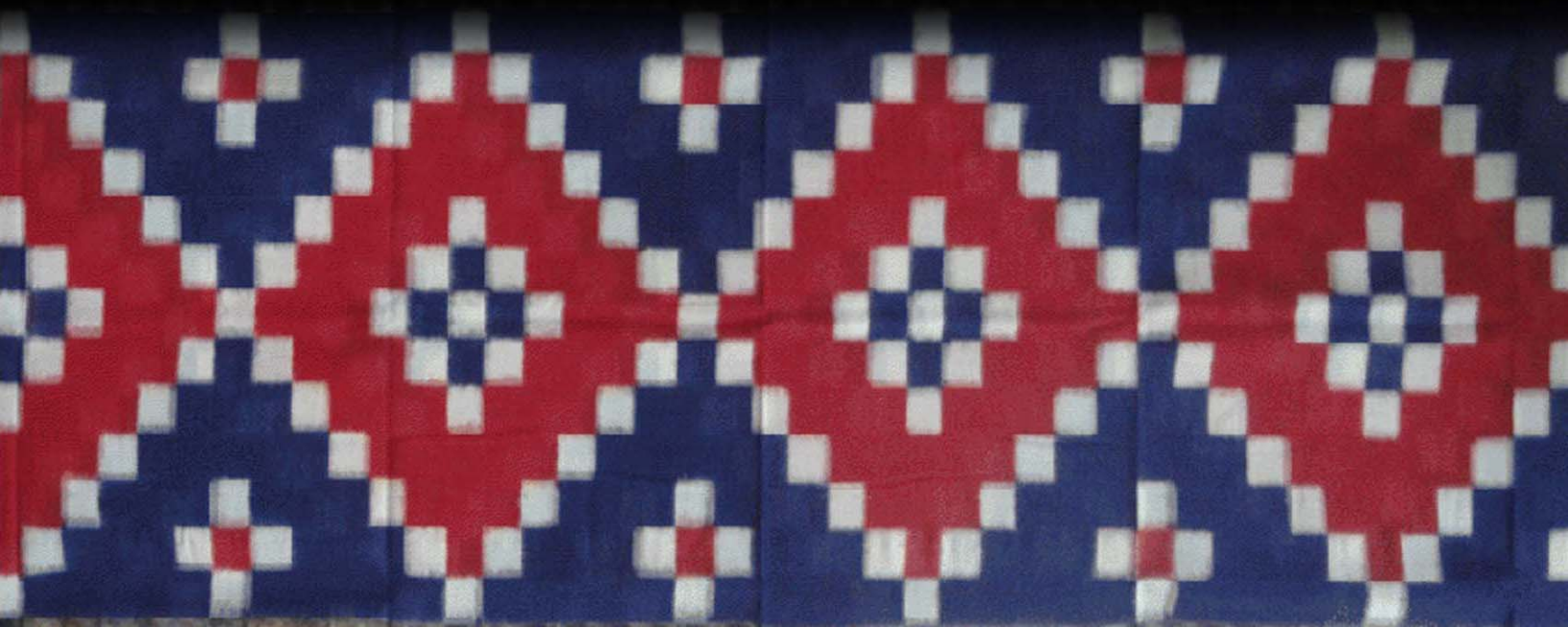
CHRONICLES OF DEATHS FORETOLD

A civil society analysis of maternal deaths
In seven districts from the states of
Odisha, West Bengal, Jharkhand and
Uttar Pradesh, India



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SAHAYOG

in collaboration with

NAMHHR
National Alliance for Maternal Health and Human Rights

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CONTENTS

ACRONYMS

Acronyms	Full Forms
AHS	Annual Health Survey
ANC	Ante Natal Care
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWC	Anganwadi Centre
AWW	Anganwadi Worker
BP	Blood Pressure
BPHC	Block level Primary Health Centre
BPL	Below Poverty line
CBMDR	Community Based Maternal Death Review
CDPO	Child Development Project Officer
CEmOC	Comprehensive Emergency Obstetric Care
CHC	Community Health Centre
DH	District Hospital
CS	Caesarean Section
DHH	District Headquarter Hospital
DLHS	District Level Household and Facility Survey
DWH	Divisional Women's Hospitals
EDD	Expected Delivery Date
EmOC	Emergency Obstetric Care
FLW	Front Line Worker
HB	Haemoglobin
HEO	Health Education Officer
FRU	First Referral Unit
IFA	Iron Folic Acid
ICDS	Integrated Child Development Services
IEC	Information Education Communication
JE	Janani Express
JSSK	Janani Shishu Suraksha Karyakaram
JSY	Janani SurakshaYojana
LMP	Last Menstrual Period
LBW	Low Birth Weight
MCP	Medical Care Plan card
MCTS	Mother Child Tracking System
MDR	Maternal Death Review
MMR	Maternal Mortality Ratio
MO	Medical Officer
MTP	Medical Termination of Pregnancy

NRHM	National Rural Health Mission
OBC	Other Backward Caste
Ob&G	Obstetrician / Gynecologist
OPD	Out Patient Department
OOPE	Out of Pocket Expenses
PDS	Public Distribution System
PHC	Primary Health Centre
PIO	Public Information Officer
PPTCT	Prevention of Parent to Child Transmission of HIV
PRI	Panchayati Raj Institution
PVTG	Particularly Vulnerable Tribal Groups
RKS	Rogi Kalyan Samiti
PNC	Post-Natal Care
RTI	Right To Information
SC	Scheduled Caste
SDH	Sub-Divisional Hospitals
SNP	Supplementary Nutrition Programme
ST	Scheduled Tribes
TBA	Traditional Birth Attendant
THR	Take-Home Ration
TT	Tetanus Toxoid
VHND	Village Health & Nutrition Day
USG	Ultrasound Sonography Test
QOC	Quality of Care
PV	Per Vagina (as noun: vaginal examination with manual examination and speculum inspection)
LA	Local Anesthetic
MA	Madical Assistance
BOH	Bad Obstetric History
MDM	Mid Day Meal

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Jashodhara Dasgupta
Principal Investigator SAHAYOG
New Delhi, August 2016

PREFACE

This report documents the stories of about 140 women who did not survive pregnancy and childbirth. Over the last ten years India has been a central player in the global crusade to reduce maternal mortality, as India has consistently been the largest contributor to this unfortunate phenomenon. There has been intensive policy focus in the form of the National Rural Health Mission (subsequently National Health Mission) which has included different components like the Janani Suraksha Yojana to promote institutional delivery, strengthening health systems through additional deployment of staff and additional training as well as explicitly entitled free services through the Janani Shishu Suraksha Karyakram, all aimed at this one problem. A series of surveys over the years have shown that uptake of key services like ANC services and Institutional Delivery services have increased and Maternal Mortality has also reduced over the years. However there have also been concerns that the regions where the problem was more acute to start with have shown the least progress. These unfortunate stories from eastern UP, Jharkhand, Orissa and West Bengal provide us an important insight into how, despite all the policy efforts, many women continue to die. Maternal mortality is considered a preventable phenomenon and these case studies allow us to understand what worked in terms of current policy provisions and what did not, and we can learn important lessons on how the policy and programmatic provision can be improved to serve the needs of these women better.

To begin with, all the women whose lives the study tried to understand can be considered to be from marginalised communities. The study areas like Godda in Jharkhand or Mayurbhanj in Orissa are tribal areas, Murshidabad and Malda in West Bengal have poor Muslim populations whilst in Azamgarh, Banda, Mirzapur, in the state of UP most of the women who died were from either Dalit or OBC or Muslim backgrounds. In recent years there has been an effort to understand and address marginalisation in the RMNCH+A approach through a 'High Priority' area approach which addresses hard-to-reach areas. This study provides an opportunity to examine whether this approach is sufficient to address the problem of marginalisation and vulnerability. Most of the women had characteristics of many kinds of vulnerability at the same time. Conditions of poverty, social marginalization, lower levels of education and home-based poorly-paid hazardous livelihood, poor contact with health systems and low access to health information coexisted in their lives. In addition they were often at higher obstetric risk because of early and repeated childbirth, higher levels of anaemia, short stature, and low weight. Their location, occupation, and lack of access, poor health system capacities and similar determinants are often seen as discrete vulnerabilities; however in most cases these are compounded disadvantages especially for marginalized communities who are poor, live in areas which lack health facilities and at the same time have bad or no roads which hampers access, and many face social isolation or stigmatization. Taken together this creates a multiplying or compounding web of risks and vulnerabilities which cannot be disentangled and addressed discretely through interventions addressing specific risks and vulnerabilities.

The current approach to maternal death prevention and maternal safety is derived from distilled global experience and comprises of a continuum of care framework with provision of routine pregnancy care services and ensuring safe delivery through skilled birth attendants. The global

wisdom and concern is summed up in the sentence "Much of the burden of maternal mortality is routinely preventable with known, cost-effective interventions that those of us in the developed world take for granted: good nutrition, antenatal care, skilled attendance at delivery, emergency obstetric care, and family planning. It is unconscionable that poor coverage, poor quality, and inequities in the provision of these essential MNCH interventions persist in ...." This statement was made in the context of Sub Saharan Africa but is equally applicable to the study areas. This study allows us to examine whether this assumption holds true: that what worked in the developed world would work equally well in such areas.

In India it was assumed ensuring ANC, promoting institutional delivery and providing a graded set of emergency obstetric care services would be sufficient to reduce maternal mortality. However through the stories of these dead women, we observe that the antenatal care provided was ineffective in either understanding risk or addressing complications. While on the one hand the data shows that registration of women for ANC is increasing, and managers are congratulating themselves on this achievement; the study draws attention to the fact that ANC in all study locations is perfunctory and at best limited to distribution of Iron Folic Acids and providing Tetanus Toxoid injections. The more life-saving function of abdominal examination, screening for toxaemia or anaemia is irregular. Clear cases of high risk pregnancies have not been identified or appropriately referred. However nearly all the women were contacted by the ASHA and had at least one ANC. It emerges that the ANC as is being done today does not fulfil its expected function of screening risks and vulnerability effectively. At the same time the role of the Level 1 institution which is equipped to conduct normal deliveries is also very limited in managing emergencies. At best they work as stabilising institutions on the way to a higher centre of care, and at worst they have been seen as responsible for either delaying care or even starting a problem through either poor quality or mismanaged care.

However the communities are concerned about their own healthcare in pregnancy and seek treatment from a variety of sources including the public as well as the private and the formal and the informal. Unfortunately the key role of the private providers, both formal and informal receives very little priority in the overall design and planning of the maternal health programme in India. In many cases the public sector provider is known for providing private services, and this practice too is ignored. Another area of low priority is the home-based care for childbirth. Assuming that there is an inherent danger or risk involved in such practices, the approach has been akin to 'stamping out' a dangerous practice. The informal providers, including dais and quacks have not only been de-legitmised, but also their practices have been ignored rather than understood. Since they are not seen as legitimate, there is no effort to understand their role in the current health-seeking practices of communities, nor any efforts made to build a partnership towards greater safety for women. However such practitioners not only continue to enjoy the trust of many women, but are often the only available providers in many contexts.

Management of Obstetric Emergencies is at the core of all strategies to reduce maternal death. Over the years the understanding has evolved that a range of obstetric emergencies can occur unpredictably and a system of skilled care during delivery along with provisions for quick emergency transport to appropriate Emergency Obstetric Care facilities allow for such emergencies to be managed. Levels of Emergency Obstetric Care facilities have been outlined internationally and adapted within the Indian context. Ability to promptly manage convulsions associated pregnancy (eclampsia), conduct Caesarean-Section operations, and promptly provide blood transfusion have been identified as critical to save mothers' lives. But what we observe in these stories is different. The families could not sense any 'urgency' or added concern in the entire referral procedure. The emergency management

procedures seemed routinized in the receiving hospital; without any effort to facilitate care for a life-threatening emergency such as early admission, starting immediate treatment, providing the required EmOC service without making the family run around, and so on. What we see instead is families are expected to arrange for blood, get additional tests done, buy medicines; often very late in the night. The ASHA, ANM and the PHC, who are supposed to be the pillars of safe delivery, are not able to play a facilitative role in hospital settings (and they are not even expected to, by design). There appears to be no consideration for the fact that the families of these women are not only poor, extremely stressed and not very educated, but also in an unfamiliar place. If one adds perceived negligence compounded with lack of sensitivity or empathy in the health system, we should not be surprised that some families opted for a 'discharge-on-risk bond' which led to a death in some cases.

As a matter of management principle, one needs to debate which could be a 'better' approach in such situations: to strengthen routine management through targeted input-provision, or developing an adverse outcome management approach which does not only include specific inputs but focuses on crucial processes. The routine care approach was adopted because it was seen as successful historically in Western Europe and North America and in recent times in countries like Sri Lanka, Thailand and other countries in East Asia and Latin America and was globally accepted as a common strategy. In the case of Western Europe, the decline in maternal mortality rates also mirrored the evolution of health care systems, such as aseptic surgery techniques, availability of antibiotics, safe blood transfusion; as well as social changes like women's empowerment, leading to greater autonomy and contraceptive use. In other countries like Sri Lanka, Cambodia, Malaysia and Thailand health system strengthening was embedded in the process of nation-building, which included social empowerment measures like equitable healthcare and empowerment of women.

But the situation in India today is somewhat different. While on the one hand there is rapid economic growth and more money is available overall, there is also increasing inequity - both economic and social. The idea of free and equitable access to healthcare services does not have unqualified support in the policy arena. Society continues to be hierarchical, and social marginalisation affects a very large proportion of the population. Discriminatory mindsets, both social and patriarchal, are embedded in the society at large, which includes functionaries of the health system. It is difficult to provide 'affirmative' healthcare support without examining the different gaps and understanding the reasons behind them. A health systems approach bereft of a socio-cultural analysis of the specific situations will be inadequate to develop the appropriate system responses which can be coded as an adverse outcome management approach.

The current approach of Priority Actions in high-focus districts and vulnerable populations has two major limitations. The first is that it primarily includes more 'inputs'. It also has a very limited definition and understanding of 'vulnerable populations'. The primary measure of vulnerability that is used is 'reaching the unreached' and clubs a diverse range: from the poor, urban slum dwellers to tribals, and even adolescents. There is no analysis of why the system fails these people and there is an assumption that "implementing and monitoring high impact interventions" will be sufficient to address equity. If we are serious in wanting to address disparities it is necessary to move from this 'input-focused' high priority area approach to a 'highly vulnerable population' approach which integrates inputs with processes and is informed by existing health care practices and socio cultural understanding of health determinants among the vulnerable communities. Some of the key imperatives of this approach could include the following:

A. Developing a Highly Vulnerable Populations Approach

- Mapping of Vulnerabilities and Risks and the existing health care practices in areas where maternal health outcomes are poor, not showing the anticipated improvements and where the proportion of marginalised communities is higher
- Developing an appropriate cadre of providers - new personnel like emergency patient facilitators at secondary and tertiary care hospitals as well additional training to improve quality of care through improved interpersonal interactions, and adverse management outcomes skills.
- Identifying niches within existing practices and practitioners for building an alternative safety plan (including the support of Dais and Informal providers where appropriate) and focussed on saving lives, and developing context specific plans from home to institution and from ante natal to postpartum period.
- Developing appropriate IEC/BCC messages using appropriate methods including traditional/ folk media which are aimed at building upon people's own concerns around maternal and new born safety

B. 'Prevention and management of adverse outcomes a problem solving approach to maternal care

- Skill training for ANMs and LHVs as well as doctors in peripheral centres, to interpret the data coming into the MCTS, and screen the high-risk cases. Further training is required for building their capacity to develop "Birth Plans" for specific cases who already show high-risk signs
- Developing Appropriate Protocols and Procedures for managing adverse outcomes -
- Using a team approach as well as ICT to support decision making as well as communication between members of the team located in different spaces. The team would include public and private providers located in different spaces from village to the tertiary care facilities.
- These protocols and procedures would need to be done for
    a. Management of Risks and Complications during Pregnancy
    b. Strengthening the Referral Chain
    c. Providing effective Comprehensive Obstetric Care Services to the marginalized
    d. Monitoring 'performance' of the 'adverse outcome management' system - Team based, learning approach to monitoring performance.

Maternal death reviews have been institutionalised for some time now, however its effectiveness is still not clear as they are usually conducted by providers and include a strong bio-medical perspective. This study is based on a different premise where the community perspective was considered important to identify how the distance between communities and the health system may be reduced, and how the health system could be appropriately equipped to address the problem in difficult areas. On behalf of NAMHHR we earnestly hope that the lessons that these 140 women have taught us through their deaths will indeed not be lost and become a blessing for the millions of other marginalised women who are faced with the same risk.

Abhijit Das,
On behalf of NAMHHR

RECOMMENDATIONS

A. RECONSIDER- review the assumptions of the current policy approach and programme provisions

B. MEASURE BETTER- what kind of additional information is necessary, what needs to be tracked?

C. IMPROVE - how current provisions are relevant but could be improved and strengthened further

A. RECONSIDER

i. Can we continue to wish away the few million **home births** and leave those women at greater risk? In order to prevent further maternal deaths in these vulnerable communities, a multi-pronged effort is required that includes research and more context-situated interventions, even if these challenge the 'template approach' currently adopted.

ii. Can we continue to ignore **informal providers and community birth companions/attendants** and existing health care practices of the communities? There needs to be a more pragmatic approach about the socio-cultural situation in these villages.

iii. Can we stop imagining that only IFA tablets with reduce **severe anaemia?** Anemia must be treated with something more effective than IFA tablets which are not helping women who are already severely anaemic.

iv. Can we continue our focus on terminal contraception and ignore informed contraceptive choice for all women? The lack of acceptable and appropriate **family planning** counselling and services is life-threatening for many women.

v. Can we acknowledge that one-third of deaths in India are due to "other causes" that include domestic violence and **non-obstetric causes** of death, such as malaria, kalazar and falciparum malaria, and other local health problems

vi. Can we make **safe abortion services** available at sub-district level?

vii. Can we realize that the lowest functionary **ASHA alone** cannot easily negotiate the complex chain of referrals and the health system for the family?

viii. Can we move away from this 'input-focused' high priority **area approach** given the interconnecting webs of risks and vulnerabilities for specific **populations at risk?**

ix. Can we move away from 'hospital delivery equals safe delivery' assumption to building skill in continuum of care for **prevention and management of adverse outcomes** as detailed in the following page

'Prevention and management of adverse outcomes a problem solving approach to maternal care

- Skills training for ANMs and LHVs as well as doctors in peripheral centres, to interpret the data coming into the MCTS, and screen the high-risk cases. Further training is required for building their capacity to develop "Birth Plans" for specific cases who already show high-risk signs

- Developing Appropriate Protocols and Procedures for managing adverse outcomes -

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- These protocols and procedures would need to be done for

a. Management of Risks and Complications during Pregnancy
b. Strengthening the Referral Chain
c. Providing effective Comprehensive Obstetric Care Services to the marginalized

B. MEASURE BETTER

i. Mapping of Vulnerabilities and Risks towards a **highly vulnerable population approach:** if we are serious about addressing disparities, we need to integrate inputs with processes and be informed by existing health care practices and social cultural understanding of health determinants among the vulnerable communities. Their constant exposure to hazardous working environment also needs better study for its impact on maternity.

ii. The **existing health care practices** of the communities that face a number of congruent vulnerabilities must first be understood by the health system, through ethnographic studies and other investigations. The behaviour of planning for home-births that appears 'risky' must be objectively examined to understand why families do not trust the public health system to manage their childbirth, and whether the high expense in public hospitals are a deterrent.

iii. The role of untrained quacks and TBAs needs to be better understood through anthropological **studies** and interventions designed accordingly. The mapping of local providers should be followed by collaborative ways of engaging them in ensuring women's health, rather than ignoring and leaving them to make interventions which are often dangerous.

iv. We need to **improve monitoring** (not just count Institutional births) of the performance of the 'adverse outcome management' system. However monitoring should not be fault-finding but a supportive, team-based, 'learning approach' to monitoring performance. Realistic feedback on QOC needs to be generated with participation of the user Community.

v. Monitor and reduce high OOP incurred due to lack of facilities, drugs and arrangements in government facilities. The high OOPE (out of pocket expenses) for the hospital based care acts as a deterrent and delaying factor for poor and marginalised families, and is a **violation**

of the JSSK Scheme entitlements. It needs to be addressed urgently.

vi. We need MDRs to be done systematically in the community, and the health system to publicly share the findings or Action Taken from MDR. The community-perspective needs to be strongly incorporated in all MDR by having **PRI members** accompany the women's family even for facility-based MDR, and promote reporting and review of all the maternal death cases with the health officials. The role of adequately trained **civil society organizations** (CSOs) is important when we see the extreme disempowerment of marginalized communities. CSOs can play a role in non-partisan, non-adversarial CB-MDR work in selected districts.

C. IMPROVE

Ante-natal Care:

The registration of pregnancies is seen as an effective way to continue the tracking of pregnant women, recording their health status and ensuring that high-risk women are enabled to access skilled care during childbirth. Even a single contact with the health system frontline workers can provide an entry point to ensure continuum of quality care. However ante-natal care needs to be interpreted beyond the **'bare minimum routine services'** provided to women at the community level, to include and take into account **any existing medical symptoms of the pregnant woman as** well as her **obstetric history**. These must be recorded in the Mother-Child Tracking System (**MCTS system**) and the women followed up to ensure that they receive appropriate care when required. The MCTS should enable tracking of pregnant women regardless of their location, the regular recording their health status, and ensuring that high-risk women are enabled to access skilled care during any complications or childbirth. Beyond this, comprehensive ANC services must also **respond to any medical emergency** during pregnancy.

i. Although ANC registration is encouraging, it is not a foolproof method. Strategy for ante-natal care to **reach the unreached** needs a changed strategy especially for PVTG groups, multi-para women and unmarried girls. Perhaps village-based ANC clinics with a door-to-door approach can be tried to identify women at risk, especially in scattered hamlets and villages.

ii. Antenatal Care has to move from provisioning of routine services to strengthening of **risk identification and management of complications.** While routine VHND services could continue, the process should be able to identify high risk and vulnerability, and these should be entered into the MCTS to provide the necessary monitoring. Thus the ANC should be able to identify women at risk and the ASHA should be incentivized to respond to high-risk symptoms. High-risk women who could be identified during pregnancy should be tracked or followed up for special support including check-up by a doctor at the CHC. The advice of doctors must be **followed up locally** by the FLWs to ensure that the family is complying with the advice given.

iii. ANC services must **respond to any medical emergency** during pregnancy. ANC must also include services for screening and care of **non-obstetric causes** of death, such as malaria, kalazar and falciparum malaria, and other local health problems such as jaundice, asthma, heart disease and breathlessness. ANC must include services for screening and care of these problems.

iv. Beyond this, comprehensive ANC services must also **respond to any medical emergency** during pregnancy. Severe anaemia and high BP must be tracked and treated, not just by

advising better diet. High risk pregnancies should be taken to the hospital well before expected date, and the community based IEC/BCC messages should integrate this message. Similarly, the private, formal and informal providers within specific geographies, eg. a PHC command area should be involved, as members of an 'early-warning system' which identifies women at risk.

v. Information from both community-based screening as well as from providers should be included in the MCTS. At any given time the MCTS database should be available to FLWs, private providers (if women choose to use their services) and the women's families (in picture form if needed). The MCTS should enable tracking of migrant pregnant women regardless of their location and enable the regular recording their health status

vi. The trend of ASHA workers referring women into **expensive private hospitals,** or for doctors in PHCs providing private services needs to be acknowledged and addressed. The payments to ASHAs should be made regular, and if necessary increased, so that they are motivated to work for the public sector, their refresher trainings held, and paperwork reduced.

vii. Every CHC must provide confidential accessible **safe abortion** services at least once a week or fortnight; and abortion related information and warnings must be given proactively in the villages by all FLWs. Hospitals at Level 2 must be better prepared to manage post-abortion/miscarriage complications.

viii. Male involvement in maternal health should be promoted. This includes men's involvement in routine pregnancy care as well as management of emergencies. The current focus on terminal methods for women has to be supplemented by spacing methods and male involvement to ensure their involvement in contraceptive use as well as reducing pressure for sons.

ix. **Family planning** counselling and services for spacing/delaying pregnancies are urgently required at the community along with comprehensive **sexuality education** for young people, and contraceptive services.

Delivery and post-partum care

i. The **reality of home-birth** (at least for the time being) has to be acknowledged. Informal providers such as TBAs need to be identified and trained properly, as they are the first port of call. There should be some investment in their orientation and training (especially to promptly refer in high-risk cases). This will go a long way in reducing critical delays so that women's lives can be saved in remote inaccessible hamlets, where only these providers reach during an emergency

ii. Developing an appropriate cadre of providers - new personnel like **"emergency patient facilitators"** at secondary and tertiary care hospitals; additional training of all staff who provide maternal care to improve quality of care through improved interpersonal interactions. Family members should be encouraged to stay with the woman during labour, and support her to the greatest extent.

iii. The **PHC/CHCs** often do not have any SBA-trained doctors and women are checked only

by nurses who do not appear to be trained skilled birth attendants (as women are developing complications like sepsis and heavy bleeding just after institutional delivery). The skill-training **for SBAs** needs to be strictly checked with better quality control. The staff shortages need to be addressed on a war-footing.

iv. There is an urgent need to set up clear **referral protocols** with monitoring. The prompt referral to a higher institution with a paramedic and an ambulance (even from the DH) is important for women in critical condition. Sometimes it only takes a simple **phone call to inform** them what to prepare for, which can save the woman's life, and prevent the family from wasting more precious hours running around for blood. The MCTS Tracking system needs to inform any provider about the ANC records of the woman who is being referred to their facility; so that the DH is prepared to receive women in critical condition (such as those who need blood transfusion urgently). The time used in going to Level 1-2 facilities should be saved if the woman is a high-risk case.

v. **Referral** must include a **free ambulance and a paramedic** for women in critical condition (unconscious, bleeding etc). If necessary referral to another district must also be supported with these services. The ambulance service needs to be better managed so that women are not left waiting in a critical condition. Women who are in a critical condition have been referred out without transportation support, leaving the family to look for vehicles and potentially cause delay and high expenses. The **mortuary van** to bring back the woman's body will go a long way to build people's trust in the health system.

vi. The **EmOC capacities** of the Level 3 facilities are questionable; they need a clear drill to manage most common complications like sepsis, eclampsia, bleeding or post-abortion complications. Availability of doctors and other staff at CHCs and DH should be ensured especially gynaecologists. Since haemorrhage is the biggest killer, the arrangement for blood must be done proactively by the hospital and not left to the family. The tertiary facility must provide **immediate blood transfusion** without any delay, whenever a woman requires it.

vii. The District Hospital must **develop the capacity to handle any obstetric emergencies** so that families coming from remote villages are not expected to make the long costly journey to Medical Colleges across the district/state borders. Tertiary care facilities must stop referring out women in a critical condition to far-away medical colleges.

viii. It is important to **improve communication** especially with Dalits, tribals and minority women and their families, and to provide more assurances that the health system will try to save their lives. Language is not the only barrier, there seems to be a social alienation and lack of trust that is evident here. There has to be institutional mechanisms for instilling a sense of **respect for the women** who come into institutions rather than harassing, ill-treating or abusing them and refusing to give treatment or delaying care. It must be reviewed regularly whether the women received adequate **post-partum** observation in the hospital, and follow-up care in the community.

ix. Given the number of JSSK violations observed in these cases, all poor families need someone to clearly explain that **all treatment is free** under JSSK and what that includes. The practice of informal fees and bribes has to be controlled by the health system through confidential complaint recording systems. Health providers also need clear orientation about this, as they

compel families to buy medicines, blood or get tests done in private clinics. The JSSK entitlements also means that supply of medicines should be ensured in all health facilities.

x. The **private sector** needs more monitoring and **better regulation:** the quality and rationality of treatment is doubtful in the private hospitals, but huge sums of money are taken. There is serious need for **regulation of the costs of services** provided by the private sector. Families are paying any amount for unskilled and poor quality care of women in critical condition, and getting into debt. In addition the public sector doctors examining/treating patients who come to public hospital privately and public providers are also referring women into the private sector, which needs to be checked.

Chapter - 1

INTRODUCTION AND METHODOLOGY

Chapter 1

INTRODUCTION AND METHODOLOGY

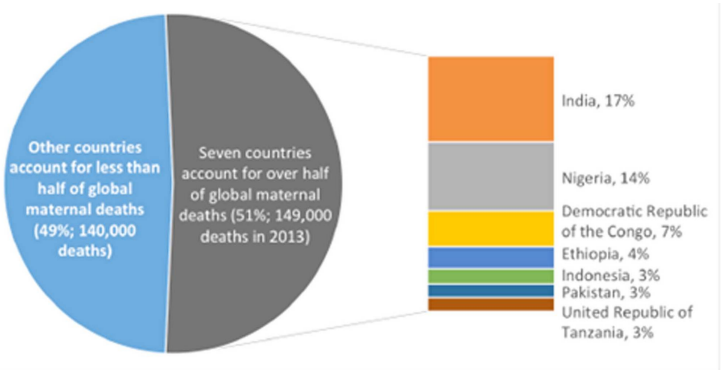
DEFINING MATERNAL DEATHS: ITS MEASUREMENT AND CAUSE

Maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes **(WHO, 2001)**. Maternal mortality refers to deaths due to complications from pregnancy or childbirth. It is calculated as the ratio of deaths of women to the number of live births within a year in an area and is called the maternal mortality ratio or MMR. Maternal death being a rare event within the context of normal physiology, the ratio is presented as number of deaths among 100,000 live births.

Over the last two decades, efforts to reduce maternal mortality have remained at the policy forefront in many developing countries[i] and continue to occupy considerable attention as evidenced by Goal-3 of the recently proposed Sustainable Development Goals[ii] (SDGs). Despite a 45% decline in the global maternal mortality burden since 1990, maternal mortality ratios in developing countries remain a significant challenge to health systems. Nearly 99% of all maternal deaths occur in developing countries[iii].

Although India has achieved significant progress in the reduction of Maternal Mortality Rates (MMR) over the last decade, from 560 per 100,000 live births in 1990 to 178[1] per 100,000 live births in 2011-13[iv], it remains the highest contributor in terms of absolute numbers of female deaths occurring in the world due to pregnancy-related causes. In 2014, India along with Nigeria accounted for one-third of all global maternal deaths, with 17% (50,000) in India and 14% (40,000) in Nigeria (WHO, UNICEF, UNFPA 2014, ibid).

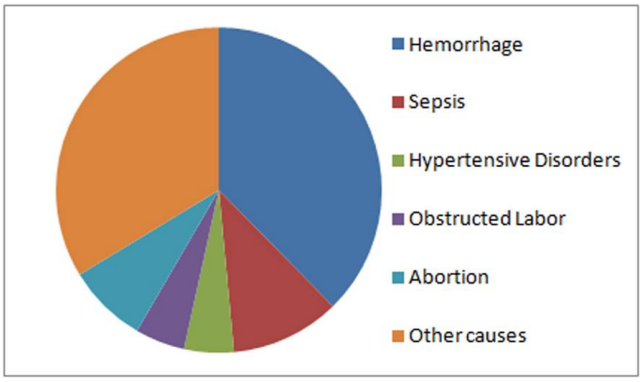
Although India still ranks among the top five countries globally in terms of absolute numbers of maternal and child deaths, the country has made encouraging progress in tackling mortality among mothers and children. Despite the rapid reduction, India still contributes more maternal deaths to the global total each year than any other country because of its very large population and annual birth cohort[v].



Source: *WHO, UNICEF, UNFPA and the World Bank, Trends in Maternal Mortality: 1990 to 2013, WHO, Geneva, 2014.*

1. The figure for India's MMR is 190/100,000 in 2013 according to WHO,UNICEF,UNFPA and WB Inter-Agency Group; the MMR is 167 according to the Social Statistics Division (2015) Millenium Development Goals, India Country Report 2015 Ministry of Statistics and Programme Implementation Government of India

In India, the major causes of maternal mortality continue to be haemorrhage (37%), abortion (10%) and sepsis (11%). In addition hypertensive disorders and obstructed labour are also commonly found (4%, 5%). Anaemia continues to be a major problem among women, despite large scale national programmes to improve haemoglobin levels in pregnant women. It is significant that 'Other causes' including communicable and non-communicable diseases, chronic illnesses and trauma are responsible for one-third (33%) of maternal deaths yet they have received limited attention.



Source - Sample registration System, Maternal Mortality in India 1997-2003, Trends Causes and Risk factors, Registrar General of India 2006

Steps taken by the Government of India for reducing maternal deaths

The three delays model of factors leading to maternal deaths gained momentum during the 1990s and highlighted social factors such as lack of awareness, low decision making among women as responsible for the first delay. Inadequate financial resources and lack of transport have been emphasized as reasons for the second delay. In order to motivate, counsel and ensure safe childbirth especially among women belonging to below the poverty line (BPL), schedule castes and schedule tribes (SCs/ STs) a scheme called the *Janani Suraksha Yojana* (Mothers' Protection Scheme or JSY) was launched by Government of India (GOI) in 2005. This included a conditional cash transfer to encourage women to come to hospitals to access 'skilled attendance at childbirth'.

Another important feature of the scheme is the Accredited Social Health Activist (ASHA) who has been selected from the community for every 1000 population. The ASHAs act as a link between the ANM and the community to ensure basic and timely services for ANC, delivery care, PNC and immunization services for children, identifying high risk pregnancies and giving counselling on contraceptives. The government of India announced another scheme to ensure entirely free maternal and newborn health services called the *Janani Shishu Suraksha Karyakram* (JSSK or Mother and Child Protection Programme, launched in July 2011). The scheme has also a provision for transportation of pregnant women to hospital in case of an emergency.

In India, the pace of moving to institutions for childbirth picked up speed after the introduction of the JSY and the availability of free transport to hospitals. However, it is important to analyze whether institutional births have also meant attendance by a skilled and qualified person who could provide emergency obstetric care. The data available in DLHS-3 Facility Surveys (2007-2008)[2] indicates that this was not the case in the states with the highest burden of maternal deaths. Essential requirements for addressing obstetric emergency care such as skilled providers, equipment and supplies were missing. It seemed likely that tertiary care centres would be overburdened, such as district hospitals.

2. International Institute for Population Sciences (IIPS) 2010, District Level Household and Facility Survey (DLHS) 2007-2008: India. Ministry of Health and Family Welfare, Government of India, Mumbai, April

Conditions for Safe Delivery DLHS3					
Conditions for safe delivery	**Bihar[3]**	**MP**	**Orissa**	**Raj**	**UP**
SC with additional ANM	27.6	8.2	51.5	21.8	3.3
ANM living in SC	20.3	48.5	43.3	55.1	37.2
PHC functioning on 24 hours basis	64.5	73	49.1	56.9	45.5
PHCs having new born care services	9	23	8.7	13.6	11
PHC having referral services	44	49	18	18	17
PHCs conducted at least 10 del last one month	20	52	12	24	19.4

Therefore in addition to these schemes, the GOI has instituted a comprehensive approach to health system strengthening and improved monitoring through its National Rural Health Mission since 2005 (now the National Health Mission[4]). This has included improvements in infrastructure of health facilities, and addition of health providers on contractual basis to meet the shortfall.

In 2013, the GOI announced an integrated approach to services for women and children under the new strategy[5] known as 'RMNCH+A' which affirmed the approach followed thus far, and additionally recognized that there were barriers to access for women in under-served or hard-to-reach areas, which required special arrangements and extra effort: *'An explicit pro-poor focus will be maintained in planning and implementation through identification of vulnerable groups in high focus districts with relatively weak performance against RMNCH indicators, so as to ensure that their needs are met... In order to fast track improvements and reduce regional disparities, 264 high focus districts have already been identified for action.... Under the NRHM, there is a provision to include specific plan and allocate budgets on a priority basis to tribal areas of the country.' (GOI 2013, pp. 52-54)*

Conditions for EmOC - DLHS3					
	Bihar	**MP**	**Orissa**	**Raj**	**UP**
CHC having Ob/Gyn	43.9	20.8	88.2	31.5	29.9
CHC having functions OT	86.4	70.7	59.4	60.3	88.5
CHCs designated as FRUs	87.9	61.4	53.7	52.7	55.8
CHC offering caesarean section	13.6	8.1	8.3	9.6	3.2
CHCs having 24*7 new born care services	63.6	52.9	28.3	46.5	40.1
CHCs having blood storage facility	0	3.9	8.3	7.9	0.7

3. Bihar here refers to both Bihar and Jharkhand states
4. See - http://nrhm.gov.in/nhm.html
5. Ministry of Health & Family Welfare, A strategic approach to reproductive, maternal, newborn, child and adolescent health in India, Government of India 2013

MATERNAL DEATH SURVEILLANCE AND RESPONSE (MDSR)

Globally maternal death reviews have been instituted to understand the determinants of maternal deaths and take remedial actions to prevent them. There are five ways in which Maternal Death Reviews (MDRs) can be conducted to understanding the reason that why women die

- Maternal deaths in the community (CBMDR)
- Maternal deaths in facilities (FBMDR)
- Confidential enquiries into maternal deaths
- Evidence-based clinical audit
- Learning from women who survived: "near miss" cases

The Government of India also institutionalized MDRs - both facility and community-based - and developed standard protocols for documentation with the intent to act upon the findings of the MDRs from a systems strengthening perspective. The objectives of MDSR as identified by the GOI are:

1) To improve quality of obstetric care
2) To understand determinants of maternal death
3) To provide stimulus for action at all levels
4) To take corrective action to fill the gaps in service provision

Although MDR protocols have been used with varying degrees of effectiveness in the different states, not all state governments have made public the overall conclusions from the reviews or the corrective actions that the health department proposes to take, and there is much less attention given to CBMDR compared to FBMDR. However, the GOI has also expressed some challenges[vi], including shortage of human resources, under-reporting and some ethical dilemmas. For example, if the health providers are afraid of punitive action, they may conceal information or collude to blame the family for the woman's death.

ROLE OF NGOS IN MATERNAL DEATH REVIEW

The role of NGOs is recognized as being pivotal in MDR, especially community-based MDR. Local NGOs can build community awareness that can promote regular reporting of maternal deaths, as the MAPEDIR experience showed (Kalter et al[6], 2011). Civil society groups have the added advantage of being able to reach out to the community level for deaths that may go unnoticed by a system that is tracking hospital-based deaths. CSOs are also likely to obtain information from community members in a more non-threatening manner than a government representative or medically qualified personnel.

Civil society organizations in India can complement the government's efforts by incorporating additional perspectives to MDRs that are currently not part of the tool used by the government. Civil society organizations have suggested some additional perspectives, for example, to investigate social

6. Kalter et al. (2011) Maternal death inquiry and response in India - the impact of contextual, Health Research Policy and Systems 2011, 9:41, Nov 2011 available at https://health-policy-systems.biomedcentral.com/articles/10.1186/ 1478-4505-9-41

determinants of health, non-obstetric causes of death, and issues around continuum of care, extent of entitlements received by women, costs and informal fees paid, any form of social discrimination or denial of care, grievance redress, and so forth. It can be concluded that the analysis by CSOs would be different from that done by the government, in that it is done within a framework of rights and accountability rather than a technical bio-medical investigation.

METHODOLOGY

SAHAYOG in collaboration with the platform National Alliance for Maternal Health and Human Rights (NAMHHR) organized a two-day Advocacy Seminar titled **Chronicles of Deaths Foretold** - *Using Maternal Death Reviews to Prevent Maternal Mortality and Morbidity in India* (8-9 Oct. 2012, New Delhi), to bring together the work of civil society activists documenting maternal deaths across eight states of India. The recommendations drawing from the discussions were presented to government officials, donors, media and UN agencies for consideration.

Following the seminar, SAHAYOG and NAMHHR, in collaboration with CommonHealth, organized a capacity-building programme for civil society groups to conduct Community-Based Maternal Death Reviews (CBMDR) starting October 2012. A total of 21 days of capacity-building[vii] was organized in seven rounds (2012-2014) for field investigators by SAHAYOG and NAMHHR. Meanwhile, in 2013, SAHAYOG as the Secretariat of NAMMHR obtained funding support to work on CBMDR in collaboration with NAMHHR partners in four states Odisha, West Bengal, Jharkhand and Uttar Pradesh (***see Annexure*** for information about SAHAYOG and partners).

From Oct. 2013 to Dec. 2015, a process of maternal death surveillance and conducting CBMDR was started by these civil society groups in 23 selected blocks of 7 districts within these four states, in cooperation with the local frontline workers (FLW). The objectives of the entire exercise were -

i. To document maternal deaths through **verbal autopsy,** from the perspective of the family and FLWs

ii. To **analyze each** case and prepare a District Review about the quality of life-saving interventions, towards proposing programmatic recommendations for the health officials, managers and policy actors, to ensure prevention of maternal deaths in future

iii. To build a non-adversarial approach to CBMDR involving FLWs and providers, for **identification of health system gaps** that affected maternal health services, towards taking corrective action

The research questions is to examine ***the extent to which existing health systems and maternal health programme design was effective in responding to the complications in maternity, given the special vulnerability of such marginalized groups.*** This was distinct from the government's MDR process in that there was no attempt to establish the bio-medical cause of death.

The unique element of this process has been close collaboration of civil society field investigators with their local frontline workers, the district health officials and state health managers. This was done deliberately in order to involve them in collection and analysis of the data, towards identifying remediable factors, recommending corrective action and following up on the implementation of recommendations[viii]. The work has been guided by State Advisory Groups and a National Advisory Group[ix] that ensures the engagement of experts as well as key stakeholders.

Location and duration of Maternal Death case documentation					
State	**District**	**Block**	**Total no. of cases**	**Date of first death**	**Date of last death**
Odisha	Mayurbhanj	Baripada Kuliana Bangriposi Jashipur Jamda Thakurama Katipada Karanjia	4 7 3 3 4 4 7 5	15 Jan, 2014	11 Dec, 2014
Jharkhand	Godda	Sunderpahari Boarijore	16 4	18 June, 2014	6 Nov, 2015
West Bengal	Murshidabad	Suti II Samserganj	25 2	23 April, 2013	3 Feb, 2015
	Malda	Kaliachak III	8	9 Oct, 2013	26 Nov, 2014
Uttar Pradesh	Azamgarh	Ataraulia Ahiraula Koyalsa Bilariyaganj	12 4 1 1	24 Oct, 2013	22 Jan, 2015
	Banda	Baberu Bisanda Nairaini	2 3 9	26 Dec, 2013	31 Jan, 2015
	Mirzapur	Patehra Pahadi Rajgarh	5 4 6	22 Sept, 2013	26 Dec, 2014
4 States	**7 Districts**	**23 Blocks**	**139 cases**		

Scope and Sources of information

The sites for CB-MDR included seven districts across four states, including 23 development Blocks. The CBMDR sites were purposively selected to examine experiences of socially excluded and marginalized populations: among Scheduled Castes, Scheduled Tribes/ Particularly Vulnerable Tribal groups (PVTG), Muslims and poor rural women. The selection of blocks, districts and field investigators was done with this consideration: the partners who are working in the field have a strong base among the community, long experience of the local reality, and an intention to work with the health system towards improvement. They include NAMHHR partners in Odisha (SODA), West Bengal (ASHA), Jharkhand (Healthwatch Forum Jharkhand) and Uttar Pradesh (Healthwatch Forum UP).

The following steps were used in the areas where surveillance was carried out

i. Information of all deaths of women in the reproductive age group occurring in the last six months were obtained on a continuous ongoing basis through a Primary Informer Reporting Format

ii. These were checked by the partners who then shortlisted the deaths of women who were listed as during the period of pregnancy or postpartum period or deaths that were suspected to be the result of attempted abortions. Partners then visited these households and filled in the Verification Visit Forms

Table - Sources for information about Maternal Deaths

State	Sites	Sources of information for Surveillance*	Method of obtaining information
Uttar Pradesh	Distt - **Azamgarh** Blocks: Atraulia, Ahiraula, Bilariyaganj & Koilsa	Grassroot women's group leaders-Mahila Swasthya Adhikar Manch (MSAM), Nari Sangh leaders, key informants of CBOs, Gram Panchayat Pradhan , ASHA, Anganwadi worker, ANM and media reports	Telephone calls by ASHA and women's group leaders and incident reporting by the key informant
	Distt - **Banda** Blocks: Baberu, Narani and Bisanda		
	District - **Mirzapur** Blocks: Rajgarh, Pahari and Patehra		
Odisha	Distt - **Mayurbhanj** Blocks: Baripanda, Kulina, Bangriposi, Joshipur, Jamda and Thakurmunda	ASHA, PRI members, District Programme Management unit of NHM, District headquarters hospital and few SHGs.	Discussions with community, Telephone calls and meeting with ASHA,AWW,ANM, meeting with medical officer and RTI application if the death is at facility level.
West Bengal	Distt - **Malda** Block: Kaliachak District - Murshidabad Blocks: Suti II & Samshergunj	Community informers, the ASHA, Gram Panchayat registers and BPHC registers.	Individually meeting ASHA worker and telephone calls from ASHA, visiting Gram Panchayat office on quarterly basis
Jharkhand	Distt - **Godda** Blocks: Sunderpahari, Boarijor	Survey of deaths by community informers both in Sunderpahari and Boarijor and government records in health facility in Sunderpahari	In Sunderpahari - Recording basic details of all pregnant mothers and children born or any death event on a monthly basis. Quarterly meetings with health officials located in facilities
			In Boarijor surveillance was not carried out and information was obtained of deaths occurring between July to December 2015

It is important to note that this was not a population-based surveillance method but was based on actual reports received of maternal deaths in the area. This approach had the advantage that it included deaths occurring in the village, deaths in transit and deaths outside the border of the district.

iii. Following the final identification of a maternal death, the CBMDR was conducted for around 150 cases, using the Government of India's MDR Tool, with a few additional probes

Further at the end of the documentation process, the health facilities that had been used by the women who died, were listed and observed using a checklist adapted from the GOI criteria of Level1, Level 2 and Level3 Facility. The village-level services for ante-natal care and Supplementary Nutrition were also observed in the Village Health and Nutrition Days (VHND).

Key Respondents:

Our main source of data is the community and our key respondents included **family members** of the deceased woman, especially if they happened to be present when the woman was seeking care. These usually included mother-in-law, husband, and father-in-law, brother-in-law, sister-in-law, co-sisters or mother, and sometimes neighbours and **ASHA**. In a few cases doctors and ANM were also interviewed. The number of sources used to get information about maternal deaths differed according to our partners' networks, strengths and access to the area.

Additional probes beyond GOI Tool for CBMDR

These probes were related to the **home based care** that the woman received during the antenatal period, such as place of checkups, number of checkups, food consumed, traditional practices followed and the role of the ASHA during the period of pregnancy or in the post-natal period.

Probes were also formulated to get additional **information for maternal deaths** that occurred at any stage - antenatal, intra-natal, postnatal or an abortion death; for instance, a set of questions were added on the onset of the problem: when they first recognized the problem, who did the family contact, where did they go and how, and related issues like costs. For deaths in the intra-natal and post natal periods, a more detailed list of symptoms was added to the tool. There were probes that sought to get information on the condition of the facility, the availability of doctors, of blood and referral transportation services.

At the end of all the sections there was a table to capture the movement of the woman during **referral** from facility to facility, the related papers any transport support provided, the time taken and delays if any and costs for travel and treatment. Each section also had probes to ascertain the experiences of quality of care that the woman and her family had received and any reasons for not using a particular hospital.

Analysis Process

The entire information obtained in the field by using the CBMDR Tool (GOI) as well as the concluding short Case Study was reviewed and cross-reviewed by a separate team. The data for 139 cases was condensed as one-page Case Summaries, which included details of the socio-economic background of the woman, her obstetric history, her ante-natal care and the experience of health services during the labour, abortion or complications. Any available details about costs, timing and medication were also retained. Whatever personal quotes were available were retained in the summary.

The information available in the case summaries was then coded around some major themes, including the *Pre-existing* status of women, *Provision of maternity care in pregnancy and abortion,*

Provision of maternity care in labour, or after childbirth (including availability, accessibility, affordability and quality[x]), issues of Reproductive Health and Rights, and the role played by the Private Sector. Some of the information was tracked through tables in order to make cross-references and draw out patterns. The validity was tested against the secondary data about that district and the condition of maternal care services available in the health facilities.

The data was then analyzed in order to draw out -

- The existing vulnerability of the women from marginalized groups,
- The symptoms of complications that they had, and
- To what extent the health system and programme design was able to respond to these.

The current maternal health programme has been designed in a way that it is able to provide safe delivery. This is expected to be achieved through a set of prescribed care procedures including antenatal, delivery and complication care; a system of facilities providing increasing levels of care; and appropriately trained providers at different levels. In addition to these system strengthening mechanisms there are provisions for free transport and care of mother and infant through the JSSK and an incentive to women and the ASHA through the JSY to do institutional delivery. These cases provide us with an opportunity to understand whether these 'routine' procedures are truly equipped to help women who may need complication related support.

Emergency interface in cases where the women follow expected procedures: The overall assumption of the current maternal health approach is that if a woman undergoes the set of routine antenatal procedures, calls the ASHA or by any other means come to an institution for her delivery, her safety will be ensured by a series of normal or if necessary emergency care procedures.

The routine approach assumes safety in delivery will be assured through home based care and community support through the services of an ASHA and the Sub Centre and institutional delivery. The combination of early registration and set of ANC services including counseling will enable the early detection and management of complications in pregnancy as such maternal anaemia.

In many ways the ASHA or Accredited Social Health Activist is at the centre of the current safe motherhood strategy. She is expected to be the link between the community and health system. The performance based incentive that ASHAs receive is primarily linked to support she is able to the community to comply with the recommended regimen of care.

Antenatal care is a core element of the Continuum of Care which also includes care during delivery and post natal care. A set of services provided at least four times is expected to identify antenatal complications which can then be addressed through medical care.

Government of India introduced the MCTS in 2009 to streamline and ensure effective coverage of the antenatal, intranatal and post natal services for all women and immunization for children. The MCTS is expected to generate workplans for frontline workers to address the needs of individual women who have been identified through this database.

In order to encourage the community to use maternal health services the Government of India explicitly introduced free services through the Janani Sishu Suraksha Karyakram (JSSK) which provides free ambulance service to and from the hospitals for complication in pregnancy, for

institutional delivery and for post natal complication along with free treatment of mothers and children along with free stay and food while in hospitals.

Limitations

Firstly, the person who went through the entire experience at first hand is not available any more to give her perspective of what was happening. It is the **second-hand narrative** of the family members or close relatives who accompanied the woman; and in some cases the FLWs. We do recognize that for families there would be a sense of trauma at the unexpected bereavement. Secondly the family which has low literacy (or none) is not in a position to provide many medical details in terms of the medically describing the symptoms, the diagnosis, the actual treatment and so forth. Therefore any effort to conclusively establish the medical cause of death is not possible (although in most cases there are potential indications about the causes). Thirdly, several qualitative details about the family and its decision-making are unavailable because of the nature of the GOI tool for CB-MDR.

The methodology did not include cross-verification with the health providers in all the cases, and in a very large proportion of the cases, the family had no papers from the hospital treatment. In many instances they were just not given, but in other cases the papers had been burnt during the cremation of the dead body. Since the intention was not to conclusively establish any bio-medical causes of death, the field investigating team or the analysis team did not include a gynaecologist; although support was taken from the National Advisory Group members that included medical doctors.

Finally given that these the deaths are a sample of the entire experience of maternity in that particular district, and all the other women who faced the same health system and had a similar background are still alive, our findings are **indicative** but **not conclusive**, and point to the need for further research in this area.

Consent and Ethics Review

To ensure the research components in the project adhere to SAHAYOG's ethical protocol to guide human subject research, a checklist has been developed which is referred to in all work that involves human participants. The objective of this checklist is to access whether the study design and methodology attends adequately and sensitively to the ethical issues involved; to access whether the processes planned to sensitize the research team to ethical issues are adequate and feasible; to access whether adequate measures are proposed to protect rights of research participants; and to access whether adequate measures are proposed to protect rights of researchers and especially field based staff.

Concern for the deceased woman's family and their loss was at the forefront of our work. Hence during our capacity-building workshops, the issue of ethics and obtaining consent were constantly emphasized. Before the start of documentation, partners were expected to explain the purpose of the interview, and the interview began only after obtaining signed consent on the Consent Form. These consent forms are under the protection of our partners; all names have been replaced with Index numbers, including that of the health facilities in order to protect the identity of the deceased women and their families.

We also do not provide the names and identities of the health facilities or health providers to avoid any kind of backlash or punitive action. Our objective is to promote changes in the entire health

system and this is not a fault-finding exercise. This has been done by maintaining a constant engagement with the frontline workers, the facility managers and the district and state health officials as well as National Ministry officials. The findings were shared with them with the objective of promoting remedial action through health system corrections, both at the mid-term (August 2015) and at the end of this entire exercise (July-August 2016).

ENDNOTES:

i. UNICEF, WHO, World Bank, UN-DESA Population Division, Levels and trends in child mortality, United Nations Children's Fund (UNICEF); 2015 Available: http://www.unicef.org/media/files/IGME_Report_Final2.pdf.

ii. United Nations. Sustainable Development Goal-3 (SDGs-3): Ensure healthy lives and promote well-being for all at all ages, 2015. Available:http://www.un.org/sustainabledevelopment/health/.

iii. WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division. The World Trends in Maternal Mortality: 1990 to 2013. World Health Organization, Geneva; 2014. Available: http://reliefweb.int/sites/reliefweb.int/files/resources/WHO_RHR_14.13_eng.pdf

iv. Office of Registrar General of India. Special bulletin on maternal mortality in India, 2010-12. Sample Registration System, Office of Registrar General of India, Ministry of Home Affairs, Government of India, New Delhi; 2013. Available: http://www.censusindia.gov.in/vital_statistics/SRS_Bulletins/MMR_Bulletin-2010-12.pdf.

v. Ministry of Health and Family Welfare, Government of India, Jan 2013: A Strategic Approach to Reproductive, Maternal, Newborn, Child and Adolescent Health in India (RMNCH +A)

vi. The MDR process in India is fraught with many challenges such as under-reporting (only 17.6% deaths reported), the shortage of human resources, developing guidelines and simple implementable tools to conduct MDRs, resolving ethical issues, building capacities and forging partnerships. Despite assurances, maternal deaths remain a sensitive issue among health officials and providers and there is a tendency of under-reporting and for MDRs to become more of a fault finding rather than a fact finding exercise.

vii. The resource persons for capacity-building were experts from NAMHHR on maternal health policy, research and a gyn/obs doctor from CommonHealth. The topics covered included definition of maternal death, obstetric and technical causes of maternal mortality, identifying common obstetric complications, as well as the role of other social determinants and non-obstetric causes that lead to maternal deaths. The seven workshops had sessions to build skills in use of the MDR tool with repeated practical iterations, and knowledge of the different steps including maternal death surveillance, verification and review. They also built skills in identifying maternal complications from a study of case studies of maternal deaths, analyzing findings and identifying gaps. Critical issues including that of ethics, consent and displaying sensitivity were discussed in great detail. A health facility observation visit was conducted, and importance given to relationship building with the government at all levels.

viii. In addition, SAHAYOG has maintained continuous and intensive dialogue with the concerned officials in the Ministry of Health and Family Welfare (MoHFW) Government of India (GOI)

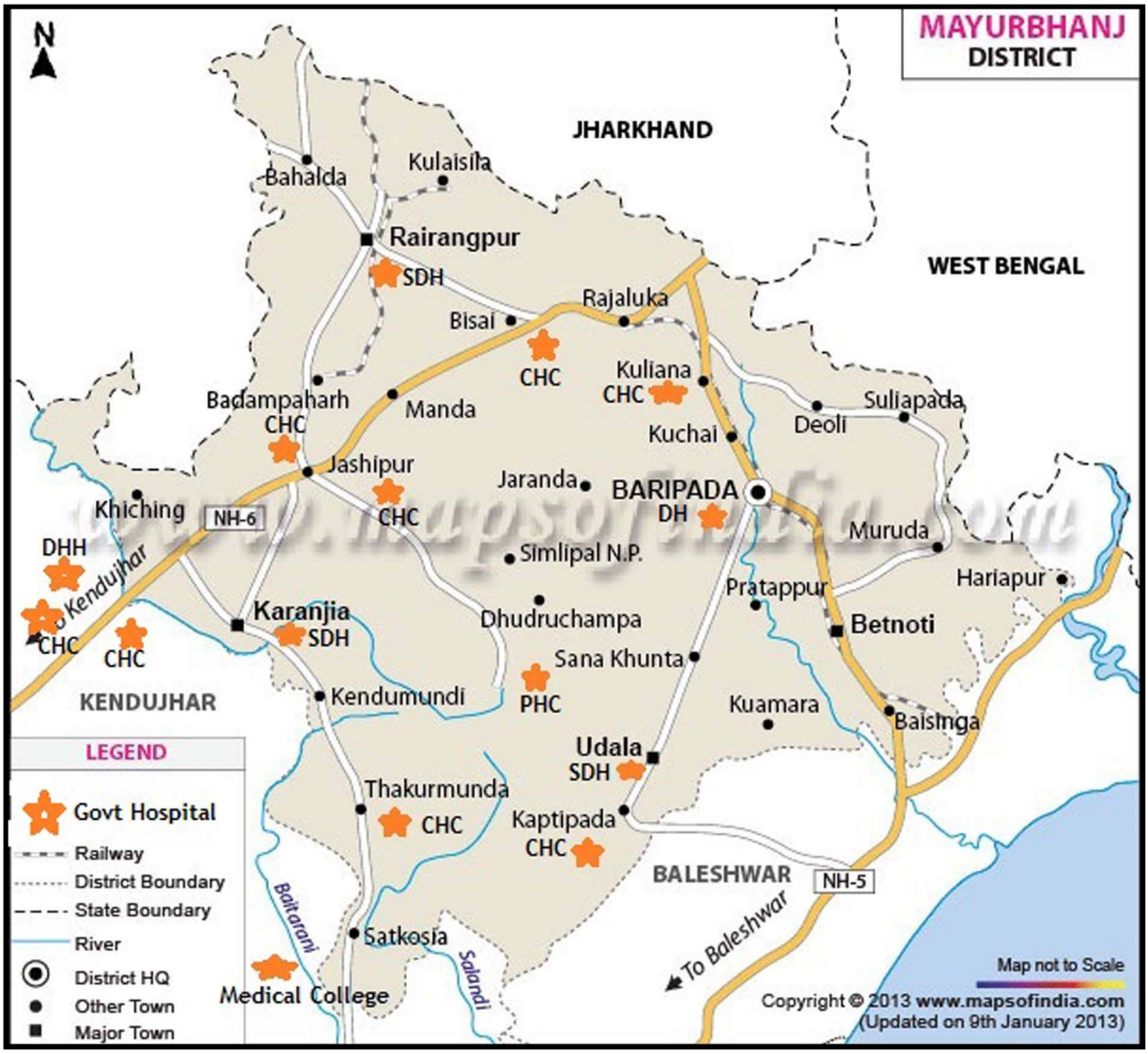
ix. The Advisory Group included health research experts including Dr. Imrana Qadeer, Dr. Abhijit Das, Dr. M Prakasamma, Dr Pankaj Shah, Dr. Kirti Iyengar, Dr. Aditi Iyer and Dr. Sebanti Ghosh

x. Human Rights Council 2012 'Technical Guidance on the application of a human rights based approach to the implementation of policies and programmes to reduce preventable maternal morbidity and mortality' Human Rights Council General Assembly Twentieth Session: Agenda item 2& 3, Resolution Number A/HRC/21/22. United Nations; 2 July 2012

Chapter- 2

ODISHA

MAYURBHANJ


MAYURBHANJ
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District HQ
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NH-5
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To Baleshwar
Salandi
Medical College
Map not to Scale
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(Updated on 9th January 2013)

Chapter 2, ODISHA

CB-MDR ANALYSIS OF DISTRICT MAYURBHANJ

REPORTS OF 37 CASES OF MATERNAL DEATHS FROM EIGHT BLOCKS

Dated 15 January and 11 December 2014

PROFILE OF ODISHA AND MAYURBHANJ DISTRICT

Odisha is the 9th largest state in the country in terms of area and includes 30 districts. It has considerable coastal areas, hills as well as densely forested regions. Of all the states of India, Odisha has the largest number of tribes, as many as 62. In terms of percentage they constitute 22.8 percent of the total population of the state and mainly inhabit the Eastern Ghats hill range. More than half of their population is concentrated in the three districts of Koraput (undivided), Sundergarh and Mayurbhanj.

The major tribes are Kondh, Saura, Gond, Santal, Paraja, Gadaba, Koya, Oraon, Bhuiji, Bonda and Juang. Tribal economy is subsistence oriented. It is based on food gathering, hunting and fishing and thus revolves around forests. Even the large tribes like the Santhal, Munda, Oraon and Gond, who are settled agriculturists, often supplement their economy with hunting and gathering.

Table 1: Basic Demographic data of Odisha and Mayurbhanj

Indicators	Odisha	Mayurbhanj
Total Population (Census, 2011)	4,19,47,358	25,19,738
Population living in urban areas (% of total population)	16.7%	7.7%
Scheduled Tribe Population (%) (Census, 2011)	22.8%	58.72
Scheduled Caste Population (%) (Census, 2011)	17.1%	7.33
Female Literacy Rate (%) (Census, 2011)	64.01	53.18
Crude Birth Rate (AHS, 2012-13)	19.6	19.7
Crude Death Rate (AHS, 2012-13)	8.1	8.5
Total Fertility Rate (AHS Bulletin, 2012)	2.2	2.2
Sex Ratio (all ages) (AHS 2012-13)	996	1022
Infant Mortality Rate (AHS 2012-13)	56	47
Maternal Mortality Ratio (MMR)[1] (AHS, 2012-13)	230	218

1. Central Division including the following districts: Mayurbhanj, Baleshwar, Bhadrak, Kendrapara, Jagatsinghapur, Cuttack, Jajapur, Nayagarh, Khordha, Puri; Source: http://www.censusindia.gov.in/vital_statistics/AHSBulletins/AHS_Bulletin_2012_13/Odisha/Odisha.pdf

Mayurbhanj District is the district with largest area in the state and land-locked district; The district has been divided into 4 subdivisions namely, Baripada, Bamanghati, Kaptipada and Panchapirh. There are 26 Community Development Blocks in the district. The district is bordered by West Bengal and Jharkhand. Mayurbhanj has the highest proportion of tribal population in Odisha with 58.72% of its population belonging to the Scheduled Tribe category (Census, 2011). The district has a rich mineral base and is home to the Similipal Biosphere. The economy of Mayurbhanj District is mostly dependent on agriculture. Paddy is the major cultivated crop, followed by pulses and oilseeds

Maternal health status of Mayurbhanj district of Odisha

Odisha has a high Maternal Mortality Ratio (MMR) at 230, with the MMR of Mayurbhanj being slightly better at 218; however both of them have MMRs that are higher than the National MMR at 178 (AHS 2012 - 13[2]). The AHS data on maternal health reflects that there is close to 100% coverage of Ante-Natal Care (ANC) services and the indicators for various ANC interventions such as measuring blood pressure (BP) and haemoglobin (Hb) is relatively high in both the state and the district. Despite this, the percentage of women who had received full ANC was low at 38.4 % in Mayurbhanj and still lower at 27.8% in Odisha. The use of government facilities for ANC checkups was 91.5% Mayurbhanj which is better than the state average (55.9%), and most women appear to use government hospitals for childbirth. However, the occurrence of caesarean operations in private facility is far higher in proportion when compared to government facility in both Mayurbhanj and Odisha as a whole. The following tables give the Annual Health Survey 2012-13 data on coverage of maternal health services.

Table 2: Details of Antenatal Care in Mayurbhanj district, Odisha

Antenatal Care indicators (all figures in percentage)	Mayurbhanj	Odisha
Currently married pregnant women aged 15-49 years regd. for ANC	86.0	79.8
Women who received any Ante-natal check up	99.2	98.0
Women who received 3 or more ANC	90.0	81.9
Women who had full ante-natal check up	38.4	27.8
Women who received ANC from Government source	91.5	55.9
Women who received at least one tetanus toxoid (TT) injection	99.1	97.6
Women who consumed IFA for 100 days or more	41.5	31.2
Women whose blood pressure (BP) was taken	90.4	85.7
Women whose blood was taken for Hb	63.0	70.4
Women who underwent ultrasound	26.9	46.8

STATUS OF HEALTH FACILITIES AND VILLAGE-LEVEL HEALTH SERVICES IN MAYURBHANJ

The Baripada **District Hospital** (referred to as DHH) has a total bed strength of 365 with 60 beds for Ob/Gyn. The hospital has 38 doctors available for OPD but after OPD hours only one doctor is on duty others are on call. There are 18 regular and 12 contractual nurses with some staff nurses for labour room duty, as well as a sweeper paid from the RKS funds. It is clean, ISO certified and can

2. Annual Health Survey 2012-13, Fact Sheet. Vital Statistics Division, Office of the Registrar General & Census Commissioner, India (available at http://www.censusindia.gov.in/vital_statistics/AHSBulletins/AHS_Factsheets_2012-13/FACTSHEET-Odisha.pdf)

Table 3: Delivery care in Mayurbhanj district, Odisha		
Antenatal Care indicators (all figures in percentage)	**Mayurbhanj**	**Odisha**
Institutional Delivery	79.7	80.8
Delivery at Government Institutions	78.0	70.8
Delivery at Private Institutions	1.7	9.6
Delivery at home	19.8	18.7
Delivery at home conducted by skilled Health personnel	24.3	24.5
Safe Delivery	82.4	83.7
Caesarean out of total delivery taken place in Govt Institutions	5.8	8.7
Caesarean out of total delivery taken place in Private Institutions	41.2	47.0

Table 4: Post-natal care in Mayurbhanj District, Odisha		
Post-natal care indicators (all figures in percentage)	**Mayurbhanj**	**Odisha**
Less than 24 hrs stay in institution after delivery	56.9	52.4
Mothers who received post-natal check up within 48 hrs of delivery	84.4	82.8
Mothers who received post-natal check up with in 1 week of delivery	88.1	86.5
Mothers who did not receive any post-natal check up	10.9	12.1
New borns who were checked up with in 24 hrs of birth	84.1	81.7
Mothers who availed financial assistance for institutional delivery under JSY in government facilities	78.3	70.3

handle both normal (close to 400 a month) and C-sections (around 100 a month). However it is observed that women are discharged after 5-6 hours following normal delivery. The DH has a functioning Blood Bank, 24x7 lab services, and is able to provide abortion services.

The district has three designated **Level-3 Sub-Divisional Hospitals** (referred to as SDH) at Karanjia, Rairangpur and Udala serving 4-5 blocks of the district. There are posts for 11-12 doctors in each SDH during OPD hours but after OPD only one doctor is on duty with specialists available on call. The numbers of regular nurses range from 7-9 and around 6 additional nurses are also posted in each hospital on contractual basis; usually around 4 have Labour Room duty as per shift as well as 1-2 sweepers paid by RKS funds. All the SDHS have 60 beds each, and are able to handle both normal deliveries (150-200 each per month) as well as C-sections (25-40 average per month in each). Here too, women who have a normal delivery are usually discharged after 5-6 hours of post-partum observation. All hospitals have the Janani Express (JE) services for pregnant women. All three can provide abortion services, and have a functioning Blood Bank, as well as Lab services during the day.

The women in these cases also used the various **Level 2 CHC** hospitals at Kuliana, Kapatipada, Jamada, Bangiriposi, Thakurmunda and Joshipur. There are 2-3 doctors available during OPD hours and nurses are 3-4 who usually manage both labour room and general duty. These CHCs can handle normal childbirth and have about 6 beds; one sweeper is paid by RKS funds to clean the labour room. The wards and labour rooms are not very clean in these hospitals. Women who have normal delivery are discharged after 5-6 hours. There are no abortion services; lab services are available only during the day, and the 102 JE (Janani Express) is used for pregnant women. The Joshipur CHC is 100 kms away from DH and has a 'Maa-Griha' for pregnant women from inaccessible areas of Simplipal National Park.

The **village-level health services** are provided through the system of Village Health and Nutrition Day, termed VHND. Four VHNDs in one block were observed in the month of August 2015. In all four sites the community had advance information of the time and place of the VHND and they were well attended: around 60 - 90 % of registered women came for antenatal checkups and between 50 - 80% came for postnatal checkups. All three frontline workers (FLWs - the Anganwadi Worker, ASHA and ANM) were present in the four sites. In three sites IEC poster materials were on display. Antenatal checkups in all four sites included the distribution of IFA tablets, giving TT shots, weighing of the women and conducting haemoglobin tests. Pregnancy testing was also offered; however urine tests, abdominal examination or BP measurements were not being done. In two sites special arrangements were made to enable ANC checkups to be provided in privacy, however in all the four sites, the space available was inadequate for proper seating arrangements. Counselling was provided on the importance and benefits of consuming IFA tablets, and the women were advised to opt for safe deliveries and institutional deliveries. In all four sites, basic instruments including weighing machines, blood pressure measuring machines, disposal syringes, contraceptives (oral pills and condoms), haemoglobin and pregnancy testing kits were available.

FINDINGS FROM THE COMMUNITY-BASED MATERNAL DEATH REVIEWS

The following report analyzes the maternal deaths of 37 women who belonged to the eight blocks of Mayurbhanj district, which are Kaptipada (7) Kuliana (7), Karanjia (5), Baripada (4), Jamda (4), Thakurmunda (4), Bangriposi (3) and Joshipur (3).

Of these 37 women whose deaths have been documented in Mayurbhanj, 34 were tribal women, one belonged to the Scheduled Caste while two others belonged to Other Backward Castes. For 9 of them it is confirmed that they had BPL cards. Around 16 of the women who died are described as home-makers while 21 others worked as wage labourers, usually agricultural and other forms of daily wage labour. The age of the 37 women is mostly in the twenties, although there are two teenagers (13 and 18 years old) as well as six women aged 30-40. Among the women, 17 of the women were non-literate, but the remaining 20 had been to school. The 13-year old tribal girl who died was a school student and another 7 tribal women had reached high school (Class 8). It is noticeable that one OBC woman and two tribal women had completed Class 12 and were all home-makers (see Annexure 1, **Table I - Profile of Women**).

Except for 6 out of 37 women, all the remaining **31** had **high-risk signs** in pregnancy. For example, 17 out of the 37 women were primi-gravida; of whom two were unmarried women who were avoiding pregnancy registration. Two women were being regularly beaten up by their alcoholic husbands. Seven women were fourth or higher gravida. Three women had a history of miscarriage; five had earlier still-births. One 42-year-old woman did not want her third pregnancy, and another had three pregnancies in two years, while two women had conceived within a few months after their last childbirth (see Annexure 1, **Table II- Obstetric History of the Women)**.

i What led to the deaths of these these women?

Here are a few examples of how women died in Mayurbahanj:

- Two women had miscarriages: one died in her forest village with malaria and a miscarriage that turned septic; while the other died while trying to reach a hospital

- One primi woman was kept waiting for 53 hours in labour in her CHC then died after massive bleeding following delivery at the SDH (after 62 hours of labour).
- A primi is kept waiting in labour at the DH for two days and three nights despite bleeding and signs of pre-eclampsia and dies with a convulsion two hours after her still-birth.
- One woman had an unsafe induced abortion and delayed seeking care at the CHC, with further delays caused by referral to the DH for which the family needed a day to raise enough money.
- A women who had homebirth developed sepsis, and was referred to the CHC only after 2 weeks by the ANM: after 10 days of treatment at the SDH, she died as they couldn't afford the referral to the DH

ii. Did the health system have the ability to manage obstetric emergency?

a. Did the women reach the health system during labour or any complication?

Of the 37 women who died in Mayurbhanj, **seven died during pregnancy** without going into labour: three had induced abortions, two had miscarriage and two died of pre-existing medical conditions. Of the three who had induced abortions one did reach a hospital. Of the two women who had miscarriages, one died at home while the other died trying to reach a hospital.

