation from the actor’s conventional role is a barrier to an institutional delivery, it is denoted with a (-). Observations on actor roles that matched the assigned roles were not re-written in the observation column; only deviations from the conventional roles are listed.

*Women and families do not have assigned/conventional roles in the institutional delivery process in the same way that many of the actors who are part of a formal health care system do. There is a wide range of opinions and decisions that women and their families make regarding institutional deliveries, and thus we did not define a conventional norm for their roles.

### TABLE 8: Conventional and Observed actor roles

<table>
<thead>
<tr>
<th>NAME</th>
<th>CONVENTIONAL ROLES</th>
<th>OBSERVATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women and their families</td>
<td></td>
<td>(+ or -) Women have own preferences and desires for how they receive care.</td>
</tr>
<tr>
<td>Women who are pregnant or who have had children</td>
<td>No predetermined role*</td>
<td>(+) Can convince other women in the village to deliver in a hospital.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-) Can dissuade other women in the village to deliver in a hospital.</td>
</tr>
<tr>
<td>Family members</td>
<td></td>
<td>(+ or -) Family members can often have the final say in whether a woman will deliver in a hospital or at home.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(+) Despite traditional views, mothers-in-law may change their</td>
</tr>
<tr>
<td>NAME</td>
<td>CONVENTIONAL ROLES</td>
<td>OBSERVATION</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Family members</td>
<td>No predetermined role*</td>
<td>minds in favor of institutional deliveries, particularly in light of changing community norms.</td>
</tr>
<tr>
<td></td>
<td>(-) In line with their experience and traditional views, mothers-in-law may prefer</td>
<td>- may therefore override the woman's desire to deliver at a hospital.</td>
</tr>
<tr>
<td></td>
<td>home delivery with a dai and may therefore override the woman's desire to deliver</td>
<td></td>
</tr>
<tr>
<td></td>
<td>at a hospital.</td>
<td></td>
</tr>
<tr>
<td>Community-based workers</td>
<td>Register women with the block when they become pregnant.</td>
<td>(+) May spend significant time and effort to identify, register, regularly visit, and counsel a pregnant woman over the course of her pregnancy without compensation.</td>
</tr>
<tr>
<td></td>
<td>Report to the Auxiliary Nurse Midwife in the block.</td>
<td>(+) Spend money out-of-pocket to fulfill duties, such as transportation costs or food and drink for women during deliveries.</td>
</tr>
<tr>
<td></td>
<td>Encourage and take women to the hospital for her antenatal check-ups and for labor.</td>
<td>(+) Available at any time for deliveries.</td>
</tr>
<tr>
<td></td>
<td>Advise women and increase awareness about health services.</td>
<td>(+) Sought out for health concerns apart from pregnancy-related issues.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(+) Call 108 ambulances for transportation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(+) Navigate hospitals for the women.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(+) Take women to private hospitals if the government hospital is not satisfactory.</td>
</tr>
<tr>
<td>NAME</td>
<td>CONVENTIONAL ROLES</td>
<td>OBSERVATION</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>ANMs / FHWs</td>
<td>Trained nurses who work in the community, both at the Subcenter and CHCs as well as at the Anganwadi Centers in the village.</td>
<td>(-) Hold additional forms of employment to compensate for limited earnings. (‐) May not live in the village where they work.</td>
</tr>
<tr>
<td></td>
<td>Conduct antenatal checkups, give prenatal and postnatal advice, test for various conditions that lead to complications for the mother like hypertension and hemoglobin levels, and administer vaccinations for the mother and child.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Serve as the main point of contact for the ASHA workers.</td>
<td></td>
</tr>
<tr>
<td>Anganwadi workers</td>
<td>Run Anganwadi centers where children are given nutrition, immunizations, and education.</td>
<td>(+) Assist the ASHA and ANM in encouraging and delivering immunizations, and promoting usage of the public health infrastructure</td>
</tr>
<tr>
<td></td>
<td>Provide proper nutrition, counseling, and health education to pregnant women,</td>
<td></td>
</tr>
<tr>
<td>Dais (Midwives)</td>
<td>Deliver children who are born at home in the village, as opposed to at a health center.</td>
<td>(+) Refuse and refer any complicated births to the hospital if it requires technical equipment and medicines. (⁺) In Gujarat, remain the first point of contact in the community, giving antenatal and postnatal advice but advising mothers to deliver at a hospital.</td>
</tr>
<tr>
<td></td>
<td>Formerly a formal part of the government health system, but now no longer involved since the inception of NRHM programs.</td>
<td></td>
</tr>
<tr>
<td>NAME</td>
<td>CONVENTIONAL ROLES</td>
<td>OBSERVATION</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Dais (Midwives)       | (+) In Gujarat, accompany women to the hospital at the time of delivery, often resembling the role of a typical ASHA worker.  
                        | (-) Some have become antagonistic towards the public health system, commenting that C-sections and tubectomies are more common in hospitals and should be feared.  
                        | (-) Continue to operate successfully in remote areas where access to health care is difficult.                                            |
| Religious Leaders     | Traditionally not involved with a woman's pregnancy.                               | (+) ASHAs and other health care workers may elicit and receive the support of religious leaders in encouraging people to receive medical care, usually vaccinations. |
| Sarpanch              | Village Chief who is responsible for maintaining sanitation and infrastructure within a village or group of villages.  
                        | Traditionally not involved with the woman’s pregnancy.                                           | (+) ASHAs may elicit and receive the support of the Sarpanch in arbitrating disputes with the dai, typically in favor of the ASHA. |

**Private health care providers**

<p>| Private doctor (licensed physicians with MBBS, BAMS, or BHS) | It is a commonly held view that doctors in private practice offer better care than the government health system. | (+) Some private doctors still perform deliveries for lower SES women and do not charge them the full amount, for the sake of service. |
| Informal Sector Providers | Untrained &quot;doctors&quot; who are visited for common problems such as cough, fever, and pain. | (-) Sometimes visit women after they have had home deliveries to give injections and medications outside the sanctioned medical sphere. |</p>
<table>
<thead>
<tr>
<th>NAME</th>
<th>CONVENTIONAL ROLES</th>
<th>OBSERVATION</th>
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</thead>
<tbody>
<tr>
<td><strong>Public health care providers</strong></td>
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</table>
| Medical Officer  
Licensed physicians with MBBS, BAMS, or BHS | Physicians who are employed by the government and staff public health facilities. | (+) Lady Medical Officers (LMO), despite not being experts in gynecology and obstetrics, deal with most pregnancy cases in the CHCs.  
(-) Some MOs place blame on patients for being poor and illiterate about the benefits of institutional deliveries, perhaps removing motivation to improve institutional deliveries from the providers end. |
| Superintendent | An MO who is appointed by the DPM or BPM to run the facility, manage other staff members, and report outcomes to the district level.  
Serves as the liaison between the district-level administrators and the Medical Officers, nursing staff, and ANMs who provide health care at the block level.  
Signs off on incentive checks for JSY, and interacts with the ASHA workers during monthly meetings. | (-) Some place blame on patients for being poor and ignorant about the benefits of institutional deliveries.  
(-) Turnover is frequent, which can lead to lack of cohesion of staff and disorganization at the facility. |
| CMO | Oversees the rural health and NRHM structure in a particular district.  
Involved in policy implantation and compliance with state and national health guidelines across the district, but doesn’t have a day-to-day interaction or role in hospitals. | |
### TABLE 9: Conventional Roles and Observation of Public Health Care Facilities and Services

<table>
<thead>
<tr>
<th>PUBLIC HEALTH CARE FACILITIES AND SERVICES</th>
<th>CONVENTIONAL ROLES/FACTS</th>
<th>OBSERVATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subcenter</td>
<td>Serves as the first point of contact between the village and the public health system. Usually, deliveries do not occur here. (+) In some deliveries will occur depending on the availability of resources and staff members, or if converted into an accredited center. (-) Some are vastly understaffed and lack even basic medications. These centers see very few patients per day.</td>
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<tr>
<td>Block PHC</td>
<td>Serves as the first point of contact between the Medical Officer and the village. Usually deliveries do not occur here. (+) Some manage deliveries if they have the resources and staff to do so.</td>
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<tr>
<td>CHC</td>
<td>First access point for people to multi-specialty care, including providing services to conduct deliveries. Qualifies as an FRU if the facility has resources and staff to supply around-the-clock emergency care, including EmOC. (-) In some, there are delays and backlogs in issuing payments to ASHAs. (-) Some staff members will ask for payments even though care is supposed to be free. (-) Some have a low standard for hygiene and safe medical practices, with uncapped syringes and other supplies lying on the floors. (-) Even though deliveries are supposed to be supervised by an MO, the nurses will often carry out the delivery on their own. (-) Virtually no gynecologists were observed at CHCs.</td>
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<tr>
<td>PUBLIC HEALTH CARE FACILITIES AND SERVICES</td>
<td>CONVENTIONAL ROLES/FACTS</td>
<td>OBSERVATION</td>
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<tr>
<td>CHC</td>
<td></td>
<td>(+ or -) Deliveries with complications or women needing C-sections will often get referred to the District Hospital. (+) Surgeons from the District Hospital come once a month to conduct sterilization camps, thus providing local access.</td>
</tr>
<tr>
<td>District Hospital</td>
<td>There are 1-2 per district, usually one for males and one for females. Considered the public facilities best equipped to manage deliveries, particularly those that have serious complications. Sterilizations occur here.</td>
<td>(-) Some staff members will ask for payments even though care is supposed to be free. (-) Quality of care and hygiene vary by district, and is reflected in patients’ opinions of the hospital. (For example, the hospital in Bareily kept more than one woman on a single bed, had a low level of cleanliness, and employed staff members who were rude to the patients. Women in the surrounding areas had a negative impression of the District Hospital.)</td>
</tr>
<tr>
<td>Emergency Management and Research Institute (EMRI)</td>
<td>Partnered with GVK in many states to provide the 108 ambulance emergency call service. Anyone should be able to call 108 from any location, and an ambulance will be dispatched to the location within 30 minutes. Ambulances will take patients to the closest government health facility that is equipped to manage the patient’s medical emergency.</td>
<td>(+) In Gujarat, in some districts, the ambulance will take patients to whichever hospital they want to go to, including private hospitals. (-) Despite their goals, 108 ambulances do not always make their scene times.</td>
</tr>
<tr>
<td>PUBLIC HEALTH CARE FACILITIES AND SERVICES</td>
<td>CONVENTIONAL ROLES/FACTS</td>
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</table>
| Emergency Management and Research Institute (EMRI) | 50% of calls to them are related to woman’s pregnancy. A woman who is taken to the hospital for her delivery by 108 ambulance can have up to 1 other person ride in the ambulance. | (+) = observed actions that may promote an institutional delivery  
(-) = observed actions that are barriers to an institutional delivery |
Women’s experiences throughout the stages of pregnancy are highly variable. While thematic patterns can be drawn from the aggregate of interviews conducted (and are described elsewhere in this report), it is important to also recognize the highly individualized nature of pregnancy and the series of decisions leading to delivery and beyond.

