

**Summer Internship Report**

at

**Population Services International India Pvt Ltd**

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## ACKNOWLEDGEMENT

For the ancestors, who paved the path before us upon whose shoulder we stand. This project has been of great significance and importance to us in ways more than we can mention. Apart from its professional importance it has taught us immensely the spirit with which one has to move ahead with responsibilities. It was indeed our good destiny that we were given a chance to work under such esteemed faculty members.

We take immense pride and pleasure that the study was done under the esteemed guidance of **Dr. Rohini Ruhil** who was a constant source of the much-needed discipline and constructive criticism. Her whole hearted help and support had been pivotal in the completion of this work. It is our profound privilege to offer thanks and utmost gratitude to our mentor who has been our inspiration and has provided us with encouragement and cooperation at all stages. She taught us to carry on things with precision & devotion, we shall always be grateful to her. She being my guide in the present study always met with encouraging words and shaped constructive ideas.

I express my sincere thanks to Dr Jacob Puliyeel for his valuable suggestions, guidance and help for our research work.

## **Certificate of approval**

The Summer Internship Project of titled **“An Exploratory Study of the Determinants of Traditional home birth in Bhatti Mines, Chhatarpur Area of New Delhi.”** at **“Population Service International”** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed, or conclusion drawn therein but approve the report only for the purpose it is submitted.

**Dr Rohini Ruhil**  
**Assistant Professor**  
**IIHMR, Delhi**

## **Abbreviations**

ANC: Antenatal Care

ASHA: Accredited Social Health Activist

ANM: Auxiliary Nurse Midwifery

DLHS: District Level Household Survey

JSY: Janani Suraksha Yojana

JSSK: Janani Shishu Suraksha Karyakaram

LMIC: Low Middle Income Class

MMR: Maternal Mortality Rate

NFHS: National Family Health Survey

NRHM: National Rural Health Mission

PNC: Prenatal Care

SBA: Skilled Birth Attendant

TBA: Traditional Birth Attendant

UNDP: United Nations Development Programme

***SECTION: I***

***Organizational Learning***

## **Project SAMAGRA**

Led by PSI India, Project Samagra works in partnership with the Government of India, USAID, and local and private sector stakeholders to create an affordable, equitable, responsive urban health system for the most vulnerable and the urban poor. This project aims to provide basic, attractive, and therapeutic primary health care to those caregivers who need it most.

The Samagra project works to improve access to affordable health services and address barriers related to social health decisions. Specifically, the project aims to increase the use of modern methods of contraception, diagnosis of tuberculosis (TB), and multidrug-resistant TB (MDR-TB). It also aims to improve maternal and child health services including antenatal care (ANC), antenatal care, and antenatal care (PNC) in these statistics, as well as to improve immunization rates.

In Delhi, the Samagra project is working in Fatehpur Beri and Bhati Mines which are being introduced in the vicinity of the city.

SAMAGRA is working towards achieving 16 sustainable global goals through a framework of various strategic approaches with the help of initiating partnerships with partners such as PSI, MAMTA, and CURE.

## **PSI**

Population Services International is a registered non-profit organization, founded in 1970. PSI has worked with people and it works for them; they are working to build sustainable solutions to the world's most serious health issues. PSI's mission is to make it easier for all people to live healthy lives and plan the families they desire.

PSI India Private Limited (PSI IPL) aims to provide consumers with contraceptives and safe, effective, and affordable health products, allowing them to live healthier and more productive lives. The PSI IPL currently operates in most of India and offers a wide range of products that include oral contraceptives, emergency contraception, abortion services, condoms, and oral contraceptives.

PSI is currently focusing on the SAMAGRA project which is a USAID-funded program, led by PSI that aims to create a strong urban health system.

### **MAMTA**

MAMTA-Health Institute for Mother and Child is a 30-year-old registered nonprofit organization under the Registration of Association Organization-1860 Act of the Government of India.

The organization aims to bring innovation to the level of Maternal and Child Health; Sexual and Reproductive Health with a focus on Adolescents (10-19 years) and Adolescents (10-24 years); Infectious Diseases (HIV, TB, Hepatitis B & C); and Common Infectious Diseases (High Blood Pressure, Diabetes, Obesity, and Mental Health).

### **CURE**

CURE stands for Centre for Urban and Regional Excellence. The purpose of the CURE is to reconnect with urban communities that make informed decisions to ensure sustainable urban development; to strengthen local agencies with the capacity to develop a participatory community. They aim to provide taps and toilets in the home, connect to portable drinking water, access solid waste management, harvest rainwater, and be able to withstand water.

### **Work Done at PSI-**

During the orientation, we were briefed about the organization, its objectives, goals, and implementation methods. We were introduced to the project Samagra followed by a brief discussion.

Later on, the students were divided into 5 groups and were given a topic each to make a presentation and present the next day. The topics for the presentation were National Tuberculosis Elimination Program, Janani Shishu Suraksha Karyakaram, Swachh Bharat Abhiyan, Poshan Abhiyan, and National Urban Health Mission.

The presentation included the problem statement, benefits and beneficiaries profile, the current status of the program implementation, and how that program could support the geographies like Bhatti Mines.

After the presentation, there was a discussion session on gender-based violence which helped us to know the community and discuss such topics with women without harming their feelings.

After the field visits and orientation, we were given the task of reflecting on our observations and challenges in the field of Fatehpur Beri and Bhatti Mines.

### **Work Done at Mamta-**

During our field visit, we were introduced to all the nearby villages like Ansal, Asola, Chandan Hola, Fatehpur Beri, Dera, Sahurpur, Satbari, Chota Bans, and Bada Bans. we visited different anganwadis and met the ASHA workers and their helpers. We saw how the children were educated there and mid-day meals were served under the Poshan Abhiyan. We visited the Panchayat and the PHC. Only one PHC is located in the complete area in the Fatehpur Beri region. It is also the only center for DOTS. Primary and secondary school is also there in Fatehpur Beri where children from all the nearby villages and even Bhatti mines come for education. The houses here are majorly pakka and semi-kaccha.

People in Fatehpur Beri are financially sound but lack education which makes male dominance prevalent here. Women have complained of domestic abuse and they have been restricted to move out of the house. Women here are

uneducated and have low literacy levels which don't enable them to empower themselves.

We had been a part of different activities that took place in the MAMTA office in Fatehpur Beri, the activities were – attending the orientation of the health survey application by MAMTA.

The app that was launched was the HMIS application which helps in determining the different aspects of the health of the mother as well as the household member consisting of a communicable and noncommunicable measure of disease.

We had an interactive session with ANWs. We had been a part of group formation meetings. We had done the household map sketching from Chhatarpur Metro Station to Bhatti Mines and baseline data analysis.

### **Work done at CURE-**

While working with CURE, we were made familiar with the Bhatti mines area and were introduced to the Mwater application and how to carry out the baseline survey in the Bhatti Mines.

We visited the PHC and got to know that women here are giving home birth rather than institutional birth. There is a lack of health facilities here for which people have to go to either Fatehpur Beri PHC, safdarganj hospital or Malviya Nagar hospital. We observed that pregnant women in Bhatti mines register at the time of pregnancy but give birth at home due to various reasons like- lack of transportation facility, lack of family support, unsupportive behavior of the staff at the hospital, etc. women in Bhatti mines generally get delivered at home by the help of a trained Dai.

There are a total of 8 active ASHA workers working in Bhatti Mines, and there is a Mahila Panchayat office that is working on different issues raised by women in Bhatti Mines.

Bhatti mine is an unregistered slum. People living in Bhatti mines are mainly Pakistani refugees, Sadee jati, khadi jati, and majorly belong to the labor class. People here live in kaccha, pakka, or semi-pakka houses.

In the whole Bhatti mines, there was only one private school and two government schools where kids go into different shifts.

While doing the baseline we identified major issues which needed to be supervised. Animal attacks are more prone in this area which can be dangerous for people living there. In the mud house area, dog bites are very common.

There are only soak pit toilet for public use which is not accessible to everyone so the practice of open defecation is acquired by the majority of people.

Tobacco consumers are in high number from a very young age to old age and which causes poor oral hygiene of the people. Young teenage boys are involved in drug abuse which is a major concern.

Many men of the houses in Bhatti Mines are alcoholics who are leading to major issues rising in Bhatti Mines towards women such as domestic violence and women having to bear the whole burden of her household and her children by herself.

Bhatti Mines population is largely affected by TB and most households either have a history of TB or are affected by TB.

The women of Bhatti are not only malnourished but their bodies are being affected by repetitive childbirth and many miscarriages, the cause is still unknown. While doing the survey, we go to know that many women do not know the exact cause of their pregnancy loss. Women who are undergoing home birth, are affected by the issues like postpartum hemorrhage, uterine prolapse, infections, and majorly they are anemic.

Domestic violence is more prone in Bhatti Mines, women have undergone serious assaults not only by their husbands but their in-laws and other peers too, so this might be one of the stressful reasons for women in that area.

People are not aware of the different health schemes by the government or the facilities which are provided by government organizations.

Despite these challenges we also found that the community was welcoming towards us, they are open to providing data and open to communication.

## **LEARNING**

In professional learning – we have been comprehensive with the baseline data study in the community which included the questions which have to be asked and learned household mapping.

We learned to be community-centric, sensitize with the community and deal with the different situations in the community, and also flagship the important issues.