The remaining 30 carried their pregnancy to full term, of whom **25 attempted to reach a hospital** during labour. Six women planned to have their birth at home, and **five had home births** finally. Not all of these 24 gave birth in the place they had intended: many women first sought care in their PHC or CHC and ended up delivering somewhere else, one woman who had intended home-birth delivered in the DH. Of the women who had home births, one was sixth gravida and her husband felt she didn't need a hospital.

b. What was the role of the first point of care?

i. Care at home

Of the 5 women who had home births, one woman had her birth at home quite suddenly after bleeding for two days; three other women had planned home births, in which one was assisted by her husband. All died of severe bleeding very soon; one developed fever and foul-smelling discharge. Some of these women who died at home had not even been registered during their pregnancy.

ii. Care in institutions

Of 30 women, 24 went directly to a facility when labour began and some of them delivered with the help of nurses, and in a few we hear about the presence of doctors. In case of an expected normal delivery labour was managed by giving injections. Although the numbers of institutional delivery are so high, the quality of care and the skills of the providers is dubious. Complications such as heavy bleeding and fever with foul-smelling discharge indicate that the management of childbirth in the hospitals was not done with adequate care. Women develop complications almost immediately after institutional birth: three women in different blocks of Mayurbhanj had very heavy bleeding after normal delivery in hospital, one of whom died within 5-6 hours. Two women died soon after C-sections and others died soon after hospital delivery.

We also note that these women were not kept under **post-partum observation** for the required 48 hours; for example one woman was discharged one day after her childbirth in the CHC and developed very severe sepsis (with foul-smelling discharge which led to fever and sweating in a week). But when in labour, sometimes they are kept **under observation** for too long despite being complicated cases. One woman was a primi who was kept waiting for 53 hours in labour by her CHC, another 13-year old girl with signs of pre-eclampsia was kept 8 hours by the CHC as were two other women with symptoms of pre-eclampsia.

c. Was the complication identified on time and care sought?

Some women **did not seek care** even when complications were detected during pregnancy and abortion: for example, one woman bled from incomplete abortion, and delayed seeking care for 5 days and died at home; another living in the forest got malaria during pregnancy, had a miscarriage and died at home after 7 days in great pain as the incomplete abortion turned septic. Another woman had a miscarriage but was kept bleeding at home all night without taking her to a hospital as it was raining heavily. Another had symptoms of puerperal sepsis after home-birth and was treated at home by a quack for two weeks, until finally an ANM came to see her and asked her to go to a hospital at once.

Given their existing weak health status, four women **died at home** right after the onset of complications and there was no time to reach care. Three others intended to reach a facility but died before any arrangements could be made; two women also reached a facility during complications but were declared brought dead. Others managed to reach an institution: however, despite their reaching hospitals, the health system could not save them after they sought care during labour or after birth (see Annexure 1, **Table IV - Symptoms of complications during labour or after childbirth)**

d. Was the complication managed by provision of CEmOC?

Two women sought care after **post-abortion bleeding and pain** but their complications were not managed at the CHC despite giving injections and IV fluids, and bleeding continued. In one case the woman died the following morning; the other woman was referred but had gotten much worse by the time the family raised money to take her to the DH.

Women did develop **complications after home births as well as institutional birth.** Sometimes they arrived in hospital with existing medical conditions that providers knew nothing about, and which did not get picked up, such as severe anaemia or high BP; neither were these monitored during childbirth, and the resulting complications were usually fatal. The women presented with some common symptoms of complications such as **convulsions** indicating pre/eclampsia, **severe anaemia** and heavy bleeding or fever **and sepsis**. When women reach the health facilities such as the SDH or DH in labour or during complications, we hear doctors giving injections, IV drips, C-sections, oxygen and blood transfusions. But in most cases these efforts failed to save the women's lives. In all of these we find that the hospital doctors were not able to save the women, even though women were in the facility for several hours if not several days.

Several women in this district developed **convulsions** during or after labour; some died in 2 hours before they could reach a hospital but others tried to seek care and were delayed 9-16 hours despite reaching the health system. The CHC, SDH or DH are unable to treat the complication in time, and even in the DH, a **C-section** is not attempted despite the women displaying symptoms of pre-

eclampsia. In one case a primi woman with symptoms of pre-eclampsia and had bleeding during labour is kept in the DH for more than 50 hours in labour. In another case, the Ob/Gyn doctor examines her upon arrival from the CHC, and then leaves her with the nurse for many hours, while she continues having convulsions, but the doctor does not return until she is almost dead. In fact only three women underwent a C-section for delivery. However that did not guarantee survival as two of them died within 7-8 hours of the surgery while another died two days later.

When women needed **blood transfusion**, the health providers seem unable to save their lives either due to delays or inadequate arrangements. In four cases the CHC or SDH refers out the woman as their facility does not have blood transfusion capacity; sometimes the transfusion is delayed until the woman is bleeding heavily for 3 hours before the referral or transfusion is considered. The providers then cause even more delays by asking the family to go to the Blood Bank and arrange for the blood. This wastes precious time, and shows lack of emergency preparedness among the tertiary hospitals. The family is asked to do this despite their handicap in being disoriented as they are from far-off villages, not very educated and usually very poor.

The women who develop **sepsis** usually come to the CHC or SDH, but the hospitals are unable to deal with the severe infection and women lose their lives. One woman was treated for three days, and another ten days at the SDH but not cured and then referred again to the DH. This referral was unaffordable for the families (which did not get assurance of JSSK) and in both cases the family went back home and ultimately led to death. In a third case the sepsis (with anaemia at less than 7gms) was treated for 7 days at the DH which fails to cure the woman.

Several women developed other intra-partum complications but despite reaching hospitals, died before they could deliver due to the serious nature of the complication. Sometimes the CHC or SDH keep women for several hours before sending them to a tertiary facility even though they cannot handle the symptoms which are getting worse. The health providers do not explain everything to the family, in terms of the woman's condition, its seriousness and what line of treatment is being attempted.

Sometimes they cannot convey to the family the urgency of the situation. Sometimes the providers do not listen to what women are saying even if the women are conveying serious problems: one woman was in her 5th childbirth and for 6 hours kept telling the nurse that her lower abdomen pain was acutely unbearable, but the nurse kept reassuring her that she would deliver soon. Another primi with anaemia and very low weight came to the DH doctor with abdominal pain and discomfort, but the doctor sent her home after a day of treatment instead of trying a C-section; later the family called in the quack and TBA when labour began instead of taking her back to the DH, and she had to labour for 60 hours.

e. How is Referral and transportation managed?

Although 30 women did reach institutions and usually called the ASHA or the ambulance when labour or complications began, they could not always get the Janani Express (JE) on time, and we find that at least 13 of them had to arrange for private vehicles. For some it is mentioned that the ASHA accompanied them. Sometimes the woman had intra-partum complications but the ambulance was delayed, either refusing to come or sometimes because the bridge was washed away due to heavy rains and a long detour was needed. We also hear about one PRI member talking to the driver to get the delayed ambulance to the village.

When the first facility is unable to manage the complications, women are referred from one health facility to another, and they are usually given the JE service; except in a few cases when they are sent away without any support. In one case the government ambulance is unavailable at first, then later agrees to take the family upon payment of Rs 500 since it is after midnight. This kind of unsupported referral makes the poor rural family fear the prospect of high costs which they are not able to pay, and in some cases they go back home, trying to raise enough money if possible, otherwise they may just not go. Even if the JE ambulance is given the doctors do not always send an accompanying paramedic with the family, although the woman may be in a critical condition, for example, she is unconscious or bleeding. One extremely anaemic woman was referred to from SDH but her birth at the DH was followed by breathlessness and unconsciousness; in this condition the DH referred her to Cuttack Medical College without offering an ambulance. They family spent 4-5 hours to arrange for a vehicle; and the private ambulance finally charged Rs 6000 because she died and the body had to be brought home (see Annexure 1, **Table V- referrals and costs).**

But there are positive examples of **supported referral** done with sensitivity to the condition of the woman. In one case the CHC doctor not only refers the woman after trying treatment but personally accompanies the family in the ambulance at 5am as the woman has been unconscious for 3 hours already. The same CHC sent the 13-year-old girl in labour with an ambulance and paramedic to the SDH when she did not deliver her baby for many hours. In another case the paramedic gave oxygen while in transit but the woman died.

f. Does the Free services under JSSK work?

The fear of expenses often delays care, especially when very poor families are advised to take the woman to the DHH. Women who were referred and in critical condition, were sometimes first taken home by their families in order to raise more money before undertaking the journey; Anticipating huge expenses, the poor families rush back home to raise money through loans or mortgage their meagre assets; sometimes the family did not go for fear of the costs involved and brought her home to die. True to this assumption, families are made to spend a few hundred or a few thousand when they go to the DH (See Annexure 1, **Table V-Referrals and costs).**

It does not seem that anyone explained about the JSSK to the women or their families except in one case: in this case the ASHA played a positive role in convincing the husband that the delivery in an institution would not cost them anything, so he should take his wife to hospital during labour. Subsequently, he had to spend Rs 1000, which was an unaffordable amount for him, and told the doctor he could not take the mother and baby to the DH as he had no more money. One woman who had already spent a day getting treatment at the DH was kept in labour for 60 hours as the family hesitated to go back. Despite the JSSK, we find the blood transfusion is given on payment, in violation of JSSK. sometimes the family did not go for fear of the costs involved and brought her home to die.

iii. How effective is the routine provisions within NRHM to identify and manage complications?

The NRHM model is based on getting pregnant women registered during pregnancy and then going into an institution for safe birth. It is expected that the registration will lead to women accessing comprehensive Ante-Natal Care (ANC) with any required identification of danger signs and referral. The support of ASHA workers and the ambulance taking the women to a hospital will ensure safe childbirth. But not all these assumptions are borne out in Mayurbhanj in the cases of the women who died, despite their getting into the health system through ANC registration.

Out of 37 women, **30 were registered** and had at least one contact with the ante-natal care provider. However for different reasons the remaining **7 were not registered** for ANC, ranging from abortion-seeking to being poor or living in a remote village near the forest. The ANC services were accessed usually more than thrice by all the women through the well-functioning **VHNDs** (Village Health and Nutrition Days), and all of them were checked by the ANM. In fact one woman who lived inside a Simplipal National Park, where there were no roads, no public transport and no electricity or mobile network, still managed to receive VHND services and 4 ANC check-ups.

Sometimes the women with obvious symptoms were termed as 'high-risk cases' and asked to go get a check-up from a doctor on their own - but the FLWs did not follow-up such women or accompany them for the required check-up. While three women followed this advice and went to the DH during pregnancy, many others did not. All the five women who received a check-up by a doctor in the CHC or SDH (as they were seen as 'high-risk') went into labour with the same poor health indicators: so it is unclear how the health system tracked them following the doctors' diagnosis and advice.

In terms of routine ANC care, all the 30 women (barring one) received IFA tablets and TT injections; in fact even the teenage girl and one woman who later had an abortion received one TT shot each; but in three cases IFA tablets seem to be out of stock. It is creditable that the VHND services in Mayurbhanj ensured 28 out of 30 women had **BP checked** and recorded, and 26 women had their **HB** tested while **21 women** had their **weight measured** and tracked in terms of increase throughout pregnancy (none in Thakurmunda block). However beyond these services, ante-natal examinations are quite uneven; just three women got USG done when they visited the DH, and a few got urine tests (only 6 women) or abdominal examination (only 9 women).

The lack of comprehensive checkups and follow-up meant that some **danger signs were missed.** There were women whose weight is under 40-45 kgs even in the ninth month, or height is very stunted; some had symptoms of pre-eclampsia (swelling as noticed by the ASHA or high BP measured) or severe anaemia but none of these were actively followed up till the end of pregnancy. Testing for **anaemia** shows that many women had Hb of 10gm, 7 gm or even as low as below 5gm, but no further treatment or advice is mentioned, beyond the ASHA urging them to **eat better,** all kinds of coloured vegetables, eggs, fruit, milk and meat. This 'nutrition advice' is given regardless of the context of the women who may be **extremely poor** wage workers, with many children to feed and often struggling with other issues like disability in children or alcoholism in husbands. The women are unable to follow the advice, unable to eat anything beyond the basic *'panta bhaat/pakhla bhaat'* and remain as undernourished as they were.

The ante-natal registration also entitles women to SNP consisted of 5kgs of the mix 'chatua' which is given as a dry take-home ration (THR) from the Anganwadi; of the 30 women, 27 women received SNP from their local Anganwadi centre but for three women it is not known whether they received SNP. One woman also received the first instalment Rs 1500 of the MAMATA Scheme maternity benefit allowance.

Their **obstetric history** would have indicated that many women needed special counselling, care and follow-up during pregnancy and labour. Barring six out of 37 women, all **31** of them had **high-risk signs** in pregnancy. For example, 17 out of the 37 women were primi-gravida; and 7 were fourth or higher gravida. Three women had a history of miscarriage; five had earlier still-births. There was also malaria during pregnancy that was not picked up by the health system as the couple lived far from their families at the edge of the forest, and it led to miscarriage with sepsis.

Safe, accessible and confidential abortion/post-abortion services are unavailable for even married women in these blocks, leave alone for someone who was still unmarried at 25. These women who died approached unqualified private practitioners, some practising herbal medicine, and obtained medicines for abortion, and went through pain and bleeding for an entire night, or as long as three or four days, before it was known to family members. Even if they have reached a CHC for treatment, the health system failed to respond promptly or effectively for post-abortion complications.

Another significant gap is that of **Family Planning services**. The two teenagers aged 13 and 18 needed contraceptive services to avoid their early pregnancy as well as the 7 women who are in their fourth or higher order pregnancy, and the two unmarried women who were pregnant: all needed contraceptive services. Women had conceived a few months after their last birth, or every alternate years, or as late as when they were 42 years, owing to the absence of post-partum counselling on spacing methods.

IV. Discussion and Conclusions

Discussion of the findings

We have seen that the women of Mayurbhanj were mostly tribal; several of them being wage workers and a large number of them were malnourished with very low body weight, some of them stunted, and most of them quite anaemic. In this condition of physical vulnerability, the episode of pregnancy and childbirth puts an added strain on the resources of the body. It is important to see how the health system responds to the needs of women from this kind of socio-economic background, and the extent to which these women have access to life saving emergency obstetric care. The findings are discussed in two sections, the pregnancy related care and the care during childbirth or complications.

a. Discussion about pregnancy care:

Ante-natal care needs to be interpreted beyond the **'bare minimum routine services'** provided to women at the community level, to include and take into account any **existing medical symptoms of the pregnant woman** as well as her **obstetric history**. These must be recorded in the Mother-Child Tracking System **(MCTS system)** and the women followed up to ensure that they receive appropriate care when required. The MCTS should enable tracking of pregnant women, the regular recording of their health status, regardless of their location. It should ensure that high-risk women are able to access skilled care during any complications or childbirth. Beyond this, comprehensive ANC services must also **respond to any medical emergency** during pregnancy. In the light of this we examine the services available to these women in Mayurbhanj.

i. Our findings corroborate the data of the AHS 2013, in that we find **registration** of pregnancies is fairly good, the women who are registered have all received some ANC and most of them had ANC three times, usually from the government facilities. However although AHS data indicates the proportion of women who received full ANC is about one-third, our findings indicate that coverage of services is very patchy and hardly a **few women received comprehensive** ANC. The **routine care** mostly available here is vaccination, giving IFA tablets and BP measurement with Hb testing. Abdominal examination, urine tests or measuring weight is rare.

ii. However it is worrying that of the seven women who died during pregnancy, four had **not even been registered** by the health system during pregnancy. Three had opted for induced abortion and one had a miscarriage during an attack of malaria. A fifth was the teenager who wanted to hide her pregnancy. The sixth was a non-literate daily-wage worker who had conceived a few months after her last childbirth: although the ASHA lived in her village, no one registered her pregnancy and she died after a home birth.

iii. It is commendable that ANC care leads to referral in some cases, and the CHC/SDH/DH **doctor checks** up the woman in 7 cases. But even so, this kind of routine ANC does not really seem to **identify any high risk,** and only 3 women who had ANC received **comprehensive care.** The few women who did see a doctor continued through the rest of their pregnancy with the same symptoms of high BP and anaemia.

iv. Although women with moderate to severe anaemia did have ANC contact with the health system and in some case it was even picked up, **specific advice and relevant treatment** was not given beyond advising in one case, to have 'fruits and milk'. No further treatment was given, and there was no preparation for support with blood transfusion during birth.

v. Despite the recording, many high-risk signs like very low weight, high BP and swelling of the limbs or headache were also **not detected** by the FLW. Neither are proper records available of many measurements. It is not clear whether their families had been counselled about the many obvious danger signs. It appears that very serious symptoms of complications were **not followed up through MCTS,** in terms of ensuring that women received appropriate treatment.

vi. Women did have serious medical complications during pregnancy; however they did not all seek specialized care. The **abortion services are obtained from the private informal** sector. Women who had bad obstetric history (see Table Two) or unwanted pregnancies were not detected and properly counselled or **followed up in terms of the specialized care** that might has saved their lives. Neither were they followed up by the MCTS if they migrated back home before childbirth.

vii. The lack of timely family planning counselling and services is a critical gap: many women required information on either **contraceptive services** or **safe abortion** services but this was not available, leading to very closely spaced and frequent or unwanted pregnancies that completely eroded their health, or accessing unsafe abortion services from private informal providers, which was responsible for their deaths.

b. Discussion about care during childbirth and complications

Our facility observations indicate that there are functioning hospitals in Mayurbhanj district, with doctors posted in adequate numbers. The DLHS data indicates that there is a promising trend in Mayurbhanj of using government health care, and most women do attend hospitals during labour. This reflects that the tribal population does have faith in the formal health system and there has been a good outreach by the frontline workers. However one in five women still have home births, but they do not have skilled providers to support them in the community. Our findings corroborate the secondary data in that exactly the same proportion of women attempted institutional childbirth, and a similar proportion were able to obtain C-section in public facilities.

- Of the 37 women, six did not arrive at any health centre but the remaining 31 sought care in hospitals, either during labour or in the case of some complications (with abortion, labour or post-partum).

- Of the 37 women, 5 died due to complications of induced abortion or miscarriage, and two died during their pregnancy of other medical causes.

- Of the 37, we find 30 women completed full-term and went into intra-partum stage -

  - Of these 30 women, 9 died before they could deliver while 21 actually had childbirth; of these, 3 got a C-section and the remaining had normal deliveries.
  - Out of these 30 women, we see that 24 women went to government hospitals but 6 attempted home delivery; finally 5 had their delivery at home

Despite this pattern of care seeking, we find that the health system has not been able to respond adequately to the needs of these pregnant women and although Level 3 EmOC services are available within the district, we find that the hospital doctors failed in saving the lives of these women.

i. Despite the high numbers of institutional delivery, the **quality of care and the skills** of the providers is dubious; and women develop bleeding and sepsis even after hospital births. The hospital delivery also does not guarantee that existing medical conditions such as high or low BP or anaemia will get picked up.

ii. Among those who **gave birth** in a government hospital, some of them **died soon** after C-sections, or even after normal delivery, even if in a DH. The home delivery cases also show a similar pattern in that two women died of bleeding very soon after the home birth.

iii. The women who presented with some common symptoms of complications such as convulsions indicating pre/eclampsia, **severe anaemia** and heavy bleeding or **fever and sepsis did not receive the appropriate care that could save their lives.** The young woman who dies of **malaria and incomplete abortion** in great pain in a remote forest village is a tragic example of how other non-obstetric causes also receive no attention or treatment.

iv. Pre-eclampsia seems almost a puzzle at all the facilities since even the DH fails to perform a C-section on time to save the woman's life. Neither is there any preparation for the fact that women are bound to arrive with severe anaemia and bleeding. Severe bleeding is the most common post-partum complication both for home and institutional childbirth, and yet it appears there are no preparatory arrangements made before a bleeding woman arrives following a referral.

v. When women needed blood transfusion, the health providers seem unable to save their lives either due to delays or **inadequate arrangements.** In some cases the CHC or SDH **refers out** the woman as they expect the DH to provide blood transfusion. The providers then **cause even more delays** by asking the **family to** go to the Blood Bank and **arrange for the blood** somehow. Since the family is disoriented and often it is in the middle of the night, this is a complete waste of time, showing lack of emergency preparedness among the tertiary hospitals. It is most surprising when even the **DH refers out** women to Medical College.

vi. These are mostly poor families and the cost of transport puts a financial burden on them. Although there is a Janani Express service to bring women to hospitals, it sometimes does not reach on time or is busy elsewhere or the driver may even refuse to come. When they are referred from one government health facility to another, they are sometimes given the JE service but not always. This kind of **unsupported referral** makes the poor rural family fear the prospect of high costs which they are not able to pay. Sometimes they just prefer to return to the village and try to raise more money, or they may not seek care at all, and the woman would die at home.

vii. Sometimes the providers cannot convey to the family the urgency of the situation. Neither do they communicate the JSSK guarantees clearly to the families. The **fear of expenses often delays care,** especially when very poor families are advised to take the woman to the DHH. Women who were referred and in critical condition, were often first taken home by their families in order to raise more money

viii. There appears to be poor judgement of how long women should be kept in a facility of a particular level - sometimes the CHC/SDH keep women for several hours before sending them to a tertiary facility even though they cannot handle the symptoms which are progressively getting worse. Although the district has several Level 3 hospitals, women keep rushing from **one facility to another** trying to find the provider who can save them. Referrals are unsupported in many cases with no paramedic and sometimes even no ambulance provided despite critical condition. There are just a few exceptions to this, in that two women actually had a paramedic accompany them to the next facility and in one case the doctor personally accompanied the woman in the ambulance.

ix. The families also suffer in bringing the dead body back to the village without any transportation given by the hospital. The vehicles always charge high amounts, which cannot be afforded by these poor families.

c. Conclusion

The women who died in Mayurbhanj were themselves **mostly all high-risk** cases with existing medical conditions; many being extremely anaemic (often after multiple closely-spaced pregnancies), or with very low weight, or high BP, and should have been identified and treated earlier during pregnancy; but most of them proceeded towards completing their pregnancy with all the dangerous symptoms still present. We can conclude that the ANC provided to these tribal women in Mayurbhanj while comparatively good in its coverage and better in its quality of services, still failed to detect, treat or manage the symptoms of complications that were present in the women with fairly poor socio-economic status and vulnerable health condition. Moreover we conclude that although most of the women attempted to reach a hospital during labour or onset of complications, the care provided to these tribal women in Mayurbhanj during childbirth and complications, while **comparatively better in its coverage and better staffed and equipped, still failed in its quality of services to treat or manage the symptoms of complications** that women presented with.

Annexure 1: Tables of Mayurbhanj, Odisha

Table I - Profile of women, Odisha						
#	Age	Caste	Education	Occupation	BPL	Religion
O15	20	ST	Upto 8th	Agricultural labourer	-	
O16	28	ST	Upto 8th	Agricultural labourer	-	
O17	20	ST	not literate	Home maker	-	
O1	25	ST	Upto 8th	Home maker	yes	
O2	30	ST	12th	Home maker	-	
O3	22	ST	not literate	Agricultural labour	-	
O4	27	ST	not literate	Non Agricultural labour	-	
O18	25	ST	not literate	Agricultural labour	No	
O19	22	ST	not literate	Agricultural labour	yes	
O20	35	OBC	not literate	Home maker	yes	Hindu
O21	21	ST	12th	Home maker	-	
O5	20	ST	8th	Home maker	-	
O6	25	ST	8th	Home maker	Yes	
O7	22	ST	8th	Home maker	-	
O8	29	ST	8th	Home maker	-	
O9	22	ST	not known	Casual labour	no	
O10	24	ST	not known	Home maker	no	
O11	25	ST	not known	Home maker	no	
O12	25	ST	not literate	Daily wage worker	-	
O13	42	ST	not known	Casual labour	yes	
O14	20	ST	not known	Home maker	yes	
O33	18	ST	not literate	Daily wage worker	yes	
O34	32	ST	not known	Daily wage worker	-	
O35	29	ST	not known	Home maker	-	
O36	20	ST	not literate	Migrant labourer	Yes	
O37	20	ST	no info	Migrant labourer	Yes	
O26	20	ST	not literate	home maker	-	
O27	25	ST	not literate	Daily wage	-	
O28	20	ST	not literate	Home-maker, migrant	-	
O29	24	ST	not literate	home maker	-	
O30	27	ST	not literate	Daily wage	-	
O31	24	ST	not literate	Home maker	-	
O32	27	ST	no info	Daily wage	-	
O22	32	ST	not literate	Agricultural labour	-	
O23	13	ST	8th	Student	-	
O24	32	SC	not literate	Daily wage	-	Hindu
O25	20	OBC	12th	Home maker	-	Hindu

Table II - Obstetric History of the women including the final pregnancy								
#	Age	Total No. of pregnancies	Past Miscarriage/ Abortion	Past Still birth/ newborn death	Past C-section	High risk	Birth Type	Out-come
O15	20	Primi	-	-	-		Normal	Neonatal death
O17	20	Primi	-	-	-		Not delivered	NA
O21	21	Primi	-	-	-			
O5	20	Primi	-	-	-			
O6	25	Primi	-	-	-		Normal	live
O7	22	Primi	-	-	-		Normal	Still birth
O9	22	Primi	-	-	-		Not delivered	NA
O12	25	Primi	-	-	-		Abortion	NA
O14	20	Primi	-	-	-		CS	Live
O33	18	Primi	-	-	-		Spontaneous abortion	NA
O35	29	Primi					CS	Live
O36	20	Primi	-	-	-		Normal	Live
O37	20	Primi	-	-	-		Died in 7 month	NA
O26	20	Primi	-	-	-		Normal	Still birth
O28	20	Primi	-	-	-		Not delivered	NA
O23	13	Primi	-	-	-		Normal	Still birth
O25	20	Primi	-	-	-		Miscarriage	NA
O10	24	2	-	-	-		Normal	Live
O27	25	2	yes	-	-		Normal	Live
O29	24	2	-	-	-		Normal	Live
O31	24	2	-	-	-		Normal	Still birth
O1	25	2	-	-	Yes		CS	Live
O2	30	2	yes	-	-		Not delivered	NA
O3	22	2	-	-	Yes		Not delivered	NA
O19	22	2	-	-	-		Normal	Live
O4	27	3	-	-	-		Normal	Still birth
O13	42	3	-	-	-		Abortion	NA
O32	27	3	-	-	-		Normal	Live
O16	28	3	-	-	-		Normal	Still birth
O11	25	3	yes	yes	-		not delivered	NA
O8	29	4	-	yes	-		not delivered	NA
O22	32	4	-	Yes, twice	-		Normal	Live
O30	27	4	-	-	-		Normal	Live
O24	32	5	-	yes	-		Abortion	NA
O20	35	5	-	-	-		Not delivered	NA
O34	32	6	-	yes	-		Normal	Still birth
O18	25	6	-	-	-		Normal	Live

Table III - Place of childbirth, intended and actual; place of death			
	Intention for place of birth	**Actual delivery**	**Place of death**
CHC (Level 2)	O19, O20, O14, O15, O16, O21, O22, O23, O6, O8, O9, O26, O27, O28	O19, O16, O6, O27	O27
SDH (L-3)	O34, O35, O29	O15, O23, O29	O36
Dist Hospital (L2)	O1, O2, O3, O4, O7, O10, O11	O1, O4, O14, O7, O34, O35, O26	O14, O1, O3, O4, O19, O21, O15, O23, O5, O6, O7, O9, O10, O11, O35, O26, O28
Home	O18, O5, O36, O30, O31, O32	O18, O36, O30, O31, O32	O18 (after 2 hospitals), O29 (after hospital birth), O30, O31, O32
In transit			O2, O20, O16, O22, O8, O34

Table IV - Symptoms of complications during labour or after childbirth*			
Symptoms	**Intra-partum complications**	**Complications after public hospital delivery (25)**	**After home delivery (5)**
Prolonged labour	O14, O15, O5, O7, O8, O34, O26		
Foetal movement stopped	O5		
Labour pains stop suddenly	O11		
Breathing difficulties, gasping	O2, O3, O5, O8, O9	O1, O6, O34, O35	
Unconscious	O2, O21, O9	O16, O22, O23, O34, O35	
Convulsions	O2, O3, O21, O9, O28	O23, O6, O7, O10, O29	O36
Swelling in limbs	O5, O7		
Heavy bleeding	O7, O26, O31	O4, O15, O10	O30, O31, O32
Severe abdominal pain	O20, O5		
Fever		O19, O6, O27	O18
Foul-smelling discharge		O6	O18
Vomiting		O6	
Chest pain	O21, O29		

** Complications following abortions or miscarriage have been discussed in the text.*

Table V- Referrals and costs					
#	Facility 1*	Facility 2	Fac. 3	Fac. 4	Costs
O2	Private vehicle to DH- declared dead				-
O25	Private vehicle to CHC- declared dead				300
O1	Private vehicle to DH				5000
O3	DH				500
O4	Private vehicle to DH				1000
O5	Private vehicle to DH				-
O7	DH				-
O10	Private vehicle to DH				1500
O11	Private vehicle to DH				1500
O36	SDH				1800
O24	Private vehicle to CHC				1000
O16	CHC	Govt Amb. to SDH- died before reaching			-
O20	CHC	Govt Amb. to SDH- died before reaching			1500
O8	CHC	Govt Amb. to DH- died before reaching			1500
O9	CHC	Govt Amb. to DH			1000
O12	CHC	DH			1800
O14	Private vehicle to CHC	Govt Amb. to DH			5000
O35	SDH	Govt Amb. to DH			500
O27	CHC	DH- did not go due to anticipated expenses			1500
O29	SDH	DH- did not go			2000
O22	Private vehicle to CHC	Govt Amb. to DH- died before reaching			400

* Usually the Janani Express took the women to the hospitals, unless otherwise mentioned

Table V contd.....					
#	**Facility 1**	**Facility 2**	**Facility 3**	**Facility 4**	**Costs**
O15	CHC	Private vehicle to SDH	Govt Amb. to DH, charged Rs 500		2000
O18	Private vehicle to CHC	Govt Amb. to SDH	DH- did not go		3000
O19	CHC	Govt Amb. to SDH	Private vehicle to DH		6000
O21	Private vehicle to CHC	Govt Amb. to SDH	Died before starting		3500
O34	SDH	Govt Amb. to DH	Private vehicle to Med College - died on the way		6800
O26	Private vehicle to PHC	Private vehicle to SDH	Govt Amb. to DH		4900
O23	CHC	Govt Amb. to SDH	Govt Amb. to DH		1500
O28	PHC	Govt Amb. to SDH	Govt Amb. to DH	Died before starting	3000
O6	Multiple referrals- post partum complications				5000

Annexure 2: Case Summaries, Mayurbhanj

O1

O1 was married and lived in district Mayurbhanj, Odhisa. They belonged to the ST community and the family was BPL certified. O1 was a home maker and had studied upto class 8th. Her husband was a farmer.

This was O1's second pregnancy at the age of 25. Her previous delivery was a live birth through C-section. During this pregnancy she underwent a total of nine ante natal checkups at the VHND and District headquarters hospital. Her BP was measured and the readings show that she had low BP. O1 was underweight with her weight recorded as 45 Kgs during her 8th month of pregnancy. Her hemoglobin was 10g/dl. She received 100 IFA tablets and two shots of TT injections. She had undergone two USGs. She was identified as a High Risk Pregnancy. She was advised to take nutritious foods; she was given green vegetables and milk regularly and non-veg items occasionally by her family. She has received SNP (Chatua) from AWC under SNP. Her EDD was 26th April, 2014.

On 7th April, 2014 at around 7:30 am her labour pain started. The family did not call the Janani Express assuming that it will take time. They hired an auto for Rs 300, and reached the district headquarters hospital which is 25 km from her residence at 9:15 am (45 minutes). She was admitted and examined by the gynaecologist. The doctor performed a CS and she delivered a son at 12.42 pm. The CS was completed around 1.30 pm and the doctor said it was successful. Her condition was stable and she was advised bed rest. Three IV drips were given. At around 7 pm O1 felt restless and started gasping. Her pulse and BP were unreadable and she died eventually at 8 pm on 7th April, 2014 (7 hours after delivery). Although the family was aware about JSSK they spent a total of Rs. 5000 from their family savings. They mentioned that no one told them about the cause of death but the behavior of the hospital staff was good. The DHH did not provide any bed ticket, test reports or prescriptions; the investigator obtained them through RTI.

O2

O2 was married and lived in district Mayurbhanj, Odhisa. They belonged to the ST community but had a good standard of living, as her husband had a grocery shop and earned enough. She was a home maker and had completed schooling.

This was O2's second pregnancy at the age of 30. Her first pregnancy was a miscarriage caused by convulsions. During this pregnancy O2 underwent 8 ante natal checkups at VHND, DH and one USG at a private clinic. O2 received 100 IFA tablets and two shots of TT injections. Though, her husband told that she did not consume all the IFA tablets. Her BP was measured during all the visits and weight was recorded. Her haemoglobin was measured and found to be 12.8g/dl. She was diagnosed with oedema; she had swollen face and hands. She had BP problem since April. The ANM referred her for medical check up as it was a high-risk pregnancy and she did go to the DH and an USG in a private clinic. The Ob & G at the private clinic had told her to get admitted one month prior to the delivery. She was advised to take nutritious food and to take rest during the VHND

sessions. She was given milk, egg and vegetables regularly by her husband. She had also received ready to eat food (Chatua) under SNP. Her EDD was 5th September, 2014. On 27th July, 2014, more than a month prior to her EDD O2's labour pain started at 1 am. She began screaming and gasping. O2's husband called her sister-in-laws for help. They did not call the Janani Express as they owned a private vehicle. In the process of shifting O2 to the vehicle she became unconscious. She was experiencing breathlessness and convulsions. They picked up the ASHA from her home and reached District Hospital at 3:15 am (in 45 minutes) which is 25 Km from their home where the doctors declared her dead. The post-mortem was done and the doctors told that the baby was dead by the time O2 reached the hospital. The hospital did not issue the death certificate and the post-mortem report.

O3

O3 was married when she was just 17 years old. They lived in district Mayurbhanj, Odhisa. O3 was not literate, belonged to the ST community, and was an agricultural laborer. Her first son (now four years old) was born soon after marriage through C-section. She was found anemic during her first delivery and received three units of blood after the C-section.

This was O3's second pregnancy at the age of 22 years. Since March, 2014 O3 went to live at her parents' house which was 1km from her in-laws place after a quarrel with her husband. During this pregnancy she did not disclose about her pregnancy. When ASHA came to know about O3's pregnancy through her parents, she accompanied her to the VHND to get her registered. By that time 21 weeks had already passed. O3 went for 2 ante- natal checkups at the VHND and received 2 shots of TT injections and IFA tablets. The medical record shows that her hemoglobin was extremely low at 4.8g/dl, Blood Urea was extremely high -28 mg but normal Serum creatinine -0.8 mg . ASHA mentioned visiting O3's house many times, advising her to take better food and take IFA regularly but she did not consume them. She consumed the tradition tribal food (rice or water rice with one curry) during her pregnancy and took no heed of the ASHA's advice. O3 was advised for a check-up by doctor but it is said that she was arrogant and rigid about any suggestions given by ASHA; however it appears that O3 consulted someone about her anaemia during this pregnancy.

On 10th May, 2014 at around 6:30 am she started having convulsions followed by gasping and blood came out of her mouth. Her parents informed the ASHA who then called the 108 Janani Express at 8 am. The JE did not reach and it was only after the Village head (sarpanch) intervened that 108 came at around 10:45 am. O3 was taken to the District Headquarters hospital, which is 10 km from her residence. She was admitted at 11:10 am (30 minutes to reach) and the gynecologist examined her. In the meantime, O3 continued experiencing convulsions. The doctors administered injections, oxygen and IV fluids. But she died within 20 minutes at 11:30 am. The doctor informed that the baby was dead by the time O3 had reached the hospital. Her husband refused to get a post-mortem done. The amount spend by the family was Rs. 500 which they had to borrow from the neighbours. The family destroyed the Mamta card and VHND records with the deceased woman as is the tribal ritual. The investigator obtained the bed ticket through RTI.

O4

O4 was married in 2009. They lived in district Mayurbhanj, Odhisa, and belonged to the ST community. She was not literate and was a non-agricultural laborer who had to take care of her kids and husband with her daily wages. Her husband was an alcoholic.

This was O4's third pregnancy at the age of 27. Her first daughter was born immediately after marriage and then a son after two years. During this pregnancy O4 had gone for three ANCs at the VHND and sub centre. She received one shot of TT injection and IFA tablets which she consumed. Her BP and weight were measured; blood and urine test conducted. Her hemoglobin was 7.2g/dl. The ANM and ASHA had referred her for a check-up by a doctor but she never went to hospital or to any Ob/gyn Specialist for check-up as she was unable to afford the travel to the hospital or money for doctor's fee and medicines. ASHA visited her frequently. She ate the regular food available (rice or watered-rice with or without curry) during the pregnancy. Her EDD was 27th April, 2014.

On 24th April, 2014 her labour pain started around 6:30 pm with severe lower abdominal pain. The ASHA was informed at 8 pm who then called the JE (Janani Express) at 8:30 pm. As JE was not available the family hired an auto for Rs 300, and took O4 to the District headquarters Hospital, which is 20 Km from their residence and takes 45 minutes. O4 was admitted at 9:25 pm (three hours from the onset of problem). The gynaecologist examined her. She was anaemic and pale. She was given injections and IV fluids. O4 had a normal delivery resulting in a still-birth at 12:51 am on 25th April, 2014. The delivery was conducted by staff nurse. After delivery she started bleeding profusely. Almost 3 hours later, the nurse asked the ASHA and family to arrange for blood at 3:45 am, since blood transfusion is required immediately. ASHA and family went to the blood bank at once, but it took more than an hour to arrange for the blood. The blood bank staff responded at 5:30 am and provided blood. The blood transfusion was made but O4 died immediately after the transfusion at 6:30 am on 25th April, 2014 (5.5 hours after delivery). The family had to spend Rs. 1000 during this entire episode which they had to borrow from relatives. The family destroyed the MAMTA card with the deceased woman as a ritual. The investigator obtained bed head ticket and test report through RTI.

O5

O5 had studied upto class 8th and was married. They lived in district Mayurbhanj, Odhisa. They belonged to the ST community. She was a home maker.

This was O5's first pregnancy at the age of 20 years. Her pregnancy was registered late (23rd week). During this pregnancy she had undergone five ANCs (three at VHND, one at CHC and one at the DHH). Her BP and weight was measured. She was found underweight (41 Kg during the 9th month of pregnancy). Her blood test was done and hemoglobin recorded (10g/dl, 9.2g/dl, 9.4g/dl and 9.4g/dl). Her albumen and sugar was nil. She received 120 IFA tablets and two TT shots. She had visited the DHH to take advice on a USG report. She has received Rs. 1500/- as first instalment under Mamata Scheme on 26th May, 2014. She had also received ready to eat food (Chatua) under SNP. Her EDD was 12th June, 2014. From 16th June till 20th June, O5 felt uncomfortable and could not sleep due to lower abdomen pain and breathing problem. Her husband got her admitted on 20th June, 2014 at the DHH. The Ob & Gyn treated her and told the family that there was no hurry for conducting a C-section (already EDD had passed). O5 was discharged on 21st June, 2014. On 1st July, 2014 at around 8:30 am (18 days past the EDD) her labor pain started with breathlessness and oedema. The family called the local quack. The quack gave some tablets and injection and O5's condition improved. On 3rd July, 2014 (2 days after the onset of problem) the family called the Dai at around 8 am. The dai told the family that there is no more fetal movement. The family took the whole day to arrange for money.

The family did not call the Janani Express and hired an auto and took O5 to the DHH which is 15Km from their residence. It took 45 minutes and Rs. 300 to reach the DHH. O5 was admitted at the DHH at 9:40 pm (after 60 hours from the onset of problem). The treatment was started immediately and O5 was administered with injections and IV fluids. Her condition did on improve. At around 1:45 am on 4th July she collapsed suddenly. She was declared dead soon after. The family was informed that O5 had some heart problem due to pregnancy. The family had to spend Rs. 1500 during the entire episode which the family borrowed from the relatives.

O6

O6 was married and lived in district Mayurbhanj, Odhisa. The family is BPL certified and belonged to the ST category. O6 had studied upto 8th standard and was a home maker.

This was O6's first pregnancy at the age of 25 years. During this pregnancy she had five ANCs all at the VHND. Her BP and weight was measured. Though she gained only two kg in four months (47 from 45) she was not given any advice to consume nutritious food or referred for medical checkup. O6 got 100 IFA tablets but only two months before her EDD (four months after registration) as the stock was not available. She received two shots of TT injections. She did not receive proper care at her in-laws place so her parents took her to their place a month prior to the EDD. Her EDD was 22nd May, 2014. On 5th May, 2014 O6 delivered a male child at the CHC. The delivery was normal and she was discharged from the CHC on 6th May, 2014.

After delivery she started having foul smelling vaginal discharges. A week later on 12th May, 2014 she developed fever with sweating. She went again to the CHC where the doctor prescribed blood and urine tests. The test result showed that she was severely anemic with hemoglobin 6.6g/dl. Her urine test showed protein and red blood cells. After seeing the test report she was referred to DHH. She was admitted in DHH on 12th May, 2014. After one unit of blood transfusion her condition improved. On the night of 12th May she again developed fever. The nurse on duty administered injection. On 13th May morning she had 3-4 vomiting, after which another unit of blood was administered. Her condition improved and she was discharged on 19th May, 2014. The family had to pay Rs. 1800 for the first unit of blood but the second unit was free as received under JSSK. Only few medicines were available in the DHH rest where purchased. On 1st June, 2014 at 5 pm O6 started having convulsions and was immediately taken to the same CHC. She reached the CHC at 6:25 pm. The doctor on duty (MO) administered two injections and then immediately referred her to the DHH via the 108 ambulance. It took half an hour to arrange for the ambulance. It took one hour to reach the DHH and she was admitted by 8 pm. The doctor examined her and gave some injections. Blood transfusion was made. At around 1 am she started experiencing respiratory problem and oxygen was given. O6 died at 7:30 am on 2nd June, 2014.

Around Rs. 5000 was spent during the entire chain of events. Her parents said that the behavior of the doctor was very bad and he even refused to explain the problem. Though in the referral slip it was clearly mentioned that she had Post-partum convulsive disorder she was admitted in Medicine Ward instead of Ob/Gyn Ward in DHH.

O7

O7 was married and lived in district Mayurbhanj, Odhisa. They belonged to ST community. O7 was a home maker and had studied until Class 8.

This was O7's first pregnancy at the age of 22. During this pregnancy O7 received seven ANCs in VHND. She received two shots of TT injections but IFA tablets were not given due to lack of stock. Her BP was measured and she was diagnosed with high BP. Her weight was recorded and she was low weight with 43 kg in the ninth month of pregnancy. Her blood test was done during the first ANC and her hemoglobin was 7.8g/dl. Other than the ANCs at the VHND the ANM given her a referral slip stating that she is high risk due to high blood pressure. She went to the CHC for treatment of BP. Though the doctor prescribed her medicine she did not follow doctor's advice. She went to a Homeopathic practioner for treatment of blood pressure. Her sister-in -law stated that she had swollen palm and feet, she had also convulsive attacks few times during pregnancy. She had received ready to eat food (Chatua) under SNP. Her EDD was 9th July, 2014. On 30th June, 2014 around 10.30 pm O7's labour pain started with bleeding. The family members immediately called the 108 ambulance from the CHC and informed the ASHA. Her village is 15 kms from CHC with a river on the way. During dry seasons there is a temporary bridge on the river which connects the village with CHC. But during rainy season one has to travel 45 kms (through Baripada) to reach the village from the CHC. The 108 went by mistake to another village with the same name 15 kms away and had to return to pick up O7 around 2.30 am.

They reached the DHH at 3:30 am on 1st July, 2014 which is 35 km from their residence. That entire day she was treated with injections and tablets and, the next morning, as she was bleeding and was anaemic, one unit of blood transfusion was made on 2nd July, 2014 at 11:30 am. On 3rd July, 2014 at 7:45 am after two days and three nights of being in labour, she delivered a stillborn macerated male baby through normal delivery. The delivery was conducted by ANM in the presence of Ob/Gyn doctor, and her condition appeared stable. But at 9:20 am she had a convulsion attack with breathlessness she was being shifted from one bed to another. The doctor declared her dead at 9:45 am, two hours after birth. The family spent around Rs. 2000 during the entire chain of events.

O8

O8 was married when she was below 18 years of age. They lived in district Mayurbhanj, Odhisa. They belonged to the ST category. O8 had studied until Class 8 and was a home maker.

Her first pregnancy resulted in a still-birth. After that she had two daughters (one nine years old and another five years old). This was O8's fourth pregnancy at the age of 29. During this pregnancy she had 7 ANC checkups done (5 in VHND, one at CHC and one at DHH). She received 100 IFA tablets and two shots of TT injections. Her hemoglobin was checked during one ANC and was found to be 10g/dl. Her BP was measured during all the visits and the records shows that O8 had extremely low BP (98/49, 90/58, 100/58, 111/41, 117/70, 90/29, 105/58). Her weight was also recorded during all the ANC and she had gained seven kilograms in six months. Her HIV test was found negative. She received Chatua (ready to eat) SNP from AWC. She was given normal tribal food during her pregnancy. Her EDD was 25th April, 2014. On 25th April, 2014 at 11:30 am O8's labour pain started. She informed her sister-in-law about the pain who advised her to inform the ASHA. O8 did not inform ASHA or anyone else. Her pain continued. On 27th April, 2014 at around 2:30 am (39 hours) when the pain was acute O8's husband informed the ASHA who called the Janani express which reached around 4 am. O8 was taken to the CHC. They reached in 45 minutes and O8 was admitted at 5 am. The nurse on duty administered injection and drips to O8. At around 6am O8 started having an aspiration problem. Her husband requested the nurse to refer O8 to the DHH. The nurse took two hours to refer O8. The referral slip (without the signature of the MO and without

any time or treatment given) was handed over at 8 am. O8's husband says that no doctor examined O8 in the CHC. The 108 ambulance was provided with a paramedic staff. By that time she had developed severe respiration problem. O8 was given oxygen while in the ambulance. O8 died at 8:30 am while in transit. They reached the DHH at 8:45 am where the doctor on duty mentioned in the register she that was received dead. Post-mortem was carried out. There was a dead male child. Total amount spent during the entire chain of events was Rs. 1500 which the family borrowed from relatives.

O9

O9 was married at the age of 20 and worked as a casual labourer. They lived in district Mayurbhaj, Odhisa. They belonged to the ST community.

This was O9's first pregnancy at the age of 22. She was registered under the MCTS and had a MCP card. During this pregnancy she went for three ANCs at the VHND. She received 60 IFA tablets and two shots of TT injection. Her BP and weight were recorded and hemoglobin testing was done. Her hemoglobin was 10.5g/dl and BP was normal in the first two ANCs but high during the last ANC (160/130). She was underweight in the beginning (36 kilograms) but gradually gained weight and weighed 50 kilograms in her seventh month. She had regular food at home like rice and curry. She received 5 kilogram Chatua (SNP) per month from the AWC. It is mentioned that she had oedema during pregnancy but no treatment was given. Her EDD was 21st November, 2014. On 8th October, 2014 at around 10:30 am her labor pain started (one month prior to EDD). Her husband informed the ASHA who then called the Janani express and went with them. It took one hour to reach the CHC (20 km from their residence), and they reached the CHC at 12:30 pm. At around 4 pm O9 had a convulsion attack. She was given some injection and was immediately referred to the DHH via 108 ambulance service with a paramedic staff. A referral slip was given (4 hours spent in this facility). It took 45 minutes to reach the DHH and 30 minutes to initiate the treatment after reaching. She was admitted around 6:45 pm and was examined by the Ob&G specialist. She was given some injection and drips. At 10:30 pm she again had a convulsion attack. She started gasping during the attack. She was given some injection and the Ob&G specialist was called. The Ob&G specialist attended O9 at 3:45 am (after 5 hours delay). By that time O9 was not responding external stimuli and was almost not breathing. The family members identified that CPR was given for 10 minutes and after that she was declared dead at 4 am on 9th October, 2014. The family received the death certificate and few payment receipts from the hospital. A total of Rs. 1000 was spent in the entire chain of events. The family was not given any information about the condition of the woman and the line of treatment at the DHH.

O10

O10 was married at the age of 20 years. They lived in district Mayurbhanj, Odhisa. They belonged to the ST category. O10 was a home maker. Her previous delivery was a girl child who is now five years old.

This was O10's second pregnancy at the age of 24 years. Her current pregnancy was registered under MCTS and she had a MCP card. During this pregnancy she has 7 ANCs done at the VHND. She received 100 IFA tablets and two shots of TT injections. Her hemoglobin recorded and she was moderately anemic with Hb 9g/dl. Her BP and weight were measured. Her urine test and abdominal examination was conducted. O10 had convulsion attacks during her last delivery and was therefore

identified as a high risk case during this pregnancy. She was advised for medical checkup at the hospital. She received 5 kilograms of Chatua per month as SNP from the AWC. Her EDD was 26th Nov, 2014. On 24th Nov, 2014 at 10 am O10's labour pain started. The ASHA was informed and she came immediately. Since O10's husband was not at home they had to wait for him for an hour. After he came they hired an auto and started for the DHH. They reached the DHH at 12:10 pm. She was examined by an Ob& G specialist who gave O10 a tablet and administered a drip. At 8 pm the same day O10 had a normal delivery facilitated by a nurse. A male child weighing 2.8 kilograms was delivered. After delivery she started having heavy bleeding. The Ob specialist was called who prescribed injections and drips. At 8:30 pm blood requisition was made. By the time O10's husband and ASHA went to arrange for blood O10 started having convulsion attacks. Before the blood could be arranged and transfusion made O10 died at 10:35pm on 24th Nov 2014. There was no transportation arranged to take the body home. The family spent around Rs. 1500 during the entire chain of events. The family was aware about JSSK but had to purchase medicines. They received a death certificate afterwards.

O11

O11 was married when she was 23 years old. They lived in district Mayurbhanj, Odhisa. O11 was a home maker. The family belonged to the ST category. Her first child was born within a year after marriage but died due to asphyxia. She conceived again immediately but had a miscarriage in the fourth month of pregnancy.

This was O11's third pregnancy at the age of 25 (third pregnancy in two years). During this pregnancy O11 had four ANCs done at the VHND. Her pregnancy was registered under MCTS on 18th March, 2014. Her blood test was done. Her Hb ranged from 9.5g/dl to 10g/dl. Her BP was measured and readings show that she suffered from low BP. O11 was found low weight in the first ANC (38 kilograms) and gradually she gained seven kilograms (by the ninth month). She received two shots of TT injections. She did not receive IFA tablets as they were out of stock but was advised to purchase. She received 5 kilograms of Chatua (SNP) per month from the AWC. She felt extremely weak during this pregnancy and was advised a medical checkup. Her EDD was 17th October, 2014. On 6th October, 2014 at 10:30 am her labor pain started. The pain was mild. She informed the ASHA who came immediately. Since her husband was not at home they waited for him. After her husband reached home they hired an auto and started for the district hospital. O11 was admitted in the DH around 4pm. Her labor pain was still mild and she was relaxed. She was having watery discharge. After admission she was taken to Ob&G ward. It is mentioned that her labor pain disappeared suddenly. Doctor examined her and prescribed an injection and drips. The injection was administered by the nurse on duty. After the injection was given she complained of uneasiness. She told that her limbs are becoming stiff. She died at 6pm on 6th October 2014 (two hours after admission). The family was aware about the JSSK entitlements but had to spent Rs. 1500 during the entire chain of events. The family received the death certificate and few receipts of payments later. The family was not offered any transport to take the body home.

O12

O12 was a resident of district Mayurbhanj, Odhisa. She was unmarried at 25 years, and lived with her mother and four sisters. They belonged to the ST category. O12 was not literate and was a daily wage laborer who stayed at different places far from her village.

She did not inform anyone about her pregnancy. On the night of 18th June, 2014 when O12 had lower abdomen pain and severe bleeding her mother asked her, and she told her mother that she had an induced abortion on 15th June, 2014 to avoid embarrassment. It is not known how many weeks she was into the pregnancy, what method used for abortion, where it was done or who performed the abortion.

On the morning of 19th June, 2014 O12 was admitted at the CHC with an OPD registration number. It took them one hour to reach the CHC (L2). She was given some injections and drips. Her condition did not improve and she was referred to the DH due to lack of blood availability at the CHC and for better management of the complication. Due to lack of money her mother brought her back home on 19th June evening. On 20th June, 2014 after borrowing money from the villagers O12's mother admitted her to the DHH at 11:05 am with a registration number (17 hours from the advice of referral). The DHH was 45 km away and the journey took 1.5 hours. By then O12 had severe lower abdomen pain, heavy bleeding, dry tongue and chest pain. Her treatment was started immediately. She was given some injections and blood transfusion was started. Even before the blood transfusion could be completed O12 died at 12:45 pm (five days after induced abortion). The family had to spend Rs. 1800 during the entire chain of events.

The family did not receive any documents. The Public Information officer (PIO) also refused to provide any information to the investigator saying that information cannot be provided in abortion related cases.

O13

O13 was married at the age of 26. They lived in district Mayurbhanj, Odhisa. The family belonged to the ST category. O13 was a casual labourer.

Her first daughter was born when she was 37 years (high risk) old and after three and a half years her second daughter was born. This was O13's third pregnancy at the age of 42. She was between 17-28 weeks of pregnancy. Since she was not mentally prepared for this pregnancy she did not disclose it to the ASHA and decided to terminate it. On 22nd Sept, 2014 O13 went to her natal home to terminate the pregnancy. On 24th Sept, 2014 she went to an informal herbal practitioner and got some oral medicine for abortion. She had an induced abortion on the very same day after consuming the medicine. After the abortion she had scanty bleeding for four days and abdominal pain. She did not seek any medical help as she was sure that the bleeding is due to abortion and she had a feeling of shame and fear. On 29th Sept, 2014 she returned to her husband's place and she was bleeding severely. On the morning of 30th Sept, 2014 her body became cold due to profuse bleeding. Her husband decided to take her to the hospital but before anything could be done she died at home at 10 am. Her limbs were still before death. The family later received a death certificate.

O14

O14 was married when she was 18 years old. They lived in district Mayurbhanj, Odhisa. They belonged to the ST category. O14 was a home maker. The family was BPL certified.

This was O14's first pregnancy at the age of 20. Her pregnancy was registered on 28th March, 2014. During this pregnancy she had five ANCs done at the VHND. She received two shots of TT

injections. Her blood test was done and her Hb was 9.6g.dl in the eighth month of pregnancy. Since she was anemic she was advised to take IFA, but O14 did not receive any IFA tablets as they were out of stock. She was advised to purchase and consume IFA tablets. Her BP was measured, abdominal examination conducted and weight was recorded. She was extremely low weight, weighing 30 kilograms in the fourth month and 39 kilograms in the ninth month of pregnancy. As per the ASHA her height was around 4 feet. She received 5 kilograms of Chatua (SNP) every month from the AWC. She consumed regular food items like rice and curry (panta bhaat) and was given non-veg items occasionally. Her EDD was 17th October, 2014.

On 25th October, 2014 (full term) at around 4 am while O14 was at her parent's house her labor pain started. Since the pain was mild they waited till afternoon (slow labor pain for more than 12 hours). At around 4 pm they (husband, ASHA and O14) hired an auto and took O14 to the CHC which was 40 km from their residence. She was admitted around 5 pm. The doctor on duty examined her, gave an injection and referred her immediately to the DHH, stating that there was mal-presentation of fetus. A referral slip was provided.

It took one hour to reach the DHH by Janani Express. She was admitted in the DHH at 7 pm. Since the doctor was performing C-sec and there were four C-sec cases lined so they had to wait. Her C-sec was done at 8:30 pm on 25 Oct. and she delivered a live girl. After the C-sec there was no complication and O14 was responding well. She stayed in the hospitals as per the guidelines of JSSK. On 27th October, 2014 O14 felt restless and drowsy. There was no heartbeat and she died at 2:30 pm. The family was aware about JSSK but still had to spend Rs. 5000 during the entire chain of events. They received a death certificate from the hospital. Hospital did not provide any transport to take the body home.

015

O15 was married and lived in district Mayurbhanj, Odhisa. The family belonged to the ST category. O15 had studied upto 8th standard and was an agricultural labourer.

This was O15's first pregnancy at the age of twenty. Her pregnancy was registered. During this pregnancy she had more than four ANCs done at the VHND and through a government doctor. She received all the ANC care like IFA, TT injections, BP and weight measured, blood and urine test were done, abdominal examination was conducted (readings not available). No complications were detected during the ANC. She received Chatua as per the SNP guidelines. Her family was also counseled by the ANM/ ASHA. She received regular home cooked food during pregnancy. On 7th June, 2014 at 8 am O15's labor pain started. She went to the CHC which is 10 km away from her residence, by the Janani Express with her husband, mother-in-law and ASHA. They reached the CHC by 12 noon. The MO gave Oxytocin, Primacot and Prostudin injections along with IV fluids and oxygen. She remained in labour for that entire day, the whole of the next day and most of the third day.

On the 3rd day at 5pm, after keeping O15 for 53 hours, CHC referred her to the SDH (30 km from the CHC) as they could not conduct the delivery. Since the hospital ambulance was not available O15's husband hired a private vehicle for RS. 1200. They reached the SDH at 6:30 pm on 9th June. She had a normal delivery at 10 pm (prolonged labor pain- 62 hours from the onset of labor) on the same day with the help of doctor and staff nurse. She gave birth to a female baby of normal weight. The newborn died after few minutes. After delivery O15 had heavy bleeding. Due to unavailability

of blood (SDH blood bank is defunct) SDH referred O15 to the DHH (60 km from the SDH) at 1am on 10th June, 2014. It took an hour to arrange for vehicle and money. The hospital ambulance agreed to take O15 to the DHH only after charging Rs. 500 as informal payment. They reached DHH at 3 am. The on duty doctor immediately attended O15 who was bleeding profusely. The doctor asked her husband and ASHA to arrange for blood from the blood bank. By the time blood could be arranged O15 died at 4 am. The family does not have any documents; they told that the ASHA was handling the documents. The family had to spend Rs. 2000 during the entire chain of events.

O16

O16 was married and lived in district Mayurbhanj, Odhisa. They belonged to the ST category. O16 had studied upto 8th standard and used to work as agricultural labor as well as a daily wage labor. O16's previous two deliveries were live births.

This was her third pregnancy at the age of 28. The pregnancy was registered. During this pregnancy O16 had three ANCs at the VHND. She received ANC services like IFA, TT injections, BP and weight measured, blood and urine test were done, abdominal examination was conducted (readings not available). No complications were detected during the ANC. She received Chatua as per the SNP guidelines. Her family was also counseled by the ANM/ ASHA. She received regular home cooked food during pregnancy. O16 and her husband had spent two weeks in the Maa Griha under the CHC. On 18th April, 2014 at 6 pm O16's labor pain started. Janani Express was called. At 7 pm she started for the CHC (11 km from her residence) with her husband and ASHA. After spending the whole night in the CHC she gave birth normally to a still-born baby weighing three kilograms at 4 am on 19th April, 2014 with the help of a doctor and staff nurse. After delivery she became unconscious and collapsed. The MO gave her five injections, IV fluids and oxygen during her stay at the CHC. Understanding the seriousness of the situation the doctor on duty referred her to the SDH (30 km from the CHC) via the government ambulance without any paramedic staff. The doctor also informed the family that O16's condition is very serious and she must be taken to the SDH immediately. They left for the SDH at 6 am. O16 died on the away to the SDH. They reached the SDH at 7 am when the doctor declared her dead. The family does not have any documents; they told that the ASHA was handling the documents

O17

O17 was married (second wife). Since her husband could not have children with his first wife he married O17. They lived in a village which is located in the interior of the Similipal National Park. There is no public transport, electricity or mobile network within the national park. The nearest health facility was a CHC which was 40 km by private vehicle (motor cycle or bicycle). The roads are inaccessible during the rainy season. The family belonged to the ST category. O17 was non literate and was a home maker.

This was O17's first pregnancy at the age of 20. Her pregnancy was registered on 4th April, 2014. Since the village was located in the interiors of the National park the ANM only visited when Mobile Health units or the RVSK teams visited the village every month. The VHNDs were also conducted during the visits of the ANM. O17 had four ANCs done during the VHNDs conducted. She was currently in between her 17th -28th of pregnancy. Her blood test was done and her Hb was 10.6g/dl. Her BP and weight were recorded during all the four ANCs. She was given 100 IFA tablets which

she consumed and received two shots of TT injection. O17 was given regular food and received SNP during her pregnancy. No complications were detected during ANC. Her EDD was 17th November, 2014. On 23rd August, 2014 O17 had dinner with her family and went to sleep. When her husband woke up around 4 am and called O17 she did not respond. He tried to wake her up but found her dead. ASHA reported the death to the CHC. A team of health personals visited the house and reported that heart failure can be the probable cause of death.

O18

O18 was married when she was less than 18 year old. The family lived in district Mayurbhanj, Odhisa. The ST family was very poor but did not have a BPL card. She was non literate and was an agricultural laborer. Her husband was a daily wage labor. She had five previous deliveries, all live births. Her first daughter was born when she was around 17 years old and after that she had four daughters mostly born one and two years apart. Her first and second daughters were handicapped.

This was O18's 6th pregnancy at the age of 25 years. Her pregnancy was registered on 27th Nov, 2013. During this pregnancy she had four ANCs done during the VHNDs. Her BP was measured and records show that she had low BP (100/40). Her weight was measured and though she did not record any weight gain for two consecutive months she was not advised to take nutritious food. Her blood test was done and Hb recorded was 10g/dl. Her urine test was also done and there was no albumen or sugar in her urine. She received 100 IFA tablets. She received a booster dose of TT injection. She was referred for a routine HIV test at the SDH on 28th Jan, 2014. Her EDD was 21st May, 2014. On 1st March, 2014 (7th month) she delivered a son weighing 1.8 kilograms at home with the help of a Dai (traditional birth attendant). Her husband told that there was no need to go the hospital for the delivery of sixth child. O18 had fever during delivery. After delivery she had foul smelling vaginal discharges along with fever. She was treated by a quack for the same till 14th March, 2014 (14 days from the onset of the problem).

O18 received three post-natal visits by the AWW and one by the ANM on the 14th day of delivery i.e 14th March, 2014. The ANM advised O18 to visit the CHC. O18 went to the CHC on 15th March, 2014, it took them one hour to reach and they spent Rs. 50. The doctor examined her and gave two injections and referred her to SDH for better management of the complication. They left for the SDH in the 102 ambulance and reached there in one hour. O18 got admitted at the SDH at 10 am on 15th March and was treated till 24th March, 2014. Her fever reduced slightly and she was discharged on 24th March, 2014 and advised to go to DH for further treatment. Due to financial constraints and no family members to care of the two handicapped daughters O18's husband brought her home. He mentioned that one needs money to go to the hospital because sometimes one has to buy medicines. O18 was very weak. On the 4th day of the discharge from the SDH i.e. on 28th March, 2014 early morning O18 started gasping and died around 10 am without any treatment. The family had to spend Rs. 3000 during the entire chain of event which they had borrowed from a money lender.

O19

O19 was married when she was less than 18 years old. They lived in district Mayurbhanj, Odhisa. The family was BPL certified and belonged to ST category. O19 was not literate and worked as an agricultural labourer.

Her first child was a son, now 3 years old. This was O19's second pregnancy at the age of 22, conceived two years after her previous delivery. Her pregnancy was registered on 2nd July, 2013. During this pregnancy O19 had three ANCs done at the VHND. Her BP was measured. Her weight was recorded and she was 45 kilograms in the 8th month of pregnancy. She received 100 IFA tablets and one shot of TT booster dose. She received Chatua (SNP) from the AWC, and had regular tribal food (rice and curry) during pregnancy. Her EDD was 19th Feb, 2014.

On 10th Jan, 2014 at 5:30 am, more than a month before her EDD, O19's labor pain started. ASHA called the Janani Express and took her to the CHC, which took them an hour. O19 delivered a female child on 10th Jan, 2014 by normal delivery. She had fever after delivery. On the next day after delivery i.e. on 11th Jan, 2014 O19 became unconscious. The MO gave some injections and referred her to the SDH on 11th Jan, 2014. Janani Express was provided for the referral but without any paramedic staff. They reached the SDH in one hour. She was admitted and treated at the SDH for 3 days. Injections, medicines and drips were administered but there was no improvement in her heath. On 13th Jan, 2014 the SDH doctors referred her to the DH for better management of the complication. Due to financial crisis the family brought O19 back home on 13th Jan, 2014 in an auto. They arranged for money from the relatives. On 14th Jan, 2014 her husband hired a private vehicle costing Rs. 2500 and took her to the DHH which is 125 kilometers from their residence. O19 was admitted in the DHH at around 12:40 pm. At the time of admission she was unconscious. Her blood test was done and report shows that her Hb was extremely low at 7.4g/dl and blood urea was extremely high at 76. She was treated with injections and drips. By the evening of 14th Jan O19 became conscious. On 15th Jan, 2014 at 11 am she started gasping. O19 developed aspiration problem and died at 11:30 am. The family had to spend Rs. 6000 during the entire chain of events.

O20

O20 was married when she was less than 18 years old. They lived in district Mayurbhanj, Odhisa. The family was BPL certified and belonged to the OBC category. O20 was not literate and was a home maker. Her husband was a daily wage labourer. Her first daughter was born when she was 17 years old. After that she had one son and two daughters mostly two years and four years apart.

This was her fifth pregnancy at the age of 35. She conceived after seven years of her last childbirth. The pregnancy was registered on 8th Nov, 2013. During this pregnancy she had five ANCs done, four at the VHND and one at the SDH. She received two shots of TT injections and 200 IFA tablets. Her BP and weight were recorded during the ANCs. She had gained only three kgs in four months. Her Hb was 10g/dl. The abdominal checkup was done during three ANCs. She consumed regular food like watered rice or rice with curry. O20 received Chatua (SNP) from the AWC. Her EDD was 1st April, 2014. Exactly on 1st April, 2014 at 6:30 am O20's labour pain started. The ASHA was informed at 9 am (after 2 and half hours). ASHA called the Janani Express and accompanied her to the CHC. It took 30 minutes to reach the CHC. O20 was admitted at 10 am. The doctors examined her and nurse gave some injection. She had acute lower abdomen pain. O20 told the nurse that the pain was unbearable, but the nurse said that she will deliver soon. When the delivery did not happen till 1 pm (6 and half hours from the onset of labour pain) the doctor referred her to the SDH. A referral slip was given. No explanation was given to the family about the reason for referral. Janani Express was allotted without a paramedic staff (CHC does not provide a paramedic) to take O20 to the SDH which was 20 kms away. O20 became unconscious when she was shifted from the labour room to the Janani Express. They reached the SDH at 2 pm. The on duty doctor examined her and

told that she was brought dead. Post-mortem report shows that the fetus had died earlier. The family had to arrange for a vehicle to bring the body back home. The total amount spent during the entire chain of event was Rs. 1500. The family was provided with a slip stating that O20 was received dead at the SDH.

O21

O21 was married and lived in district Mayurbhanj, Odhisa. They belonged to the ST category and had BPL certificate but their standard of living was good. O21 had studied upto class 12th and was a home maker. Her husband was a supervisor in a private company.

This was O21's first pregnancy at the age of 21. Her pregnancy was registered on 18th March, 2014. During this pregnancy she had four ANCs done at the VHND and CHC. She received two shots of TT injections and 100 IFA tablets which she consumed. Her BP was measured and she had low BP for four consecutive months. Her weight was 45 kgs in her 7th month of pregnancy. Her Hb ranged from 10.3g/dl to 11.8g/dl. She was given milk and vegetables regularly. She received Chatua (SNP) from the AWW. Her EDD was 28th August, 2014. On 19th June, 2014 at 2:30 am (two months before the EDD) she had fever, chest and back pain. Her family members called the Janani Express. Since the Janani Express was not available (transporting other patients) the family had to wait till dawn to hire an auto for Rs. 300, and reach the CHC.

They reached the CHC at 5 am. O21 was admitted. The doctor examined her and gave her six injections. She had no relief rather her pain increased. After seven hours of stay at the CHC without any relief the family members requested the doctor to refer her. She was referred to the SDH; Janani Express was provided without the paramedical staff. They reached the SDH at 1 pm. Some injections were given to O21. Her fever decreased and she felt some relief at around 4 pm. She moved around the hospital for half an hour. At 4:30 pm she had convulsions. Injections and drips were given immediately. She became unconscious around 5 pm. The doctors said that C-sec could only be done once she is conscious. At 6:30 pm doctors decided to refer her to the DH as no cardiologist was available in the SDH. But she died before 108 ambulance could be arranged. The total amount spent during the entire episode is Rs. 3500. Post Mortem was not done. The doctors said that the baby was dead. The family had to hire a vehicle to bring her back. Family did not receive any documents except a slip stating that she died under treatment in the SDH.

O22

O22 was married when she was under 18 years of age. She was not literate and belonged to ST. She worked as a daily wage labourer doing both agricultural and non-agriculture work.

This was her 4th pregnancy at 32 years. She had two still births in her previous pregnancies and one live birth. This 4th pregnancy was registered and she had a MCP card. She had 3 ANC checkups which were given during the VHND which included - BP check, blood test, urine test abdominal, examination, weight, tetanus injections, IFA tablets. The woman registered under the MCTS and got a Unique ID. No complication was detected during her ANC check up. Chhatua was being given to the woman as per guideline under SNP.

One hour from onset of her labour pain at 4.30pm on 10th May 2014, O22 went to the CHC by hiring an auto rickshaw from the local market. She was accompanied by her husband and the ASHA.

The distance of the hospital is 1 km from her village. At around 5.00-5.30 pm O22 was admitted in the CHC and she delivered a live female baby of low birth weight (around 1. 1 Kgs) normally at around 1.30 -2.00 am, nine hours after the onset of labour. After being cleaned she fed the baby without any difficulties. She asked her husband for a meal (rice) as she was very hungry. Her husband brought a meal from their home which is very close to the hospital. O22 ate the meal talking with her husband and then fell asleep. After 40-50 minutes her limbs got stiff and she lost consciousness. At about 2.45 am the ASHA rushed to the doctor's quarter and the doctor initiated treatment immediately, giving drip along with oxygen and injections (oxytocin, Primacot & Prostudin). However, when her condition did not improve and she did not recover consciousness, the doctor referred her to the District Head Quarters Hospital, 120 km away.

It took more than 2 hours to get ready to leave for the DH (arranging for the vehicle, contacting the driver & arranging for money) and she finally left at 5.00 am on the 11th morning in the hospital ambulance for DH along with her husband, ASHA and the doctor himself. After 1 hour 45 minutes of journey after covering a distance of 50 km she stopped breathing and died in the ambulance half way to the DH around 6.45 am in the morning.

The infant died 47 days later. A total of Rs.400/- was spent by her husband towards some of the medicines and the auto rickshaw fare to CHC. The family did not have any documents with them, as the ASHA was handling all those things.

O23

O23 was a 13 years old girl from ST community, was living with her parents in the remote tribal village in district Mayurbhanj, Odisha. She was studying in class 8. She had a relationship with another teenage boy of the same village and she became pregnant. She didn't disclose her pregnancy with her mother or anybody else. When the ASHA remarked on her swollen feet and abdomen to her mother, she said her daughter was probably getting fat. The ANM somehow convinced her to get a TT shot on 11th May, 2014 but there was no registration.

On 20th May, 2014 O23's labour pains started around 9.30 am. The ASHA called the Janani Express and took her to the CHC. It took about 45 minutes to reach and she was admitted there at around 11.00 am. She was given injection and drips and kept under observation. O23's pain increased but she could not deliver. Around 7.00 PM (after having spent 8 hours there) in the evening doctor referred O23 to Sub-divisional Hospital (which is 32 km away from the village and is the nearest government facility providing EmOC services) stating that it will be a complicated delivery. She was referred in a 108 ambulance to SDH and accompanied by a paramedic. A referral slip was also given. It took one and half hours to reach SDH and it was around 9.00 pm when they reached. Just after arriving, O23 delivered a still-born baby normally around 9.15 pm before the O & G Specialist could examine her. O23 had convulsion attack and she became unconscious after delivery. Her parents had an argument with the Ob/Gyn Specialist for the delay in initiation of treatment. O23 was given an injection and the Ob/Gyn doctor referred her at 11pm with an ambulance to District hospital after the argument. It took them 2 hours to reach the DH. O23 reached District Hospital around 1.00 am on 21st May 2014 still unconscious. She died around 1.25 am just after admission and before initiation of treatment there. The family spent about 1500/- but they did spend on transportation. Other than the referral slips and the death certificate, the family has no other papers in their possession.