The journey of pregnancy can be interpreted in four distinct phases: pre-conception, pre-natal, delivery, and post-natal periods. Several factors including religion, family structure, socioeconomic status, contact with health services, and prior experiences and perceptions can influence the decisions women and families make at various phases of the pregnancy. In combination, these factors create differential choices in ANC, venue of delivery, use of family planning, access of government health care services, and maternal and neonatal outcomes. Below is a list of some factors that were observed in the field that may be important in affecting decisions at various stages of pregnancy.

### Pre-conception

This is the phase before the woman has conceived the child. Some factors that appear to be relevant are:

- What is the age of the woman?
- When was she married?
- For how long has she been married?
- How many pregnancies and deliveries has she had in the past?
- What is the SES of the woman and her family, and that of her in-laws?
- What is the structure of the family?
- Who are the key decision-makers in the family?
- How much input or decision-making power does the woman have in her household?
- How many kids have the woman, couple, and family decided to have? Are these at odds with each other?
- Do the family members have an opinion about the appropriate timing and spacing of the delivery of children?
- What is the societal norm on the size of the family? What is the caste-based or religious norm, if there’s any?
- Are there preferences for gender or age distribution in the children that are born?
- What are the past experiences of the family members who have delivered?
- Does the woman use any form of contraception?
- Where do the family members usually deliver?
- What is the norm in the village for place of delivery?
Ante-Natal

The length and scope of activities that take place during pregnancy are such that the woman comes into contact with the greatest number of influencers during this period.

- How long after conception does the woman come to know that she has conceived?
- What method does she use to find out about her pregnancy?
- Does she interact with an ASHA during the first three months?
- What does the ASHA do for the pregnant woman?
- Does the woman have ultrasound testing?
- Does the woman go to a health care facility or doctor (either public or private) for antenatal care (ANC)?
- Has her name been registered at the SC or CHC?
- Has she received ANC for previous pregnancies? Were these ANCs done at a private or public facility/doctor? Who took her to the place of ANC?
- Does the woman receive a urine albumin test?
- Does the woman receive a hemoglobin test?
- Does she have a Tetanus vaccine?
- Does she take iron tablets?
- Other medication?
- Does the woman have any knowledge of the pregnancy being normal or complicated?
- Does the ANM in the village personally visit the woman to ensure she has had her proper immunizations and medications?

Delivery

This is the shortest phase but can be a key pivot point in the woman’s decision-making process. At times, decisions made during the delivery are not those planned in advance and are made as an emergency judgment call by the family, other actors, public health workers, or herself.

- Does the delivery take place in the home, public hospital, or private hospital?
- If the delivery is at the hospital, was it first attempted at home?
- Is there a decision to deliver at the hospital before going into labor?
- Is the delivery normal or complicated?
- Is the delivery planned, or does it happen at a particular location due to emergency or extenuating circumstances?
- Who makes the decision of where the delivery takes place?
• How close does the family live to a health care facility that is equipped to handle deliveries?
• What type of transportation is used to get to the facility?
• What are the financial costs of the delivery? Do family members lose any wages because they are away from their jobs?
• If delivering in a private facility, what are the costs associated with the delivery?
• If delivering in a public health facility, are there any payments made unofficially/illegally to staff members? To whom were these payments made?

Post-Natal

This is the final phase of the maternal care process. Although it occurs following delivery, activities and interactions here can have an important short-term impact on the health of the mother and newborn and a long-term impact on family planning, pregnancy, and delivery decision-making for the woman and other influencers.

• Directly following her delivery, does anyone give the woman advice on post-natal care, such as breastfeeding and nutrition? Who gives this advice?
• Is there a follow-up appointment with the institution where she delivered or any other health facility?
• If the delivery takes place at home, do the mother and child receive their vaccinations?
• Does the ASHA or ANM follow-up with the mother to ensure that her newborn receives all necessary vaccinations?
• What is the role of the ASHA for the woman and child after the delivery?
• Does the woman receive her JSY incentive? How long does it take to receive the payment?
• Does the woman face challenges in receiving her payment?
• Has the woman adopted any family planning methods?

Furthermore, journey maps have been developed for individual cases, which are samples of the range of interviews conducted in this study. These journey maps illustrate the variable paths that women have taken during their pregnancies and the various inflection points that may become opportunities for intervention to improve maternal and neonatal health outcomes.
1. Muslim woman who delivers at Home, UP

<table>
<thead>
<tr>
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<th>Delivery</th>
<th>Postnatal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S</strong>he knows the ASHA because of vaccinations conducted at schools, but the ASHA has little personal contact with villagers. The ASHA is not from this community nor is Muslim like the majority of the village.</td>
<td><strong>T</strong>he ASHA has started registering women recently. This did not used to occur in the past, but she is registered. She has very little further contact with the ASHA because she does not visit the household again.</td>
<td><strong>A</strong>t the time of delivery, the family sticks to what they had decided before. With no relationship with the ASHA, they do not think to contact her at the time of delivery, and based on their perceptions of the government hospital, they decide to deliver at home.</td>
<td><strong>T</strong>he ASHA worker comes to register the child’s name. This is a recent change that this community has seen.</td>
</tr>
<tr>
<td><strong>T</strong>he community has heard through word of mouth from their neighbors about government programs intended to support maternal and child health, but the community has not seen much activity around this in their community. Residents feel as though their community is being left out of these programs.</td>
<td><strong>N</strong>o ANC is sought out since she has not used it in the past and the ASHA does not encourage her.</td>
<td><strong>E</strong>ven though she wanted to deliver in the hospital, there is no one willing to take her there, so the delivery proceeds at home with the assistance of a Dai. If a severe complication such as bleeding arises, her family will try to arrange transportation to the nearest hospital, but bad road and weather conditions may impede this.</td>
<td><strong>V</strong>accinations are performed at the school only by the ASHA. But as a daughter-in-law in the household, she is not permitted to leave the house on her own. The family would prefer if the ANM could come door to door to do vaccinations. The family visits the ANM at the SC to get vaccinations.</td>
</tr>
<tr>
<td><strong>N</strong>evertheless, the community, including her family, recognize that there has been a change over time, with more women visiting the hospital than before because of an increased availability of medicines and because of higher awareness of the JSY program.</td>
<td><strong>S</strong>he decides that she wants to deliver in the hospital to receive the Rs. 1400, but her family members disagree. They have heard from neighbors that you are treated poorly in the government hospitals. However, the decision is made that the hospital would be preferable if there were to be complications during the delivery.</td>
<td><strong>S</strong>he doesn’t want to have any more children. She’s aware of OC but has heard about side effects and so refrains from taking them. Tubectomy is not an option because of her religious background, and the religious leader in her village and her family members will not allow tubectomies.</td>
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</tbody>
</table>
She has three children: 10, 8, and 6. All three of them are girls.

The ASHA tells her husband about JSY.

She is taken to the hospital a couple of times by her husband for checkups.

Her husband exhibits knowledge of the ANC record, which has been filled in with some of the completed vaccinations.

The ASHA is Hindu, comes from another village, and makes visits to homes, but doesn’t pay enough attention due to her intermittent visits. Despite her negative reputation, the ASHA comes and she takes her advice.

The ASHA comes 3-4 times and advises them to go to the hospital for delivery because it has, in her opinion, better care and facilities.

The ASHA gives no nutritional advice and does not measure blood pressure at any point of time.

They initially try to give birth at home and the dai charges Rs. 300-400, but she tells them to go to the hospital when the birth is not going well.

To travel to the hospital, her husband books a bullock cart for Rs. 400. The husband, wife, ASHA, and bullock cart driver travel on the bullock cart. The Dai comes too to get a ride back to her village.

The neighbors take care of the older children during the delivery.

At the Bithri District Hospital the cleaning lady asks for Rs. 20.

She does not receive any food during the stay, even though she is supposed to.

They stay at the hospital for eight hours and return by a shared Jeep.

Her husband finds the hospital good because the delivery goes smoothly with the ANM delivering within five minutes of their arrival. He feels that “all the responsibility was transferred to the hospital.”

They receive the JSY check ten days later at Bithri CHC.

Her husband does not want family planning because he wants a boy child.

For the next child, her husband would go to the hospital.
She is a 19 year old married homemaker. Her husband is a 22 year old unemployed college graduate who also farms wheat. Her family is above the poverty line. Her mother-in-law makes a lot of the decisions in the household related to pregnancies. Her elder sisters-in-law, who live in the same house, have lost multiple children at the hospital during delivery. She is extremely shy and not very talkative. She’s also the youngest daughter-in-law in the household. She has one child.

Both the dai and the ANM visit her to do checkups. The dai does her checkup by feeling her belly with just her hands. The ANM visits them since she lives nearby. She gives her advice during checkups regarding nutrition and iron pills. During the delivery, she can give her an injection to help with the process but Rashmi didn’t deliver with the ANM. The ANM also has a car in case of an emergency which she allows the villagers to use.

Her mother-in-law calls a dai from a neighboring village. The delivery goes smoothly with no problems. She delivers a baby boy. The family does not fear the hospital but they don’t go to the hospital for JSY because they don’t want to be seen as people who sold out for Rs. 1400. The choice is between the private hospital or home. Due to their bad past experience with the elder daughter-in-laws at the hospital, they choose home as the venue for delivery.

The ANM does regular post-delivery checkups and on-time vaccinations.
She hails from a poor, but relatively better off household in her community.

Her previous pregnancies were delivered at Ankur private nursing home and she feels she received good care. Her family is able to afford private services and felt private care is superior to government care.

She feels government hospitals do not provide good care, based on what she has heard from neighbors.

When she suspects she is pregnant, she visits a local private doctor who confirms her pregnancy with a urine test.

The ANM comes to register her with the local CHC.

At four months, she visits Ankur Hospital for an ANC checkup. She feels she is treated well.

Much of her advice about diet and pre-natal health comes from her mother, but the doctor at Ankur Hospital has also advised her about diet.

The ANM does make visits to her home but doesn’t offer much advice, though she does provide medical sercides like a tetanus shot.

The ANM administers a tetanus shot.

At the time of delivery, her husband take her to Ankur Hospital on his motorcyle.

The delivery costs Rs. 3000 at the private hospital.

At the hospital, there are few male staff which puts her at ease and she is treated well by staff.

Before being discharged, she isn’t given much information about post-natal care.

The ANM makes door-to-door visits to inform her about immunizations for her children and administers them at the house.

She doesn’t want more children and would consider an IUD to prevent pregnancy. She is not sure where to get them, but has used pills from the ANM before for spacing so she may inquire again with her.
The family and community are well-informed about 108 and know how to use it, especially since it’s been around for 5 years.