We learned the ways to improve our communication skills in professional areas.

We learned the Presentation ethics – how to do to presentation and what the requirements are needed to be assimilated into it.

Academic Learning – we acquired the knowledge to conduct Research and Analysis; We became proficient in area mapping and sketching; Report documentation; Acquired knowledge that is necessary for the public health sectors such as government provisions, different policies, different facilities, and different missions which are ongoing in the sector of public health.

Personal Learning - As public health students we touched down on the ground levels of the community and how things work in the community; It helped us to understand the different interventions and awareness which is needed for society.

## **LIMITATIONS-**

Certain limitations to our study were-

- Since there are a majority of laborers in the area, during our time of study most of them were not at home to give the answers.
- A concurrent health facility evaluation was not conducted which could have helped to understand other supply-side factors.

## **SUGGESTIONS**

After looking at the events in the Bhatti mines, we would like to recommend that-

- More emphasis on education should be provided since there is a large number of dropout young males from the school.
- Education shouldn't just be theoretical, but it should be practical and students should be taught to treat both the genders equally, about reproductive health, should be taught about the ill effects of tobacco and drugs.
- Educating the women of the house regarding nutrition is a must.
- Families should be more educated regarding family spacing methods, birth control methods, and family planning.
- Women suffer miscarriages because of poor nourishment. A special focus on the health of pregnant women should be there.
- Proper transportation facilities should be provided.
- A proper functional general hospital should be there in Bhatti mines so that people do not have to travel very far to get the treatment done.
- Since there are a lot of domestic abuse cases, special meetings for women should be held to educate them and empower them as a team.

## ***Section II***

### ***Research Learning***

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***An Exploratory Study of the Determinants of Traditional Home Births and Health Facility Assessment in Bhatti Mines in Chhatarpur Area of New Delhi.***

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## Introduction

Maternal deaths significantly increase as a result of home deliveries without competent care at birth. In 2017, 810 mothers a day lost their lives as a result of different pregnancy and childbirth-related issues, accounting for nearly 295,000 maternal deaths. According to popular belief, facility-based prenatal and postnatal care can save thousands of women's lives<sup>1</sup>. India is one of the low- and middle-income countries (LMICs) where about 94 percent of maternal deaths take place.

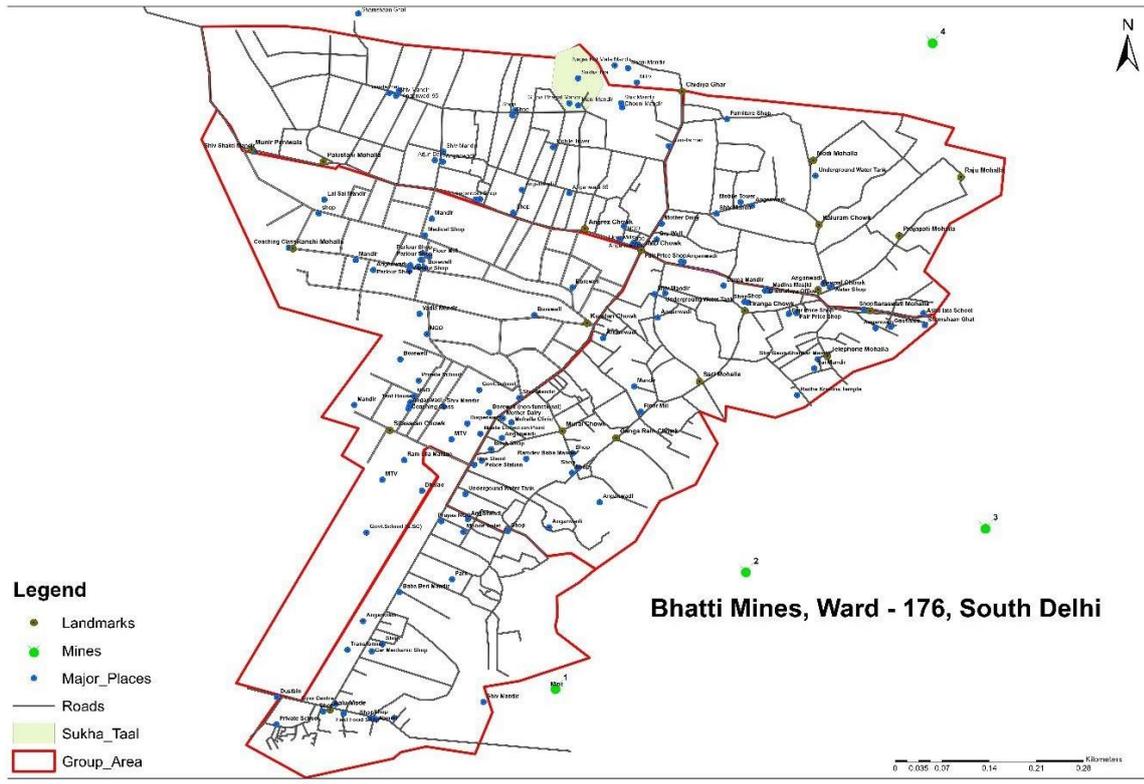
A crucial global goal to lower mother and newborn mortality is to increase institutional births<sup>1</sup>. India is one of many nations that have incentive programmes and regulations in place to promote institutional births. However, these programmes face particular difficulties due to the growing rise of low-income urban populations. Newcomers to cities are less familiar with the services and registration procedures available there, and they lack the support of a larger family. In low- and middle-income countries, about 40% of the urban population lives in low-income urban areas. In these environments, institutional birth rates must be increased with greater concentration. The majority of mother deaths occur during pregnancy and in the first few days after delivery<sup>2,3</sup>, and facility-based birthing is reported to be more beneficial in nations with high rates of maternal mortality and morbidity.<sup>4,5</sup>

India presently accounts for almost a fifth of all maternal and newborn mortality worldwide<sup>6</sup>, and by 2030, nearly one-half of the country's population will reside in urban areas. According to WHO figures from 2010, only 50% of expecting moms in India go to all four antenatal care (ANC) appointments and deliver their babies with an SBA present.

By encouraging institutional births among low-income expectant women, India's National Rural Health Mission (NRHM) established the Janani Suraksha Yojana (JSY) initiative in 2005 with the intention of lowering maternal and newborn mortality. The number of ANC visits and institutional deliveries increased, according to a 2007–2008 review of this conditional cash transfer programme. This has not, however, resulted in a decrease in the maternal mortality rate (MMR), maybe as a result of unresolved difficulties with non-financial access hurdles and inadequate ANC, delivery, and postnatal care. Additionally, the JSY programme did not directly address all of the difficulties that the urban poor faced.<sup>8</sup>

The gap between the socially excluded group across states, as well as between the poor and the non-poor, in terms of utilisation and accessibility to maternal healthcare services has been discussed by numerous academics across India. The choice of delivery location is influenced by a number of factors, according to studies on home births. Distance to medical facilities, hospitalisation costs, transportation costs, level of education, and availability to antenatal care have all been recognised as important factors.<sup>1</sup>

The main aim of this study was to understand the factors influencing the place of delivery, and why women prefer home deliveries in urban slums areas (Bhatti Mines)



## **Objectives**

1. To determine the existing status of home childbirth and institutional deliveries looking at women of age 15-49 years who have delivered in the preceding 3 years in the Bhatti Mines area which is a urban resettlement colony in Delhi
2. To assess the determinants of home births compared to institutional delivery in women of age group 15-49 years who have delivered in the preceding 3 years

## METHODOLOGY

STUDY DESIGN – Cross Sectional Survey using quantitative methods

STUDY SETTING – Approximately 1.8 million of the 22 million population of Delhi lives in slum areas.<sup>9</sup>

This study was conducted in south west zone of Delhi in Bhatti mines, which is home to nearly 22,000 people spread among 4,000 households. ASHAs and ANM workers helped to identify babies born in the area over the preceding 3 years, in Bhatti mines.

### SAMPLING

Mapping of Households –list of deliveries for last 3 years were prepared by the help of ASHA registers.

Sample Size –

Assuming crude birth rate of 14.4/1000 in Delhi <sup>10</sup> a population of 22,000 had approx. 300 deliveries in a year. Using StatCal sample size calculator of Epi Info for simple random sampling in a population survey of a population of 300 persons with expected frequency of 50% and a 10% acceptable margin of error and design effect of 1 we must have a sample of 73 for confidence level of 95%.

Assuming a sample size of 75 among 300 deliveries each year, we took sample one in four deliveries each year. i.e. 225

**Sampling Method:** Out of the household list that we have prepared from the ASHA list of deliveries, our sample of every 4th household in the list. In case of non-availability of members of household the next house on the list will be selected.

Data collection tools – The data collection tools consisted of structured interview having close ended questions. The 2021 Global Multidimensional Poverty Index (MPI) of UNDP was used to measure deprivation.

Data Analysis plan – The data was recorded in the excel sheet followed by which data cleaning was done. The data was then analysed using IBM SPSS Version 22 for Windows (IBM Corporate, Armonk, New York, USA). Using Open-Epi software, Chi-square test was performed to test associations between certain factors such as deprivation, cost of delivery and high-risk pregnancy with prevalence of home births or institutional births. A value of  $p < 0.05$  was considered as statistically significant.