O24

O24 was a ST and worked as a daily wage labourer. She was not literate and she had 3 living children. Her 1st child died just after delivery. The eldest living child is 5 years old and the youngest is 8 months old.

This was has 5th pregnancy at 32 years. Her LMP was 8 May2014 and EDD was 15 Feb15. Her pregnancy was registered on 8th July14, when she was about 2 months pregnant. The record of ANM shows she received TT on 9th July 14 in the VHND. O24 decided to terminate her pregnancy as her youngest child is only 8 months old. She went to a herbal practitioner on 28th July 2014 in the village. She bought some oral herbal medicine from the practitioner. She consumed the herbs in the same night. On 29th July 2014 morning she had lower abdomen pain and bleeding around 10.00 am. There was heavy bleeding till afternoon. When she could not bear abdomen pain and bleeding was not checked her husband hired an auto for Rs. 300/- and took her to CHC. It took them about 45 minutes to reach the CHC. She was admitted in the CHC around 5.30 pm (seven hours had passed since the bleeding first began) and was given injection and drips. They spent 700 Rs on the medicines. Her abdomen pain decreased a little but she continued to bleed. She started gasping early in the morning on 30th July2014 and died around 7.30 in the morning

O25

O25 was married at 18 and was a Hindu OBC woman. She was educated upto the 12th standard and was a home-maker.

It was O25's 1st gravida at 20 years old. Her EDD was 22 Oct14. She had 4 ANC checkups in April, May, June and July at the VHND. She was given 100 IFA tablets and had two TT injections. During her ANC her haemoglobin was tested and found to be around 10 g (10; 10.8; 9.9; 10.7). Her blood pressure was also recorded (100/50; 100/50; 110/70; 100/50). Her weight was also taken and found to vary between 52 to 54kgs. She was advised to eat nutrition food and take rest. She also received SNP from the Anganwadi.

O25 had spontaneous abortion in her 6th month around 8.30pm on 19 July14. After abortion she had severe bleeding. Though the ANM was staying in the same village and ASHA was also there her family members didn't inform them nor did they try to take her to any health facility thinking that the bleeding will stop automatically. Besides, it was raining heavily during the night. There was severe bleeding throughout the night of 19 July 2014. On 20 July morning, she was pale with bloodlessness and she had a convulsion attack. Her husband hired an auto for Rs. 300/- to take her to the CHC around 8 am, although she had died before moving her into the auto. However her family members took the body to CHC where the doctor declared her brought dead on 20 July 2014. After O25's death, her parents filed a F.I.R. against O25's parent-in-law stating that they have murdered her for dowry. The police is investing the case.

O26

O26 was a ST woman who was a homemaker. She was non-literate. This was her 1st pregnancy at the age of 20. Her LMP was 10th Sep, 2014 and EDD was 17th Oct, 14. Her pregnancy was registered on 1st March, 2014. She had 3 ANC checkups at the VHND where she was given TT shots and her blood test was done and her hemoglobin was found to be 10.5 g/dl in all her checkups. Her BP was taken and was found to be normal at 110/70; 120/90; 110/80. Her weight was also

taken and was found to be low at 39kg which increased to 42kg at her last ANC checkup. She was given 100 IFA tablets and also received SNP from the Anganwadi centre.

On 4th Sept, 2014 she was fine and worked in the paddy fields during time. Her labour pain started around 2 am on 5th Sept, 2014. Her family members informed ASHA to call the Janani Express. ASHA asked the Janani Express to take O26 to the PHC. The driver told that it was out of order it may take time for repairing. Father in law of O26 insisted that they will go to hospital by Janani Express as it is free of cost. They waited till 11 am, and then the ASHA finally convinced them to hire an auto for Rs 300. They reached the PHC around 11.45 am, 9 hours after the onset of labour. She was admitted in the PHC where doctor examined her and she was given injection and drips. After examination by the doctor she started bleeding. ASHA mentioned that the bleeding was severe with clots. The doctor referred her to SDH which is 35 kms away and a referral slip was given, mentioning that she was a primi and had severe bleeding with detachment of the placenta from uterine wall. The 108 was called but it was 45kms away and the Janani Express was out of order, so they again hired an auto at a cost of Rs 600/-. During the travel the bleeding increased. They reached the SDH around 3 pm. The nurses on duty examined her and referred her immediately to the District Hospital as the gynecologist was on leave and her condition was critical. She was taken in the 108 ambulance accompanied by a paramedic. It took them an hour and half to reached District hospital by which time it was 7:15 pm. The doctor on duty examined her. An IV was started and she was given injections. Around 7:40 pm she delivered a still-born baby. She was looking pale, her pulse rate was very slow and her BP was not readable and her temperature had fallen. One unit blood was transfused at 9:10pm. After the blood transfusion she asked for water. After drinking water she told that she is not feeling well and died around 10 pm on 5th Sept, 2014. The family spent Rs. 4000/- on the medicines the expenses of which were all borne by the natal family. Except the referral slips and death certificate, the family has no other documents in their possession.

O27

O27 was a non-literate ST woman and worked as a daily wage labourer living with her husband in a remote village in district Mayurbhanj, Odisha. The village is at a distance of 28 kms from block headquarter. The road condition is very poor, there is no electricity in the village which is surrounded by dense forest. They have to walk 4 kilometres to avail public transport, and walk two kilometres to get mobile signals.

The outcome of her 1st pregnancy was a miscarriage. This was her 2nd pregnancy at 25 years. Her EDD was 11th, Oct14. The ANM said that the LMP which was mentioned in the record is not appropriate as they seldom remember dates. Her pregnancy was registered and she had 3 ANC check-ups done in the VHND where her haemoglobin was tested and found to be 8.5; then 9 and 9.5 g/dl. Her blood pressure was also checked and found to be 100/70; 110/80 and 110/70. She was underweight at 38 Kg which increased to 40 kg at the time of her last ANC. She was given two TT shots. She was identified as being anaemic during her ANC visits and was given 120 IFA tablets and was advised to eat nutritious food, but she ate usual tribal food.

On 16th Aug, 14 her labour pain started in 8th month around 7am in the morning. When ASHA heard about the pain she came to her house and asked her husband to get ready to go to CHC. But her husband was reluctant to take her to hospital. The ASHA convinced him saying that he should not worry about the expenditures, medicines will be available free of cost and finally at 11:30 am, she

could Janani Express which transported O27 to the CHC. It took them one hour to reach and she was admitted in the CHC around 3.30 pm on 16th Aug, 2014. Doctor examined her and she was given injection and drips. She delivered a live female baby weighing 1.6kg around 8.30 pm. After delivery she had fever. As she was anaemic she became pale after delivery. The doctor on duty told her husband that he would refer her to DH for management of her anaemia and the LBW baby. Her husband was reluctant to go and he mentioned that he had no money. He had already spent Rs. 1000/- on the medicines. She had her dinner at night and slept. Early in the morning around 5.30 am she awoke and asked for water, saying that she was not feeling well. She drank water and died around 6 am in the morning of 17th Aug, 2014.

O28

O28 was a non-literate ST woman, who stayed with her husband (casual labourer) in Hyderabad and was a home-maker. She came to her village a week before her death. This was her first pregnancy and it was not registered by the ANM. O28 was not examined by any doctor during her pregnancy and so did not receive any ANC care.

On 18th June, 14 when the couple was returning from their relative's house by bus, O28 labour pains started around 4pm. They reached the PHC and she was admitted there within two hours of the onset of labour. The doctor examined her and she was treated with injection and drips. Her pain increased and her BP was high. That night around 9 pm she had convulsion (5 hours from the onset of labour) so the doctor referred her by the Janani express to the SDH which was 45km away. It took them one hour to reach and it was 10:30 pm by the time she reached the SDH. Soon after admission she had convulsions again. She was given magnesium sulphate and drips, and quickly sent to the district hospital by the 108 ambulance. She reached DHH on 19th June, 2014 around 12.30 am and got admitted. She was treated with injection and drips. She had hematuria (blood in urine) and scanty urination. Around 8.00 am she had convulsions again, her blood pressure was 150/100 and she became drowsy. The medicine specialist was called to examine her. He diagnosed her with Eclampsia and DIC . After giving one unit of blood, around 2pm she was referred to Medical College (after 15 and half hours). Discharge slip was given to her husband at 3.30 pm. They were still waiting for the 108 ambulance to take her to Cuttack Medical College when she died without delivering around 4.25 pm on 19th June, 2014. The family spent Rs. 3000/- for medicines in all; they did not have to pay for transportation between facilities which was all through government ambulances.

O29

O29 was a non-literate ST woman who was a home-maker.

This was her second pregnancy at 24 years. She was registered in her third month and her EDD was calculated to be 12th July, 2014. She had 4 ANC checkups in the sub-centre during the VHND. No tests were done during ANC as there were no instruments in the health subcentre. She was only given two TT shots and her weight was taken and found to increase from 44 in her first ANC to 47 during her 4th ANC. She was also given IFA tablets which she consumed. The only advice given to her was to consume nutritious food. She received SNP from the Anganwadi. She was admitted at the SDH (which is 50kms from the village) on 27th June, 14 and delivered a male baby weighing 3.3 kg. During delivery she had chest pain. She was referred by the doctor to DH but she did not go due to the lack of money. She was treated in the SDH till 30 June2014 after which she was discharged. The family spent Rs. 2000/- on the entire treatment from their savings. The ASHA

visited her once on 2nd July,14 for post natal follow up visit. O29 told the ASHA that she was feeling weak, so the ASHA advised her to consume a proper diet and to rest. Around 8 days later, on 5th July 2014 around 7pm she had a sudden convulsion attack, the 108 ambulance was called for but she died within 30 minutes of the convulsion.

O30

O30 was a non-literate tribal woman who worked as a daily wage labourer. She lived in Mayurbhanj district. She had one 5 years old son, 3 years old daughter and another 1 year old son.
At age 27 when she became pregnant again for the 4th time, very soon after her last childbirth, neither she nor her husband informed the ASHA about the pregnancy. Her pregnancy was not registered. Although the ASHA lived in the same village she never got to know about O30's pregnancy. On 26th Aug, 2014 around 5 am her labour pain started. Neither did she nor did her husband informed anybody about her pain. Her husband took the labour pain very casually as she had three home-deliveries earlier. He did not want to take her any facility for delivery as home deliveries are the norm in this area. She delivered a live male baby around 11.00 am but soon after delivery she began bleeding severely and she started turning cold. Her mouth too became dry. The ASHA heard about the delivery and reached O30's house at around noon of 26th Aug, 2014, however, O30 was dead before the ASHA's arrival.

O31

031 was a non-literate ST woman who was a home-maker.

This was her second pregnancy at 24 years. Her pregnancy was registered, she had four ANC checkups during the VHND where her HB was measured and was found to be around 10g throughout her pregnancy. Her BP was also measured and it ranged from 110/90 in the first ANC to 110/70 in her last ANC. Her weight was measured and it increased from 42 at her first ANC to 45 in her last ANC. She was given 100 IFA tablets, but she did not receive any TT shots. Her EDD was calculated to be 20th June, 14. She had also received ready to eat food (Chatua) under SNP from the Anganwadi centre. O31 had bleeding on 16th April, 14 (in her 8th month of pregnancy) but she did not disclose it to her husband or in-laws. On the 18th Apr, 14 her husband felt that she had some problem and asked the local Medicine-shopkeeper to come to their house to examine O31. As it was the weekly market day, the shopkeeper assured him that he would be available in the evening. In the meantime, she delivered a stillborn baby unattended at home on 18th Apr, 14 around 3.00 pm. Soon after delivery, she had severe bleeding. Her husband tried to call for the Janani Express but it was out of order that day. He hired an auto and reached home to take her to PHC, however by the time O31's husband reached home she had died.

O32

O32 belonged to a very poor family and belonged to the ST. Her 1st daughter is 2 and half years old. Her 2nd child is a son around 1 and half years old. Her 1st delivery was an institutional delivery while her 2nd delivery was a home delivery.

She was 27 years when she became pregnant for the 3rd time. She had two ANC checkups during the VHND. The ANM also gave O32 two TT shots. She was anaemic (7g) and was given 120 IFA

tablets. The ANM took her blood pressure, haemoglobin test, took her weight as well as conducted an abdominal examination. Besides this, the ANM and ASHA counselled her to eat nutritious food. O32 also received SNP in the form of 5 kgs of Chatua from the Anganwadi centre during her pregnancy. On 21st Nov, 2014 her labour pain started around 11pm. Neither she nor her husband informed anybody about her pain. She delivered a live female baby around 2am. Her husband assisted her for the delivery. After delivery she had severe bleeding. Placenta was not delivered till 4am. Suddenly she started sweating and died without delivery of placenta at dawn on 22nd November, 2014.

O33

O33 was an 18 year old non-literate tribal woman who got married against the will of her in-laws. So her husband was cut off from the family property and they received no support from the family either. Both were earning their livelihoods from collection & selling of non-timber forest produce and they also worked as daily wage labourers. They lived in a small village which is the the last village of the forest. It is located in a gram panchayat which has been identified as part of the vulnerable pocket of the block. Since none of the women in her village had the minimum level of education needed, both the ASHA & AWW were selected from another village which is 3 km away from the village. As a result of this, the ASHA & AWW do not provide services to O33's village and it is neglected. The sub centre of the area was totally defunct since long and the nearest government health facility is about 24 km away (CHC). However getting there is not easy as there are no means of public transportation available.

During the course of time O33 got pregnant but could not avail any ANC & SNP services due to absence of the service providers like- ASHA & AWW in the village. When O33 was 6 months pregnant she contracted malaria which resulted in a spontaneous abortion on 11th March 2014. The ASHA & AWW were not aware about the miscarriage and O33's critical condition. The couple did not seek treatment after the miscarriage and her condition went on deteriorating. She had severe head-ache, high fever with rigors, experienced severe lower abdominal pain and had foul-smelling discharge. But no treatment was sought for any of these complications and she finally became unconscious and died on the 8th day of her abortion, without getting any treatment on 18th March, 2014.

O34

O34 was a ST woman who worked as an agricultural labourer and was engaged in other daily wages work. They were very poor and were migrants as well.

This was her 6th pregnancy. Her first three children were born live but they died later. Her fourth and fifth children (both girls) were alive and aged 10 years and 8years old. During this 6th pregnancy at 32 years, she had two ANC checkups in the VHND and during the checkups the ANM tested her haemoglobin. O34 was given IFA tablets and TT shots. Her weight was found to be below 40kgs and she was suffering from anaemia. She received SNP (5 Kgs of Chhatua powder) from the Anganwadi Centre.

O34 had labour pains and was admitted in SDH on 16th February, 2014 about 9.00am just 7 km away from her village adjacent to state highway. Her family went with her, and as the ASHA had gone

for a training programme, ASHA's husband arranged 108 for them. After getting admission in the hospital all possible treatment was given including 1 unit of blood as she was suffering from severe anaemia and her labour was prolonged. The doctors waited up to 2.00pm and then referred the case to District Hospital (at the neighbouring district of Mayurbhanj) 60 km away by government ambulance around 2.30 pm as more blood was required. On reaching the DH, it took about 2 hours for the treatment to start as blood was being organized and the specialist was being contacted. After getting treatment at the District Hospital at about 11.00 pm O34 delivered a still-birth and became unconscious as well as developed breathlessness. Realizing the gravity of the situation the doctor on-duty gave another unit of blood and referred her to SCB Medical College Hospital in Cuttack. The family had to spend Rs. 800 on informal payments in the DH. But it took 4 to 5 hours to arrange for a vehicle as well as money towards leaving for Cuttack. Around 8.30 am they left for Cuttack but after 30-35 km travelling her condition became very critical and the paid ambulance stopped at a CHC which was located on the road, for a checkup and the doctor declared her dead at around 10.40 am on 17th February 2014. The private ambulance dropped the dead body at the deceased village and charged Rs.6000/- as hiring cost, which was finally paid by her husband.

O35

O35 a handicapped woman of 29 years age belonged to tribal community. She was a housewife and received Disability Pension.

This was her first pregnancy and she had three ANC checkups. The first two were in the VHND were the ANM noted her BP, tested her Hb and gave her two TT shots. She was found to be anaemic and was given 200 IFA tablets. The third check up was in the Sub divisional hospital, where the doctor conducted an abdominal examination and tested her BP. Her weight was 41kg. She got her Hb again tested at a private facility in Karanjia. She received 5 kg of chhatua powder as SNP. After onset of labour pain, O35 was admitted in SDH on 25th September 2014 about 5.00 pm. The SDH is just 10 km away from her village but it took an hour. She was accompanied by her husband and mother-in-law. The ASHA arranged 108 for them and also accompanied till the end. After getting admission in the hospital the doctor tried to give at least 2/3 units of blood immediately, as O35 was suffering from severe anaemia but he could not locate her vein. Then the duty doctor referred her to the District Hospital 120 km away by government ambulance around 9.00 pm. They spent Rs 3000/- on medicines and treatment in the SDH.

After reaching the District Hospital around 12.00 pm the doctor there also attempted to give blood but they too faced the same problem of not being able to find a vein. They decided to wait till the next morning and try again. The next morning blood transfusion started, after completion of 2 units of blood, they took O35 for a C- section around 12.00 noon and she gave birth to a male baby of 2200 gm. She was also given oxytocin. Subsequently she was discharged from the OT safely and both mother and child were fine upto 7.00 pm. Then suddenly O35 felt breathless and became unconscious. Before the duty doctor could be informed and treatment could be initiated she passed away on 26th September 2014 around 8.20 pm. Both the live baby and the dead body were brought to their village by a hired auto rickshaw. They had to pay 500 for informal payments in the district hospital.

O36

O36 was a non literate tribal woman. They were very poor ST and were migrants. She was short below 4 feet 8 inches. She belonged to a BPL family.

This was her first pregnancy at the age of 20 and she had 3 ANC checkups in the VHND. The ANM measured her haemoglobin and recorded her BP as well as conducted an abdominal examination, during her last ANC checkup. She was given 2 TT shots and IFA tablets. She also got SNP in the form of 5 kgs of Chhatua from the Anganwadi. O36 gave birth to a girl child at home around 12.30 am, after delivery she had convulsions. O36's husband immediately informed the ASHA who responded promptly by calling 108 immediately. The vehicle reached the village by 1.30 am and O36 and the baby were transported to the SDH. She was accompanied by her husband, mother in law and the ASHA. She was admitted in SDH which is about 25 km away from her village on 6th March 2014 about 3.00 am. The treatment started with oxygen, drip and injections. Cardio-pulmonary resuscitation was also done. But her condition did not improve she suffered more fits (total 4-5 times) and finally succumbed at 5.00 am in the hospital bed on 6th March 2014. The family spent Rs. 1800 on her treatment. The family has the discharge slip and prescriptions with them.

O37

O37 was a 20 year old tribal woman who lived in district Mayurbhanj, Odisha. She was an ST and they were very poor migrants. She was of low height measuring below 145cms.

She had two ANC check ups in the VHND where the ANM had taken her BP reading. She was given IFA tablets and TT shots. She was also given 5 Kg of Chhatua power as SNP from the Anganwadi centre. In the 7th month of her pregnancy on the 11th December, 2014 afternoon soon after lunch eating lunch, she suddenly felt breathless, began breathing faster and experienced chest pain. The ASHA was called but she passed away prior to shifting her to hospital, though the SDH is only 6 km away from her village. It does not appear from her records that she had any fatal disease nor any danger signs detected during ANC.

Chapter- 3

WEST BENGAL

Chapter 3 - WEST BENGAL

CB- MDR ANALYSIS OF DISTRICT MALDA AND MURSHIDABAD

STATE OVERVIEW

i. Profile of West Bengal and the two Districts

West Bengal is the fourth most populates state in India (Census, 2011). In total West Bengal (WB) state comprises 19 districts covering 65 Sub-divisions and 341 Blocks. Maternal mortality ratio in West Bengal is 117 according to SRS, 2012-13[1]. This figure is lower than the national average of 178 (SRS, 2010-12). The sex ratios are also high at over 1000 females per 1000 males, not only for the state as a whole but for the two districts as well. Female literacy rates are also on the higher side with 71.0 of the women being literate in the state, 64.2 in Malda and 66.1 in Murshidabad

Table 1: Basic demographic data of West Bengal, Malda and Murshidabad districts

Indicators	West Bengal	Malda	Murshidabad
Total Population (Census, 2011)	4,19,47,3589	39,97,970	7,103,807
Maternal Mortality Ratio (MMR) (SRS 2010-12)	117		
Sex Ratio of total population (NFHS - 4 ,2015-16)	1,011	1,019	1,083
Female Literacy Rate (%) (NFHS - 4 ,2015-16)	71.0	64.2	66.1
Percentage of Muslim (Census, 2011)	27.01	51.27	66.28

Malda district lies 347 km. north of Kolkata, and is included under the Jalpaiguri Division. The district has a two Sub-division namely Maldah Sadar and Chanchal. Malda district has a total of fifteen Community Development Blocks. District headquarters is English Bazar, and was once the capital of Bengal[2]. The economy of the district is basically an agrarian one and ranks as one of the most underdeveloped district in West Bengal. Over all in Malda district (North Malda & South Malda together) Muslims are 51%, Hindus are 48%, Others are 1%.

Murshidabad has 254 Gram Panchayats, 26 blocks and 5 Sub-divisions. Murshidabad has a large concentration of Muslim minority community, more than 66% of the total population. Murshidabad has been placed by Sachhar Committee Report (2006) as one of the most backward district in India in terms of literacy, opportunities and awareness levels of specifically Muslim Women.

1. Office of Registrar General of India, Special bulletin on maternal mortality in India, 2010-12. Sample Registration System, Office of Registrar General of India, Ministry of Home Affairs, Government of India, New Delhi; 2013. Available: http://www.censusindia.gov.in/vital_statistics/SRS_Bulletins/MMR_Bulletin-2010-12.pdf.
2. District Census Handbook 2011 available at http://www.censusindia.gov.in/2011census/dchb/1906_PART_B_DCHB_MALDAH.pdf

Economic activity of women

In both Malda and Murshidabad a large number of women are engaged in Beedi rolling. In Murshidabad, of the 3 lakh home-based workers, females and minors (both male and female) constituted 65 per cent and 15 percent of beedi workers respectively (Bagchi and Mukhopadhyay, 1996). Another study from West Bengal, Samsherganj (Murshidabad) reports that 60 percent of the labour-force in Beedi industry is women[3]. In fact in Murshidabad's Jangipur subdivision, a woman's chances of finding a husband, and of staying married if they do, can hinge on their efficiency at rolling beedis. In the past 10 years, since the beedi factories came up and half the subdivision's impoverished population became dependent on the industry; the trend has had effects on social customs: a girl adept at beedi-rolling no longer has to worry too much about dowry while young girls who are not too skilled find it difficult to get a husband, and married women have even been abandoned by their husbands[4] if their efficiency drops.

ii. Maternal health services in West Bengal

The status of maternal health services received by women in West Bengal including Malda and Murshidabad reflects that more than 95 percent women have registered themselves for ANC; however less than 20% received full ANC in Murshidabad and Malda, with Malda doing worse. In all the indicators Murshidabad is better than Malda and in some instances better than the average figures for the State as a whole (refer to Tables 2 to 4)

Table 2: Details of Antenatal Care in Malda & Murshidabad district, West Bengal*

Antenatal Care indicators (all figures in percentage)	West Bengal		Malda		Murshidabad	
	NFHS 4[i]	DLHS 4[2]	NFHS 4	DLHS 4	NFHS 4	DLHS 4
Registered pregnancies for which the mother received Mother and Child Protection (MCP) card	97.4	96.2	96.3	97.6	98.9	95.4
Mothers who had ante- natal check up in 1st trimester	54.9	59.6	42.5	58.7	49.1	56.6
Mothers who received at least 4 ANC	76.5	81.3	52.6	86.3	72.1	83.6
Mothers who had full ante-natal check up	21.8	36.8	12.2	41.7	17.1	27.1

3. Hossain, Md. Asfak Exploitation of women and child labour in bidi industry in Samserganj. Social Werlfare.34(1); April 1987.p.9
4. http://www.telegraphindia.com/1121226/jsp/frontpage/story_16362299.jsp#.V6bbHrh9600
   Hoosain, Alamgir, Marriage, rolled & unrolled in Bidi, The Telegraph, Calcutta, 26th December 2012

Table 3: Delivery care and Postnatal care in Malda & Murshidabad districts, West Bengal*					
Delivery Care indicators (all figures in percentage)	**Malda**		**Murshidabad**		**W Bengal**
	NFHS 4	**DLHS 4**	**NFHS 4**	**DLHS 4**	**NFHS 4**
Institutional Delivery	55.0	72.0	63.8	58.1	75.2
Delivery at Government Institutions#	48.3	54.8	55.0	47.6	56.6
Delivery at Private Institutions		17.66		10.5	
Delivery at home		28.0		37.5	
Delivery at home conducted by skilled Health personnel#	6.5	9.1	6.7	13.0	6.8
Caesarean out of total delivery taken place in Government Institutions#	12.2	7.2	14.6	7.2	18.8
Caesarean out of total delivery taken place in Private Institutions#	73.1	12.1	96.7	8.4	70.9
Mothers who received financial assistance under Janani Suraksha Yojana (JSY) for births delivered in an institution#	31.1	43.3	40.0	28.4	28.7

Table 4: Current Use of Family Planning Methodsin Malda&Murshidabad Districts, West Bengal*			
Indicators	**Malda**	**Murshidabad**	**West Bengal**
Any method	60.3	72.8	70.9
Any modern method	51.8	60.9	57.0
Total unmet need	14.3	6.9	7.5
Unmet need for spacing	6.5	3.4	3.0
Health worker ever talked to female non-users about family planning	9.2	6.9	12.3
**Source: National Family Health Survey IV (2015-16)*			

iii. Study sites

The study area of Murshidabad was Suti- II block which is the in northern part of Murshidabad district. It is bounded on the east by Bangladesh with the river Ganges being the natural boundary, on the west is Pakur district of Jharkhand. The Block has 2 PHCs which do not have labour rooms or inpatient facilities and and 1 BPHC which has been upgraded to a Rural Hospital. The sub-divisional hospital (SDH) is located at Jangipur.

In Malda, the study area was Kaliachak II block which is in Malda district to the north and across the river Ganga from Murshidabad district. The population of Kaliachak II block is almost entirely from rural areas. Beedi making along with silk weaving is a major occupation besides agriculture. The Block has 34 health Sub Centres and 2 PHCs.

iv. Situation of the hospitals and VHND services

A. Murshidabad

In Murshidabad, 8 facility observations in all were done in November 2015 in Shamshergunj and Suti-II blocks, which includes two Primary Health Centres (PHCs) each, two Block PHCs or BPHCs

(one of which is upgraded into a Rural Hospital), the Sub-Divisional Hospital (SDH) and the District Hospital/Medical College (DH/MC).

There are no beds in the PHCs in Samshergunj and Suti II Blocks and one of the 4 PHCs has a Medical Officer for three days a week. Normal deliveries are not conducted in these PHCs. The BPHC in Suti II block has been upgraded to Rural Hospital and is kept quite clean; however, this continues to function as a block PHC. It can handle 350 cases of normal deliveries per month on an average and has 8 nursing staff who have received SBA training. The BPHC in Samshergunj is overloaded with a case load of 725 normal deliveries per month on an average handled by six nursing staff with SBA training. The patients are often placed on the floor and the entire BPHC is very dirty and unhygienic. Both the BPHCs can perform episiotomy and suturing; both have Medical Officers with training in BEmOC and CEmOC who were not present at the time of our visit (one on study leave and another transferred.)

Sub Divisional Hospital is a large hospital with a ward, but operationally more than 30 patients were kept on the corridor floors of the maternity ward. The average number of deliveries is 1100 per month. In this SDH, 30 percent of the Medical officers and 60 percent of the nursing staff are trained in BEmOC, SBA and MTP. The staff in the maternity ward are all trained to manage complications including blood-transfusion for surgery, stabilization of obstetric emergencies, comprehensive abortion care, comprehensive management of eclampsia, retained placenta, shock, obstructed labour, deliveries of HIV positive women, PPTCT services and severe anemia. C- sections and other surgical interventions are performed in this hospital. Blood Bank including storage centre is available in the SDH and blood grouping and cross matching are done here. Besides, contraceptive services such as sterilization (both male and female including postpartum sterilization) are offered.

Medical College & District Hospital in Murshidabad was expanded and is now attached to a Medical College in 2012. The hospital operates 469 functional beds and has two campuses; the maternity ward is located in the old Sadar campus which is unclean and overcrowded. In October 2015 the average number of normal deliveries was 115 and C-sections performed numbered upto 30-35 per day. The maternity ward has 5 Medical Officers and 23 staff nurses all of whom have received CEmOC, BEmOC, SBA and IMNCI training.

B. MALDA

In Malda three facilities were observed in November 2015, one was a PHC, other a rural hospital and the district hospital was also observed. The **PHC** has 25-beds; two medical doctors with three staff nurses, handles 200 normal deliveries each month in one labour room that has 5 functional labour tables. The MOIC mentioned that a large number of girls were engaged in beedi rolling from an early age, and he had noticed the number of women his PHC area suffering from pre-eclampsia was comparatively high but they were equipped to provide emergency eclampsia treatment although they do refer out cases to the DH.

The **Medical College & District Hospital** has been upgraded to a Medical College few years back, and is operating through two campuses. The Sadar Campus is unclean and overcrowded. Malda District Hospital is a 500-bedded facility with 5 labour rooms and 25 labour tables that handle on average 450 deliveries per month with 35 - 40 C-sections each day. Charts with protocols for managing complication were displayed outside the labour room.There is a functional blood bank and operation theatre in the facility. Specialist doctors have been deployed and most vacancies are filled.

Village level maternity services were observed through **3 Village Health & Nutrition Dasy (VHNDs)** in one block of Malda district in the month of November 2015. In all three VHNDs, the women were aware about the date and place of the VHND, which were held in cramped spaces in private houses. There were weighing machines and blood pressure was measured only for the first ANC checkup; haemoglobin testing was done and blood samples of women whose husbands were migrant labourers were collected for HIV testing. Urine testing for albumin was not performed, and the lack of space and privacy was the reason why abdominal examinations were not performed either. The ANMs said pregnant women were asked to come to the Sub-Centres for urine test and abdominal checkups on the following day. Immunization was being done. The frontline workers mentioned that there was no demand for contraceptives by the community so they did not bring oral contraceptive pills or condoms. The VHNDs were mainly attended by lactating mothers who came with their children for immunization. Infact in all the three VHNDs sites, the focus was on immunization of children and women and there was very little priority given to other services. Except advising women to eat nutritious food, no information was given on danger signs and complications during pregnancy. Adolescent girls did not attend the VHND as most of them were engaged in beedi rolling and their participation in the VHND would mean wage losses.

v. Discussion and Conclusions

Understanding care-seeking for maternal complications

As has been discussed earlier the current approach to maternal death prevention and maternal safety is derived from distilled global experience and comprise of a continuum of care framework with provision of routine pregnancy care services, ensuring safe delivery through skilled birth attendants which in India has been assumed to be happening through promoting institutional delivery and providing a graded set of emergency obstetric care services. But in the cases from Murshidabad and Malda we observe that the routine provisions either did not work or were not capable of addressing the complication that arose. In the case of Murshidabad most of the deaths were due to intra-natal complications which arose during labour; although in one case death occurred during pregnancy, and in two cases death occurred post-partum after 48 hours. In Malda on the other hand, a higher proportion of deaths were from the antenatal period and none after 48 hours of delivery.

The level of antenatal care was ineffective in either understanding risk or addressing complications. In Malda we see that ANC care was provided in sub-centres in one case a PHC, yet none of the 8 women received comprehensive care; danger signs were not noted and very serious complications were not followed up through MCTS. In Murshidabad although women with moderate to severe anaemia did get identified, specific advice and relevant treatment was not given beyond asking a few women to 'go and see the doctor at the PHC'. The fact that they failed to follow this advice was not tracked. Other high-risk signs like very low weight, high BP and swelling of the limbs or headache were also not detected in time.

The obstetric history of these women was also not studied: in Murshidabad, all the beedi-worker women had avoided hospital births as much as possible, with only 7 out of 23 ever-pregnant women having given birth in a hospital. Many women who had bad obstetric history were not detected and properly counselled; women with serious complications (TB, jaundice, pulmonary embolism) were not followed up in terms of the specialized care that they might have saved their lives. There appears to be no link with treatment for non-obstetric complications and infectious/non-communicable

diseases. The constant inhaling of tobacco dust and the handling of tobacco products during pregnancy could have consequences for the general health of the pregnant women. Jaundice, asthma, heart disease and many cases of breathlessness have been mentioned in these cases of Murshidabad, and treatment for pregnant women needs to incorporate these non-obstetric causes.

The pattern of management of pregnancy and delivery complications in the two places was different, even though they are socio-economically very similar. The access to public health services in the two blocks also appear to be different. In Murshidabad the BPHC, SDH and DH provided a more robust care environment compared to a less capable PHC and DH environment in Malda. The PHC in Malda, even though less capable appeared to be closer in terms of physical access, but did not seem to play any role in averting maternal death. In Malda when any kind of complication is detected, we find the BPHC is behaving rather like a post office, and precious time being wasted in going there even if the woman is a known high-risk case, obtaining a referral and moving on to the DH. Women's lives could have been saved, if better tracking and follow-up is done from the ante-natal period.

In Murshidabad there seemed to be a much stronger role of the dai and informal provider compared to in Malda. In both places the private provider seemed to be the preferred provider for complications in pregnancy and the public hospitals for complications that were more serious or life threatening in both places. The private practice by MOs posted in government hospitals is also noticeable, and large sums of money are being spent due to this.

In Murshidabad, despite advice from the ASHA and ANM, families prefer home births. During labour,19 out of 27 families followed a similar pattern of first calling in the local dai and the informal provider (quack), intending for a home-birth. These quacks give any number of injections, sometimes even four in two hours. The home-births are followed in seven cases by heavy bleeding, pain or convulsions leading to immediate death.

On the other hand, childbirth in the PHCs in Murshidabad was not managed actively, some women had prolonged wait in the hospital, often without attention. Even bleeding during labour was not addressed with urgency. The emergency management procedures in the receiving hospital seemed to be routinely taking in the women with no sense of urgency; without any link with the previous provider, and no preparation to receive the woman in a critical condition. Instead the families who have no orientation about the tertiary facility are expected to arrange for every thing. While the SDH usually provided active treatment, there are still cases where there was unnecessary delay in referring out a complicated case. In one case we see a severe trust deficit in the communication between family and provider with altercations and the family leaving and returning. In the DH, C-sections are provided, as well as blood transfusion but many obstetric complications are not effectively treated, and women do die of convulsions and bleeding even after being treated at the DH. In two cases the private sector was also unable to detect and effectively treat life-threatening complications during pregnancy.

Severe **bleeding** is the most common post-partum complication both for home and institutional childbirth, and yet it appears that there are no preparatory arrangements made before a bleeding woman arrives after referral. In some cases, the blood has to be arranged by the woman's family and that causes delays. One woman's family was so daunted by the large number of expensive tests that they went back home. Although the government ambulance should be provided during referral, it is not always given in the PHC. Women who are in a critical condition have been referred out without

transportation support, leaving the family to look for vehicles and potentially cause delay and high expenses.

The DH according to our Facility Observation is certainly equipped to provide EmOC and must develop capacity to manage a retained placenta or a foetal death with ante-partum bleeding, instead of referring out. It is not sustainable to refer women from a village so far away to Kolkata which is unaffordable for these poor families. Moreover, BPL families should receive waivers of all costs related to maternal health, instead of being made to pay Rs. 10,000 at their DH. The private practice by MOs posted in government hospitals also needs to be checked, as huge sums of money are being spent due to this.

A review of secondary data shows that the levels of **home delivery** are between 35 and 45 percent in these two districts. Over 90% of these deliveries are supported by 'informal providers'. The data from Murshidabad highlights the key role of the 'dai' and the 'informal' provider. Infact the word 'quack' which is considered derogatory, is often used in a non-judgmental and descriptive manner in rural West Bengal to indicate a person who occupies a formal position in the people's health system chain, between the dai and the formally trained MBBS doctor, either in the public or in the private sector.

Even formally trained private providers, who were part of care-seeking both for pregnancy complication management and complications during delivery, did not appear to have been integrated through the PPP arrangements that have been envisaged since NRHM was launched. So overall it would appear that the Health System on the one hand is planning its maternal safety initiatives ignoring community reality; and on the other not following up on its own recommendations of integrating private providers to strengthen the overall system.

Understanding vulnerabilities and addressing marginalization

The women who died in WB had characteristics of many kinds of vulnerability: poverty, socially marginalized communities, lower levels of education, home-based poorly-paid hazardous livelihood, poor contact with health systems and low access to health information. In addition to these disadvantages women from such communities are often at higher obstetric risk because of early and repeated childbirth, higher levels of anaemia, short stature, and low weight. Women begin childbearing immediately after early marriage and have a large number of frequently spaced pregnancies. Sometimes they conceive a few months after the previous childbirth, which proves fatal. Their location, occupation, and lack of access, poor health system capacities and similar determinants are often seen as discrete vulnerabilities however in most cases these are compounded disadvantages especially for marginalized communities who are poor, live in areas which lack health facilities and at the same time have bad or no roads which hamper access and face social isolation or stigmatization. Taken together this creates **a multiplying web of risks and vulnerabilities which cannot be disentangled** and addressed discretely through interventions addressing specific risks and vulnerabilities. Many, if not all the cases from Murshidabad, highlight the nature of compounding risks and vulnerabilities.

The current MCTS approach to ensuring maternal safety does not allow this kind of compounding vulnerability to be identified and addressed as a priority. Both Malda and Murshidabad are High Focus Districts[iii]; however no special provision could be identified.

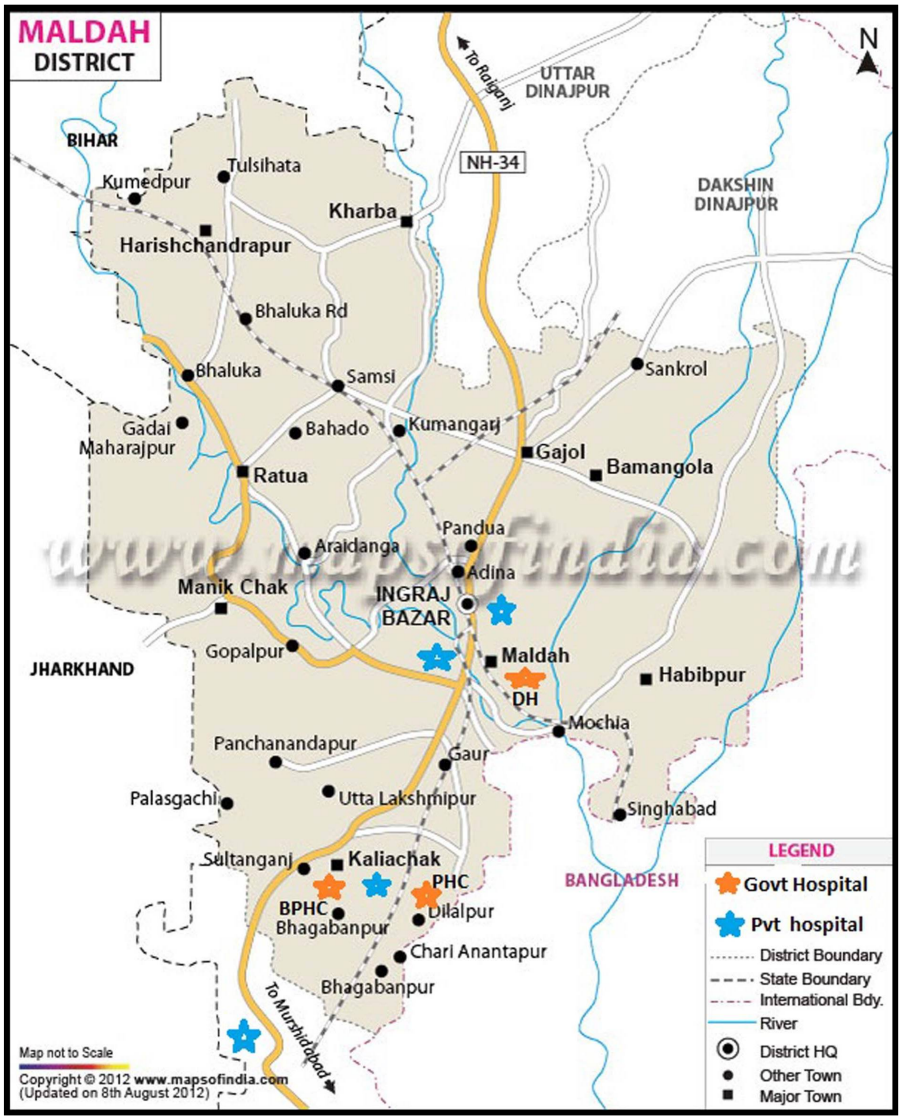
Endnotes

i. Source: National Family Health Survey IV (2015-16)
For West Bengal seehttp://rchiips.org/nfhs/pdf/NFHS4/WB_FactSheet.pdf
For Malda see: http://rchiips.org/nfhs/FCTS/WB/Maldah.pdf
For Murshidabadsee:http://rchiips.org/nfhs/FCTS/WB/Murshidabad.pdf

ii. DLHS 4 State Fact Sheet 2012-13, available at http://rchiips.org/pdf/dlhs4/report/WB.pdf

iii. The Government of India has adopted a High Focus District approach to enable priority actions to be undertaken in such districts. Some of these steps include inputs such as differential planning and financing, district level mentoring through dedicated multi-functional teams, deployment and training of additional human resources, incentives to staff, public private partnerships, Mobile medical units and if necessary maternity waiting homes.

MALDA


MALDAH
DISTRICT
N
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UTTAR DINAJPUR
BIHAR
NH-34
DAKSHIN DINAJPUR
Kumedpur
Tulsihata
Kharba
Harishchandrapur
Bhaluka Rd
Bhaluka
Samsi
Sankrol
Gadai Maharajpur
Bahado
Kumangarj
Gajol
Bamangola
Ratua
Pandua
Araidanga
Adina
Manik Chak
INGRAJ BAZAR
Gopalpur
JHARKHAND
Maldah
DH
Habibpur
Mochia
Panchanandapur
Gaur
Palasgachi
Utta Lakshmipur
Singhabad
Sultanganj
Kaliachak
PHC
BPHC
Bhagabanpur
Dilalpur
BANGLADESH
Chari Anantapur
Bhagabanpur
To Murshidabad
LEGEND
Govt Hospital
Pvt hospital
District Boundary
State Boundary
International Bdy.
River
District HQ
Other Town
Major Town
Map not to Scale
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(Updated on 8th August 2012)

CB-MDR Analysis of District Malda

Eight cases of deaths from Kaliachack-II block

Dated 9th October 2013 to 26th November 2014

FINDINGS FROM CB-MDR

i. Profile of the women

All the 8 women whose deaths have been documented belonged to marginalized sections of society, and except one all of them were certified as BPL. Four were Muslims and two were Scheduled caste Hindus and the caste of two could not be identified. The ages of the women ranged between 18-35 years. Only two of the women were literate, one being educated up to the primary, while one had attended high school. All of them rolled *beedis* (cheap hand-rolled cigarettes) a common home based profession in the region. (See Annexure 1, **Table 1 - Profile of the women**)

Of the 8 women, two were primi gravida. Of the six women who had been pregnant before, four women were in their fourth and higher pregnancy, one had five miscarriages. One woman had a pre-existing neurological problem and the doctor had specifically told her not to have any more children. Two of the women had a number of closely spaced pregnancies (See Annexure 1, **Table II - Obstetric history of women who died**)

ii. Did the Health System have the Ability to Manage Obstetric Emergencies

a. Where did the women die

The following is quick summary of where the women died during pregnancy, childbirth and post partum period (for details see Annexure 1 Table- V).

- Of the eight women whose deaths were documented in Kaliachak II block, 5 died at tertiary care hospital (DH or MC).
- Two women died after being moved out of the district hospital, one in a neighbouring Nursing Home and another at a Super Speciality hospital in Kolkata.
- One woman died on the way to the first hospital from home.
- Two women died after Caesarian section operation had been conducted in the same hospital.
- Four women died during pregnancy, two in their seventh month, one in the eight month and one in her ninth month of pregnancy.

b. Did the women reach the health system during labour or a complication?

Six of the eight women who died in Malda had developed serious complications during pregnancy for which five of them first sought treatment at their PHC but in two cases private doctors were also

consulted for complications (one BPHC doctor was also doing private practice and charging high fees). However, proper diagnosis and follow-up treatment was not done in any of the cases, not even by the **private doctors; and two women died during the seventh month** who should have been identified for special care and followed. Three women showed signs of pre-eclampsia which were not picked up, and one probably had TB another had jaundice.

Of the six others who carried their pregnancy to the 8th or 9th month, no one had a normal onset of labour, everyone had an intra-natal complication for which they went to hospital at once. Two women went after the onset of labour (waters broke, premature pains began for one, the other had bleeding) but another sought care because she felt foetal movements had stopped so she went immediately to hospital as she had a history of five miscarriages. The other three women sought care due to the complications faced in the ninth month, one for jaundice, another woman for her breathing difficulties and the third for severe headache with swelling in limbs. All the women in Kaliachak II block, except one were able to reach a public health facility. In most cases they reached a tertiary care facility (DH or MC) or were referred immediately to it from the PHC.

c. What was the role of the first point of care?

Five women went to the PHC as the first point of care and two went straight to the District Hospital. In one case the woman was being taken to the PHC but died on the way. In four cases women with documented Bad Obstetric History or problems in pregnancy went to the PHC for care and in three cases the PHC immediately referred the woman to a higher facility but in two did not provide any ambulance support. In two cases the family reported that thedoctor's **PV examinations** started off vaginal **bleeding**, and they had to be subsequently referred out. The women with serious complications first went to their BPHC. The doctors tried to treat them with **injections, IV drip and medicines** but soon **referred** them to the DH usually in an hour or less time.

d. Provision of Comprehensive Emergency Obstetric Care

Seven of the eight cases reached either Malda District Hospital (DH) or Behrampore Medical College, a tertiary care centre which is meant to handle all kinds of obstetric complications. There were delays, in more than one case: sometimes women waited upto two hours before treatment began, even though the women had been referred there from another public hospital. We note that some form of emergency obstetric care was provided to the women which included injections, IV drip, oxygen as well as C-section and blood transfusion. However blood was not freely available and in more than one case, the family was asked to arrange for blood. In another case the family was given the responsibility to get some tests conducted.

Some of these women died more than 24 hours after they had been admitted to the hospital. It is not clear why a case of **retained placenta** could not be managed for a delivery that took place in the hospital, or why there was so much **bleeding following the C-section conducted in the hospital,** or why one case of ante-partum bleeding had to be referred out to Kolkata after 2 days. In this case the family did not go there but chose to go to a local private nursing home, where she died before delivery. In another case the family requested discharge as they were not satisfied with the treatment and took the woman to Kolkata at enormous expense, where she died the next morning.

e. Referral and transport management

In three of the eight cases the PHC was reasonably close to where women lived and they walked and took a cycle van or rickshaw to reach the PHC. Private cars were used in two cases. In four cases women were referred out from the PHC almost immediately as the PHC is not equipped to manage emergencies. However, an ambulance was not provided in two cases and families were expected to manage their own transportation. In two cases traffic jams delayed transportation to the District Hospital. The ASHA was present in only one of the eight cases during the visit to the PHC. (See Annexure 1, Table III- Transportation and referrals).In addition, the families received no support to bring the bodies back home, and the private vehicles have charged exorbitant amounts upto Rs.1000/- to bring the body of the deceased woman back to the village from the hospital.

iii. How effective is the Routine Provisions within the NRHM to Identify and Manage Complications

Effectiveness of Routine - Emergency interface in cases where the women follow expected procedures

In Malda we note that none of the cases here appear to be one of routine delivery all of them began with ante-natal or intra-natal complications. The PHC was not equipped to manage obstetric emergencies and referred women out to the District Hospital quite promptly. However in two cases it appears to have precipitated the emergency where the family reported that bleeding followed PV examination by the doctors on duty. In one case the referral from the PHC was delayed by an hour because the authorizing doctor MOIC was not present. Overall from these cases the PHC appears to be **a redundant step in the emergency management chain,** and this is also apparent from the advice given by the ASHA in one case where she advises the woman that she should go to the DH if she has any problems. Also in three cases women went straight to the DH probably aware that the PHC was not the appropriate place for her problem.

Community compliance of the routine approach

In only one case was there a mention of an informal provider and there were no references to the *dai. no* woman presented a case of attempted home delivery. There was an explicit problem faced in each case and the family made an effort to reach out to the health system. In all cases the women had been advised by the ASHA and ANM to visit a hospital in case of emergency and the families did as advised. However the PHC was not equipped to manage the emergency concerned and in many cases going to the DH took time and in some cases treatment was also not initiated immediately. So it would appear that while the community did comply with the routine complication management procedure, the actual process of complication management failed them.

Role of ASHA in identifying and supporting women with complications

In Malda the role of the ASHA seems peripheral. They are mentioned in the context of Antenatal care but their role in complication management is missing. In Malda even though the PHC appears to be within walking or rickshaw distance from the women's house in four cases, the ASHA is not called to accompany the women to the facility.

Identifying and addressing risk through the routine ANC procedures

The Antenatal Care that was provided through the Subcentres and the PHC (in one case) was perfunctory with only IFA tablets and TT shots given to all women. Otherwise 4 got BP measurement, two had Hb estimation and only one got abdominal examination; these are not being done as a matter of routine. However six of the eight women who died in Malda had developed serious complications during pregnancy for which they consulted a variety of providers mostly in the private sector. A woman with five previous miscarriages was concerned enough to visit a private provider in Malda town every month. She had also visited the PHC where the doctor had advised USG. However in her case the PHC doctor did not measure her BP, nor was an abdominal examination or blood tests conducted. The routine ANC procedure was not linked to any form of risk identification or complication management process in any of the seven cases with risks and complications in pregnancy. (See See Annexure 1, **Table IV: Care-seeking for Complications in pregnancy**)

Addressing high risk through Mother and Child Tracking System (MCTS)

There was no evidence that the MCTS was in any way helpful in identifying the needs of the individual women. The entire system did not appear to be aware of the pre-existing complication of any of the women.

Public Private Interface

There was little reference to the informal health care sector in the cases. The private sector appeared to be the preferred providers for minor complications in pregnancy. However, for bigger complications the public system seemed to be more popular. Here too there was no indication of any form of integration or collaboration between the public and private system as two kinds of providers as has been envisaged in the NRHM.

Free services

Families in Malda had to constantly pay to avail services in the government hospitals. In one case the family spent Rs 10,000 for two days stay in the DH; in another the family spent Rs 1500 for treatment in the DH. Informal fees had to be paid for brief period of stopover before referral from the PHC. The private sector costs were higher and one family spent 7000 for two days in the DH plus some hours in a nursing home. The family that took one of the women to the SSKM Hospital in Kolkata spent Rs 30,000 in all.

Annexure 1: Tables of Malda

Table I - Profile of women, Malda						
#	Age of Women	Caste	Education	Occupation	BPL Card	Religion
MA1	25	SC	Not literate	Beedi worker	Yes	Hindu
MA2	25	SC	Not literate	Beedi worker	Yes	Hindu
MA3	35	Not known	Not literate	Beedi worker	Yes	Muslim
MA4	25	Not known	Not literate	Beedi worker	Yes	Muslim
MA5	29	Not known	Not literate	Beedi worker	Yes	Muslim
MA6	20	Not known	High school	Beedi worker	yes	Hindu
MA7	30	Not known	Not literate	Beedi worker	Yes	Hindu
MA8	18	Not known	Primary	Beedi worker	No	Muslim

Table II - Obstetric history of women					
#	Age	No. of pregnancies Including this one	Past Mis-carriage	Other symptoms	High
MA8	18	First			Y
MA6	20	First			Y
MA5	29	Two		Advised no more pregnancies last time	Y
MA4	25	Third		High BP	Y
MA1	25	Fourth			Y
MA7	30	Fifth			Y
MA2	25	Sixth	Five		Y
MA3	35	Eighth			Y

Table III- Transportation and referrals (DH- District Hospital, BPHC is Block PHC)			
Single facility or one referral			
#	**Facility 1**	**Facility 2**	**Facility 3**
MA5	Started for PHC by Private vehicle but died on the way in 7th month		
MA7	Private vehicle to DH; cost Rs 500		
MA3	In 7th month Cycle-van (Rs 50) to BPHC	No ambulance given; Private vehicle (Rs 700) to DH, died	
MA4	Ambulance to BPHC	No ambulance given; Private vehicle to DH	
Multiple referrals			
MA2	Private provider	walk and cycle van to BPHC	Ambulance to DH
MA1	walk and cycle van to PHC	Ambulance to DH	Private vehicle to Private nursing home
MA6	BPHC- but in private chamber	DH	Private vehicle to SSKM Medical College Kolkata
MA8	Private vehicle to BPHC, Murshidabad	Ambulance to SDH Jangipur (Murshidabad)	Behrampur Medical College (Murshidabad)

Table IV Care-seeking for pregnancy complications		
#	**Pregnancy Complication**	**Care sought**
MA3	Cough and breathing problems, diagnosis of TB and severe anaemia	BPHC and a private clinic in Malda
MA4	Swelling in limbs and high BP	Ob/Gyn private doctor in Malda
MA5	Severe vomiting and headache	Private doctor who referred to Ob/Gyn in Malda
	In 7th month, headache, blurring of vision, loss of consciousness	PHC (she died before reaching)
MA6	9th month fever, possible jaundice	Medical Officer of BPHC in *private chamber,* advised tests, treatment of Rs 3000
MA7	4th month fever & cold; left-side abdominal pain	PHC, then USG done at a private Nursing Home at Kaliachack
MA8	5th month onwards headaches; blood in cough; light bleeding; chest pain	BPHC (chest X-ray)

Table V Summary of place of complication, referral patterns and death in Malda			
#	**Home**	**Facility 1**	**Facility 2**
MA5	7th Month had headache, blurring of vision and semi- consciousness.	Started for PHC but died on the way.	
MA7	Full term. Rupture membrane and bleeding. Called private car to DH	Took 2 hours to reach DH. Treatment started after 2 hours. CS conducted. Bleeding after Cs. 3 units of blood donated. Died next day.	
MA3	Severe breathing problems in 7th month. Walk and van to PHC.	Some medicines administered and referred to DH within half hour. No ambulance provided	Took 2 hours to reach DH. Recommended tests from private. Not done, but treatment started. Breathing difficulty worsened. Died after 2 hours
MA4	Developed breathing difficulty in 9th month. ASHA called, taken to BPHC.	Doctor at BPHC referred to DH after some treatment. No ambulance provided.	Reached DH after 2 hours at 9pm. Treatment initiated in DH after 2 more hours. Blood transfusion advised, delay in arranging blood, Patient died next morning at 2.30pm
MA2	Not feeling well. Walk and van to PHC	Doctor at PHC did PV exam and bleeding started. Referred one hour later since MOIC was not present. Ambulance provided	Reached DH 4 hours later at 4 pm due to traffic jam. Admitted one hour later. Normal delivery at midnight. Bleeding continued, placenta not delivered. 2 bottles of blood transfused. Died next morning at 6 am.

Table V cont.....

#	Home	Facility 1	Facility 2	Facility 3
MA1	Complained of pain in 8th month. Walk and rickshaw to PHC	Admitted at 2pm. Doctor came at 3pm, did a PV and bleeding started. Referred to DH at 4 pm. Ambulance provided	Reached DH in 2 hours because of traffic jam. Treatment started 45 min. later. One bottle blood transfused. No improvement for 2 days. Advised more blood to be arranged by the family. Family not able. Referred to Kolkata.	Family took her to a private nursing home 12 noon. Died next morning without delivering
MA6	Natal home. Problem of fever and jaundice not improving after treatment from private doctor at BPHC.	Decided to go to DH Admitted at DH and advised tests. Delivered in 2 hours. Newborn had jaundice and sent to SNCU. Died next day. Mothers condition did not seem to improve. Family decided to discharge (on risk bond) and moved to Kolkata by private car.	Reached SSKM hospital Kolkata at midnight after 16 hour drive. Started vomiting blood next morning. Family asked to arrange blood. Died at 10 am.	
MA8	Complications in Pregnancy. Blurred vision and headache, called quack who advised hospitalisation	Went to BPHC in a pvt vehicle. Doctor immediately referred to SDH by govt. ambulance	Treated at the SDH for two hours. Referred to DH-MC	Reached DH MC at 4 pm after 1.5 hours. Treatment started. Cs done next day. morning. Neonatal death. Convulsions in the evening and died at 7pm

Annexure 2: Case Summaries, Malda

MA1

MA1 was a Hindu and a SC and belonged to the BPL category. She was married at the age of 16; both she and her husband were non literate. She worked as a Bidi worker, earning Rs. 3,000/- per month.

This was her fourth pregnancy at 25 and she had 3 sons. She did not use any contraceptives. Like most women of her village she went to PHC for her ANC checkups. She had 3 antenatal check-ups at PHC where she received 90 IFA tablets and 2 TT shots. No BP, weight or HB was taken and neither was an abdominal examination done.

She complained of labour pain when she was 8 months pregnant. The nearest ambulance pickup point is 5 Km and the distance to the nearest motorable road is 3 Km She went to PHC on foot around 3km and then by rickshaw. It took them 2 hours to travel the distance of 7 kms. The on-duty nurse admitted her immediately at 2 pm. The doctor came after an hour at 3pm; he conducted an internal examination after which bleeding started. Despite some 'first aid', there was no improvement in the abdominal pain and bleeding continued. The doctor referred her at around 4pm to the District Hospital within 2 hours as foetal movements could not be felt and bleeding was continuing. The government free ambulance took her to DH. It took 2 hours to reach because of a traffic jam. The family did not spend any money here

She was admitted at 6pm on 6th Oct, 2013 in the District Hospital. Treatment started within 45 minutes of reaching the DH. One bottle of blood was given to her. She stayed there for 2 days till 8th Oct but there was no improvement and doctors suggested the need for more blood. However blood was not available. The family was unable to purchase blood from outside. District Hospital referred MA1 to Kolkata, as her condition did not improve. But the family was not able to go to Kolkata as they lacked money and did not have enough people to manage the journey to Kolkata.

The family organized for a private vehicle and took her to a local private nursing home in Malda itself at 12 noon on 8th October. It took half an hour to reach and treatment was started within 45 minutes of reaching. In the nursing home medicines, injections and IV fluids were administered. Next day morning she died on the 9th of October at 6am without delivering. She was unconscious and bleeding at the time of her death. The family spent a total of Rs. 7000/- in the DH and nursing home

The family has a few papers and the MCP card. They mentioned that they were not fully satisfied with care provided.

MA2

MA2 was married at 16 years of age. They lived in district Malda. She was a Hindu and belonged to SC category. She was non literate and used to earn Rs 3000/- per month by rolling beedis. The family was BPL certified.

This was MA2's sixth pregnancy at 25. All her previous pregnancies had ended in miscarriages. MA2 did not use any contraception. During this recent pregnancy she went for check- up to a qualified (MBBS) private doctor every month in Malda town. She also got three antenatal checkups done at the Sub-Centre attached to the PHC. During the ante natal checkups she received 90 IFA tablets and 2 shots of tetanus toxoid. No BP, blood test or abdominal examination was conducted. However PHC doctor had suggested ultrasound during one of her antenatal visits. The health worked had informed the family that any bleeding must be reported immediately to a doctor.

During the 8thmonth, she complained that her baby was not moving. However when she went for check up, the private doctor in Malda assured her that the baby was fine.

As MA2 was not feeling well her family members (mother and husband) took her to PHC in the morning of 8th November 2013(2-3 days later from the onset of the problem). They walked 2km and travelled by a van for another 2km to reach the PHC which is 8 Km from her home.

She was admitted at 10 am. The PHC doctor did internal check up by "inserting his fingers inside her" (per vagina examination) after which bleeding started. PHC doctor referred her at 11am for District Hospital (It is mentioned that since the MOIC was not present the 2nd MO was unable to take the decision immediately and took one hour to refer). Free ambulance was provided for going to the District Hospital.

They reached the district hospital which is 30 Km from the PHC at 4pm, delayed considerably due to traffic congestion on the National Highway. She was admitted around 5pm. It took around 30-40 minutes to complete the process of admission. The doctor started intravenous fluids and gave her injections.

Normal delivery took place at 12 midnight but was a still birth. The placenta did not come out and bleeding continued. A doctor saw her & gave some medicine/injection. After three hours as her bleeding persisted, a doctor came and prescribed blood transfusion (5 bottles) and medicines. Blood transfusion was started and she received two bottles of blood. The blood transfusion did not cost any money.

By 6 am on 9 November, 2013 she died at the district hospital.There was no support from the hospital to take the body home.

The family was informed/asked about some of the treatment related decisions. The family received few papers including the MCP card and the death certificates but did not have the Hospital card. The family did not make any informal payments.

MA3

MA3 was engaged in home based beedi work. She was married at the age of 17. They lived in district Malda. The family had a BPL card and was very poor. MA3 conceived soon after marriage and had her first child at the age of 18, after which she gave birth six times, with short intervals of 2 years and later 4 years.

After the birth of her sixth child, she did not feel well and was unable to do household work. She had anaemia in her previous pregnancy. When she became pregnant again at 35 years, she was extremely

weak. She had 2 ANC check-ups in the sub-centre where the ANM checked her Hb, gave her 60 IFA tablets and 2 TT shots. However her BP was not measured nor was an abdominal examination conducted. During her check-ups, the ASHA and ANM told her that her Hb was low.

She stared coughing and developed breathing problems when she was 5 months pregnant. She was treated at several places - BPHC and private doctor's clinic at Malda. She was diagnosed with tuberculosis and severe anaemia. There is no paper to support the diagnosis of TB but the family members mentioned that she was a patient of TB.

When she was 7 months pregnant, she developed severe breathing problems on 25 October 2014. As ambulance was not available she was taken to BPHC which was 5 km away by van-rickshaw and it took them half an hour to reach. They paid the van-rickshaw Rs. 50/- They reached BPHC at 11am. The on-duty doctor attended to her immediately and gave her injection and referred her to the District Hospital within half an hour of her coming to the BPHC but it is not clear why ambulance was not offered.

The family took her to DH by private car which cost them Rs. 700/-. It took them 2 hours to reach the District hospital, which was 35 km away and by then it was 1.30 pm. At District Hospital, the doctor suggested X-ray and several blood tests. The BPL family could not afford the tests and no tests were done. Within half an hour, the doctor started intravenous fluids, oxygen and gave MA3 injections. Her breathing difficulties worsened. Two hours later, she died ultimately on 25 October 2014 at 3.45 pm. They hired a private vehicle for Rs. 1000/- to take the body home

The family had some papers with them and they also had the death certificate.

MA4

MA4 was married when she was 19 years old. They lived in district Malda. MA4 was a home based beedi worker. Their family was very poor and they were BPL certified. MA4 had given birth at home to two children earlier to two boys one 6 years old and another 4 years old.

This was MA4's third pregnancy at age 25. She had two ante natal check ups done at the sub centre. She received IFA tablets and two shots of TT. Her blood pressure was measured by the ANM during both the antenatal checkups. Abdominal examination and haemoglobin tests were not conducted during any of the two antenatal visits at the sub centre. She was informed by the ASHA and ANM about low haemoglobin level.

According to her family, she developed swelling (oedema of her legs) and high blood pressure during pregnancy. They had taken her to a qualified private practitioner (Gynae&Obs Specialist) at Malda, who had prescribed medicines.

During ninth month (Most probably on 3rd October, 2014 evening) of her pregnancy suddenly she developed severe breathing difficulty. Her elder brother in law immediately called the local ASHA who called the ambulance within 10 minutes. They reached BPHC which 5 Km from her home within half an hour. MA4 was admitted around 7pm at BPHC. BPHC doctor started IV fluids and gave some injection before referring her to District Hospital within 20 minutes, but an ambulance was not provided although she was seriously ill. The family had to spent Rs. 300 as informal payment at the BPHC. The referral slip was given.

They hired a private vehicle around 7.30pm and took MA4 to District hospital which is 35 Km from the BPHC. It took two hours to reach the facility. There was no delay is arranging for the transportation.

After reaching the District Hospital it took two hours to initiate the treatment. Family members reported she also started bleeding. Doctors also prescribed blood transfusion as she was severely anaemic. It is mentioned that there was a delay in arranging for blood and the family spent Rs. 1500 on this referral. Oxygen and IV fluids were started at 11.30pm. She died the next day on 4th Oct, 2014 at around 2:30 pm. The family took the body home in a private vehicle.

MA5

MA5 was married at 20 years of age. They lived in district Malda. She was a home based beedi worker. They were migrants with a BPL card.

MA5 had a neurological problem because of which she suffered from headache and sometimes loss of consciousness. Family members were unable to specify what the exact problem was. A year after her marriage she had one son, after that she was advised by the doctor not to have children again. However, she was not counselled about contraceptive choices and did not use any method and therefore became pregnant again after a gap of 8 years.

During her 2nd pregnancy, she was 29 years old. She had 2 ANC checkups in the sub-centre and was given IFA tablets and TT shots by the ANM. Her BP and Hb was not checked and neither was an abdominal examination done. She did not get any SNP. During her pregnancy, MA5 also had severe vomiting and headache for which she went to private doctor for check-up who referred her to gynaecologist in Malda.

When she was seven months pregnant, she had severe headache, blurring of vision and started losing her consciousness. Her husband was not present at home and returned after two hours. Despite their poverty, he did not call the ambulance, but arranged for a private car and they set out for PHC. On the way she was semi-conscious and sometimes muttered Ma-Ma. She had severe vomiting and died on the way in the vehicle at 11pm on 29 Aug 2014.

MA6

MA6 was married at18 years. She had studied up to Class XI and engaged in rolling beedis at home. Her husband was a daily labourer and they belonged to the BPL category and they were very poor.

This was her first pregnancy at age 20. During her pregnancy she had three check-ups at local sub centre. She had received 100 IFA tablets and 2 tetanus toxoid injections. Her BP was checked during the antenatal check-up by the ANM but no Hb testing was done nor was any abdominal examination done. She did not get any SNP during pregnancy.

She went to her mother's house when she was nine months pregnant. She developed fever and was treated by local BPHC MO in his private chamber. The BPHC was 2 km away from home and it took them half an hour to reach. She did not improve despite treatment. It was suspected that she had jaundice and she was advised various tests at Malda. They spent 3,000/- Rs in the BPHC

As she did not improve, her family members took her to DH which is 35km away (which is now a medical college hospital) on 22nd November. It took them 2 hours to reach. She was admitted and advised multiple tests. She was also given injections and after two hours delivered a male baby. As the newborn had jaundice on the first day of his life and was in a critical condition he was transferred to Special Newborn Care Unit and subsequently died on 23 November.

After delivery, MA6 felt extreme weakness. As her family felt that she was not receiving any treatment they requested discharge (family took discharge on risk bond) and they returned home on 24th night by a private car. The family had spent Rs.10, 000 in the DH/Medical College.

On 25th morning they took her to Kolkata by a private car and reached by12.00 midnight at SSKM Medical College Hospital, Kolkata. It took them 16-17 hours to reach as Kolkata is 350 Km away. She was critical and was admitted by 1 am. After admission, the on-duty doctor advised IV fluids and injections. When she started vomiting blood next morning, blood transfusion was also suggested. As her family tried to arrange blood she passed away at 10 am. She stayed a total of 10 hours in this facility and had spent 30,000 here.

MA7

MA7 was married when she was 16 years old. They lived in district Malda. MA7 was not literate and engaged in home based beedi work while her husband was a daily labourer and their family had a BPL card. She conceived soon after marriage and her first child was born when she was still 16 years old. Thereafter she had three more childbirths with a break of 3 years, 4 years and 2 years (her children are 15, 12, 8, and 6 years). Her earlier four deliveries occurred at home with the help of Dai and relatives. She did not suffer from any complication in the previous deliveries.

When the last child was 5 years old, she was pregnant again. This was MA7's fifth pregnancy at 30. She had undergone four ante natal check- ups at the subcenter during this pregnancy and had received 90 IFA tablets and two TT injections. Her BP was measured (120/80,120/80,120/90) and blood test done in the first two antenatal visits. Her haemoglobin was 10gm at that time. She did received SNP but not in the desired quantity. She was advised to go straight to the DH in case of any emergency.

During her fourth month of pregnancy she was suffering from cold and fever and was treated at the BPHC. As she developed abdominal pain on left side, the doctor advised her USG to know the foetal position. Family members went to a private Nursing Home in Kaliachak for USG in which everything showed up as normal, and her abdominal pain also subsided.

On 7th August, 2014 when her pregnancy was full term, at 8 am in the morning suddenly her membranes ruptured and heavy bleeding started. Family members quickly called a private car to avoid delay and took her to District Hospital. It took two hours and Rs. 500 to reach the DH which was 40 km from MA7's home. Her mother and sister-in-law accompanied her.

She was admitted immediately at 10 am. It took two hours after reaching the District Hospital to initiate the treatment. A C-section was performed after taking consent from the family, and she delivered a girl child. She was also administered IV fluids, oxygen and injections.

However her bleeding did not stop and blood transfusion was advised by the DH doctors. As blood was unavailable at the hospital Blood Bank, the family members donated blood voluntarily to provide

3 units of blood. Blood transfusion was started but her condition did not improve much. She died at 9:56 am the next day i.e. 8th August, 2014. Time spent in the facility is one day. The family got the death certificate and used the private car to take the body home.

MA8

MA8 had studied up to class IV and was engaged in home based beedi rolling like most women in the village. She was 17 years when she got married. They lived in district Malda. The family did not have a BPL card but they were very poor.

This was her first pregnancy at 18 years. She underwent three antenatal check-ups at a sub centre (SC) on 13.2.2014, 10.4.2014 and on 16.7.2014. The ANM had conducted the ANC checkups. She had received 100 Iron tablets during the first two visits and also received two injections of tetanus toxoid. Her weight and BP was also checked in the first two check-ups (MCP card was shown by family members but no BP recording was done in MCP card). She was low weight weighing less than 40 kgs. She had an abdominal exam in all three of her check-ups but Hb testing was never done. She did not receive any SNP during her pregnancy.

Her pregnancy was fraught with complications. During her pregnancy she experienced extreme weakness. During her 4-5th month of pregnancy she suffered from headache occasionally. During the 6th month of pregnancy suddenly she complained of light vaginal bleeding. During her 7th month of pregnancy she had blood in her sputum. She was taken to BPHC for check-up as her family feared she had developed TB. As per the chest X-ray the doctor ruled out TB. During 8th month she had chest pain which subsided after taking medicines. During 9th month of pregnancy suddenly she complained of blurred vision, severe headache and there was also swelling. The family members called the quack who advised the family to take her to hospital.

Family members called a private vehicle and took her to BPHC. They reached within 15 minutes. The BPHC doctor examined her and advised to take her to SDH by government ambulance. No records were maintained by the BPHC. She stayed for only an hour in the BPHC and had to make informal payments of Rs. 200/-.