The community perception is that private hospitals provide high-quality care and people trust certain facilities.

The family has appropriate documentation to qualify as BPL.

She is registered at the PHC and given a vaccination and ANC record which she takes with her to all prenatal visits at the PHC. At the time, she is informed about CY and its benefits.

The ASHA visits about once per month to inform her of vaccines and ensure that prenatal medicines are taken properly.

Makes weekly visits to Shahpur PHC for ANC where they check urine, blood, BP, weight and give iron tablets and vaccines.

She is diligent about taking her iron tablets throughout the pregnancy.

Occasionally, she visits Bhavna Hospital, a private facility in Vadnagar, for some of her ANC visits. Here, her first visit is Rs. 100 and subsequent visits are Rs. 50.

In the fifth month, she has sonography done at Vadnagar based on the doctor’s advice, due to pain. She went directly to Vadnagar because she felt familiar with that hospital and doctor. The sonography cost Rs. 500.

The delivery occurs late at night. Normally she would call the ASHA to accompany her but because of the late hour, they do not call her.

They called 108 and the ambulance arrived in 10 minutes.

The ambulance takes her to Bhavna Hospital. Her husband, mother-in-law, and a few other relatives accompany her.

The care is good at the hospital.

She stays at the hospital for 24 hours. The baby is given vaccinations within 24 hours.

AnM makes door-to-door visits to inform her about immunizations for her children and administers them at the house.

She doesn’t want more children and would consider an IUD to prevent pregnancy. She is not sure where to get them, but has used pills from the ANM before for spacing so she may inquire again with

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**5. Hindu woman who delivers at a hospital, Gujarat**

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Analysis of data collected through interviews, focus groups, and observations yielded several insights on how various factors promote or deter institutional delivery. These insights are categorized into broader themes, which suggest the core issues at play in institutional deliveries. Some of these insights lend themselves to opportunity areas or gaps in existing structures that may require further study.

### THEME 1: Financial Costs and Incentives

Financial considerations are a key component of the decisions surrounding institutional delivery, particularly for families whose resources are limited. Families are presented with an array of options for seeking maternal health care, each with varying associated costs. On one end of the spectrum, families may choose government facilities where they are offered a cash incentive for delivery. On the other end, they may choose to deliver at a private facility and pay fees out-of-pocket that range upwards of several thousand rupees. Several factors determine how financial costs influence the decision to seek institutional delivery, and the costs associated with health care can both promote or impede institutional delivery. Insights within the theme of Financial Costs and Incentives are described below.

**If quality of care is perceived to be high, then people are willing to pay for it and forgo JSY incentives.**

Private hospitals have a broad presence, even in rural UP, and many families have geographic access to multiple private medical facilities. Thus, these families are faced with the choice between high cost private and low cost government hospitals for their delivery. Quality of care is an important factor in assessing the financial value of care received at different facilities. In general, when quality of care is valued high enough, a family may choose to pay more for it, even forgoing JSY incentives.

Generally, private hospitals are perceived to offer superior service, while government hospitals are perceived to offer inadequate care, thus justifying the higher cost for better care. While actual quality of care offered at private hospitals varies, many people believe that the act of paying a fee to a doctor or hospital ensures that the medical team is accountable to the patient. This accountability is thought to result in higher quality and more responsive care. Within the government structure where most medical services are free of charge and the staff is salaried, families feel that there is no mechanism to ensure accountability and quality of care, which are valued higher than cash incentives by families not in dire financial strains. Thus, private facilities are often preferred despite their higher cost, and many choose to deliver in a private hospital over a government facility.

**The additional costs of delivering at a government hospital, including transportation, gifts for staff, and unexpected medical expenses, may disincentivize the use of the public health system.**

The Rs. 1400 offered by JSY is intended to incentivize institutional delivery for poor families for whom cost is a significant barrier to health care access. However, the amount and payment structure of JSY fails to account for the true cost of hospital delivery. While delivery at a government facility is touted as a free service, most families incur additional costs including transportation, gifts for staff, and unexpected medical expens-
es. These additional costs may be sufficiently inconvenient or high to disincentivize the use of the public health system. While some of these costs are anticipated, others may not be, and can place a financial burden on families despite the incentive offered. Furthermore, the timing of the JSY payments presents a barrier. Many of these expenses must be paid in advance of receiving JSY funds, requiring that families come up with sizeable sums of cash. For instance, even before arriving in the hospital, transportation costs can run upwards of several hundred rupees.

Within the hospital, under-the-table payments to staff are not uncommon. In some cases, these payments are a reflection of the tradition of gift-giving after the birth of a child. Many people willingly give gifts of money or saris to Ayahs, women hired to clean and care for babies in the hospital, similar to the way dais are traditionally acknowledged for their services in home deliveries. However, not all patients plan to offer gifts or payment, particularly since government hospital deliveries are billed as cashless, and payments and gifts are not allowed. Nevertheless, gifts and payments are often demanded by non-medical staff members at the hospital, thus placing additional burden on families to pay up. Aside from under-the-table transactions, patients may face unexpected medical expenses during a hospital delivery. Often times, patients’ families will be asked to purchase supplies or medicines from outside vendors, incurring personal costs that are not reimbursed. When tallying these additional costs, a family may find that they have actually spent more than the incentive amount.

While JSY incentivizes institutional deliveries in low-SES households, it can deter middle-SES households who fear appearing to be beneficiaries of a public handout.

In some cases, JSY functions as intended, with the cash incentive motivating delivery at a government hospital. This is particularly true in very poor families for whom the Rs. 1400 represents a significant addition to their household income and for whom JSY incentives institutional delivery. However, JSY has an unexpected effect when it deters middle-SES households who fear appearing to be beneficiaries of a public handout. Maintaining status and reputation is important to many families in rural India, particularly those who are among the middle or top economic and social strata within a village. For these families, availing the free delivery and JSY incentive offered at government hospitals is viewed as damaging to their reputation. A mother-in-law expressed that neighbors would view the family negatively if she had taken her daughter-in-law to a government hospital for delivery because they might think she had done so only for the Rs. 1400. In these cases, private hospital deliveries are seen as aspirational, and the more money spent on the daughter-in-law’s delivery, the more status accrued. However, the avoidance of a government handout also results in home deliveries when the family forgoes hospital delivery altogether.

For public and private practitioners, the tension between their desires for community service, financial gain, and job security impacts their work.

Private Practitioners

Health care practitioners enter the field with various motivations. Private practice is typically more

Maids who provide cleaning services in the hospital
lucrative than government service, thus financial gain may be more valued by those who enter medicine through this route. Private practitioners also value the independence and absence of bureaucracy when providing care in the private market. One private practitioner felt she was better able to meet her patients’ needs in the private sector while also maintaining financial viability. A challenge of entering private practice, however, is that to do so requires initial capital for the expenses of setting up a business. Some physicians and administrators within the government system admitted that they would have entered the private sector if they had had enough resources to do so early in their careers.

**Public Health Practitioners**

Public sector employment offers its own benefits as well. Government employment offers security and the opportunity to ascend the ranks. Those with administrative or political ambitions may find the bureaucracy appealing. Still others feel that government service provides an opportunity to serve the community. The same motivations are true for ASHAs as well. Almost all ASHAs said the primary reason they entered into the role was to engage with their communities and to help women receive good health care. ASHAs take a pride in their work and their role in the community, and they express a sense of purpose and fulfillment in carrying out their duties. Some ASHAs stated that they feel the position gives them status among their neighbors, and that they are treated with more respect and are seen as knowledgeable.

The balance between financial motivation, social motivation, and job security is a delicate one. Even doctors and ASHAs serving with a higher mission stated that they would eventually stop if their work is financially unsustainable. However, it seems that in practice, there are many who serve despite financial loss. Many ASHAs felt underpaid and undervalued, but maintained a continued commitment to serving their communities despite financial barriers.

**ASHAs feel the timeliness, regularity, security, amount, transparency, and structure (incentives vs. regular salary) of payments are not commensurate with the amount of work they do.**

**Timeliness and Regularity of Payments**

The balance between financial and social motivation is hugely skewed for ASHAs given the extremely high level of dissatisfaction with their compensation. The current structure for compensating ASHAs is a quota-based incentive of Rs. 600 after she has accompanied a pregnant woman to a district or CHC hospital for a delivery. A continuing challenge is ensuring that the incentive checks are transferred to ASHAs in a timely fashion. There is considerable variability in this process, with a primary predictor being the track record of the CHC Superintendent, who oversees a regional subset of ASHAs.

In a notable example of backlog, the ASHAs reporting to a particular CHC informed us that while recent payments have been timely, payments for several months in previous years had not been issued. The Superintendent had neglected to sign off on the checks. Given the rapid turnover in hospital leadership, the Superintendent in question no longer worked in the CHC, thus further delaying the issue. Such backlogs are
not unusual, and many ASHAs seem to have lost hope in recouping those payments. In other cases, hospital administrators issued and signed incentive checks in a timely and regular fashion. ASHAs reporting to these CHCs faced little delay or difficulty in receiving payments.

**Payment Structure**

Many ASHAs are unsatisfied with the current incentive-based structure of payments. ASHAs said that their work requires front-loading while payments are dependent on one outcome that is not guaranteed. Specifically, an ASHA may spend significant time and effort to identify, register, and regularly visit and counsel a pregnant woman over the course of her pregnancy. Furthermore, an ASHA may encourage and accompany a woman to her ANC visits, which is also uncompensated. However, the only effort that is compensated is the final delivery by the pregnant woman at a government institution, which may not happen despite an ASHA’s investment of time. Thus, she may receive no payment despite having spent quite a bit of time fulfilling her duties simply because one component of the required tasks was not fulfilled.

**Payment Amount**

Given that ASHAs are required to attend trainings, go to frequent meetings, and carry a heavy workload, many feel that the incentive amount does not adequately compensate their time and effort. Many ASHAs expressed frustration with the small amount they’re paid per delivery (Rs. 600). ASHAs put enormous time and effort in making regular village rounds, attending to pregnant women in their villages, and are available at any time for deliveries. Most ASHAs felt that this amount of time is insufficient to meet their own families’ financial needs. In fact, many said they would receive better return on their time if they pursued different types of work, and that if not for the nonfinancial gains, their work as an ASHA would not be viable.

ASHAs also report spending their own money to fulfill their duties. This often includes transportation costs associated with getting themselves and the pregnant woman to ANC visits or to the hospital for delivery. Transport fees can often reach Rs. 50 per person or more, representing a significant financial burden. Others

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**Opportunity Areas**

**Explore ideas for improving accountability.**

Lack of accountability is a reason families do not prefer to use public hospitals. Currently, the lack of direct fees is perceived to result in poor accountability of hospital staff. Future studies should seek to identify strategies to improve accountability in the public health system. Existing methods include consumer forums,\(^i\) and additional strategies may include community forums\(^v\) and staff evaluations. Furthermore, many patients were unhappy with the practice of staff requesting gifts or money, or asking for payments for services covered under JSY. The prevalence of these practices should be identified, and strategies to limit their occurrence must be investigated.

