CHAPTER I INTRODUCTION

Title of the Study

Reduction of maternal mortality through Janani Suraksha Yojana : A study in Karimganj district of Assam.

1.1. Introduction

In the past two decades, India has made significant progress in social and economic development, for instance, improvement in life expectancy, reduction of infant mortality and literacy (The World Bank, 2011; Agrawal & Unisa, 2013). However, India continues to contribute about a quarter of all global maternal deaths (Sinoj & Mishra, 2012; Hill, Thomas, AbouZahr, Walker, Say, & Inoue, 2007). Developing countries, including India, bear 99 percent of global maternal mortality (Human Rights Watch, 2009).

According to the statistics of Maternal and Infant Death Reporting System (MIDRS), in India, there are about 28 million pregnancies, 26 million live births, 67,000 maternal deaths and a million neonatal deaths every year (Cited in Negandhi, Neogi, Chopra, Phogat, Sahota, Gupta, et al., 2016). Almost 45,000 mothers die owing to childbirth-related problems each year in India that comprise 17 percent of such deaths globally, according to the global health body (The Indian Express, 2016). According to the Office of the Registrar General and Census Commissioner, the maternal mortality ratio (MMR) of India is about 178 maternal deaths per 1,00,000

live births for 2010-12 (Cited in Negandhi, et al., 2016). This high incidence of maternal mortality affects human life and social welfare largely (Joe, Sharma, Sharma, Shanta, Ramanathan, Misra, & Sri, 2015).

In 2010-12, Kerala (66), Maharastra (87) and Tamil Nadu (90) States registered the lowest MMR (Joe, et al., 2015). According to the Census 2011 (Cited in Human Rights Law Network, 2016), the maternal mortality ratio of Assam was 381 which was the highest in the country compared to all India level which was 178. Assam has graded as India's highest MMR of 300 per one lakh live birth as against the national average of 167 per one lakh live birth (Press Trust of India, 2017). The difference between Assam (the highest MMR State) and Kerala (the lowest MMR State) was 262 points in 2010-12 (Joe, et al., 2015). However, the MMR of Assam reduced to 347 in 2011-12 and further decreased to 301 in 2012-13 (Office of the Registrar General & Census Commissioner, 2013).

In 2010-11, the upper Assam division had the highest MMR (430) and the Hills and Barak Valley division had the lowest MMR (342) (Office of the Registrar General & Census Commissioner, 2013). In 2011-12, for a second time, the upper Assam division had the highest MMR (436) and again the Hills and Barak Valley division had the lowest MMR (288) (Office of the Registrar General & Census Commissioner, 2012). In 2012-13, for the third time, the upper Assam division had the highest MMR (404) and the north Assam division had the lowest MMR (251) (Office of the Registrar General & Census Commissioner, 2013).

The social, economic and institutional failure leads to increasing rate of maternal mortality and morbidity (Human Rights Law Network, 2016). Over 80 percent of maternal deaths in India are subject to direct obstetric causes

(Montgomery, Ram, Kumar, & Jha, 2014) such as toxaemias of pregancy, haemorrhage, infection, obstructed labour and unsafe abortion (Park cited in Ahmed, Siddique, & Nasima, 2016). The most common cause of maternal deaths was post-partum haemorrhage, anaemia, eclampsia, and obstructed labour (Human Rights Law Network, 2016). During antenatal, intranatal or postnatal periods, maternal death may transpire and thus it requires services during these periods (Ahmed, et al., 2016). The necessary healthcare facilities provided to mothers around the world in order to ensure their good health is central to qualitative development and a high number of maternal deaths indicate the lack of accessibility to proper medical facilities and a wide gap between the rich and poor (Ministry of Health and Family Welfare, 2015).

India has been experiencing a great challenge to prevent maternal death associated with pregnancy and childbirth (Rai, Dasgupta, Das, Singh, Devi, & Arora, 2011). Less allocation of finance on health, economic deprivation, poor literacy, poor nutritional status, rural-urban division and lack of trained health personnel as the primary reasons for a higher maternal and infant mortality ratios (Chatterjee & Paily, 2011). It is perceived that maternal near miss has been indicated as a compliment to maternal death (Chhabra, 2014). Thus, maternal health continues to be an important indicator of the well-being of a country (Ministry of Health and Family Welfare, 2015). If Millennium Development Goals (MDG) 4 and 5 are to be accomplished, amplifying the coverage of maternal and newborn interventions is indispensable (Rai, et al., 2011). In order to prevent maternal deaths and to enhance maternal health as well, professional health care is an essential one (The World Health Report, 2005).