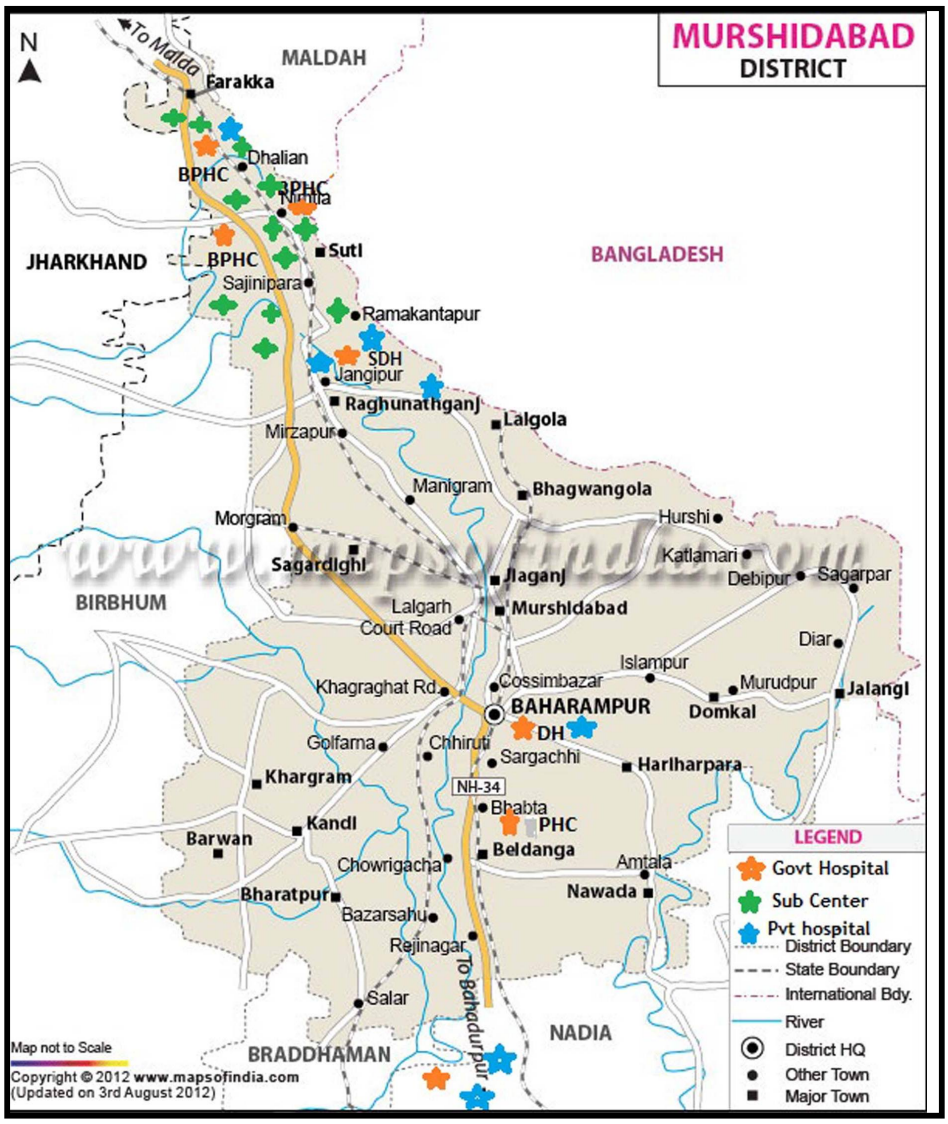
The SDH was 40 kms away from the BPHC and it took 45 minutes for them to reach by a government ambulance. She was admitted at SDH at 12 noon after half an hour the treatment had started and the doctor had given some medicines and injections. As her condition did not improve in two hours, SDH doctor referred her to District Hospital, with some papers at 2 PM.

The 60 kms journey took 1.5 hours and by 4pm she was admitted at the District Hospital now upgraded to Medical College Hospital and within an hour given medicines and injections. Next day in the morning (15th August), she underwent a C-section after obtaining family consent. The neonate died by evening.

MA8 continued to have breathing problem and received oxygen therapy and intravenous fluids. She started having convulsions in the evening and died at 7.10 PM more than 24 hours after reaching the tertiary facility. No vehicle was provided to transport the body home.

The family did have some papers and the death certificate in their possessions.

MURSHIDABAD, WEST BENGAL



CB-MDR ANALYSIS OF DISTRICT MURSHIDABAD

27 cases of deaths from two blocks, Suti (25) and Shamsherganj (2)

Dated 23 April 2013 to 3 February 2015

FINDINGS FROM THE COMMUNITY BASED REVIEWS

i. Profile of the women

The women who died all belonged to marginalized sections of society with 26 out of the 27 being Muslim and only one woman was Hindu. While 17 of them were certified as BPL, most were very poor and all of them except two were **beedi[1] -workers.** Their ages ranged between 19 to 40 years, with a majority being in their twenties, and four being 35 or more years of age. 16 women were non-literate; six had primary education, one had completed high school, one had even studied till her final year of graduation - but even then, they were all working as beedimakers. (See Annexure 1, **Table 1 - Profile of the women)**

For four women this was their first pregnancy and for 17 it was their fourth or higher order of pregnancy. Eight of these women had their first childbirth before they were 18 years of age with four women bearing children by the time they were fifteen years of age (See Annexure 1, **Table II - Obstetric history of women who died)**

ii. Did the Health System have the Ability to Manage Obstetric Emergencies

Did the women reach the health system?

Four women were primi gravida, but of the remaining 23 ever-pregnant women, **only seven had ever been to a hospital for childbirth** in the past. Some had gone for their first birth, some for their most recent one; but none of them had been more than once (except one woman who had gone twice for hospital childbirth, in addition to two home births). Given this noticeable predisposition for home deliveries in the block, there is a certain emerging pattern we observe: we only hear of one family calling the ASHA and taking her help to get to the hospital in an ambulance, while another 7 families appear to have used the ambulance or private vehicle to reach the health facility during labour. But the remaining **19 families** followed a similar pattern of first calling in the local dai and the informal provider (quack) with the **intention of having a home delivery.** (See Annexure 1, **Table III - Seeking care during labour and place of childbirth)**

Of these 19 who planned on home birth, 6 women were **referred out** by an informal provider quite soon to a health facility and finally four of them did deliver in a facility, but two died in transit without delivering. In the case of one woman we hear that she was very hesitant to go into hospitals believing they would kill her, and another woman's husband wanted to call an ambulance but she refused. Of the 14 women who did try to reach a hospital during labour, **two women died in labour** before reaching a facility. But one woman went to three health facilities before finally **caming back home** and

1. Beediis a cheap hand-rolled cigarette popular among the poor in India

gaving birth with the help of a TBA (dai). Finally, **11 women actually had institutional** delivery in a health facility while **14 women gave birth at home.**

What was the role of the first point of care?

Of the 19 women who planned to deliver at home, 10 women were assisted during labour by both the local TBA/Dai and local informal provider (quack). Of the 14 cases where the quack was called to assist during childbirth, 8 families mention that he used injections, IV drip and medicines; in one case it is mentioned 4 injections were given in less than 2 hours. The care provided by the Dai has not been described except in one case an abdominal oil massage is mentioned. When labour appeared to be complicated, the quack referred five women out to the hospital and the TBA referred one woman out. However in two cases while the quack delayed referral giving injections and medicines, and when he did refer that referral may have win too late, since the women died very soon afterwards. Following the home-births assisted by these providers, in five cases there was stillbirth and in one case newborn death. In terms of post-partum complications, retained placenta is mentioned in two cases, pain in two cases, very heavy bleeding in 8 out of 13 cases, and burning sensation in one case. Breathlessness is mentioned in three cases, convulsions in two cases and one woman becomes unconscious after birth. But in many cases there was simply no time. (See Annexure 1, **Table IV a: Home-based care - Complications and time of death)**

The Block PHC and the Sub Divisional hospital were both used by the community as the first point of care. For seven women who went to the BPHC, three actually had normal delivery at the PHC, and all had very **heavy bleeding after the birth,** including one for whom the nurse had used forceps and possibly wounded her seriously. The five women who went to the SDH during labour were all treated by a doctor and treatment included IV fluids, injections, medicines, oxygen and blood transfusion. But some faced neglect and sometimes unnecessary **delay,** even when the SDH was not able to provide the specialized care needed to save the woman's life. In one case the woman was about to have a ruptured uterus but the SDH retained her for 11 hours in extreme pain before referring her. In another case there was a harsh altercation with the doctor at the SDH who was annoyed because they had sought another opinion in a private clinic, and according to the family refused to treat her and also asked other staff not to attend the case; it was only through the intervention of local MLA that services were made available. But the dissatisfied family took the woman back after delivery and she died the next day.

Identification of the complication and provision of EmOC

Four women died at home very soon after childbirth but the remaining 25 sought care for complications (see Annexure 1, **Table IV b: Intra-partum and post-partum complications according to place of delivery).** Of these, two died during labour, one died before the ambulance reached her and three died in transit to a facility. The remaining 19 reached a facility. Public hospitals are preferred for any obstetric complication but the quack in one case referred to a private nursing home, possibly earning a commission in the process; with complete lack of ethics, the private hospital referred them out at midnight when it seemed the woman would not recover and that caused a fatal delay.

The BPHC was not equipped to handle intra-natal complications such as prolonged labour, to the extent of not even being able to judge when women should be referred to the SDH. For four obviously high-risk women, we hear of a **prolonged wait** at the PHC. One woman who was fourth gravid was kept under observation for four days with prolonged labour, resulting a still-birth the

fourth day. Another primi gravida woman was kept 18 hours in labour from morning till midnight, and then sent to the SDH. Two women had **bleeding during labour** and yet spent several hours in the BPHC even though treatment was ineffective and blood transfusion was not possible. However, in the fastest referral one woman was sent out after 20 minutes from the BPHC, as she had blurring of vision, swelling and abdominal pain. (See Annexure 1, Table VI).

Six women were referred to the DH for complications during labour, of whom one died in transit. Of them one didn't actually deliver at the DH because the family was taken aback by the large number of expensive tests prescribed at the DH, and returned home after which she had a home delivery. Of the remaining four women who arrived during labour with serious complications at the District Hospital and Medical College, we find that **Caesarean section surgery** is promptly done towards saving the woman's life. However the expected requirement for **blood transfusion** is met in only one case; in another, the family is sent out late at night to locate blood.

A noticeable proportion of women had post-partum bleeding both after home delivery (8/14) and institutional delivery (5/11). There are also cases where **despite institutional delivery, the bleeding woman dies for lack of timely treatment including blood transfusion.** In none of these health facilities could the health providers adequately deal with the bleeding or its causes, despite women reaching hospitals. At the SDH or DH, there were **no preparatory arrangements** for blood transfusion made before the refered woman arrived. Families coming from far-away villages, poor and often not literate, were sent to locate, obtain and pay for blood. The lack of blood stocks is also a reason for delays.

About six women developed **breathing** difficulties after childbirth, whether at home or in the institution, and one woman also had **convulsions:** all of them sought care in hospitals. However none of them could be saved either at the SDH or DH, although both hospitals are meant to be able to handle this. In another case of convulsions after home-birth, her husband called the ambulance number (given by ASHA), but his wife died before it reached.

Referral management and costs paid for treatment & travel

The use of the ambulance is uneven: only 8 appear to have accessed an ambulance to reach a public health facility. One woman went directly to a private nursing home, while for 10 others had to arrange a private vehicle to reach a public facility (for 4 women it is not clear).

But it is a matter of concern that of the 16 women who needed referral transport to go from one public hospital to another, of whom only 7 received the ambulance service. It is a form of **unsupported referral** when the family is expected to raise the resources to take the woman despite having reached a public health institution during a complication. If the family is very poor and needs more time to raise the money required for private transportation, these caused delays or reluctance, which led to loss of the woman's life in three cases. Sometimes large sums were spent like Rs 1200 or Rs 3300; even the government ambulance charged Rs 300. (See Annexure 1, Table **V- Transportation and referrals).** In many cases referral from one hospital to another took place in the night. In no case did a paramedic accompany the patient from one facility to another. The ASHA was conspicuous by her absence in all these cases. In quite a few cases the women died during referral.

Only one family got a vehicle to bring the body home, which charged Rs 2200/- otherwise the private vehicles have charged **high amounts to bring the body of the deceased woman back** to the

village from the hospital. These sums for a BPL family engaged in poorly paid work can be a substantial amount.

The highest cost of treatment was for a women who was taken by a quack to a private nursing home. The family spent Rs 20,000 in three hours with no improvement, and the women was sent out at midnight. But even for women who attended public hospitals, their families had to spend on medicines, blood and informal fees: for example, one woman paid Rs 1000 as informal fees to the Ayah and sweeper at a BPHC and Rs 800 to the aayah at the DH. Medicine cost one family Rs 1000 at the SDH; one bottle of blood cost Rs 3000 at the DH. One family spent Rs 12000 despite using public facilities.

iii. How effective is the routine provisions within NRHM to identify and manage complication?

Effectiveness of Routine - There are three women in this set of twenty seven women who to a great extent fulfilled the condition of full antenatal care, visit to a hospital at the onset of labour, but once they were in the hospital the set of services and procedures were not able to ensure safe delivery. In one case the woman is returned from one PHC when she goes there feeling that labour has started. When four days later she has pains once again, she does not go to the same PHC but another PHC. Here she has a forceps delivery followed by bleeding and a series of referrals followed by her death five hours later. In another case, where the woman had moved from her marital to her natal home, she was taken to the BPHC immediately on feeling the pains early in the morning. She was referred out from the BPHC to the SDH late at night and from the SDH to the DH early in the morning. She however delivered in the ambulance and was readmitted to the SDH and here she died four hours later. In a third case the woman is taken to the BPHC immediately on facing problems, but then she is moved to the SDH and then the DH, where some treatment is provided, but at the same time she is advised for some tests to be done in the private. She returns home to get the tests done in private, has another set of complications and dies before the arrival of the ambulance. In all these three cases the health system is unable to identify and appropriately manage a complication even though the women in each case follow the 'good behaviours' expected from them.

Community compliance of the routine approach - In a large majority of cases the families attempted or had home deliveries by a dai and a quack. The presence of both the dai and the quack along with stories of the quack initiating some form of treatment through injections indicates that the continuation of a strong home delivery 'tradition' along with a first level complication management system through the informal provider. However in almost all the cases, the women had been met by the ASHA, had at least one ANC. The family members acknowledged that the ASHA had told them about institutional delivery and had given them the phone number of the ambulance. However the ASHA was not called in even one case indicating that the mere routine provision of information was not sufficient to change behaviours among these families.

Role of ASHA in identifying and supporting women with complications- In Murshidabad the role of the ASHA seems peripheral. They are mentioned in the context of Antenatal care but their role in complication management is missing; there were a number of cases of the government ambulance being called to transport the woman from home, but except in one case there is no mention of the ASHA.

Identifying and addressing risk through the routine ANC procedures- ANC care provided at the Sub-Centre level appears to be limited to providing TT injections, giving IFA tablets and in some cases

BP measurement. Hb testing and measuring weight were rarer. All the 27 women had at least one contact with the ante-natal care provider and received varying degrees of care. Most women had three ANC interactions (14), some had only two ANC interactions (9) and a few had only one ANC (3). One woman had four ANCs. Tetanus toxoid injections and iron folic acid tablets were the most common form of ANC provided. Of the 27,18 had their BP measured; 12 had their weight recorded; and 11 had Hb estimation while one woman received an abdominal examination. The ANM SubCentre was the commonest location for the ANC. 4 women were referred to the BPHC by the ANM for further examination but they did not go. However a number of the women visited informal and private providers for various complications during pregnancy. All the families mentioned that the ASHA had visited them and advised them about institutional delivery and informed them about danger signs and the availability of emergency ambulance facilities. In nine cases the woman had received supplementary nutrition from the Anganwadi.

Women who had bad obstetric history or were grand multi para were not specifically counseled or followed up in terms emergency management procedures. Although some women with moderate to severe anaemia were identified , specific advice and relevant treatment was limited to asking some of these women to 'go and see the doctor at the PHC'. They were not supported to do these referred visits and neither were they followed up. Some women with other high-risk signs like very low weight, high BP and swelling of the limbs or headache were also not identified. However women who had complications during pregnancy sought care from informal providers, homoeopaths as well as formally trained providers in the private sector.

Addressing high risk through Mother and Child Tracking System (MCTS) - There was no evidence that the MCTS was in any way helpful in identifying the needs of the individual women. The entire system did not appear to be aware of any of the women who had existing complications. The situation was uniform in both locations.

Public Private Interface- *Recognising that there is a widespread presence of the private sector, the Government has provisions to include private providers within the ambit of its programme.*

The cases of women from Murshidabad show a widespread prevalence of home delivery and the utilization of the services of the dai and the informal provider. In many cases these providers have referred the women to the hospital. However the dai and the informal provider are not 'recognised' by the health system and often seen as a problem rather than having a valid place in the health system. While the use of the private sector was seen to be common for managing prenatal complications the public sector was approached for complications of labour, except in one case. However there was no indication that there is any form of integration or collaboration between the public and private system as two kinds of providers as has been envisaged in the NRHM.

Free services - Despite the JSSK many of the families had to pay money for different reasons. In some cases they had to pay informal fees to the attendants, others to buy blood and in another they had to buy medicines. Families had to pay a much higher rate to private vehicles for taking the dead woman home. The highest cost of treatment was for the woman who went to a private nursing home and spent Rs 20,000 in three hours with no improvement, and was sent out at midnight.

Annexure 1: Tables of Murshidabad

Table I - Profile of women - Murshidabad					
#	Age	Education	Occupation	BPL Card	Religion
MU3	21	Graduate	Beedi worker	No	Muslim
MU4	26	Not literate	Beedi worker	-	Muslim
MU5	30	Not literate	Beedi worker	Yes	Muslim
MU6	19	Class 4	Beedi worker	Yes	Muslim
MU7	26	Not literate	Beedi worker	Yes	Muslim
MU8	30	Not literate	Beedi worker	No	Muslim
MU9	21	Not literate	Beedi worker	Yes	Muslim
MU10	37	Not literate	Beedi worker	No	Muslim
MU11	40	Not literate	Beedi worker	No	Muslim
MU12	21	Not literate	Beedi worker	Yes	Muslim
MU13	19	Class 10	Beedi worker	no	Muslim
MU14	33	Not literate	Beedi worker	no	Muslim
MU15	22	Not literate	Beedi worker	Yes	Muslim
MU16	24	Primary level	Beedi worker	yes	Muslim
MU17	25	Class 5	Beedi worker	yes	Muslim
MU18	28	-	Beedi worker	-	Muslim
MU19	33	Not literate	Beedi worker	Yes	Muslim
MU20	32	-	Beedi worker	Yes	Muslim
MU21	35	Class 7	Beedi worker	no	Muslim
MU22	35	Not literate	Beedi worker	Yes	Muslim
MU23	30	Not literate	Beedi worker	yes	Hindu
MU24	26	-	Beedi worker	Yes	Muslim
MU25	27	Not literate	Beedi worker	yes	Muslim
MU26	28	Class 5	Beedi worker	Yes	Muslim
MU27	21	Not literate	Beedi worker	Yes	Muslim
MU1	30	Not literate	Beedi worker	Yes	Muslim
MU2	26	Class 5	Home maker	-	Muslim

Table II- Obstetric history of women who died- Murshidabad			
Total number of pregnancies including this one	**Number of women**	**Age-range of these women**	**Other remarks**
1 (primi)	4	19 -21	- 4th gravida MU5 had a miscarriage in last pregnancy (3rd) - 5th gravida MU1 had been prescribed three units of blood transfusion in her last childbirth, but received only one - 5th gravida MU2 herself had 37 first child died soon after birth, 40 after 6 months and third after 5 - all died due to Jaundice
2	2	19 -21	
3	4	22 - 26	
4	5	24 - 30	
5	5	26 - 35	
6	4	28 - 33	
jaundice;	8	1	
second	9	1	
months 10	1	35	

Table III - Seeking care during labour and place of childbirth- Murshidabad		
Health provider	**First point of seeking care (27 women)**	**Actual delivery (only 25* women)**
PHC	4 women (MU1, MU2, MU3, MU27)	3 women (MU3, MU12, MU23)
SDH	4 women (MU13, MU15, MU17, MU24)	4 women (MU15, MU16, MU17, MU27)
Dist Hospital		4 women (MU2, MU13, MU22, MU24)
Dai and inf. Provider at Home	19 women [but TBA/informal provider referred out five: MU12, MU16, MU21, MU22 and MU23; family decided to take MU11 to the health facility]	14 women [MU- 4, 5, 6, 7, 8, 9, 10, 14, 18, 19, 20, 25, 26 and MU1 who returned from health facility] *MU11 and MU21 died in labour trying to reach a facility

Table IV a: Home-based care - Complications and time of death- Murshidabad					
#	**Time of onset of labour**	**Time of home birth**	**Complication just after home-birth**	**Time of death**	**Time since childbirth**
MU4	7pm	7am	Crying & unconscious after still-birth	9 am	2 hours
MU6	-	3pm	Retained placenta, heavy bleeding, pain, hired private vehicle - died in transit		> 2 hours
MU20	2am	4am			3 hours
MU8	5pm	Next morning	Heavy bleeding after stillbirth	7am	2 hours
MU14	10am	1.30pm	Heavy bleeding, extreme weakness, unable to get into ambulance	2.30 pm	One hour
MU18	2pm	4pm	Heavy bleeding; increased bleeding at night despite injections & IV	2am	10 hours
MU10	2am	8am	Crying, pain, 'burning sensation' after stillbirth	9am	One hour
MU7	-	-	Convulsions after stillbirth; Died before ambulance arrived		Very short time

Table IV b: Intra-partum and post-partum complications according to place of delivery- Murshidabad			
	Intra-partum complications	**Complications after home delivery (14)**	**Complications after Inst. delivery (11)**
Prolonged labour	MU4, MU22, MU23, MU27, MU1, MU2 (48 hours), MU12 (4 days)		MU27 died 5 hours after childbirth
Breathing difficulties		MU5, MU9, MU25	MU15, MU17, MU22
Unconscious	MU16, MU24	MU4	
Headache/blurred vision	MU1, MU15		MU15, MU16, MU12
Swelling in limbs	MU24		
Convulsions		MU5, MU7	MU24
Heavy bleeding	MU2, MU19, MU22	MU6 & MU20 (retained placenta), MU8, MU14, MU18, MU19, MU26, MU1	MU3, MU12, MU17, MU23, MU2
Severe Pain	MU1, MU2, MU13, MU16	MU6, MU10	MU16, MU17
Ruptured uterus	MU13		
Foul-smelling discharge	MU1		
Vomiting	MU16 (vomiting blood)		
Diarrhoea	MU21		

Table V- Transportation and referrals- Murshidabad		
Single facility or one referral		
#	**Facility 1**	**Facility 2**
MU14	Ambulance was called but died at home	
MU11	Started for BPHC by ambulance, but died before reaching	
MU6	Started for SDH but died before reaching	(Pvt. vehicle)
MU18		(Govt. Ambulance)
MU20		(Pvt. vehicle)
MU21		(Pvt. vehicle)
MU5	Pvt. vehicle to SDH	
MU16	Pvt. vehicle to SDH	Referred to DH but died at home due to lack of money
MU9	DH	NRS Med. Coll. Kolkata - did not go due to lack of money
MU12	Ambulance to BPHC	Ambulance to DH
MU13	Pvt. vehicle to SDH	DH
MU17	Ambulance to SDH	Ambulance to DH
MU19	Pvt vehicle to Pvt. Nursing Home	Pvt vehicle to DH
MU24	Pvt vehicle to SDH	Pvt vehicle to DH
MU25	BPHC	SDH

Multiple referrals				
#	**Facility 1**	**Facility 2**	**Facility 3**	**Facility 4**
MU3	BPHC	Ambulance to SDH	DH- died before reaching	
MU23	BPHC	Ambulance to SDH	Ambulance to DH- died before reaching	
MU22	Ambulance to BPHC	Ambulance to SDH	Ambulance to DH	
MU26	Pvt vehicle to BPHC	Pvt vehicle to SDH	Pvt vehicle to DH	
MU27	Pvt vehicle to BPHC	Ambulance to SDH	Referred to DH but delivered in the ambulance; back to SDH	
MU1	Ambulance to BPHC	Ambulance to SDH	Ambulance to DH (went home)	(death at home before ambulance)
MU2	Pvt vehicle toBPHC	Pvt vehicle to SDH	Ambulance to DH (went home)	DH (came back, death)
MU15	Ambulance to SDH	Private (for USG)	SDH (delivery - went home)	Died before reaching PHC

Table VI Summary of place of complication, referral patterns and death in Murshidabad		
#	Facility 1	Facility 2
MU4	Delivered by Quack - Died at home after delivery	
MU7	Delivered by Quack. Died before ambulance came	
MU8	Delivered by dai and quack. Died during treatment by quack	
MU10	Delivered by Quack - died at home after delivery	
MU14	Delivered by dai and quack. Died during treatment by quack, but ambulance had been called	
MU9	Had problems in ANC for which she sought treatment - pvt and CMC. Had problems immediately after delivery (by quack) for which she was taken to DH. Post partum death after 30 days at home being treated by a quack. Probably a heart condition	
MU11	Quack came and gave injection. Complication idenfied by family and ambulance called.	Started for BPHC by ambulance, but died before reaching
MU6	Delivered by dai. Placenta retained. Ambulance called but delayed	Started for SDH by pvt vehicle but died before reaching
MU18	Delivery by dai and quack. PP Bleeding quack called in again - starts treatment and then asks her to be taken to hospital (Govt.)	
MU20	Delivery by dai and quack. PP bleeding quack advises hospital (pvt)	
MU21	Labour - dai and quack called - Quack injects and advises transfer to hospital (pvt)	
MU5	Home delivery - PP breathlessness and convulsions - taken to SDH.	Pvt. vehicle to SDH. Treated for PPH 1 Unit of blood no blood stock

Table VI cont.....

#	Facility 1	Facility 2	Facility 3
MU12	Pain - Dai-refers to BPHC.	Ambulance to BPHC Delivery in BPHC after 4 days. PP Bleeding, Referred to DH after 1 day	Ambulance to DH. Treated for 2 days - asked family to organize blood. Died without transfusion
MU13	Pain in 6th month - taken to hospital	Pvt. vehicle to SDH. Some surgical treatment provided. But referred to DH	Pvt vehicle to DH- Dead baby delivered? Ruptured uterus? Ruptured ectopic? Blood transfusion and laparotomy?
MU17	Pain in 7th month? Went to SDH	Govt. Ambulance to SDH; treating Doc advised arranging for blood. I unit given before baby was born. Baby died after 1hour. Continued to bleed. Refd to DH after 6 hrs	Ambulance to DH- no paramedic accompanied. Died within 30 mins of reaching.
MU19	Delivered premature 7th month by quack. PP bleeding -called quack. Bleeding continued - family moves her out	Pvt vehicle to Pvt. Nursing Home. Administered Blood 2 units. Referred to DH or Kolkata at midnight	Pvt vehicle to DH- 4am. No treatment provided at night- died in the morning 8 am,
MU24	Immediately moved to SDH on getting Pain and Swelling Goes to DH on second day	Pvt vehicle to SDH - referred to DH - returns	Pvt vehicle to DH.Admitted - treated - delivered normally in DH; and later died in DH 11 hours after admission
MU25	Delivered at home by a dai. 2 days later develops breathlessness	Went BPHC. Treated with drip and oxygen for 2 hours - referred to SDH	SDH treated for 5 hours and then she died

Table VI cont....

#	Facility 1	Facility 2	Facility 3	Facility 4
MU3	Primi with full ANC. Goes to BPHC when pain arrives - sent back. Goes to another BPHC when pain returns	BPHC1 - returned ? false pains, BPHC 2 - Forceps, delivery bleed.- 2 hours	Sent by Govt Ambulance to SDH Treatment started promptly. But matching blood not available, refd to DH 2 hours away	DH- died before reaching
MU23	Labour started at home. Dai and quack. Quack advised hospital - but waited whole day before going to BPHC which was 5 km away	Still birth at BPHC within an hour. Bleeding after delivery. Refd to SDH for treatment in Govt. ambulance	Ambulance to SDH. Treated for two days (without transfusion) Refd to DH after 2 days	Ambulance to DH- died before reaching
MU22	Labour started at home. Dai and quack. Quack refd institution. Govt ambulance called	Ambulance to BPHC. Started bleeding after 3 hours. Advised transfer to SDH after 5 hours.	Ambulance to SDH. Treated for 1 hours and then referred to DH at 10 pm.	Ambulance to DH Emergency Cs done. Blood purchased and transfused. Died after 6 hours
MU26	Grand Multi para. Labour started at home with dai. and quack. Delivered. Started bleeding - called quack. Stayed at home for one day. Became unconscious. Decision to take her to hospital	Pvt vehicle to BPHC. Treated for 2 hours- referred to SDH	Pvt vehicle to SDH 9.30pm. No blood available. Refd to DH at10pm	Pvt vehicle to DH. Reached 11pm. Family arranged 2 units of blood, asked to arrange 2 more bottles next day. Also advised USG from outside. She died before the additional blood was arranged.
MU27	Full ANC. Moved to mother's house for delivery. Went to hospital immediately after she felt pain	Went to BPHC 2 km away by Rickshaw at 6.30 am. Labour prolonged. Refd to SDH at midnight	Ambulance to SDH. Refd to DH early morning, Delivered in Ambulance and readmitted. Died after 4 hours	
MU15	Immediately on feeling pain they called the Govt ambulance, - see story. Returned home LAMA. Faced breathing difficulty. Moved for BPHC in pvt vehicle. Died on the way	Ambulance to SDH. Some altercation with doctor. Decided to go to Pvt Doctor	Private doctor advised admission for C section. Decided to go back to SDH -lack of money	Back to SDH. Doctor abusive and refuses to admit. Family sought intervention of the local MLA. Normal delivery at night. Unhappy with treatment they returned home after signing a bond

Table VI cont....

#	Facility 1	Facility 2	Facility 3	Facility 4	
MU1	Full ANC. Family called the ASHA and ambulance when she had pain and blurring of vision in the ninth month. Went into labour. Delivered by Dai. Still birth? Started bleeding. Ambulance called but died before ambulance arrived.	Ambulance to BPHC. After a few tests (Hb and HepB?) she was referred to SDH	Ambulance to SDH . Treated with IV, and then refd to DH/MCH after 4 hours	Ambulance to DH. Transfused one bottle of blood. Advised a host of tests. Family decided to go home to do tests.	Returned home and went to pvt hospital next day for USG.
MU2	Pain and bleeding in 9th month. Went to BPHC Started bleeding same day in the night- taken to DH	Pvt vehicle to BPHC. Bleeding not controlled sent to SDH after 21 hours	Pvt vehicle to SDH. Treated in SDH for 27 hours. Refd to DH/MCH	Ambulance to DH. Transfused blood Delivered thru' CS. Underweight baby -died. Discharged in three days.	BOH with ANC. Went to system. Discharged, complication recurred, died

Annexure 2: Case Summaries of Murshidabad

MU1

MU1 was married at the age of 20. They lived district Murshidabad . She worked as a beedi worker and the family was very poor with BPL status. She had four children aged 8, 6, 4 and 2 years, all born within two years of each other. During her fourth child birth two years ago, she was anaemic and needed three bottles of blood, but she received only one bottle. Her family was unable to collect more bottles of blood. Thus she remained very weak after the birth of her fourth child. She had not used any family planning method and became pregnant again.

This was her fifth pregnancy at 30 years. During the current pregnancy she received SNP from the AWC which consisted of one big ladle of Khichdi every day. She had 4 ANC visits in the SC and was examined by the ANM. Her Hb was tested in the first two ANC visits and showed a reading of 10g/Hb each time. She received 100 IFA tablets and two TT shots. Her blood pressure was also taken (but the reading is not given). However, no abdominal examination was done. MU1 was told that her Hb was low and that she did not have enough blood by the ANM. When she had completed 9 months of pregnancy (as per family's estimation), she complained of pain in lower abdomen and some blurring of vision. She also had swelling in her limbs. Her family members called the government ambulance & ASHA worker. It took them 20 minutes to reach the BPHC which is 8 km away from the village. She was admitted and the doctor on duty gave her injection. Her blood test revealed her haemoglobin was 10.5 gm%. She was also tested for Hepatitis B but result was negative. Within 20 minutes of admission, the doctor referred her out to Sub-divisional Hospital (SDH). It took them one hour to reach SDH by ambulance which was 35km away. At Sub divisional Hospital IV fluids were started and she was kept in the facility for 4 hours after which she was once again referred to Medical Collage & Hospital (DH) which was 50 km away. They reached in an hour's time. She was admitted at Medical College & Hospital. Blood transfusion was prescribed and she received only one unit of blood as blood was not available at the Blood Bank. She was advised USG and blood tests for HIV, Hepatitis B, Malarial parasite. After 8 hours, the family members decided it was better to go back to their local nearby BPHC and do the tests. They did not have to pay for transportation between facilities as they used the government ambulance but in the Medical College they paid Rs.800/- as informal fees to the ayah.

They returned home 29 Aug and next day went to Dhuliyan Bazar for USG at a private diagnostic center as per suggestion of BMOH -BPHC. The USG report indicated she had polyhydramnios (excess of amniotic fluid in the amniotic sac. It is seen in about 1% of pregnancies) and a single live foetus of about 34 weeks of age in an unstable presentation. Soon after MU1's membranes ruptured and there was some foul smelling discharge. She delivered at home with help of local dai. The newborn did not cry properly and died almost immediately. After delivery she also started bleeding heavily. Her family members called ambulance as early as they could but she was died bleeding at home at 12.30 on 30 Aug 2014. The family had some papers with them including the MCPC card and a blood requisition form. Family members complained that the hospital was very dirty.

MU2

MU2 was married early at 18 years. She had studied up to Class V and was a home maker. Her husband was a helper with a local public transport vehicle. They were Muslims and were very poor, living in district Murshidabad.

Her first delivery was at a hospital and the baby boy had died soon due to jaundice. Her second child birth was at home and the low birth weight neonate had jaundice and died after 6 months. Her third baby boy also died after 5 months of jaundice. She had a healthy newborn in her fourth pregnancy, born at a hospital who survived and was five years old. MU2 had developed oedema and severe anaemia during all her pregnancies especially around the time of delivery and also had heavy bleeding after delivery. She had also suffered from jaundice herself.

This was her fifth pregnancy at 26 years. During this pregnancy she had three check-ups at local sub enter. She had received 100 IFA tablets & two tetanus toxoid injections and her BP check-up was done every by the ANM. Her BP was recorded normal during the check-ups time (110/70, 112/74,112/70). But abdominal examination and Hb testing was not done nor did she receive any SNP during her pregnancy. During this pregnancy she was suffering from mouth ulcers, head ache, oedema (swelling of limbs) , anemia and was treated by a local quack (unqualified) doctor. During the 9th month, she suddenly developed severe abdominal pain with heavy bleeding. As government ambulance was not available on time, her husband and family members took her to BPHC by a private Maruti car on 22.9.2014. The BPHC is 15kms from the village and it took them half an hour to reach. After admission, the doctor gave some injection and stared Intravenous fluids but bleeding was not controlled. She spent 21 hours in the BPHC then she was referred to Sub divisional Hospital (SDH) and the family took her to SDH by a private car on 22.9.2014. The SDH at a distance of 35km from the BPHC and it took them 45 minutes to reach. At SDH treatment was given immediately and bleeding controlled for some time. She had spent 27 hours in the SDH. But when the bleeding increased later, the doctor referred on 23.9.2014 to District Hospital (upgraded as Medical College Hospital) at 7.00am. It took them one and half hours to reach the DH which is 50 Km away by a government vehicle but there were no paramedical staff accompanying them.

At the DH, the doctor advised blood transfusion and C-section as the USG report showed a single live foetus was seen in breech position and low lying placenta. The newborn weighing only 1.2 kg was admitted in the Special Newborn Care Unit but did not survive beyond one and half hours. But MU2's condition improved after 3 days of treatment and was discharged from the hospital. After reaching home, she again started having heavy bleeding in the night and was taken to District Hospital. She was reported dead by early next morning. The family has the ultrasound report, the MCP card and death certificate and did not have to make any informal payments. The hospital provided transportation to take the body home but the driver charged Rs. 2,200/- for this.

MU3

MU3 was married at the age of 20. They lived in the Murshidabad district, West Bengal. Though she used to roll beedis she had studied upto BA but did not pass the examination. She earned about Rs. 3,000/- per month. Her husband had also studied upto BA but did not pass the examination and was engaged in petty business and miscellaneous labour work. However, the family was not certified as BPL.

During her first pregnancy soon after marriage, MU3 had undergone 3 antenatal check-ups at the subcentre which was five minutes away from her home. During antenatal visits she had received two TT shots and 60 IFA tablets during her antenatal visits in two instalments - once on 04.09 2013 and again on 01.11.2013. She also got the tetanus injection. Her weight was quite low although she gained a little bit - 42 kg, 44 kg & 45 kg during the three visits. ANM and ASHA worker had advised institutional delivery & informed the family about ambulance number but possible danger signs were not clear to the family members. ANM visited their village once a month. Just four days before she died while giving birth, she had felt pain and gone to the BPHC which is 4 kms away from her home. But the doctor had said that she was doing well and there were no problems. On 17 January 2014 she went to another BPHC as she had labour pains and was admitted. Her pains had started at 2pm but her family delayed and took her to the BPHC by 7 pm accompanied by her husband, mother-in-law and others.

She was immediately admitted but her relatives were not allowed to go inside the labour room. The baby was born by forceps and then she began bleeding, possibly due to a wound that could not be repaired due to lack of specialists. The on-duty nurse was unable to stitch (repair) her wounds. WBMUSU1 spent around two hours at this hospital. BPHC then referred her out around 9 pm to the Sub divisional Hospital (SDH) at a distance of 15 Km away km, which has obstetrician and anaesthetist. She was taken by the government ambulance and the travel time was approximately one hour.

Arriving at the SDH around 10pm, she was attended immediately by a doctor- who attended her giving first aid in the form of IV Fluids and oxygen for an hour. However matching blood was not available in the SDH and so within a hour the SDH referred her to District Hospital which was 50 Kms away on a journey that takes two hours. But MU3 could not reach District Hospital. She died still bleeding, on 18th January at 1pm in transit on her way. The family were given some papers including referral slips and the death certificate. The family was sad that matching blood was not available but they mentioned that they did not have to spend any money for either the referral or informal payments.

MU4

MU4 was a Muslim woman married when she was 20 years old. They lived in district Murshidabad. She was non literate and a home-based beedi worker earning around Rs. 2500 per month. Her husband was also non literate and a migrant labourer.

This was her third pregnancy at 26. She already had two daughters one nine years old and the other around three years old. MU4 used contraceptives but irregularly. Her husband used to drink and often beat her even though she was pregnant. During this pregnancy she had gone for two checkups at a Subcenter which is 5 minutes from her home. She only received two shots of TT injections and 60 IFA tablets. No BP, Blood test or abdominal examination was conducted. The ANM had advised her to go to the BPHC doctor. However she never went to BPHC. She went to her mother's house one day before delivery. On 22nd April, 2013 she felt labour pain around 7 pm which continued till 5 am (prolonged labour). Family members waited the entire evening and all night before they called quack doctor & Dai at 5 am. Quack doctor gave four injections & started IV drip. Delivery occurred at 7 am but child was still-born. MU4 started crying but became unconscious and within two hours, she died at home at around 9 am on 23rd April, 2013.

MU5

MU5 did not know how to read or write and used to roll beedis at home earning around Rs 2500/- per month. She was a Muslim and belonged to the BPL category. She married at the age of 20 and her husband was also non literate. The couple did not use contraception. Her first two deliveries were normal and she had gone to local health center. She had a miscarriage during her third pregnancy.

When she was thirty year old, she was pregnant for the fourth time. During this pregnancy, she used to go to subcenter for ANC. She was given 60 IFA tablets & two TT injections by the ANM. The ANM and ASHA advised her to have an institutional delivery. She also sought the services of a quack doctor, and spent Rs 100/- every month for medicines he prescribed. She moved to her mother's house at another village when she was seven months pregnant. Although the BPHC was four kms away, she had home delivery at full term; but child was stillborn. MU5 developed breathlessness and convulsions after delivery. They called a private taxi and went to the sub divisional Hospital which was 18 Km away. The private car was a known person and he charged Rs. 500/-. It took some time to arrange for the vehicle but they reached the hospital within an hour and a half of developing complications.

She was admitted at the hospital within few minutes. The nurse administered injections and started saline (IV drip) and gave her oxygen. The doctor treating her started a blood transfusion but said that four bottles of blood were needed. There was no stock of blood in the hospital. Family members needed some time to arrange this; they contacted other people for money and collected blood within the hospital. She asked her mother in law for some water and she died at 5pm. The family felt that if the hospital had provided more blood then MU5 could be saved. The family was not faced with demands for informal payments. A death certificate was provided.

MU6

MU6 was married at 18 years of age. They lived in Murshidabad district. She had studied up to class IV and used to roll beedis at home. She belonged to a BPL family and was a Muslim

Within the first year of marriage she became pregnant. During her pregnancy she received supplementary nutrition from the AWC which consisted of one big serving of khichdi and half an egg every day. During this pregnancy, MU6 went to a subcentre for her 3 ANC checkups. During her ANC, the ANM took her blood pressure, gave her IFA tablets and TT shots. She however did not do Hb testing nor did she conduct an abdominal examination. The second ANM at the sub-centre told her that her haemoglobin levels were low. Her weight was found to be below 40 Kgs. As per MCP card her EDD was 22nd of February. She was nine months pregnant and felt pain at around 2pm on 11 February. Her family members called the local Dai and after one hour at 3pm, she gave birth to a female baby. But after delivery her placenta was retained and heavy bleeding started. The bleeding continued and MU6 was in considerable pain. Her family members called the ambulance but due to delay of ambulance they arranged a private vehicle at 4.30 pm and took to her Sub divisional Hospital (SDH) at 30 KM distance. She however died on the way to the hospital at 5:30pm, two and half hours after delivery. She was declared dead by the SDH doctor.

MU7

MU7 was a Muslim woman who belonged to the BPL category. She and her husband were non literate and MU7 worked as a beedi worker earning Rs2500/- per month. She was married at the

age of 15years and her first child was born at 17, thereafter she had a child every two years and all her earlier deliveries were at home by local dai. Her mother in law had advised her not to have more children but MU7was afraid that the sterilization operation would make her sick.

This was her 5th pregnancy at age 26 and she was not feeling well. During her pregnancy, MU7 went to the homeopathy doctor at Basudebpur every fortnight for general ill-health (feeling cold, feverish and unwell). In addition, she went for two antenatal visits at a PHC. She received 60 IFA tablets and two tetanus toxoid injections. During her first visit her BP was measured (120/80), weight taken and also haemoglobin was tested. However no abdominal examination was done. During her second ANC in the same PHC, she only received a TT shot and IFA tablets.

When MU7 first felt some pain, her husband called the quack doctor who came and after examination said that this was not actual labour pain. Next morning 10th October 2013, she woke up early with pain and requested that the quack doctor to be called. Her husband informed the ambulance but she refused to go to BPHC as her earlier experience during her son's illness was bad. Her husband became angry and called the quack doctor. The quack came and started an IV drip and gave an injection. Then she gave birth to a stillborn. She started having convulsions and was dead by the time the ambulance came. She died on the 10th of October at 12 noon.

MU8

MU8 was married when she was 16 years. She was a Muslim, both she and her husband were non literate and used to be a home-based beedi worker, earning Rs 3000/- per month. Her husband was a daily labour but they did not have a BPL card. They lived in district Murshidabad.

MU8 had five live births all delivered only at home. She had her first childbirth when she was around 16 years and then a pregnancy almost every two years. Her children were aged around 14, 12, 10, 7 and 4 years. This was her 6th pregnancy at the age of 30. During this pregnancy she had two check-ups at local sub-center which was five minutes away. She had received 60 IFA tablets and two tetanus toxoid injections but did not have any abdominal examination or haemoglobin testing done. As there was no gain in weight and she was found to be anaemic and very weak, she was referred to the BPHC.

On 29th September 2013, her labour pain started at evening 5pm. After waiting for two hours, the family called a quack and a Dai. The quack gave injections as well as started a saline drip (IV fluids). Next morning she had a stillbirth after which she began to bleed excessively. She wanted to sit up but her elder sister told that she could sit up once the "saline running" is finished. She died after sometime at 7am on 30 Sept 2013 in her home. It is not known why the family did not choose to call the ASHA or an ambulance to take her to the hospital.

MU9

Twenty year old MU9 was a Muslim woman married when she was 19 years old. They lived in district Murshidabad. She was a non literate woman engaged in home based beedi making and earning Rs. 2500/- per month from beedi-rolling. Her husband was also non literate and they were certified as BPL.

This was MU9's first pregnancy. Her 1st antenatal checkup was on 28.02.2013 and the second check-up was on 27.06.2013 at a Subcenter. She got 60 IFA tablets and two tetanus toxoid shots. No other

tests/examinations were conducted during the ANC. Her physical condition was not good from the beginning of the pregnancy and ANM referred her to BPHC informing about the danger signs. The community has used the 108 ambulance service in the past and the ambulance pick up point is only half Km away. After the first ANC on 28th Feb 2013 at the government sub-centre, the family sought specialised care but not at the BPHC as advised. Despite being a BPL family, they also consulted private doctors.

- On15th April 2013 the family took her to the private hospital in Kolkata for check -up.
- On 20th May after one month they went back to same private hospital in Kolkata followed on 29th May by a Medical College Hospital in Kolkata.
- When her condition did not improve on 9th June, 2013 the family took her to Sub divisional Hospital

She was having vomiting and abdominal pain along with breathlessness. It is mentioned that she had heart related problem and different medicines were prescribed at different institutions.

MU9 started labour pain at 5 pm on 9 July, 2013. For unknown reasons the family did not seek any care immediately, nor called an ambulance nor took her to the hospital. The local quack doctor was called after several hours and came at 12 midnight. Delivery took place an hour later at home at 1 am on 10 July, 2013.

Next day as MU9 was experiencing breathlessness after the birth, they went to District Hospital. It took them 15 hours from the onset of the complication to reach District Hospital. Since the hospital was not equipped to handle the situation they did not admit MU9 but she was there for one hour. After providing first aid MU9 was referred by the doctor to NRS Medical College at Kolkata. The family did not have the money and so did not go Kolkata and MU9 returned home. The quack doctor once again was consulted and treated her. After one month on 8th August, 2013, she died. The family played an active role in the decision making for the treatments. The family retains most of the papers/prescriptions of the treatment. There was no demand of any sort of informal payment from the family.

MU10

37 year old MU10 was married at 14 years of age. They lived in Murshidabad district, West Bengal. She was illiterate and used to roll beedis at home, earning Rs 3500/- per month on an average. Her husband was also illiterate. They were not certified as BPL.

This was her eighth pregnancy. She had given births previously at home with help of local traditional birth attendant, with her first pregnancy occurring when she was 15 years of age. She had seven live births, all boys. The eldest son was 21 years old and youngest barely more than a year old when she conceived again. She never used contraceptives. The family could not recall any previous medical history or complications during previous pregnancies. During this pregnancy, MU10 went for two antenatal check-ups at sub centre which is 5 minutes from her home. She received 60 IFA tablets and two TT shots. No other test or examination was conducted. She had an antenatal card made. The respondents mentioned that the ANM visited on monthly basis without any discrimination based on caste/hamlets. The ANM/ASHA worker had suggested for institutional delivery and had also informed about the ambulance number in case of any emergency.

On 30th April, 2013 (nine months pregnant) she felt pain at around 2 am. Early morning her husband called the local quack doctor who gave (unknown quantity) injection & started "saline drip"(i.e. IV fluid). After two hours at around 8 am she delivered a stillborn (female). The family was not informed about any complication or the line of treatment given. MU10 was crying in pain, complaining discomfort and saying that she suffered from a burning sensation. Subsequently she died at her home at around 9 am. The family received the Death certificate afterwards.

MU11

MU11 was was married at the age of 19 years. Her husband is a small farmer and engaged in cultivation in his own small piece of land. MU11 was non literate and engaged in Beedi making, earning Rs 3500/- per month. They have a pucca house. They lived in district Murshidabad, West Bengal.

This was her ninth pregnancy at the age of 40. She already has five daughters & three sons. All her previous deliveries were conducted at home. There were no complications faced by her in any of her previous gravid and there is no history of any illness. During this pregnancy MU11 went for two antenatal check-up at the PHC which is half a kilometer away. She got two tetanus toxoid injections and 60 Iron tablets during checkups. Her BP and weight was also checked along with blood test during the first visit. She weighed 53kg during the visit on 03.05.13 (4 months pregnant). The Medical officer suggested that she get herself checked-up at the BPHC as he suspected twin pregnancy. On 7th Oct 2013 MU11 felt labour pains, her family members initially called local quack doctor who gave an injection and treated her for two hours. Only then the family called the ambulance after two hours. On their way to the BPHC, MU11 died in labour, before the baby was born.

MU12

MU12 was married when she was just 16 years old. They lived in district Murshidabad. MU12 was not literate and a home-based beedi worker. Her husband was a migrant labourer. The family belonged to minority community and was certified as BPL.

Soon after marriage she was pregnant and her first child was born at home when she was 17 years old. The child was barely three years old when she was pregnant again at the age of 20-21. It is mentioned by the husband that MU12 was pale and weak and her mother-in-law also reported that she was underweight. She was also very short (below 4 feet 8 inches) and her weight appears to have been less than 40 Kg. During this pregnancy MU12 had gone for three check-ups at a Subcenter. She received 2 TT injections and 60 IFA tablets. No other test (BP & Blood) and examination was conducted during the antenatal visits. She received one big bowl of hot cooked meal and half an egg as part of the SNP.

When her pregnancy was full term, she felt mild labour pain on 8th August2014 at around 7 am which gradually increased. However the family did not try to call an ambulance or call the ASHA, instead planning yet another home delivery they called Dai at 8am, who then advised taking her to BPHC. The family called the government ambulance and it took 30 minutes to reach the BPHC. She was admitted at 12 noon at BPHC. She was admitted there for four days with prolonged labour and was 'under observation'. Perhaps owing to the initial mild pains, she received no active treatment during the four days, but meantime the baby died. On 11th August, 2014 MU12 had a stillbirth at

the BPHC. After delivery MU12 felt extremely weak and developed headache and continued bleeding. The on-duty doctor suggested blood transfusion and referred her to District Hospital on 12th August. She was not referred to nearby SDH as the facility often faced problems with availability of specialists and blood transfusion facilities. She was taken in the government ambulance and reached District Hospital (DH) which is 60-62 km away from the BPHC in two hours. She was admitted at the DH for two days. She received intravenous fluids, injections and oxygen at the DH. Later she was advised blood transfusion and family was asked to arrange for a donor. By the time donor was identified and reached DH, WBMUSU10 had died at the hospital at around at 12.25 pm on 14th August, 2014, three days after delivery. There was no transport arranged to take the body home. They received a death certificate later.

The family feels that the delay in arranging for the blood donor led to the delay in treatment. The family did receive few papers from the facility. The family was not satisfied with the way MU12 was treated and the family felt discriminated at the BPHC where there was no medical attention given to MU12; however they were not aware about any grievance redressal mechanisms.

MU13

Eighteen years old MU13 was married at an early age of 16 years. They lived in district Murshidabad, West Bengal. She had studied up to Class X or Madhyamik level and was a home-maker. Her husband is a business man having a brick kiln and beedi business. The family belonged to minority community and is APL with good financial status.

MU131 had early & closely spaced childbearing. This was her 2nd pregnancy at age 19 within an interval of less than one year of her earlier delivery which was held at Hospital 11 months ago. This means that she conceived 5 months after her last delivery. During this pregnancy she had one antenatal check-up at local sub enter. She had received 30 IFA tablets and tetanus toxoid injection. Additionally, she underwent check-up at SDH and also went to a private doctor. MU13 was underweight with weighed below 40 kg and she was anaemic. She did not take any service from the AWC (no SNP). She was informed about her low haemoglobin level and possible danger signs during pregnancy by the private doctor. She was taking a tonic and medicines for her extreme weakness. The private doctor also told her about the possible options to deliver. During 6th month of her pregnancy, she suddenly felt heavy abdominal pain on 30thJuly, 2014 at 6 am. Immediately her husband and family members took her to SDH by their own vehicle and admitted her in the Hospital. It took around half an hour to reach the hospital. After some time the doctor asked her husband whether they wanted to save the mother or the baby. They replied they wanted to save the mother. Though injections were given and some surgical/invasive treatment given in the operation theatre to MU13, her condition did not improve with severe pain persisting. Though on-duty doctors and nurses assured relief, the family was not convinced as MU13's pain increased and they requested for a referral to District Hospital at around 5.30 pm in the evening. (Time spend in the first facility was around 11 hours). At some point it is reported that her labour pain disappeared suddenly. They reached DH at 7.30pm (1.5 hours in travel- from SDH to DH distance around 52 km) and she was admitted immediately. A C-section was performed and a dead baby was delivered. Some injections and medicines were also given. The doctors informed the family about Rupture Uterus and the need for a second surgery (Based on family narrative it seems Laparoto my was planned after C-Section but she died before the surgery- Investigator). Blood transfusion was suggested and she was again taken to the OT. But she expired around 1 am on 31st July, 2014(within 3-4 hours of delivery).The

family received a few papers including the death certificate. The family did mention spending Rs. 12,000(5000+7000) in the entire process.

MU14

MU14 was married at the age of 18 and was a home -based beedi worker in the district Murshidabad. She was only able to sign her name. Their family did not own a BPL card. She conceived immediately after marriage, had her first child at 19 years, and she had four children aged 13,10, 8 and 4 when she became pregnant for the 5thtime. She had always delivered at home and had not faced any complications in her previous childbirths.

In this current 5th pregnancy at 33 years, she underwent three antenatal check-ups at local Sub centre. Her blood pressure was recorded by the ANM each time and she received 100 IFA tablets and two tetanus toxoid injections. During her first ANC her weight was also taken and her blood test for haemoglobin was also done (although readings are not given). During her ANC checkups the 2nd ANM had told her that her haemoglobin was low. The family members reported that she did not have any major problems during pregnancy but she suffered from high BP for which she was on medication. During this pregnancy one private doctor at Baharampur had advised for institutional delivery and this time the family had agreed to go for institutional delivery. She received SNP during pregnancy which comprised of one big ladle of khichidi and half an egg every day.

But when her pregnancy was full term, her labour pains started on 20th August 2014 at 10 o'clock in the morning, and again the family against all medical advice, first called a dai followed by the local unqualified practitioner or quack doctor. The local unqualified practitioner gave injection and some medicine and after 3.5 hours, at 1.30 pm she gave birth to a female baby. The quack doctor went back to his home after the delivery. After some time of delivery, MU14 started feeling very weak and having heavy bleeding. Her family member called the quack doctor, who came and gave some medicine and injection. Subsequently when family members were worried with continued bleeding, he advised them to arrange vehicle and take her to nearest hospital. The family members called the ambulance to take her but due to heavy bleeding, the family was unable to shift her to ambulance and take her to the hospital. She died at home at 2:30 am in the night.

MU15

MU15 was married when she was 17 years old. They lived in Murshidabad district. She was not literate and a home based beedi worker. Her husband was a mason. The family belonged to the minority community and were very poor with a BPL card.

MU15 had 2 sons both delivered at home. One was a little over 2 years old and the youngest was only 6 months when she conceived again. In her previous pregnancies she was diagnosed with anaemia and high blood pressure. This was MU15's third pregnancy at age 22. During this pregnancy she had gone for 3 ante natal check-up at a sub centre. Though she received 100 IFA tablets, she did not consume them regularly. She had also received 2 TT injections and her BP was measured thrice and blood test was done once during the visits, however readings are not available. Her symptoms included danger signs like high BP and swelling in the legs, according to the investigator, but it is not clear if the ANM gave her any special advice for this. No abdominal examination done. Despite being from a very poor family, MU15 appears to have consulted a private doctor about her problems, and he gave her an injection. She received SNP from the AWC.

On 5th July when her pregnancy was full term, MU15 felt severe abdominal pain along with back pain. Her family called government ambulance & decided to take her to the Sub-Divisional Hospital which is 30 km away. It is not clear what happened when they met the doctor at the SDH. But as the family was not happy with the doctor at SDH, they decided to take her away and go to a private doctor at Jangipur. The private doctor diagnosed that the umbilical cord was probably getting round the neck of the foetus and she would need a C-section so he suggested admission in a private nursing home. Due to financial constraints they were unable to admit her in the private nursing home and again came back to SDH. The government ambulance charged Rs. 300 from them. The same doctor at the SDH who had attended them earlier was very abusive when they returned. He did not admit her and even advised the nurse not to intervene. The family sought help from a local MLA and based on his telecom with the doctor, MU15 got admitted after some delay. She had a severe headache during labour and delivery. The doctor gave her an injection, started IV fluids and prescribed some medicines but the family felt he did not give adequate medical attention to MU15.

MU15 had a normal delivery assisted by a staff nurse sometime in the night. The doctor and the nurses hardly took care of the newborn. She also remained unattended. After losing their patience the family members had a tiff with the doctor and nurse for their negligence and for not providing treatment. They got MU15 discharged from the hospital on a discharge bond the next day 7th July around 1pm and returned home by 4pm in a hospital ambulance, after spending 36 hours in the facility. At home, after taking some food, MU15 complained of breathing difficulty, blurring of vision and her hands became stiff. Immediately the family called a private vehicle and left for BPHC. On the way MU15 died on 7th July in the evening. The family received the death certificate. The family was not happy with the way MU15 was treated as the staff did not pay attention and was also abusive. The family had no knowledge of the grievance redressal mechanism.

MU16

MU16 was married at 17 years of age. They lived in district Murshidabad. She had studied up to Primary level and used to roll beedis at home, belonging to a very poor Muslim family with a BPL card.

This was her 4th pregnancy at age 24 years. Owing to complication she was taken to the hospital during her first childbirth but she had two subsequent home deliveries. Her sons were aged 13, 10 and 5. She was of low height and had anaemia in the past. During this pregnancy, MU16 went for her 3 ANC check-ups to the subcentre. During the ANC, her blood pressure was recorded, her Hb was tested, 100 IFA tablets were given (which she did not consume) and two TT shots were provided. However no abdominal examination was done. She was not told that her Hb was low. She was told to go the SDH or DH in the event of an emergency. She was given SNP from the Anganwadi which consisted of one standard sized bowl of Khichdi and half a boiled egg.

As per MCP card her EDD was 29th October, 2014. She was nine months pregnant and felt severe pain both abdominal and back pain at around 2pm on 2nd October. After some time she became unconscious. Her family members instead of calling for the ambulance first called the local quack doctor, who advised taking MU16 to SDH. Then the family arranged a private car and travelled to SDH and it took them one hour to reach. On the way she vomited blood 2- 3 times. In SDH she was admitted immediately at about 5 pm and the doctor started treatment. She was given IV fluids, injection and medicines and her vomiting stopped. She was also given one unit of blood and oxygen. Her condition improved and she gave birth to a female baby. On 8th October morning, 5 days after

getting admitted, she was discharged and returned home. On 9th October morning about 7 am again she felt severe head ache, pain abdomen and blurred vision. She went to her mother's home and one of her relatives, who is a doctor, advised admission at DH. As it was Durga Puja festival during that time, the family faced delay in raising a loan. MU16 stayed at her mother's place for 4 days and ultimately died on 10th October.

The family mentioned that while in hospital she was given partial information on the treatment given and the family have papers and the discharge slip with them. They mention that they were not happy with the way MU16 was treated and they felt that they were discriminated against/faced abuse. They were not given any information about her condition or the line of treatment being given. However they did not make any complaint. There was no toll free number or help desk displaying the number where grievances could be recorded.

MU17

MU17 was married at 19 years of age, she had studied up to class V and used to roll beedis at home. Her husband worked as a mason. They were a very poor family with a BPL card, living in district Murshidabad.

This was her third pregnancy and she was 25 years old. She had two children aged 4 and 2 years. One of her earlier deliveries was held at home and another at health facility. During this pregnancy, WBMUSU15 went for check-ups at a subcentre twice. She received IFA tablets (which she did not consume) and two TT injections. Moreover her blood pressure was also checked and HB testing done. But HB level was not known to family members and not recorded in MCP card. She did not have an abdominal examination. During her pregnancy, she was not given any information that she was anaemic. The mobile number of the ASHA was also given to her by the ANM. Her EDD was 27nd of February 2015 as per MCP card. On 3.11.2014, she went for check-up to a private doctor at Dhuliyan. The doctor prescribed her Iron and multi-vitamin syrup as she was very anaemic. She received SNP from the AWC.

On 5th November suddenly she felt pain at around 5am. Her family members called the government ambulance and reached SDH at 8.30 am in morning (took them one hour to reach). The on-duty doctor gave her injections and started the IV drip. He also advised the family to arrange for at least 2-3 units of blood. It took the family some time in locating a donor for the transfusion. One unit of blood was arranged which was given to her after delivery. After four hours at around 12.30 in the afternoon, she gave birth to a premature female baby but the newborn died just after one hour.
After delivery, she was bleeding was in considerable pain and developed breathing difficulty. She was given oxygen, injections and IV fluids and blood. But when her condition did not improve by 7pm, she was referred to DH. She had spent almost 12 hours in the SDH. The family travelled at 8.30pm to reach DH which was 50 Km away by the government ambulance which took them one and half hours to reach. There was no paramedical staff accompanying them. She was admitted by 10.30 pm on 5th November, but before any treatment could be started she expired within 30 minutes at 11pm.

The family mentioned that they were not happy with the treatment provided to MU17 but there were no demands made for informal payments or any money taken for the referrals. They also had papers/prescriptions and the death certificate. No transportation was provided to take the body home.

MU18

MU18 was married when she was 20 years old. They lived in district Murshidabad, West Bengal. Her husband is a daily labour and she was a home based beedi worker. They belonged to the minority community and the financial status of the family was extremely poor.

All her earlier deliveries were conducted at home by local dai and quack doctor. The outcomes of the three previous pregnancies were live births, and the pregnancies were very closely spaced - the first child born a year after marriage, then the next within two years and the next within a year. She suffered from dizziness and weakness in her previous pregnancies. She was suffering from anaemia before conceiving for the fourth time, this time after a space of three years, when she was twenty eight years old. During this pregnancy she underwent three antenatal check-ups at the health sub-centre. She received two TT injections, IFA tablets, her blood test for Haemoglobin was done and blood pressure was checked. She did not receive any abdominal check up during the ante natal checkups. In addition, based on the advice of a private practitioner at Jangipur town, she had a USG done during 6th month of her pregnancy. The report revealed no complication. During her entire ante natal period she did not receive any supplementary nutrition.

When her labour pain started on 23 September, 2014, at about 2 pm, her family did not try contacting the ANM or the ASHA worker, nor did they call for an ambulance. Just as she had done during earlier childbirths, she gave birth to a baby boy at home with the help of Dai and local unqualified practitioner (quack doctor), the delivery occurring within two hours at 4 pm. After delivery her family gave some food which she ate. After 2-3 hours of the childbirth, heavy bleeding started around 7 pm in the evening. Once again, the local quack doctor was called and he gave an injection and started IV fluids. The quack partly explained the treatment given to MU18. Though for sometime her bleeding was controlled, it became severe again five hours later at about 12 midnight. At this point finally, quack doctor advised the family to call the government ambulance. The ambulance was called after midnight and did reach at 1am. MU18 started her journey to Sub divisional Hospital, which was 25 km away. But on the way, she died an hour later. The bleeding started at 7 pm and the woman died at 2 am (after 7 hours).

MU19

MU19 was married when she was just 14 years old. They lived in district Murshidabad and she was a home based beedi worker and her husband is a daily labourer. The family belonged to minority community and were BPL certified.

She conceived soon after marriage and her first child was born when she was 15 years old. She had another four children, most of them four years apart, but after her third daughter, the son was born within two years. All her earlier deliveries were conducted at home. Her eldest child was 14 years old and youngest four years old. According to family members, she was suffering from anaemia. This was MU19's sixth pregnancy at 33 years. She had gone for 3 ANC check-ups to the nearest Sub centre. She received 2 TT injections and 100 IFA tablets. Her blood pressure was also checked and blood test done during all the three visits as part of antenatal care, although readings are not given. The ANM does not appear to have provided any special counselling or follow up, even though MU19 was an obvious high-risk case, being grand multi-para gravida. She was not told about her anaemia, nor was her abdominal examination done in any of the visits. She did not receive SNP during her pregnancy. During the 7th month of her pregnancy (most probably on 22nd Nov, 2014), bleeding started in the

morning and she felt labour pain. However the family did not try to call an ambulance or call the ASHA, they called the Dai instead for yet another home delivery. At 1 pm she gave birth with the help of Dai at home. The premature newborn was alive up for 12 hours and then died.

After delivery she began bleeding heavily, and family members once again did not take her to the hospital but instead called the local quack doctor. He gave an injection and some medicine but her bleeding continued. After she had been bleeding for several hours, about 8 pm in evening, the family members (brother-in-laws, sister-in-laws and quack) called a private car and went to the nearest Private Nursing home at Pakur in the neighbouring state of Jharkhand at a distance of 16 Km. It took them an hour to reach the nursing home and they spent Rs. 3300. MU19 was admitted and two units of blood, IV fluids and medicines were given. In three hours of stay at the Pakur nursing home the family had already spent twenty thousand rupees (Rs. 20,000). However her condition did not improve and the nursing home referred her out to Kolkata or DH (no records of referral) at midnight.

It took the family another three hours to reach DH which was 120 Km from the Pakur nursing home. At about 3 or 4 am they reached DH but no one was able to give her any treatment at that time of night. She waited for treatment until morning, and she died at 8 am on 23rd Nov, 2014.

There was no transport provided by the hospital to take the body home. They did receive the death certificate. The family mentioned that they were not happy with the treatment as MU19 was not given adequate attention. The family was not aware about any grievance redressal mechanism.

MU20

MU20 was a home based beedi worker. She was married when she was 17 years old. They lived in district Murshidabad, West Bengal. The family belonged to minority community and were very poor, with a BPL certificate.

This was MU20's 6th pregnancy at age 32. In the 15 years since she was married, she gave birth to 5 daughters who are now 14, 12, 10, 8 and 6 years old, indicating early and frequent childbearing. All her previous deliveries had happened at home and the family reported that she did not have any complication. The family members reported that she did not have any major problems during the pregnancy although she had extreme pallor and weakness. During this pregnancy she underwent three antenatal check-ups at local Sub centre where she received 90 IFA tablets and two tetanus toxoid injections. During her first visit her weight was taken and blood test done for Haemoglobin (although results are not given). Blood pressure was checked during all the three visits but no abdominal examination was done during any antenatal visit. No danger signs were explained to her or the family even though she was a grand multi-para and showed signs of weakness and anaemia. WBMUSU18 did not receive supplementary nutrition from the AWC.

On 3rd February 2015 when her pregnancy was full term at 2 o'clock in the night, her labour pains started. The family opted for a home delivery as before, and first called a traditional birth attendant or dai followed by the local unqualified practitioner or quack doctor. The local unqualified practitioner gave an injection and some medicines and after two hours, at 4 am she gave birth to a female baby. After some time heavy bleeding started and her placenta also did not come out. Subsequently the family members were worried with the continued bleeding. The quack doctor advised them to arrange vehicle and take her to SDH. The family called a private vehicle immediately

to take her to the hospital without waiting for the government vehicle to come but on the way she died at about 7 am morning(3 hours after delivery during transit).

MU21

MU21 was married at 17 years of age and lived in Murshidabad district. She had studied up to class seven and used to roll beedis at home. They belonged to the minority community and were very poor but the family was not certified as BPL.

Her first child was born two years after marriage. She had three sons and one daughter, aged 16, 13, 11 and7 years old. All earlier four deliveries had been conducted at her home. This was MU21's 5th pregnancy at age 35. During this pregnancy she underwent three antenatal check-ups at local Sub centre. She received 100 IFA tablets and two tetanus toxoid injections as part of antenatal care. During her first visit her weight taken and also blood test done for Haemoglobin but the reading is not given. Her blood pressure was measured during all the three antenatal visits but abdominal examination was not conducted. Though she was given IFA tablets by ANM, she did not consume all the tablets given to her. MU21 did not receive supplementary nutrition during her pregnancy. The family shared that she was found anaemic and yet the ANM did not tell MU21 about her low haemoglobin level or warn the family about danger signs although she was a high-risk case at grand multi-para. MU21was fearful about hospital delivery and unwilling to go for facility delivery.

On 31stDecember 2014 when her pregnancy was full term, suddenly her labour pains started at 1 am. The family first called a traditional birth attendant or dai followed by the local unqualified practitioner or quack doctor. At 2:30 am the local unqualified practitioner suggested to take her to the hospital and gave injection and some medicine. She was having repeated loose stools at that time. Then the relatives and family members arranged a private vehicle to take her to SD hospital. There was no delay in arranging for the vehicle. Just after travelling 2 Km in a private vehicle she died at around 3am without delivering the baby. It is mentioned that there was no transport arranged to take the body home from the hospital. They are supposed to receive the death certificate from the gram panchayat.

MU22

MU22, a non-literate home-based beedi worker was married when she was barely 13 years old. They lived in district Murshidabad. Her husband was a mason. They belonged to the minority community and were very poor. The family was BPL certified.

Her eldest child was 22 years old conceived immediately after marriage and born when she was about 13-14 years old. From that age until she was 29, she gave birth at home to a child every second year. She was anaemic even during her earlier pregnancies. But she had this tenth pregnancy after a longer gap; her youngest was 5-6 years old. She had sought antenatal care irregularly during her previous pregnancies. This was MU22's tenth pregnancy at the age of 35. During her tenth pregnancy she went for only one check-up at a sub-center and remained irregular in following up. She was not willing to undergo check-ups on regular basis as she faced major burden of child care as well as home based beedi making for livelihood. She felt very humiliated by the way she was rebuked by health workers for having many children, and was afraid that she would be criticized if she went again. During that single visit, her blood pressure was measured and she received one TT injection and 30 IFA tablets. However she did not consume the IFA tablets as advised although the ANM informed

MU22 about her low haemoglobin level. No other check up was done but the ANM and neighbours had advised her to go to the BPHC doctor as she had swelling and anaemia. However she felt inhibited about the health system and never went to BPHC. Though ASHA had advised her for Hospital delivery, she was fearful of doctor centric care at facilities and believed she would die if she went to the facility for institutional delivery. She received 1 big bowl of hot cooked meal and half an egg as SNP.

On 28th December, 2014 at 10 am MU22 felt labour pain. After waiting two hours, the family members called Dai and later unqualified practitioner (quack doctor) at 12 noon. The quack doctor referred her to BPHC as he suspected that the position of foetus was not normal. The Dai gave the number of government ambulance and her husband called the ambulance which came by 1.30pm.MU22 reached the BPHC which is 5 km from her home along with her younger daughter and a family friend within half an hour. She was admitted at the BPHC at 2 pm. The on-duty Nurse informed the family that there will a normal delivery and there was nothing to worry. Three hours later, at around 5 pm the nurse reported to doctor about heavy ante-partum bleeding. The doctor advised injections & IV drip was started. But in the evening the nurse informed MU22's daughter that the doctor has advised referral to SDH due to abnormal position of the baby and continued bleeding.MU22's husband was called by her daughter. He came and arranged for the government ambulance at around 7.30 pm, by which time they had spent 5 and half hours at the BPHC.

The family reached SDH which is 23 km within one hour and MU22 was admitted by 9pm. At SDH she received an injection and IV fluid after half an hour of admission but bleeding continued. It was suspected that the placenta position is adversely affecting her delivery which led to ante-partum bleeding. As her condition became critical, she was referred by the doctor to the District Hospital at 10 pm after they had spent one hour at SDH. They reached DH by government ambulance at about 11.30 pm which is 50 km from the SDH on 28th Dec, 2014. The on-duty doctor admitted her immediately and Caesarean section was undertaken.MU22 gave birth to a healthy baby boy. After operation the family was advised to arrange for blood very late at night, as blood was not available; though free blood transfusion is mandated under JSSK. Family members purchased one bottle blood @ Rs 3000/-. Blood transfusion was started and the nurse advised the family to arrange for one more unit of blood.MU22 developed breathing problems and was extremely weak. Oxygen was also started but she died early in the morning at 6.30 am on 29th December, 2014 (approximately six hours after delivery). The District hospital made efforts to save her by providing cardio pulmonary resuscitation but failed. They spent 7 hours at the DH.

The family was provided with transport to take the body of the deceased woman home. The referral slip from BPHC to SDH was not given to the family but the referral slip from SDH to DH is available. The family received few papers including, discharge slip, prescriptions and death certificate. At the DH the family was also asked to sign a document but they did not describe what it contained. The family feels that at the BPHC the doctor did not inform them about the problem and no treatment was given which ultimately led to the death.