## RESULTS

Socio demographic features of study population are described in Table 1. Total number of women interviewed were 226. Majority of women were in the age group of 20-30 yrs., around 83%. More than 70% women were educated up to high school and more. Around 70% women have 2 or more children. Around 74% households came out to be deprived according to Global Multidimensional Poverty Index.

**Table 1 - Socio-demographic characteristics of Study Population (N=226)**

Variables	Study population N=226
Age	
<20 yrs.	2
20-30 yrs	187
>30 yrs	37
Education	
Illiterate	80
Up to High school	121
High school and above	25
Parity	
1	64

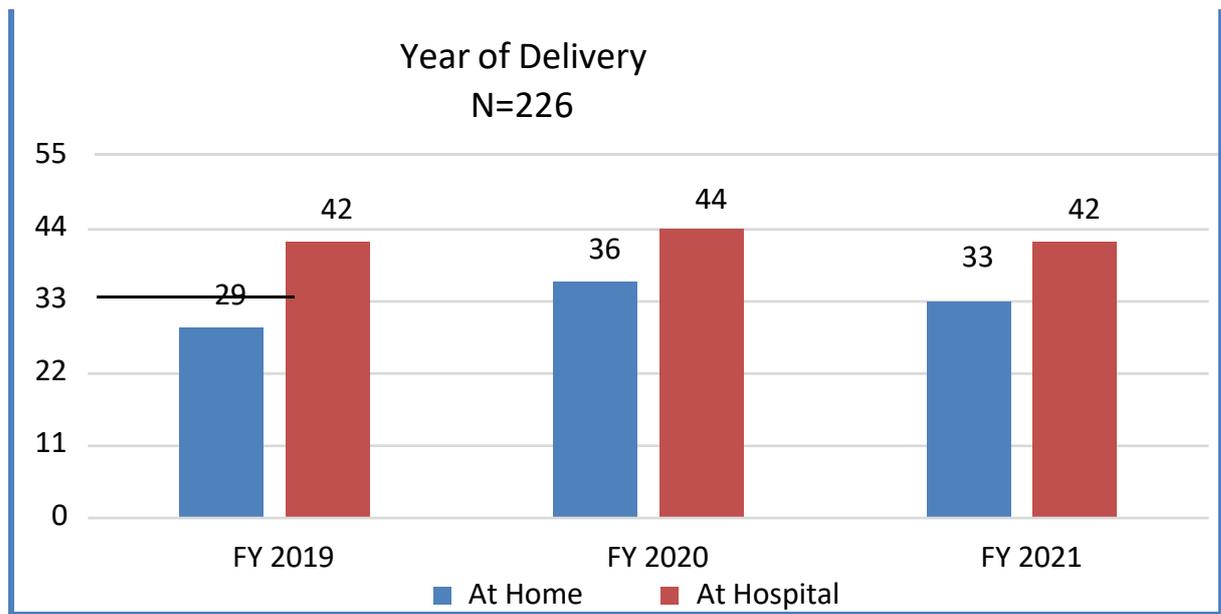
2	78
3	48
>3	36
<b>Deprivation Index</b>	
Yes	168
No	58

Among 226 women surveyed, 128 or 57% women went to Hospital or Nearest Health Facility for childbirth, whereas traditional home births were chosen by 98 women. (Figure 1) Out of which 29 Home Births and 42 institutional deliveries were conducted in financial year 2019, 36 home births and 44 institutional deliveries in FY 2020 and in FY 2021, 33 Home births and 42 institutional deliveries. (Figure 2)

**Figure 1: Place of Delivery (N=226)**

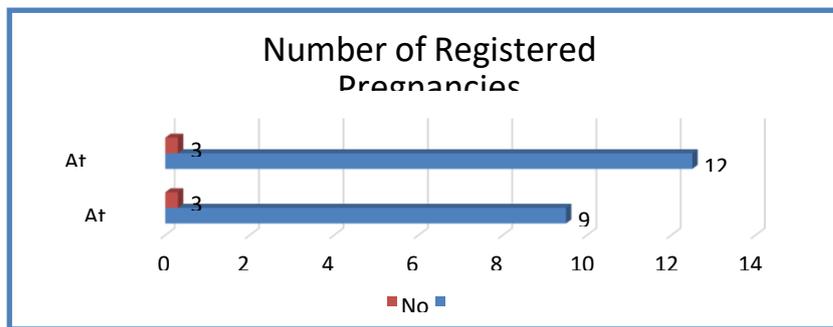


**Figure 2 Comparison of Year and Place of Delivery**

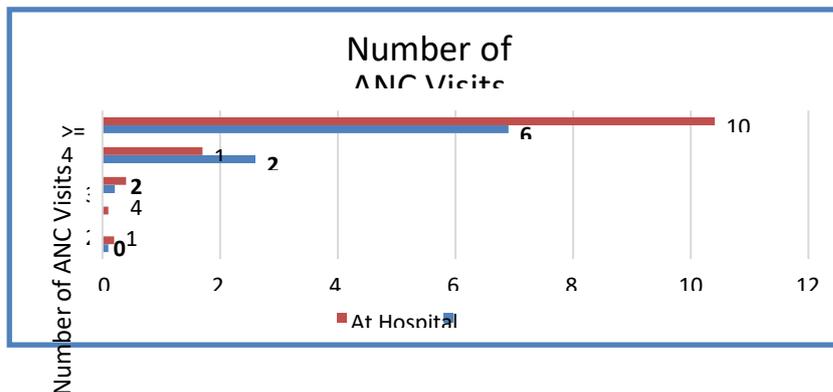


95 of women who preferred Home based childbirth got themselves registered at time of pregnancy. Around 97% of women who went for institutional delivery, registered their pregnancy. All of them got registration done under Government health facility. (Figure 3) ANC visits comprises of measuring Blood Pressure, Anaemia Test, giving Iron and Folic Acid Supplements (100 tablets), ultrasound and TT immunizations. 75% women have completed their Ante Natal Care (ANC) visits of 4 or more visits, with 40% women were those who preferred home births. 4% women went for maximum of 2 visits. (Figure 4).

**Figure 3 Comparison of Number of Registered Pregnancies with Place of Delivery**



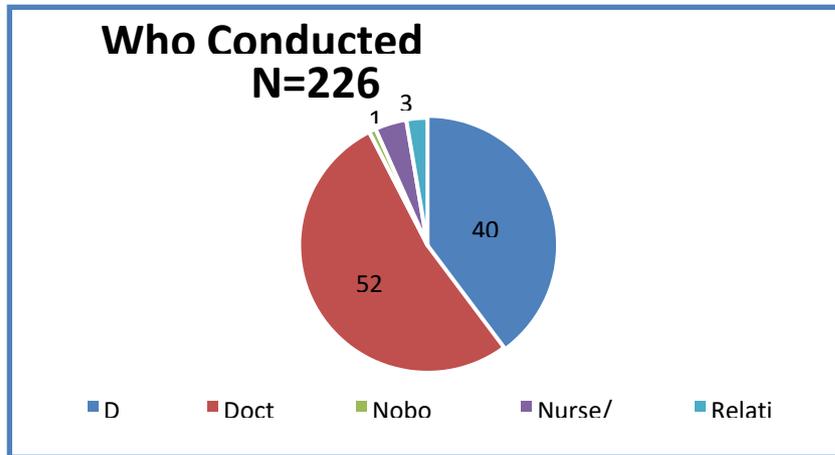
**Figure 4 Comparison of ANC Visits with Place of Delivery**



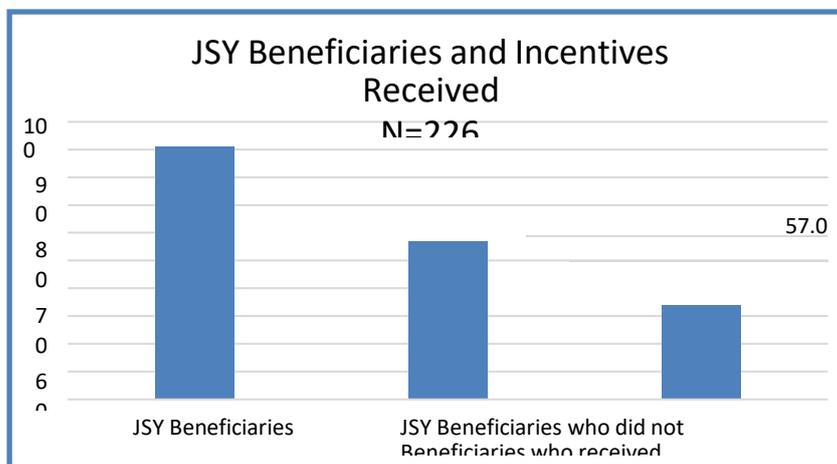
When interviewed about who conducted the delivery, 52% replied Professional Doctors and around 40% deliveries were still performed by Midwives (Dai). 1% women conducted childbirth herself while 7% took help from their Relatives or called Nurse or ANM. (Figure5) Questions on awareness of women on JSY scheme and if received incentives were asked,

where only 91 of them were aware of the scheme and only 37% of them received incentives. (Figure 6)