An assortment of national programmes, such as the Family Planning, Child Survival and Safe Motherhood and Reproductive and Child Health (phase 1 and 2)

were introduced to enhance maternal health. Despite all these efforts, the desired impacts were not realised either as a consequence of a previous emphasis on ineffective strategies or the poor utilisation of existing resources or lack of effective ground-level governance (Iyengar, Iyengar, & Gupta, 2009).

Death of a mother has serious consequence for the child as well as other family members and to prevent the same, a comprehensive approach is essential (Rai, Anand, Misra, Kant, & Upadhyay, 2012). In order to reduce the maternal mortality ratio, on 12th April 2005, the Government of India launched the National Rural Health Mission (NRHM) to render accessible, affordable and quality health care to the rural population particularly the vulnerable sections (Ministry of Health and Family Welfare, 2015; Nair & Panda, 2011). The National Rural Health Mission (NRHM) has brought about more institutional deliveries through the increased enrollment of community health workers and community level facilities (Kassebaum, Bertozzi-Villa, Coggeshall, Shackelford, Steiner, & Heuton, 2014; Adamson, Krupp, Niranjankumar, Freeman, Khan, & Madhivanan, 2012).

The NRHM's integral component is the safe motherhood intervention in the form of Janani Suraksha Yojana (JSY) for lowering maternal and neonatal mortality (Nair & Panda, 2011; Ministry of Health and Family Welfare, 2015). It is a hundred percent centrally sponsored scheme and it also integrates cash assistance with delivery and post-delivery care (Ministry of Health and Family Welfare, 2015; Agbakwuru & Beswick, 2009).

A good number of studies were conducted to analyse the levels of impacts of JSY in India. Evidential studies in terms of quantitative, qualitative and economic aspects showed that the evidence of effects on maternal and infant mortality and

morbidity outcomes was insufficient (Murray, Hunter, Bisht, Ensor, & Bick, 2014). A number of studies of JSY in the dimensions of the effectiveness of cash transfer schemes, the effects of JSY on the beneficiaries and the level of utilisation of JSY were adequately conducted. However, the studies analysing the impacts of JSY in Assam, the highest MMR State, particularly in a Muslim dominated district, Karimganj district is comparatively lower than other areas of India.

The study attempted to observe the effectiveness of JSY among pregnant women registered under JSY in Karimganj district of Assam State. It measures the socioeconomic conditions of the JSY beneficiaries, health and educational facilities available in the villages, knowledge of the JSY beneficiaries about pregnancy, micro-birth plan and JSY, perspectives of the JSY beneficiaries about early marriage, family responsibility and family planning, levels of antenatal and postnatal care coverage, extent of awareness among the JSY beneficiaries about health and JSY and the performance of ASHA and ANM. This research work has been carried out in broader discipline of social work with collection and compendium of a varied range of reviews from interrelated disciplines.

1.2. About Janani Suraksha Yojana (JSY)

The prime aim of the JSY, the safe motherhood intervention, is to reduce maternal and infant mortality through increased delivery at health institutions (Agbakwuru & Beswick, 2009). JSY offers 24 hours quality services including that of anaesthetists and Accredited Social Health Activist (Kumar, 2005). All pregnant women who are over age 19 years in Low Performing States (LPS) and all pregnant

women living in below the poverty line (BPL) in High Performing States (HPS) are eligible to enrol and obtain health cards entitling them to cash assistance for institutional delivery and transportation (Agbakwuru & Beswick, 2009).

According to the Ministry of Health and Family Welfare (2015), the success indicator of the scheme is the increase in institutional delivery among the poor families. The JSY has identified Accredited Social Health Activist (ASHA) as an effective actor to bridge the Government with the poor pregnant women in l0 LPS, namely the 8 EAG states and Assam and Jammu &Kashmir and the remaining North Eastern States. In other eligible states and Union Territories, wherever, Anganwadi Workers (AWWs) and Trained Birth Attendants (TBAs) or ASHA has been involved in this purpose, she can be associated with this JSY for providing the health services.