MU23

Thirty year old MU23 was married when she was 17 years old. They lived in the Murshidabad district, West Bengal. She was non literate and a home-based beedi worker. Her husband was a daily labourer. The family belonged to the Scheduled caste and had a BPL card.

She does not appear to have conceived in the first five years of her marriage. Then she gave birth to three children aged 8, 4 and 2 years of which one was born at hospital and two were home deliveries. This was her 4thpregnancy. During the current pregnancy she had 3 check-ups at local sub-center. She had received 60 IFA tablets (but did not consume all the tablets) and two tetanus toxoid injections during her antenatal check-up. Her blood pressure was taken (although it is not available) but no abdominal examination or haemoglobin testing was done. Her weight was taken and found to be less than 40kg. The ANM had counselled her to go to BPHC as she was anaemic. But MU23 did not go to BPHC. She received supplementary nutrition from the AWC which consisted of one big bowl of hot cooked food and half an egg.

Her labour pain started on 20th November 2014 around 8 am. After waiting two hours at 10 am, the family called a quack and Dai, instead of contacting the ASHA or going to the BPHC, even though she had been to the hospital for childbirth once before. The quack came and advised them to go to the hospital. But MU23's husband was working at Malda town, therefore nobody was present at home to take her to the hospital which was 5Km away from her home. They waited from morning till evening to take the decision. Ultimately, her aunt-in-law and a friend accompanied her to BPHC. It took them one hour to reach the facility and she was admitted at 6 pm. In the meantime her husband came back from Malda and reached the BPHC around at 7 PM. MU23's husband spent around Rs. 1000 in the BPHC in payments to a 4th class employee and the Aayah. Within half an hour by 6.30pm treatment was initiated. The nurse helped her to deliver and she had a still birth within an hour around 7.30 pm. After her placenta came out, heavy bleeding started. As her bleeding did not stop, the doctor suggested the need for blood transfusion and referred her to SDH at 8 pm providing the government vehicle (without a paramedic). They went to SDH which was 30 kms away and it took one and half hours to reach. She was admitted at 9.30 pm and was examined immediately by a doctor and received injections, oxygen and IV fluid. She stayed there for two days. As there was no improvement in her condition, the doctor referred her on 22nd November 2014 at 1.50 pm to District Hospital. She was provided with a government vehicle but she died on the way at about 3.45 pm.

The family was not given any papers/prescriptions, discharge slip or death certificate, however a vehicle was provide to transport the body home.

MU24

MU24 was a beedi worker. The family was very poor and BPL certified and lived in the Murshidabad district. She was married when she was just 13 years old. Her first baby was born when she was 15 years old. She had one boy aged 11 years and a girl aged 6 years. Her previous deliveries were at home and she had not faced any problems although it is mentioned she was anaemic and had asthma (no health card available only verbal).

This was MU24's 3rd pregnancy at age 26. WBMUSU22 was of short height (below 4 feet 8 inches) and she weighed below 40 kg. She went for three antenatal visits at local Sub centre and received 60 IFA tablets and two tetanus toxoid injections. During her first visit her weight was recorded and also blood test done for Haemoglobin during the visits (but the reading is not given). Her Blood pressure was not measured and abdominal examination not conducted in any of the ante natal checkups. She was informed about her low haemoglobin and possible danger signs by the ANM. She was also advised to contact ANM/ASHA and visit the hospital in time of an emergency. She also visited a local unqualified practitioner in Jangipur during her pregnancy due to swelling of her legs and anaemia,

and he prescribed a tonic and antibiotics for her. She received supplementary nutrition from the AWC during pregnancy which consisted of 1 big bowl of hot cooked meal and half an egg.

On 15th August 2014 when her pregnancy was full term, she was feeling ill and her husband quickly took her in a private vehicle (they did not try for the govt ambulance) to SD Hospital which is 26 Km from their home for check-up. She had developed swelling of the entire body. After waiting in the OPD for one hour, the doctor at SDH OPD saw her and immediately referred her to DH due to lack of specialist in the SDH. It was also mentioned to the family that the condition of MU24 is very serious.

However they were unable to go to DH, which is 80 Km from their home on the same day and went back home. Next day on 16thAugust, 2014 they (MU24, mother and husband) arranged a private vehicle (provided by relatives for free) and went 80 Kms to DH in the morning. On the way she felt extremely unwell and became almost unconscious. They reached around noon and she was immediately admitted at District Hospital. Within half an hour the doctor started treatment - oxygen, IV fluids, medicines and injection were given (total time from admission to treatment initiation was 30 minutes). The family was partly informed about MU24's condition and the line of treatment given. She had a normal delivery and gave birth to a girl child. She was extremely weak but wanted to see her newborn. Her condition worsened with convulsions starting in the evening. She died around 9 pm in the night on 16th August, 2014 (six hours after delivery). Total time spent in the district hospital was around 11 hours. The family received a death certificate later.

MU25

MU25 was a non-literate Beedi worker married at the age of 15 years. Her husband is a migrant labourer and they are very poor with a BPL card. She lived in district Murshidabad. Between the ages of 17 to 27, she gave birth to three children aged 10, 6 and 4 years, all delivered at home. She had faced no complication or difficulties in previous childbirths.

She was pregnant for the 4th time and 27 year old. WBMUSU23 went for antenatal check-up at local Sub-center only once. She got two tetanus toxoid injections and 30 Iron tablets during the check-up. Her BP and weight was also checked during the visit by the 2nd ANM, but no Hb testing was done and neither was an abdominal examination conducted. The 2nd ANM told her that her haemoglobin levels were low. MU25 was given the ASHA's mobile number. She received SNP during her pregnancy which consisted on a big bowl of khichidi and half an egg.

When her pregnancy was full-term, on 15 September 2014, around 4 am in the morning she felt labour pain. Family members called local Dai and she came and massaged her abdomen with some oil. MU25 was not willing to go to a facility for delivery. At 11 am MU25 gave birth to a baby boy. After 2 days on 17th September'14 night she suddenly developed breathing problems and complained of discomfort while going to sleep. She refused going to the hospital at night though her family wanted to take her to the hospital. The next morning (18th September) at about 8 am they went to the BPHC which was 20-22km away and it took them half an hour to reach. She was admitted within half an hour and stayed for two hours (till 12 noon) in the BPHC during which time the doctor gave her injections and oxygen but her condition did not improve. The BPHC doctor referred her to SDH. They reached SDH within 45 minutes and MU25 was admitted immediately. She received injections and was given oxygen. She stayed in the SDH for 5-6 hours but her condition did not improve and she ultimately died on 18 Sep'14 at 5.30 pm in the SDH itself.

The family was particularly unhappy with the medical treatment that was given to MU25 in the BPHC. The family was given papers related to the treatment and the referral slip and death certificate, but not all the papers were handed over to them by the BPHC. They were however provided with a vehicle to take the body home and they were not demanded any informal payments.

MU26

MU26 was married at the age of 15 and lived in Murshidabad district. She had studied up to primary level and used to roll beedis at home. Her husband was grocery seller. The family belonged to minority community and was very poor with a BPL card

She conceived soon after marriage and her first child was born when she was 16 years old. She had a gap for 3 years after that before her next childbirth, but thereafter she gave birth to a child every two years, of which four childbirths were at home and one delivery was institutional. Her eldest child was 12 years old and youngest was 3 years old. After giving birth to her 5th daughter, the doctor had advised her not to become pregnant again. But the desire for having a son and family pressure for giving birth to a son led her to become pregnant. Family members were unable to share whether she had faced any complication during her last childbirths. But she appears to have also suffered from low BP before this pregnancy.

This wasMU26's sixth pregnancy at 28 years. During this pregnancy, MU26 went for three antenatal check-ups at Sub centre on regular basis. She got two TT shots and blood test was also done during all the three visits (although readings are not available). She was found anaemic and given two IFA tablets to be taken every day by the ANM (total 190 tablets were given). The ANM told her she was anaemic but did not counsel the family about any danger signs, even though she was high risk case as grand multi-para gravida. Her BP was taken during all the three checkups (100/60, 130/100, 120/80). Her abdominal examination was not done during any of the antenatal visits. She received one bowl of hot cooked khichdi and half an egg as part of the SNP.

As per MCP card her expected date of delivery was 9th September 2014. On 7th Sept, 2014 (full term) at around 8 am MU24 felt labour pain. Her family members waited for her to have a home delivery as before. After six hours delay, they called the local Dai and quack doctor at 2pmand she gave birth to a female baby. After delivery bleeding started and did not stop instead it gradually increased. Again they chose not to go to the formal health centre but called the in quack doctor and he gave some medicines and injections. She kept on bleeding like this for more than 24 hours at home. Next day i.e. on 8th Sept, 2014 at 4 pm she became unconscious. At that point finally the family members (husband and Brother-in-law) took her to the BPHC in a private vehicle which seems to have taken about an hour to organize. They reached the BPHC in 45 minutes at around 6:30 pm. She was admitted immediately and the doctor gave her few injections and started IV fluids. She needed blood transfusion but there was no availability of blood and specialist doctors in the BPHC. As her condition worsened, in two hours the doctor referred her to SDH at 8:30 pm, giving them a Discharge slip; but for some reason not providing an ambulance or paramedic even though she was critically ill. She then travelled another 45 minutes from BPHC to SDH, a distance of 27 km in the private vehicle.

They reached SDHat 9:30 pm. As blood was not available at the SDH Blood Bank, she was again referred out in less than half an hour by the doctor to District Hospital, again no ambulance appears to have been provided. They reached DH which is 50 km from the SDH at 11pm night using the private vehicle (took one and a half hour). The treatment started immediately after admission and she

was given oxygen. The family had to arrange 2 units of blood and the transfusion started immediately. On the next day 9th September, 2014 the doctor advised they get a USG done, but as USG facility was temporarily not available at the DH, the doctor suggested it to be done at a private clinic. But MU26's condition did not permit taking her outside the hospital. On 10th September, 2014, at 7 am the doctor advised blood transfusion of 2 more units. By the time the family could arrange for this blood MU26 died at around 12:30 pm (almost after 3 days of delivery).

The family was not provided with the transport. They received the death certificate later. The family spent Rs. 1200 for the referral transportation. The family felt that MU26 did not receive due attention from the nurse and doctor and was neglected

MU27

MU27 was a home-based beedi worker living in Malda district, West Bengal. She was not literate and married at 20. Their family had a BPL card.

MU27 was 21 years old and pregnant for the first time. She had gone for two ANC check-ups at sub-center; her weight was recorded thrice She received 2 TT injections, 100 IFA tablets and her BP was recorded once during one of the check-ups. Her abdominal exams were also done by the ANM. She did not receive any SNP during pregnancy. But she went to her mother's house in Murshidabad district during the seventh month (delivery was not in Malda, husband was not present). When she was full term, she felt labour pain on 7th October 2014 around 6 am and she went to BPHC which was 2 kms away within half an hour. Her mother accompanied her along with one relative by local rickshaw. They reached within half an hour, and the BPHC immediately admitted her. Treatment was promptly started and IV fluids were started and injections given to her. Her labour was prolonged; MU27 remained in labour for 18 hours from morning until late night. Her mother was present with her. Finally, as there was no progress in labour, around midnight the BPHC doctor referred her to Sub district hospital (SDH) as the BPHC did not have facilities or any specialists to conduct a C-section. They had to pay the Ayah and others Rs 200 as informal fees. They were provided with an ambulance to reach the SDH (but no paramedical staff accompanied them) and the 40 kms journey took 1.5 hours.

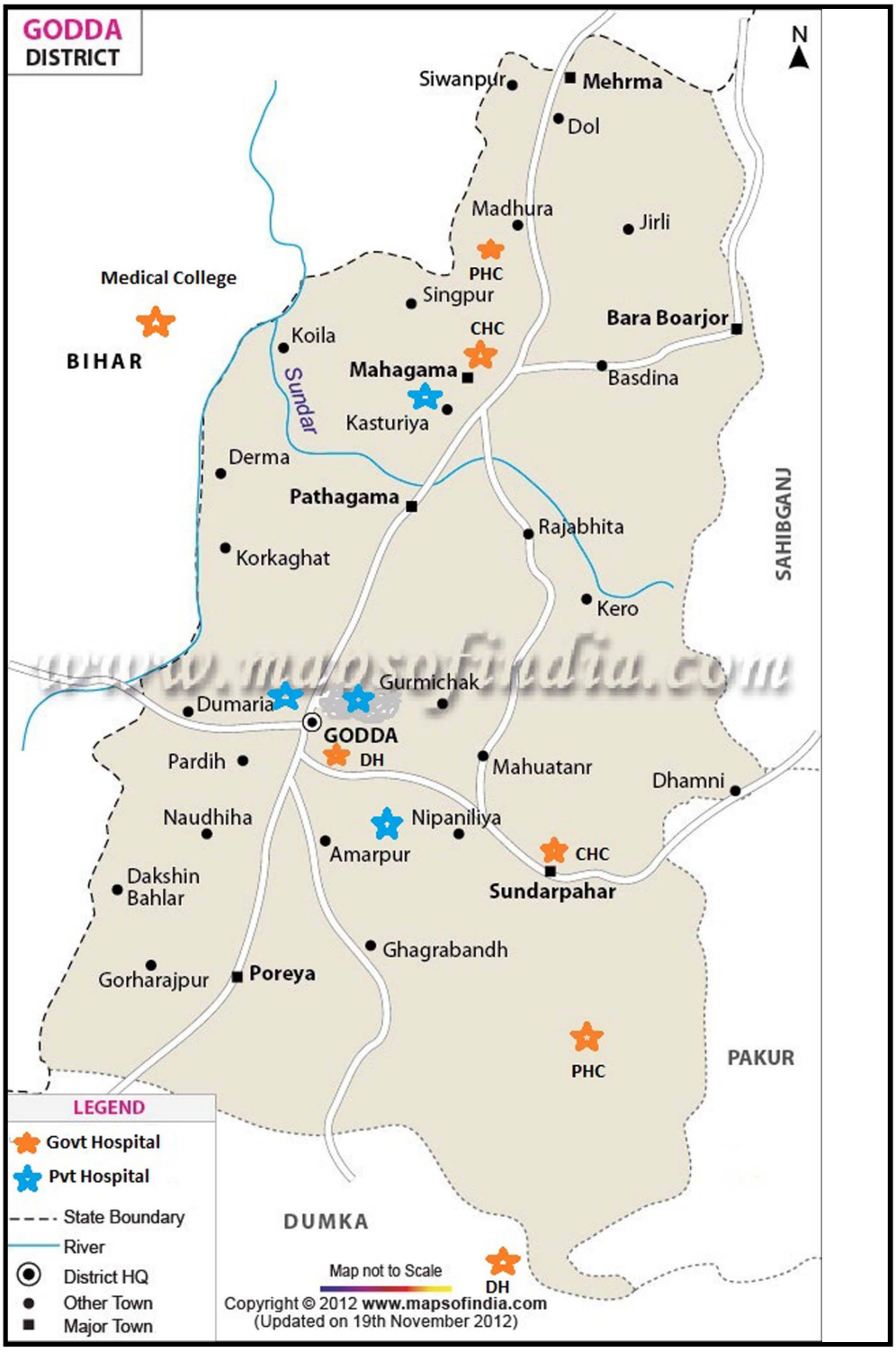
By 1.30 am, they reached at SDH by government ambulance and MU27 was immediately admitted in SDH. But she received no treatment that night. 0n 8thearly in the morning when she had been in labour for almost 24 hours, doctor visited and advised moving her to Medical College Hospital(DH) as her condition had become very complicated. Government vehicle was arranged at 7 am. However when the ambulance, once again without any paramedical staff, was leaving the SDH, MU27 normally delivered a girl child in the ambulance and she was again admitted in SDH. The doctors started IV fluids and gave injections. The newborn had low birth weight and admitted to Special Newborn Care. The family paid Rs 1000 for medicines. However soon after around noon on 8th Oct,MU27 died and after another 4 hours the neonate also died.

The family mentioned that the treatment was explained but the cause of death was not clear to them. They were given documents such as the discharge slip, MCPC and death certificate. The family was not satisfied with the treatment because they felt the BPHC doctor should have referred her before waiting until midnight rather than waiting for 17 hours. Moreover the SDH did not provide her with any treatment all night when she was admitted. However they did not know how to register any complaint as there was no help desk anywhere.

Chapter- 4

JHARKHAND

GODDA, WEST BENGAL



Chapter 4 - JHARKHAND

CB-MDR ANALYSIS OF DISTRICT GODDA, JHARKHAND

REPORTS OF 20 CASES OF DEATHS FROM FROM GODDA (SUNDARPAHADI AND BOARIJOR BLOCKS)

Dated 18 June 2014 to 6 November 2015

PROFILE OF JHARKHAND AND GODDA DISTRICT

Jharkhand was brought into existence on November 15, 2000 by the Bihar Re-organization Act. The state has mostly hills and forests (29% of the state), inaccessible in many places, and also has large deposits of mineral wealth. The tribes of this state include the Primitive Tribes and other tribal groups, many of whose lifestyles has remained the same over hundreds of years, barring the last few decades.

- Primitives Tribes (called PVTG): Asur, Birhor, Birajia, Korba, Mal Paharia, SauriyaPaharia, Sabar, or Hill Kharia and Parahiya.
- Other Tribes: Biga, Banjara, Bathudi, Bedia, Bhumij, Binjhia, Chero, ChikBaraik, Gond, Gorait, Ho, Karmali, Khadia, Kharwar, Khond, Kisan, Kora, Lohra, Mahali, Munda, Oraon and Santhal.

Table 1: Basic demographic data of Jharkhand and Godda district

Indicators	Jharkhand	Godda
Total Population (Census, 2011)	329,66,238	13,11,382
Crude Birth Rate (AHS, 2012-13)[1]	22.7	22.1
Crude Death Rate (AHS, 2012-13)	5.6	6.3
Total Fertility Rate (AHS 2012-13)	2.7	3.0
Sex Ratio (AHS 2012-13)	920	898
Female Literacy Rate (%) (Census, 2011)	56.21	44.90
Scheduled Caste Population (%) (Census, 2011)	12.09	8.81
Scheduled Tribe Population (%) (Census, 2011)	26.22	21.29
Maternal Mortality Ratio[2] (AHS 2012-13)	245	295**

*Annual Health Survey
** Not for this district only but for Santhal Paraganas as a whole

1. Annual Health Survey 2012-13, Fact Sheet, Vital Statistics Division, Office of the Registrar General & Census Commissioner, India, see http://www.censusindia.gov.in/vital_statistics/AHSBulletins/AHS_Factsheets_2012-13/FACTSHEET-UTTAR_PRADESH.pdf
2. Maternal Mortality Ratio (deaths per 100,000 live births) has been estimated at 261 in Bihar and Jharkhand for 2007-09 by the government (Special Bulletin on Maternal Mortality in India 2007-09, Sample Registration System, Office of the Registrar General, India)

Godda district is part of the Santhal Parganas division of Jharkhand which is dominated by tribal communities. The district has eight blocks, which are populated by Other Backward Class (OBC), minorities and few tribal communities. Sundarpahadi block of Godda district has a hilly terrain and a high proportion of the more marginalized PVTG tribal communities like the Pahariyas, and most habitations are not connected to the few roads that exist.

Description of Sunderpahadi block

Sundarpahadi block has an entirely rural population, with 79% belonging to the Scheduled Tribe category. Of the 208 villages in Sundarpahadi, 125 villages are inhabited by particularly vulnerable tribal groups (PVTGs). Nearly 50% of land in Sundarpahadi block is forested and hilly. Sundarpahadi[3] is home to Paharia and Santhal tribes. The Paharias are the original inhabitants of the area. These PVTGs[4] are some of the most disadvantaged in the area, residing in inaccessible hill top villages, usually with abject poverty, low literacy levels and nutritional status. These villages are malaria- endemic and other infectious diseases also abound. The literacy rate in Sundarpahadi is 27%, and the primary occupation in the area is subsistence agriculture. These areas see high morbidity and mortality owing to the absence of accessible, quality health services coupled with a lack of awareness regarding health and nutrition among the population (Banerjee et al 2013[5]). The Santhals reside in the plains area and grow paddy while the Paharias practice shifting cultivation of pulses and millets on the hills slopes and collect minor forest produce. Despite the widespread poverty, large numbers of families still do not have MNREGA Job Cards as they find the payment a complex procedure. There is widespread malnutrition and Antodaya Anna Yojana (AAY) is the only government program that functions to some degree though there are many eligible households who do not have the AAY cards.

Maternal health status of Godda district of Jharkhand

The following tables (2-4) provide the AHS 2012-13 data on the situation of maternal health services in Godda with comparisons for Jharkhand as a whole. It is clear that ante-natal services are unable to detect high-risk signs since a little over half of all women were tested for high blood pressure and about one-third for haemoglobin. Moreover, in Godda, data indicates that childbirth at home is 68.5% which is more than twice the rate of institutional delivery (31.2%). The rate of C-sections performed at government and private hospitals is also remarkable, since women are clearly accessing emergency obstetric care (EmOC) on personal payment outside the state health facilities.

3. Several observations in this section are personal notes from the researcher S. Banerjee who has been living in this area for several years.
4. Jharkhand has 9 PVTGs out of which two - Saoria and Mal Paharias the largest group reside in the area
5. Banerjee et al(2013),Stairway to Death: Maternal Mortality Beyond numbers, Economic and Political Weekly, Aug 3, Vol XLVIII no. 31, 123-130

Table 2: Details of ANC in Godda district, Jharkhand		
Antenatal Care indicators (all figures in percentage)	**Godda**	**Jharkhand**
Currently married pregnant women aged 15-49 years regd for ANC	64.1	71.8
Mothers who received any Ante-natal check up	85.7	92.4
Mothers who had ante- natal check up in 1st trimester	54.3	62.1
Mothers who received 3 or more ANC	36.0	60.2
Mothers who received at least one tetanus toxoid (TT) injection	85.1	91.8
Mothers who consumed IFA for 100 days or more	9.7	16.9
Mothers who had full ante-natal check up	6.0	13.6
Mothers who received ANC from Government source	16.3	16.9
Mothers whose blood pressure (BP) was taken	34.0	57.8
Mothers whose blood was taken for Hb	27.4	43.5
Mothers who underwent ultrasound	15.6	27.3

Table 3: Delivery care in Godda district, Jharkhand		
Delivery Care indicators (all figures in percentage)	**Godda**	**Jharkhand**
Institutional Delivery	31.2	46.2
Delivery at Government Institutions	18.6	23.6
Delivery at Private Institutions	12.5	21.4
Delivery at home	68.5	53.4
Delivery at home conducted by skilled personnel	25.8	27.4
Safe Delivery	44.8	56.2
Caesarean out of total delivery taken place in Govt Institutions	4.0	7.7
Caesarean out of total delivery taken place in Private Institutions	24.8	30.5

Table 4: Post-natal care in Godda, Jharkhand		
Post-natal care indicators (all figures in percentage)	**Godda**	**Jharkhand**
Less than 24 hrs stay in institution after delivery	46.6	41.6
Mothers who received post-natal check up within 48 hrs of delivery	55.1	68.4
Mothers who received post-natal check up with in 1 week of delivery	57.8	71.7
Mothers who did not receive any post-natal check up	40.3	26.1
Mothers who availed financial assistance for institutional delivery under JSY in government facilities	86.0	75.9
*Source: **Annual Health Survey 2012-13** (ibid)*		

STATUS OF HEALTH FACILITIES AND VILLAGE-LEVEL HEALTH SERVICES

Five sub-centres as well as two PHCs and one CHC used by the deceased women of Godda district were observed in January 2015.

Of the five **sub-centres (designated L1 facilities)**, three were found to be closed at the time of observations and conversation with the community revealed that they rarely opened; in fact one of these three was being used as residential quarters. Of the remaining two which were found to be open, one was housed in a building in good condition. However both suffered problems of electric

and water supply. Both these sub-centres were capable of managing normal deliveries with active management of 3rd stage of labour. Besides of the 41 requirements that should be present in a L1 facility, 25 to 27 were available in the centres including a delivery table, autoclave, disposable gloves, episiotomy scissors, sterile cord ties, medicines including antibiotics, oxytocin, IV fluids and in one of them anti-hypertensive drugs.

Both the **PHCs (designated L2 facilities)** observed were capable of handling only normal deliveries; they could not provide even pre-referral stabilization of cases of obstetric emergency which a L2 facility should be capable of providing. Of the two PHCs, one was an upgraded PHC and met only 10 of the 46 requirements for a L2 facility, while the other PHC had 22 of the 46 requirements. What was a matter of even greater concern was that these PHCs were very poorly stocked with drugs and had only antibiotics and oxytocin in stock, making them worse than the sub-centres. The upgraded PHC also faced severe human resource shortage and except for ANM/staff nurse there was no other health provider; the medical officer had been transferred and no one had joined in his place. The other PHC had five staff nurses, four of whom had received SBA training and two medical officers.

The **CHC (designated L2 facility)** which was observed was housed in a large double-storeyed building with 46 rooms; however it was not fully utilized and lacked proper maintenance and upkeep. It had 40 of the 46 requirements for a L2 facility and except the partograph and the vacuum extractor, had all the equipment required for managing obstetric emergencies. It was stocked well with all the essential drugs. It also had eight ANMs and staff nurses (5 with SBA training), four doctors and one Ob/Gyn doctor, who however was absent. Despite having all these facilities, this CHC was under-utilising its resources and did not provide any other delivery services except catering for normal deliveries with active management of the third stage of labour.

There is also a private facility in Mahagama (run by a government-employed doctor) only 1 km away from the CHC. In addition, private quack doctors are also mentioned in some of the cases, providing childbirth services through the use of injections, medicines and IV fluids. The traditional birth attendants (*Dom buri*) are also called in for help during labour.

The District Hospital did not provide emergency obstetric care, possibly owing to lack of blood transfusion services. Some women were further referred to the Bhagalpur Medical College (Bihar) which is around 100 km away, or to the Deoghar Sadar Hospital 75 kms away. In most cases the families did not visit the Medical College due to financial constraints and unavailability of transportation. The cost could be as high as Rs 2300 for a private vehicle. Boarijor block is also 90-100 km from the Bhagalpur Medical College in Bihar.

In terms of **abortion services**, facility observation reveals that the DH Godda is equipped to perform abortions but does not get more than 3-4 cases a month. The CHC Sunderpahari is also equipped to perform abortion but in the absence of doctors trained in conducting the procedure, abortions are not conducted in the CHC. Jambuha PHC in Sunderpahari offers abortion services as a doctor who is trained in the procedure is posted there.

Three **VHNDs** conducted within the catchment area from where the dead women came were observed between Jan 2014 - Jan 2015. All the three VHNDs were conducted in a building - two in a sub-centre and one in an Anganwadi Centre. In all three cases the VHND was held on the

scheduled date and the ANM was present along with the Anganwadi worker and the Sahiya. In all three sites there were provisions for basic testing including pregnancy detection strips, a kit to test the haemoglobin levels, vaccination carriers and vaccinations, weighing machines and in two places BP measuring machines. SNP packets were available in two of the three places. Oral contraceptive pills were available in all three places and condoms were available in two of the three places.

The sub-centres did not have enough space to provide for seating arrangements for VHND, or a private space for abdominal examination. On the other hand the Anganwadi Centre observed was large and spacious and had ample space and provisions for both seating as well as examination in private. However in none of the three places were any IEC materials on display and in all three the attendance was very poor. The VHNDs that were held in the two sub-centres covered a scattered population; despite informing the women a week in advance and then again going to call them on the day of the VHND, only one woman came, after the team had been waiting for the entire day. The VHND conducted in the Anganwadi Centre was located in a thickly populated habitat and hence the attendance was better than those conducted in the health centres; however here too there was an overall reluctance to access the services.

FINDINGS FROM THE COMMUNITY-BASED MATERNAL DEATH REVIEWS

The following report analyses 20 cases of reported maternal deaths from Godda district (Sundarpahadi and Boarijor blocks) documented through the civil society intervention. The first case was a death dated 18 June 2014 and the last one 6 November 3015.

The 20 women whose deaths have been documented all belonged to marginalized sections of society: 20 of them were from tribal communities barring two (one Dalit and one an OBC from the Muslim community) and four of these 18 were PVTG tribals. A number of them came from wage-labourer or marginal farmer families, and by occupation they were either daily wage labourers or home-makers; four of the married women had a husband who was a migrant worker in another state. Two were teenagers and one was unmarried, and the ages of the women ranged between 18-36 years with a larger number of women being 20-30 years of age. Only three had attended primary school, while 10 of the women had never been to school (there is no information for the remaining nine).

Their BPL status is certified for 6 women, unknown in 11 cases but 5 did not have BPL cards; some had the red ration card (Antoday). The fact that the women who died belonged to tribal, PVTG, Dalit or Muslim communities, worked as wage-labourers and had almost no schooling, indicates that these women came from extremely marginalized sections of society. Yet despite their evident poverty, not all of them had managed to obtain BPL cards given their remote locations in many cases. (See Annexure 1, **Table I - Profile of Women**)

15 out of 22 of the women who died had obvious signs of being high-risk in terms of obstetric history. Of the 22 women, five women were primi gravida. Of the17 women who had been pregnant before, nine women were in their fourth and higher pregnancy; one had an earlier miscarriage. In a sense, a high proportion of the women had high-risk signs in their obstetric history which needed greater attention in this pregnancy (See Annexure 1, **Table II- Obstetric History of the Women)**.

i. What led to the deaths of these women?

Some examples of how women in Godda died are given below-

- One woman died at home without giving birth suffering from pain, **convulsions** and breathing difficulties
- Three women died at home after home birth without seeing any formal provider, two appear to have developed **fever** and one had **heavy bleeding** and retained placenta which was treated by a Shaman
- One teenage girl was in labour at home but finally died having been referred to three hospitals **after 45 hours of labour** without giving birth.
- One died of post-partum cerebral **malaria** and anemia after **seeking treatment at the Medical College** where they couldn't give her matching blood transfusion
- One woman died of unsafe abortion using a herbal abortifacient, leading rapidly to her death.
- One woman died after 19 hours of labour just after delivery in a private hospital
- Another woman died after prolonged labour, leakage of amniotic fluid and **interrupted treatment over 12 days** in four hospitals in which she visited the CHC twice

ii. Did the health system have the ability to manage obstetric emergency?

Did the women reach the health system?

The rate of childbirth at home in Godda district is more than twice the rate of institutional births (see Table 3, AHS 2013). This is also borne out by our findings of the women who died, among whom 12 actually went through childbirth: 8 finally had home delivery while only 4 had hospital delivery. We find that a significant proportion had **planned on home births** on the other hand **planning for institutional birth** doesn't always work, owing to transportation problems, or being asked to go too far, and then returning home for the birth.

Among the women who died, 8 women had planned home births while 2 other women remained in labour at home, hoping the vehicle could take them: one of the woman died at home in labour before the Mamta Vahan arrived; another women died without getting an ambulance as she lived in a primitive tribal village inside a forest where there were no all-weather roads. Two women who intended home births were referred out **from home to hospital**. A hospital birth was intended by 9 women; but finally 3 of those women finally **came back from the hospital** and tried to give birth at home.

What was the role of the first point of care?

i. Care at home

Of the 19 women who carried their pregnancy to term,10 women attempted home birth. Of these 10, eight women had home births assisted by a local TBA or traditional birth attendant (called dai or

Dom buri). The other two women were referred out to hospitals - one was a teenage girl, who was being seen as an unwanted responsibility was made to wait at home during prolonged labour for two days as her relatives were reluctant to move her into hospital. Of the 8 women who delivered at home, 3 women appeared to be quite neglected by their families after home births and died at home due to post-partum complications.

Three women tried to deliver in a hospital but returned home due to various reasons. Of these 'hospital-returned' cases, only one woman delivered at home while two died in labour.

The quality of home-based care is doubtful: only in the case of one woman it is mentioned that the TBA was her mother-in-law and had received four days' training in safe childbirth at the local Mission Hospital. The TBAs use massage to facilitate the birth; the informal provider gives medicines, injections and IV fluids without any formal training. However for both we note that they **do refer out** women when they see serious complications developing.

ii. Care in institutions

Of the 11 women who reached a health facility during labour, it is very revealing that only four finally gave birth in a hospital. The others died in hospital or in transit or just gave up and went back home. The **MamtaVahan vehicle took the women** to their PHC or CHC in all the cases, except one in which the woman walked 5 kms to her CHC when she sensed that foetal movement had stopped. Many women were obvious high-risk cases but the crucial link between ante-natal assessments and childbirth management is **missing information** for example, about their severe anaemia, too-recent childbirth, or transverse lie of foetus.

The women who did reach had experience of multiple providers and often accessed more than one institution. Even when women are in a critical condition, we find that precious time is lost in **multiple referrals:** the Sahiya takes them to the CHC in a routine response, leads to being **referred** out to Godda District Hospital (DH) which again refers them out to the Bhagalpur Medical College (MC) without providing ambulance or adequate support. In one case a woman who was very anaemic and in her fourth pregnancy, spent 12 days trying various public hospitals four times and everywhere being referred out until they took her to a private hospital where she died.

The experience of these tribal women who did try for a hospital birth does not increase their already low faith in the formal health system. Leaving their remote villages they undertook arduous journeys to access institutional care, but after they reached, there seems to be a **communication gap** as well as a **lack of adequate response** by the health system. The health providers are unable to clearly, conveying the seriousness of the situation, neither do they provide more support for these poor families. They merely refer the villagers into far-away hospitals, as a result of which in some of the cases, the families decided to seek care with local providers or in private hospitals.

Was the complication identified on time and managed by provision of CEmOC?

Out of 20 women, one died during pregnancy from unsafe abortion complications; 7 women died due to complications during labour without having delivered the baby, and the remaining 12 died of post-partum complications. Prolonged labour or cessation of labour is the most common intra-partum complication. Some women develop ante-partum bleeding or loss of fetal movement with foul-smelling discharge which is followed by a still-birth. One woman has intra-partum convulsions,

one has post-partum convulsions. Retained placenta and heavy bleeding are also seen among some women. Two women have fever and one has cerebral malaria with severe anaemia.

In a situation like Sundarpahadi block, where there is a lack of all-weather roads, hilly terrain and tribal communities who have low faith in the health system, we find that in **14** out of 20 women and their families consulted **informal providers** for fever, prolonged labour and other complications. This includes TBAs (*dai or domburi*) and shamans as well as 'RMPs' who are the local 'quacks'. Nonetheless, **15** women made an **attempt to reach a public health facility** when they perceived a post-partum complication. However only 13 actually reached; two women died hoping to reach a hospital: one woman died of retained placenta before they could take her to hospital, another woman died after home birth before the Mamta Vahan arrived.

Of the 13 women who did reach a hospital when complications were observed, we find that the relevant ante-natal information (or MCTS) does not enable the health system to track her condition or make any birth-plan (special provisions) to take her directly to the tertiary hospital where emergency care is available. Since the health system has no information about their already critical condition for **8 out of 13 women time is lost** in going from one hospital to another in a chain of referrals that also leaves the family confused. Even when a woman directly reached the Medical College to get treatment for cerebral malaria and anaemia, they could not find matching blood for two days until finally she died.

The **7 women who had prolonged labour** did seek care, however not a single woman has a **C-section.** This is not given even at the DH for various reasons, and the women are referred out, sometimes within a short time or sometimes after keeping them for too long. Since the only possible places for C-section with blood transfusion are at Deoghar Sadar Hospital or the Bhagalpur Medical College, there are delays in getting effective treatment (see Annexure-1, **Table III Complications and Time of death).**

How is Referral and transportation managed?

If we look at the **accessibility** of the CHC, 6 women first visited the CHC Sunderpahari which is 10-25 km from their residence. It is mentioned in two cases that it took the family 2-3 hours to reach CHC even though the distance is not far, but possibly the absence of proper roads makes travel slower. In one case it is mentioned that the delay was due to heavy rains which makes the un-tarred roads difficult to travel. In about six out of 20 cases, the MamtaVahan was called to take the women to hospital. In one case the woman had to go for a home delivery because the vehicle could not reach her village. In three cases the ambulance was called for, but the woman died before it could reach. Sometimes the ambulance could not be arranged, so three families took the initiative to organize for an alternative vehicle. The two families who opted for deliveries in the private sector arranged for private transport.

The cases that were referred out from the CHC had to travel another 25 kms on metalled roads to District Hospital (DH) Godda. The Godda DH refers women for C-section with blood transfusion either to Deoghar Sadar Hospital or the Bhagalpur Medical College in Bihar. This leads to a serious problem with referral transport in Godda, since the government ambulance can bring women to the CHC or DH or the Deoghar Sadar hospital but will not take them to the next referral centre which is across the state border in Bihar. Sometimes the DH offers the family Rs 1000 for costs, although the actual expenses are far higher: a vehicle can charge upto Rs 5000 to take a family.

Does the Free services under JSSK work?

Out of 20, we find 7 women were provided with an ambulance when they had to go to a hospital: they received the Mamta Vahan ambulance service to move from PHC/CHC to the District Hospital. But the remaining had to use private transport for referral, sometimes at exorbitant costs such as Rs 2300 or Rs 5000 to get to Bhagalpur (see Annexe 1, **Table IV-Transportation and cost).**

Another aspect of expense is the cost on bringing the body back to the village after death, since the health system does not provide this assistance. The private vehicles have charged high amounts to bring the body of the deceased woman back to the village from the hospital, for example the family of the teenage girl had to spend Rs 3000 to bring her body home from the District Hospital.

What is the role of the private sector

In **14** out of 20 cases women and their families consulted **informal providers** for fever, prolonged labour and other complications. This includes TBAs (*dai or domburi*) and shamans as well as 'RMPs' who are the local 'quacks'. The payment for the treatment by a quack can cost up to Rs 3000.

Two women accessed **private hospitals** and a third woman went there as a last resort after trying public hospitals four times. In the case of one woman who was seventh gravida and was very sick during her pregnancy, the family took her to a private hospital, paying unaffordable amounts. For the other younger woman her Mother-in-law said, 'Who would want to go to a government hospital?' indicating her dissatisfaction with the services that prompted her to go directly to a private provider. The poor tribal families spent **enormous amounts of money** at these private clinics but it can hardly be said that these were safe deliveries. We note that the clinics used by the women were run by a government -employed doctor, and one family had to negotiate a price of Rs 8000 for a normal delivery.

iii. How effective is the routine provisions within NRHM to identify and manage complications?

The NRHM model is based on getting pregnant women registered during pregnancy and then going into an institution for safe birth. It is expected that the registration will lead to women accessing comprehensive Ante-Natal Care (ANC) where there will be an identification of danger signs and referral. The support of the Sahiya workers and the ambulance taking the women to a hospital will ensure safe childbirth. But all these assumptions fall short given the situation in Sundarpahadi. We observe that beyond the TT shots and IFA tablets, the remaining ANC services seem to be very uneven; the tracking and follow up of women at risk appears to have been poor, if not non-existent. This is also borne out by the secondary data (AHS 2013) which indicates that ANC coverage is very patchy.

Two pregnancies were not socially acknowledged, one of which was a teenage pregnancy and one in which there was an induced abortion. Of the remaining 18 women who died, it appears that 16 women had **at least one contact** with the ANC provider which was usually the ANM. Of the 16 women, 8 went to the Anganwadi Centre for the ANC, two went to the VHND and one woman reached her Sub-centre, for others we do not know. In terms of the services received there, for 15 women families recollect at least one **TT shot,** and **IFA tablets,** but only 2 out of 4 women in Boarijor had **BP checked** and **abdominal examination** and 2 out of 16 women in Sundarpahari had their

haemoglobin measured. Thus the ANC services received were **fairly basic** and no additional tests were conducted. One woman shifted between her natal home and marital home both within Godda district during pregnancy but her ANC reflects no continuity, and the **MCTS system does not seem to have enabled** her records to be shared.

Of the 20 women, 5 women were primi gravida. Of the 15 women who had been pregnant before, 9 women were in their fourth and higher pregnancy; one had an earlier miscarriage; they all needed special counselling, care and follow-up during pregnancy and labour. At least five of the women had very closely spaced pregnancies, and one woman was a multi-gravida who did not even want this pregnancy. She opted for an **unsafe abortion,** self-administering herbal medicines obtained from a local practitioner, and died quite quickly after onset of complications. However ANC visits do not include contraceptive counselling or information on safe and confidential abortion services.

Only for two women do we hear that a high-risk sign was identified, which is that their anaemia was recognized during ANC. One of them from Boarijore was not only anaemic but was suffering from heart problem as well as reported headache, convulsions, and prolonged unconsciousness during her pregnancy. Beyond obstetric problems, the area is an **endemic zone for malaria, especially falciparum, as well as kalazar**[6]**;** yet these obvious risks for pregnant women are not picked up by the routine ANC care provided at the AWC or VHND. We see one woman who got malaria during pregnancy in the 6th month and died despite going to the Medical College in Bhagalpur for treatment.

To conclude, not a single woman received comprehensive ante-natal check-up; as a result many **danger signs** were missed. In fact when labour pains began or any problem was perceived, **the Sahiya** (equivalent of ASHA) was called in **only five cases.** But it is noteworthy that of the 18 pregnant women whose pregnancies were known, 15 women received supplementary nutrition from the Anganwadi, which is relevant given the high rates of malnutrition in the area.

Discussion and Conclusions

Our findings corroborate the data of the AHS 2013, in that we find **comprehensive ANC** is lacking in Godda; the FLWs are not effectively tracking the high-risk cases, and neither are unwanted pregnancies being prevented.

Ante-natal care needs to be interpreted beyond the 'bare minimum routine services' provided to women at the community level, to include and take into account any existing medical symptoms of the pregnant woman as well as her obstetric history. These were not recorded in the Mother-Child Tracking System (MCTS system) nor were the women followed up to ensure that they receive appropriate care when required. Women who had bad obstetric history or unwanted pregnancies were not detected and properly counselled or followed up in terms of the specialized care that might have saved their lives; neither were they followed up by the MCTS if they migrated back home before childbirth.

The lack of timely family planning counselling and services is a critical gap: many women required information on either **contraceptive services or safe abortion** services but this was not available, leading to very closely spaced and frequent or unwanted pregnancies, or accessing unsafe abortion services from private informal providers. The current model (using AWCs or VHNDs) is still a weak

6. In Godda, see http://nvbdcp.gov.in/Doc/Road-map-KA_2014.pdf GOI

approach since the attendance is problematic because of the terrain and lack of trust; more pro-active efforts are required.

In Godda, the Sahiyas played a basic role in **connecting families with government transportation** calling for the MamtaVahan ambulance to transport the women from home to the facility. In the case of these women it appears the Sahiyas accompanied the women and their families to the hospital for deliveries. But the Sahiya does not adequately facilitate communication between the health providers and the tribal family. This was required in at least three cases, since the family could not understand the reason for referral, lost trust in the health system, and decided to leave the facility and return to the village to seek care from TBAs or quacks.

The rate of childbirth at home in Godda district is more than twice the rate of institutional births (AHS 2013) which is also borne out by our findings of the women who died, among 8 finally had home delivery while only 4 had hospital delivery. However there seems to **be no effort to make home-birth safer.** There seems to be no training of birth attendants who can provide services in the community. The role of **local informal providers** (TBAs and quacks) needs to be built into any strategy for this area, as they are the first point of contact for families living in remote villages, and they are also accessed when the public system appears to fail the women. Yet these providers do not have the required training from the government health system and it is not known whether they provide rational care. There is an indication that they could potentially serve **as a referral mechanism** since in two cases they did advise the family to immediately take the woman to hospital.

On the other hand, the public health providers are **not able to provide the life-saving EmOC care** that is the basic rationale for promoting institutional delivery. Out of 7 women who had prolonged labour, 5 died without delivering even though they visited a number of health facilities. We find that the deaths of the women were caused by various kinds of delays of the health system, including lack of prompt treatment and **repeated referrals.** In both the Sundarpahari CHC and in Godda District Hospital we find that the facilities are unable or unwilling to manage any kind of obstetric complication. A possible reason for avoiding C-sections may be the lack of blood transfusion facilities which has remained a problem in Godda DH for many years[7].

Despite the inability of the CHC to manage anything beyond normal labour, the Sahiya takes every woman to the CHC in a routine response, which leads to loss **of time** during the referral out to Godda District Hospital (DH) even for complicated case. There again we find women routinely referred out to the Bhagalpur Medical College (MC) without giving an ambulance or adequate referral support a paramedic. This often **breaks the trust** of the poor tribal families who have already made a great effort to come from their remote villages to the district headquarters. Sometimes the lack of supported referral and high out-of-pocket expenditure (OOPE) led the family to **delay while they tried to raise sufficient funds** to take the women to the Medical College, fearing the expenses.

Transportation remains a key barrier in this hilly forested terrain. In none of the cases do we find that any vehicle was provided for the referral to Bhagalpur, and families are meant to negotiate charges with private operators to travel across the state border. What is worse is that when the dead body has to be brought home there is **no mortuary van** provided, which burdens families with further crippling expenses.

7. Banerjee et al, 2013 ibid, and NAMHHR & TORANG Trust (2014) *Maternal Health & Nutrition in Tribal Areas: Report of the Fact-finding Mission to Godda Jharkhand (NAMHHR, India)*

The public health system currently reflects a **lack of trust and clear communication** with the poor tribal villagers, who feel alienated. Perhaps providers do not speak the language of the tribals very well, or perhaps the Sahiyas are not being used effectively in this aspect.

Another issue of concern in Godda is the conduct of **private hospitals that are run by government-employed doctors,** who can demand as much as Rs 8000 (after bargaining) for a normal delivery. It is evident that these hospitals are seen as providing better care than the government hospitals, and families can go to enormous lengths to raise the money needed for such private healthcare, such as selling all their assets or taking loans at exorbitant rates of interest.

Annexure 1: Tables of Godda

Table I - Profile of women who died, Godda					
#	Age	Caste	Education	Occupation	BPL Card
J1	20	OBC (Muslim)	Not Literate	Home maker	no
J2	25	Mal Pahariya	Not Literate	Home maker	not known
J3	36	Santhal	Not Literate	Wage labourer	not known
J4	27	Santhal	Not Literate	Home maker	not known
J5	23	Santhal	Not Literate	Home maker	not known
J6	35	Santhal	Not known	Farm worker	no
J7	26	Sauria Pahariya	Not Literate	Farm worker	no
J8	28	Santhal	Not known	Home maker	no
J9	18	Pahariya	Not known	domestic help	not known
J10	20	Mal Pahariya	Not Literate	not known	not known
J11	22	Santhal	Not Literate	Home maker	not known
J12	35	Santhal	Not Literate	Wage labourer	not known
J13	19	Santhal	Not known	Home maker	yes
J14	22	Santhal	not known	Home maker	yes
J15	26	SC	Class 4	Making leaf plates	yes
J16	26	Santhal	Not known	Home maker	no
J17	34	Santhal	Not Literate	Farm worker	not known
J18	20	Santhal	Not Literate	Home maker	yes
J19	28	Santhal	Not Literate	Home maker	yes
J20	30	Santhal	Not known	Not known	yes

Table II -Obstetric history of women, Godda					
#	Age	Gravida	Pregnancy outcome	Other risk factors	High risk
J9	18	1		Teenage premarital pregnancy	Y
J1	20	1			Y
J10	20	1		No roads to her village	Y
J11	22	1			Y
J18	20	1		Short height	Y
J5	23	2	Died > 6 months		
J13	19	2			
J14	22	2		Conceived immediately after last childbirth	Y
J16	26	3		Family has no faith in health system	Y
J3	36	3		Age > 35	Y
J20	30	3			
J7	26	4		Chronic illness, fever	Y
J4	27	4		4th pregnancy in 9 years	Y
J2	25	4		4th pregnancy in 10 years	Y
J8	28	4	One miscarriage	4th pregnancy in 10 years	Y
J6	35	5		Grand Multi (GM)	Y
J15	26	5	Two sons died	Unwanted pregnancy, GM	Y
J12	35	6		Age > 35, Grand Multi	Y
J19	28	6		Weak and anaemic; had 5 pregnancies in 10 years, GM	Y
J17	34	7	1st son died > 15 days	Very ill, high fever before pregnancy, GM	Y

Table III-Intra- or post-partum complications and time of death (for 19 women)		
Intra-partum complications	**Early Post-partum**	**Late post -partum**
J1- prolonged labour and bleeding	J12- breathing difficulty - died after 4 hours	J5- cerebral malaria died after 13 days
J2- prolonged labour for 12 days and leaking amniotic fluid, weakness	J14- breathing difficulty & convulsions, died after 1.5 days	J6- fever, pain in the legs and rigor, died on 6th day
J3 - prolonged labour for 2.5 days, transverse lie of the foetus	J16- retained placenta, died in 7 hours	J7- weakness and fever, died on 6th day after birth
J4- prolonged labour 2.5 days and leaking amniotic fluid	J18- retained placenta, died after few hours	J10 - retained placenta, bleeding, pain died on 4th day
J8- prolonged labour and bleeding for 20 hours, unconsciousness		
J9- prolonged labour 45 hours		
J11 - prolonged labour 19 hours and bleeding	J11 - heavy bleeding shortly after birth	
J13- pain, breathlessness, and convulsions		
J17 - lack of fetal movement, convulsions	J17- Heavy bleeding, died in 2.5 days	
J19- lack of fetal movement, bleeding, foul-smelling discharge		
J20- nosebleed during labour		J20- Breathing difficulty, died after 5 days

Table IV - Transportation and cost (MV- Mamta Vahan)					
Single facility or one referral					
#	**Facility 1**		**Facility 2**		
J1	Private vehicle to private hospital				
J5	Private vehicle to Bhagalpur MC (2300/-)				
J14	Private vehicle to DH (1000/-)				
J20	MV to PHC				
J3	MV to CHC		MV to DH		
J4	MV to CHC		MV to DH		
J8	MV to CHC		MV to DH		
J9	MV to CHC		MV to DH		
J19	Walking to CHC		Private vehicle to Bhagalpur MC		
Multiple referrals					
#	**Facility 1**	**Facility 2**	**Facility 3**		
J11	MV to CHC	MV to DH	MV to Deoghar Sadar Hosp.		
J17	Private vehicle to Private hospital (1500/-)	Private vehicle to CHC (one km away, charged Rs 300)	Private vehicle to Bhagalpur MC (5000/-)		
More than three referrals					
J2	MV to CHC	MV to PHC	MV to CHC	MV to DH	Pvt. vehicle to Pvt Hosp.

Annexure 2: Case Summaries of Jharkhand

A. Died during pregnancy

J15

J15 was married when she was around 16 years old. They lived in district Godda, Jharkhand. J20 belonged to SC category and had eloped with a boy who belonged to ST category. J20 had studied up to class 4th and was involved in making leaf plates and selling them. Her husband mentioned that they have a BPL card.

She had four previous closely-spaced pregnancies, all live births. Two sons are alive and two died later on. The elder one is nine years old and the younger one is two years old. She received ANC services during her last pregnancy and delivered at the PHC. This was J15's fifth pregnancy in the space of ten years, at the age of 26. She was around three months pregnant. There is no information available for any ANC done during the current pregnancy.

This was an unplanned pregnancy and J15 wanted to end the pregnancy. On 5th June, 2015 she went to her natal home to get the abortion-inducing herbs. The next day, i.e. on 6th June, 2015 J20 herself inserted the herbal medicine into her vagina. After sometime she developed breathing problems, and started gasping and sweating. Since her husband was not available she called her sister-in-law and asked for a glass of water. Before any action could be taken she died, and there was bleeding after death. She died within an hour from the onset of the complication at around 1 pm.

b. Died during labour

J2

J2 was a non-literate Mal Paharia tribal woman (PVTG) who was a homemaker. She lived in Godda district, Jharkhand. She was married at the age of 15. Her husband worked as a daily wage labourer. It is not clear if they have a BPL card but they lived in a Birsa house. Her village is very difficult to reach as it is hilly and has bad roads and in the rainy season which starts in July, it becomes worse.

She became pregnant immediately after marriage and became pregnant again when the baby was a year old. Her three earlier pregnancies all resulted in live births and the children were aged 9, 7 and 4 years respectively. She did not face any complications in her earlier pregnancies. J2 was of short height (below 145 cm) and low weight (below 40Kg). This was J2's 4th pregnancy at the age of 25 years. She was always a weak woman. During this current pregnancy she had ANC checkups (but the actual number is not known) and was told that she was very anemic. She was given IFA tablets and TT injections as well as SNP from the Anganwadi centre.

When her pregnancy was full term, the labour pains started in the morning of on the 14th of July, the Sahiya called the Mamta Vahan and they went to the CHC. It took 2 to 3 hours to cover a

distance of 10 km as it was raining heavily. On being admitted and examined, the staff at the CHC diagnosed that J2 was very weak and the case was complicated; she would need blood and a C-section. *It is not known whether the diagnosis was clearly explained to her family, or whether any interventions were tried to augment her labour, or whether she was supported for an immediate referral*. She waited in the CHC for two nights on the 14-15th. When her pains subsided, on the 16th July she finally left the facility of her own accord and returned home in a hired vehicle to her children. She waited at home till the 22nd of July, and this entire week her amniotic fluid was leaking, and she felt too weak to walk. On the 22nd when her pains increased again, they called the Mamta Vahan once again and this time she went to the PHC.

The staff in the PHC too diagnosed that her case was complicated and they could not help her. She spent the night there and the following morning (23 July) was referred out again to same CHC where she had visited earlier by the Mamta Vahan. On reaching the CHC, she was given stabilizing treatment by an ANM, and but within 15 minutes was referred to the District hospital in Godda as they could not provide the C-section and blood transfusion that she required. The District Hospital is 15 km away and she went there by Mamta Vahan. On admission into the District Hospital, after examining her, the staff advised her family to take her to Bhagalpur Medical College (in Bihar) for better management and treatment of her complication. The family was also offered Rs.1000 as transportation support. However, the family decided not to go to the Medical College, instead they spent the night in the district hospital (23rd) and the following morning (24th) they set out on a bus for J2's natal home which is 25 Km away from Godda DH. To reach her natal home, she travelled partly by bus and was carried the rest of the way on a cot, and she stopped at her natal home for the night. Her journey on the cot continued the next morning and she finally reached her marital home on the 25 July. By this time she was very ill and unable to move. To save her life, the family sold their livestock (goats and cattle) for Rs. 30,000/-

Once again on 26th July they hired a vehicle for Rs. 3000 and took her to a private facility in Godda, which is not an accredited facility but is run by a government doctor. They reached the facility at 11am on 26th July. By this time her labour pain had almost completely stopped and her amniotic fluid too had stopped leaking. She was sent for an ultrasound to determine her status. Just after her USG was completed and she was being brought out of the room in a stretcher, she died without the initiation of any treatment in the private facility. The family had to pay Rs. 400 for the USG. The total amount spent by the family was 5000/- which included expenditure on transportation and the ultrasound test.

J3

J3 was a non-literate Santhal tribal woman who was married when she was 26 years old. They lived in Godda district, Jharkhand. She was engaged occasionally as a non- agricultural labourer.

Her previous two births were normal deliveries without any complications and her children, a boy and a girl, are aged 8 years and 3 years respectively. In this third pregnancy at the age of 36 years, she received SNP and also had ANC checkups but the family was not sure what she received. The only thing they could recall clearly was that she received TT shots. The family mentioned that she had mild anemia around 9 mg/Hb. According to the family, she enjoyed good health.

On the 25th of December when her date was overdue, her waters broke and pains started at about 9am in the morning. The family contacted the Sahiya who called for the Mamta Vahan. J3

accompanied by her mother, mother-in-law, a neighbour and the Sahiya went in the Mamta Vahan to the CHC which is 15-16 kms away. They reached after 2 hours. J3 was examined within half an hour of reaching the CHC by a nurse who stabilized her and after 2-3 hours, referred her to the DH with a referral slip. According to the family they were only told that there was 'delay in delivery' and given no other explanation. However, the ANM told the investigator that when J3 had come to the CHC, she had conducted an abdominal examination and had found that the feotus was in a transverse position. This was conveyed to the family and they were told that she would need a C-section and hence she was being referred to the District Hospital. They left the CHC for the District Hospital by Mamta Vahan and travelled 25 kms. In the DH, J3 was examined within half an hour of reaching and given some oral tablets. She was referred to Bhagalpur Medical College in Bihar, as she required a C-section and would get effective treatment there, but the family only recollects being told, 'there was delay in delivery.' According to the ANM, the staff at the DH had also told them that she would require blood for the C-section and it was not possible for her to deliver normally as her foetus was in transverse position and her labour pain was reducing.

J3 spent one night (25th Dec) in the DH. The two mothers decided to return home to arrange for money; the Sahiya tried to dissuade them and told them to call for J3's husband who could come to Godda with the money. But the mothers decided otherwise and on the 26th of Jan early in the morning, 24 hours after her labour commenced, the mothers and J3 left the DH, went to a vehicle stand and hired a vehicle for Rs. 400 to take them home. By this time the pain had subsided and so J3 was feeling better. According to the ANM, they called for the local quack to start an IV drip and induce pain again at home. She died the next day at home 27th evening without delivering the baby, probably due to obstructed and prolonged labour for two and a half days.

J4

J4 was a non-literate Santhali woman married at the age of 18 years and lived in Godda district, Jharkhand. She was a home maker. Her husband owns some land and is engaged in agriculture.

She became pregnant very soon after marriage. Her first three pregnancies resulted in live births and her daughters are aged 8, 4 and one and half years. All of them were normal vaginal deliveries. This was her 4th pregnancy at age 27, a few months after her last childbirth. She was visited by the Sahiya and ANM who gave her gave her two TT injections and IFA tablets. Her family does not remember whether she received any other ANC services. The ANM had told her that her haemoglobin levels were low. The ANC services were probably received during the VHND in the Anganwadi centre (respondent not sure about this). She received SNP from the Anganwadi during her pregnancy. J4 had difficulty doing household work during pregnancy due to her poor health and weakness, possibly since she had recently undergone another pregnancy.

On the 27th December when her labour pains began and amniotic fluid started leaking in the evening, the Sahiya was called and within an hour around 7pm they set out for the CHC (which is 18 Km away) by the Mamta Vahan. It took them an hour to reach and they reached the hospital by 8pm. At the CHC she was physically examined and stabilized, the staff told the family that it was a critical case and she would need blood and a C-section. Then they referred her out in a short while to the District Hospital (which is 25 Km away) by the Mamta Vahan at 10pm. It took them one hour to reach and it was 11pm by the time they reached. At the district hospital, following an examination, the family was told that J4 was a critical and complicated case and they would not be able to deliver

the case in the DH *('nai sakbo')* and therefore they were referring her to the Medical College in Bhagalpur. The family was even offered Rs. 1000 to help with the transportation expenses to Bhagalpur. The family was dissatisfied with their reply as the staff did not start any treatment nor clearly explain the reason why they were not able to provide the treatment, or why they were referring her to the Medical College. But it was very late so the family stayed the night in the DH. The family finally did not go to the Medical College and they returned home the next morning (28th Dec) travelling a distance of 45km partly by bus and partly in a hired vehicle. After reaching home they called a TBA around 10 am, who said that they would manage the transverse lie of the foetus. J4 became unconscious soon after. The TBA tried to deliver the baby by massaging her and rubbing her limbs but in vain. J4 passed away two days later, on 30th Dec early in the morning at 6am without delivering after being in labour for two and a half days.

J8

J8 was a Santhal and was married at the age of 18. She was a homemaker who lived Godda district, Jharkhand. They did not have a BPL card.

One of her previous pregnancies had resulted in a miscarriage. This was her 4th pregnancy at the age of 28. The family was not sure whether she had received any ANC checkups or whether she had received SNP. When her labour pains began at 9pm on the 22nd Aug 2014, J8 went to deliver in her natal home which is in the same village, because she lived in a nuclear family with her husband and small children. A *dai (dom buri)* was called and she tried to deliver the child through the night by constantly massaging J8's abdomen. However J8 did not deliver and her pain went on increasing. So in the morning a local informal practitioner (quack) was called. He examined J8 and advised the family to take her immediately to the hospital for a safe delivery. The Sahiya called the Mamta Vahan and she was taken to the CHC which is 25 km away at 9am.

On the way to the CHC J8 began to bleed. It took them more than an hour to reach and it was 11 am of 23rd August 2014 by the time they reached. The ANM in consultation with the doctor initiated treatment within half an hour. An IV drip was started and J8 was given a few injections but she could not deliver even though it was about 17 hours after commencement of labour, and she continued to bleed. After staying in the CHC for about 4-5 hours, she became unconscious at about 3pm and so she was referred by Mamta Vahan to the District Hospital. The family also paid informal payments (Rs. 60) in the CHC. However she died in the Mamta Vahan around 4 pm on 23rd Aug. without delivering after being in labour for nearly 20 hours, before they could reach the Godda district hospital. The Mamta Vahan dumped them at the DH and went away. The staff at the DH examined her and declared her brought dead.

The family asked the DH for help to arrange for a vehicle to take the body back, but the staff did not help; rather they tried to intimidate the family but threatening them with dire consequences as they had brought a dead body to the DH that would now need post mortem. Fearing a police case, the family hired an auto for Rs.1000/- to transport her home.

J9

J9 belonged to the PVTG group of Pahariyas, and lived in Godda, Jharkhand and was an orphan who lost her parents when she was around 5 years old. She had been taken in by her paternal relatives (father's cousin, *chacha*) and she worked for them as a domestic helper. She had become pregnant as

a teenager, and had come visiting her paternal aunt *(bua)* and cousin in the village. She had been living with them for one month and three days.

It is not clear whether she had been sexually exploited or whether she had consensual sexual activity, but neither of this was acceptable to the foster family and she was beaten up there. To avoid scandal and shame, she was taken by her paternal aunt *(chachi)* to her paternal aunt *(bua)* in an advanced stage of pregnancy to deliver in anonymity. The foster parents instructed the aunt to get rid of the infant either by selling the child or giving it away for adoption, and suggested they could also claim J9's father's land for themselves in exchange. J9 was not taken for ANC checkups nor could she get SNP as her paternal uncle wanted to keep her pregnancy a secret.

The cousin (*bua's* son) was very annoyed by this offer because he felt that he had a responsibility to look after until the time she delivered as she was his maternal uncle's daughter. However, he also thought that J9 was the responsibility of her foster family and hence when J9's labour pains started around 9 or 10pm on the 16th of Sept 2014, he informed them. A local TBA was called to assist with the delivery. However after two days of labour (18th of Sept) she had not delivered. So the Sahiya and J9's aunt called for the Mamta Vahan which took her to the CHC that is 10 km away from the village; they reached there at 4pm. She was a primi who had been in labour 43 hours by then. The CHC referred her after 1 or 2 hours due to her weak anemic condition, to the District hospital which is 22 kms away in a Mamta Vahan. She was admitted in the DH and IV fluids were given to her for one or two hours, but the district also referred her to Bhagalpur. By the time they were shifting her to Bhagalpur, she was gasping for breath and died on the stretcher before being transferred into the vehicle on the 18th of Sept around 6.30 pm after being in labour for almost 45 hours.

The family had to spend Rs 3000 to bring the body back. The body was finally taken to the house of her foster family, as her cousin felt they were responsible for her.

J13

J13 was a Santhal girl married when she was around 15 years old. They lived in district Godda, Jharkhand and she was a home maker. The family had a BPL card (Red card for Antyodaya).

This was J13's second pregnancy at the age of 19. She had two ANCs done at the VHND. She was at her natal home during the pregnancy. Her's labour pain started on 16th October, 2014 during the daytime. She was having restlessness, pain, convulsions and breathlessness. J13 wanted to be admitted at the CHC and the Mamta Vahan was called. Before the Mamta Vahan could reach she died at around 11pm (approx 6 hours from the onset of labour pain).

J19

J19 was a Santhal girl, married at the age of 17. She lived in district Godda, Jharkhand. They have a BPL card (red card) and a MNREGA job card. JHGOBO4 was literate and was a homemaker.

J19 had five past home deliveries in the last ten years; all were live births. She was weak and anaemic. This was her sixth pregnancy at the age of 28. During this pregnancy she had two ANCs done at the AWC where she received IFA tablets and one shot of TT injection; but no other test was done. She received SNP from the AWC.

On 16th Sept, 2015 at around 10 am J19 felt that the foetal movement had stopped. She walked for 5 kms to reach the CHC at around 1 pm. She was admitted and given some treatment by the staff nurse who assured them that the foetal movement had not stopped. Since the doctor was not present she was referred out to Bhagalpur Medical College, after they had spent Rs. 1000 at the CHC. The family spent that entire day arranging for more money, hired a private vehicle and left for Bhagalpur Medical College. They reached the Medical College at 4 am on 17th Sept, 2015. J19 was admitted immediately and IV fluids were administered and some medicines were prescribed. She had lower abdomen pain and was feeling restless; besides, foul smelling vaginal discharge and bleeding had started. She was taken inside the labour room for delivery. About four hours later, around 8 am the nurse told the family that J19 had died. The family had spent around Rs. 1500 at the Medical College.

The family hired a private vehicle which charged Rs. 5000 to bring the dead body back home. The family received the death certificate. The family was not satisfied with the treatment provided at the CHC as well as at the medical college. Family spent Rs. 7500 in all, including Rs 1000 on the nurse at the CHC and Rs 1500 at the Medical College.

C. Died after childbirth

J1

J1, a non-literate Muslim woman was married at the age of 18 years. They were resident of Godda district, Jharkhand. Her husband is a migrant labourer working in a factory in Meerut, while J1 was a homemaker. Her family does not have a BPL card and they seem to be better off than most others. They belonged to the OBC category.

This was J1's first pregnancy and she was 20 years old. The couple lived in a nuclear family close to J1's in-laws hence her mother-in-law was not able to give many details. She received SNP and had ANC checkups at the Anganwadi centre, but her family did not remember the number of checkups nor did they keep the MCH card. They remember her getting IFA tablets and getting TT shots. J1's family mentioned that she was in good and robust health and do not remember her having any complications during pregnancy.

On the 27th of October 2014, when her pregnancy was full-term, J1's labour pain started around 1pm in the afternoon. She rang up her mother who lives in another village and told her that mild labour pains had started. Her mother assured her that she would come with a vehicle and that J1 must keep her informed about the progress of labour. By 7pm in the evening the pain had increased and had become unbearable for her. Besides she felt uneasy and could not sit down. Her husband asked her to lie down, but she was walking around in the room and throwing up her hands every now and then. However she asked her husband to lie down while she massaged his feet with oil. J1's mother reached in a vehicle early in the morning on the 28th of Oct at before dawn. Both the family members accompanied J1 to a private clinic at Nahar Chowk, Godda and it took them half an hour to reach by the same vehicle. This clinic is not accredited and is run by a government medical officer. They bargained with the doctor and finally settled for Rs. 8000/- for a normal delivery, so she was admitted around 6 am. J1's waters had already broken and a little bleeding had also started. Two hours later, she delivered a still-born male child normally at 8 am assisted by the doctor. J1 was in labour for about 19 hours. Suddenly a few minutes after the birth, J1 gave a loud cry and became silent. Initially, the staff thought that she had become unconscious, but they soon realized that she had stopped breathing and they declared her dead. The family was so shocked at this sudden and

unexpected death that they forget to collect J1's hospital records and in fact had forgotten to take the dead infant with them. The clinic reminded them and handed over the death infant.

When asked why they chose a private facility over a government one, J1's mother-in-law said, *"Who goes to government facilities!"* The NGO staff who accompanied the field investigator mentioned that J1's family did not trust the Sahiya and did not allow her to call for the Mamta Vahan. All the expenses were borne by the natal family. The private vehicle charged more than Rs. 1000

J5

J5 was a non-literate Santhali woman married when she was 18 years old, and she lived in Godda district, Jharkhand. She was a home maker and they were very poor.

Her first born child, a boy, died when he was 6 months old. This was her second pregnancy at age 23 years; she appears to have received ANC care, the details of which were not known by her husband and she did not have a MCP card. She received SNP from the Anganwadi centre. She was of good health and she delivered a live male baby normally in the CHC with the help of the ANM on the morning of 23rd Jan 2015 after about 7-8 hours of labour. She stayed in the CHC for almost two days and returned home on the 25th of Jan. A few days after her delivery, she had high fever and became very weak. A local practitioner was called on the 2nd of Feb and he diagnosed it to be brain malaria with severe anemia. The family knew that Bhagalpur Medical College was the right place for treatment of brain malaria and so they borrowed money from a money lender a 10% interest rate per month to make the journey. On the 3rd of Feb in the morning they hired a private vehicle for Rs 2300, and went to Bhagalpur Medical College. It took about 3 hours to cover the 100 Km distance.

In Bhagalpur Medical College she was admitted and treatment started but her husband does not remember what treatment was given to her in the Medical College. They also required blood to save her life but her blood group was out of stock. She was in the Medical College for two days, but matching blood could not be arranged. The non-availability of the matching blood group made them despair. J5 died two days later (5th Feb) in the Medical College and her body was brought back in a private vehicle. The family spent Rs. 10,000/- (2300 each way for travel to and from Bhagalpur, medicines and other expenses - 3000) which has pushed them deep into debt.

J6

J6 was a Santhali woman who was married at the age of 18 years. They lived in Godda district, Jharkhand. The family owned land and J6 worked as an agricultural labourer, but they did not have the BPL card.

Her previous deliveries all resulted in live births. This was her 5th pregnancy at the age of 35. She received SNP from the Anganwadi centre and the neigbhour mentioned that she got TT and IFA during her ANC checkups also in the Anganwadi. J6's relatives were reluctant to describe what happened. They mentioned that she delivered a child normally at home with the help of a dai on the 1st of July 2014. Five days after delivery, she developed high fever which prevented her from even doing household work. The neighbor reports that she also had severe pain in her legs and rigor. But none of her family members looked after her or stayed at home; instead they went to visit a relative, leaving J6 without an attendant. When her fever did not reduce, a quack was called to treat her. He gave her an injection but despite this treatment she died a day later.

The neighbour mentioned that the family was very indifferent and did not take care of J6. In the past too, their careless attitude had resulted in the death of their daughter during childbirth as they did not call a doctor for fear of expenditure. They made J6 do the entire household work as well as work outside as a labourer; even though they owned land.

J7

J7 belonged to the Sauria Pahariya PVTG and married before she turned 18. Her husband is a migrant labourer. They lived in Godda district, Jharkhand. She was non-literate and was an agricultural labourer but they did not have a BPL card. They had three sons.

The field investigator observed that this whole community seems to be suffering from extreme malnourishment and morbidity. J7 too was suffering from some chronic illness due to which she had fever for a long time. The field investigator suspects that it was either Malaria or Kalazar. She was under 40 kgs and was very weak. This was her 4th pregnancy at the age of 26. The respondents were not sure but they thought that J7 had 2 to 3 ANC checkups which included 2 TT shots and IFA tablets as well as SNP. From their narrative, it is clear that J7 delivered a live male child at home with the help of the dai. After childbirth she became weaker and had fever. She was not able to get up properly but there was no one at home to take care of her. A quack was called four days after delivery to give some IV fluids to the infant as it was very weak. The infant died 8 days after being born and J7 died on the 16th day after delivery without any treatment on 8th May, 2014. In fact none of the family was present at the time as they had gone visiting relatives. The family did not seem aggrieved by her death, neither was any concern expressed; her relatives were indifferent and considered her death to be her fate. They seemed reluctant to reply, and J7's husband was not in the village at the time of the interview.

J10

J10 was a non-literate Mal Pahariya (PVTG) tribal woman married at the age of 18 years. Her husband worked as a migrant labourer so J10 was living with her mother in the village. Their village is a primitive tribal village in a forested area where all-weather good roads do not exist.

This was her first pregnancy at the age of 20 years and she received ANC care as well as SNP but the respondent could not recall the details, except that she received TT shots and IFA tablets. She was underweight and had anemia and was extremely weak. When labour pains started (12th Sept morning), the Sahiya was called who tried to contact the Mamta Vahan but could not contact it, so ultimately a TBA was called at home and a live girl child was born to J10.