**Figure 5 who conducted Delivery?**



**Figure 6 Number of JSY Beneficiaries and Incentives received**



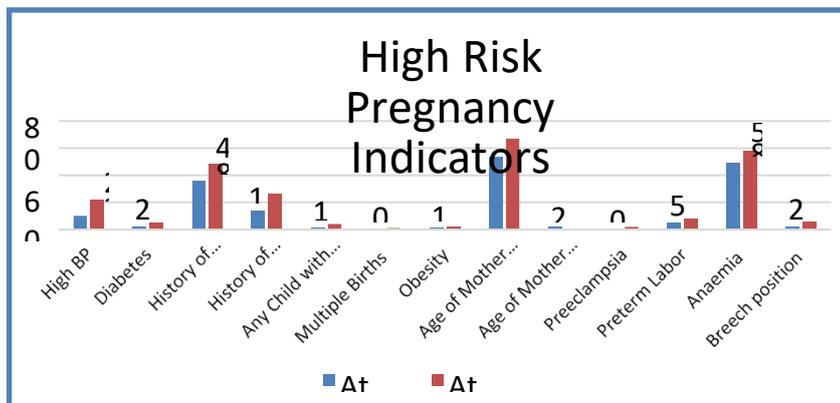
Using Chi square Test, Age of women, Education status, Parity of women and Deprivation index came out to be statistically significant. When deriving correlations using Pearson Correlation Test, Age had a weak correlation with place of delivery. Education status of women had a very strong correlation with correlation coefficient of 1 with place of delivery. Parity of women is strongly correlated with women's preference of place of delivery. Deprivation Index is strongly related with place of delivery with Pearson correlation coefficient of 0.78. (Table 2)

Table 2 Statistical Analysis

Indicators	P value	Pearson Correlation Coefficient
Age of Women	P<0.05	0.398
Education Status		1
Parity of Women		0.762
Deprived Households		0.78

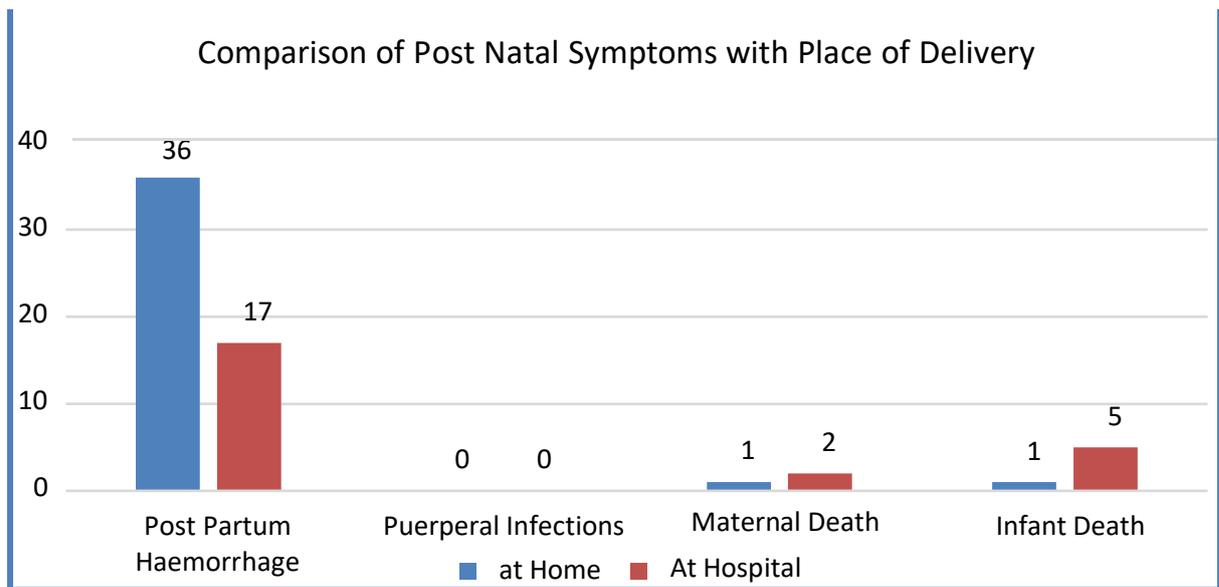
Indicators for High-Risk pregnancy were considered. 31% women who have High BP preferred Homebirths. 7 women had diabetes. Prevalence of history of miscarriages is 38% at Bhatti mines. 5 women had children with birth defects. 3 women reported obesity. 53% women had age below 18 years, of which 45% preferred traditional homebirths. 2 cases of Preeclampsia were reported. 13 women went into Preterm Labour. Anaemia was prevalent among the community with 47% women reported in survey. 8 women reported Breech position. (Figure 3)

**Figure 7 Comparison of High-Risk Pregnancy Indicators with Place of Delivery**



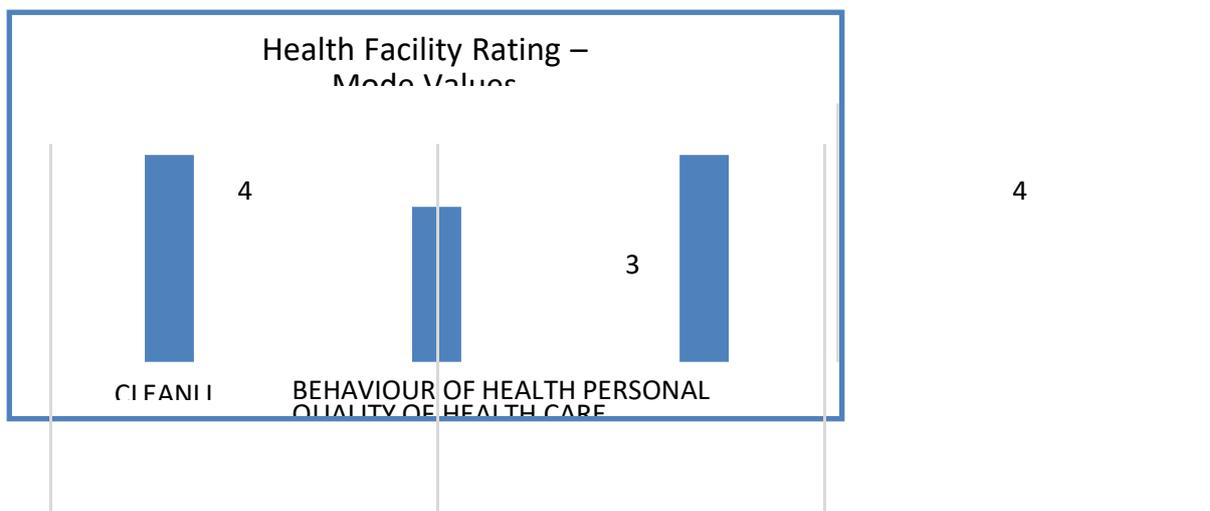
Comparison of Post Natal symptoms with place of delivery was plotted. Post-Partum Haemorrhage cases were 70% in case of homebirths. Maternal and Infant deaths were more in case of Institutional deliveries due to ignorance towards women and child's health. (Figure 8)

**Figure 8 – Comparison of Post Natal Symptoms with Place of Delivery**



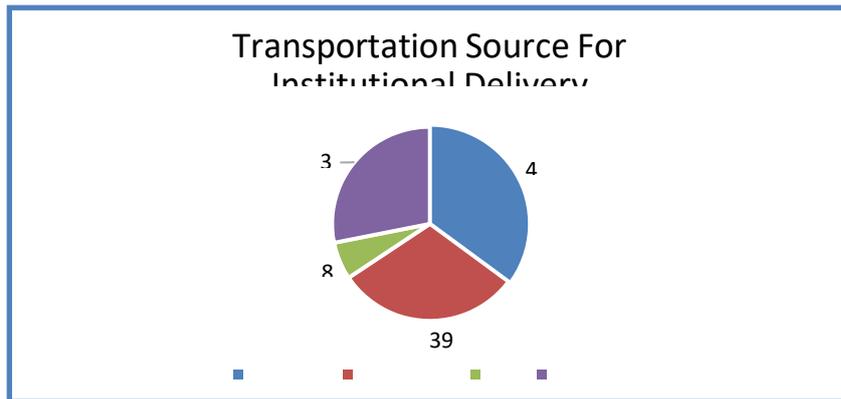
When interviewed women preferring institutional deliveries about their views on health facility using a Likert Scale from 1 to 5, they rated cleanliness as 4, behaviour of health personnel as 3 and quality of healthcare as 4, using mode values. (Figure 9)

**Figure 9 – Health Facility Rating**



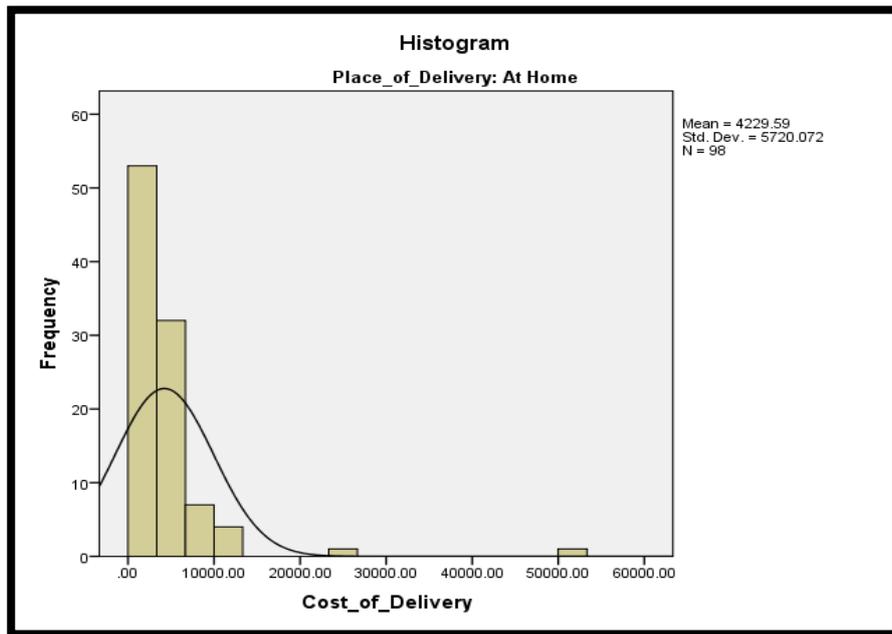
Mode of Transport used by women who preferred institutional delivery is distributed as Ambulance, Private Vehicle, Autorickshaw and Bike. 30% travelled by Ambulance. 35% used their own vehicles or preferred cabs.(Figure 10)