**Create opportunities to link JSY with perceptions of quality of care.**

We found that cash incentives through JSY have had mixed success. One reason for poor success is that paying for services is associated with perceived higher quality of care. Further studies may seek to expand on this insight and identify ways to incorporate this idea into the existing health care delivery model. For instance, incorporating co-pays in public health care may have an effect on perceived quality and therefore use rates. This hypothesis requires further investigation.

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\(^i\)Consumer forums are legally bound by the Consumer Protection Act and National Consumer Grievance Redressal Commission, which allows citizens to challenge and sue against medical malpractice and negligence. This is done at the national, state and district level. [http://ncdrc.nic.in/](http://ncdrc.nic.in/)

\(^v\)Community forums are a gathering of community members to air civil grievances. There are no legal consequences, but these forums do have the capacity to put social pressure on businesses and government entities.
said that they often spend from their own pocket to provide food and drink for the women during their deliveries. These up-front costs prior to reimbursement place an additional burden on an already small earning. In a few limited cases, we found that ASHAs had taken on additional work to compensate for their limited earnings. Because the rules stipulate that an ASHA cannot take on any other employment, this represents a point of conflict between guidelines and reality.

Conflict with Household Duties

A frequent complaint by ASHAs is that their required duties impinge on their ability to fulfill household obligations. Some ASHAs even admitted that this creates conflict with their husbands or in-laws, though this was not a universal sentiment. One ASHA said that her husband feels frustrated that they must spend additional funds to hire laborers to complete farm work that she could have done with no added expense. More commonly, ASHAs found it difficult to manage household duties such as cooking, caring for children, and meeting the expectations and needs of in-laws. When probed, however, many ASHAs seemed to have adapted to the added demands of their time by establishing schedules for completing their ASHA duties and delaying household tasks a bit later than their non-ASHA counterparts.

Desire for Salary

A common sentiment among almost all ASHAs is the desire for their role to become permanent government employment and for their compensation to be paid as a salary. Many felt that a stable salary would be a more reliable source of income to support their families and would more fairly reflect the nature of their work. Furthermore, a salary would avoid the vagaries of incentive-based compensation. Beyond the financial aspects, many ASHAs felt their work should be valued on par with that of employed government servants. Many desired the status, respect, and security that would be afforded by such a designation. In fact, some ASHAs have continued in their roles for many years with the hope that in the future, they may be taken on as permanent employees.

Opportunity Areas

Develop alternative compensation strategies that would both incentivize performance and meet the financial needs of community health workers. Financial incentives for health workers are a critical component of attracting and maintaining talent in public hospitals and the public health system. Given that the current incentive-based payment structure was a source of dissatisfaction among ASHAs, future efforts should prioritize exploration of alternate compensation strategies that would both incentivize performance and meet the financial needs of community health workers. Potential strategies to explore might include advanced payments to cover out-of-pocket costs or expansion of the range of activities for which an ASHA may be compensated. Furthermore, the current process of paying ASHAs has resulted in numerous cases of delays and backlogs. Further efforts should seek to identify bottlenecks that delay the processing of payments and to identify opportunities for streamlining the process.
Almost all women and their families describe quality of care as a major influencer of their decision to seek care in a facility. Quality of care can be influenced by hygiene, respect for patients from staff members, transparency of health care staff, wait times, efficacy of medications and treatments, and general leadership of a health care facility. There is wide variation in the quality of care patients perceive at different health care facilities. Public hospitals are often associated with low quality of care, especially in comparison to private hospitals.

**Private Hospitals are perceived to have higher quality of care**

A common sentiment shared between women and their families, across all of the areas we visited, was that the quality of care at private hospitals far surpasses that at government hospitals. Even some health care workers, whose job is to promote the public health delivery system and encourage women to use it, admitted that they would go to a private hospital if they had the choice. As mentioned above, people perceive differences in quality of care at private hospitals through respect for patients from staff members, transparency of health care staff, wait times, efficacy of medications and treatments, and general leadership of a health care facility. Many women feel that if they can afford private care, they will seek it over public care. In fact, women who seek private care forego the JSY monetary incentive of Rs. 1400 to do so.

**People believe they will receive high quality of care if they pay.**

One reason that public care may be perceived to be inferior to private care is the mere fact that it is free. A mother-in-law of a woman who died during childbirth, said that the medicines the government hospitals give are cheap or free but ineffective, and that if one wants good medications, “you are expected to pay.” Many patients who could afford to pay for private care suggested that they were willing to pay because one receives better care if you pay for it. In addition, some people consider the acceptance of free government services to be a mark of their status and claim that they would go to a private hospital and pay for services to “save face” in front of their family and community.

**Value of time, respect for patients, and well-equipped clean facilities are perceived as indicators of high quality of care.**

The above qualities are described by women as often lacking in government facilities, but present in private facilities. They are what a woman values during her experience of seeking health care, and can often prevent her from going to a hospital over the home, or can encourage her to go to a private hospital over a government facility. However, some women do describe government facilities as having these qualities, and thus these women are more likely to use institutional deliveries. In addition to the qualities described above, death and poor outcomes from a hospital also serve as proxies for quality of care, but are described less frequently.
Value for Time

Public hospitals are described by many as having long lines and wait times. Often, women described instances where they initially went to the government hospital, but waited over 6-8 hours before they were attended to. In some cases, women chose to go to private hospitals, where wait times are lower, after having first waited at the government hospitals, even if it meant that they’d have to pay for the delivery and forego the JSY incentive.

Respect for Patients

Women and their families discussed rude staff members as a major reason for why they are hesitant to visit the public hospitals. Many have been yelled and cursed at during their deliveries, have had to share their beds with another woman, and have had to offer payments to non-medical staff even though they are not supposed to pay for any services. These characteristics of government hospitals make many women feel disrespected, and some question why they should go to the hospital to be treated poorly when they can stay in the comfort of their own home surrounded by family members.

Well-equipped, clean facilities

Patients noted that some hospitals they visited had a shortage of supplies and medications and dirty facilities. They attributed these factors to low quality of care. These characteristics of the public health care system were not only described by end-users; health care workers and private physicians agreed. One CHC that we visited had rows of uncapped, used syringes lining the windowsills, and trash piled up outside the facility. While many patients felt that government hospitals lack adequate resources, one private doctor suggested that “what is missing in the government structure is ‘the human touch,’” believing that the implementation rather than the supply of resources and care needed to be improved, and that the government “has all the resources and facilities it needs to deliver good care.”

The quality of public hospitals varied by region, and there was a great deal of variation in the sentiment toward public hospitals. In some areas, such as Mehsana District in Gujarat and District Hospital in Allahabad, the quality of care was perceived to be high, and people had a more positive association with public health care. Many women who did use public health services described the hospitals as having cleaner surroundings, more facilities, and better access to medications than the home. Some patients stated that they were treated well at the hospitals and would return in the future. Other facilities had an observable lack of quality and cleanliness, and women in surrounding villages had a more negative association with public health care. They had heard that private hospitals had better hours, more facilities, kinder and more attentive staff, and better outcomes.

Health service providers in leadership positions who provide patient-centered and high quality clinical care have the ability to positively impact the culture of health care delivery, which influences the women’s decision-making process.

Quality of care and the factors perceived to be associated with quality such as cost, value for time, hy-
giene, respect for patients, and actual health outcomes can all be highly influenced by the organization, staff interactions, and leadership of a health facility. Two key examples of how health leadership can affect culture, and consequently quality of care, are Dr. Parekh’s* management of Gujarat Private Hospital and Meenakshi’s* strong presence in Akoda in Allahabad.

**DR. PAREKH* AND GUJARAT PRIVATE HOSPITAL**

Dr. Parekh has built and organized his private hospital in Gujarat to have the core mission of being patient-centric. The hospital must respond to high demand from the community due to its reputation and importance as a major hospital in the district. Quality at this hospital is evident in the extremely high turnover of surgeries and patients, and the tight control on quality standards. Physicians and surgeons at the hospital come from as far away as Ahmedabad to help the hospital maintain its efficiency and promote its high quality standards. Roles and responsibilities are well-defined within the staff hierarchy, and the two main leaders of the hospital, Dr. Parekh and his chief nurse, can be seen at all times with a phone in one ear, ready to manage a difficult case or question as soon as it comes up. All of the staff members, when asked what they do when they face a challenge in the wards, said that they ask the chief nurse or Dr. Parekh, who always provide the support the staff member needs to manage the challenge.

**MEENKASHI***

During the deliveries she attends, Meenakshi, the ANM of Akoda Accredited Subcenter, is known to have the “magic touch.” She has been able to deliver babies that even the CHC ANM thought to be too complicated. In the post-delivery period, she makes sure that women know how to breastfeed, gives them the necessary vaccinations (Hep B, BCG, polio), and advises them on foods to eat. Unlike larger hospitals, the Subcenter doesn’t provide food for the women, but in a separate interview, the ASHAs said that Meenakshi shares food and chai from her own kitchen with those who have none. When asked why she is so well-known and sought out for her work, Meenakshi replied that she doesn’t discriminate against any woman and accepts anyone who comes to her.

Unlike other ANMs, she lives at the Subcenter, which is easy to find, and she is therefore available at all hours for the women. She said, “Thankfully, I’m strong for overnight shifts.” Meenakshi’s dedication to not discriminate against her patients, in addition to her strong work ethic, has created a culture of high quality care.

*Names have been changed*
THEME 3: Influencers

Other family members can often have decision-making power in whether a woman will deliver in a hospital or at home, and they can serve as either motivators or inhibitors of institutional deliveries. Family structure is an important determinant of decision-making power. In the joint family structure, most typical in the Indian village, a married woman will live in her husband’s household with the in-laws. The nuclear family structure consists of the husband, wife, and children.

In the joint family structure, mothers-in-law are the primary decision-makers about where to deliver, and her decision supersedes the woman’s choice.