But according to her mother a section of her placenta remained inside and triggered post-partum haemorrhage with pain. The family then called the quack to administer medicines. He gave her some injections, medicines and started an IV drip. However the bleeding continued and she passed away on the 4th day of delivery on a Tuesday (16th September 2014). Her child survived for another 4 days and then died. Her mother was heart-broken because she had brought up her daughter with great difficulty as her own husband had abandoned them when her children were quite young.

The family spent Rs. 3,000/- on medication and treatment by the quack. They had to borrow some money and use some of their savings.

J11

J11 was Santhali. She belonged to Godda district, Jharkhand. She was the daughter of the village and her husband lived with J11 in her parent's home (ghar jamai). She was not literate but the average income of the family was good, but she went to the hills everyday (even a day before her labour pains) to fetch firewood. She was a healthy young woman and this was her first pregnancy at 22 years of age. She had 2 ANC checkups in the sub-centre and was given 2 TT shots and 40 IFA tablets.

Her labour pains stared at 4pm on the 15th of Sept 2014 and the Sahiya was contacted. The Sahiya contacted the Mamta Vahan which reached by 7:30 in the evening. They travelled the 30 km in 2-3 hours and reached the CHC by 10pm. There she was given treatment for 2-3 hours, but she did not deliver. Finding that the case of getting complicated and J11 had started bleeding, the CHC referred to the DH by Mamta Vahan early the next morning at 4 am. They travelled 20 kms in about 45 minutes-1 hour and reached the DH at around 5 am on the 16th of Sept 2014.The DH did not have blood, so within 2-3 hours, they referred her to Deoghar Sadar Hospital by Mamta Vahan at 8 am. She travelled 75 kms in about 3 hours and reached Deoghar at 11 am on 16th Sept. and delivered a live girl child soon after, following almost 19 hours of labour pains. But her bleeding did not stop and she died due to heavy bleeding in a short while.

At none of the hospitals were the family given explanation what the problem was or why they were referring J11. The family was very upset because they were sent from facility to facility without being told what the exact problem and cause of bleeding, the line of treatment given and the reason for the referrals. They were sad that despite following all instructions without an argument, they still lost their daughter. The family had to hire a private vehicle at the cost of Rs. 3000/- to bring the body back home (100Km away). Their total expenditure was more than Rs 5000.

J12

J12 was a tribal Santhal woman married at the age of 18. They lived in district Godda, Jharkhand. J12 was not literate and was a casual labourer. She had five previous deliveries, all live births.

This was J12's sixth pregnancy at the age of 35. Her pregnancy was registered. Her MCT card records only one ANC in which she received one TT injection. No other information was recorded. She received SNP only once from the AWC during this pregnancy. When her pregnancy was full term, on the night of 17th June, 2014 her labour pain started. Since her mother-in-law is a 'trained' birth attendant from a Mission Hospital (four days' training), they decided to opt for a home delivery.

At 2:30 am on 18th June, 2014 J12 delivered a live female baby. She cleaned herself and the child. She disposed the placenta and fed the baby. By 4 am on 18 June 2014, J12 developed restlessness and started gasping. The Sahiya was informed who then called the Mamta Vahan. By the time Mamta Vahan came at around 6:30 am J12 had died (four hours after delivery).

J14

J14 was a Santhal girl married when she was around 17 years old. They lived in Godda district, Jharkhand. The family had a BPL card (red card). She was a home maker and her husband is a daily wage labourer. She was short in height and was below 5 feet. Her previous delivery was a girl child.

She conceived again soon after her first childbirth. It is mentioned that she was anemic and felt extreme weakness during the pregnancy.

This was J14's second pregnancy at the age of 22. In the first trimester of her pregnancy she came to her natal home where she received 100 IFA tablets and one shot of TT injection during an ANC. Her MCT card was not made. After the first trimester she went back to her husband's place in another block and returned only in late September for delivery (no records of ANC received at marital village). She received SNP as dry ration in the marital village.

On the morning of 1st October, 2015 J14 had a normal delivery at home facilitated by a TBA. She delivered a male baby. Both mother and child were stable. On the evening of 2nd October, 2015 (more than one and half days after childbirth) after her meal, J14 developed respiratory problems, became restless, unable to speak and had convulsions. The Sahiya was not present in the village at that time. It took around 45 minutes to arrange for the money and vehicle. At round 8 pm they hired a vehicle and started for the DH (husband wanted to take J14 to the Mission Dispensary but due to financial constraints they went to DH). The vehicle charged them Rs. 1000. They reached DH which was around 45 km from their residence at around 10:30 pm. The treatment started immediately and the family was asked to buy medicines for which they spent Rs. 900. J14's condition did not improve. She was still having breathlessness and was not able to speak. She died at around 4:30 am on 3rd October, 2015 (approx. 2 days after delivery). She was frothing at her mouth when she died.

The family hired a private vehicle to bring the body home. They spent around Rs. 3000 in all. The family did not retain any documents given by the hospital. The family mentioned that they felt helpless during the entire episode.

J16

J16 was a Santhal girl married when she was not yet 18 years old. They lived in district Godda, Jharkhand. She was a home maker. The family owned 42 bighas (about 8 acres) of land. The husband had a MNREGA job card but no BPL card. She had two previous deliveries both live births. The elder son is around 10 years old and the younger one is 7 years old. The family had no trust/belief in the health system and hence both the previous deliveries took place at home. Her husband had immense and deep-rooted faith in the shaman and the magical cure he was capable of providing.

This was J16's third pregnancy at the age of 26. It is mentioned that she received ANC service more than once from the AWC. The husband did mention that she received IFA tablets. He also mentioned that she received SNP but was not sure about the quantity or the frequency. The aunt mentioned that they had advised J16 to go for an institutional delivery when she was full term but she refused as she did not want to leave her home without someone to look after the household, and moreover she had had her previous two deliveries at home. On 2nd April, 2015 at around 3 am her labour pain started. The family called a TBA (Dom Buri) who assisted in the normal delivery. J16 delivered a male baby at around 4:30 am. The placenta did not come out after the delivery. The family immediately called their shaman. He applied some oil on a leaf and placed it on her forehead after chanting some Mantra. He rubbed her forehead saying that as soon as the oil dries up the placenta will come out. The belief is that the placenta did not come out due to the effect of an evil eye. The embalming oil together with the chanting of the sacred verses would help to free J16 from the evil eye that had been caste

upon her. But the placenta did not come out at all, and J16 became unconscious and died at around 11:30 am (7 hours after delivery).

The family cremated the body before sunset (though the general practice among tribal communities is to bury the body but since the placenta did not come out they feared black magic and hence cremated). The neonatal survived for 4-5 days and then died without access to milk. Despite the fact that J16 died and the shaman's treatment had not worked, the family was happy with what he had done. The family perceived the government health system as being alien and they did not want to take any help from it. In fact when the investigating team had gone to document the death, J16's younger son was ill with high fever and the team offered to take them to the CHC for proper treatment (as they suspected faciparum malaria) but his father refused, saying that he has never gone to or seen a hospital and therefore would not get any treatment done there. He mentioned that he had called the shaman who would be able to cure his son.

J17

J17 was a Santhal woman married at the age of 20. She lived in district Godda, Jharkhand. She was not literate and was involved in agricultural labour. The family had four Bigha of agricultural land. Her husband was literate and was a migrant labour. His work involved going and living in Punjab and Haryana for 5-6 months in a year.

J17 had six previous deliveries all live births. Her first son died after 15 days from delivery. She was anemic and reported high fever before the current pregnancy. This was her 7th pregnancy at the age of 34. She had many complications during the current pregnancy; she was anaemic and was suffering from heart problem. She reported headache, convulsions, and prolonged unconsciousness during the current pregnancy. During this pregnancy she had three ANCs done at the AWC where she received IFA tablets and two shots of TT injections, but no other test was done. She received SNP from the AWC.

On 5th July, 2015 the family hired a private vehicle and took J17 to a private hospital in Mahagama which is 25km from their residence. The vehicle charged Rs. 1500. There was a delay in initiating treatment at the private facility due to demand for money. At the time when J17 was admitted, there was no fetal movement and she had prolonged labour pain after which she delivered a stillborn baby normally. The delivery was facilitated by a nurse and J17 developed convulsions during delivery. She started bleeding heavily after delivery. After keeping J17 for the entire night and giving IV fluids and some medicines the doctor referred her to CHC on 6th July, 2015 due to excessive bleeding. The family had already spent Rs. 5000 in the private facility. They again hired a private vehicle and reached the CHC which is 1 km from the private hospital. The vehicle charged Rs. 300.

The CHC immediately referred J17 to Bhagalpur Medical College, Bihar without admitting. Due to financial crisis the family did not take her to Bhagalpur Medical College on the same day. They spent the entire day and night of the 6th July and the entire morning of 7th July, trying somehow to arrange for money to take her to Bhagalpur for treatment. The next day i.e. on 7th July 2015, the family hired a private vehicle which charged Rs. 5000. They reached the Bhagalpur Medical College in the evening, which is 90km away and it took them 3 hours to reach. J17 was admitted and blood transfusion was given. The family had to give blood. The hospital provided few medicines but some had to be bought from outside for which the family had to spent Rs. 600. The treatment went on for the entire night but she died two and a half days after childbirth, at 7:30 am on 8th July, 2015.

The medical college did not provide any vehicle to take the body back home. The family received few papers like receipts and referral slips. The family had to spend a total of Rs. 12,400.

J18

J18 was married when she was 17 years old. She lived in district Godda, Jharkhand. She belonged to the ST category. The family owned 16 Bhiga of agricultural land. They had a BPL card (red card) and a MNREGA job card. Both J18 and her husband were literate. She was a home maker and her husband was a migrant labourer. His work involved going and staying in Uttar Pradesh for 4-5 months in a year.

This was J18's first pregnancy at the age of 20, and she was of short height. During this pregnancy she had three ANCs done at the AWC, and she received IFA tablets and one shot of TT. Her BP was recorded in two ANCs and her abdominal checkup was also done during her last ANC. She received SNP from the AWC during pregnancy.

On 29th Sept, 2015, when she was full term, she gave birth to male child at home. The delivery was normal, facilitated by a Dai, as in this area, they prefer to have home deliveries. After the delivery the placenta did not come out completely. Due to unavailability of the government ambulance, the family arranged for a vehicle to take J18 to the CHC but she died at 8 pm before they could start for the CHC. The neonate died after five days.

J20

J20 was married when she was 14 years old. She lived in district Godda, Jharkhand. She belonged to the ST category and had a red Ration card.

J20 had two previous deliveries, both live births. This was her third pregnancy at the age of 30. During this pregnancy she had 3 ANCs done at the AWC where she received IFA tablets and one shot of TT injection. Her BP was measured during two checkups and her abdominal checkup was done during her last ANC. It is mentioned that J20 was extremely weak during this pregnancy.

On 31st October, 2015 her labour pain started and she also began to bleed from the nose. The Mamta Vahan was called. They reached the PHC where the doctor and nurse examined her and told that there is delay in delivery. A blood test was advised which was done at a private clinic. After 30 minutes the PHC doctor referred her to the Bhagalpur Medical College stating that there are no specialists in the PHC. The PHC issued the ambulance but the family was asked to bear the fuel cost. Since they did not have enough money they came back home. Her labour continued and with help from the dai and a RMP (registered medical practitioner) the next afternoon, on 1st Nov, 2015 at 2 pm, J20 had a normal delivery at home about 24 hours after labour began. The newborn died after 30 minutes however J20's condition was stable. But suddenly five days later, on the 6th Nov, 2015 at 4 am she started gasping and died.

Chapter- 5

UTTAR PRADESH

Chapter 5 Uttar Pradesh

CB-MDR ANALYSIS OF DISTRICT AZAMGARH, BANDA AND MIRZAPUR, UTTAR PRADESH

A. STATE OVERVIEW

i. Profile of Uttar Pradesh and the Three Districts

Uttar Pradesh (UP) is the most populated state in India with almost 200 million people. It is predominantly agricultural, comprising the floodplains of the two main rivers Ganga and Yamuna flowing through it. It is the fourth largest state and has 75 districts. The state has almost one fifth of its population from the Muslim community and one fifth belonging to the Scheduled Castes.

Table 1: Basic Demographic data of Uttar Pradesh and Azamgarh District

Indicators	UP	Azamgarh	Banda	Mirzapur
Total Population (Census, 2011)	199,812,341	4,613,913	1,799,410	2,496,970
Crude Birth Rate (AHS, 2012-13)[1]	24.8	24.0	27.4	22.3
Crude Death Rate (AHS, 2012-13)	8.3	9.2	9.2	8.4
Total Fertility Rate (AHS 2012-13)	3.3	3.1	4.1	2.6
Maternal Mortality Ratio (MMR) (AHS, 2012-13)	258	270*	283**	218***
Sex Ratio (Census 2011)	912	1019	863	903
Effective Literacy Rate, Female (%) (AHS, 2012-13)	64.4	63.8	59.8	60.3
Scheduled Caste Population (%) (Census, 2011)	20.7%	25.39%	21.55%	26.48%
Scheduled Tribe Population	0.6%		0.01%	0.81%
Muslim population	19%	15.58%		

* Azamgarh Mandal includes the districts of Azamgarh, Mau, Ballia
** Chitrakoot Dham Mandal comprises of the districts of Hamirpur, Mahoba, Banda, Chitrakoot
*** Mirzapur Mandal which includes the districts of Sant Ravidas Nagar (Bhadohi), Mirzapur, Sonbhadra

The district **Azamgarh** is administratively divided into seven tehsils namely Burhanpur, Sagari, Azamgarh, Phulpur, Lalganj, Nizamabad and Mehnagar and 22 Development Blocks. The total Fertility Rate is 3.1, and almost 25.4% population belongs to Scheduled Castes while 15.6% of the population is from the Muslim Community. The district of Banda in the region Bundelkhand has been divided into two districts namely **Banda** and Chitrakoot. Banda is administratively divided into four tahsils namely Banda, Naraini, Baberu and Atarra, with eight Development Blocks. The district has a Total Fertility Rate of 4.1, and almost 22% population belongs to the Scheduled Castes.

1. Annual Health Survey 2012-13, Fact Sheet, Vital Statistics Division, Office of the Registrar General & Census Commissioner, India, available at http://www.censusindia.gov.in/vital_statistics/AHSBulletins/AHS_Factsheets_2012-13/FACTSHEET-UTTAR_PRADESH.pdf

Mirzapur district is divided into four tahsils namely Mirzapur, Lalganj, Marihan and Chunar and 14 development blocks. Mirzapur district has Total Fertility Rate of 2.6, and almost 27% population belongs to Scheduled Castes (Census 2011).

ii Maternal Health Services in Uttar Pradesh

UP has been among the largest contributors to the burden of maternal mortality in India, owing to the high population, although a reduction is noticed in the MMR over the last decade. The Annual Health Survey has been tracking the state of maternal health services in the state and we give below some of the data from the AHS 2013. The data indicates (see **Tables 1-3** below) that these three districts are higher or on par with the state average when it comes to institutional delivery and availing the Janani Suraksha Yojana (JSY) support.

According to the AHS 2013, **Azamgarh** has a female literacy of 63.8%, and the MMR of Azamgarh Mandal (which includes the districts of Azamgarh, Mau, Ballia) is 270. Around 73.7% women are registered for pregnancy but less than 40% receive 3 or more ANC, and barely 5% receive full ANC services. Institutional deliveries are higher in Azamgarh district at 68.7% and home deliveries are about 30%, which is lower than state average. Around 26% women in Azamgarh access private facilities for delivery more than the state average. Further 15.6% of all deliveries taking place in private facilities are C-sections. JSY has been availed from government facilities by more than 78% women in the district.

Banda district has a female literacy of 60% and high MMR of 283 (for the entire Chitrakoot Mandal). Around 70% women are registered for pregnancy but only 37% receive 3 or more ANC, and about half that receive full ANC services. Institutional deliveries in higher in Banda district at 73.2% and home deliveries are 26.7 %. The use of government facilities for childbirth is 65.9 %; only 7% go to the private sector. JSY has been availed by 97.5 % women who delivered in government facilities.

Mirzapur district has a Female literacy of 60.3%, and a MMR of 218 (for the entire Mirzapur Mandal which includes the districts of Sant Ravidas Nagar/Bhadohi, Mirzapur, Sonebhadra). Almost 70% women are registered for pregnancy, but less than 50% receive 3 or more ANC, and only 4% receive

Table 2: Details of Antenatal Care (ANC) in three districts, Uttar Pradesh (AHS 2013)

Antenatal Care indicators (all figures in %age)	UP	Azamgarh	Banda	Mirzapur
Currently married pregnant women aged 15-49 years registered for ANC	61.9	73.7	70.1	69.5
Women who received any ANC	85.2	92.4	86.9	82.1
Women who had ANC in 1st trimester	50.5	40.5	59.4	48.5
Women who received 3 or more ANC	37.8	39.2	37.1	34.6
Women who received at least one tetanus toxoid (TT) injection	84.1	90.7	86.1	80.0
Women who consumed IFA for 100 days or more	9.7	7.3	23.5	6.0
Women who had full ante-natal check up	6.8	5.4	15.7	3.8
Women who received ANC from Government source	70.9	56.8	72.1	68.7
Women whose blood pressure (BP) was taken	35.5	27.7	47.2	21.0
Women whose blood was taken for Hb	27.2	25.1	44.3	15.2
Women who underwent ultrasound	30.8	27.5	40.1	17.7

Table 3: Delivery Care in three districts, Uttar Pradesh (AHS 2013)				
Delivery Care indicators (all figures in %age)	**UP**	**Azamgarh**	**Banda**	**Mirzapur**
Institutional Delivery	56.7	68.7	73.2	52.7
Delivery at Government Institutions	39.0	42.2	65.9	37.6
Delivery at Private Institutions	17.6	26.3	7.2	14.7
Delivery at home	42.1	29.9	26.7	45.2
Delivery at home conducted by skilled Health personnel	28.9	33.1	46.7	26.9
Safe Delivery	63.3	76.3	85.7	61.4
C-section % of total delivery taken place in Govt Institutions	9.2	8.9	7.2	10.4
C-section % of total delivery taken place in Private Institutions	27.2	15.6	58.7	30.1

Table 4: Post-natal care (PNC) in three districts, Uttar Pradesh (AHS 2013)				
Post-natal care indicators (all figures in %age)	**UP**	**Azamgarh**	**Banda**	**Mirzapur**
Less than 24 hrs stay in institution after delivery	56.0	76.0	68.8	65.8
Mothers who received PNC within 48 hrs of delivery	77.6	84.7	70.5	78.6
Mothers who received PNC up with in 1 week of delivery	81.1	87.0	77.5	80.5
Mothers who did not receive any PNC	17.9	12.3	20.9	18.9
Mothers who availed financial assistance for Government Institutional delivery under JSY (%)	88.7	78.5	97.5	89.0

full ANC services. Institutional deliveries in Mirzapur district are 53%, and home deliveries are 45.2%, which is close to the state average. The use of government facilities for childbirth is 37.6%; and less than 15% go to the private sector. JSY has been availed by almost 90% women who delivered in government facilities. The C-sections conducted in private facilities is almost three times higher than those conducted in government facilities. About 80% women got a post-natal check-up within a week.

iii. Situation of the hospitals and VHND services

A total of 14 (VHNDs) were observed and local community women questioned about the services in December 2015 across the three sites of study. It was found that the services were provided either in a primary school (some AWCs are also in the schools), under a tree or in the building of the sub-centre and the home of an influential person none of which afforded privacy to the pregnant women (except in the last place). The irregularity and uncertainty of the VHNDs was observed by community women users. The presence of the three Frontline Workers (FLWs) was not seen in all VHNDs, except in the home of the influential person. The major service provided everywhere was immunization, although in the VHND under a tree there was no vaccine carrier or icebox. There was no BP machine or weighing machine that worked, nor any kits for testing blood (haemoglobin) or urine. With overall lack of counselling on family planning, the only contraceptive mentioned was female sterilization, although women expressed their need for spacing methods.

One woman who came for immunization expressed lack of faith in the public health facilities: *"I have got all my checkups done in a private clinic, and I have decided to deliver there too, as neither was the government health facility free nor did it provide good care."* Some social dynamics affected the attendance at the VHNDs in Banda: when the helper of the ANM was a Dalit woman, the other castes stayed away, but Dalit women did attend. When the VHND was held in the Muslim-dominated area, the Muslim women themselves stayed away owing to lack of faith in public health system.

There was observation (in December 2015) of public health facilities in the areas where the 47 women had died, including 2 sub-centres, 4 PHCs, 5 CHCs (one of which was an FRU), and 2 District /Divisional Women's Hospitals (DWH) in the three districts. There was also some conversation with the patients and some of the staff working there.

- The case-load of the facilities varied widely, starting from 2-4 normal deliveries per month in the sub-centre, to 40-60 normal deliveries per day in the DWH.
- In Azamgarh there was one Obs/Gyn doctor at the DWH, in Mirzapur the FRU and DWH had Obs/Gyn doctors. But otherwise there was a great lack of adequately trained doctors, with some PHC/CHC hospitals in Banda and Azamgarh functioning only with AYUSH doctors, although in Mirzapur one well-functioning PHC had 4 MBBS doctors posted and the MOIC staying on campus 24 hours.
- In the FRU although there are Obs/Gyn and surgeons available, the lack of anaesthetist and OT Technician means that C-sections cannot be offered there.
- Accessible abortion services are provided in one well-functioning PHC and the FRU in Mirzapur but not in any other sites (except at the DWH). However the provision of sterilization surgery is far more regular.
- In one CHC in Azamgarh there were beds with no mattresses, sheets or blankets, or even gloves; in contrast one well-functioning PHC in Mirzapur had not only all these in clean condition but also hot-air blowers for cold nights. Public pressure has also led to recent improvements in one CHC in Azamgarh. The lack of sufficient labour room tables, or sufficient beds in the wards is mentioned in many cases; leading to women being rushed through birth and asked to leave soon.
- A feature of these hospitals is the presence of a 'dai' in the labour room, usually not paid formally but working for decades. There is some ambiguity about her role, but a strong possibility that she is engaged in childbirth work. The cleanliness of labour rooms depends upon the appointment of Sweepers but these are usually paid from RKS budgets and in one DWH 40 out of 42 posts were vacant.
- Informal payment and bribes are mentioned everywhere: in the sub-centre a normal delivery costs Rs. 500-600, in the FRU it costs Rs 1000-1500, in the DWH it costs Rs 400-600; a C-section would need Rs 1200 in informal payments.

Revealing statements from users and staff members

- **DH Azamgarh** - "all the doctors of the district hospital are also engaged in private practice inside the hospital compound itself and the X-ray and ultrasound machines and other pathological testing facilities meant for hospital, are actually deployed at their private clinics."
- **FRU Mirzapur-** women users said that all tests had to be done from outside. They added: "The machines meant for the hospital are installed at the ANM's private quarters and each ultrasound test cost Rs 2500-3000 rupees."
- **CHC Mirzapur-** "This is a CHC only on paper, none of the facilities that should be there are available and it functions essentially like a PHC."(Staff working there)

iv. Discussion and Conclusions

Discussion of the findings

The 47 women who died in Uttar Pradesh were largely Scheduled Castes (Dalits) and OBCs; several of them being wage workers, many BPL classified, and a large number of them were not very educated. While some of them were primi gravida, a significant proportion were in their third or higher order pregnancy, and almost all were anaemic. In this condition of physical vulnerability, the episode of pregnancy and childbirth puts added strain on women's bodies. We examine how the health system responds to the needs of women from this kind of socio-economic background, and the extent to which these women have access to life saving emergency obstetric care. The findings are discussed in two sections, the pregnancy related care and the care during childbirth or complications.

a. Discussion about pregnancy care:

Our findings corroborate the data of the AHS 2013, in that we find **registration** of pregnancies is satisfactory (15/18 in Azamgarh, 15/15 in Mirzapur, 11/14 in Banda) but the quality and coverage is very poor. In most cases, this kind of routine ANC does not really seem to **identify any high risk**. We have observed the quality of some ANC services given at the VHND, as well as the narrations from the respondents. The routine care mostly available here is vaccination, giving IFA tablets and in a smaller proportion of cases who reach a PHC or CHC, other examinations are done such as blood pressure, haemoglobin (Hb) testing or abdominal examination. A very small number of women got ultra-sonogram (USG) and none seem to have their urine tested or weight measured regularly. One ANM mentions that they do not have BP measurement training so they do not pick up on pre-eclampsia cases. Neither are proper records available of all measurements. The MCTS records play an unknown role, since women who migrate are not tracked in the next place. Serious medical conditions like high anaemia, low weight, high BP and swelling of the limbs, TB, jaundice or bleeding and miscarriage were also not detected in time.

Almost in all cases we observe women who had serious complications during pregnancy usually sought care in the private sector. Of all the ten women in Mirzapur who had complications during pregnancy, only in one case do we hear that the ASHA took her to the PHC for proper treatment. In the other cases the family were left to their own resources. **The treatment for diseases** like jaundice, TB or abortion services is obtained from the private sector. The private doctors and hospitals whose services were used for serious pregnancy complications did provide treatment but at **enormous cost, and took no responsibility** for the woman, sending her away whenever they felt things had gone wrong, or when the family had no more money.

In Mirzapur and Banda, ASHA workers are playing a proactive role in getting women to public hospitals and tracking them during pregnancy. But it is a matter of concern that the ASHA workers who are trained and appointed by the public health system to register women for ANC and accompany them for treatment, may **refer women to the private** sector and express lack of faith in the public sector. In Mirzapur also we find an ASHA worker taking the family to a private hospital instead of BHU when the woman is in a critical condition, and the family spends Rs 1.82 lakhs for treatment that failed to cure her. In Azamgarh, although the ASHA counsels women to call the ambulance and go for institutional childbirth in the government hospitals, 10 out of 18 women went directly to informal providers (quacks) or private hospitals during labour; in fact the ASHA herself recommended three women to go directly to the private providers.

The weak functioning of the VHNDs and the lack of many services they are meant to provide is affecting the quality of maternal care provided to women. Many women required information on either contraceptive services or safe abortion services but this was not available, leading to early, closely spaced and frequent pregnancies that eroded their health. There is no attempt made to reach out to the men and other family members who take many of the key decisions around reproduction. Safe abortion information or services are lacking in all the districts, and the four women who have induced abortion do so under very unsafe circumstances with devastating consequences.

b. Discussion about care during childbirth and complications

The policy for the last 12 years has been to promote institutional childbirth, with the assumption that institutions can provide skilled care during labour and are able to manage obstetric complications if they arise. The AHS data indicates that there is a promising trend in UP of using government health care, and most women do attend hospitals during labour. We see this validated in our findings, where almost all the women visited a health facility either during labour or when complications were detected.

The assumption on which the policy is based however is flawed in UP, as our facility observations indicates that the standard of obstetric care is very inadequate owing to shortage of skilled staff. Although women did reach institutions, the experience cannot be termed as 'safe delivery'. Women are using their Sub-centre or PHC /CHC for institutional delivery; however the skill level of the attending nurses is extremely doubtful. The usual treatment by ANMs or nurses who examine women in labour is to give several injections for speeding up childbirth. It is not known what other interventions are done in the labour rooms, but a significant proportion of women are dying of **massive bleeding after institutional childbirth** (7/14 in Banda, 6/12 in Mirzapur and 8/13 women in Azamgarh). It is also noticeable that sometimes death occurs within an hour or two; this kind of childbirth management by inadequately trained nurses or ANMs needs far more investigation.

Apart from basic obstetric care, the **quality of services** is also far short of standards. Some of the public health centres in Mirzapur lack electricity; in other cases, doctors may be delaying treatment or are unavailable (MBBS doctors are missing in many hospitals) and the few nurses are often overworked. When the staff is reluctant to attend women at night, it has proven to be fatal in more than one case. Sometimes there is wilful **neglect and discrimination**: in the case of two women who were perfectly healthy when they reached the health facility, even walking some of the way, the woman in Mirzapur was turned out of the PHC 30 minutes after childbirth on a winter's night, while the woman in Banda lay bleeding all night in the verandah of the CHC until she died. In many cases, families of the women are harassed for money or abused. Sometimes women in critical condition are referred out at midnight or even 3 am without an ambulance or any form of support.

In terms of obstetric complication management, the women who died faced a number of complications, such as prolonged labour, foetal death, convulsions, jaundice as well as post-abortion complications like heavy bleeding. Although most of the women sought skilled care on time, a very large number died owing to the lack of appropriate care. Many women came to the DWH for complications but face **delays** (doctors do not see the women on time) and sometimes rude and demands for money, were barriers. Although the DWH is the highest tertiary hospital in the district, fully staffed and equipped to deal with complications, even then **they refer women away** to the Medical Colleges. There are delays caused because they usually do not provide ambulance or any information

to the next hospital. The **EmOC** treatment provided by the public and private hospitals was unable to effectively treat complications like convulsions or heavy bleeding, although we do see C-sections being performed in a few cases. In fact even a retained placenta could not be managed by the DH in Banda. The **blood transfusion** was often delayed, and poor families who are not very educated and come from far-off villages are made to run around looking for blood in various hospitals.

A matter of great concern is that the **free services** promised under JSSK are not actually working for these poor families, as case after case indicates in UP. Patients are routinely asked to buy medicines and injections from the shops outside and often informal fees are demanded by the nurses at PHC, CHC and DH for conducting delivery. This is also borne out by our facility observation. The costs of treatment are so high in the DH that families actually delay care-seeking, while trying to raise money for the treatment. The price of a unit of blood transfusion is anything between 2000-3000 in Mirzapur District Hospital.

Families both well-off and impoverished are using the **private sector** in Azmagarh as well as Mirzapur and Banda; in fact they are **leaking out of the public sector** with encouragement of public health providers. The quacks are very popular in Azamgarh for managing delivery, and they refer women into expensive private hospital when they detect complications. The treatment provided is often irrational, unreliable, and of **very poor quality,** and there is unsupported referral. The private sector providers do not hesitate to turn out the woman in critical condition just before she is about to die in their facility. Another observation is that government-employed doctors are openly doing private practice, sometimes right next to the public hospital.

There is no proper recognition and **training of TBAs** to enable them to identify women with any complications on time, however home births continue to happen, sometimes even if unintended. The practices of TBAs need to be examined and some level of skilled attendance ensured in the community for women who cannot reach hospitals. The role of shamans in treating serious medical conditions like jaundice in pregnancy also needs to be studied carefully for interventions, since people have a lot of faith in their treatment.

BANDA, UTTAR PRADESH

CB- MDR ANALYSIS OF BANDA

14 cases of maternal deaths from Baberu, Bisanda and Naraini blocks
Dated 26 December 2013 to 31 January 2015

Findings from the Community Based Reviews

i. Profile of the women

The women who died all belonged to marginalized sections of society (seven from Scheduled Castes, one was a Muslim and six were OBCs). The ages of the women ranged between 20 to 40 years with a larger number of women being young at 20 to 30 years of age. Seven of the women had been to primary school or educated until Class 8 and they were either daily wage labourers or home-makers. (See Annexure 1, ***Table I- Profile of the women who died***)

Eight of the 14 women had bad obstetric histories suffering either miscarriage or still-birth or having unsafe abortions, while two women were primi gravidas. For eight women, this was their fourth and higher pregnancy (See Annexure 1, **Table II- Obstetric History of Women who died**)

ii. What led to the deaths of these women?

- Seven women who had **institutional delivery** died of **massive bleeding**. Five died **within 2-3 hours** after the birth, one had convulsions as well. One died bleeding all night on the CHC verandah without a bed or doctor to see her; another after a delayed referral.
- The lack of family planning counselling and services led to the deaths of two multi-gravida women as they opted for a repeated **induced abortion** with no medical supervision: one died after a delay at home, the other died after visiting four hospitals and spending Rs 60,000 for an incomplete abortion
- One died of **fetal death and ante-partum bleeding** after visiting five health facilities
- One woman who had home delivery with **retained placenta died after visiting three hospitals** and being treated for 3 days at the Medical College Kanpur
- One had institutional delivery **and was taken home to get jaundice treated,** delaying care
- One woman died quite soon after birth at home before she could seek care, another died without delivering in the CHC; possibly owing to **existing complications** (symptoms like pre-eclampsia)

iii. Did the health system have the ability to manage obstetric emergency?

Did the women reach the health system?

All fourteen women who died tried to reach the health system: the sub-centre, PHC or CHC. One died at home after a very rapid childbirth, before she could be taken to the hospital. Another could not locate her ASHA and had to call the dai from the sub-centre, but then sought care after that. There were delays in some cases, as for example the women who had post-abortion complications waited all night bleeding and died in transit the next day. The ASHA workers called the ambulance for 6 women but four could not use it due to delays and used tractors, bus, tanga and motorcycle to reach the health facility (See Annexure 1, **Table III- Place of delivery**)

What was the role of the first point of care?

Intra-natal care with medicines and injections was given by nurses, ANMs (and in one case the Sweeper). These had to be bought from the shops by the family; one family after reaching the CHC was asked to buy all supplies including candles as there was no electricity; after the still-birth with retained placenta and heavy bleeding, the woman was even not given a bed to lie on, and lay on the verandah bleeding all night. In fact there is a question about the quality of institutional management of normal delivery when we see that **seven out of nine** women had massive bleeding just after institutional delivery.

Identification of a complication and seeking treatment

The PHC ANM in one case and the LHV in another case tried to control the massive bleeding through injections and medicines, before calling the ambulance but the women died in 2-3 hours. In one case the ANM realized in 20 minutes after the birth that the woman was going to die of heavy bleeding so she got her husband to make them sign on some blank papers and put them in a private vehicle to go to the CHC.

In another case, the CHC did not admit the woman during labour with bad obstetric history, anaemia (7gm/Hb) and hypertension, the CHC advised taking her elsewhere, but she died before that. Another woman was bleeding heavily and the PHC doctor advised referral but could not provide a vehicle for almost an entire day, so she received 5 bottles of IV fluid. Another woman with two previous miscarriages and bleeding during labour went to her Sub-centre but was referred out to the DH with a suggestion to try the private Mission hospital. Another woman developed abdominal pain, anaemia and swelling, so was referred by the CHC but the family did not take her there right away and took her home for treatment. (See Annexure 1, **Table V- Women's Journey to seek care**)

Provision of Comprehensive Emergency Obstetric Care

We find that the CHC provides stabilization but does not really manage the complication. Instead the CHC refers women to the DH, and sometimes there is delay in getting transport. In one case, post-abortion care was given at the CHC for 4 hours with IV drip and medicines before being referred out to the DH. In the case of the woman who arrived with massive bleeding from a sub-centre delivery, they gave her IV fluids and immediately called an ambulance to refer her but she died before that. In the CHC delivery followed by bleeding when the doctor was finally called, he immediately referred her to the DH but no vehicle was available, leading to delay, and she died in transit.

The DH is the tertiary care institution for the entire district, and they can make life-saving interventions like blood transfusion, but sometime the DH takes no responsibility for women who reach in critical condition. We find that the DH does not have the capacity to manage **retained placenta and refers** the woman out to the Kanpur Medical College, where she has to be given blood and placenta removed. Similarly when a woman bleeding heavily after a PHC delivery and already delayed an entire day due to lack of transport finally reached the DH with Hb of 4.7gms, she is referred out to Kanpur with **no treatment and no vehicle**; the delay in organizing the private vehicle (four hours) is fatal and she dies in transit. **Arranging blood is the family's** responsibility: in the DH when the woman with jaundice and anaemia of 4gms/Hb finally arrived in the DH, she was admitted, tests were prescribed from outside (blood and urine test along with ultrasound); IV fluids given the family was told to arrange for blood donors. This leads to a delay and before transfusion she died on the following day.

Does the Free services under JSSK work?

In order to encourage the community to use maternal health services the Government of India explicitly introduced free services through the Janani Shishu Suraksha Karyakram (JSSK) which provides free ambulance service to and from the hospitals for complication in pregnancy, for institutional delivery and for post natal complication along with free treatment of mothers and children and for free stay and food while in hospitals. Despite all these promises of free care we find poor families are routinely asked to deposit some money or go buy medicines from the market when they go to the government hospitals. In the private or the public sector, the costs for tertiary care paid by these very poor families from rural areas are **catastrophic**: one family has to pay up Rs one lakh and leave the hospital when their money runs out entirely and take the woman home, even though she is undergoing dialysis. Vehicles have cost this family another Rs. 8000. The family of another woman who goes to the Haillet Medical College in Kanpur also spends Rs 80,000 on blood treatment and transport. The family of an other woman spends Rs 40,000 at the private hospital (where they were taken by the taxi driver) and then another amount of Rs 5000 at the Haillet Medical College.

Referral management

Although women and their families made desperate attempts to seek care at multiple institutions, their lives could not be saved. Out of 14, seven women needed to **go to another hospital: three received the 108** ambulance service to move from PHC/CHC to the District Hospital. But the remaining four had to use **private transport, sometimes at exorbitant costs.**

> *"A statement from ASHA: 'We do not get the 108 Ambulance in referral from CHC to the DH. A lot of money is charged here, they make us buy medicines from outside, although we should get medicines from the hospital*[1] *"*

The private taxi in one case takes the unsuspecting family straight to a private hospital. Only one woman had the fortune of being given **full support for transportation** from the DH to the Kanpur Medical College. Other women were referred out from the DH to the MC with no transport support, spend two to four hours arranging private transport with women bleeding and in critical condition, and **spent thousands on taxis** which these poor families could not afford at all. The **referrals were usually delayed** because of transportation support not being provided and families trying to raise the money for all this expense. Sometimes the ambulance was delayed by a day in providing referral out of the PHC and the extreme poverty forced the family to wait. (See Annexure 1, **Table IV-Transportation & costs**). The worst experience for the families is bringing the dead body back in private transport where unreasonable sums of money are demanded, and hospitals provide no support to take the bodies home. From Kanpur, after the enormous losses already suffered, poor families paid Rs 3500 or even Rs 6000 to bring the body home.

Role of the private sector

Although the women who died in Banda sought care in the public sector by and large, we find that there is a presence of the private health market in these cases. In ante-natal period, women do seek

1. "CHC...se zilla haspatal Banda refer karne par 108 ambulance ka labh nahi milta hai. Yahan par paisa bahut lete hain. Dawai bhi bahar se mangate hain jab ki dawai haspatal se milni chahiye"

care and check-ups in the private clinics, especially services that are not given in public hospitals like USG. In addition we see that a DH will also send out patients for USG and blood tests to a private lab. In the case of complication management, there is a move towards private hospitals as the public system seems to be functioning poorly, and families spend unaffordable amounts on treatment that does not cure them.

The case of one woman who was sent to a private hospital by her sub-centre ANM indicates that the health workers themselves are aware that emergency services will not be given by the DH. This woman finally goes to four health facilities and died despite spending enormous amounts of money. Another woman who has an incomplete abortion is referred out at 2am without an ambulance from the DH; so the private taxi driver charges Rs 6000 and takes them not to the medical college but a private hospital where the family spent Rs 40,000 for medicines and blood transfusion and delayed another 2-3 days, but still had to take the women after that to the medical College and spend another Rs 5000.

Relationship between providers and the community

The quality of care is also based on the relationship between the providers and the women, and it is important to ensure that poor women or women from socially marginalized groups (like those who died in Banda) are not made to feel excluded or discriminated against. The example of the woman who had a still-birth and was in extreme pain with a retained placenta and heavy bleeding shows the fatal callousness of the health providers which can ultimately lead to death.

Case of B10

Just after the stillbirth, with the woman in extreme pain and bleeding copiously, the ANM moved her out to the verandah and asked them to wait until the doctor came the next morning. Despite repeated requests for treatment or referral, the ANM turned them away and answered very roughly- 'I am not your servant. The doctor will come in the morning and that's when something will be done, if she has to be referred, the doctor will do it. I have done what I had to do. If you take her away, you will be responsible for the consequences'[2]. Faced with her threats, the family waited there all night, and tried to get enough cloth to staunch the blood. The woman died bleeding on the verandah. After her death, the family protested, and the staff nurse ran away from the hospital. Her mother-in-law says: "The government tells us to go to the hospital to deliver, and promises that all facilities will be provided. But in the hospital they treat us like animals; there is no one to hear us." Her father-in-law commented on the lack of accountability: "After my daughter-in-law's death, all the villagers blockaded the road and a FIR was filed. But no one listens to us poor people, we did a lot of running around and lot of paperwork but finally nothing happened and we burnt all the documents with the funeral pyre."

iv. How effective is the routine provisions within NRHM to identify and manage complications?

Within the NRHM (now NHM) framework, it is assumed that if the woman registers herself during pregnancy and follows the advice given by the ASHA and ANM and arrives at a hospital in labour, her childbirth will be safe. However the cases in Banda do not bear this out, as most of the women

2. Tumhare naukar nahin hai; subah doctor sahib ayenge tabhi kuch hoga. Wahi dawa injection karenge, refer karna hoga to wahi karenge. Mujhe jo karna tha, maine kar diya. Kahin jaogey to uske jimmedar aap khud honge

were actually registered during pregnancy and did follow the ASHAs advice even to go for further check-ups when required. We find that the ANC services failed to provide comprehensive routine care and about half the women got barely anything beyond the TT and IFA shots. Of the 14 women in Banda whose deaths were documented, **11 were registered** and all received the basic TT shots and IFA tablets. Beyond that **6 women** also received BP checking, haemoglobin (HB) measurement, abdominal examination; while another **one** woman had her weight measured and HB tested. As the data (See Annexure 1, **Table II- Obstetric History**) indicates, every single one of the women had a bad obstetric history or an existing medical complication. The system has **not provided any contraceptive counselling** or services to these women who continued to suffer unwanted pregnancies. The health system did not pick up serious **complications that seem to be pre-existing** in these women and makes them extremely vulnerable if something goes wrong.

One young Muslim woman did not come for ANC but the ASHA had taken the initiative to **go to the woman's house** and give her the IFA tablets and TT shots. The ASHA also followed up with another woman who had bad obstetric history and took her for more than three ANCs.

In terms of identifying and managing complications, women who 'fell through the cracks' did have high-risk signs that were not picked up, for example, despite ANC checkups the two women who were **severely anaemic** at 4 to 5 gms but this was not picked up during the ANC. Anaemia was sometimes noticed and measured but the standard advice was to 'eat better'; in one case the poor landless family took special care to feed the woman nutritious food including pomegranates as her haemoglobin was low. One woman had dizzy spells, swelling in her limbs and blurred vision during her pregnancy, but as she did not come for ANC, this was not known to the ASHA, and therefore was not picked up by the health system.

Annexure 1: Tables of Banda

Table I - Profile of the women -Banda

#	Age of Women	Caste	Education	Occupation	BPL Card	Religion
B1	28	SC	5th	Daily wage worker	Yes	Hindu
B3	32	SC	Non literate	Home-maker	Yes	Hindu
B6	40	OBC	Non literate	Home-maker	Yes	Hindu
B7	32	SC	Non literate	Worker Agricultural	No	Hindu
B4	27	OBC	Non literate	Worker Agricultural	Yes	Hindu
B5	25	OBC	5th	Home-maker	Yes	Hindu
B2	25	SC	8th	Daily wage worker	Yes	Hindu
B8	20	SC	Non literate	Home-maker	Yes	Hindu
B9	28	OBC	8th	Home-maker	Yes	Hindu
B10	28	SC	Non literate	Home-maker	Yes	Hindu
B11	30	SC	Non literate	Home-maker	No	Hindu
B12	23	-	5th	Home-maker	Yes	Muslim
B13	20	OBC	8th	Home-maker	No	Hindu
B14	28	OBC	5th	Home-maker	No	Hindu

Table II - Obstetric history of women -Banda

#	Total No. of pregnancies	Age	Mis-carriage	Past Still-birth /newborn death	Medical complications	High Risk
B8	1	20	-	-		Y
B13	1	20	-	-	Anaemic	Y
B12	2	23	Had complicated birth		Blurred vision, dizziness, swelling in limbs	Y
B4	2	27	-	-	'weak' according to ANM	Y
B2	2	25	-	-	7gms/Hb, advised blood transfusion	Y
B10	3	28	-	1	8gms/Hb, abdominal pain, weakness	Y
B1	4	28	1	1	High BP, anaemia	Y
B3	4	32	1	-	Conceived after miscarriage	Y
B5	4	25	3	-	8gm/Hb - after repeated miscarriages	Y
B14	4	28	2	-		Y
B9	5	28	1	-	Low weight, 8gm/Hb, fever	Y
B11	6	30		2 children died later	during pregnancy Anaemic. Wanted contraception but husband refused	Y
B7	6	32	Induced abortion	-	Sleeplessness, weakness	Y
B6	12	40	Induced abortion	-		Y

Table III -Place of Delivery- Banda			
	Intention for place of birth	**Actual place of birth**	**Place of death**
Sub centre-	B7, B14	B7	
PHC -	B8, B3, B4	B8, B3, B4	B8, B4,
CHC -	B1, B2, B9, B10, B13	B2, B9, B10, B13	B1 (without delivery) B2, B7, B9, B10 (on verandah of CHC)
District Hospital			B13 (after returning home for treatment)
Med College			B5
Pvt. Hospital		B14	
In Transit			B3 (after visiting three hospitals)
Home	B5 -ASHA was away; sub-centre Dai called at home, B12- before ambulance arrived gave birth at home		B12, B14 (after visiting four hospitals)

Table IV- Transportation, time taken and cost- Banda		
Single facility or one referral		
#	**Facility 1**	**Facility 1I**
B1	Neighbour's tractor	
B10	Tractor (both Ambulance delayed)	
B12	Private vehicle (took 3 hours to organize - Rs 500) as ambulance had been sent back	
B6	Private vehicle (Rs 500)	
B4	By Bus	Ambulance called but died before it arrived
B2	By Tempo (Rs 500)	
B8	108 ambulance	Unable to take decision about referral, delay
B7	Walking	Private vehicle to CHC (Rs 1100); death before next referral
B9	Tonga (horse-cart) paid Rs 500 (ambulance did not arrive)	Private vehicle to DH, cost Rs 2500, two hours delay to organize
B13	108 Ambulance	Returned to DH later by private vehicle

Multiple referrals				
#	**Facility 1**	**Facility 2**	**Facility 3**	**Facility 4**
B5	108 ambulance	108 ambulance	108 Ambulance	
B3	By Bus	108 ambulance but extremely delayed	Private vehicle (Rs 4000), no ambulance available, death in transit	
B14	Motorbike (108 delayed)	Private Vehicle (Rs 500)	Private Vehicle (Rs 500)	Private Vehicle (Rs 3500)
B11	Auto rickshaw (Rs 500)- delay in organizing	108 ambulance	Taxi (Rs 6000) which took them to pvt hospital instead of MC	Auto rickshaw

#	Table V - the 14 women's Journey to seek care- Banda Facility 1	
B1	To CHC by neighbour's tractor; took seven hours after onset of labour to reach; died before delivery	
B10	(Called 102 and 108 but they were told that it would take 2 hours to reach) To CHC by tractor in one hour. Delivery and post-partum bleeding but doctors refused to attend; no bed provided, no treatment given until death	
B12	To CHC by private vehicle, took three hours to organize; spent Rs 500 (called 108, but sent it back as baby already born); died at home	
B6	To CHC Attara by private vehicle after heavy post-abortion bleeding; spent Rs 500 died in transit	
B4	To PHC by bus; delivery and after one hour post-partum bleeding. Ambulance called for referral but delayed; death before it reached	
B2	To CHC by a tempo (cost Rs 500); died there in 2 hours of birth after bleeding	
B8	To PHC by 108; delivery and post-partum bleeding for few hours; vehicle called but no male member so one more hour delay in leaving for DH	
#	**Facility 1**	**Facility 2**
B7	Walked to sub centre; delivery and immediate fatal post-partum bleeding, delay for 2 hours as no vehicle for referral	Private vehicle (cost Rs 1100) to CHC Attara; treatment started at CHC, death before referral ambulance arrived
B9	(102 and 108 was called but did not arrive) To CHC by tanga (horse cart) paid Rs 500. Spent Rs 700 on drip and injection, Rs 250 on medicines, Rs 200 for sweeper, Rs 70 to refer woman to the DH)	Referred to District hospital Banda by private vehicle cost Rs 2500 but two hours delay to arrange vehicle, died in Transit
B13	To CHC by 108. Referred for post-partum complications to District Hospital but family returned home.	6th day went to District hospital by Private vehicle, treated for one day but died before blood transfusion could take place, 7th day after birth.

Table V Contd.....

#	Facility 1	Facility 2	Facility 3	Facility 4
B5	To PHC 108 (after home delivery) for retained placenta	To DH Banda by 108 , no treatment; leads to delay	Reached Haillet Kanpur Medical college by 108 vehicle, 9 hours after onset of complication. Spent total Rs 80,000 on medicines and return travel	
B3	To PHC by Bus as ASHA out of town (Rs 50).Complication treated for 2 hours, husband called in for referral, but no ambulance. Treatment and delay for 16 hours	To Banda District Women's Hospital by 108 ambulance. Referred again, but no ambulance, so privatev to arrange vehicle took 4 hours	To Haillet Kanpur Medical college by private vehicle (cost Rs 4000); death in transit (after more than 20 hours (following onset of complication)	
B14	To sub centre by motorbike (as 102/108 was busy with another case); reached 3 hours after pain started. Treatment for one hour at sub-centre	To private hospital in Satna, M.P. by private vehicle, cost Rs 500. Admission cost Rs 50; no availability of blood, delay	To private hospital in Banda by private vehicle, cost Rs 500. Hospital expenses Rs 50; no availability of blood, delay	14 hours after onset of labour reached private hospital in Kanpur by private vehicle, cost Rs 3500. Cost of treatment (with dialysis for 5 days) one lakh; had to go home as money finished. Private vehicle to travel back, cost Rs 3500
B11	To CHC by auto-rickshaw, took four hours to organize; cost Rs 500. Spent Rs 300 on medicines	To District Hospital Banda by 108. Spent Rs 500 on medicines.	Referred to MC but Taxi driver & took them to Ekta hospital (private). Time taken 6 hours, charged Rs 6000. Cost charged Rs 6000. Cost of treatment Rs 40,000 and delay of two days	To Haillet Kanpur Medical college by autorickshaw. Cost of treatment Rs 5000; private vehicle to take woman home, cost Rs 6000.

Annexure 2: Case Summaries of Banda

B1

B1 was married when she was 18 years old. They lived in district Banda, UP. They belonged to the SC category and had a BPL card. B1 had completed primary school and worked as an agricultural labourer. Her husband had studied until Class 8 and worked as a mason.

B1 had three previous pregnancies. Her first pregnancy resulted in a live birth, a son who is now 9 years old. She conceived again after three years but resulted into a miscarriage. She again conceived immediately but this pregnancy resulted in a stillbirth in the 8th month. It is mentioned that the couple used contraception.

This was B1's fourth pregnancy at the age of 28. During this pregnancy given her previous obstetric history they were being quite careful according to the husband, and the ASHA took B1 for more than three ANCs at the VHND, sub-centre and the CHC. The ASHA reports that she had informed B1's husband that B1 was anaemic and had high blood pressure but neither did he take any action nor did she consume the IFA tablets; however the husband reports that the ASHA said her pregnancy was normal. She did not receive SNP during this pregnancy.

On 26th Dec, 2013 B1's labour pain started at 5am. Since her husband was out for work, a male neighbour along with the mother-in-law and other village women took B1 on a cot in a tractor to the CHC at 12 noon. The ASHA was informed by the male neighbour and reached the CHC directly. The doctor at the CHC examined B1 and immediately referred her to the DH stating that she is anaemic and had hypertension. The CHC staff mentioned that she would be needing blood and that could not be provided in the CHC, so they should take her to the DH. The referral slip was made. But the family and neighbours did not agree at once to the referral. The male neighbour who went along B1 to the hospital knew a lab attendant at the CHC and insisted he take B1's blood sample. The report shows that her Hb was 7 gm. The staff nurse took her BP and told the family that the BP is very high, and also observed that she had swelling of the limbs.

By the time arrangements were being made B1 died on 26th itself at the CHC within an hour without delivering. The family took her body back home in the tractor.

B2

B2 was married when she was around 15-16 years old. They lived in district Banda, UP. They belonged to the SC category and had a BPL card. Both B2 and her husband had studied until Class 8 and worked as a migrant labourer at a brick kiln in Haryana.

B2 had one previous pregnancy which resulted in a live birth. This was her 2nd pregnancy at the age of 25. During this pregnancy they were in Haryana with their 2.5 year old daughter.

During this pregnancy she had one ANC done at a government hospital in Haryana. All her tests

were done and she received TT shots and IFA tablets which she didn't consume as it made her dizzy. In her 8th month while she was in Haryana she developed fever. They went for a check up where her blood test was done and she was found to be anaemic (7gm). The doctor advised blood transfusion and healthy diet. When B2's husband shared this with his mother she told him 'not to give his blood' and bring B2 back to the village where the mother-in-law will take care of her. After returning to Banda (UP) B2's mother-in-law took her to the private hospital in Baberu and another private facility in Chindwara. Her fever was controlled after the medication and she was given a healthy diet full of fruits. But still she did not consume the IFA.

On 21st May, 2014 when B2's labour pain started the elder daughter in law and the ASHA took her to the CHC in a private tempo which charged Rs. 500. She was admitted at 11:50 am. The nurse observed that she had swelling of limbs when she was admitted. B2 delivered a baby girl at 1:10 pm. The delivery was facilitated by the nurse. After 2 hours of delivery B2's condition began to deteriorate, with excessive bleeding and sharp fall in blood pressure. The family called in the nurse, but she died after sometime around 3 in the afternoon. The CHC did not provide any vehicle to bring the body home. The staff nurse mentioned that if they refer the women to DH they don't want to go but if something happens at the CHC they blame the staff. She was also annoyed about pregnant women who work outside UP as a result of which their medical records are not known when they arrive for delivery.

B2's mother-in-law felt that treatment is better is private facility as in government hospital no one listens. The husband mentioned that he spent Rs 400 but received the JSY cheque which he gave to his mother. It is also mentioned that their newborn is also not keeping well and falls ill very often.

B3

B3 was married at the age of 17 years. They lived in district Banda, UP. They belonged to the SC category. They lived in a nuclear family and had a BPL as well as a MNREGA job card. B3 was not literate and was a daily wage labourer. She earned around Rs. 500 per month. Her husband had studied until Class 8 as was a migrant labourer. His work involved going and staying outside the village and sometimes in Delhi.

B3 had three previous pregnancies. Her first two pregnancies resulted in live births (a boy and a girl). The third pregnancy resulted in a miscarriage. She conceived immediately after the miscarriage. It is mentioned that the couple used contraception. It appears that the ANM never visits the village.

This was B3's fourth pregnancy at the age of 32. During this pregnancy she received only one ANC at the PHC. Her blood test was done. Her abdominal check up was done but BP was not measured. She received TT shot and IFA tablets. She did the household work till the day of delivery.

On 5th Jan, 2014 at 10 pm B3's labour pains started. The family tried to contact the ASHA but she had gone to attend a wedding. B3 went to the PHC with her mother-in-law in a bus which charged Rs. 50. B3's husband stayed at home to look after the children. They reached the PHC at 12 at midnight which was 10 kms away. The staff nurse mentioned that B3's water broke outside the labour room. She was immediately taken inside and the delivery was conducted. B3 gave birth to a live female baby at 1am. It is mentioned that her mother-in-law was allowed to stay with her during the delivery. The mother-in-law observed that the nurse forcefully removed the placenta which triggered

off heavy bleeding. The nurse asked B3's mother-in-law to call her husband, in the meanwhile she administered injection and IV drip.

B3's husband reached the PHC at around 3 am of 6th Jan. by borrowing his friend's motorcycle. The staff nurse advised B3's husband to take her to the DH Banda. But initially the husband requested that B3 should be treated in the PHC as they don't have any transportation and money. The PHC doctor explained to the family that B3's condition is critical and she should be taken to the DH. B3's husband agreed and gave a written application for referral to the DH. The 108 was called by it was busy in another case so could not come. B3 stayed at the PHC for the entire next day. She was administered 5 bottles of IV fluids but her condition did not improve. The doctor then called the 108 from another block (Baberu) which came at around 5 pm on 6th Jan.

It took them one hour to reach the DH which is 40 km from the PHC. The family received a referral slip from the PHC. They reached the DH at 6pm. The DH doctor examined B3 and immediately referred her to the Medical College in Kanpur stating that her condition is very serious. But no treatment was given to stabilize her. By this time the 108 had left the DH and it took them 4 hours and Rs. 4000 to arrange for a private vehicle. They started for the Medical College but B3 died on the way after travelling for around 20 km. The family came back to the DH with the dead body. It took another 7 hours to conduct the post-mortem. The DH did not provide any vehicle to take the body home.

The PHC doctor felt that the 'patient and her family was responsible' for the death. She said that women come at the last moment when the case is serious and they have to refer. She mentioned that B3 was admitted with a very low Hb 4.7Hb/gm due to which her bleeding could not be controlled and her husband was also reluctant to take her to the DH which could have saved her life. She mentioned that PHC did everything to save her life, even called the ambulance but due to the delay in reaching DH she died. She also mentioned that women don't consume IFA or have complete ANCs.

B4

B4 was married when she was 18 years old. They lived in district Banda in Uttar Pradesh. They belonged to the OBC category. They lived in a nuclear family and had a MNREGA job card. B4 was non literate and her husband had studied until Class 8. Both of them were daily wage labourers.

B4 had one previous pregnancy which resulted in a live birth.

This was B4's second pregnancy at the age of 27. During this pregnancy she received three comprehensive ANCs at the PHC which was in their village. The ANM mentioned that B4 was weak, but did not consume the IFA tablets as she felt it heated her body.

On 2nd May, 2014 her labour pain started at around 7 pm. Since the local PHC was less than a Km away she was admitted by 7:30 pm. There is no doctor appointed at this PHC. According to the mother-in-law the ANM and sweeper *(dai)* conducted the delivery and a live female child was born at 9:30 pm. After the delivery the ANM asked B4's husband to bring tea and biscuits for her. By the time her husband came back (almost one hour) with tea and biscuits he found that the child had already died and B4 was in a critical condition. B4's husband mentioned that ANM herself called the

ambulance to refer B4 to the DH but by the time the ambulance reached, B4 died at around 11 pm. The PHC did not provide any vehicle to take B4's body home.

According to the ANM, since B4 was anaemic her bleeding could not be controlled. The ANM gave some medicines and injections (methargin and antibiotics) but there was no improvement. She called 108 when the newborn's condition worsened but by the time the ambulance came the newborn died. After the child's death B4 seemed to go into shock and her condition further worsened. The PHC Pharmacist mentioned that since there is no doctor he looks after the OPD patients and the ANM/ BHW conducts the delivery. He has given his own number in place of the toll-free number.

The husband, mother-in-law and the Pharmacist mentioned an agreement between the ANM and B4's family which was signed before the Deputy CMO, where B4's family was offered Rs. 20,000. B4's husband entered into an agreement and the post-mortem was not done. But till date they have not received any money. The husband said, *'The government has constructed a PHC but not appointed any doctor - if there was a doctor at the PHC my wife could have been saved.'*

B5

B5 was married when she was 17 Years old. They lived in district Banda, UP. They belonged to the OBC category and were certified as BPL. B5 had had completed primary school, and was a home maker. Her husband had studied until Class 10 and was a migrant labourer. His work involved going and staying outside the village as well as Delhi.

B5 had three previous pregnancies in the past. All her previous pregnancies resulted into miscarriage.

This was her 4th pregnancy at the age of 25. Since all her previous pregnancies resulted into miscarriages the family took special care this time. She received 3 ANCs at the PHC. Her abdominal check up was done and she received IFA and TT shots. Her haemoglobin was tested which was found to be 8 gm/ Hb.

On 9th May, 2014 at around 5 am B5's labour pain started. The ASHA was called but since she was not available the (sweeper) Dai from the Sub-centre was called. She examined B5 and told that the foetus was in breech position. Then the Dai straightened the foetus and said that she said that the baby would be born in the evening. When the pain increased they called the *dai* again. She confirmed that the baby will be born in sometime. The family called the 108. By the time ambulance could arrive B5 gave birth to a baby girl at home at 3 pm. The placenta did not come out on its own. Dai tried to deliver the placenta but failed. By this time 108 had reached so the family took B5 and the newborn to the PHC which was 10 km away. It took them 1 hour to reach the PHC. The doctor examined her and gave preliminary treatment (injections and IV drip) after which he referred them to the DWH. The 108 was given and the family started for the DWH which is 40 km from the PHC. They reached in an hour and she was admitted and given first aid. But the DWH did not manage the retained placenta; instead she was referred to the Medical College in Kanpur. 108 Ambulance was provided for the referral.

They reached the Medical College which was 100 km away in 6 hours. B5 was admitted and placenta was removed almost ten hours after her childbirth, around midnight of 9th May. One bottle of blood was required which was donated by her husband. She stayed there and was treated with medicines

and finally discharged on 11th of May. It is unclear whether she was completely recovered. The family spent a total of Rs 80,000/- on her medicines and transportation back home.

On the 13th of May her condition suddenly deteriorated & she died at home before anything could be done. The infant died a month later on the 16th of June.

As per the MOIC of PHC said that B5 was anaemic which caused the bleeding and led to her death. He blamed the pregnant women that they don't come for ANC and don't consume IFA. The BPM mentioned that this case was documented as a maternal death and the report was sent to the CMO.

B6

B6 was married when she was 19 years old. They lived in Banda district, Uttar Pradesh. They belonged to the OBC category and were certified as BPL. Both B6 and her husband were non-literate. B6 was an agricultural labourer and her husband was a daily wage labourer. B6 earned Rs. 2000 approx. per month.

B6 had 11 previous pregnancies. Ten were live births. During her 11th pregnancy she had an induced abortion by consuming pills.

This was her 12th pregnancy at the age of 40. The pregnancy was not registered and B6 did not receive any antenatal care; but she did go for a urine test at the third month of pregnancy at a private clinic in Badausa. Since the pregnancy was unwanted she decided to terminate the pregnancy like the previous one. According to her husband, he suggested B6 to have the baby and then opt for sterilization but she did not agree.

On 16th Feb, 2014 she got the name of the medicine written on the piece of paper from somewhere like the last time and asked a neighbour (a boy) to buy medicine and consumed all the pills (five) together. According to her daughter, B6's husband asked B6 to consume all the medicines at once. After consuming all the pills she started bleeding heavily and reported abdominal pain.

In the evening, when her husband came back from the market after selling vegetables, he wanted to take B6 to the hospital but she said that this (heavy bleeding) was normal and she will be fine. It is also mentioned that B6 didn't wanted anybody to know about her abortion.

However, the next day morning at 9am when her condition worsened B6 along with her husband set out for the CHC which is 11 km from their residence in a private vehicle for which they paid Rs500. A neighbour who accompanied them to the CHC mentioned that on reaching the CHC doctor declared her dead. The CHC did not provide any vehicle to bring the body home. The family received the death certificate later on.

CHC doctor's observation-*'Due to lack of information about MTP, women use the services of quacks secretly to get abortions. He also mentioned that the conflation of PCPNDT and MTP act had hampered the access to safe abortion and widespread dissemination of the provisions of MTP act is important to save the lives of the women.'*

B7

B7 was married at the age of 18 years. They lived in district Banda, Uttar Pradesh. They belonged to the SC category and had a ration card. B7 was not literate and was an agricultural labourer. Her husband had studied until Class 8 and earlier worked as a migrant labourer in Punjab but now was a Panchayat member.

B7 had four previous deliveries all live births. Her 5th pregnancy ended in an induced abortion by consuming oral pills. This was B7's 6th pregnancy at the age of 32. B7 had one ANC check up done during this pregnancy at the VHND. She received one shot of TT injection. No other test was done. It is mentioned that B7 visited a doctor in Badausa for sleeplessness. The doctor told that she was weak and prescribed some medicines. It is mentioned that the ANM never visits the village.

B7 worked at the field all through her pregnancy. On 27th March, 2014, when in full term her labour pain started. The husband took her to the Sub-centre. After examining B7 the ANM told them that the delivery will happen at night so they should come back with cloths and oil and money. B7 got admitted at the sub centre at 8 pm on the same day. The ANM gave her two injections (Oxytocin) and at around 1:30 am she gave birth to a baby boy. Around 20 minutes after delivery the ANM came and told her husband (ANM's husband) that B7 is bleeding profusely and he should do something immediately. ANM's husband took the signature of B7's husband on a paper. He suggested B7's husband to hire a private vehicle and take B7 to the CHC. They hired a jeep for Rs. 1100. It took around 2 hours to arrange for the vehicle. They reached the CHC at around 3:30 am. B7 was still bleeding profusely. The CHC doctor immediately started IV drip and called for a government ambulance to take B7 to the DH. B7 died before the ambulance could reach the CHC. The CHC did not provide any vehicle to take the body home. B7's husband felt that B7 died due to ANM's carelessness. According to him the ANM should have referred B7 in time to the CHC in a government ambulance. He mentioned that the ANM demanded Rs. 200 to release the JSY cheque. The family registered a complaint at the DM office regarding the informal payments.

B8

B8 was married when she was 18 years old. They lived in district Banda, Uttar Pradesh. They belonged to the SC category and were certified BPL. Both the husband and wife were non-literate and were migrant labourers. They worked at a brick kiln in Punjab.

This was B8's first pregnancy at the age of 20 and she was back home in Banda. According to the ASHA she had received two shots of TT and IFA tablets as ANC. No other test is mentioned. It is mentioned that B8 was anaemic. In the 8th month of pregnancy B8's mother-in-law went to Gujarat to visit a relative. Since there was no woman in the house B8 was sent to her sister-in-law's place for delivery. Her sister-in-law could not recall any complications during pregnancy, but the ASHA mentioned that B8 had high fever 4-5 days before the delivery and was taking medication for the same. On the night of 19th August, 2014 at around 2 am (20th August) her labour pain started. 102 was called. Sister-in-law and ASHA went to the PHC along with B8. According to the ASHA the ANM examined her, but found that the cervix had not dilated and that it would take time for the delivery. In the meantime the ANM's duty changed and an LHV was on duty. B8 gave birth to a female baby at around 4 am. The delivery was facilitated by the LHV. It is mentioned that B8 appeared stable after the delivery. The ASHA mentioned that B8 was given tea and biscuits which is

consumed after which the ASHA left the PHC. Two hours after childbirth, at around 6 am B8 felt unwell and nauseous. She vomited twice, had diarrhoea and began bleeding heavily, and had to change her clothes. The ASHA was again called. Both the sister-in-law and the ASHA mentioned that the on-duty LHV had referred B8 to the District hospital. The on-duty LHV gave an injection and some medicines.

According to the ASHA B8's sister-in-law was reluctant to take her to the DH as there was no male member present, and was asking for the treatment to be carried out at the PHC. However since there was no doctor available, the staff had to refer B8. An ambulance was arranged by the PHC, and B8 was in the ambulance for an hour, and died at around 7 am (in one hour from the onset of problem) on 20th August, 2014. By the time B8's husband reached the PHC she had already died. No vehicle was provided to take the body home. It is mentioned that newborn also died after 10 days. Later the ANM said - *In this hospital we have all the facility for delivery, we have 4 beds, a functioning toilet, and drinking water. Doctors are available during the day but not at night. B8's husband observed that 'if the doctor was available her life could have been saved.' The mother-in-law later said, "The government tells us to go to the hospital to deliver, and promises that all facilities will be provided. But in the hospital they treat us like animals; there is no one to hear us." B8's father-in-law said, "After my daughter-in-law's death, all the villages blockaded the road and a FIR was filed. But no one listens to us poor people, we did a lot of running around and lot of paperwork but finally nothing happened and we burnt all the documents with the funeral pyre"*

B9

B9 was married when she was 16 years old. They lived in district Banda, UP. They belonged to the OBC category and were certified as BPL. Both B9 and her husband had studied until Class 8. B9 was a home-maker and her husband was a migrant worker in Surat.

She had four previous pregnancies. Three were live births and one resulted in an abortion. This was her 5th pregnancy at the age of 28. During this pregnancy she received three ANCs at the CHC. She received two shots of TT injection and 20 IFA tablets. Her haemoglobin was tested during the last ANC and was found to be 8 gm. Her weight was also recorded during the first and second ANC (42kg and 43 kg respectively). It is mentioned that she was very weak during this pregnancy. She received SNP from the AWC. Her husband came back to the village 15 days before her delivery. He mentioned that 3-4 days before the delivery she reported high fever. A quack was consulted who gave some medicines.

On 18th August, 2014 her labour pain started and her water broke. Her husband tried calling 102 and 108 but the ambulance did not come. They hired a Tanga for Rs. 500 and took B9 to CHC which is 6 km from their residence in one hour. B9 was admitted and examined. They were told that delivery will happen sometime in the evening and everything was fine. The husband was asked to deposit Rs. 700. An IV drip was started and medicines were prescribed which the family had to purchase. At around 8:15 pm she gave birth to a female child. The delivery was facilitated by a staff nurse. After the delivery her husband was informed that she was bleeding excessively and had developed convulsions. The staff nurse mentioned that she had high BP. A doctor was called who examined her and immediately referred her to the district hospital. A referral slip was given. Since ambulance was not available at the CHC it took two hours to arrange for a private vehicle which charged Rs. 2500. They started for the DH at around 11 pm but soon after she died while in transit.

The body was brought back home. The newborn died after 15 days. One of the relatives mentioned that while preparing the body for cremation they found that her vagina was packed with cloth. As soon as they removed the cloth there was blood all over the place.

Her father in-law mentioned that they had to spend around Rs. 5000 during the entire chain of events which included transportation, medicine, referral and some informal payments. He stated: *"In government hospitals, only money is charged and no services are provided. Money is asked everything. We paid Rs700 for admission, Rs 200 for the dai, Rs.250 for the medicines that were bought from the chemist, Rs.70 for making the referral. We also spent Rs.500 in transportation from home to CHC and Rs. 2500 for transport between CHC and the District hospital. They tell us that the government provides ambulances, but we did not get the benefits of this. We spent at total Rs. 5000."*

ASHA's stated: *We are never provided 108 ambulance services between the CHC and District Hospital. A lot of money is charged in CHC from patients - they are asked to purchase medicines from the market thought all medicines should be provided by the hospital.*

B10

B10 was married when she was 20 years old. They lived in district Banda, UP. The family belonged to the SC category. They had a BPL as well as a MNREGA job card. Both B10 and her husband were non-literate. B10 was a homemaker.

She had two previous pregnancies. She developed complications during her first pregnancy which resulted in a still birth at home. After that a son was born at CHC who is now 3 years old. This was her third pregnancy at the age of 28. During this pregnancy she had three ANCs done at the CHC and VHND. She received two shots of TT injections and 28 IFA tablets. Her BP was measured in the first ANC. Her abdominal checkup and haemoglobin test was done during the third ANC. She was found anaemic. She received SNP from the AWC. The family also took good care of her, but she reported weakness and abdominal pain throughout the pregnancy. Two days before the delivery she went for a check up at the CHC, where the doctor said that her Hb is 8 gm. Everything else was fine and he assured a normal delivery.

On 1st Oct, 2014 at around 10 pm her labour pain started. The family called 102 and 108 but the driver said that it will take another 2 hours to reach. They (husband, brother-in-law, ASHA and a female relative) hired a tractor and reached CHC at 11 pm which was 5 km from their house. The staff nurse on duty said that the family has to arrange for candles then only she will admit her. The family were made to buy candles, injection, medicines, blade, thread and soap. The staff nurse conducted the delivery in candle light. She gave birth to a still-born female baby at around 3 am on 2nd Oct, 2014. After the delivery she was not given a bed and was shifted to the CHC veranda. She was bleeding profusely and complained of abdominal pain. Since she was moaning in pain her husband went to call the MOIC and MO at their house but the doctors did not come. Her clothes were wet with blood and the family ran out of cloth. Her husband made all the efforts but no bed was allotted. Her brother-in-law suspected that since it was a still-birth and the family did not give any money to the nurse she did this in anger. Her husband mentioned that when his cousin asked the nurse to give some medicine or injection to stop her bleeding, the nurse scolded them and said, *"We are not your servants. You will have to wait for the doctor who will come in the morning. He will*

give treatment and prescribe medicines and injections. If a referral is needed then he will do that. I had done whatever I was supposed to do. If you decide to take her elsewhere, you will be responsible for the consequences."