**Figure 10 Transportation source for institutional delivery**

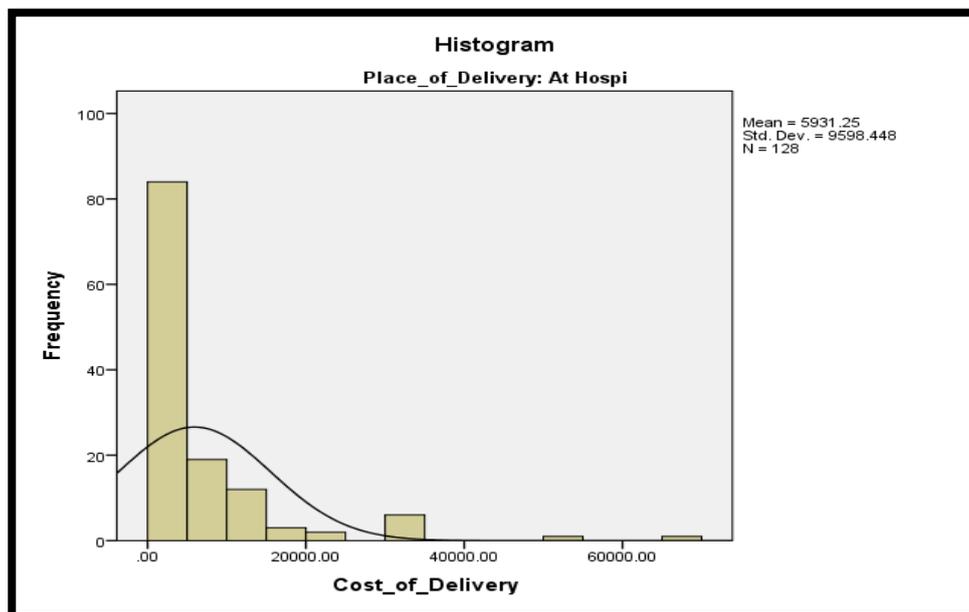


When interviewed about estimated cost in case of homebirths, range was from Rs 1000 to Rs 10,000 with a mean value of Rs 42259.59. For women who preferred institutional delivery, cost ranges from Rs 1000 to Rs 20,000 with average of Rs 5931. (Figure 11 and 12)

**Figure 11- Cost of Delivery for Homebirths**



**Figure 12 – Cost of Delivery at hospital**



## DISCUSSION

India extensively has a large population that belongs to rural areas. The reach for the maternal health system is still in the process.

our study which included the females of the Bhatti mines in Chhatarpur, Delhi was focused on why and what is the reason for choosing home birth rather than institutional birth, which is very much prevalent in an area of Bhatti Mines, Delhi. The females of Bhatti Mines usually belong majorly to low economic income groups.

With the sample size of 226 women, we found that 98 deliveries which are 43.4 percent of the women delivered their babies at home percent, which is more than the average percentage of India's home birth delivery rate which is 22 percent<sup>1</sup>. In 2019 majorly home birth took place in Bhatti Mines which was 71 i.e 31.4 percent, In 2020 significantly numbers increased up to 80 i.e 35.4 percent and in 2021 there was 75 home birth which is 33.2 percent. Taking the percentage of institutional deliveries which is an average of 88.6 percent to the NHFS<sup>2</sup> data we can compare that in Bhatti Mines only 56.6 percent.

The lack of social determinants, like poor water and health sanitation, also assimilate in the knowledge of how one can do not have this basic access, so the quality of their life automatically decreases which indicates that their health condition is also deprived<sup>3</sup>.

The majority of women who opt for home birth were delivered by the Dai ( an old woman whois trained in delivering the baby ) in that area, the percentage of Dai delivering in Bhatti Mines is 40 percent. Nivedita et al reported that majorly birth in the slum area of Mumbai was delivered by dai's only<sup>4</sup>. Dai charges accordingly with different charges with the different locality of the area, concerning the gender the charges fluctuate too if the gender of the baby is male Dai charges more and if it is a female child, the charges are comparatively less as told by the women of Bhatti Mines. It was seen that some of the women are choosing home birth but they conduct their delivery by themselves.

The percentage of deliveries held by the doctors was only 52 percent and the

ANM was only 4 percent which is not a great number looking at the population of Bhatti Mines, some of the women are well versed in the delivery process, so they don't feel the need for ANC care visits or maternity care that included 1 percent of the women who choose to deliver their babies by themselves, The same study by Masuma Yasmin et al identified where women never needed to opt for institutional care service<sup>5</sup>. It was seen that home birth costs more than the institutional deliveries, Still, females opt for the home deliveries, the majority of the people don't know that the deliveries are either free of cost or at minimum cost at healthcare facilities. The analysis shows that more than Rs 3000 is being paid for the home birth, compared to the home delivery it was less than Rs 3000 in the institutional delivery. 52.5 percent of women have paid between Rs 3000 to Rs 6000 and 52.6 percent of women have paid more than 6000 rupees. Archana Gupta et al studied that and suggested home deliveries were to be cost-effective but here in Bhatti Mines, people pay more than that hospitals<sup>6</sup>.

The practice of home birth in Bhatti Mines has been encouraged for a long time, might be that would be taken into consideration that women rather than opting for healthy institutional births, they opt for a home birth.

A study by Jennifer Affah et al has also shown that women who have been registered for ANC visit regularly are likely to give home birth rather than going for institutional care<sup>7</sup>, so in Bhatti Mines, women do have registered in high proportions for the ANC visits, out of 226 women 220 women had more than 3 ANC visits but still at the time of their third trimester ending, they choose for a home birth which is 39.9 percent and 60 percent in the hospital.

The program Janani Suraksha yojana yields gives incentives to the mother who chooses to deliver in a hospital, on their first child they receive a cash amount to promote institutional deliveries, however, out of 226 women, 62.6 percent of women did not receive their incentives to date and only 37.4 percent have received it.

As the home deliveries can give rise to major complications if not performed authentically<sup>8</sup>, the women of Bhatti mines are highly exposed to the complication of postpartum hemorrhage, the number of women suffering from post – partum hemorrhage was 53, out of which 36 women delivered at home and 17 delivered at the hospital.

Due to major complications of maternal deaths and neonatal death which are

seen in the hospital was 2 and 5 respectively and in-home birth it was only 1, are associated with high-risk pregnancy factors. There are many young women which have just passed the mere age of 18 and have undergone repetitive childbirth and miscarriage for that they have been suffering from anemia. The same study has been done in Africa Tanzania by Alex Mremi et al measured that 32 percent of women have been experiencing postpartum anemia with a major factor disposed to it<sup>9</sup>.

Some women who have experienced preterm labor were identified with childbirth defects in the home as well as in institutional deliveries.

Out of 226 women, 212 women were identified as the high-risk pregnancy cases, which was a major reason for institutional delivery which was 57 percent, then the home birth which was 43 percent.

On qualitative parameters, the women who went for institutional deliveries faced a major problem with health professional behavior, although the cleanliness and health care facility was up to the quality mark, the behavior issue can also be one of the reasons which can further discourage women to seek medical professional help. We found out that in total from 226, 98 were the home births and 128 were institutional birth but still there was a resistance which was needed to be carried out, lack of awareness, and low education index has led women has created a hindrance pattern to choose the health facility which only benefits them. Not able to know what are the government schemes and policies which benefitted them have created a pattern of doing home births. Social indicators like poor water and health sanitation affect the reproductive health of the women too, does not have access to the basic amenities like a vehicle for the commute. TV, Fridge, or electricity creates the burden for uplifting their lifestyle which automatically hampers one from seeking medical health attention. Samik Chowdhury et al found in her study how basic amenities can affect health and can be a cause of communicable diseases<sup>10</sup>.

Early age marriage leads to malnourishment creating a vicious cycle of malnourishment, giving birth to babies who are low in weight. Women are being abused and the majority of victims of domestic violence, which has created a barrier in their section, even if they want they could not be reached to the local health facility for their treatment.

The PHC in Bhatti mines and ASHA workers are working, bringing hope to

change the vision of the women so that they could opt for institutional deliveries and family planning methods. The improvement techniques like the family support unit, maternity wards, the emergency vehicle for commute, and implementation of government schemes in a way so that it can reach to every mother who is bearing a child can help in vulnerable area like Bhatti Mines.

## CONCLUSION

Home births are a major cause of death for many women each year. Even though health services are close by and offered help to a community of urban poor people, access is limited.