If the delivery occurs in the woman’s parents’ home, as is tradition in some households, the woman has more leverage in the decision. In the nuclear family structure, the husband is typically the primary decision-maker. In families where the mothers-in-law are the primary decision-makers, conflicts arise when the woman wants an institutional delivery, but her mother-in-law does not. One interviewed woman followed the tradition of going to her mother’s place to deliver her first child, and her first child was born at a hospital near her mother’s place. However, her subsequent children were born at her marital home, where her husband and her mother-in-law also reside. Although she had asked to be taken to the hospital, she was not given the option to go, even though delivering at a private institution is the norm in her district of Patan. “Mothers will solve problems immediately, mothers-in-law will finish housework first,” she said, implying that her desires were often not addressed or ignored by her mother-in-law.36

Another woman in Patan recounted that she went to the government hospital for her delivery because her family took her there, despite her preference for a private hospital. Specifically, her mother-in-law made the decision to take her to the public hospital, and her husband had no say in the matter. “There’s no point in expressing my opinion because my in-laws will do what they want,” she said.37

The dichotomy between views can be explained by the traditional practices of women delivering at home with a dai or an experienced woman, which the mothers-in-law are more familiar with. Such practices contrast with the changes in national policy encouraging institutional deliveries and new health information that women now receive from their ASHAs and neighbors. Mothers-in-law are more likely to hold negative perceptions of the hospitals given their lack of or limited experiences. Women and their mothers-in-law also hold different views of the related topic of sterilizations. While some women desire a sterilization as a family planning meth-

Opportunity Areas

**Develop an ASHA framework aimed at mothers-in-law.**
Currently, the ASHA mostly interacts with and gives advice to women who are pregnant, working to convince them to come to the hospital for their deliveries. We found that in the traditional joint family structure, the primary decision-maker is often not the woman but the mother-in-law. There is an opportunity area for ASHAs and other health care workers to speak with the mothers-in-law directly. Some of our interviews suggested that a trusted health worker has the power to change the mothers-in-law’s beliefs about institutional deliveries, either by her own means or equipped with a government policy incentive like JSY.
od, their mothers-in-law may challenge them, saying, “I didn’t need it, so why should you?”

The dichotomy is common, but there are instances where the decision-making process becomes shared effort between the woman and her mother-in-law, with men sometimes participating. But it seems that such shared decision-making is the exception rather than the rule.

Some mothers-in-law actually expressed a preference for institutional deliveries over home deliveries. One low-SES mother-in-law, who performed deliveries for her family members for many years, recently changed her opinion of hospitals, saying, “I’ve seen a lot of women go to the hospital, return with kids, and thus decided to send my daughter-in-law to the hospital.” In spite of her prior occupation of performing home deliveries, she now thinks that “home deliveries are old-fashioned.” Notably, her village is served by the well-known ANM Meenakshi. In another village, some mothers-in-law prefer hospital deliveries to home deliveries because of the financial incentives offered through JSY.

**THEME 4: Familiarity, Trust, and Experience**

Traditions, culture, trust of the public health system, norms, and past experiences of the community are central to informing the decision of a woman and a family in regards to institutional delivery. Families are influenced by a variety of actors who have the potential to shape opinions and norms. These include the village elders, the ASHA, ANM, AWW, dai, and experienced women.

**Tradition and prior home deliveries perpetuate the culture of home deliveries.**

Historically, home deliveries were the chosen method of childbirth in India, and they continue to be the norm in many communities and families. Initially, the government attempted to strengthen this tradition by training dais but later institutional deliveries became the favored strategy to achieve better maternal health outcomes. Thus, dai training was stopped and the policy focus shifted to hospitals. Nevertheless, home deliveries are still favored by some families for a variety of reasons.

Tradition dictates social mores around childbirth in many communities. In many cases, the older generation of women preferred home delivery, often because of their personal experience with home deliveries themselves or in their family. These older women typically had little experience with the formal health care system, and felt more comfortable with what they knew. Thus, these older women recommended or chose home delivery for their daughters-in-law.

Furthermore, when home deliveries occur successfully and safely at the home, people are more inclined to continue choosing home deliveries for subsequent pregnancies. In an interview with an elderly woman, she said that despite hearing that government facilities were better and cleaner, she still felt deliveries were easier and more convenient in the home. The caveat to this is that many women said that hospitals might be better in cases of complications. In fact, many dais attending home deliveries will refer women to hospitals when problems arise during the delivery. However, a large number of women and mothers-in-law said that they were satisfied with the safety and outcomes of previous uncomplicated home deliveries, and that it would remain the preferred option for delivery.
Exposure to a single negative outcome at a hospital can strongly dissuade a community from seeking institutional deliveries.

Negative outcomes at the hospital are more severely criticized than negative outcomes at the home. We found that reports of a single case of mortality or morbidity at the hospital spread across the community quickly and widely, leading to negative options about the hospitals, its staff, its medicines, and its equipment. When these negative evaluations of the hospital spread, the tradition of home delivery was further reinforced. In fact, the poor opinions may extend to ASHAs and other health workers as well. In one focus group, several ASHA workers felt they are blamed when bad outcomes happen at the hospital. In one village, an ASHA worker described an incident where a women she had taken to the hospital died during childbirth. After this happened, the ASHA felt she had to limit her interactions with neighbors because her reputation and the reputation of the hospital had been so severely damaged.

Notably, this overwhelmingly negative response is not as pronounced following a maternal mortality from home birth, and the tradition of home deliveries is not questioned or rejected. It is important to note that dais and other experienced women send women with complications to the hospital after a failed home delivery, potentially increasing the burden of high-risk patients at the hospital. Thus, when these patients experience negative outcomes, the blame is ascribed to the hospital, even though the mortality may have resulted from the initial attempt at home birth.

ASHAs who are closely tied to the community more effectively encourage and facilitate institutional deliveries as agents of the public health system.

ASHAs have the potential to serve as a strong motivator for institutional delivery. Women who are familiar with and trust their ASHA will see her as an accessible agent of the public health system and will be more likely to use the ASHA as a resource and to navigate the health care system during her pregnancy, ultimately leading to institutional delivery. Often, effective integration into a community is easier when an ASHA hails from the same village and shares the same caste or SES, but this is still not sufficient. Effective ASHAs have established good rapport with their communities and share mutual respect with villagers. They are a known and trusted resource in their community. Furthermore, they are involved with the woman at all stages of the pregnancy, including registration at the start of pregnancy, providing information regarding nutrition, promoting antenatal checkups with the local ANM or public health facility, accompanying the woman to the hospital during the delivery, and following up with immunizations for the newborn child. Thus, the presence of the ASHA in the community and during all stages of pregnancy provides pregnant women long-term support by someone who is both trusted and knowledgeable, and has the power to influence decisions about place of delivery.

Opportunity Areas

Create tools that can enable ASHAs and ANMs to integrate deeply in their communities.

ASHAs and community health workers like ANMs play a crucial role in influencing the opinions and actions of a community. It may be useful to investigate ways in which ASHAs or ANMs can be trained to better integrate with their communities such that their services are maximally used.
In some areas, the presence of ASHAs has reduced the fear of hospitals among women and families. A key role of the ASHA is registration of pregnant women and encouraging ANC. By making visits to the ANM or CHC for ANC, women gradually become more familiar with government facilities and staff, potentially dispelling fears based on lack of exposure or experience. Thus, ASHAs have increased people’s comfort level with the public health system by encouraging and facilitating visits, resulting in an increase in the number of people visiting the hospital for ANC. This new familiarity can extend to feeling more comfortable with delivering in a government facility as well.

Furthermore, the ASHA can play a key role in raising awareness about hospitals and government programs. In addition to dispelling myths about the hospital experience, she can also share the merits and benefits of hospitals. For example, the husband of a pregnant woman said that the ASHA had told him about JSY, which encouraged him to go to the government hospital for his wife’s delivery. While he had already been considering the option of a hospital delivery, the encouragement and support of the ASHA confirmed his decision.33

One of the most important roles of the ASHA is to help a woman and her family members navigate the government hospital during pregnancy and delivery. As representatives of the public health system, ASHAs are viewed as knowledgeable about the logistics of using the hospital, which is often difficult, frustrating, and time-consuming as an outsider. However, ASHAs also have deep ties with the community, making them more accessible and relatable. Thus, many people view their ASHA as an advocate for them within the public health system, and some felt having an ASHA accompany them during ANC or delivery expedites the hospital visits since she can handle the administrative and bureaucratic hurdles involved in using public services. Therefore, having a trusted ASHA during pregnancy allows people to become more comfortable with using public health facilities for both ANC and delivery.

A woman and her family’s exposure to successful institutional deliveries at government hospitals in the community over time increases the desirability of institutional delivery.

Shifting community behaviors that favor hospital deliveries influence others to seek hospital deliveries for themselves. Over time, repeated exposure to neighbors who successfully deliver at a hospital and return satisfied with their experience and with a healthy baby changes opinions about hospital deliveries and influences behavior. For instance, fears about hospitals decrease as women share their positive experiences at the hospital, and demystify the process of childbirth in a facility. The aggregate of these positive experiences encourages other women to use hospitals for their own deliveries. This change works in two interrelated ways. First, as more people within a community use government hospitals, it shifts the norm from home delivery to institutional delivery. Secondly, as more women have positive experiences, it increases desirability of hospital deliveries. In an interview with three Muslim women in a village where institutional delivery had previously been rare, one of them came back from the hospital with a successful childbirth and a healthy baby. She assuaged the fears of the community about having children at the government hospital.32 This increased both her family’s and her neighbors’ acceptance of an institutional delivery and encouraged other women to do so too.
Important in initiating these shifting norms are women who choose to have institutional deliveries. We found that women who had previously delivered in the hospital were more likely to use hospitals for subsequent pregnancies. Furthermore, they were more likely to recommend government hospitals and its services to neighbors and peers, thus initiating changes in beliefs and preferences. This effect was particularly visible in Gujarat, where hospital delivery has become fully entrenched and has become a norm to such an extent that those who choose home deliveries are viewed as outliers and deviating from the norm. While UP lags behind in rates of institutional delivery, we found that in many communities, beliefs about place of delivery are transitioning to greater acceptance of hospitals.

It is important to note that some women who have delivered in a hospital had bad experiences, including mistreatment by staff or poor hospital conditions. In these cases, the woman is unlikely to deliver in the hospital again and her negative experiences often have a dramatic effect in negatively influencing others’ opinions of the hospital. Thus, maintaining good quality of care and positive experiences at the hospital over time is important in promoting changing behaviors in a community.

Women fear going to hospitals because they believe they will be subjected to unwanted procedures and surgeries like C-section, sterilization, and episiotomy stitches.

Many women in UP feared that they would be subjected to surgeries, operations, and procedures during or after the delivery if they chose to deliver in a government facility. These fears can be strong enough to dissuade women from using institutional delivery. In particular, women felt that hospitals were likely to overuse Caesarean section (C-section) during delivery, or that episiotomies would be used to speed the birthing process. In some cases, women feared that they would be forced to undergo tubectomy for sterilization, perhaps against their will, after the delivery.

On the ground, we found that most CHCs do not have a gynecologist or surgeon on staff to perform C-sections. A larger number of centers lack access to a blood bank, which eliminates the possibility of performing operations like C-sections. Instead, patients who require such procedures are referred to the District Hospital. Tubectomies and vasectomies are conducted by visiting surgeons on a bi-weekly or monthly basis at the CHCs during designated sterilization camps, rendering the fear of immediate sterilization to be largely unfounded. Thus, the reasons for fear among women may have a historical and social explanation.