No doctor or nurse attended her as her condition worsened. She died at around 5:30 am, two and half hours after childbirth. No vehicle was arranged by the family to take the body home. The family later received a death certificate. Her brother-in-law mentioned that when the family protested outside the CHC the staff nurse ran away. After the protest following the death the doctor and tehesildar came to the CHC. The family wanted to file an FIR. The FIR was not registered but a post mortem was conducted. The sector officer said that application given by her husband was registered. The SDM investigated the case and took testimonies and as a punishment the doctor and LHV were transferred. The MLA from Naraini also visited the family. According to the family no action was taken up till now.

B11

B11 was married when she was 20 years old. They lived in district Banda, UP. They had a yellow ration card and a MNREGA job card. They belonged to the SC category. Both B11 and her husband were non-literate. B11 was a home-maker and worked as an agricultural labourer. Previously her husband was a migrant labourer and worked in Gujarat but now he was working as a daily wage labourer.

She had 5 previous pregnancies. All live births but two children died later. She was not keeping well during her last two pregnancies and reported high fever and abdominal pain. She was also anaemic. Her youngest son was on year old. The ASHA mentioned that after her third child was born she suggested sterilization. She agreed and as they were about to leave for the procedure her husband came and did not allow her to go. This was her sixth pregnancy at the age of 30. She conceived immediately after her last child was born. This pregnancy was unwanted and she wanted to terminate it. Her husband did not agree and suggested that they should have this child and then opt for sterilization. According to the ASHA her husband wanted another son. She did not register the current pregnancy so no ANC was done but it is mentioned that she received SNP from the AWC.

On 1st July, 2014 at around 9 am when her husband was out for work, he received the news that his wife's condition is bad. On reaching home he found out that in her fifth month of pregnancy, she had consumed abortion pills which she had obtained from a quack. She was bleeding profusely. Her husband arranged for an auto which charged Rs. 500 and took her to CHC which is 25 km away. They reached the CHC at 12 noon where she was immediately admitted and an IV drip (2 bottles) was started. The family was asked to purchase medicines worth Rs. 300. Four hours later when there was no improvement in her condition she was referred to the DH by the 108 ambulance, as the CHC had no ob/gyn. doctor. It took them 1 hour to reach the DH which is 30 km away. They reached the District Hospital at 5pm on the 1st of July. She was admitted at 6pm and administrated with drip (3 bottles) and again husband was asked to buy medicine worth Rs 500 from outside. The hospital informed the family that the foetus was aborted by the pills by the placenta was retained. Since the DH could not deliver the placenta so she was referred to the medical hospital in Kanpur at 2 am on the 2nd of July, 2014, a distance of 150 kms.

Husband booked a private ambulance for Rs 6000 but the ambulance driver took them to a private hospital instead of Medical College. They reached at 8am on 2nd of July. She was admitted

immediately and was provided with medicine along with blood transfusion. She stayed there for 2 days and her husband spent Rs 40,000 but there was no improvement in her condition. So her husband decided to take her to the Medical College Kanpur (1 km away) by auto on 4th of July and got her admitted in Mother-Child ward. The family spent Rs. 5000/- at the Medical College but her condition did not improve. Then the doctor shifted her to Emergency Ward on the night of 4th July at around 9pm. At around 10am on 5th July the placenta was completely removed. However after removing the placenta, her condition became worse. She asked her husband to take her home as she wanted to see everyone and wanted to meet her children. Husband again booked ambulance for Rs 6000/- on the 5th of July to take her home but she died on way. In all this confusion the husband lost all the papers related to her treatment. The poor family had to spend around Rs 60,000 during the entire chain of events. The sister-in-law and Pradhan mentioned that there is a quack that often visits the village and sells the abortion pills to women for Rs 500 to Rs.1000. The Pradhan also mentioned that a complaint was filed against this quack to the CMO but no action is taken. He also said *'her husband was equally responsible for the death; if her husband supported her they could have made use of the safe abortion services provided by hospitals and experienced providers.'*

B12

B12 was married when she was 18 years old. They lived in district Banda, UP. They had a BPL card and a MNREGA job card. Both B12 and her husband had studied until Class 5. She was a daily wage labourer and earned Rs. 500 per month. She was a member of a self-help group. Her husband was a migrant labourer and worked in Mumbai. He was not present during the current delivery.

B12 had one past pregnancy which resulted in a live birth. It is mentioned that she had some complications during the last delivery as the baby got stuck. This was B12's 2nd pregnancy at the age of 23. She received two shots of TT injections and IFA tablets during this pregnancy. According to the father-in-law B12 was reluctant to visit the health facility. According to the ASHA, she had advised B12 to attend the Health Mela but her mother-in-law and sister-in-law did not allow her. B12's neighbour mentioned that B12 had blurred vision, spells of dizziness and swelling in limbs during this pregnancy. It is mentioned that she was anaemic and felt weak during the pregnancy. She received SNP during this pregnancy. On 31st Oct, 2014 at 4 am B12 complained of backache. Her mother-in-law asked her husband to call the ASHA who then called 108. By the time ambulance came B12 had delivered a baby girl, with help from her mother-in-law and a female relative. According to ASHA when the ambulance came she suggested the family to take B12 to the hospital but her mother-in-law refused saying that they don't have money. According to the father-in-law B12 refused to go to the hospital. The ASHA even offered monetary help but the family refused. B12 had eggs and tea after her childbirth, and appeared to be in a stable condition. But suddenly after an hour or two, she developed extreme pain in her legs and asked the family to take her to the hospital. The family hired their neighbour's car for Rs. 500 and started for CHC at 8 am. Her condition worsened so the family took her to a private clinic on the way. The private doctor declared her brought dead. The family brought the body back home.

B13

B13 was married when she was 18 years old. They lived in district Banda, UP. They belonged to the OBC category. B13 had studied until Class 8 and was a home maker. Her husband had studied until Class 9 and worked as a migrant labourer in the past but now was a street vendor.

This was B13's first pregnancy at the age of 20. She received two shots of TT injection and IFA tablets at the sub centre. She also received SNP from the AWC. She had no complications during this pregnancy. On 8th July, 2014 her labour pain started. The ASHA was contacted who called the ambulance. They went to CHC at 10 pm which is 25 km away. She was admitted and delivered a baby girl at 4 am the next day, 9th July. After the delivery she developed swelling in her feet and reported abdominal pain. The doctor referred her to District Hospital as she was had anaemia. The doctor also provided a referral slip but since they did not have the money, they brought B13 home. According to the neighbour the family did not go to the DH and came back home to do the sixth day traditional *pooja* for the newborn. Next day (10th July) they visited a local private practitioner who told them that B13 had jaundice and gave her three kinds of *bhasam* (special ash supposed to have curative powers). B13 consumed the *bhasam* for 4 days. On the fifth day, 14th July, she developed high fever. The next day i.e on 15th July, 2014 family took her to the DH in a private vehicle which is 60 km from their residence. She was admitted in the DH and her treatment began. Doctor asked to get her blood and urine test along with ultrasound from outside. The blood test showed her Hb was 4 gm. Doctor administrated 2 bottles of IV fluid and asked the family to arrange blood immediately. On the next day, a neighbour came to donate blood but before his blood could be transfused, B13 died on 16th July. The hospital did not provide any vehicle to bring the body home. Both the neighbour and ASHA mentioned that B13's life could have been saved if the family would have taken her to the DH directly from the CHC.

B14

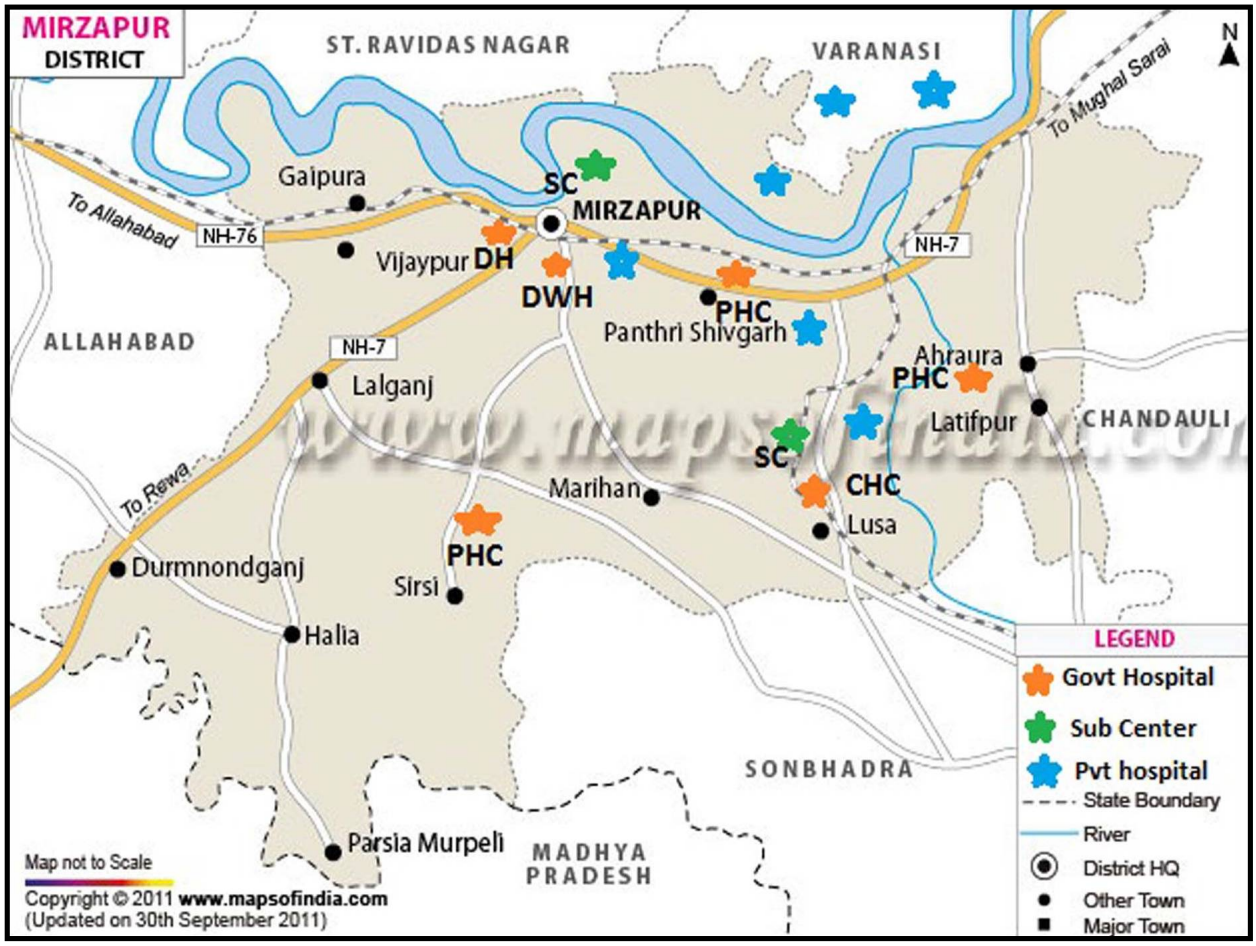
B14 was married and lived in district Banda, UP. They belonged to the OBC category and had a government ration card. B14 had studied until Class 8 and her husband had studied until Class 10. She was a daily wage labourer.

She had three previous pregnancies. Her first pregnancy resulted in a miscarriage, the second one was a live birth. Third pregnancy also resulted in a miscarriage. She was treated by a Shaman for the miscarriages. This was her fourth pregnancy at the age of 28. She received two shots of TT injections and 20 IFA tablets during the VHND. She went to a private facility in Banda and got her BP, Haemoglobin and abdominal check up done. On 20th Jan, 2015 at 4 am when she was in her 8th month, she developed sudden pain in the abdomen and bleeding started. Then they called the ASHA who contacted the 102 or 108 but since the ambulance had gone for another case, the family decided to take her to Sub-centre which is 15 km from their residence on a motorbike; she was already in labour and bleeding. They reached the Sub-centre at 7 am. The ANM gave her one injection and told them to take her to District Hospital. According to the ASHA, ANM advised the family to go to Janki Kund as she knew that DH will not have blood facility.The family left the Sub-centre in one hour but decided to take her to a private hospital in Janki Kund, MP which was 30 km away. They hired a private vehicle for Rs. 500. They reached there at 9 am where she was registered for Rs. 50 and a slip was provided. In the hospital an ultrasound done, after examining the ultrasound report, the doctor told family that foetus had already died and they need to arrange four bottle of blood for transfusion after which they would admit her.

The family was unable to arrange blood so they took her to another private hospital in Banda which was gain 30 km away in a private vehicle for Rs. 500/-. There also an ultrasound was done and the doctor asked the family to organize for blood. The facility charged Rs. 50/- from the family for the tests. Since no blood was available, they referred her to Kanpur. The family booked a private vehicle

worth Rs 3500 and got her admitted in another private hospital in Kanpur where several tests were conducted. It took them 5 hours to reach Kanpur (200 Km away). She was admitted at 6:30 pm. She was given three bottles of blood and the dead foetus was delivered normally. But since her condition was not stable, she was kept in an 'air-conditioned room' which charged Rs 11,000 per day. On 21st Jan, when her condition did not improve and she had stopped urinating the doctor told family that her kidney had failed and that dialysis would be required. On 22nd of Jan she was put on dialysis and treated for 5 days. The family spent one lakh on her treatment in this facility. Since the family was monetarily exhausted they decided to bring her back home. They hired a private vehicle for Rs 3500 and returned to the village. She stayed at home for two days. Since her condition worsened on someone's advice the family decided to take her to another private clinic in Khaga, Fatehpur, which they had heard could provide a guaranteed cure. They hired a vehicle for Rs. 2500 and took her to the facility where she was kept for two day and Rs. 1500 were spent. When her condition did not improve the family decided to bring her back home. On 29th Jan they hired a vehicle for 2500 and brought her back. Finally on the evening of 31st Jan, she died at home after 11 days. The ASHA accompanied the family in all the facilities. B14's husband said, *"I have been devastated by my wife's death. My children have lost their mother. If services were provided by government hospitals, we would not have been forced to go to private facilities."*

MIRZAPUR, UTTAR PRADESH



CB- MDR ANALYSIS OF DISTRICT MIRZAPUR

15 cases of maternal deaths from Patehra, Rajgarh and Pahadi blocks
Dated 22 Sept 2013 to 26 Dec 2014

Findings from the Community Based Reviews

i. Profile of the Women

The 15 women whose deaths have been documented all belonged to marginalized sections of society (five from SC, one was a Muslim OBC and nine were Hindu OBCs). Except one, all of them were certified as BPL, in fact some had the red ration card (Antyoday). A number of them came from wage-labourer or marginal farmer families, and by occupation they were either daily wage labourers or home-makers. Only one had a husband who was employed as a migrant worker in Mumbai . The ages of the women ranged between 18 to 40 years with a larger number of women being young at 20 to 30 years of age. Nine of the women had been to primary school, while four had completed ten years of school; one had even done two years of college (See Annexure 1, Table I- Profile of Women). Of the 15 women, seven women were primi gravida; one of them was 33 years pregnant with twins. Of the 8 women who had been pregnant before, 4 women were in their fourth and higher pregnancy, 3 had earlier miscarriage or C-section deliveries, and 2 women had live births which were followed by newborn deaths. (See Annexure 1, **Table II- Obstetric History of Women**)

ii. What led to the deaths of these women?

Of the women who attempted institutional births,

- Two women died of post-partum heavy bleeding after episiotomy ; one following induced labour to remove her 5-month dead foetus in a private hospital; another after an ANM in a PHC did her episiotomy;
- One woman died after bleeding in labour for 12 hours, despite finally reaching the DWH, getting blood transfusion and C-section for stillbirth
- One woman died after 36 hours of labour and heavy bleeding after manual removal of placenta in DWH; another woman died of massive bleeding after normal delivery in a CHC; another woman had normal delivery in the PHC but had heavy bleeding and breathlessness
- One primi gravida woman died in the PHC after prolonged 24 hours of labour, but without delivery; another primi gravida woman had convulsions and breathlessness during labour and died in the DH without delivering her twins
- One woman had fetal death that was not managed at the DH and died after visiting four health facilities
- One woman died after getting 5 injections then being discharged from the PHC within 30 minutes after the birth, on a winter evening with no transportation.
- One woman died after a botched C-section conducted in a private hospital without any IV fluids

Following home births:

- One woman died of heavy bleeding after TBA pulled out her dead foetus and delay of six hours in getting blood transfusion in the DWH
- Another woman died after post-partum bleeding, followed by seizures and reaching the DWH only on 3rd day after home birth.

During pregnancy,

- Two died of jaundice during pregnancy even though they reached more than one hospital seeking care

iii. Did the health system have the ability to manage obstetric emergency?

Did the women reach the health system?

All 15 of them sought care in a health facility either during labour or when complications had set in. Of them, in 12 cases, the ASHA is called when labour starts or any problem is perceived. Thirteen women carried their pregnancy to full term; two died earlier in their fourth and fifth month. Out of 15 women three died just before they could deliver, one at the DH, one at the PHC, and one in a private hospital. For the remaining 12, most women had their childbirth in the local PHC or CHC, although two did try first for delivery at their sub-centre. (See Annexure 1, Table III- Referrals)

What was the role of the first point of care?

Six women from all the three blocks reached their local CHC or PHC during labour, and five actually gave birth there. The childbirth was usually handled by a nurse or ANM, and the doctor arrives or is consulted only when there is a serious complication. The treatment for prolonged labour is usually giving some injections (even upto 5 injections) that seem to greatly accelerate the process of giving birth (sometimes within 20 minutes). In some cases it is mentioned that these were intra-muscular injections, in one case after leaving the woman in labour all night the nurse gave her three injections in the morning, two intra-muscular and one in an IV drip.

Delivery with episiotomy is mentioned in two case in a private hospital and a PHC, where the ANM is facilitating the childbirth. In two cases we hear there was no electricity all night, even during delivery. Families mention demands for money by the nurses before they even begin managing the delivery. Of the five women who gave birth at the CHC or PHC, in four cases we hear about neglect during labour, delays in checking the woman in labour, and lack of care at night, which proved fatal for two women.

Identification of a complication and seeking treatment and Provision of CEmOC:

Many of the women who died had prolonged labour, and some had foetal death; one had jaundice and one had symptoms of eclampsia. A significant proportion of women had bleeding during labour or developed heavy bleeding immediately after childbirth which led to the deaths of 7 women.

But these complications were not always detected and managed in a timely manner: three women were kept in the PHC and one in the DWH despite prolonged labour without referring them out on time. Sometimes the ambulance is delayed, and sometimes there is a delay by the family. In one case

a women delivered at home with the help of a Dai and a private doctor as the ANM was not available at the sub centre. She began bleeding after child birth and had convulsions but her family kept persisting with home treatment for two days. Similarly another woman with jaundice first sought care from an ojha (Shaman), thus delaying treatment of her complications.

The District Hospital is the tertiary care centre for the entire district. When women reach the DH with complications, they are capable of providing emergency obstetric care, as C-section is done and blood transfusion given. Nine out of the 15 women came to the District Hospital with complications in pregnancy, labour or post-partum. The four women who came to the DH during labour were referred there from the PHCs. Normal delivery is handled by nurses, and the DH uses the same methods of multiple injections as the PHC/CHCs. In fact one woman died within an hour of institutional delivery at the DWH; when after the expulsion of the placenta, the ANM inserted her hand and removed some birth products (shareer mein haath daal kar safai ki) which led to massive bleeding and immediate death.

Sometimes the life-saving care at the DH is delayed and sometimes denied. The doctors often delay seeing a woman who is in critical condition, which then slows down the process of providing life-saving treatment. A major challenge is that the District Women's Hospital does not appear to have blood storage available and sometimes families spend many hours trying to obtain blood from the District Hospital or private blood bank, leading to loss of precious time and death of the bleeding women. In addition to these delays and demands for informal payments, some families report that the behaviour of the DWH providers was abusive and humiliating. Of the two women with jaundice in pregnancy both sought care from the DH but the response falls far short of expectations. In one case, after childbirth in the PHC when she reached the DH unconscious, the doctor refused to admit her, saying that she would not even survive. The other woman saw six providers for her complications: in fact she actually came twice to the District Hospital for treatment but saw only a nurse and the second time she saw a doctor on payment as part of his 'private practice'.

Referral management

Overall, 11 out of 15 women visited more than one facility in trying to obtain Emergency Obstetric Care (See Annexure 1, Table III- Referrals) but the management of referral in Mirzapur does not follow the best standards.

A noticeable trend is that when women are on the verge of death, all health facilities tend to refer them out hurriedly as though they are reluctant to have a death in their premises. For example, when one woman died bleeding and in labour for more than 24 hours, the PHC nurse insisted that she was not dead but unconscious and told the family, "Have you gone mad? Take her to Mirzapur, she is unconscious." In another case, the PHC doctor forced a womans' mother to take her away at midnight when she was in critical condition. Sometimes these referrals are done without adequate support, such as an ambulance provided with an accompanying paramedic and information sent in advance to the receiving hospital about the condition of the case. In one case DWH providers treat a young woman (primi gravida) from 11am through the night and then refer her out to BHU at 3am in the morning without an ambulance, when she is in a critical state; the ASHA worker instead redirects the family to a private provider who provides emergency care which costs them two Lakh Rupees.

It is noticeable that the families received no support with bringing back the bodies of the women who died, even if the death occurred at the DWH. They had to invariably use private transport, except in one case who died in her PHC and the family was provided with a vehicle. After losing the woman, the bereaved families who often already faced catastrophic expenditure then had to spend amounts like Rs 400, 650 or 700 and sometimes even as high as Rs 1000, Rs 1500 or Rs 2000 (from BHU) and Rs 2500 (from Allahabad).

Does the Free services under JSSK work?

It is surprising given the JSSK scheme that a family had to spend Rs 6000 when they went to the DWH for treatment of post-partum complications after home delivery. The injections, medicines and IV drip cost Rs 4000 and one unit of blood cost Rs 2000 despite the family donating one unit of blood. For another woman the family pays Rs 3000 for one unit of blood, for yet another, the family pays Rs 4000 for two bottles of blood. Even an ANM conducting normal delivery in a PHC (with broken windows and without electricity) charges the family Rs 400. In one case it is reported the staff nurse asked for Rs 1000 to begin treatment. Routinely families are asked to buy medicines from the shops outside. The ambulance driver charges Rs 100 to go to the DH.

In the care received from both public and private sector, the costs paid by these working class families from rural areas are catastrophic, one family has to pay up Rs 2 lakhs; others pay above Rs 15000 (for treatment of jaundice and abdominal pain in pregnancy) or Rs 13000 for management of a miscarriage. The families usually mortgage their land or take loans at usurious rates like 10% interest.

Role of the private sector

Five out of the 15 women used services in the private sector during labour or complications. Three came to the private hospitals during labour. We find that the treatment is very medicalized, extremely costly and sometimes of doubtful standards failing to save women's lives. Sometimes the private hospital can also refer women into the public tertiary facility: two private hospitals referred out one woman to the District Hospital.

On the other hand there is a worrying 'leaking out' from public into private facilities which leads to unaffordable expenses for the poor families that are seeking treatment. In one case, the DH nurse advises them to go to a private hospital; and the DH doctor saw one woman as 'private practice' and charged money. In another case of public-private transitions, the woman first tried treatment at the District Hospital from where she was referred out to BHU but instead was brought to the private hospital by her ASHA, and finally returned to the DH before her death. This private hospital conducted a C-section to remove her dead foetus, but this treatment cost Rs 2 lakhs for the BPL family of wage labourers.

In another case, the private doctor conducts a C-section surgery without setting up an IV line; the woman probably died during her C-section, but the private doctor told the family that her condition is serious, and gave them Rs 500 to immediately take her away to BHU. Another woman had a pregnancy complication for which she visited three private providers and received five bottles of IV fluid, medicines worth Rs 6800 in 12 hours and six units of blood substitute until her body turned black.

Relationship between providers and the community

Of the women who gave birth at the CHC/PHC or DH, we hear about neglect during labour, delays in checking the woman in labour, delays in getting a doctor to see the woman (even a wait of 10 hours in DH) abusive behaviour and reluctance to attend at night (which proved fatal for two women) as well as demands for informal payments. Even though it is a tertiary centre, some families report that the behaviour of the DWH providers was abusive and humiliating; in fact the nurse and doctor abandoned the hospital after the death of a woman and ran off. Some of the expressions below indicate the kind of patient-provider interaction that took place in Mirzapur; some of which also indicate that the nurses are over-worked and irritable with the patients:

Some expressions from the bereaved families about the behaviour of the health providers

M10- At night the PHC nurse told the family to wait until her pains increased, but when they did call her, she scolded them and said in an irritated voice, "So what if she is in pain? Should I give her an injection to stop the pains?" There were two other women in labour but whenever the families tried to call the nurse to attend to them in the night, she would shout at them.

M12- The PHC staff nurse demanded Rs 1000 from the family but they had nothing to give, so she was reluctant to treat the woman and kept asking them to go elsewhere. There was no electricity in the labour room and nurse was working with a torch light; when the husband asked her about electricity, then she spoke abusively. She refused to come when called at night, saying the baby would be born later.

M8- Soon after her death, the DH hospital staff forced the woman's family out of the hospital. The staff began behaving then very badly and told the family to immediately take her body away, 'else they would throw her body into the river Ganga'. The mother-in-law says, "The hospital staff was constantly asking for money for every single thing. Money was charged for injecting her, for cleaning, medicines etc. Any amount between Rs100 to 200 was demanded. Without money no one pays any attention to you."

M4- When she began sinking even during the blood transfusion, her husband rushed to call the DWH nurse, but she demanded a bribe to check on his wife. When he went to call her again, she came, removed the blood transfusion pipe, put the woman on a stretcher and told the family, to take her away from there. She did not even provide a referral slip; the woman died outside the hospital.

iv. How effective is the routine provisions within NRHM to identify and manage complications?

In Mirzapur the ANC services failed to provide comprehensive routine care and the women got barely anything beyond the TT and IFA shots. All the women who died had high-risk signs in their obstetric history or an existing medical complication which needed greater attention in this pregnancy; however the pregnancy tracking and follow-up systems have been unable to save their lives. The MCTS failed to track the special needs of the women who died in Mirzapur.

Of the 15 women in Mirzapur whose deaths were documented, everyone had at least one contact with the ante-natal care provider which was usually the ANM. Every woman received at least one TT shot, and 11 received IFA tablets, although not all of them consumed them. Only 6 had abdominal examination, 4 had their haemoglobin measured but not a single woman had her blood pressure

checked. Services for ANC were accessed from the local VHND or ANM Sub-centre. However, the women made additional efforts to seek care- 7 women used either their local PHC or CHC for ANC; 6 women accessed ante-natal services in a private facility.

In Mirzapur, the ASHAs played a significant role in connecting families with government transportation calling for the 108/102 ambulance to transport the women from home to the facility. Out of 15 women, 9 women called the ASHA for help to get the ambulance to take them to hospital. If the ASHA was away, her husband helped the family to call the ambulance. However the role of the ASHA in one case is matter of concern, since she took the family to Varanasi but instead of taking them to BHU took them to a private hospital. It is not known whether she received a commission for doing so, since the hospital managed to fleece the extremely poor family.

Nonetheless, it is very encouraging that the ASHA workers are playing a proactive role despite the difficult setting, they do track women even those who delivery at home and do recognize that convulsions are symptoms of emergency or that swelling in pregnancy is a danger sign and take the women to hospital themselves. In one case, a woman had swelling in her legs in the 8th month so the ASHA proactively called an ambulance and took her to see a doctor in the PHC. He sent them for a blood test to a private lab, saw she had 7gms/Hb and advised better diet, which did help in getting her Hb up to 9gms.

Four of the women had several closely-spaced pregnancies in which family members should have also been counselled to delay the next pregnancy or to adopt terminal methods of contraception. In three cases the reason is that the woman is giving birth to daughters and the family may be keen on a son. But no special counselling was provided to the marital family or the husband. The health system also did not provided any contraceptive counselling or services to the men so women continued to suffer unwanted pregnancies or unsafe abortion services.

The health system also did not pick up several serious complications that arise (or are pre-existing) in these women: 10 out of 15 women had very serious symptoms of pregnancy complications such as bleeding or very high fever with abdominal pain (five women), swelling in the limbs (three women), diarrhoea and jaundice (two women) or a history of malaria.

Many danger signs were not detected or addressed in the ante-natal care provided; for example, in the case of a primi aged over 30 with twins (after infertility treatment) who had swelling in her limbs which got worse: she was given no special advice about danger signs and there was no birth-planning for her complications despite observations by the ASHA worker, warnings by the nurse at the PHC and diagnosis by a private doctor ('you may have convulsions during childbirth'), there was no treatment for her pre-eclampsia and inadequate counselling with the family about the gravity of her condition, as a result she developed eclampsia before she could get to treatment.

Despite their poverty as daily wage workers, families of woman did not neglect to seek care during complications, they consulted government hospitals (five) or sought care from private providers (six), or even informal providers.

Annexure 1: Tables of Mirzapur

Table I - Profile of women - Mirzapur						
#	Age of Women	Caste	Education	Occupation	BPL Card	Religion
M5	33	OBC	High school	Home maker	Y	Hindu
M6	25	OBC	Not literate	Agricultural labour	Y	Hindu
M7	25	OBC	Class 5	Not known	Y	Hindu
M8	20	SC	High school	Daily wage worker	Y	Not known
M9	20	OBC	BA 2nd Year	Home maker	Y	Not known
M10	18	OBC	Class 8	Not known	N	Hindu
M11	23	OBC	Class 5	Not known	Y	Hindu
M12	30	SC	Not literate	Daily wage worker	Y	Hindu
M13	20	OBC	High School	Home maker	Y	Hindu
M14	20	SC	Class 5	Daily wage worker	Y	Hindu
M15	20	OBC	Class 9	Home maker	Y	Hindu
M1	25	SC	Not literate	Home maker	Y	Hindu
M2	26	OBC	Not literate	School cook for MDM	Y	Hindu
M3	40	OBC	Not literate	Agricultural labour	Y	Muslim
M4	28	SC	Not literate	Daily wage worker	Y	Not known

Table II - Obstetric history of women - Mirzapur						
#	Age	No. of pregnancies	Past Mis-carriage	Past Still birth/ newborn death	Past C-section	High risk
M5	33	Primi	-	-	-	Y
M9	20	Primi	-	-	-	Y
M10	18	Primi	-	-	-	Y
M13	20	Primi	-	-	-	Y
M14	20	Primi	-	-	-	Y
M15	20	Primi	-	-	-	Y
M1	25	Primi	-	-	-	Y
M7	25	2	1	-	-	Y
M11	23	2	-	-	1	Y
M8	20	3	-	1	1	Y
M12	30	3	-	-	-	Y
M3	40	4	-	-	-	Y
M4	28	4	-	-	-	Y
M2	26	5	-	1	-	Y
M6	25	6	-	2	-	Y

Table III: Referrals -Mirzapur		
Single facility or one referral		
#	**Facility 1**	**Facility 2**
M10	PHC	
M13	Private Hospital	
M4	Home Del >DWH	
M6	Home Del >DWH	
M11	Private Hospital	BHU (died en route)
M12	CHC	(died en route to DWH)
M15	PHC	Private hospital
M5	PHC	DWH
M2	PHC	DWH

Multiple referrals				
#	**Facility 1**	**Facility 2**	**Facility 3**	**Facility 4**
M7	PHC	DWH	(died en route to 3rd)	
M9	Private Hospital	Private Hospital	Private Hospital	
M8	Private Hospital	Private Hospital	DWH	
M1	PHC	DWH	DH	
M3	Sub-Centre	PHC	DWH	
M14	PHC	DWH	Private Hospital	DWH

Table IV - Transportation to facilities-Mirzapur		
Single facility or one referral		
#	**Facility 1**	**Facility 2**
M10	Ambulance to PHC	
M13	Private vehicle to Private Hospital	
M4	Private vehicle to DWH	
M6	Ambulance to DWH	
M11	Bus to Private Hospital	Auto to BHU (died en route)
M12	Ambulance to CHC	Ambulance (died en route to DWH)
M15	Auto to PHC	Ambulance to Private hospital
M5	Ambulance to PHC	Ambulance to DWH
M2	Ambulance to PHC	Ambulance to DWH

Multiple referrals				
#	**Facility 1**	**Facility 2**	**Facility 3**	**Facility 4**
M7	Pvt vehicle to PHC	Pvt vehicle to DWH	(died en route to 3rd)	
M9	Pvt vehicle to Pvt Hospital	Pvt vehicle to Pvt Hospital	Pvt vehicle to Pvt Hospital	
M8	Pvt vehicle to Pvt Hospital	Pvt vehicle to Pvt Hospital	Pvt vehicle to DWH	
M1	Ambulance to PHC	(not known) DWH	(not known) DH	
M3	Walking to Sub-Centre	PHC (next door)	Ambulance to DWH	
M14	Ambulance to PHC	Ambulance to DWH	Pvt vehicle to Hospital	DWH (not known)

Table V - Women's Journey to Care-Mirzapur		
#	Facility 1	
M10	Primi gravida reached PHC, made to wait entire day and all night in labour without much attention. After almost 20 hours, given 3 injections, extremely severe pain, died after 12 hours without delivering	
M13	5th month abdomn, pain and loss of fetal movement, went to a Private Hospital. Induced labour and episiotomy led to heavy bleeding. Two units blood given, death	
M4	After unintended Home Delivery was bleeding for 2 days and nights, finally reached DWH. Given IV, injection and one unit blood, but began sinking. Husband called nurse who removed transfusion tubes and asked them to take her away. Died outside hospital	
M6	Always had Home Del., called in TBA who inserted meds and later pulled out dead foetus. Heavy bleeding noticed by ASHA who called Ambulance next morning to take her to DWH; very delayed treatment, five hours spent trying to arrange blood; she died during transfusion.	
#	**Facility 1**	**Facility 2**
M11	Went by bus to Private Hospital, paid Rs 1000 for USG. Doctor conducted C-section without any IV drip. When she started deteriorating, doctor gave the family money to go to BHU	Arrived dead in BHU (died en route)
M12	Had delivery at the CHC but massive bleeding after that. Gave injections, stuffed cloth but finally the nurse referred out late at night with an ambulance	Heavy traffic and delays, she died en route to DWH
M15	ANM at the PHC conducted her delivery with episiotomy and led to heavy bleeding. Put in stitches but symptoms got worse with blurred vision. Referred her out at midnight	The ambulance took her to a Private hospital but she was already dead
M5	33-year old primi with twins, swelling during pregnancy. Convulsions & breathlessness, taken to PHC. ANM did not admit but referred at once	At the DWH began treatment but advised taking her to a private hospital; she died by the time they arranged for a private vehicle.
M2	Had mild pains for 16 hours before ASHA took her to PHC. Waited all night even though it was 24 hours after onset of pains. No treatment, requested referral	Treatment was delayed at DWH, but gave birth after being in labour for 36 hours .Manual removal of placenta remnants. Massive bleeding with chill. Family told to arrange for blood, kept waiting for the doctor for an hour in Blood bank; she died.
M7	Had jaundice and went into labour in 7th month. After many delays reached PHC, normal delivery. Became unconscious but was sent away without ambulance. Auto took 2 hours to reach DH	Referred to DWH, but doctor saw her and refused to admit, saying Severe anaemia and jaundice so doubtful if she would survive

Table V Contd.....

Multiple referrals

#	Facility 1	Facility 2	Facility 3
M9	4th month jaundice, abdominal pain. Went to Private Hospital. 5 bottles of IV and Medicines Rs 6800. Referred out to another one	Second Private Hospital was run by an orthopaedic doctor so family left	Went to third Private Hospital, treatment started after depositing Rs 8500. Six units of blood substitute given until body turned black. Foetus was also dead, she died soon after.
M8	Bleeding during labour, foetal death. 1st tried Private Hospital; advised to go to DH	Went to another Private Hospital, again advised to go to DH	Came to DWH at 2am. Given IV fluids, injections, family asked to arrange for blood. C-section after one unit of blood, seemed to recover well. After few hours, gasping, gave oxygen but died
M1	Waite all night in PHC in labour pain, crying and bleeding before the birth	Arrived bleeding and gasping for breath at DWH. Gave two injections but was sent out to main DH	As she reached DH, she died before any doctor could see her.
M3	Walked to Sub-Centre, waited for ANM	ANM asked her to come to New PHC for birth; gave 5 injections, just 30 minutes after bith asked her to leave (she wanted to go home), woman brought back in auto on winter evening, chills and back pain. Died	Took her to DWH although local doctors had already declared her dead.

#	Facility 1	Facility 2	Facility 3	Facility 4
M14	Primi went to PHC but referred out at once to DWH	From 11am-6pm no treatment was given at DWH; labour pains and, fetal movement stopped. Doctor came at 9pm and gave IV, injections and one unit blood. Referred to BHU at 3am without ambulance	In pvt vehicle, ASHA instead of taking to BHU took them to a Private Hospital. After USG, two units of blood, C-section for dead foetus. 5 days in ICU at exorbitant rates	First they took her home having finished all their money. She was treated by a shaman but was still very sick, so they brought her back to the DWH. They gave blood transfusion and medicines but she died there

Annexure 2: Case Summaries of Mirzapur

M1

M1 had never been to school and was married at the age of 18 years to a labourer (Dalit Muslims). They owned 10 bissa in a village in Mirzapur. They had a MNREGA job card and a red ration card (Antoday). M1 had her *gauna* after 3 years and came to her marital home. After another 2-3 years she became pregnant with her first child.

M1 was a prime gravida at 25 years. According to the ASHA she had gone to her natal home during pregnancy and returned only in her fifth month after getting one TT shot. She had got the second TT shot at her marital home, although the ASHA felt that the community to which M1 belonged are reluctant to get injections. Moreover, during her pregnancy she had two ANC check-up but there was no abdominal examination, weight, BP or blood test taken; according to the ASHA worker this was because the PHC did not have the means to carry out blood tests. She got IFA tablets but according to the ASHA did not consume them, although she was very weak and frail-looking. The ASHA worker also said that during her pregnancy she used to have abdominal pain from time to time, so she went twice to the PHC accompanied by the ASHA, Her mother-in-law also recollected that in her 7th month (on 17th September), she had abdominal pain in for which she received treatment at the PHC where the nurse gave her some medicines and an injection, for which the nurse charged Rs. 100. The nurse told them that there was no serious problem and that she would deliver easily. After that she felt better and according to her mother in law, she did not face any other problems and was able to do household chores till the end of her term. But the ASHA reports that she had suggested they take her for a check-up to the District Hospital which the family did not do.

On the 10th of Nov when M1's labour pain started in the evening, her mother in law called the ASHA at 7:00 pm. The ASHA observed that her breathing was rapid and her feet were swollen. She called the 108 which arrived within 15 minutes. They reached the PHC in 20 minutes at 9pm. The nurse examined M1, gave her two injections and told the family that it would take a while for the baby to be born. The entire night they waited in the PHC and M1 was crying out in labour pain, so the ASHA would occasionally call the nurse to look at her. The ASHA says that she was bleeding when the baby's head was visible. According to the mother-in-law, the childbirth happened in the PHC hospital, and the infant was alive at birth but died soon after. Soon after the delivery M1 began bleeding profusely and the PHC doctor came, examined her and gave her one injection. He also gave them an extra injection and told them to get it administered if the bleeding did not get controlled. Around that time M1 became breathless and the staff nurse made a referral slip and asked them to go immediately to the District Hospital. It took them 45 minutes to reach the DWH where the staff nurse examined her and gave her two injections. But the bleeding did not stop and she continued to breathe rapidly. The nurse told the family that they could not treat breathing problems and therefore she should be taken to the main District Hospital. She was in the District Women's Hospital for two hours.

The family took her to the DH where she was put on a bed, but before the doctor could come and check her, she died. They got the body back in an auto and paid him Rs. 700 (on 11 Nov2013)

M2

M2 had never been to school and was married at the age of 15 to a shepherd who owned one bigha land. They had an MNREGA job card, a white ration card and lived in Mirzapur district. She worked as the cook for the mid-day meal in school.

Her gauna took place immediately and she became pregnant when she was about 17. Her first child birth was at home and was delivered by women in the household but the infant had died immediately after birth. Her second pregnancy was a year later and this time the delivery was in the government hospital near her parents' home. After a year she was pregnant again and she delivered her third baby at the PHC. A year later she was again pregnant with her fourth child, which was also delivered at the PHC. She had no ANC check-ups for her 1st and 2nd pregnancy, but she got a TT shot for her third pregnancy. For her 4th she got a TT and IFA tablet.

This was the fifth pregnancy for M2 at age 25-26 with a couple of years' gap. According to her mother in law, M2 had been given TT injections once in the village school by the ASHA during a VHND. The ASHA had also taken her to a private doctor for a check up once because M2 used to complain of regular abdominal pain during her pregnancy. She got an ultrasound done there and the doctor had given some medicines. No complications were detected during the ultrasound. But one week before her delivery she again had pain in her abdomen and the ASHA brought some medicine for her. After consuming them, she felt better.

M2 felt abdominal pains again at about midnight of 7 January14. The family had called the ASHA (this is the ASHA Sangini) to take a look. According to the mother in law, the ASHA gave M2 some medicine from a shop, which she consumed with tea. The ASHA told them that they could take her to the hospital when the pain increases.

They called the ASHA again at 8 am in the morning of 8 January, but she told them to wait till the pains increased. All this while, the woman continuously had mild labour pains. Finally at 4 pm in the evening of 8 Jan14 the ASHA called the 108 ambulance. At 5 pm she was admitted in PHC. The PHC nurse checked her and told them that the delivery would happen after dilation of the cervix, probably later at night. The nurse checked her at 9 pm and then again about the midnight of 9 Jan14 but the cervix had not yet dilated (although it was already 24 hours since labour pains started). The woman was in the PHC through the night. When no one came to check her in the morning, the woman and her family requested the ASHA to take her to the District Women's Hospital. The ASHA spoke to the doctor and arranged for the ambulance and the woman was taken to the DWH.

She was admitted there at 9 am on 9 Jan14. Three hours after she was admitted the nurse administered a drip and two injections and asked for some medicines from the outside shops. At about 1 pm (about 36 hours after labour pains started) her labour pain increased and she gave birth to a girl who died within a couple of minutes, according to the ASHA. According to her mother in law, after expulsion of the placenta the ANM inserted her hand and removed some birth products *(shareer mein haath daal kar safai ki)*. The complication started soon after childbirth for M2. She started feeling cold so her mother-in-law covered her with her shawl. Soon she also started bleeding heavily. Her mother-in-law went to call the nurse but she refused to come. After some time when the bleeding did not stop she went to call her again. This time she came. According to the mother in law, when the nurse saw the woman's condition, she seemed to be at a loss and scolded the *dai*. The nurse then went and fetched the doctor. The doctor examined the woman, gave her an injection and told

her mother in law that they needed to arrange for blood. The woman's husband along with one more person went to get blood from the District Hospital. They kept looking for the doctor for one hour. But before they could come back she died at about 2 pm on 9 Jan2014 (died one hour after delivery). M2's mother in law mentioned that they had packed her vagina with cotton wool in an attempt to stop the bleeding.

After her husband reached home, they arranged for a private vehicle to take the dead body home at a cost of Rs.400/-. No death certificate was given to the family and they too did not remember to ask for it. They were made to sign on some papers which were not explained to them.

M3

M3 had never been to school, and was married at the age of 12. Her *gauna* took place five years later, and she lived with her husband in Mirzapur. They belonged to OBC Muslim community and worked as wage labourers, with a red BPL card and a MNREGA job card (although there was no work for the last one year). Her husband had some mental health problems but worked in the brick kilns, and she worked as an agricultural labourer and was also the part of a self help group.

M3's children had all been born at home; she had a son who was 20 years old, followed by three daughters, the youngest of whom was 9 years old when she became pregnant once again. This was her 5th gravida at the age of 40 years, and according to her family, she had two TT shots at the VHND in the local school. But her MCTS card says that she had 3 ANC where weight measurement (34kg) was done, TT and IFA given but no Hb test done. In fact the ASHA worker says that she had to advise her to give birth in a hospital this time but the suggestion was not well accepted. On 25th December, 2014 she started having light labour pains and her waters broke. She told her sister-in-law so the two of them went to consult the ANM in the near-by Sub centre in a tempo. After her check up, the ANM said that childbirth would require an IV drip and injection. She also said there was a possibility that childbirth could occur that night itself, or take another week depending upon the leaking amniotic fluid. However both sisters-in-law walked back home, after which PAH 3 cooked and ate dinner normally; her water had also stopped leaking by then.

The next (26 December, 2014) morning, she continued to feel light pains so once again her mother-in-law walked with her to the sub-center at 10 am. When they reached at 11.30, the ANM was not present in sub centre; so they waited for an hour. When they were about to go back, the ANM came to the Sub centre to take her register, then she saw PAH 3 and mother in law and told them to come to the New PHC where she can deliver baby. The ANM told her mother-in-law to bring soap, oil and cloth, so her Mother in law left her in the New PHC and went back home to bring the things. When her mother-in-law came back with other family members, she saw the ASHA had arrived in the PHC, called in by the ANM. The ANM told her family that woman will deliver around 4pm and gave her 5 injections. By 5pm she delivered a baby, in the PHC labour room which had broken windows. There is also no electricity there. But within half an hour of the childbirth, the ANM told the family to leave the hospital. She wanted to get home and she asked the family for Rs 400 which was paid by mother in law. The family booked an auto for Rs 150 to take her back home with the new-born baby, along with the ASHA. On reaching home, the ASHA had to help her get down from the vehicle and made M3 lie down on the bed as she was shivering and convulsing. She ate one chapatti but she complained of severe back pain. Her family discovered that her limbs were very cold. Her mother-in-law tried to warm her body by providing a home remedy (smoke of ajwain) and covering her with blankets. But this didn't help, and she was constantly shivering and thrashing her limbs. Her husband

was rubbing her back, but after a while he realised that she was not speaking at all, and she had gone absolutely still.

Her family members started crying and soon the neighbours and relatives gathered in M3 house. A doctor was called from a nearby private facility and two doctors came who declared that M3 had died, but the family was not convinced and called 108 to take the woman to the district hospital. The 'doctor' in the 108 told family that woman was already dead. But the family insisted on going to the DH. After reaching DH, the doctor at the DH saw M3 and told the family that she had died an hour back. The family booked a tempo for Rs 650 to take her body home and buried her the next day. A relative felt that if the woman had been referred to higher facility after childbirth instead of being sent home, then she could have been saved but due to ANM's carelessness, M3 had lost her life.

M4

M4 was a Dalit woman married when she was 18 years old. They lived in a joint family in district Mirzapur. They had a white ration card and owned 8 bighas of land. She was not literate and was a daily wage labourer. Her husband works as a mason in Mirzapur and is educated up to Class 10. Her husband has a job card which is in possession of Pradhan.

M4 had three past deliveries all sons (8 years, 6 years and 3 years receptively). Her second and third child was delivered at the sub-centre by the ANM. This was M4's fourth pregnancy at the age of 28. During this pregnancy she received ANC at the sub center which was only limited to two shots of TT injections and no other services were given. According to the ANM M4 was anemic during this pregnancy and the mother-in-law mentions that at eight month she had diarrhoea *(aaov)*, for which she took medication at a private hospital. She received SNP from the AWC once during this pregnancy.

On 5th December, 2013 at 3 am her labour pain started. As the sub centre was closed and the ANM was on leave. The second ANM was called but she did not come at that time so her husband went to call private doctor and mother in law called the *dai.* The *dai* delivered the baby and cut the cord. On doctor's arrival, woman had already delivered, so he gave pain killers and TT injections to her and the baby. Woman was bleeding heavily during delivery which stopped later. After two days of delivery i.e. 7th December M4 had stomach ache and sudden seizures in the night and her father-in-law gave "Bhabhut" (*vibhuti* or holy ash) which made no difference to her condition. They waited the rest of the night and M4 was taken to District Hospital the next morning i.e. 8th December, in a private vehicle paying Rs 500. She was immediately admitted and 2 bottles of IV Fluid were administered. The nurse told family that woman needs blood. A doctor also checked the woman and gave an injection. They charged Rs 4000 for injections, medicine and drip. Doctor also told the family that woman was anaemic and needed 4 bottles of blood. One bottle of blood was transfused for which they charged Rs 2000 from family although her husband donated one bottle of blood in lieu.

Half way through the blood transfusion (first bottle), M4's voice faded and she became unconscious and started gasping for breath. Her husband rushed to call the nurse but she asked for money and did not come to check her up. Again her husband called nurse, this time she came and removed the blood transfusion pipe. She shifted the woman to stretcher and asked family to take her to another hospital without providing referral slip. The woman died outside the same district hospital in the process of taking her to another hospital by family at around 8 pm. Nurse and doctor ran off from hospital after

the woman's death. The family did not receive any documents from the hospital. They had to pay around Rs. 6500 during the entire chain of events

Note-ANM provides services in the sub-centre for the past five years and there is another ANM who is on contract but does not report for duty regularly neither does she stay here in the night. The ANM mentioned "We have not been given training to measure BP but we still have learnt it on the job and take BP measurements. This sub-centre conducts 15 deliveries on an average per month; but there is no dai appointed and therefore after delivery family members of the women have to clean up. During delivery, since there is a lot of work to do, I take the help of the ASHA".

M5

M5 was married at the age of 23 years after having attended high school. She belonged to a landless OBC family holding a red BPL card. They lived along with the joint family in Mirzapur district. They had a MNEGRA job card and her husband worked as a migrant labourer while she was a home-maker.

M5 had been childless since marriage, and was pregnant at the age of 33 for the first time after 10 years of marriage and undergoing infertility treatment for 4-5 months. The treatment was provided by a government doctor who ran a private clinic in Mirzapur. M5 had spent Rs. 3,500 on the treatment; 3 to 4 months after which she conceived twins. M5's mother in law mentioned that she had no complications all though her pregnancy, however the ASHA mentioned that M5 developed swelling in her limbs in her 4-5th month of pregnancy which progressively worsened. The mother in law mentioned that the ASHA came to visit her daughter at home a few times and took her to the PHC for her first ANC checkup. According to the local ASHA worker, M5 had received two TT injections and received IFA tablets. In her eighth month M5 had gone for an ANC check in a PHC, which included abdominal examination, haemoglobin test (9gms); where the nurse examined her and told her that she had twins. There is no mention of BP being checked, even though the ASHA worker had noticed swelling. According to the ASHA worker she had advised M5 and her month-in-law to get a check-up done in Mirzapur, which they seemed to delay. In her final month of pregnancy, they had consulted a private doctor who had warned that she may have convulsions during childbirth, so she should deliver in the District Hospital. She also got supplementary nutrition from the AWC. According to the ASHA worker, M5 was not feeling well on 20th June morning, and had some shivering fits and swelling in her limbs, for which M5 was taken for treatment to a private doctor in Deepnagar. The doctor gave her two injections and some tablets, which she consumed after coming home in the evening, having a meal and speaking to her mother on the phone: she seemed to be perfectly normal. Ten minutes later she developed breathing difficulties and shivering fits.

It appears that the ASHA was called around 8 or 9 at night, and she came to see M5 convulsing and hardly able to breathe, so she immediately contacted the 108. It took an hour to arrive, and then M5, her mother in law and the ASHA travelled half an hour to the PHC which was 9 kms away. At the PHC the ASHA went to look for the ANM since it was after ten at night. The ANM checked her in the ambulance itself and said that, since there was no one in the hospital, they should rush her to the district hospital immediately. She did not provide any referral slip but made a note in the Ambulance Register, so the same vehicle took them to the DH. M5 was taken in the same ambulance 22 kms away to the district hospital for which the ambulance driver took Rs. 100. They reached there at 11:30pm. At the DH the nurse was called, on examining M5's pulse, she advised the family to take

her to a private hospital as M5 was in a very serious condition with severe swelling and anaemia. The nurse called up and consulted the doctor. As the family members went to arrange for a private vehicle, they came back to find a IV drip had been set up and a nasal pipe had been inserted. She was bleeding through this pipe and she was already dead (it was around 12:10am). The nurse and doctor said they had arrived too late and she could have been saved by a c-section if they had arrived even an hour earlier. The hospital staff made him put his thumb print on a piece of paper and gave him the death certificate, after which the family brought her body home, spending Rs. 1000 on a vehicle.

M6

M6 was married at the age of around 15 into a joint family where her 18-year old husband was the oldest son. Neither of them had been to school and he lived in a joint family, in Mirzapur. They worked as wage-labourers with a MNREGA job card, and owned 15 bissa of land, living in a *kachha* house with no toilet. They belonged to the *Kol* OBC community and had a white ration card. Both the daughter-in-law and her mother-in-law were members of the Rajiv Gandhi Rural Empowerment programme savings group, and they saved Rs 50 each month.

A year after her marriage, she moved to her marital home *(gauna),* and within a couple of years she had her first child at home. She gave birth to three daughters in quick succession within a year or two of each other; all born at home and she received no ante-natal care. According to the ASHA worker, she was scared of injections. After that she had two more babies who died of tetanus within a day after home delivery. This was M6's 6th pregnancy at the age of around 25. She got an ANC checkup in the VHND held in the school where she was given a TT shot, IFA tablets (which she did not consume, according to the ASHA) and an abdominal checkup, but her Hb was not checked. She did not get any SNP. The ASHA mentioned that she had tried to convince M6's mother-in-law that she should deliver in a government hospital because the last two infants died of tetanus soon after birth. However M6's mother-in-law did not agree, she felt since all the children had been born at home now she was too old to take M6 to a hospital.

On the 14th of August 2014, when PAT 2 developed fever, she was taken to a quack who gave her some medication. On the following day (15th August) her labour pains began early in the morning. The *dai* was called in and she gave some tablets to be taken with tea and she inserted some medicine into her vagina. The woman was left all day with her labour pains, but when the *dai* came in the evening, to check on M6, she declared that the foetus had died. After that the dai physically pulled out the dead foetus thereby triggering heavy bleeding. The ASHA who just came to see her, pointed this out to the dai, who declared that this much bleeding was normal. By the following morning (16 August) M6 developed severe pain in her legs and the heavy bleeding continued. The ASHA was called and she immediately telephoned for the 108. M6 was then rushed to the district hospital after the family arranged for Rs. 10,000 by mortgaging some of their land. According to a neighbour, the government ambulance took Rs 200 from them. On reaching the district hospital at 9am on 16 August, M6's mother-in-law paid a sum of Rs. 50 to the nurse so that M6 would be attended to immediately. M6 was immediately admitted by the nurse who began her treatment. But the doctor came to see her 2 to 3 hours later. On examining her he declared that M6 had lost a lot of blood and was very anaemic (ASHA said that the doctor told her that she had about 1 to 2gms Hb) and that the family would be very lucky if she survived. He asked the family to arrange for two bottles of blood. It took 5-6 hours for the family to arrange for blood from outside at a cost of Rs. 4000. They started the first transfusion but she died soon after at 3pm. The brought back the body in a private

vehicle. The doctor told the family that she died due to bleeding and gave a death certificate, however they family no longer has it.

M7

M7 had studied upto Class 5 and was married at the age of 17-18 into an OBC family that owned one bigha of un-irrigated land in the village in Mirzapur. They lived as a joint family and had a BPL (red) card as well as the MNREGA job-card. She came into the marital family a year later after *gauna.* Both the mother-in-law and the oldest daughter-in-law (M7) were members of the savings and credit group under the Rajiv Gandhi Rural Empowerment Scheme. Her husband had studied upto Class 7 and worked in Mumbai as a migrant.

Two years later she was pregnant, but her first pregnancy had ended in a miscarriage after five months. During her first pregnancy she had recurrent fever since the third month. They sought treatment from an informal provider who diagnosed that she had malaria and gave her medication after which she recovered, but she had a miscarriage in her fifth month. At the age of 25, she got pregnant again 4 years after her miscarriage. She received ANC in a PHC, including IFA tablets and 2 TT but no other check-ups. No SNP was given. Around the festival of Raksha Bandhan, in her 7th or 8th month, she went to her natal home where she was given her second TT shot. According to her mother-in-law, she fell ill while she was in her natal home and did not return when they expected. Later they heard she was seriously ill and had contracted jaundice, which they suspected was an infection from her brother's wife. She was vomiting and had fever and was treated by informal providers in her natal home. After that she was brought back to her marital home, where they asked her to suck on a lemon for the vomiting. But since her fever came down, they did not take her to a doctor. The mother-in-law mentioned that their local ASHA did not give any advice regarding treatment. She added that the ASHA of this village lives elsewhere and so they made use of the service of another ASHA living in the same village but whose work area was not in this village.

Within five days on 20 Sep'13, M7 complained of severe pain in the legs, so her mother-in-law got her some medicines from a private doctor close by. Her mother-in-law also called up her son (M7's husband) who is a migrant worker and told him to return from Mumbai. According to the ASHA they called her very late at midnight, and she went to see her and also gave her some medicines for the severe pain in her legs. According to her mother-in-law, M7 labour pains had started the following day (on 21 Sep13) during the daytime, but she had not informed anyone. Her mother-in-law only came to know about it in the evening, when she realised that M7 was neither able to sit or to milk the cows. PAT 3 asked her mother-in-law to call an *ojha* who performed his rituals. The mother in law also contacted the ASHA, who came and told the mother in law that M7 needed to be taken to the hospital. But according to the ASHA she herself visited the family around 8 pm and advised that they move her to a hospital immediately. But they didn't have any transportation and the 108 ambulance had taken another patient to Mirzapur district, so it was not available. So they had to wait the rest of the night. Around 4am, the mother-in-law came to call the ASHA once again and she advised them to leave immediately for the hospital. The family tried to arrange for money, they had to borrow money at the rate of ten percent interest. Around 6 am they took M7 eight kms on a motorcycle to the PHC and reached the PHC in half an hour at 6:45 am.

M7 was admitted immediately to the PHC after reaching. The PHC doctor examined her and diagnosed that she had jaundice. The nurse examined her and said that she was ready for delivery and

gave an intramuscular injection in her hip. She gave birth to a boy in twenty minutes at 7:05 AM on 22 Sep13. After childbirth M7 had became unconscious. The PHC referred her to the district hospital and provided a referral slip they did not provide referral transport, even though she was unconscious. They spent around four hours at the PHC according to the ASHA. At the PHC they did not spend any money on treatment which was all provided by the hospital free of cost. The family arrange for private transportation (by auto) for Rs. 800. It took them another two hours to reach the DH. On reaching the district hospital, a doctor checked M7 and diagnosed that she was extremely anaemic and suffering from jaundice. He said, *"why are you so worried, it's pointless as, it is doubtful that she will survive."* The DH did not admit her and so the family was forced to bring M7 back home in the same auto. By then the baby had also developed jaundice. By this time M7's husband reached home from Mumbai and he rushed his wife and child to the hospital once again that evening, but she died on the way to the hospital at 6pm and so did the baby.

M8

M8 was a Dalit girl who had studied upto Class ten, and was married in 2006 (at the age of 14) to a labourer who lived in Mirzapur. The family had 10 Bigha land with one crop. They had a BPL card, a NREGA job card and she was a daily wage labourer.

Her *gauna* was done along with the marriage, and she became pregnant after three years. She got two TT shots, IFA tablets and SNP, and she gave birth to a girl. She became pregnant with her second baby in two years, and there was some serious problems for which the child was born by C-section at the District Hospital, but the baby died immediately. According to the ASHA the doctor had warned her to avoid pregnancy for at least three years, but she became pregnant after one year at the age of 20, and went off to her natal home. In her third pregnancy, she had ANC twice in PHC by ANM which included HB testing, weight, IFA tablets and two TT injections. Her pregnancy had several problems, as she had bleeding in her third month for which she sought treatment in PHC after which the bleeding stopped. The bleeding started again in the 6th month and she went for treatment two-three times in PHC after which it stopped. In the 8th month when she started bleeding again, the family booked a private vehicle for Rs 800, and took her to a private hospital in Mirzapur. Her blood test was done and she was given some medicines after which she became better. In her 9th month on the 3rd August at 9pm 2014 after dinner, M8 had abdominal pain along with bleeding. So her family took her to a private hospital (government-employed doctor practising in a private clinic) in private vehicle where the doctor advised the family to take her to the district hospital. But they took M8 to another private hospital.

The doctor in the second private hospital also advised her family to take her to the district hospital so finally they took her to District Hospital and reached there at 2am in the night. At the DH, she was admitted and treatment began at 3:30am. An IV was started and she was given 2 bottles of saline, an intra-muscular injection on her hip and the family was asked to buy medicines as well as 2 bottles of blood from outside. After one bottle of blood was transfused to woman, the next morning (10th August'14) a C-section was conducted around 10 am and the dead foetus was removed. M8 regained consciousness one and a half hours after the operation. Her sister-in-law reports that she told her that she was feeling alright and they should all go home. Even though she was reluctant to do so, the sister-in-law did finally leave her in the hospital. Then the 2nd bottle of blood was started, but the woman's body began turning black. M8's husband mentioned that her condition became critical and she started breathing rapidly so the doctor started oxygen. The doctor asked M8's husband to get

one more bottle of blood, but she died before he could return with the blood. Her mother-in-law mentioned that soon after the M8's death, the hospital staff forced them out of the hospital. The staff began behaving very badly and told M8's husband and mother in law to immediately take her body away, *'else they would throw her body into the river Ganga'.* No transportation was provided by the hospital to take the body home. Further she added, "the hospital staff was constantly asking for money for every single thing. Money was charged for injecting her, for cleaning, medicines etc. Any amount between Rs100 to 200 was demanded. Without money no one pays any attention to you."

M9

M9 was married in May 2013 and immediately came to her marital home in Mirzapur. Her husband was from the OBC community and they had six bigha fertile land with biannual crop. The family had a BPL card but no NREGA job card.

She became pregnant within a year of marriage and in her third month, (Sept 2014) she got her first TT shot. After that she went to her natal home in another block of Mirzapur district. She developed fever and abdominal pain for which they took treatment from a private provider and she seemed to be alright. According to the ASHA she got her health card made there in her natal home, and also got her second TT shot. When she returned to her marital home, she had jaundice. Subsequently while in her fourth month of pregnancy, she developed high fever and abdominal pain once again, and the family took her to the District Hospital. The nurse examined her, prescribed an ultrasound and medicines worth Rs 250. On the 10th of October M9 again had abdominal pain, so her family took her back to the DH in a private vehicle. The government doctor checked M9 in a private facility and prescribed medicine worth Rs 700 and an ultrasound. Next day M9 got her ultrasound done in a private lab and it was reported that baby was fine but woman had inflammation in her lungs. They bought the medicines and again she was sent back home. After two days (13th Oct), M9 had abdominal pain once again and she was taken to a private provider. He gave her five bottles of IV fluid and prescribed medicines worth Rs 6800. The doctor told the family that she might need oxygen. However, there was no improvement in her condition so at 6pm on 13th Oct. the doctor referred M9 to another private hospital in Allahabad.

The family booked a private vehicle worth Rs 2500 and reached a private Hospital in Allahabad at 9:30pm of 13 Oct. The doctor in the private hospital examined M9 and told the family that she was very serious and that the chance of survival was slim. But M9's family realized that this was an orthopaedic doctor, so they took her away again. They again took woman that night to another private hospital where she got admitted after depositing Rs 7000 along with Rs 1500 as doctor's fees. The doctor started M9's treatment and transfused 6 units of blood substitute but as soon as the transfusion started, her body started turning black. After a while it was clear that the foetus was also dead. On 17th Oct. around 7pm on M9 died and the family booked the vehicle for 2500 and took her body home.

M10

M10 had studied upto Class 8 and was married at the age of 17 to a young mason from the OBC caste, who lived in Mirzapur. They had no land nor a ration card or job card. A year after her marriage, she came to her marital home following *gauna*.

A year later, she was pregnant with their first child and did not have any problem during her pregnancy. She had ANC twice in the PHC including abdominal check up, TT injections and IFA tablets which she did not consume as it made her feel unwell. No supplementary nutrition was provided by Anganwadi centre. Her labour pains started in the morning around 8am on 26th Feb 2014. After some time her family called ASHA but she was out on Pulse Polio duty. The ASHA's husband called 108 at 10am and woman's family (mother-in-law and sister-in-law) took her to PHC. At the PHC, she was admitted immediately; around 12 noon the nurse examined M10 and told the family that she will deliver in the night or the next morning. The family waited there with her all day but no health staff visited her. Since M10's labour pain was neither increasing nor decreasing, so the family decided to call the nurse to attend to her. The nurse told the family to wait until her pains increased. Once again the family tried to call the nurse, but she scolded them and said in an irritated voice, "Should I give her an injection to stop the pains?" According to her sister-in-law there were two other women in labour but whenever the families tried to call the nurse to attend to them in the night, she would shout at them.

At midnight, the nurse checked M10 and told family that she will deliver in morning and went to sleep. The next morning, the nurse came at 5 in the morning and gave her an IV drip along with three injections (one intravenous and two intramuscular). By then her cervix was fully dilated and the woman was in severe pain, holding on to her family members and crying out to them to save her. Suddenly, at 12 noon, she had a sudden convulsion and died. She had been in labour for more than 24 hours and M10 was also bleeding by then. After seeing M10, the nurse told family that she was unconscious so they should take her to the District hospital. However the family felt that M10 had died and told the nurse so. But the nurse disagreed and said, "Have you gone mad? Take her to Mirzapur, she is unconscious." After death the doctor and nurse were forcing her mother-in-law to put her thumb-print on a blank sheet of paper but she denied, then they approached her sister-in-law and took her thumb impression by force on a sheet of paper. The family did not demand for a post-mortem and neither was any death certificate was provided to family. They provided a vehicle to take the body back home.

M11

M11 had studied till 5th standard and was married when she was around 15 or 16 to a marginal farmer who also worked as a stone quarry worker, belonging to OBC caste. Her husband had a yellow ration card, and they lived in nuclear family in Mirzapur.

During her first pregnancy she used to have abdominal pain and dizziness. They had got an ultrasound done but it showed nothing. For childbirth, she went to a private facility and the baby was delivered through a C-section. They spent 11,000 on the operation and 4,000 on medicines. After about two years, this was her second pregnancy at age 23. She had one ANC in a private facility where she was given TT injections. ASHA advised M11 to go to a government institution for delivery, but M11 wanted to deliver in the same private facility where she had her first delivery.

On 27th Feb when she her labour pains began, the woman asked her husband to take her to the private hospital. The family did not contact the ASHA. By noon they reached the road, and her husband took her to private hospital in Narayanpur by bus and got her admitted there at 2pm. M11 was admitted, and they got an ultrasound in the hospital for which they spent Rs 1000. The doctor told the husband that she will deliver in two or three days. The doctor tried to start an IV drip but

he could not, so the doctor took her to operation theatre without an IV. Her baby was born by C-section around 4pm, but no family members (including M11's husband and sister) were allowed to meet her after that. In the meantime the doctor told her family that M11's condition was deteriorating and that she should be taken to the Medical College in Varanasi (BHU) and he gave her family Rs 500 to take her quickly. The family booked an auto and left immediately for Varanasi. It is possible she was already dead by then, but the private doctor did not want to have a death in his clinic. As soon as the family reached the BHU hospital they made her registration slip. When the doctor checked her, he declared her dead. It was raining heavily that day and her family immediately booked an auto to take the body home. They spent total Rs 2000 for the auto back home. No post-mortem was done and the family has no documents of the treatment given.

M12

M12 was a Dalit woman who had never been to school and was married to a labourer who lived in Mirzapur. Both the woman and her husband worked as daily wage labourers and had a red BPL card; though they had a MNREGA job card, they did not get any work for the past 9 to 10 months and worked as farm labour. The family had 15 bissa land. The woman was a member of self help group.

She had two daughters aged nine and five; both were born at her natal home. Her third pregnancy at age 29-30 was four years after the last one. According to woman's husband she did not receive any IFA tablets and no check up was done by ANM. But the woman's ANC card shows that she had TT injections during her ANC check-up conducted in the VHND; she also received supplementary nutrition (SNP). In her card it was written that she had blood test, urine and sugar test twice along with IFA tablets and her weight was taken 4 times (40, 40, 41, 42 kgs respectively). According to ASHA (who is new), the woman was weak and had swelling, with 8 gm of haemoglobin for which she was advised to eat healthy food and go for institutional delivery.

When her labour pains started on the 11th of October at 10 am, M12's husband informed the ASHA at 10am, who called Government ambulance. He was reluctant to come but according to the ASHA, she scolded the driver over phone saying what if something happened to the patient, then who would be responsible. The driver came around 1.30- 2pm and took her to CHC with her family members along with ASHA. The driver took Rs 200 from the family after reaching CHC. They reached the CHC at 2:30pm; the staff nurse admitted her. According to her husband, the staff nurse demanded Rs 1000 from the family but they did not give her money as they had nothing to give. According to the ASHA, the nurse felt the case was complicated and advised them to take her elsewhere, but the family refused. The nurse gave her an injection to augment labour pains, and dissolved some powder in water for M12 to drink, according to the ASHA she also started an IV drip. There was no electricity in labour room and nurse was working with torch light; when husband asked the nurse about electricity, than she spoke abusively.

Later that night, when M12's husband called the nurse to check his wife, she came an hour late, saying she was going to drink a glass of milk. When the nurse came, she did an internal examination and told family that M12 will deliver in 2 to 3 hrs. She also told them to buy medicines worth Rs 50. The baby boy was born alive at night at around 10pm (according to the ASHA the baby was born around 7pm). After delivery, according to her husband, M12 began bleeding heavily. The ASHA said that the nurse called a senior person (badi madam) who gave two injections to stop the bleeding. In an attempt to stop the bleeding, the nurse packed 3 petticoats in the woman's vagina but even after

that bleeding did not stop. However the Staff Nurse denied that this had been done, dismissing the description as something 'village women would say', and said that we stuffed gauze to stop the bleeding, which worked. Then the nurse told family to arrange vehicle for taking woman to the district hospital. The CHC nurse called up the District Hospital to inform them that she was referring a bleeding woman but did not provided any referral slip to family, nor was anyone sent to accompany them. She however, finally did organize for a government vehicle and around 11 at night (8.45pm according to the ASHA), the family took the woman to the District Hospital in the government vehicle. The ASHA says that M12 was conscious and speaking in the initial stages of the journey but then she stopped. After going about 20-25 kms, when they were stuck in a traffic jam, she died on way around midnight (9.30 according to the ASHA). The husband mentioned that when they were preparing the body for cremation, all the cloth inside her vagina fell out and there was also a lot of blood. The staff nurse says,

> "There are many shortcomings in this CHC; first of all there is no gynaecologist in this hospital and the one they have is on a contract basis. So she does not stay in the night when the requirement for a gynaecologist is critical. If there is any case that requires a C-section we are forced to send her to the DH. The government is running so many schemes and programmes but the common people are not able to get its benefits. There is no paediatrician or an aesthetician posted here. We also have to send patients to private facilities for ultrasound. The labour room has two labour tables and a baby corner and in case of any emergency we consult with the doctor and start treatment. "

M13

M13 had studied till Class 10 and was married in 2012 to a man who worked in a carpet weaving factory. He belonged to the OBC caste and lived in Mirzapur district. The family had a MNREGA job-card, a BPL card. Her family also owned 2 bighas of productive land with bi-annual crops.

M13 came to her marital home right after the marriage and within a year she was pregnant. Her first ANC was in the CHC where all the tests were done (abdominal, IFA, TT, haemoglobin) but not BP measurement. She had 11gm/Hb, 40 kg weight, and she got supplementary nutrition. She did not consume IFA tablets as she complained about nausea. According to the ASHA she was rather weak. Her 2nd and 3rd ANC were done in a private hospital where abdominal check up was done. In her 4th month of pregnancy she developed complications (abdominal pain). Her mother-in-law took M13 to CHC for treatment. The staff nurse checked her and gave her some medicine. She had some relief from the medicine; but was generally reluctant to take any medicine and would usually throw it away when no one noticed.