This occurs as a result of overcrowding, inefficient outreach efforts, a poor referral system, social marginalisation, a lack of knowledge, and unfamiliarity with the contemporary world.

The Bhatti mines have a maternal and child care centre, but there are no birthing facilities there. As a result, the community must travel a great distance to reach the government facilities where babies are delivered.

For the welfare of expectant mothers and infant babies, the Indian government has put up a number of measures. The government of India's Ministry of Health & Family Welfare (MoHFW) has introduced the Pradhan Mantri Surakshit Matritva Abhiyan, which aims to offer guaranteed, thorough, and top-notch antenatal care, free of charge, to all pregnant women on the ninth day of every month.

The Janani Suraksha Yojana (JSY) programme was introduced by NRHM of India in 2005 with the goal of lowering maternal and newborn mortality by encouraging institutional births.

Despite all of the government's policies and initiatives, women in urban slums and rural areas still prefer to give birth at home. This is likely due to a complex interplay of factors, including socio-cultural concerns, religious beliefs, a lack of knowledge and awareness, and inaccurate perceptions of the women. To ensure that they receive the best delivery care, policymakers should concentrate more on the women who reside in more socioeconomically challenged areas and other vulnerable populations. Through increased health awareness and family decision-making authority, women's electronic and economic empowerment could significantly lower the number of home deliveries in India.

According to NFHS 5, the percentage of hospital deliveries in Bhatti mines is quite low—56.6 percent—compared to the country's average of institutional deliveries, which is 88.6 percent.

As a result, this study emphasises the critical need for hospital facility upgrades and the need of family support as the main modifiable factors affecting the majority of this population. The development of initiatives to encourage institutional births should be guided by these findings.

## **Review of literature**

Afsana et al conducted study November 1998 and January 1999 in a district located 300 km north of the capital city of Dhaka to determine the challenges of rural Bangladeshi women's needs in delivery care. Despite initiatives and interventions undertaken at national and international levels, maternal health were still neglected in Bangladesh, and the maternal mortality ratio remained one of the highest in the world. In order to improve rural women's access to maternity care, in 1996 the Bangladesh Rural Advancement Committee (BRAC) instituted services for birthing women in 21 health facilities in each Thana (Block/Ward). The study reported research conducted over three years, based on interviews with women who gave birth in one BRAC Health Centre [BHC) and women who gave birth at home, interviews with staff of the BHC and observation of provider-patient relations. Acceptance of delivery in a health facility by rural women is still minimal. Most women only attended the BHC due to complications, yet the BHC was unable to handle most complications and referred women to the district hospital, where they received poor quality care. Cost, fear of hospitals and the stigma of an 'abnormal' birth were also important constraints. Female paramedics who attended normal deliveries were praised for being caring, but made women deliver lying down, did not always use aseptic procedures and were too busy to give information, making birth a passive experience. Recommendations to provide comprehensive emergency obstetric care at the BHC and upgrade staff skills, introduce rural health insurance and others have already begun to be implemented<sup>11</sup>.

Koblinsky et al analyzed national-level data from several South Asian countries that had drastically reduced MMR since 1950 and showed that maternal deaths could be reduced by providing training for midwives or professionals developing partnerships with midwives, however separately required.

from the political will, effective outreach and referral mechanisms that support the traditional delivery system. Experiences from Malaysia and Sri Lanka show that

women are willing to move from home to care in a facility if transport and services are free for all, if there is better awareness in the facilities and the quality of services is also ensured.[4]

Niveditha et al<sup>8</sup> conducted a cross-sectional survey in urban slums of Delhi and concluded in their study that high prevalence of home births performed by TBAs among the urban poor in North East Delhi district. Fear of surgery, unfamiliarity with the hospital environment, lack of childcare assistance, and loss of wages were some of the reasons that led women to give birth at home. Other predictors of home births were low literacy, higher parity and migrant status. The agreement between the results derived from the qualitative and quantitative data lends more credibility to these findings.

The prevalence and reasons for home births in the study were similar to those found in most other urban surveys [12,13] from India.

Sushmita et al conducted a prospective study of births in 48 urban slums in Mumbai over a two-year period and found wide variation in the proportion of home births. Most of these home births were assisted by traditional birth attendants (TBA/DAI) and direct costs were substantially lower compared to institutional births. Home births were more likely for poorer, less educated women living in immaterial homes in slums with high migration rates and unsafe locations. Limitations of the study included the sampling frame, cluster size, loss to follow-up, omission of certain groups such as pavement dwellers, and the methods used to assess poverty. There was potential for reporting bias as interviews were conducted six weeks after delivery, another limitation was that reasons for home delivery were recorded as open-ended responses to a short question in a quantitative interview. This makes them potentially superficial and limits the ability to interview selected drivers [14].

A study by Prafulla et al showed 16.1% of home births. Institutional births in the country increased from 38.7% as per National Family Health Survey (NFHS-III) in 2005-06 to 46.9% as per District Level Household Survey (DLHS-III) in 2007-08. According to NFHS4 (2015-16), the percentage of

institutional deliveries versus home deliveries in India is 79.9% and 21.1% respectively. Our findings also suggest that there are significant regional differences with respect to the choice of delivery location. A high prevalence of home delivery is reported especially in the northeastern part of India. Promoting institutional births is one of the Indian government's key strategies to reduce morbidity and mortality among pregnant women. Under the National Health Mission, the key steps taken by the Government of India to universalize institutional delivery facilities in the country are: Promotion of institutional deliveries through JSY, Conditional Cash Transfer Scheme. The JSSK entitles all pregnant women giving birth in public health facilities to a free and free delivery, including caesarean section. The findings show that advanced maternal age and higher parity are strong predictors of home births. Various studies have previously shown that a bad pregnancy experience during previous births leads to reduced use in subsequent pregnancies [15].

Garces et al conducted face-to-face interviews with trained interviewers to assess levels of training, knowledge, and practices related to prenatal, intrapartum, and postpartum care. The survey was conducted on a sample of midwives delivering home or out-of-facility births in 7 locations in 6 countries (India, Pakistan, Guatemala, Democratic Republic of Congo, Kenya and Zambia). A total of 1226 home births were surveyed. Less than half of the midwives were literate. Eighty percent had one month or less of formal training. Most home midwives did not have basic equipment (e.g. blood pressure monitor, stethoscope, baby bag and mask with manual resuscitator). Reporting of births and maternal and newborn deaths to government agencies was low. Indian assistant midwives, who perform some home but mainly clinical births, were much better trained and differed in many characteristics from midwives who performed only home births [16].

Agarwal et al conducted a study in the Balmiki Basti slum area of New Delhi (June-July 2004). All married women in the age group of 15-45 years who were either pregnant at the time of interview or had given birth within the last 1 year were included. A total of 100 women identified through a door-to-door survey after obtaining informed written consent participated in the study. These women were interviewed using a pre-structured interview schedule including identifying information, socio-demographic profile, details of antenatal care, delivery, postnatal care and perceived barriers to non-utilisation of maternal health services. In the study population, various socio-economic factors such as literacy of women and their husbands, occupation of husbands showed a significant association with the use of antenatal care services, indicating the impact of education on awareness and health status and use of antenatal care services. population. Most women (76%) received antenatal care.

Mothers using ANC preferred the stage to a lesser extent (13.1%) than those without ANC (66%). The current study shows that there is a lack of awareness or interest in maternal health care among several slum dwellers in Delhi despite its availability. medical facility in the vicinity. In a study of the use of maternal care services over time, a significant improvement in subsequent pregnancies was observed due to better information.[17]

Chung et al conducted secondary research on NFHS-4 data and found that the current study suggests various predisposing factors standing in the way of childbirth in India. Demographic factors were women's older age, rural location, and Muslim religion, while socioeconomic factors were lower education level, lower income, and lack of health insurance. Through an updated network of health facilities and various government programs introduced in recent years, younger women have received better birth care than older women. In addition, with advances in education and opportunities for empowerment, younger women were more aware of the adverse effects of home birth and therefore delivered in health facilities. Rural women gave birth at home more than twice as often as urban women Seasonally or casually employed women gave birth at home more than their peers who worked year-round Women who experienced domestic violence gave birth more often at home than women who did not face domestic violence.

[11]

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## **CASE STUDIES**

### **Drug Addiction case**

A household in Aloo Morr (Bhatti mines) informed our team during the survey that their teenage boy went missing a few days ago. The family stated that they had been searching for their child for four days now. It came to our knowledge that the police were also not very supportive of the issue. The team went for the second time after 5 days and got to know that the boy was still missing and all the efforts of the family to search for him went in vain. The third visit was after the next 5 days when the family informed us that the boy came back home and they have sent him to work. On asking about the whereabouts of the boy, they couldn't give us satisfying answers.

On further enquiring the local people, we got to know that this is a very common pattern in the Bhatti mines where young teenage boys go missing from their houses for 10-15 days or sometimes even more and come back by themselves or were spotted in the jungle by the local people and their families were informed regarding the same.

### **Women Burnt Alive in Bhatti Mines**

A household in Bhatti Mines informed our team member during the survey about her sister-in-law that she was burnt alive a few months back by her husband after a heated argument. Even when she was admitted to the hospital for further treatment, she refused to blame her husband or in-laws, thinking about their children. Later on, she died after one month in the hospital.