Tubectomy and Forced Sterilization

India enforced a compulsory sterilization drive between 1975-77. A strong backlash against any initiative associated with family planning followed the highly controversial program, and the negative sentiments continue into the 21st century. The program was shut down, but it is possible that remnants of it have been set into the psyche of the village elders, and their views are passed onto future generations. Subsequently, the government or the public health system may be considered suspect in its initiatives related to maternal health, particularly when optional family planning methods are frequently offered during the postpartum

\( ^\) This happened under the leadership of Sanjay Gandhi, late Prime Minister Indira Gandhi’s eldest son, during a hugely unpopular and undemocratic national emergency. People were forced to do be a part of government programs they didn’t necessarily agree with, and incentives were forced on them. This specific program used propaganda and monetary incentives to convince citizens to get sterilized. People who agreed to get sterilized were to receive land, housing, money, and loans.
period. Furthermore, the continued use of targets for sterilizations by ANMs and doctors may lead to aggressive efforts to encourage family planning, despite the end of mandatory sterilization programs. For women or other family decision-makers who desire larger families, the government hospitals’ association with family planning and sterilization could deter a woman from using the hospital for delivery.

**Episiotomy and C-Section**

Another fear expressed by women in interviews was of “stitches,” specifically for episiotomies or C-sections during delivery. Women feared that the nurses, doctors, or surgeons at the hospital would put them through either procedure in order to speed up the birthing process. Other women believed that stitches were the standard protocol for all deliveries in the hospital.

Fears surrounding episiotomy and C-sections operate in two ways. First, there is fear of the pain from the procedure. Some women are conscious of the necessity of procedures for a positive health outcome, but because they are afraid of the pain, they avoid the public health facility entirely. Secondly, there is a fear of the unknown at the hospital. Many women and families have not experienced or known people who have used the public health system, and are frightened that they do not know what to expect if they were to undergo a procedure. Furthermore, dais in some communities exacerbate these fears by overstating the prevalence of their use.

**Opportunity Areas**

Demystify the delivery process at CHCs. Build trusted relationships between the community and personnel at the CHCs.

Currently, there is still a fear of procedures such as C-sections, episiotomies, and sterilization. It would be helpful to explore the origin of these fears and subsequently develop strategies to ameliorate these concerns. Trust-building activities in the community may help to highlight the services and facilities of the CHC services, and may make the processes, facilities, and actors related to a delivery more familiar. Of importance is underscoring the optional nature of family planning.

**THEME 5: Dais and ASHAs**

Deliveries by dais have declined significantly over the last three decades, but they are still important actors in influencing health behaviors on the ground. In some cases, dais act as motivators for institutional delivery and are complementary to ASHAs, while other dais are antagonistic to the goal of institutional delivery.

Because of the presence of multiple community-level actors, women hear conflicting messages from dais and ASHAs regarding institutional delivery.

In Uttar Pradesh, we found that the dai is still a powerful player in many blocks, with nearly half of all deliveries at home performed by them or another “experienced woman.” Dais are well known in tight-knit communities, and word-of-mouth bring them continued business when they carry out successful births. Dais expressed a desire to remain involved in the community and maintain a livelihood through performing home deliveries, so they are often motivated to preserve their business. To do so, they may spread negative messages about government hospitals and encourage home deliveries.43 One dai we spoke with often told women
that hospitals might do unnecessary operations while at home they will be more comfortable. Meanwhile, ASHAs and government hospitals often characterize the dai delivery as unsafe, while glorifying the facilities, equipment, medicine, hygiene, efficacy, quality, and skill at hospitals as superior. With dais losing business, some of them have become antagonistic towards the public health system, as illustrated by their comments that C-sections and tubectomies are more common in hospitals and should be feared. Others have accepted their changing role matter-of-factly but still continue to operate successfully in remote areas where access to health care is difficult.

**Despite their traditional role of performing home deliveries, some dais have encouraged women to deliver at an institution.**

In Gujarat, many dais have accepted the reality that private and public hospitals are the established norm for deliveries, and that home deliveries have fallen out of favor. These dais have adapted to their community role. In Gujarat the ASHA’s role in accompanying deliveries is not as prevalent as in Uttar Pradesh, and therefore dais have adapted their role to act as an “unofficial ASHA” to fill this gap. Thus, dais remain the first point of contact in this community, giving antenatal and postnatal advice but advising mothers to deliver at a hospital. In some cases, private providers who operate under Chiranjeevi Yojana offer a financial incentive to dais who accompany pregnant women to their facilities. In this way, dais act as effective motivators of institutional delivery.

**THEME 6 : Marginalized Communities**

Even in just one district or block, there can exist a wide variation in the access and use of public health services based on the background of a given family or community. We noted that Muslim areas and scheduled caste/other backward caste (SC/OBC) areas, both of which are traditionally marginalized and lower socio-economic status communities, have less access to ASHA workers and ANMs and a lower use of institutional deliveries. We visited a number of these areas to understand what additional barriers may exist that hinder the usage of government services.

**There is clear variation in rates of institutional deliveries among different castes and religions.**

Preference for and use of public and private health services vary greatly in different villages and among different households. Some groups of women have more readily adopted the services of NRHM, us-
ing ASHA workers and JSY, while others prefer private health care or home deliveries. The fact that Muslim women are less likely to deliver at the hospital and seek family planning methods is well-known, recognized, and described by all types of actors. Many hospital registries, particularly the district-level institutions, track health usage of SC/OBC patients, as well as of Muslims versus Hindus. Health usage includes deliveries, sterilizations, and other family planning methods. One ASHA worker described one Muslim-dominated village, Mehtarpur, where “women do not come for deliveries” and suggested that there is little she can do to convince them. This sentiment was common among ASHA workers, ANMs, and Anganwadi Workers, who often felt that Muslim women were less likely to deliver at the hospital, agree to sterilization and other family planning methods, and get their necessary immunizations and polio drops (both for themselves and their children).

**Opportunity Areas**

We found consistently that an effective, trustworthy ASHA who truly is a “daughter of the village” can have a monumental impact on the norms and preferences of a community. Families in Muslim villages often noted the lack of government presence as a major barrier to service use. However, in Mehtapur, where UNICEF has an organized and constant presence, rates of immunizations have vastly improved. Local CHCs do not always have expanded outreach in areas where rates of institutional deliveries are low. In addition, ASHAs and ANMs often exhibit preconceived biases in marginalized communities where rates of institutional deliveries are low. A pilot program that aims to seek out and train Muslim government health workers, followed by an impact evaluation of this pilot, may address the lack of health access and resources in marginalized communities.

**Biases of health care workers influence how they justify and respond to poor use of health care services in marginalized communities.**

Previous biases may cause a health care worker to “give up” on spreading her message and carrying out her duties in a Muslim community. ASHA workers in Bithri claimed that women in the Muslim villages are very difficult to convince to use institutional deliveries, and expressed frustration about working in those communities. Many Superintendents also attributed the illiteracy and lack of education among lower caste and Muslim women to be the major barriers as to why those communities are less likely to seek out institutional deliveries.

**The lack of Muslim health care workers contributes to the isolation that Muslim communities feel from the public health care system.**

Muslim women and their families recognize that there is a lack of government presence in their communities, either because there is no ASHA in the village at all, or because the ASHA who is assigned to the village is perceived to be ineffective. The biases of health care workers (described above) are noticed by the villagers, who interpret the lack of involvement and enthusiasm as an unwillingness to help or provide services. One family stated that “there is no Pradhan or ASHA in this village...this means no access to services.”

Almost all families are aware of the programs set forth by NRHM, but many feel isolated and removed
from these initiatives without an effective health care worker who can link them to the public health system. An elderly woman in Sarkarpur, a Muslim-dominated village, believes that institutional deliveries are more effective but said that “it would be great if we could get an ASHA in our village.” Other women stated that the ASHA workers come, but her registrations of pregnancies are “like wasted pages.” Even Hindu Superintendents agreed that it would be beneficial to have Muslim doctors and Muslim ASHAs facilitating health care in the Muslim villages. However, there are very few ASHA workers who are Muslim, and many MOs and District Officers noted the Muslim women’s poor education as the major barrier to training Muslim ASHAs.

**Despite isolation from the public health system and community norms against institutional deliveries and family planning, Muslim women do want the services of health care workers.**

Many Muslim women and their families said they would like to have a stronger link to government and health services. The desire for services contradicts the biases that many health care workers have that Muslim women are inherently less likely to seek institutional deliveries and family planning through NRHM. Many women in the villages stated their preference for an institutional delivery and family planning methods, but noted barriers to achieving this preference. Barriers include transportation and road conditions, lack of government health care workers, and often resistance from her own family or community. The resistance and norms in a community can impact not only the woman’s decision, but also the effort of the health care workers. One ASHA worker, Leena*, told a story where two Muslim women sought out sterilizations. Their husbands discovered this and beat up the dai in the village. Leena notes that these communities have more tension, and because of this, she seemed timid to actively seek out Muslim women to convince them to use JSY and NRHM.

**Health care workers who proactively respect marginalized communities are seen as more accessible to the community.**

As seen above, there are barriers to improved rates of institutional deliveries among Muslim and SC/OBC communities, both because of community norms and lack of health workers. There are, however, communities where Muslim women are as likely to seek out institutional deliveries as Hindu women. Meenakshi and the ASHAs who work with her noted that all women, regardless of caste and religion, sought out institutional deliveries. Even Meenakshi explained, “I don’t discriminate. I just keep doing my work.” Similarly, at a private hospital in Gujarat and surrounding areas, many health care workers praised the hospital for its absence of any form of discrimination by religion or caste. In these areas, almost all Muslim women are more likely to prefer and obtain institutional deliveries. These examples, combined with the opinion of many Muslim families that their communities need a more active health worker, suggest that health care workers have a stronger ability to be effective change makers in their communities if they take an extra effort to serve marginalized populations.

In addition to the fragmentation between Muslims and Hindus, there also exists a significant divide in access to NRHM services amongst castes, specifically between SC/OBC people and non-SC/OBC people. Health care workers hold the biases that members of SC/OBC castes are less likely to proactively seek health care. Some of the variation in access and use of NRHM programs may be attributable to socioeconomic status,

*Name has been changed*
with one man from Nasirpoor claiming that “Brahmins will always go to private hospitals if they can afford it.” It is evident that Superintendents also believe that SC/OBC women are less likely to seek health services, as the District Hospitals track usage of institutional deliveries and sterilizations by SC/OBC castes. Finally, effective health care workers such as Meenakshi and Dr. Parekh are recognized widely for not discriminating against members of different castes (in addition to religions, as mentioned previously). Tolerance and lack of bias for members of lower castes allow for more accessibility of services to those marginalized communities.