M13's mother took her back home in the 5th month and while she was in her natal home, M13's mother did not allow anyone from the marital family to speak with her. She suffered from abdominal pain once again while at her natal home, on 27 November. M13's mother took her to a private facility at Imliya Chatti, where she was checked up by a private doctor who prescribed medicines and advised an ultrasound. She got some relief but after 4 days her condition deteriorated again. M13's mother called up her husband on the 1st of December and told him that there M13 was not well and he should come. He arranged for some money and went there. Her mother told her husband that there was no movement of the foetus. They took M13 to a private hospital in Kakarmatta on the 3rd of December where she was admitted. The doctor conducted an ultrasound and told the family that the

foetus had died. On the 5th of December an episiotomy was done and the dead foetus delivered. Soon after the delivery, M13 began bleeding profusely. The doctor said that blood transfusion would be required. M13's husband's donated one unit and bought 2 units of blood from outside. After 2 unit of blood were given, M13 died at 6pm. The hospital did not return the unused 1 unit of blood. A total Rs 13,000 was spent by family on treatment out of which Rs 6000 was provided M13's mother.

M14

M14 was a Dalit woman, who lived in district Mirzapur. M14 and her husband had primary education and both worked as daily wage labourers. They owned 15 bissa of land and the family has a BPL card and government ration card under which they bought kerosene, sugar, rice and wheat. They have MNREGA job card but did not get any work. M14 was also a member of a self help group.

This was M14's first pregnancy at the age of 20. M14 disclosed her pregnancy to the ASHA in the 7th month, after which she received two TT shots and IFA tablets which she consumed. M14 did not receive SNP from the AWC. She developed swelling of legs in her 8th month of pregnancy, so the ASHA called the ambulance and took her to the PHC for a check-up. The doctor examined M14 and told family that she had 7gm Hb (blood was tested in private for which they spent Rs 250). He advised M14 to consume healthy food and gave her some medicines. The family took good care of her and after one month another check up was done (Rs 120 was spent on blood test and Rs 250 on medicine) which indicated increase in Hb up to 9gm. During the 9th month of pregnancy M14 had labour pain. The ASHA called the ambulance and took her to the PHC where she was examined and treated. It was told that there is still time in delivery so they came back home. After 7-8 days on 10th November early in the morning, M14 complained of labour pain to her mother-in-law. She contacted the ASHA who called government vehicle again and took her to the PHC by 8am. The staff nurse in PHC examined her and told family to take her to district hospital in same vehicle as she was anemic. A referral slip was given.

They reached district hospital in the same ambulance at 11am where she was admitted but no treatment was given for 7 hours till 6 pm. At 6pm in the evening there was loss of fetal movement, her labor pain disappeared and M14 started breathing heavily. Then the nurse called for the doctor who came three hours later at 9pm. The doctor started blood transfusion (1 bottle) for which family spent Rs 3000. IV fluids and injections were also given. After seeing that there was no improvement in M14's condition, doctor referred her to BHU hospital, Varanasi at 3am in the morning on 11th November. ASHA said that since BHU hospital was far away she took M14 to private hospital in Varanasi by a private vehicle. It took them two hours to reach the hospital. She was admitted at 5 am after depositing Rs. 3000. The doctor did an ultrasound and told the family that foetus had died. After blood transfusion (2 bottle of blood) for which hospital took Rs 6000, they did a C-section and a macerated baby was delivered.

M14 was kept in the ICCU. M14 gained her conscious after 24 hrs i.e. on 12th November. She was in the hospital for another 5 days till 15th November, 2014. On the 6th day (16th Nov) the doctor told family to deposit 1 lakh 20 thousand but family was out of money and told doctor about their incapability to pay as they were already paying Rs 12000 per day. The family somehow borrowed Rs. 80,000 by mortgaging their land and paid the bills. After pleading and requesting, the doctor

discharged M14. After getting discharged from the ICCU on 16th Nov., M14 started behaving strangely, she was shouting and was out of control. First the family took her home and she was being treated by shaman but when her condition worsened the family took her back to DH. She was admitted at the DH and a blood transfusion was made (Rs 3000) along with medication (Rs 700 from outside). But there was no improvement in her condition and she died on night at 9 pm on 16th Nov. The family had to hire a vehicle for Rs. 1500 to bring the body home. They received the death certificate. The family had spent around 2 lakhs during the entire chain of events. The mother in law also mentioned that they did not have money to cremate M14 and she had to beg for money to bury the dead baby.

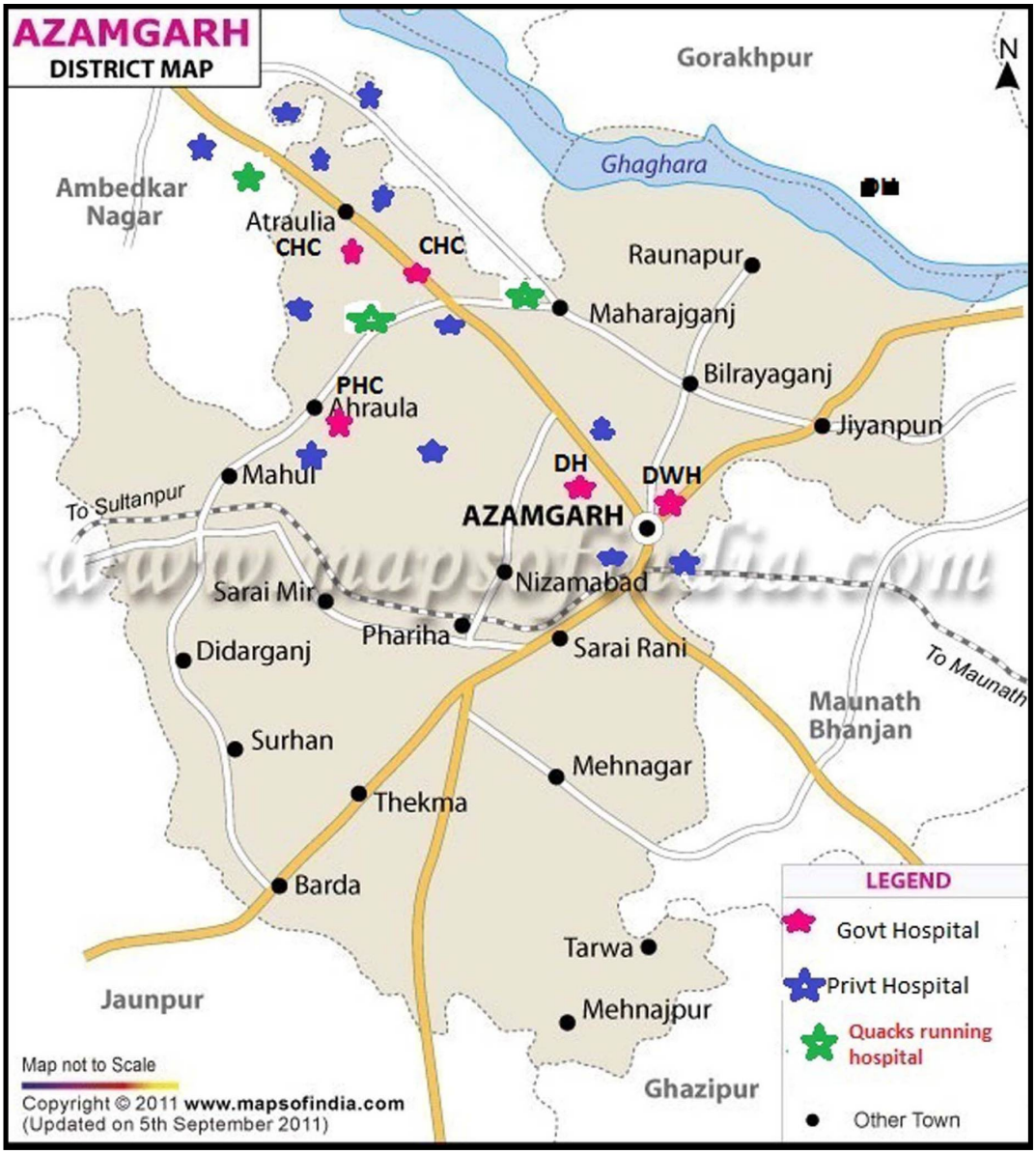
M15

M15 was married in the year 2011 when she was 17 years old. M15 went to her marital home in Bihar after three years of marriage in 2014 *(Gauna)*. She belonged to district Mirzapur and was married to a boy from Bihar. They belonged to the OBC category. M15 had studied upto class 9th and was a home maker. Her husband had studied till class 5th and worked as a mason. The family has BPL card and two bigha of fertile land.

This was M15's first pregnancy at the age of 20. During this pregnancy two ANC checkups were done in Bihar, one at the sub center and other during the VHND. She received two shots of TT injections and IFA tablets. No other test was done. She did not receive SNP. It is mentioned that M15 was extremely weak during this pregnancy. During the 7th month of pregnancy she came back to her natal home in Mirzapur. She did not receive any further ANC at her natal place. On 15th December, 2014 at 5 pm M15 informed her mother that she had abdominal pain with bleeding. M15's aunt says that first a Dai was called who examined her and told the family to take her to the health facility. The ASHA was then informed who tried calling the 108 ambulance but could not connect. M15's mother immediately hired an auto which charged Rs. 150 and took her to the PHC along with ASHA.

M15 was admitted at this PHC and she delivered a male baby with episiotomy at 7 pm. The delivery at the PHC was facilitated by the ANM. After delivery one bottle of IV drip was administered. M15's mother disclosed that the hospital staff asked for Rs. 600 for the drip but she refused to pay. M15 was bleeding heavily after the delivery. The ASHA called the ANM who then sutured the vaginal incision and her bleeding stopped. At 11:30 pm after eating some dinner, M15 told her mother that she was having blurred vision, back ache and tingling *(jhanjhanahat)*. The PHC doctor gave her three tablets after which her condition became worse. The doctor and nurse kept asking M15's mother whether she had swelling in her abdomen. Then the doctor and nurse told her mother to take her to another hospital, but she refused. However at midnight the hospital forcefully referred her out without providing any referral slip, but they provided her with a government vehicle. The vehicle took them to a private hospital in Ramnagar. The doctor in the private hospital told the mother that M15 was brought dead, around five hours after childbirth. The family did not receive a death certificate.

AZAMGARH, UTTAR PRADESH



CB- MDR ANALYSIS OF DISTRICT AZAMGARH

18 cases of maternal deaths Atraulia, Ahiraula, Koyalsa and Bilariyaganj Blocks Dated 24 October 2012 to 22 January 2015

Findings from the Community Based Reviews

i. Profile of the women

The 18 women whose deaths have been documented in Azamgarh mostly belonged to **marginalized** sections of society (OBC, Scheduled Caste, as well as from Minority community) except one upper-caste Hindu woman; 11 out of 18 were certified as BPL [See Annexure 1, **Table I- Profile of Women**]. All of them by occupation were home-makers; except two who are daily wage-workers. The ages of the women ranged between 21 to 40 years, with 13 women being in their twenties. Six of the women were non-literate; several had reached high school, four had even completed graduation with one post-graduate. In fact there is a Muslim woman and a Dalit woman who have completed graduation.

At least 15 of the women who died had high-risk signs in their obstetric history [See Annexure 1, **Table-II Obstetric History of the Women**]. Of the 18 women, five women were primi gravida. Of the 13 women who had been pregnant before, 6 women were in their fourth and higher pregnancy, 2 had a miscarriage, one had a C-section in her earlier birth, and one possibly had 3 or more induced abortions.

ii. What led to the deaths of these women?

Some indicative examples of how women died in Azamgarh district are given below:

- One woman had 48 hours of labour, referred out late by the CHC and finally delivering in the clinic of a quack which led to heavy bleeding. She later died of post partum complications including fever and pain in legs despite visiting four hospitals (including the CHC)

- One died of post-partum sepsis after normal delivery at the CHC and died despite visiting four hospitals (including the CHC which had no doctor)

- One had normal delivery with episiotomy (not sutured) in DWH followed by bleeding, unconsciousness and died despite visiting three hospitals

- One woman after 24 hours of labour had a C-section in a private hospital but died after developing fever, chest pain and disorientation, despite treatment in a super-speciality hospital

- One had a C-section performed in the clinic of a quack, died despite visiting three private hospitals; another woman had a C-section performed in an Accredited hospital but died of post-partum bleeding and delay in obtaining blood from 40 kms distance

- Two women died of bleeding after normal delivery in the clinic of a quack: of whom one visited three hospitals and died while waiting for 2-3 hours to obtain blood from Blood Bank;

- One developed post-partum complications after a sudden home-birth and died after delay in treatment for swelling and unconsciousness.

[See Annexure-1, **especially Table III - Seeking care during labour and place of childbirth; place of death; and Table IV a: Intra partum and Post partum complications]**

iii. Did the health system have the ability to manage obstetric emergency?

Did the women reach the health system?

Of the 18 women who died in Azamgarh, **15 carried their pregnancy to term** of the 15 women, two women died before they could deliver, and 13 women had childbirth. Of these one was a sudden home birth and **12 were institutional births.**

Of almost all the families that received the advice about institutional delivery and calling the ambulance, only 8 families appear to have used the ambulance or private vehicle to reach the **government hospital** during labour. The other 10 first went to **private** providers, whether **informal** (quacks) or private hospitals during labour or complications (see Annexure 1, **Table III - Seeking care during labour and place of childbirth)**

However, of the 8 women who intending to deliver in a government hospital and reached their CHC/PHC during labour, only 4 actually delivered there, and 2 others were referred to the District Hospital, while the remaining 2 finally had their childbirth in a private hospital or at a quack doctor's clinic, which shows that women, despite reaching public hospitals, are **leaking out of the public sector** into the private. Of those 6 women who first went to the private sector (whether informal provider or trained doctor) 4 did deliver at the same hospital. We observe that none of the women actually died in the clinic of the informal provider (they had been referred out before that) but died in some other private hospital or in transit seeking care.

What was the role of the first point of care?

Of the 8 woman who tried to first access care in a public hospital four deliver in the PHC/CHC. However it is not clear what was done during childbirth, and why all the women experienced **heavy bleeding** and breathing difficulties, and **die very quickly** in the same facility or while being referred out. We also note that these women were **not kept under post-partum observation** for the required 48 hours. One woman was sent home 12 hours after childbirth, another woman was sent home after 10 hours. She developed post-partum sepsis after being sent home, despite institutional delivery.

One woman who came to the CHC was seen by the **government doctor 'in private practice'** since it was evening. She spent 12 hours or so in the CHC but did not receive active treatment by the nurses. Finally, although she tried to access the public hospital, she **leaked out to the private** sector, as the CHC staff referred her to the DH without further support. Similarly another woman came first to the same CHC but was sent away by the nurse. Another two women reached the DH and gave birth there. But although the DH is meant to be a tertiary facility for the entire district, the quality of

delivery care appears inadequate. When complications develop, a DH doctor even tells the family - 'there is nothing else to be tried here'; and so the family was forced to go to the private hospital.

Only one woman had a sudden childbirth at home, helped by female relatives. She had complications in pregnancy which led to full-blown post-partum complications later.

Identification of a complication and seeking treatment and Provision of CEmOC

Some of the women had symptoms of **pregnancy complications** such as bleeding or leaking of waters, weakness, severe anaemia, swelling of limbs and headache, jaundice, fever and TB, for which they sought care, usually in the private sector. As mentioned earlier, three women died during their pregnancy two due to abortion and one due to jaundice. A female quack conducted one of the abortion, after which the bleeding woman visited one private hospital after another spending a total of Rs 1.8 lakhs on treatment only to finally die at home. Similarly the woman who developed jaundice in pregnancy travelled enormous distances seeking care at several private hospitals finally dying before she could reach the Medical College.

For the 15 women who carried their pregnancy to term, two women died before delivery while in labour. The remaining 13 women sought care for **post-partum complications** from the government, private and informal providers**.** The kinds of complication seen among women who died include prolonged labour, fetal death and convulsions, becoming unconscious and breathing difficulties. It is notable that 8 women have heavy **bleeding after institutional delivery,** and 5 have **severe pain** (See Annexure-1, **Table IV a: Intra partum and Post partum complications**)

Of these 13 women, two were treated and **died within the same facility** where the **post-partum complications** began, (one in the DWH and another in the PHC). Four others **tried to reach another facility** but three died before that: one after PHC birth, moving from home to hospital, another from PHC to DWH, and a third from clinic of quack to private hospital. The fourth woman left home and reached a private hospital but died before they could even give her oxygen. In fact as the health condition of these women was already quite compromised the time that elapsed between onset of complications and death was quite short.

The remaining **7 women** sought treatment for **post-partum complications** by moving out from the facility where they had delivered. It is noticeable that almost everyone first sought treatment from a **private provider**. Even when the woman is referred out from a public hospital, they go directly to a private hospital. But only for one woman we find that she **went back to the CHC** where she had her delivery, yet at 6am could not find any doctor to treat her. Overall we observe a lack of urgency or concern for women in critical condition among private doctors as well as the staff of the District Hospital blood bank. (See Annexure-1, **Table IV-b: Tracing the Journey of the Women**)

Role of the private sector

Women who had complications during pregnancy or miscarriage first consulted a private provider, usually an informal one (quack, private nurse, shaman). Six women **directly accessed the private** sector during labour and 2 others went to public institutions to deliver but were leaked into the private sector. We note that of these 8 women who went into the private sector during labour, only **three went to a properly trained provider** while **five went to a quack** for childbirth.

We observe a pattern in the care provided to these eight women in labour in these private clinics. The clinics are everywhere, ubiquitous and well-known, and popularly used. The **treatment is more active,** assurances are given and there is use of injections, IV fluids, C-sections and so forth. However the **quality of care and the skills of the providers are dubious:** two women developed severe bleeding right after delivery with the same quack. Surgery or induced abortions are conducted **without preliminary investigations**. The private providers do not have arrangements for blood transfusion, an expected requirement; and the family is sent out at night to locate blood in the government hospital.

The lack of urgency or concern for the women is shown by the fact that private providers may leave anytime, or be unavailable in their clinics, or just make a show of treating the women while using up precious time. A so-called 'expert private nurse' had not checked the obstetric history of C-section and kept one woman in labour for 9 hours when she urgently needed to be referred out. In the case of a woman who had developed **symptoms of pre-eclampsia,** both the quack and the private doctor could not treat her, yet fatally delayed her before she reached the DH to die after 14 hours in labour with convulsions.

As seen in the case after case, despite **treatment from a number of providers**, the women did not get much relief; instead the symptoms only escalated further, and women died despite large sums spent on treatment. Four women visit a **number of private facilities** after complications set in; in fact in 12 hours after developing complications, one woman visited four facilities but no **one was able to give her any treatment** before she died.

Referral management

Most women in Azamgarh used a **private vehicle** to reach hospitals, except 8 women who went by ambulance with the ASHA. Once complications were detected, women **sought care at private** institutions, and four women consulted more than three health facilities. Women who went into the private sector incurred enormous costs ranging from a few thousands to even almost two lakhs (See Annexure-1, **Table V Transportation and costs).**

There is also an informal referral system with **linkages** between the quacks and private doctors: all the quacks refer women to a private hospital. Private doctors are also called in for special cases - the private nurse calls in another private doctor to check on the woman, one of the quacks calls in a doctor to conduct a (botched) C-section in his clinic. In general, the informal providers and private hospital/ clinics **send women away** as soon as serious complications develop or immediately after the delivery, being especially prompt in turning out women whom they realize are **about to die,** even paying the family some money for a vehicle to take her away.

The repeated transfers from one institution to another also lead to loss of precious time for the women apart from escalating the costs. In one case it almost appears as though the delay in transport was responsible for the woman's death, and the driver was reluctant to take the woman anywhere but the DH even though she was already dead. Only one family got a vehicle from the DH to **bring the body home** (charging Rs 1500), otherwise the private vehicles have charged high amounts to bring the body of the deceased woman back to the village from the hospital.

Does the Free services under JSSK work?

On examining the costs borne by the families and on their economic status, it becomes clear that **disproportionate out-of-pocket expenses** were incurred because of the lack of faith in the public

sector, and the fact that almost every single woman used services in the private sector. Families with BPL status spent from Rs 3000 or 6000 all the way upto Rs 30,000 and Rs 1.82 lakhs, which would be devastating for a wage-worker family and plunge them deep into debt. Even a private nurse, who hardly seems qualified to be managing deliveries (as she cannot identify a C-section case) is charging Rs 5000 for handling labour for a few hours.

Relationship between providers and the community

There is a serious lack of trust in public sector providers among poor people in Azamgarh, as a result of which they consult informal providers like quacks or private nurses, and also seek care in private hospitals. The lack of faith in the public hospitals is also reflected in the behaviour of the public providers such as **ASHA workers who recommend** that women should go to private doctors. When the women died at the hands of a private provider, the families sometimes regret that they didn't obtain treatment from a formally qualified doctor. Some of the statements below from different people indicate these attitudes.

Some expressions from the bereaved families about the behaviour of the health providers

- On why they consult quacks - *"No one listens to us patients in government hospitals, patients keep shouting but no one bothers and that is why we prefer private facilities for deliveries."*
- Regret on consulting a quack- *"If we had been able to organize the vehicle at 3am and had taken her straight to the District Hospital instead of taking her to the quack, she could have been saved."*
- *"Facilities in private hospitals are better than government hospitals. This is why we though it better to take her to a private facility..... Her death had occurred due to negligence during the operation and the delayed response of the private doctor after the complication had set in. If that private doctor had come on time, a timely referral could have been facilitated and she could have been saved." (*The Gram Pradhan of the village for woman who died in a private clinic)
- An ASHA worker: *"There is no staff in the PHC. There is no water supply, the delivery bed is rusted and broken. No medicines are issued from the PHC and one has to purchase all medicines from the market. Although a new building has been constructed, yet deliveries are conducted in the dilapidated old building."*

iv. How effective is the routine provisions within NRHM to identify and manage complications?

The cases in Azamgarh indicate the ANC services failed to provide comprehensive routine care to the women who registered their pregnancy.

It is positive to note that **15 out of 18 women** had at least one contact with the ante-natal care provider. Of the 3 women who did not get their pregnancies registered. One woman had an **abortion;** she did not want to register her pregnancy. But in two other cases there is a health system lapse in that the pregnancies were not noticed by the ASHA workers. One woman missed her ANC because she was embarrassed about her **7th pregnancy at the age of 35:** According to her mother-in-law, *"She was ashamed to go to the hospital for check-ups as she had so many pregnancies. She felt that the*

providers would scold her for this." However no ASHA made special efforts to get her pregnancy registered or give her advice. Another woman was not registered and received no ante-natal care because she **lived in a remote village** by the side of a river, even though the ANM made monthly visits to that sub-centre.

ANC **services are very patchy,** although most women had **3 ANCs.** All the 15 women only seem to have received two TT shots and some IFA tablets. However, 11 out of 15 had their BP measured, 7 women received an abdominal examination and 11 had their haemoglobin measured. For three women their local ANM **Sub-centre or VHND** are mentioned as sites to access ANC services; 7 others were seen by a doctor at their local PHC or CHC for ANC. Private ANC services were used by 8 women (some in addition to government services); of whom two women got their ultrasound done at a private facility. We observe that the women who sought ANC care at the CHC or PHC got somewhat better ANC care: one had Ultra-sonography done, and almost everyone who saw a doctor got an abdominal examination, BP measurement as well as a blood test. But we do not hear of any regular weight or BP tracking, urine tests or other any treatment for severe complications or special counselling. For example the woman with a previous C-section went thrice to her CHC for checkups, and should have been advised to come straight to a tertiary hospital during labour; but she was instead taken by her family to a private nurse who delayed her for 9 hours.

The registration of the pregnancy and provision of routine services however is not sufficient to ensure a safe pregnancy. The health system needs to record obstetric history and any pre-existing medical conditions so as to identify risks during ANC. At least 15 of the women who died had high-risk signs in their obstetric history [See Annexure 1, **Table-II Obstetric History**]. In fact some of the women had very **serious symptoms** of pregnancy complications such as bleeding or leaking, weakness, severe anaemia, swelling of limbs and headache, jaundice, fever and TB. None of these were **detected or noted or treated** (even the suspected TB) in the routine ante-natal care provided. Two women were being regularly **beaten up** at home by alcoholic husbands, but that was not noted anywhere. Even the testing for anaemia shows women had Hb of 7gm, 8.5 gms, and 10 gms, but no further treatment or advice is mentioned, except in one case where a special diet of fruits and milk is advised at the CHC to increase her 9.5gms Hb.

For the 6 women in their fourth and higher pregnancy, a crucial service not adequately provided was family planning counselling and **contraceptive services.** Women had several closely spaced pregnancies (sometimes in wait for a son), but their family members should have been counselled to delay the next pregnancy or to adopt terminal methods of contraception.

Annexure 1: Tables of Azamgarh

Table I - Profile of women - Azamgarh

#	Age of Women	Caste	Education	Occupation	BPL Card	Religion
A5	22	SC	8th	Home maker	yes	Hindu
A6	30	SC	9th	Home Maker	yes	Hindu
A7	27	OBC	8th	Home maker	APL	Hindu
A8	26	OBC	BA	Home Maker	no	Muslim
A9	21	OBC	12	Home Maker	no	Muslim
A10	36	OBC	12	Home Maker	no	Hindu
A11	26	OBC	Not literate	Home Maker	no	Hindu
A12	23	OBC	8th	-	yes	Muslim
A13	25	OBC	12th	Home Maker	no	Hindu
A14	40	OBC	Not literate	Daily wage labourer	yes	Hindu
A15	35	SC	Not literate	Daily wage labourer	yes	Hindu
A16	26	ST	Not literate	Home maker	yes	Hindu
A1	23	OBC	8th	Home maker	yes	Hindu
A2	26	OBC	BA	Home maker	no	Muslim
A3	35	OBC	Literate	Home maker	yes	Hindu
A4	24	OBC	MA	Home maker	Yes	Hindu
A18	21	SC	BA	Home maker	yes	Hindu
A17	28	Gen	Barely literate	Home maker	yes	Hindu

Table II - Obstetric history of women - Azamgarh

#	Age	No. of pregnancies	Past Miscarriage /Abortion	Past Still birth/ newborn death	Past C-section	High risk
A16	26	Primi	-	-	-	Y
A1	23	Primi	-	-	-	Y
A4	24	Primi	-	-	-	Y
A8	26	Primi	-	-	-	Y
A9	21	Primi	-	-	-	Y
A7	27	2	-	-	-	-
A5	22	2	yes	-	-	Y
A18	21	2	-	-	Yes	Y
A11	26	2	-	-	-	-
A12	23	2	yes	-	-	Y
A13	25	2	-	yes	-	Y
A2	26	3	-	-	-	-
A6	30	5	-	Yes	-	Y
A15	35	5	-	-	-	Y
A17	28	5	-	yes	-	Y
A3	35	7	-	-	-	Y
A10	36	8	-	-	-	Y
A14	40	10	Yes >3	-	-	Y

Table III -Seeking care during labour and place of childbirth; place of death- Azamgarh			
Health provider	**First point of seeking care**	**Actual delivery**	**Place of death**
PHC/CHC	A17, A1, A2, A3, A8, A10, A11, A12	A1, A2, A3, A10	A2, A11
Dist Hospital		A17, A8	A5
Private hospital/ provider	A4, A18	A4, A12	A4, A6, A9, A13
Informal provider	A5, A6, A9, A16	A6, A9, A11, AT16	
Home	A13	A13	A1
In transit			A3, A18, A8, A10, A12, A16

Table IV a: Intra partum and Post partum complications- Azamgarh			
Symptoms	**Intra-partum complications**	**Complications after public hospital delivery**	**Complications after private sector /home* delivery**
Prolonged labour	A5, A6, A11, A4		
Foetal movement gone	A7		
Breathing difficulties		A8, A1, A2	A11
Unconscious	A5	A8	A6,A4
Frothing at the mouth		A17	
Swelling in limbs	A5		A11, A13*, A4
Convulsions	A5		
Heavy bleeding		A8, A1, A2, A3	A9, A11, A12, A16
Severe Pain	A18	A8, A10, A3	A11, A4
Foul-smelling discharge/ fever		A10	A4
Vomiting			A9
Babbling/disoriented			A4
*Only in one case, A13 there was a home birth that occurred very rapidly, unexpectedly.			

Table IV-b Tracing the journey of the woman after complications started- Azamgarh					
#	Facility 1	Facility 2	Facility 3	Facility 4	
A13	Private Hospital				
A2	Private Hospital				
A1	PHC (sent home in 12 hours)	Died at home before ambulance arranged			
A7	Private Hospital	Private Hospital- died at gate			
A16	Informal	Private Hospital-died on the way			
A3	BPHC	CHC (referred to DH but died en route)			
A4	Private Hospital	Private Hospital			
A18	Private nurse	Private Hospital- died on the gate			
A17	Private nurse	CHC	DH		
A5	Informal	Private Hospital	DH		
A6	Informal	Private Hospital	Mission Hospital		
A8	CHC	DWH	Private Hospital		
A9	Informal	Private Hospital	Private Hospital		
A12	CHC	Private Hospital	Private Hospital	Private Hospital	
A14	Retired ANM	Private Hospital	Private Hospital	Informal	
A15	Informal	Private Hospital	Private Hospital	PGI- died on the way	
A10	Informal	CHC	Private Hospital	Private Hospital	Mission Hospital
A11	CHC (but privately seen)	CHC	Informal	+ 4 visits after 9 days when complications started	

Table V: Transportation and costs- Azamgarh						
#	Transport to Facility 1	Transport to Facility 2	Transport to Facility 3	Transport to Facility 4	Transp. to Facility 5	Costs including treatment and medicines
A13	Private					NA
A2	Not known					NA
A1	Govt Amb.	Died before any ambulance				NA
A7	Not Known	Private				25,000
A16	Not known	Private				6000
A3	Private	Govt Amb.				>360
A4	Private-Bike	Not Known				60,000
A18	Not Known	Private				>5000
A17	Govt Amb.	Private				NA
A5	Private	Not Known	Not Known			4870
A6	Private-cycle	Not Known	Not Known			>30,000 for BPL family
A8	Private	Govt Amb.	Private			70,000
A9	Private	Private	Private			>4000
A12	Private	Private	Private	Private		>1500
A14	Not Known	Not known	Not Known	Not Known		1,82,000 for BPL family
A15	Not Known	Private	Not known	Not Known		3000
A10	Private	Private	Not Known	Not Known	Private	7000
A11	Govt Amb.	Not known	Not known	+4 visits after 9 days started again when complications		13,000

Annexure 2: Case Summaries of Azamgarh

A. SOUGHT CARE IN A PUBLIC HOSPITAL

A1

A1 was a Hindu woman belonging to the OBC married at the age of 20 years and lived in a joint family in district Azamgarh. She studied till 8th standard and is a homemaker. Her husband works as daily wage labourer and studied till 5th standard. Her family have BPL card and no MGNREGA card. The family has 6 bissa fertile land.

This was A1's first pregnancy at age 23 and she had 2 ANC checkup at PHC by a doctor which includes IFA, TT injection, abdominal examination and BP. Woman had low HB during her pregnancy for which she had taken medicine. According to family, the level of Hb was written in the ANC card but the family did not have any document with them.

On 11th Jan at 7:00pm when labour pain started, A1 was taken to PHC by the 108 ambulance accompanied by ASHA. After two hours (9pm), she had a normal delivery. She had heavy bleeding at the time of delivery. The next day (12th Jan) at 9 am the woman was discharged and had soup (dal-pani) at home. On the 13th of Jan at 3pm, A1 began getting breathlessness and was experiencing anxiety. The family began arranging for money and calling for the ambulance. But while they were doing all these preparation, she died within 2 hours.

A2

A2 was a Muslim woman who belongs to OBC (other backward caste). She was married at the age of 19 and lived in a joint family in district Azamgarh. She had studied till B.A and her husband till Class 12. Her husband worked in the merchant navy and she was a homemaker. They have 2 bigha of fertile land, a **pucca** house with toilet facility and personal tube well. They do not have BPL and NAREGA card.

She has one daughter (7years), one son (5years). There were no problems during these two pregnancies. This was her 3rd pregnancy at 26 years. She had more than 3 ANC check-up at private facility done by a doctor. Check-ups includes TT injections, IFA tablets, abdominal examination, BP and HB testing (10.6gms). Since all the adult male members were migrants and the ASHA was their neighbour, she had developed very close relations with the family and she was with A2 right from the beginning. During her third month A2 developed mild bleeding so she consulted the ASHA. The ASHA suggested that she should visit the private clinic in Azamgarh, as the ASHA was not satisfied by the condition of the PHC. So A2 and the ASHA went to the private doctor, who recommended an ultrasound and Hb test was done (10.6). The doctor gave her medicines which improved her condition.

A2 observed *roza* for a month which resulted in a drop in her Hb by one point and she also began to develop breathing problems. So A2 and the ASHA went again to the same private doctor who

after checking her up gave her medication which she continued to take until the 9th month of pregnancy. However the doctor did not explain the diagnosis or what the medicine was meant for. During her visit A2 observed that the women who had come to this private hospital for C-sections were being ill-treated. She got scared after this - both of getting an operation and delivering in that private clinic, or indeed in any other private hospital. Hence on the 8th of April at 10am when her labour pains started, A2 along with the ASHA went to PHC. She delivered normally by 12:30pm. After delivery, A2 spoke with her family over the phone and breastfed her baby. Soon after this she developed breathing problems and became restless. The doctor checked her and found that her BP was falling; the doctor started an IV drip. Soon after A2 began thrashing her limbs; she was also bleeding and kept saying that she was going to die. She died by 2:30pm. The ASHA said,

> *"There is no staff in PHC. There is no water supply, the delivery bed is rusted and broken. No medicines are issued from the PHC and one has to purchase all medicines from the market. Although a new building has been constructed, yet deliveries are conducted in the dilapidated old building."*

A3

A3 was a Hindu woman who belongs to OBC caste. She lived with her husband in a joint family in district Azamgarh. She was married at the age of 15. Both husband (class 5) and wife were literate; the family have 6 bigha fertile land, a BLP card and NREGA job card. A3 was a homemaker.

All her 6 previous deliveries were normal and without any complications. She had 3 sons and 3 daughters. Her oldest son was 15 years old. This was her 7th pregnancy at 35 years and she did not get any ANC check-ups done. She also did not avail any services from the AWC. According to her mother-in-law, *"She was ashamed to go to the hospital for check-ups as she had so many pregnancies. She felt that the providers would scold her for this."*

On the 13th of April 2014, when labour pains started A3, along with her mother-in-law and aunt-in-law when to BPHC in a private vehicle and reached there at 6pm. She was admitted immediately and the staff nurse administrated an injection. A3 delivered normally within 5 minutes of getting the injection. However soon after the delivery she began to bleed heavily and experienced pain in her chest and legs. She also began feeling restless and anxious. The staff nurse wrote out a prescription and asked the family to buy three bottles of IV fluids which were administered to her. However the bleeding did not stop after the three bottles had been used. So two hours later, at 8 pm in night she was referred to the district hospital and provided the hospital ambulance with accompanying paramedic to take them to the District hospital (40 kms away). The ASHA also accompanied the family. However the ambulance driver was on a phone call and hence he was driving extremely slowly. The family urged the ambulance driver to hurry however he continued at the same pace. In the meantime, A3's condition kept deteriorating - her bleeding, pain in the chest and anxiety continued.

At about 11:30pm, A3's mother-in-law felt that she had died and so they asked the ambulance driver to take them to home. The ambulance driver and the accompanying paramedic however refused and insisted on taking A3 to the District hospital. However after an argument with the family, they finally took A3 to the nearest CHC. There was no doctor in CHC that night, so the compounder examined A3 in the ambulance itself and advised the family to take her to the DH. However A3's mother-in-

law refused to go to the DH as A3 was already dead and there was no male relative with them. She called up her village Pradhan who intervened in the matter. It was only after their intervention that the ambulance driver agreed not to go to the DH and dropped the family at a point from where they hired a private vehicle and took A3's body home. The family felt that if they had reached the DH in time A3's life could have been saved. She mentioned that they were ready to donate blood too if it had been required. The family spent Rs 360 on medication and more on the private transportation. The infant died after 22 days.

A8

A8 was a married Muslim woman. They belonged to the OBC and she was educated upto B.A degree. Her husband studied till high school. She was a home maker. Family does not have BPL and NREGA job card. They have pucca house with toilet facility. They have 4 bigha fertile land which is cultivated biannually. One family member has a government job.

This was A8's first pregnancy at 26. AT4 had 3 ANC checkups at CHC by the doctor, as well as VHND which includes TT injections, IFA tablets, abdominal check-up, BP and HB testing. She had anaemia, severe weakness, head ache, blurred vision, pain and swelling in her feet during pregnancy. When the labour pain started on 6th of Oct 2014 at 10am, was taken to the CHC by a private vehicle. Staff nurse after seeing her condition told the family to take her to District Women's Hospital (DWH) as baby could not be delivered at CHC; and provided the government ambulance. The family admitted her in the DWH. A8 delivered her baby in the DWH following an episiotomy. The baby was kept in the incubator. The woman started bleeding and to manage the situation the doctor sutured up the woman, administered medication and drip. After 20 minutes, she asked for something to drink and was given biscuits and tea. After a short while, when A8 went to the toilet, she fainted at the door of the toilet. She was lifted and laid on the bed and she screamed out loud and pointed to her abdomen. She also began breathing rapidly and within few minutes she became unconscious. The doctor gave her injections, drip and medication throughout the day but there was no improvement in her condition. Then in the evening, the doctor told family there was nothing else he could do, and asked the family to take her away to some other hospital. The family took A8 to a registered private hospital (in Narauli, Azamgarh) by private vehicle where she was admitted for more than 3 days. There the doctor asked for 2 bottles of blood and admitted her in ICU from the 7th of Oct to 10th of October 2014. However when her condition did not improve, the doctor suggested the family could take her away to some other 'higher hospital'. The family decided to took the woman back home and she died at 2 pm on 10th Oct'14 on the way after back home and so did her baby. The family spent Rs 70,000 in total.

A10

A10 belonged to OBC (other backward caste) and was married at the age of 18; she and her husband studied till 12th standard. She was a homemaker and lived in Azamgarh. They had a pucca house without toilet facility but have their own tubewell. Family had 7 bigha fertile lands with bi-annual crop. Her family did not have BPL and Job card. One family member has a government job.

All her 7 previous children were girls and all are alive and she got pregnant every alternate year.
This was A10's 8th gravida at the age of 36 years. She did not received SNP from anganwadi centre but had 3 ANC checkups at CHC by doctor including BP, TT injections, IFA tablets and abdominal

check-up. Family said that no VHND is being conducted in their area. On the 18th of July at 6 am A10 had a normal delivery at the CHC where she went in a private vehicle. She got discharged after 10 hrs of delivery at 4pm. After 4 days on the 21st of July, A10 had fever and foul smelling discharge along with stomach ache. A10's husband took her to a 'Bangali doctor' (quack) in the nearby bazaar on a bicycle. The quack gave her an injection and medicines. After consuming this she felt some relief for some time. However at 12am (midnight) her abdominal pain started again. They family did not take her anywhere in the night but as soon as day broke at 5am they hired a tempo and left for CHC which is 46 Km away from home, travelling for an hour. At the CHC there was no doctor present at 6am so they decided to visit the nearby private clinic (this is run by a government doctor). The doctor told the family to get a sonography done, for a private diagnostic located close-by. After seeing A10's sonography report, the doctor did not start treatment rather he told family to take her to some other hospital. She had spent 4 hours in this facility

So the family took A10 to another (registered) private facility which was 20 minutes away (and got her examined by the doctor). Doctor told the family that there was pus in the woman's uterus which could be *'due to a reaction from one of the medicines for fever'.* The doctor gave her an injection which cost Rs 1300. But instead of improving, her condition began to worsen although she spent two hours here. The doctor told A10's family to take her to the Mission Hospital. Family booked a private vehicle to take A10 to the Mission Hospital but she was thrashing her limbs due to the extreme pain, and then she died on the way. So the family returned home with her body. The family spent a total of Rs.7000 on medication and transportation

A11

A11 was a non literate woman who belongs to OBC (other backward caste). Married at the age of 22, she lived in district Azamgarh. Her husband studied till 5th standard and works as migrant mason, while A11 was a homemaker. Family does not have BPL card but have NREGA job card. They have 1.5 bigha fertile lands and live in a kachha house without toilet facility.

This was A11's 2nd gravida at 26 years and had more than 3 ANC checkups including BP, Hb (8.5 gms), IFA tablets, TT injections and abdominal checkup at CHC by doctor. On 31st August 2014 in the evening when labour pains started, the family contacted the ASHA who called ambulance and then they left for CHC. In the CHC the same lady doctor examined the woman in a private setup (in evening she check patients in a private setup) and told family that there was time for the delivery. So A11 returned home. After one day (1st Sept in the night) the pains started again and the family left for CHC taking the ASHA along. The lady doctor told family that she would deliver in 2 hours. After two hours the family asked the staff nurse to examine her. On examining her, the staff nurse told the family that since she was unable to ascertain the time of the delivery as *'paani ki thaili aagey ki taraf hai.'* On the following day (2nd Sept) in the morning, another staff nurse checked woman and told the family that there were chances of an obstructed labour. She advised the family to take her to the District Hospital. Just then, her aunt arrived and suggested that instead of going to the District Hospital, they should first get her checked up at a private facility.

The family agreed that this was a good suggestion and they took her to a private facility (run by a quack doctor) which was very close to the CHC. She was admitted in the private facility and IV fluids were started and at 6:30 pm she delivered a still-born baby after 48 hours from first onset of labour. She was bleeding rather heavily after delivery. The quack doctor wanted to discharged her soon after,

but her mother-in-law refused to leave the hospital as she did not want to take the risk of having to bring her back in case a complication arose in the middle of the night. The following day (3rd Sept at 12noon) she was taken back home. After 9 days on 12th Sept at 3am she developed breathing difficulty with fever and swelling with severe pain in her feet. Her family tried to organise a vehicle but due to heavy rains they could get a tempo only the next morning at 7am, and they took her to another quack that practiced close by. The quack examined her in the vehicle itself and told family to take woman to a private hospital as she needed oxygen. The family tried to contact a doctor (government doctor who has now established his own private clinic outside CHC) but he was not available.

Then the family took her back to the private hospital suggested by the quack where they reached at 2:30pm. There also the doctor was not available and the compounder advised the family to take her to the government hospital immediately. The family took her to the CHC which was close by. In the CHC, the lady doctor also checked her in the vehicle itself and recognized her. She then told family that she already advised them to take her to the District Hospital; the other doctors in the CHC also checked A11 and told the family that she had died (it was around 3pm then). A11's mother-in-law was repentant and felt that they had been misled by people. She said, *"If we had been able to organize the vehicle at 3am and had taken her straight to the District Hospital instead of taking her to the quack, she could have been saved."* According to family the ASHA accompanied them to hospitals whenever there was a need. The family had spent a total of Rs 13,000 on her treatment and transportation. They had borrowed money for this treatment.

A12

A12 was 23 years old Muslim woman and she lived with her husband in a joint family. She was married at the age of 19 years. She was educated until Class 8 and her husband upto high school. They belonged to the OBC and had BPL and NREGA cards. They also had 15 biswa of fertile land.

This was the second pregnancy for AT8. Her first pregnancy had ended in a miscarriage within the first trimester. As a result of her first miscarriage, the family decided to take extra precautions during in this pregnancy. They got all her ante natal check-ups done in a private hospital in Atrauliya instead of accessing care from a government hospital. According to her brother in law, A12had got a total of eight ANC visits to the doctor during her pregnancy.

When AT8's labour pains did not start although she was 10 days over her 9th month, the family again took her to the same doctor. They were told everything was normal. AT8's labour pain started at about 10 pm on 22nd May 2014. By 2am on the 23rd May 2014 her family had hired a private vehicle and took her to CHC which is 40km away and it took them one hour to reach. The nurse who was present there at 3 am told them that she would not be able to handle this case and they should take UPAZAT 8 somewhere else. Thereafter a rickshaw was hired and she was taken to the private hospital where she had been getting her ANC check-ups done. In the private hospital she was admitted immediately. The doctor informed the family that she would have to do a C-Section and it would cost them Rs. 20,000. The family negotiated with the doctor and finally she agreed to charge Rs 15-16,000. She delivered a girl by C-section, and after that she appeared fine and even spoke to her family members. The lady doctor left after that, and her husband (who is also a doctor) made several rounds to check on AT8.

At 8:30pm on 23rd May 2014, after a routine round, the doctor told AT8's family that she would need blood. Her blood pressure was falling. He asked them to arrange for blood which could be obtained from the District Hospital in Azamgarh. AT8's brother-in-law left for Azamgarh (40 kms away) to arrange for blood. When her brother reached there he found the blood bank closed, and by that time he got a call from his mother saying that the doctor had referred A12to Azamgarh and they were bringing her there. They were in the private hospital for 16 hours; although in that private hospital the doctor has asked for Rs. 16,000 to conduct the C-section, they finally did not charge money for the surgery, after AT8's condition worsened. Just before reaching Azamgarh they stopped at another private hospital in Narauli on the Azamgarh- Varanasi road. They were there between 10:30-11:00 pm. The doctor from the private hospital checked A12in the vehicle itself and told them to take her to Varanasi as her condition was critical. The family started arranging for transport and managed to get an ambulance. By this time they were already suspecting that A12was breathing her last. Someone suggested that they should visit another private provider at Sidhari. After reaching Sidhari, the doctor came to the ambulance to examine A12and declared that she was already dead. They family took her body back home at 2am.

The family had spent Rs. 1500 of a few medicines in the private hospital where delivery took place and also had to bear the transport costs. The child also died after 2.5 months.

B. SOUGHT CARE FIRST IN PRIVATE SECTOR

A7

A7 was 27 year old married woman who lived in Azamgarh. She belonged to other backward caste (OBC) and studied till Class 8. Her husband studied till Class 10, and works as daily wage labourer while she is a homemaker. Family were APL in status. They have 2 bigha fertile land on which they cultivate wheat. This was her second gravida. After her first delivery, A7's husband took her to Delhi to treat her for low blood pressure problem and breathing difficulty. They stayed in Delhi for 4 months for treatment and after this there was a slight improvement in her condition. However since there were problems in the village, he had to return with her after 4 months.

A7 had only one ANC which includes only TT injection at sub centre (VHND) by ANM. She had her Hb tested in private facility. In the 3rd month of her pregnancy her amniotic fluid began to leak and she began to bleed. The ASHA referred her to a private hospital. The private hospital is a registered facility, 25km away from the village and it takes one hour to reach there. In this facility she had a sonography and doctor gave some medication; she had some relief after the treatment. However after one month (on 7th June) the problem recurred. So A7 was taken to the same private facility where doctor did another sonography and told the family that foetus had died. The doctor recommended that a surgical abortion would be needed to remove the 4-month old dead foetus completely. The family agreed for the surgical procedure to save A7's life but soon after the procedure, she began getting breathless; she was breathing with difficulty and experienced uneasiness. The doctor of the private hospital announced that the abortion was complete but their hospital did not treat other problems such as breathlessness, so she should be taken either to a private hospital in Akbarpur or in the PGI, Akbarpur to treat the breathlessness. She left the hospital after 3 hours of treatment. The family decided to go to the private hospital and hired a private vehicle to travel an hour to Akbarpur, but as soon as they reached this facility she died outside the hospital, about five hours after the onset of complications. Her mother-in-law observed that after the operation A7 did

not bleed too much, but breathlessness and suffocation led to her death and they could not do anything to save her. The total amount spent is Rs 25,000.

A18

A18 was a Hindu SC woman, married at the age of 17. She lived in a joint family in district Azamgarh. She was educated upto BA and was a homemaker. Her husband is a post graduate and also holds a BEd degree. The family has a yellow card and own 15 bisa of land which is cropped twice a year.

A18's first childbirth was in a private hospital through a caesarean section. For her second pregnancy at 21 years, she got 3 ANC checkups done in the CHC. Her blood pressure was recorded, haemoglobin checked, IFA tablets (100 given) and TT shots injected. However no abdominal examination was done. An ultrasound was done and the expected delivery date was identified to be in the last week of July. During her ANC it was discovered that her levels of haemoglobin was 9.5 grams. So she was advised to take a special diet of fruits such apples and pomegranates and consume milk. Her in-laws took heed of the advice and A18 was given fruits as well as milk. Her in-laws had incurred a substantial expense during her 1st pregnancy and wanted that she have her second delivery in her natal home.

So A18 went to her natal home in the eighth month. When the labour pains started on the 31st of July at 9:30am, her relatives took her to a private nurse who was known for conducting deliveries well. They reached there within half an hour and the nurse admitted her and after examining her said that it would be a normal delivery. The nurse also got a private doctor to examine A18 who also said the same thing. The nurse started a drip and administered a few medicines. A18's pain intensified with time but she still did not deliver. Her family also wanted to avoid a C-section and the nurse was still confident that it would be a normal delivery. A18's parents had full faith in the ability of the nurse and therefore waited patiently for the delivery. However suddenly at 5:30pm (7.5 hours after A18 was admitted) the nurse informed the family that she would not be able to handle the case and that a C-section would be required. She told the family to take her to the same private hospital where she had had her first delivery. The family spent Rs. 5000/- in this facility. So the family hired a private vehicle and set out for Azamgarh. In the meantime A18's condition was rapidly deteriorating and she become restless and developed severe pain in her abdomen. The private hospital in Azamgarh was 25km away and it took 1hour for them to reach. A18 died while she was being taken out of the vehicle at the gates of the hospital at 6.30 pm nine hours after onset of labour without having delivered.

The ASHA mentioned that she had recommended that they take her to the DWH for delivery but her husband was unwilling to listen and insisted on taking her to a private setup. The nurse of that private clinic was also responsible for her death; despite knowing that her first delivery was a C-section, the nurse kept attempting a normal delivery thereby wasting precious time, which could have been use to perform a C-section and save her life.

A14

A14 was 40 years old and lived in a nuclear family with her husband and six children. Her eldest daughter was married. Her husband was educated until Class 8, but A14 was non-literate. The family are OBC and have a BPL card. They however do not have a ration card despite being poor. They

have 9 biswa land which is cropped twice but it is has been mortgaged. Both A14 and her husband were daily wage labourer. She was married in her childhood when she was 5 years old.

This was most likely the tenth pregnancy for A14. Her mother in law says that she was aware of her daughter-in-law having undergone abortions at least thrice. She is unsure if A14 had undergone more than three abortions. A14 had had some experience with other methods of contraception as well. According to the ASHA, A14 had used Mala-D before. However she used to complain of excessive bleeding, gas formation and stomach bloating. She had also been given condoms but her husband had refused to use them. According to her mother in law's account, during this pregnancy, A14 had secretly gone to a female *jholachhap* doctor in Chhitauni for abortion. This informal provider had used some instrument to perform the MTP. After the procedure she had started bleeding profusely so much so that the room was full of blood. When her condition did not improve, on the third day she was taken to a retired ANM who told them *'nas phat gayi hai'* and asks the family to take her somewhere else. One day after that she was taken to a private hospital (registered) in Azamgarh. The doctor there told the family that A14 would not survive and asks them to take her elsewhere. So the family came back home to arrange for money.

The next day (Day 5) they took her to a private hospital in Varanasi. She remained there for 12 days and during her stay four bottles of blood and medicines were given. At the end of 12 days, there was no improvement in A14's condition and they had already spent Rs. 1.5 lakh on the treatment and they did not have any money left. Therefore they had to return home. On returning home, on the advice of some people, they again took A14 to a quack who practiced in the bazaar close-by. The quack also administered some medicines but A14 did not get any relief so the family brought her back home in the evening of the 23rd of November and A14 breathed her last at 7pm on the same day. In all A14's family had spent INR 1,82,000. The family has mortgaged all their land and is currently indebted.

A15

A15 was an SC woman who lived in a joint family with her husband. The village they lived in was a **relatively remote village near river Ghagra.** She was non literate and so was her husband. Both she and her husband was a daily wage labourer. She was married at the age of 17. The family belonged to the BPL /Antyodaya catergory and they had a MGNREGA card.

Only two of her four children had survived - the first one was a boy and the 4th one who was also a boy aged 10 and 2 respectively. The second child (also a boy) had died in a road accident, while the third (a daughter) had died of an illness. This was her fifth pregnancy at age 35. She had not got any ante natal check-up during her pregnancy, this despite the fact that the ANM makes monthly visits to the sub centre. When A15 was 8 months pregnant, on the 11th of Nov 2014 she started vomiting. She was taken to an **informal provider** in Jahangirganj which was **80 km** away. The provider recognised her as a case of jaundice and gave her three injections. She was admitted in his clinic for the entire day. Even after administering the injections, she continued to vomit. In addition there was also discharge from her nose and mouth *(kachra nikal raha tha)* due to which she felt more uncomfortable. Seeing her worsening condition, by the evening the *jholachhap* told the family that he could not handle the case any further. So her family brought her back to the house. The family had spent Rs. 1000 on her treatment and transportation.

The next day, on 12.11.14, she was taken in an auto upto Bodra but since her condition was very bad, the family hired a Bolero and took her to a **private doctor** in Azamgarh which is at a distance of **110 Km** and it took them 4 hours to reach. The doctor took a look at her and informed the family that she had been suffering from jaundice for a month and if they wished to save her life they should take her to PGI Akbarpur. The family was thinking of returning, but some people who had accompanied them suggested that they go to another **private hospital** in Kaptanganj. Even in this hospital the doctor said that he would not be handle the case. The family started for PGI Akbarpur, all through the way, she was vomiting and finally she died before reaching Akbarpur. The family returned home with her body. The family spent Rs.2000 on the transportation. According to her husband, she was relying on local herbs, traditional healers and shamans to get her jaundice treated. He added that he had not judged the gravity of problem. In his words *"I did not know that my wife could die of jaundice and so we were careless and she died."*

A4

A4 was a 24 year old Hindu woman belonging to an OBC family. She was married at the age of 23 and lived in a joint family in district Azamgarh. She was educated upto MA and was a homemaker. Her husband was educated until Class 12. The family has a yellow coloured ratio card and 8 bighas of irrigated land on which crops are grown twice a year. Her brother-in-law is the village Pradhan and one of her family members is a government employee.

This was A4's first pregnancy at age 24. She had received 4 packets of supplementary nutrition during her pregnancy. She had 3 ANCs check-ups done in a private facility with blood pressure, haemoglobin (10 grams), abdominal check-up and had received TT injections. A4 went into labour on the 29th August 2014 at 4pm. Her husband immediately took her about 30-40 kms on a motorbike to a private facility in Azamgarh (registered), where she was admitted. An IV drip was started and medicines were administered. A4 was in labour for almost 24 hours when almost a day later on the 30th in the afternoon, the doctor informed the family that a caesarean section needed to be performed as the foetus was going into distress and its heartbeats were getting faint. The operation was performed at 3:45 pm. After the operation in the night, A4 seemed alright, and talked to her husband several times.

On the next day (31st August) A4 developed fever at 10am. The nurse gave her an injection and some oral medicines but her condition did not improve, and by 11am her body began to stiffen and she began blabbering. The doctor was informed of her condition, but came three hours later in the afternoon (2pm). After examining her, the doctor did not tell the family anything, but held a telephonic consultation with another doctor. By 3pm the doctor told her family that her condition was serious and they did not have the facilities to deal with the complication. The doctor added that she needed to be put on a ventilator which could not be done in this facility, and recommended that they shift A4 to another private hospital. The family spent almost 48 hours and the amount of Rs. 30,000 in this facility. The family decided to take her to another registered multi-specialty hospital situated quite close by (500m) where she was admitted into the ICU during which she underwent a CT scan and a blood test. She was then given blood transfusion, but despite all these measures for 12 hours there was no improvement in her condition. She became unconscious and developed a sudden severe pain in her chest, swelling in her limbs and became disoriented. She died on the 1st of September at about 4am, in the private hospital.

The family spent Rs. 30,000 in this hospital also. The village Pradhan (who is A4's brother-in-law) mentioned, *"Facilities in private hospitals are better than government hospitals. This is why we though it better to take A4 to a private facility..... Her death had occurred due to negligence during the operation and the delayed response of the private doctor after the complication had set in. If that private doctor had come on time, a timely referral could have been facilitated and she could have been saved."*

A5

A5 was 22 years old woman, married when she was 19 years old and living in a joint family comprising of 38 members in Azamgarh. She belonged to Scheduled Caste and studied till 8th standard. Her husband was non-literate and was a migrant worker who worked in Ludhiana in a brick kiln, while she was a home maker. A5 worked as daily wage labourer. Family has 1 bigha fertile land and kachha house without any toilet facility. They have BPL and NREGA job card. This was her second pregnancy. The first pregnancy resulted in a miscarriage. She accessed quality ANC by going to the CHC and a private facility: she had more than 3 ANC checkups at by a doctor which includes HB, abdominal examination, BP, TT injections and IFA tablets. She also had 2 ultrasounds done at a private facility (in Kaptanganj and in another private clinic). Her mother said that no service was provided by anganwadi centre.

A5's mother called her to their place at her 3rd month of pregnancy because she had miscarriage in her last pregnancy. A week before the onset of labour pain she had developed swelling in her limbs, she had blurred vision. Her labour pains started in the morning (4am) on 24th October and she had two convulsions at 5am. Alarmed at this the family arranged for a private vehicle and money to take her to hospital (which took them 7 hrs) and they finally started at 11am. The family first took A5 to a quack where they spent two hours where she continued having convulsions. The quack told them to take her to a private hospital as her condition was critical. He also told them that the baby could not be saved, but there are chances that she could be saved. The family reached the private hospital (registered) in Atraulia around 1pm, where she was admitted and the doctor administrated 2 injections and put her on oxygen, and she became unconscious. At 4pm the doctor told the family to take A5 to the District Hospital. The family took her to District Hospital in 2 hours, where she was admitted immediately in an unconscious state. In the DH the doctor told them that baby had already died and there is a need to operate on the woman. The doctor in the meantime administrated two injections and put A5 on oxygen. He also instructed the nurse to prepare for the operation. But she died while preparations were being made, after having been in labour for around 14 hours.

The nurse took the body out and asked A5's mother to take her home. A vehicle from hospital was arranged to take the body back to home which cost the family Rs 1500. Documents related to A5 were provided to the family but the family did not have them at the time of interview. The family spent Rs 370 in the first clinic, Rs 500 in private hospital, Rs 4000 in DH (including the vehicle which was Rs 1500)

A6

A6 is a Scheduled Caste woman who lived with her husband in Azamgarh. She was married at the age of 20 years. She is educated upto class 9 and her husband until Class 12. She was a home maker. They have 18 bissa of land where they grow wheat and rice twice a year. They live in a *pucca* house,

without toilet facilities. They belong to the BPL category. Neighbours mentioned that she did not have a good relationship with her mother-in-law and was often beaten up by her husband who was an alcoholic and unemployed. Hence she lived for long periods in her natal home.

This was her 5th pregnancy at 30 years. First child was a son who died, the second child was a girl who is alive and 4 years old, her 3rd child was a still birth (boy), 4th was also a boy who died soon after being born. In her previous pregnancy, she had a lot of bleeding during delivery and according to her family member, in every pregnancy she had bleeding throughout pregnancy (*"har baar khoon jata tha"*) for which treatment was sought but she did not get much relief. She had 3 ANC checkups in private facility. No abdominal examination was done but all other tests were done. She had history of fluctuating blood pressure and sugar. No supplementary nutrition was provided.

She was living in her natal place when her pain started on the 14th of Jan 14, so her parents immediately called the husband and he took her back to their marital home. The husband called their neighbour in the middle of the night (about 1am) to check on A6. The neighbour mentioned that she could not detect any foetal movements and that might have been the reason for the pain. A6 was given a cup of tea to drink and at about 4 am the pains stopped. In morning on the 15th of Jan after a bath and breakfast, at 10:30 am (almost 12 hours after her pains started) A6's husband took her to a quack on a cycle. The quack checked A6 and told them that the foetus was dead, after which the husband called A6's parents. The quack told A6's parents that she needed to be operated upon and the foetus removed to save her. A6's brother was called to arrange money for the operation. The quack called a private surgeon from Azamgarh to conduct the C-section. The surgeon operated upon A6 without conducting any per-operative investigations. Soon after the operation she became unconscious. The quack in fear referred A6 to another private hospital (located 25 kms away in Azamgarh, registered). He accompanied the family to Azamgarh. The private hospital was unwilling to admit A6 in her current condition but after a lot of pleading they finally agreed to admit her. A6 was given oxygen (at a cost of Rs. 2000) and kept for a while but when there was no improvement in A6's condition, so the doctor discharged her.

The family then took A6 to the Mission Hospital just 2 kms away, where she was given medication but there was no improvement in her condition and she died at 5am on the 16th of Jan. In all the family spent more than Rs 30,000/- on treatment, transportation, medicines, oxygen and other expenses. All documents were all burnt along with the funeral pyre.

A9

A9 was 21 year old married Muslim woman. They belonged to Other Backward Caste (OBC). She was educated until class 12 and was a homemaker. Family have half *pucca* house with toilet facility along with two bigha fertile land. Family did not have BPL and Job card.

This was A9's first pregnancy. She had 2 ANC check-up in a private facility near CHC run by a government doctor and BP, Hb, IFA and TT injections at VHND by ANM. A9 did not receive any SNP from Anganwadi centre. On the 9th of Jan at 8 am, when labour started A9 was taken to a private hospital in a private vehicle (tempo). The private hospital run by a quack, admitted her and told the family that the delivery would take time. At 3pm she was given an IV drip, injections and medication. At 5pm she delivered a still-born baby normally. After the delivery she began vomiting and she began bleeding. According to the family although the quack and staff tried their best, they

could not control the condition. Hence after an hour (6pm) they told the family to take A9 to another private hospital nearby and also provided a staff to accompany them. The family left for the private hospital in private vehicle and reached in 5 minutes. She was admitted and was given oxygen, drip and an injection was administered but after sometime the doctor told family to take her to another hospital as he was leaving to go somewhere. A9 was taken to a third private hospital (registered) 40 kms away in a private vehicle. During the hour-long journey to the hospital she was vomiting and bleeding. At this hospital the doctor told the family to arrange for three bottles of blood. Family members reached the Blood Bank in District Hospital at 8:45pm and her husband, brother in law and another relative were prepared to donate blood. But the staff there told that they were eating dinner and after they finished, they would give them blood after the donation was completed. While they were waiting for these procedures, they got a call around 10:30 pm from A9's mother in law to come back as A9 had died.

They spent more than Rs 4000 in total. The husband mentioned that the ASHA used to visit them but did not counsel them about anything. He mentioned, *"No one listens to us patients in government hospitals, patients keep shouting but no one bothers and that is why we prefer private facilities for deliveries. However, we go to VHND to get TT injections from the ANM."*

A13

A13 lived in a nuclear family with her husband. She was a Hindu and belonged to the OBC. She was educated until Class 12 and was a homemaker. Her husband had completed primary school. They had 2 Bigha land which yielded two crops annually. They did not have a BPL card, nor did they have a NREGA

It was her second pregnancy at 25 years. Her first child was a girl who had not survived. A13 had moved to her natal home during her pregnancy. She had two Ante natal checkups at the VHND held in the local primary school by the ANM. A13 had been given tetanus shots once and IFA tablets twice. A13 was also anaemic and her weight was below 40 Kgs and her height was below 4 foot 8 inches. During her pregnancy she faced difficulties due to swelling in her body and limbs, headache and severe weakness. A13 used to consult a homeopathic doctor for treatment. According to A13's mother, she used to feel better after taking homeopathic medicines. On the morning of 19th Jan 2015 when A13's mother was resting near her tube-well, some people came and informed her that A13's labour pains had started. However before A13's mother could reach home, she had given birth to a boy. The birth had been facilitated by her family members and relatives.

A13 was alright after that but suddenly on the third day (22 January 2015) in the morning she started complaining of body-ache and swelling. The family thought that she had developed these symptoms due to the exhaustion of delivery. So they went to the homeopathic doctor and got some medicines.

But when her condition did not improve and she started becoming drowsy and drifting in and out of consciousness, on the advice of a neighbour, they hired a private vehicle and took her to a private hospital in Azamgarh. The ASHA also accompanied them. She was admitted, while the treatment was being initiated, even as the doctor was putting the oxygen mask, A13 breathed her last on 22nd January and died. Her cousin said that despite being poor they went to private facilities for treatment rather than accessing government services. He said, *"There is a lot of carelessness in government facilities and there also we have to buy all the medicines from outside. So it is better to go to a private facility."*

A16

A16 was an SC woman who lived in a joint family with her husband. The village they lived in was a **relatively remote village near river Ghagra**. She was non literate and so was her husband. Both she and her husband was a daily wage labourer. She was married at the age of 17. The family belonged to the BPL /Antyodaya catergory and they had a MGNREGA card.

Only two of her four children had survived - the first one was a boy and the 4th one who was also a boy aged 10 and 2 respectively. The second child (also a boy) had died in a road accident, while the third (a daughter) had died of an illness. This was her fifth pregnancy at age 35. She had not got any ante natal check-up during her pregnancy, this despite the fact that the ANM makes monthly visits to the sub centre. When A16 was 8 months pregnant, on the 11th of Nov 2014 she started vomiting. She was taken to an **informal provider** in Jahangirganj which was **80 km** away. The provider recognised her as a case of jaundice and gave her three injections. She was admitted in his clinic for the entire day. Even after administering the injections, she continued to vomit. In addition there was also discharge from her nose and mouth *(kachra nikal raha tha)* due to which she felt more uncomfortable. Seeing her worsening condition, by the evening the *jholachhap* told the family that he could not handle the case any further. So her family brought her back to the house. The family had spent 1000 Rs on her treatment and transportation.

The next day, on 12.11.14, she was taken in an auto upto Bodra but since her condition was very bad, the family hired a Bolero and took her to a private doctor in Azamgarh which is at a distance of **110 Km** and it took them 4 hours to reach. The doctor took a look at her and informed the family that she had been suffering from jaundice for a month and if they wished to save her life they should take her to PGI Akbarpur. The family was thinking of returning, but some people who had accompanied them suggested that they go to another **private hospital** in Kaptanganj. Even in this hospital the doctor said that he would not be handle the case. The family started for PGI Akbarpur, all through the way, she was vomiting and finally she died before reaching Akbarpur. The family returned home with her body. The family spent Rs.2000 on the transportation. According to her husband, she was relying on local herbs, traditional healers and shamans to get her jaundice treated. He added that he had not judged the gravity of problem. In his words *"I did not know that my wife could die of jaundice and so we were careless and she died."*

A17

A17 was a Hindu woman belonging to the general category. She was married at the age of 18 and lived with her husband and children in district Azamgarh. She was barely literate and her husband was educated upto the 5th standard. They lived in a nuclear family and had a small amount of irrigated land (1 bigha) which bore 2 crops a year. They had a yellow card. B1 was a homemaker and her husband was an alcoholic and often indulged in wife beating. He also had mental health issues.

B1 had four earlier pregnancies and had two daughters and two sons. While she had no complications in her earlier pregnancies, her first born died soon after birth. Her oldest living child was six years old.

For her fifth pregnancy at the age of 28 years, she had 2 ANC check-up done at the sub centre; however neither was her blood pressure measured, nor was her abdominal examination done. Her

haemoglobin testing was done (7grams) and she was given IFA tablets which she did not consume. She also got 2 tetanus shots. However the family did not have the ANC card as the ANM did not given the ANC card to anyone. On the 2nd of July, A17 complained of labour pains, so the ASHA took her to an ANM who ran a private clinic. The ANM examined the woman and declared that there was still time for the baby to be born. A17 and the ASHA sought a second opinion from a quack who also affirmed that there was time for the baby to be born; so they returned home. On the 5th of July, A17 again experienced labour pains and contacted the ASHA who called the 108. The ambulance arrived at 10 am and A17, her mother and husband went to the CHC where the doctor asked her to get an ultrasound and a blood test done. However the family was too poor to afford this, and therefore on the recommendation of the ASHA, she was taken to the District Women's Hospital in an auto. She was admitted in the DWH and a blood test showed that her haemoglobin was 7gm/Hb. The doctor told the family that A17 would need a blood transfusion. However A17's mother told the doctor that none of the family could donate blood and she sent her son-in-law back home.

B1 delivered a baby at 7am on the 6th of July, but the doctor referred the baby to a Neonatal Unit in a private hospital. The ASHA andA17 mother got the baby admitted in the neonatal unit of a private hospital and on returning toA17 found her very concerned about the health of her baby. The ASHA assured B1 that the infant was stable and gave A17 some tea and bread to eat. Then the ASHA went in search of the doctor to get a prescription for A17, but when she returned, she found that A17 was frothing at the mouth. By the time the doctor could rush to her, she breathed her last at 9.30am.

Annexure

ABOUT SAHAYOG & THE PARTNERS

ANNEXURE

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About SAHAYOG

SAHAYOG is a value-driven voluntary organization set up in Uttar Pradesh 1992, and works with the mission of promoting gender equality and women's health using human rights based approaches, through partnership based advocacy. Since 2000, SAHAYOG, in partnership with allies in the Healthwatch Forum UP, has been promoting advocacy and citizen monitoring around reproductive health and rights in Uttar Pradesh, and has brought out a large number of reports and documentation of maternal deaths. Some of the monitoring has also led to changes in national policy and budgets around family planning.

Since 2007, SAHAYOG has also engaged in collaborative research, studies and advocacy involving other states of northern India, such as Uttarakhand, Chhattisgarh, Odisha, West Bengal, Jharkhand as well as in Uttar Pradesh. These highlighted issues of women workers in the informal sector and their maternal health issues, post-JSY quality of hospital-based maternity care, issues of tribal women's maternal health and nutrition and most recently the use of Maternal Death Reviews to make system corrections. SAHAYOG has held the Secretariat of the civil society platform NAMHHR (2010-2016), and also been part of high-level committees of the Planning Commission, Ministry of Health and Family Welfare and National Human Rights Commission.

Partners

1. ***Association for Social and Health Advancement (ASHA) West Bengal:*** ASHA has been working to improve the socio-economic and health status of disadvantaged rural and urban communities since 1998. ASHA implements development initiatives in socio-economic and health sectors and also acts as a technical support agency for other organizations and institutions and collaborates with both Government and Non -Governmental agencies. ASHA is also a founding member and currently steering committee member of NAMHHR.

2. ***Society for Developmental Action (SODA) Odisha:*** SODA is engaged in developmental work in Orissa since 1984. It is an association of professionals, lawyers, doctors, social workers, researchers, communicators and faculty members from university and reputed institutions. The principal objectives are to integrate the indigenous health knowledge and workers into the formal system, to improve design of health systems like linking nutrition, water, housing, agriculture, environment, population education and sanitation, to spread knowledge among the people on all subjects related to their all round welfare and development

3. ***Gramin Punarniran Sansthan (GPS) Uttar Pradesh:*** GPS was founded on 10th December 1992 on World Human Rights Day by eleven socially committed youth in Atraulia block of Azamgarh district, Uttar Pradesh. GPS has focused its work on rural women and helped them form Self Help Groups. The groups have taken up several local issues and the activities have

enabled the women to improve their livelihoods. GPS has a strong presence in the community and works on the issue of women's right to food, right to work, right to health and Gram Sabha awareness, and initiative on social issues like Dalit rights.

4. ***Shikhar Prakshikshan Sansthan (SPS) Uttar Pradesh:*** SPS was founded in 1997 by a group of people highly motivated by Gram Swarajya philosophy of social development. Its vision is to create a casteless, exploitation free and self dependent society in which everyone enjoys their rights and mission is to empower weakest section of the society especially SC, ST, deprived, poorest of the poor. It has also been very active within the Mahila Swasthya Adhikar Manch (MSAM), which organizes grassroots women around the issue of maternal health and related social rights.

5. ***Tarun Vikas Sansthan (TVS) Uttar Pradesh:*** TVS has been working in Banda district of Uttar Pradesh since 1990 with a vision of promoting human rights by creating awareness and strengthening voices in the community in order to create an equitable society. Its mission is to engage in rights-based advocacy on gender issues and to create social accountability for the health of women, youth and children. The organization has been working on maternal health accountability by organizing grassroots women in the community.

6. **Devika Biswas** an individual activist has been working for several years in undivided Bihar and Jharkhand on issues of health, reproductive rights and nutrition. She has been convening the platform Healthwatch Bihar-Jharkhand and is part of national efforts to secure more accountability for the quality of care in female sterilization surgeries.

SAHAYOG

In collaboration with

NAMHHR
(National Alliance for Maternal Health and Human Rights)