Under JSY scheme, a selected number of ASHAs have been identified at the village level to facilitate early registration of antenatal women, provide ante natal care (ANC) and ensure prompt and timely transporting of pregnant women to health centres for institutional deliveries. Both the woman and the ASHA are provided cash assistance for ensuring a safe institutional delivery that protected both the mother and the child. (Nandan, 2009)

1.2.1. Role of ASHA or Field Level Health Worker

The primary role of ASHA or field level health worker associated with JSY would are (Ministry of Family Health and Welfare, 2015):

- Identify pregnant woman and enrol her as a JSY beneficiary and facilitate her for ANC registration,

- Facilitate the pregnant woman to obtain required certifications wherever needed,
- Refer the pregnant women to the nearby functional Government health centre or an accredited private health institution for checkups and delivery,
- Enable the pregnant women to have at least three ANC checkups including TT injections, Iron and Folic Acid (IFA) tablets,
- Provide counselling to the pregnant women for institutional delivery,
- Usher the JSY beneficiary woman to the pre-determined health institution and stay with her till discharge,
- Make necessary arrangements to immunize the newborn till the age of 14 weeks,
- Inform about the birth or death of the child or mother to the Auxiliary Nurse Midwife (ANM)/Medical Officer (MO),
- Facilitate the mother for postnatal care (PNC) visit within 7 days of delivery to track her health status and facilitate her to obtain care after delivery, and
- Render counselling to the lactating mother for ensuring breastfeeding to the newborn within one-hour of delivery and its continuance till 3-6 months and promote family planning.

1.2.2. Cash Incentive Assistance to JSY Beneficiaries

A woman from LPS category gets a cash incentive of Rs. 1000-1400 per institutional delivery whereas a woman living in below poverty line from HPS category obtains Rs. 600-700 per institutional delivery. There is a separate provision of Rs. 250/- for transport in case of emergency with another provision of Rs. 1500/-

for the management of obstetric complications in caesarean delivery, if needed. Further, if a BPL pregnant woman above age 19 years wants to deliver at home, she will be given a cash incentive of Rs. 500/- per delivery, up to two live births to meet her on delivery and post-delivery expenses. (Hazarika, 2017)

1.2.3. Cash incentive to ASHA (Ministry of Family Health and Welfare, 2015)

> "This should not be less than Rs.200/- per delivery in lieu of her work relating to facilitating institutional delivery. Generally, ASHA should get this money after her postnatal visit to the beneficiary and that the child has been immunized for BCG. Transactional cost (Balance out of Rs.600/-) is to be paid to ASHA in lieu of her stay with the pregnant woman in the health centre for delivery to meet her cost of boarding and lodging etc.. Therefore, this payment should be made at the hospital/ health institution itself."

1.2.4. Essential Strategy (Ministry of Family Health and Welfare, 2015)

The JSY has to ensure the adequate number of 24X7 delivery services. Chiefly, this will involve:

- Linking each habitation (village or hamlet or ward in an urban area) to a functional health centre- public or accredited private institution where 24X7 delivery service is available,
- Associate an ASHA or a health link worker to each functional health centre,
- It should be ensured that ASHA tracks all expectant mothers and newborn. All expectant mothers and newborn should avail ANC and immunization services respectively, if not in health centres, at least on the monthly health and nutrition day, to be organised in the Anganwadi or sub-centre:

- Each pregnant woman is registered and a micro-birth plan is developed,
- Each pregnant woman is tracked for ANC,
- For each of the expectant mother, a place of delivery is determined at the time of registration and the expectant mother is informed, and she is referred to the health institution
- ASHA or ANM should ensure that adequate fund is available for disbursement to expectant mother,
- ASHA should take up adequate action for organising transportation facilities for the expectant mother to reach the hospital for delivery, and
- ASHA should escort the pregnant woman to the pre-determined health centre and she should ensure availability of cash for disbursement at the health centre for the mother who has the safe delivery.

1.3. Maternal Mortality Ratio (MMR):

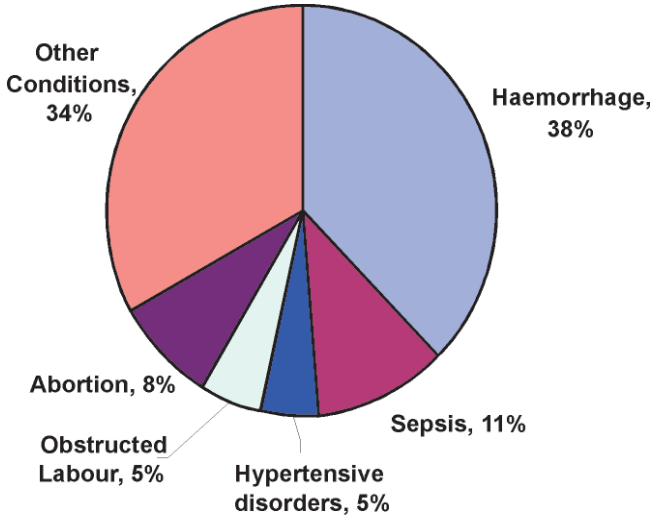
MMR is defined as the number of maternal deaths per 100,000 live births due to causes related to pregnancy or within 42 days of termination of pregnancy, regardless of the site or duration of pregnancy. Most of these deaths are preventable with good ante natal care, timely identification and referral of pregnant women with complications of pregnancy and timely provision of emergency obstetric care.