### **A Pregnancy Complication By Preeclampsia**

A 23-year-old pregnant female in her 8<sup>th</sup>-month pregnancy had 2 -3 episodes of vomiting post that she started showing symptoms of a seizure, as stated by her husband. Her body started getting stiff, shivering abnormally, and frothy secretion from the mouth. The husband immediately arranged for an auto-rickshaw and took her to PT.Madan Mohan Malaviya Hospital. Hospital referred her to Safdarjung hospital. According to the family, till they reached

Safdarjung, the female already had 5 to 6 episodes of convulsion. Further, the female showed some incoherent behavior, not oriented to time, place, and person.

### **High Incidence of Miscarriages at Bhati Mines, Delhi**

A 28-year-old female when asked about the number of miscarriages she has had to date, reported two miscarriages in between her four live-born children. She weighed only 40 kgs. When inquired in detail about the reason, she stated malnourishment and less hemoglobin, for which she was prescribed iron tablets.

Another case of a 28-year-old female was considered having 4 miscarriages in between 5 children i.e., four girls and the eldest boy. Her first conception was at the age of 18 years and that is the reason stated to her for these spontaneous abortions.

## **BLOG 1 - Reach to non – communicable disease starts with the health system**

Bhatti Mines, a solicited area of Delhi, home to more than twenty thousand people. Every day is a new challenge for the people living over there. Reaching out to people living in Bhatti Mines comes up with a different set of exceptions.

While conducting the survey the set of questions which reflects not only the livelihood of the people but the health determinants concerning the population that is Non – communicable diseases. Talking about non-communicable diseases, during baseline we found that people are prone to be diabetic and hypertensive over here.

According to WHO, Diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. Insulin is a hormone that regulates blood sugar

In 2014, 8.5% of adults aged 18 years and older had diabetes. In 2019, diabetes was the direct cause of 1.5 million deaths and 48% of all deaths due to diabetes occurred before the age of 70 years.

Diabetes is of two type's type 1 and type 2:

Type 1 is also known as insulin-dependent where our body does not produce enough insulin and had to inject it from outside. Another is Type 2 also known as a non-insulin dependent, which occurs when the stored glucose is not efficiently converted into energy. It can cause by many reasons such as hormonal imbalance, physical inactivity, and obesity.

Hypertension is known as the force exerted by the blood against the wall of the arteries, the more blood your heart pumps and the narrower your arteries, the higher your blood pressure. The major cause of hypertension is not taking adequate diet and lifestyle changes.

As earlier, it was a say that **'hypertension and diabetes are diseases of rich people'** but now it can be seen in middle and lower-class people too. Looking towards the cases of Bhatti Mines during the baseline survey, it was found that yet there is a reach of a system but there is a resistance from the people, they are either do not want to tell or they do not seek medical help despite knowing

the consequences, lack of education and awareness leading to the life that affects their health.

It was seen that in Bhatti Mines, many people are large numbers of tobacco and alcohol consumers, eventually developing diabetes and hypertension. The total of the tobacco consumers identified in Bhatti Mines was 16 percent and alcohol was 13 percent respectively

The status of hypertension in Bhatti Mines is 10 percent and diabetes is 8 percent but in total cumulative data we can observe that there is only 5 percent of the cases who are seeking medical help and others are not.

Tobacco and alcohol consumption in total contributes 29 percent of their holdings for carrying out diabetes and hypertension in the major population. Cheap alcohol and tobacco led to more intake and were easily accessible in Bhatti Mines are the major contributing factors.

The question here arises what can be done? As in Bhatti Mines, people are already prone to communicable diseases like TB and other health problems which are faced by women of the community, malnourishment, and other social determinants such as water health and sanitation, how we can acknowledge that decreasing the burden of non-communicable diseases should be done. And secondly why there is a need?

The need for health is not valued until the sickness comes. In accordance what are the approaches we can go for that could reach the community and will aim the community, is free health check-up camps on regular intervals, follow-ups, raising awareness by educating them, and managing the workforce within the health system

The need is not falling for one person but their generations too, if one can be healthy it would be an asset and the health expenditure not only from one's pocket will reduce but a disease burden on the country will reduce too.

When we talk about data, we only talk in numbers but there are many cases that are left behind, which are latent, the given data has shown us the exact numbers of the exact forms but actually, the question comes in the last, how and what –

How can we reach the deep-rooted cause and how can we aim to eradicate it?

What could be done for the people who don't come out?

All answers can not only be found in the reach of the health system for the community but also as an individual either from health or not, but educate them if there we seek a succession we have to step forward, that how we can make this health system for us.

Though much resistance would be there overcoming these will establish resilience.

## **BLOG 2 - Traditional Home Birth in Urban Slums of Delhi**

### **Field experience**

Sanjay colony, Bhatti mines was our area of concern. It is an unregistered slum which is located in the Southwest part of Delhi (ward no. 725). During our field visit, we came to know that people here are not much educated which pushes them to the labour sector and lower socioeconomic status. We were exposed to the lifestyle of urban poor population and they were very welcoming.

### **Issues observed & Reflections:**

Non-health indicators:

Electricity is present in most of the houses in Bhatti mines but the water supply is comparatively dissatisfactory. People are unaware of the methods to treat water before drinking, which results in many water-borne diseases, especially in the monsoon.

No proper garbage disposal system or proper sanitation facility is present in the households, which makes the area unhygienic, and the lack of toilets in the houses results in open defecation which attracts many vector-borne diseases.

No proper transportation facility is present in Bhatti mines, which makes commuting very difficult for the local people.

Health indicators :

People here are mostly malnourished and women of the reproductive age group also appeared to be very weak.

No proper hospital is present in Bhatti mines, because of which people suffer a lot of problems even for the basic treatments. Pregnant women suffer inconvenience due to no ultrasound machinery present in the Bhatti mines.

Drug abuse was evident in Bhatti mines. Most of the men were alcoholics and their wives complained of them spending a major amount of money on alcohol. Women also complained of domestic violence.

Most of the young boys dropped out of school to earn a livelihood, but some of them were deluded towards drug abuse.

### **Analysis from Data Collection :**

The total sample size taken for the **Exploratory Study of determinants of traditional home birth in Bhatti Mines, Chhattarpur Area in New Delhi** was 226.

Out of 226 deliveries, 71 deliveries were from the year 2019 (31.4%), 80 deliveries from the year 2020 (35.4%), and 75 deliveries from the year 2021 (33.2%).

220 pregnancies out of 226 (97.3%) were registered pregnancies.

Deliveries in Bhatti mines were conducted via 5 channels- deliveries by doctors were 119 (52%), deliveries by nurses/ANMs were 9 (4%), deliveries by Dai were 90 (40%), and deliveries by relatives were 6 (3%), and women who delivered by themselves were 2 in number (1%).

212 women reported high-risk pregnancies out of a total of 226 women, due to which institutional deliveries were slightly more (57%) than the home births (43%).

Women who had high-risk pregnancies preferred the hospital more but still suffered a post-partum miscarriage due to poor health conditions during pregnancy. 84 women out of 226 women have suffered a post-partum miscarriage, out of which 36 women delivered at home (42.9%) and 48 women delivered at the hospital facility (57.1%).

173 women out of 226 women had more than 3 ANC visits, out of which 69 women delivered at home (39.9%) and 104 women delivered at the hospital (60%).

Women who spent less than 3000Rs per delivery generally delivered at the hospital (57.6%); women spending 3001-6000Rs per delivery, delivered at home (52.5%); women spending 6001-1000Rs per delivery, delivered at home (52.6%); and women spending more than 10,000Rs per delivery mostly delivered at the hospital (85.7%).

Total beneficiaries for Janni Suraksha Yojna were 96 out of 226 (42.4%). Women who received incentives were (37%) far less than the women who didn't (63%).

Conclusion: Total number of home births were 98 out of 226 (43.4%) & 128 (56.6%) were institutional deliveries.

### **Connecting Practical experience to theory –**

A pregnant woman needs good nourishment for herself and her baby at the time of pregnancy; failing so, if adversely affects the health of the new born and the mother as well.

Since the women in Bhatti mines were malnourished and anaemic, most of them suffered miscarriage during the pregnancy or gave birth to a very weak child who couldn't survive after birth.

Knowledge regarding reproduction should be provided to the young adults, so that they are aware of the family planning methods and contraceptions; failing so, we could see the large family size in the area.

Alcohol results in disruptive mood pattern which could be seen in the males of the Bhatti mines. Most of the men are alcoholics which results in the complete burden on the female to take care of the house & children. A significant correlation was seen in the alcoholic husbands and domestic violence in those families.

# ANNEXURE

## (1) Informed Consent

### Information by the interviewer

Namaste! We are students at a health management institute in Dwarka, New Delhi, named IIHMR. We want to ask you some questions related to a research project which we are working on under PSI. This project is regarding childbirths that take place either at home or in the institute and reasons for the decision regarding the place of delivery.

Your participation in the survey is voluntary. The questions which will be asked to you usually take about 10-15 minutes. All the answers you give will be confidential and will not be shared with anyone other than the members of our survey team. Your name and identity will not be recorded. You may refuse to take part in the research or exit the survey at any time without any consequences. You are free to decline to answer any particular question you do not wish to answer for any reason. You will receive no direct or indirect benefits from participating in this research study. However, your responses may help us to learn more about the subject which may also be beneficial to you in terms of improvement of health services in your area in the future. Thereby we request you to please participate in this study.