## THEME 7: Transportation

Conventionally, poor infrastructure, like unpaved roads, prevents access to health care since traveling from a rural area to an urban hospital can be a treacherous and time-consuming process. While women acknowledge that a hospital is important to access during a complicated delivery or an emergency situation, they may prefer the home for a normal delivery because the conditions of the roads are poor and transportation is unavailable. Even if a woman is nearby multiple private medical facilities, she may find that they are all inaccessible.

**Bad weather and inconvenient times of day can exacerbate inadequacies in transportation access, thus inhibiting institutional deliveries.**

Even in areas where a transportation system exists (such as the 108 emergency transport, addressed below), weather conditions make bad roads more of a barrier. While dirt roads are bumpy and uncomfortable to travel over in the dry season, in the rainy season they become muddy and often flooded, making travel much more difficult and dangerous. Drivers of motorcycles and rickshaws—common forms of transportation in rural India—are unable to maneuver through roads in this condition.

The time of day can also discourage families from traveling to the hospital. At night, the roads are not lit with streetlights, making traveling difficult with headlights and impossible without. One woman received her immunizations and five ANC checkups at the CHC, planning to return for her delivery. She intended to deliver at the hospital because she had been well cared-for there and it was cleaner than her home. However, her labor pains started at night, and she had no way to travel to the hospital after dark. She delivered at home and only learned about GVK EMRI after the birth of her child.43

**While awareness and use of 108 ambulances for institutional deliveries have increased since its launch, some end-users expressed confusion about who can call and how to call. They also find the service unreliable.**

Launched in 2005, GVK EMRI is the first integrated emergency transport service in India. The public-private partnership offers 24/7 services for medical transport, police, and fire emergencies. By making a free call to “108” on any phone, anyone, including women in labor, can access an ambulance.44 When it is fully operational, 108 ambulances aim to arrive within 20 minutes for an urban setting and 35 minutes for a rural setting.45

GVK EMRI was rolled out in Gujarat in 200746 and UP in 2012.47 In rural UP villages, 108 ambulances are not yet commonly known, but some residents are becoming familiar with the services and have used them.
ASHAs and health care providers said that awareness of 108 ambulances is increasing and that they have seen more patients come to the hospital through the ambulance system. A greater number of pregnant women are arriving to public hospitals by ambulance and an increased number of deliveries are happening en route, in the ambulance itself.

While awareness and use of 108 ambulances for institutional deliveries have increased since its recent launch in UP, some end-users expressed confusion about who can call and how to call. Some also reports that they find the service unreliable. In one tragic story, the family members of a child who was ill did not call 108 because they mistakenly thought that only an ASHA could call the number. The ASHA was not reached in time and the child died. The death might have been prevented if the family members had called the ambulance themselves. More than a few families mentioned that they have seen the ambulances and have seen others use them, but they did not know the number to call.

The transport service offered by 108 is sometimes thought to be unreliable. At times, it was reported by ASHAs that the 108 ambulance do not always arrive on time in their villages. The responsiveness of the phone line was also questioned. One woman tried to call 108, but no one responded. In her case, it was not clear whether she was misinformed about the number or if the still-developing GVK-EMRI system made a mistake. The woman was able to travel to a hospital using her ASHA’s private transportation, but she likely would have delivered at home if she had not had an alternative form of transportation.

Because 108 doesn’t drive to all institutions in Uttar Pradesh, some people choose to incur travel costs to go to a facility of their choice.

In UP, GVK EMRI policy requires that the 108 ambulance service take patients to the nearest CHC or District Hospital. Additionally, 108 ambulances only work with public institutions and will not take patients to private hospitals. As such, users are not given an option to choose a preferred hospital. Even end-users who know about 108 ambulances might choose not to use the services because of this restriction. Because 108 limits choice of institution in UP, some people choose to incur travel costs to go to a facility of their choice, including a private institution.

Since 108 ambulances drop women off at CHCs, some women will instead pay Rs. 300 out-of-pocket to deliver with Meenakshi, the well-known and respected ANM skilled in maternal care, at her health center in Akora SC. In Allahabad, there has been a similar pattern of people paying so they can go to the hospital of their choice.

Implementation of 108 ambulances appears to be variable across states and districts. In both districts of UP, 108 ambulances only take women to public hospitals. Notably, in the Patan district of

Opportunity Areas

Develop messaging that has resonance and standardize EMRI policies to include services that people value. Currently, each ambulance team is given the task of publicizing GVK EMRI to the 50 villages that they serve. The teams use demos, fliers, and radio announcements. In our study, we found that even though the information was being disseminated effectively, there was still confusion about the use of 108 ambulances. It may be helpful to analyze the varied EMRI policies across districts and ambulance use for institutional deliveries.
Gujarat, this rule also applies. There, delivering in private hospitals is the norm, so families pay Rs. 100-200 to go to the private hospital of their choice. However, in the nearby Kheralu district, callers can request that the 108 ambulance take them to the institution of their choice, including private hospitals. The difference in implementation may be responsible for the variable favorability of 108 ambulances in each region. Many Patan residents feel that there is sufficient alternate transportation and may not use the service, whereas in Kheralu, most people use 108 ambulances for their labor deliveries.
The Indian government has tried to decrease maternal mortality—a complex and devastating health challenge in India—by instituting programs that encourage institutional deliveries. Current programs include giving financial incentives to women and training ASHAs in the community to serve as linkages between the village and the health system. These programs, however, may have not reached their full potential, hindered by nuanced factors around a woman’s decision about having an institutional delivery.

Our study found that the major factors in this decision-making include continued financial costs of institutional deliveries to households, perceptions of quality of care of public facilities, familiarity with home deliveries, and lack of trust of hospitals. Women are strongly influenced by the opinion and decisions of other family members. They can also be affected by the messages from ASHAs and dais, who often have different opinions. Meanwhile, the lack of community health workers for women in marginalized communities, including Muslims and members of SC/OBC groups, may have resulted in a major disparity in the access and use of institutional deliveries. Additionally, while transportation methods are changing with the introduction of the EMRI service, bad roads and weather conditions are a major barrier to institutional deliveries.

India’s rural health system can better serve women by encouraging community health workers to more effectively integrate in their communities. This includes further developing the trust and enhancing the transparency that patients seek with the public health system, and focusing on better understanding a woman’s and her family’s decision to seek health care. With the continued dedication of the public health system, every woman in India could have access to the highest quality care during her pregnancy, delivery, and post-natal period.
Section 9: References

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### Section 10: Glossary of Terms

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<tr>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>ANC</td>
<td>Antenatal Care</td>
<td>Routine care for pregnant women that includes checkups with measurements of blood pressure and blood count.</td>
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<tr>
<td>ANM</td>
<td>Auxiliary Nurse and Midwife</td>
<td>Government-employed health workers who work in the community and have undergone 18-24 months of medical training.</td>
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<tr>
<td>APHC</td>
<td>Additional Primary Health Center</td>
<td>In high population areas, more than one PHC is needed; an APHC provides similar services as a PHC.</td>
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<tr>
<td>APL</td>
<td>Above Poverty Line</td>
<td>&gt;16 points out of 52 on the poverty scale. Families who are APL cannot participate in certain programs depending on their location or state.</td>
</tr>
<tr>
<td>ASHA</td>
<td>Accredited Social Health Activist</td>
<td>Started under the National Rural Health Mission (NRHM) in 2005.</td>
</tr>
<tr>
<td>AYUSH</td>
<td>Ayurveda, Yoga &amp; Naturopathy, Unani, Siddha and Homeopathy</td>
<td>Alternative medicinal degrees.</td>
</tr>
<tr>
<td>AWW</td>
<td>Anganwadi Worker</td>
<td>Health worker chosen from the community and given 4 months training in health, nutrition, and child-care. The worker is in charge of an Anganwadi (courtyard) which covers a population of 1000.</td>
</tr>
<tr>
<td>BAMS</td>
<td>Bachelor of Ayurveda, Medicine and Surgery</td>
<td>An alternative medical degree held by many doctors in India. They are licensed to practice medicine but cannot perform surgeries.</td>
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<tr>
<td>BHS</td>
<td>Bachelor in Homeopathic Studies</td>
<td>Alternative medical degree in homeopathy.</td>
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<tr>
<td>BPL</td>
<td>Below Poverty Line</td>
<td>A family is said to be BPL if they score less than or equal to 15 out of 52 points on a poverty index with different dimensions. Income is one of the components of this index.</td>
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<tr>
<td>BSY</td>
<td>Bal Sakha Yojana</td>
<td>Neonatal intensive care unit program, for BPL mothers that pays private pediatricians for treating neonatal cases. It is linked to the Chiranjeevi Yojana.</td>
</tr>
<tr>
<td>CHC</td>
<td>Community Health Center</td>
<td>One level below the District Hospital, serving 200,000 people.</td>
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<tr>
<td>CMO/CMHO</td>
<td>Chief Medical Officer</td>
<td>Superintendent of a District Hospital.</td>
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<tr>
<td>CSSM</td>
<td>Child Survival and Safe Motherhood Program</td>
<td>Jointly funded by World Bank and UNICEF was started in 1992-93 for implementation up to 1997-98. The objectives of the programs were to improve the health status of infants, child and improve maternal morbidity and mortality.</td>
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<tr>
<td>CY</td>
<td>Chiranjeevi Yojana</td>
<td>Gujarat delivery program for BPL mothers.</td>
</tr>
<tr>
<td>DGO</td>
<td>Diploma in Gynecology and Obstetrics</td>
<td>Two-year diploma course in Gynecology and Obstetrics, pursued after an MBBS.</td>
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<tr>
<td>DH</td>
<td>District Hospital</td>
<td>Hospital at the secondary referral level responsible for a district of a defined geographical area containing a defined population.</td>
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<tr>
<td>EmOC</td>
<td>Emergency Obstetric Care</td>
<td>Care available 24/7 for OB/GYN patients.</td>
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<tr>
<td>EMRI</td>
<td>Emergency Management and Research Institute</td>
<td>Ambulance service, created by a public-private partnership, also called 108 ambulances.</td>
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<tr>
<td>FRU</td>
<td>First Referral Unit</td>
<td>24-hour facility with a nurse, doctor, sweeper, and pharmacist always on-call.</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
<td>The value of the total goods and services of a country. Often considered an indicator of a country's standard of living.</td>
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<tr>
<td>IAS</td>
<td>Indian Administrative Service</td>
<td>IAS officers hold key positions in the Union government, State governments and public-sector undertakings. Along with the police and forest services, the IAS is one of the three All India Services—its cadre can be employed both by the union government and the states.</td>
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<td>IPHS</td>
<td>Indian Public Health Standards</td>
<td>Public Health Standards of PHCs, CHCs and District Hospitals. A set of standards envisaged to improve the quality of health care delivery in the country under the National Rural Health Mission. Created by a task group under the chairmanship of the Director General of Health Services, IPHS is the recommended the standards.</td>
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<tr>
<td>JSSK</td>
<td>Janani Shishu Suraksha Karyakarm</td>
<td>Program for the welfare and safety of the mother and child.</td>
</tr>
<tr>
<td>JSY</td>
<td>Janani Suraksha Yojana</td>
<td>National cash incentive program to improve maternal health.</td>
</tr>
<tr>
<td>MBBS</td>
<td>Bachelor of Medicine, Bachelor of Surgery</td>
<td>First licensed physician degree in India in allopathy. Doctors can practice medicine after receiving this degree.</td>
</tr>
<tr>
<td>MD</td>
<td>Doctor of Medicine</td>
<td>Advanced 3-year medical degree after an MBBS, which denotes the specialty.</td>
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| MDG          | Millennium Development Goals | Eight international development goals that were established following the Millennium Summit of the United Nations in 2000:  
  - To eradicate extreme poverty and hunger,  
  - To achieve universal primary education,  
  - To promote gender equality and empower women, |
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| MDG          | Millennium Development Goals | • To reduce child mortality rates,  
• To improve maternal health,  
• To combat HIV/AIDS, malaria, and other diseases,  
• To ensure environmental sustainability, and  
• To develop a global partnership for development |
<p>| MMR          | Maternal Mortality Rate | Number of maternal deaths per 100,000 births. |
| MO           | Medical Officer | A doctor at a public institution who has MBBS, BAMS, or BHS. |
| MoHFW        | Ministry of Health and Family Welfare | Oversees health and family welfare at the national level, including the Reproductive and Child Health program. |
| NFHS         | National Family Health Survey | Large-scale, multi-round survey conducted in a representative sample of households throughout India. |
| NMR          | Neonatal Mortality Rate | Number of neonatal deaths (first 28 days of life) per 1,000 live births. |
| NRHM         | National Rural Health Mission | Formed in 2006, the umbrella mission under which many of the maternal and child health programs are run. |
| OC           | Oral Contraceptives | A popular contraceptive method for women, in the form of a pill. |</p>
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<tr>
<td>PHC</td>
<td>Primary Health Center</td>
<td>First tier of India’s health care system. This center has 4-6 beds and a Medical Officer.</td>
</tr>
<tr>
<td>PRI</td>
<td>Panchayati Raj Institutions</td>
<td>A decentralized form of Government where each village is responsible for its own affairs</td>
</tr>
<tr>
<td>RBSK</td>
<td>Rashtriya Bal Swasthya Karyakram</td>
<td>National health care program, translated as National Child Health Care Program.</td>
</tr>
<tr>
<td>RCH</td>
<td>Reproductive and Child Health</td>
<td>Program on maternal and child health.</td>
</tr>
<tr>
<td>SC</td>
<td>Subcenter</td>
<td>A health care facility that serves 5,000 people. An ANM is centered here.</td>
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<tr>
<td>SES</td>
<td>Socioeconomic status</td>
<td>Used to distinguish between different demographic sections based on caste, religion, income level, and region.</td>
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<tr>
<td>SRS</td>
<td>Sample Registration Data</td>
<td>One of the four main sources of demographic statistics in India. Provides annual estimates of (a) population composition, (b) fertility, (c) mortality, and (d) medical attention at the time of birth or death (which give some idea about access to medical care).</td>
</tr>
<tr>
<td>STC</td>
<td>Save the Children</td>
<td>A non-governmental organization promoting children’s rights and development in developing countries.</td>
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<tr>
<td>RMNCH+A Coalition</td>
<td>Uttar Pradesh</td>
<td>One of India’s largest states in population and total area.</td>
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<td>RMNCH+A Coalition is a coalition established through Government of India orders 1st May 2012. It is the highest advocacy platform and has development partners, NGOs, academic institutes as its members. The secretariat of the coalition is hosted by Save the Children India.</td>
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Appendix A: Sample Interview Guides