1.3.1. Maternal Mortality Rate: It is defined as the number of maternal deaths to women in the ages 15-49 per lakh of women in that age group.

1.4. Causes of Maternal Mortality:

The major causes of maternal deaths have been identified as Haemorrhage (both ante and post partum), Hypertensive disorder of pregnancy including Eclampsia, obstructed labour and unsafe abortion besides causes classified as "Others" which includes anemia.

Figure 1.1. Causes of maternal mortality



Source: SRS, 2003.

As can be seen Haemorrhage accounts for more than one- third of all deaths followed by puerperal sepsis and abortion. Besides these, anemia which has been included in "other conditions" is a major contributory factor. Most of these deaths are preventable with good ante natal care, timely identification and referral of pregnant women with complications of pregnancy and timely provision of emergency obstetric care. Moreover social factors like Illiteracy, ignorance and low socio-economic conditions,

poor access to health facilities are also contributing factors leading to higher maternal mortality.

1.5. Maternal Death

According to the Tenth International Classification of Diseases, a maternal death is defined as “the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.”All maternal deaths are either direct obstetric deaths or indirect obstetric deaths.

1.5.1. Direct obstetric deaths : Those deaths resulting from obstetric complications of the pregnant state (pregnancy, labor and puerperium), from interventions, omissions, incorrect treatment, or from a chain of events resulting from preeclampsia or a hemorrhaging.

1.5.2. Indirect obstetric deaths : those resulting from previous existing disease or disease that developed during pregnancy and which was not due to direct obstetric causes, but which was aggravated by physiologic effects of pregnancy.

1.6. Statement of the Problem

Since the outset of the Safe Motherhood Initiative, India has registered for at least a quarter of maternal deaths reported globally. India's goal is to lower maternal mortality to less than 100 per 100,000 live births, but that is still far away regardless

of its programmatic efforts and rapid economic progress over the past two decades. (Vora, et al., 2009)

Maternal mortality is on an average 18 times higher in developed countries compared to developing countries. Maternal mortality and morbidity continue to be high despite the existence of national programmes for improving maternal and child health in India. This coupled with several factors, a significant one being non-utilization or under-utilization of maternal health-care services, especially amongst the rural poor and urban slum population owing to either lack of awareness or access to health-care services. (Agarwal, Singh, & Garg, 2007)

The World Health Organization (Vora, et al., 2009) estimates that 536,000 maternal deaths occurring globally each year, of which 136,000 take place in India. India, with a population of over a billion and decadal growth of 21%, estimated its maternal mortality ratio (MMR) at 301 (maternal deaths per 100,000 live births) in 2003 (Vora, et al., 2009). The MMRs vary across the states, with the large North Indian states contributing a disproportionately-large proportion of deaths. Uttar Pradesh and Rajasthan, for example, have high rates of fertility and maternal mortality while Kerala and Tamil Nadu have rates comparable with middle-income countries (Sharma & Sharma, 2014).

Antenatal care (ANC) is a pivotal factor for the safe motherhood, but its utilization varies across the immensely varied Indian society, which by and large reside in urban slums and rural areas (Sharma, Mohan, Das, & Awasthi, 2012). Antenatal care can also play a critical role in preparing a woman and her family for birth by establishing confidence between the woman and her health care provider and by individualizing promotional health messages (World Health Organization, 1996).