In case of any query, you may contact the institute at 01130418900 or IIHMR, Plot no 3, Sector 18 A, Dwarka Phase II, New Delhi 110075.

### Informed Consent by Participant

"I understand that my participation in the study is purely voluntary, and I may choose to withdraw from the study at any point if necessary. I also understand that the information provided by me will be kept confidential and will be used for this research only.

The details of this study have been explained to me. I hereby provide my voluntary consent to participate in the above research study."

(The sign of the participant)

## (2) Study Tools – Questionnaire

House Number (Code) –

Q1 Type of Family/ Household

- Nuclear Family
- Joint Family

Q2 What is your caste category?

- General
- SC
- ST
- OBC
- Don't want to say/ Don't know

Q3 How many live-born babies did you had?

- 1
- 2
- 3
- More than 3

Q4 Did you get yourself registered at the nearest health facility during your last pregnancy?

- YES If Yes, Which Health Facility
  - Govt.
  - Private
- NO

Q5 How many check-ups/ ANC visits have you had during your last pregnancy?

- 0
- 1
- 2
- 3
- >3

Q3 Did ASHA/ ANM/ Health personnel perform the following tests/ procedures?

- Blood Pressure (Yes/ No)
- Anaemia (Yes/ No)
- Urine test (Yes/ No)
- Ultrasound (Yes/ No)
- TT injections (Yes/ No)
- Iron/Folic acid tablets (Yes/ No)

Q4 Where was the last baby delivered?

- At Hospital/ Health facility,

If Hospital/ Health Facility

- What was the type of health facility?
  - Govt.
  - Private
- How did you get to the health facility?
  - Ambulance
  - Private Car
  - Rikshaw
  - Autorikshaw
  - Bike
  - Tractor
  - Other, Specify.....
- On a scale of 0 to 5, how would you rate following in the health facility?
  - Cleanliness.....
  - Behaviour of health personnel.....
  - Quality of medical care.....

- At Home

If at home, Who conducted the delivery?

- Trained Dai
- Relative/ Neighbour (untrained)
- Nobody/ herself

Q5 What was the cost of delivery?

Answer.....

Q6 Are you aware of the Janani Suraksha Yojana scheme of Government?

- Yes            If Yes, then did you receive any cash incentives?
  - Yes
  - No
- No

Q7 Are you registered under Ayushman Bharat?

- Yes
- No

Q8 Did you encounter any of the following high-risk pregnancy criteria during your last pregnancy?

- High blood pressure
- Diabetes
- HIV positive
- history of miscarriage, preterm labor, or cesarean delivery with previous pregnancies
- History of pregnancy loss
- Any child with birth defect
- Multiple Births
- Obesity
- Age <18
- Age above 35

Q9 Did you encounter any of the following complications during your last pregnancy?

- Gestational Diabetes
- Preeclampsia
- Preterm labor
- Anaemia
- Infections
- Breech Position
- Placenta Previa
- Low birth weight

## Annex: The dimensions, indicators, deprivation cutoffs, and weights of the global Multidimensional Poverty Index

Dimensions of Poverty	Indicator	Deprived if living in the household where...	Weight
Health	Nutrition	Any adult under 70 years of age or any child for whom there is nutritional information is undernourished. <sup>1</sup>	1/6
	Child mortality	Any child under the age of 18 years has died in the family in the five-year period preceding the survey. <sup>2,3</sup>	1/6
Education	Years of schooling	No household member aged 'school entrance age + six' years or older has completed at least six years of schooling.	1/6
	School attendance	Any school-aged child is not attending school up to the age at which he/she would complete class eight. <sup>4</sup>	1/6
Standard of living	Cooking Fuel	The household cooks with dung, wood, charcoal or coal.	1/18
	Sanitation	The household's sanitation facility is not improved (according to SDG guidelines) or it is improved but shared with other households. <sup>6</sup>	1/18
	Drinking Water	The household does not have access to improved drinking water (according to SDG guidelines) or improved drinking water is at least a 30-minute walk from home, round trip. <sup>7</sup>	1/18
	Electricity	The household has no electricity. <sup>8</sup>	1/18
	Housing	At least one of the three housing materials for roof, walls and floor are inadequate: the floor is of natural materials and/or the roof and/or walls are of natural or rudimentary materials. <sup>9</sup>	1/18
	Assets	The household does not own more than one of these assets: radio, television, telephone, computer, animal cart, bicycle, motorbike or refrigerator, and does not own a car or truck. <sup>10</sup>	1/18



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June 24, 2022

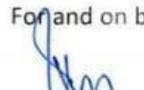
**TO WHOMSOEVER IT MAY CONCERN**

This is to inform you that Divya Gupta from IIMR, Delhi has successfully completed her internship with PSI India Private Limited under the Samagra project from 20th April 2022 to 17th June 2022.

During the internship, she contributed to data collection, community meetings, research, and data analysis on intervention areas of MNCH+A, TB, FP, NCD, and Social Determinants of Health + Environment at New Delhi.

We wish her success in future assignment

For and on behalf of PSI India Private Limited

  
Pooja Singh

General Manager - Human Resources

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## FEEDBACK FORM

(IIHMR MENTOR)

**Name of the Student:** Divya Gupta

**Summer Internship Institution:** PSI

**Area of Summer Internship:** Chhatarpur , Bhatti Mines

**Attendance:**

**Objectives met:** Baseline data , map sketching , interpersonal skills for community communications , household mapping, data collection and analysis for the home delivery vs institutional delivery

**Deliverables:** Internship Reports , Case study reports, presentations, blogs

**Strengths:** She drafted the script for Nukkad-Natak on World No Tobacco Day and coordinated well with the team. She is good in team-work and interpersonal skills.

**Suggestions for Improvement:** She must take care of her health so that she could attend well to her commitments.



**Signature of the Officer-in-charge (Internship)**

**Date:** 18 – 06 - 2022

**Place:** New Delhi

## FEEDBACK FORM

(Organization Supervisor)

Name of the Student: *Divya Gupta*

Summer Internship Institution: *Population Services International.*

Area of Summer Internship: *Public Health (Urban)*

Attendance: *Good. More than 80%.*

Objectives met: *Yes, the purpose was to introduce her with periurban health system. To use strategies to improve the needs. She did it very well.*

Deliverables: *Fulfilled. All tasks assigned to her were completed successfully.*

Strengths: *Good Speaker, Quick learner, Good Communication skills.*

Suggestions for Improvement: *Lead more about Govt. Schemes & Programs.*

Date: *17-6-22*

Place: *New Delhi*

*Smriti*  
Signature of the Officer-in-Charge (Internship)  
SMRITI DHINGRA  
MANAGER - Urban Health  
SAMAGRA (PSI)

1. Adults 19 to 70 years of age (229 to 840 months) are considered undernourished if their Body Mass Index (BMI) is below 18.5 kg/m<sup>2</sup>. Those 5 to 19 years (61 to 228 months) are identified as undernourished if their age-specific BMI values are below minus two standard deviations from the median of the reference population (<https://www.who.int/growthref/en/>). In the majority of the countries, BMI-for-age covered people aged 15 to 19 years, as anthropometric data was only available for this age group; if other data were available, BMI-for-age was applied for all individuals 5 to 19 years. Children under 5 years (60 months and under) are considered undernourished if their z-score for either height-for-age (stunting) or weight-for-age (underweight) is below minus two standard deviations from the median of the reference population (<https://www.who.int/childgrowth/software/en/>). Nutritional information is not provided for households without members eligible for measurement, these households are assumed to be not deprived in this indicator.
2. All reported deaths are used if the date of child's death is not known.
3. Child mortality information is typically collected from women of reproductive ages 15-49 years. Households without women of such ages do not provide information about child's deaths and are assumed to be not deprived in this indicator.
4. This country-specific age cutoff was introduced in 2020. Previously, the age cutoff was 10 years which did not recognize the fact that by age 10 children do not normally complete 6 years of schooling.
5. Source for official entrance age to primary school: United Nations Educational, Scientific and Cultural Organization, Institute for Statistics database. Education systems [UIS, <http://data.uis.unesco.org/?ReportId=163>].
6. A household is considered to have access to improved sanitation if it has some type of flush toilet or latrine, or ventilated improved pit or composting toilet, provided that they are not shared. If the survey report uses other definitions of improved sanitation, we follow the survey report.
7. A household has access to improved drinking water if the water source is any of the following types: piped water, public tap, borehole or pump, protected well, protected spring or rainwater, and it is within 30 minutes' walk (round trip). If the survey report uses other definitions of improved drinking water, we follow the survey report.
8. A few countries do not collect data on electricity because of 100% coverage. In such cases, we identify all households in the country as non-deprived in electricity.
9. A household is considered deprived if the dwelling's floor is made of mud/clay/earth, sand or dung, or if the dwelling has no roof or walls or if either the roof or walls are constructed using natural materials such as cane, palm/trunks, sod/mud, dirt, grass/reeds, thatch, bamboo, sticks or rudimentary materials such as carton, plastic/ polythene sheeting, bamboo with mud/stone with mud, loosely packed stones, uncovered adobe, raw/reused wood, plywood, cardboard, unburnt brick or canvas/tent.
10. Television (TV) includes smart TV and black and white TV, telephone includes cell phones, computer includes tablets and laptops, and refrigerator includes freezers.

# PICTORIAL JOURNEY