Discussion Guide for Pregnant Women/Mothers

Issues to cover

- Family type, and how that influences decision-making and players (Husbands, Mother in Laws, Mothers)
- Changing health status in communities, and changes in health care infrastructure
- Who is guiding women on what to expect and what to do during pregnancy (nutrition, check-ups, managing symptoms)
  - Where a woman chooses to deliver, both geographically and institutional
    - Geographical: Her Mother’s Village? Her Mother in Law’s Village? Her own village?
    - Institutional: Home v Private Hospital v Public Hospital (and how she chooses the hospital she goes to)
- Level of emotional support woman gets in hospital (versus the home) Financial concerns and influences - formal and informal payments to dais/private/government
- Ability to manage complications during birth in hospital versus home (normal births may be preferred at home, complications easier to manage in hospital)
- Variation in quality of care and treatment (some doctors/hospitals are good, others are not, and it’s difficult to know beforehand)
- Hospitals as a source of additional services, including facilities to manage complications and sterilization (and whether there is fear associated with that)

Questions

General Background/Community Norms

- Introduction: name, town, who is in the house/family, children’s ages, work, husband’s work, education, age at marriage, age at pregnancy, delivery in hospital/home/other
- What do you think of the health of your community? (opener, elicit opinions—try to ask in concrete ways)
  - What do people do when they are sick? (serves as a comparison to what people do in pregnancy)
  - What are the places people will go to for health care or medicines?
- What do people do when they become pregnant? (register at hospital? Go to mother’s home? nothing?)

Personal Experience with Delivery

- How many pregnancies have you had? What was the outcome? (miscarriage, healthy delivery, complicated delivery, abortion?)
- Where did you deliver your child(ren)? Why? What is it in your mother’s place or in-law’s place?
- Why did you use this particular hospital and not another one (within the same category public/private, what qualities about a facility influences a woman to go there (i.e., distance, word of mouth on quality of care, previous experience)?
- Did you use any other facilities for checkups, etc.? Why did you go to that facility?
- Who told you to go there for your delivery? Did anyone tell you something different? Did you want something else? (family type and influencers)
- (If home,) what would you do if there was a complication? Did you register at the hospital?
- (If hospital,) how was the treatment you received?
- (In hospital,) who performed the delivery? Who attended to you?
- Were there any problems with the hospital?
- How much did the delivery cost? Who did you give money to? (financial)
• How much was the cost of checkups?
• What is the benefit of home delivery (home support, less chance of operation)? What is the benefit of hospital delivery (facilities, cash incentive, sterilization, etc.)?
• Do you fear hospital delivery? (baby exchange, tubectomy, C-section)? Do you fear home delivery? (lack of facilities)

Support
• During your pregnancy, who gave you advice? (ASHA, ANM, mother, mother-in-law, other women?)
• What kind of advice did they give you?
• Who helped you during pregnancy? What did they do?
• Who helped you during the delivery? Was anyone with you? (How they were treated/supported during delivery and whether it was the right kind of support)
• Who helped you to manage the home and baby after delivery? What kind of help did they give?
• Did anyone advise you after the delivery in the hospital? (doctor, nurse, ANM) What did they tell you?
• Did anyone give advise after the delivery? (ASHA, ANM, mother, mother-in-law). What did they tell you? (Signs to watch for, baby care)
• How is the health of your children now? Have they been immunized? Who facilitates the immunizations?

Family Planning
• If you were pregnant again, where would you go for the delivery?
• Have you thought of limiting your family size? How many?
• What do you do for family planning? Where do you receive the supplies/procedure/etc.?
• Suppose you were to become pregnant, what would you do? (If abortion, where - public/private?) Do you know anyone who has had abortion?

Discussion Guide for ASHA/Aanganwadi/Midwife/ANM

Background
• What is your name, age, and where are you from? Academic qualification?
• What is your designation? Worker/Sahayika (Helper)/ANM/Midwife
• What do you do in your job?
  ▪ How many households are you responsible for?
  ▪ How many women do you contacted on a daily basis/monthly?
  ▪ Of those women, how many women have been registered in the last month?
  ▪ For a given pregnant women, how many times do you meet her in a month or during the entire pregnancy?
• Are you currently married? Do you have kids? How many?
• Since when have you been working in this role?
• Do you have any other jobs/work other than this?
• What are the major health challenges? What are the changes you’ve seen in health care in your community?

Pregnancies that they handle
• How do you find out a woman is pregnant?
• What do you for a woman who is pregnant?
• Do the women you care for deliver at home or in the hospital?
  ▪ Why/why not do you think they deliver at home?
  ▪ Why/why not do you think they deliver in the hospital?
• If women go to the hospital because of complications, what complications do they have?

**Work**

• What are the problems that you face as an ASHA worker? If the Prime Minister was standing in front of you asking you what your problems are, what would you say for him to fix to make your job easier?
  - What are your roles as an ASHA worker? Pre, during and post-delivery.
  - Do you face problems with the government in the area related to performing your duties?
  - Are there any other types of problems that you face with people or the community in the area?
  - Are there spillover effects into your personal life that you face when you were trying to perform your duties in the area?
  - For the roles that you are supposed to do, how are the roles funded?
    - How often do you receive money? Is it sufficient?
    - Who funds the different roles like classes/food/the courtyard itself?
    - How does this experience compare to other ASHA workers you might have met?
  - Check

• Have you tried to fix the problems? If so, what have you done?
• Why did you choose to become an ASHA? How did you become an ASHA?
• Were you trained? How and where were you trained? What was good and bad about the training? Do you have any regular training or a refresher course to keep yourself updated?
• What was your biggest achievement as part of being an Aanganwadi worker? What was your biggest failure?
• What are you paid for? (Trainings, meetings, job?) How and when are you paid?
• How much do you charge for check-ups for pregnant mothers? How much do you charge for their deliveries?
• Do you get any gifts after the birth of the child? Do people reward you for your efforts?
• Do women get anything from the government for an institutional delivery? Do women deliver more in hospitals, if they do, due to any government assistance or program? (Attempt to get answers on their involvement in women getting money from JSY.)

**More questions about pregnancies**

• You just went on a survey and found out that Sumita was pregnant. Starting from when you found out, what are your responsibilities to Sumita as an ASHA worker? What do you advise for her in the months before the delivery, during the delivery, and after the delivery?
• Do you do anything for family planning?
• Do you give any advice related to abortion? In case they don’t want the pregnancy, where does she ask them to go?
  - How many practitioners(nurses/doctors/midwives) around the area who do the abortion?
  - Do people ask you about the determination of sex of the child?
  - How many tubectomies have taken place?
  - How many C-sections?
  - Are you being trained to motivate mothers with n>=2/3 kids to undergo a tubectomy?
  - ASHA worker stays as a birth companion- How many ANCs have been done and how many women she accompanied to the hospital? What are the problems? How are you treated in the hospital? Have you faced any harassment when you accompany the women to hospitals at night?
  - Questions on immunization? Do you do anything?
  - What sort of trainings do they receive-module 1,2,3,4? What do you do to learn?
More questions about ASHA’s personal life
• For your own pregnancies, where did you go: hospital or home? Why?
• If you give advice contrary to what you did for your own pregnancy, why?
• In your locality, do you think men and families put pressure on any decision that a woman makes?