Since up to 50% of the maternal deaths occur after delivery. The support of the health providers for the lactating mothers on early and exclusive breastfeeding is indispensable (Kumar & Kumar, 2009). The utilization of PNC was extremely limited in India and was particularly unequal. The utilization of postnatal care (PNC) was also unequal in case of institutional births raising important questions about the functioning of public health care system in India. (Singh, Padmadas, Mishra, Pallikadavath, Johnson, & Mathews, 2009)

Janani Suraksha Yojana (JSY), a conditional cash transfer programme, introduced in 2005, is aimed at increasing institutional delivery and motivate the use of reproductive and child health-related services (Vikram, Sharma, & Kannan, 2013; Carvalho, Thacker, Gupta, & Salomon, 2014). During the same period, the JSY was introduced across the State of Assam. When observing the MMR statistics from 2010 to 2013, there is a subsequent decline in MMR. In 2010-11, the Hills and Barak Valley division comprising of Karbi Anglong, North Cachar Hills, Cachar, Karimganj and Hailakandi districts had the lowest MMR among other divisions in Assam in 2010-11 and 2011-12. However, in the subsequent year 2012-13, the scenario changes. According to the Annual Health Survey Report of 2012-2013 (Office of the Registrar General & Census Commissioner, 2013), among the regional divisions in Assam, the MMR recorded the highest in the upper Assam division (404), followed by the Hills and Barak Valley division (281), the lower Assam division (254) and the north Assam division (251). Looking this figure, the Hills and Barak Valley division had the lowest in MMR in the previous years, recorded second in MMR in 2012-13.

Karimganj District is one of the most lagging behind districts in Assam in all respects especially in education, health care, road communication, socio- economic

condition etc. In Karimganj district 93 percent of population lives in rural areas. As indicated by the Human Development Report of Assam (2004) the human development index for the district stands at 0.301 (ranks 19th in the state) which is much lower than the state average of 0.407. In terms of income, education and health the district ranks 19th, 14th and 18th respectively in the state. Most of the women in Karimganj district suffer from pregnancy related complications like anaemia, high blood pressure, obstructed labour, poor health due to the poor socio-economic condition of the family. Even in rural villages in Karimganj district it is seen that people are unaware about health education, family planning, antenatal during pregnancy etc. High level of illiteracy, poverty and cultural background have been attributed to increasing the number of maternal mortality in the Assam. Apart from that many are residing in remote parts of the society especially in the village where there poor infrastructural facilities like access to good health care, good road electricity, good water and access to radio and television. One of the biggest challenges facing Assam in the area of children and women development is high maternal mortality. Although it has achieved the maximum decline of 90 points in maternal mortality ratio between 2005-06 and 2007-09, Assam, continues to remain the State having the highest Maternal Mortality Ratio (MMR) of 390 per 100,000 live births in the country (all India average: 212). (Ministry of Minority Affairs, 2004)

There are 1 District Headquarters Government Hospital, 5 Block level Primary Health Centres, 27 Primary Health Centre, 2 Sub-Health Centres, 6 Community Health Centres, and 217 Sub-Centres providing health services to nearly 90% of the rural population of Karimganj district (Joint Director of Health Services , District Health Society , Karimganj). The present study reflects how JSY is successful in reducing maternal mortality rate in Karimganj district of Assam. The current Status of

MMR in Karimganj district is 281 per 100,000 live births. After implementation of JSY in 2005 in Karimganj district, this scheme is successfully working for promoting maternal health and in the reduction of MMR.

This study investigated the impacts of the Janani Suraksha Yojana pregnant and lactating mothers in the district of Karimganj in Assam. A good number of studies concerning the JSY were conducted. Most studies focused the States with larger areas and a few studies were conducted in Assam. Most of these studies reflected the operational mechanism and utilisation of JSY programme. The identified research gap is that the studies related to the impacts of the pregnant and lactating mothers covered under the JSY in the most backward districts like Karimganj are sparingly focused.

1.7. Chapters of Study

Chapter I: This chapter presents the introduction that describes about the discontentment on the subject and about the purpose of the study, about Janani Suraksha Yojana (JSY), statement of the problem and the chapters of study.

Chapter II: This chapter reviews studies and sources pertaining socioeconomic status of the women, maternal and infant mortality and morbidity, women's age and age at marriage, marriage pattern, antenatal care, postal care and institutional deliveries and JSY and discloses the gaps in the research areas.

Chapter III: This chapter presents the research methodology that describes about the need and importance of the study, the field of study, research objectives, hypothesis,

research design, sampling techniques, tools for data collection, pre-test, sources of data, operational definition, fieldwork, analysis and interpretation of data and limitations of the study.

Chapter IV: This chapter analyses the data, which is presented in tables and with statistical tests.

Chapter V: This chapter gives the major findings of the study, discussions, suggestions and conclusion.