Improving Maternal Health Services Through Public-Private Partnership In Public Health System In Jharkhand Of India

An In Depth Study

By

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MASTERS IN HEALTH MANAGEMENT, PLANNING & POLICY

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"This dissertation has been submitted in partial fulfilment of the requirements for award of Masters in Health Management, Planning & Policy. The examiners cannot, however, be held responsible for the views expressed, nor the factual accuracy of the contents".

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Dedication

This dissertation has been dedicated to my loving daughter, wife and especially to my parents without their love and support; I would not have been able to complete my master course in UK.

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ACRONYMS AND ABBREVIATIONS

ANC	Ante Natal Care
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activities
BPL	Below Poverty Line
CBHI	Central Bureau Of Health Intelligence
CHCs	Community Health Centres
CHMO	Chief Health Medical Officers
CSSM	Child Survival And Safe Motherhood Programme
DALYS	Disability Adjusted Life Years
DLHS	District Level Health Survey
DPMU	District Programme Management Unit
DSF	Demand Side Financing
FRUs	First Referral Units
GOI	Government Of India
ICPD	International Conference On Population And Development
IIHMR	Indian Institute Of Health Management Research
IPHS	Indian Public Health System
MD	Mission Director
MDGs	Millennium Development Goals
MHCS	Maternal Health Care Services
MMR	Maternal Mortality Rate
MO	Medical Officer
MoHFW	Ministry Of Health And Family Welfare
MOIC	Medical Officer In Charge
NFHS	National Facility Household Survey
NGOs	Non-Government Organisations
NHP	National Health Policy
NHSRC	National Health System Resource Centre
NRHM	National Rural Health Mission
NSS	National Sample Survey
OBC	Other Backward Class
PHRN	Public Health Resource Network
PPP	Public Private Partnership
RCH	Reproductive And Child Health
RGI	Registrar General Of India
SBA	Skilled Birth Attendants
SC	Scheduled Cast
SHOPS	Strengthening Health Outcome Through The Private Sector
SRS	Sample Registration System
ST	Scheduled Tribe
UHC	Urban Health Centre
UN	United Nations
UNICEF	United Nations International Children's Emergency Fund
USAID	United State Agency For International Development
VMA	Voucher Management Agency
WHO	World Health Organization

Abstract

Maternal mortality is still high in the developing country and it is not possible to achieve Millennium Development Goal (MDG) 5 targets by 2015. India has highest maternal deaths and it account 22% of all maternal deaths in the world. Reducing maternal mortality rate (MMR) is a major goal of government of India. Delay occurs in reaching to health care facility and receiving adequate care at the health care facility are two major causes for high MMR. Various national policies recommended that MMR can be reduced through increase access to institutional deliveries facilities in India.

I have selected Jharkhand state for my study, which is a low-performing state in India and most social and health indicators are below national average. In the year 2009, MMR was 212 deaths in India, and in Jharkhand state it was 371 deaths per 100,000 live births, which was the highest in the country.

Indian Government needs adequate resources to provide quality health services especially for the maternal health services (MHS). In the recent years, private health sector has grown considerably in providing health services in India. Involvement of the private sector is considered for improving the efficiency of the public sector with its limited resources available.

Aim of the study

To assess the appropriateness of PPP for improving maternal health to reduce maternal mortality and morbidity by improving institutional delivery services in the public health system in the Jharkhand state of India.

Objective

- To assess the present maternal health status in respect of institutional delivery services in Jharkhand.
- To analysis the problem of public health services in providing institutional delivery services to pregnant women in Jharkhand.
- To review the existing PPP health care services in developing countries and to analyse it in the context of Jharkhand to improve institutional delivery services.
- To identify and recommend a PPP model for reducing maternal mortality in Jharkhand.

This dissertation has been based on the conceptual and optional appraisal framework to analyse the PPP programme. Public and private health system has been reviewed by the secondary data using by electronic and books from various source. Review form literature provided information about the status of health provider in Jharkhand. The situation of public maternal health services in Jharkhand is analysed through cause analysis using fishbone method. Three major gaps have been identified in the health system, gap in infrastructure, lack of human resources and inequality in health services.

After that, successful case studies of different types of PPPs providing MHS from the same context are analysed. Optional appraisal framework has been used to find feasible case PPPs model for improve the MHS in Jharkhand. The Chiranjeevi scheme is appropriate to improve the MHS for increase institutional delivery in Jharkhand. This scheme will accomplish the objective of equity, efficiency, quality and accessibility in MHS. Also, Andhra Pradesh model of contracting out of health services will also replicable in Jharkhand context. At the end of the study, there are recommendations for the policy and decision maker as well as for service providers for success implementation and impact from the PPPs model.

Key words: Maternal Mortality, Maternal health services, Public Private Partnerships

Chapter one

Introduction

1.1 Introduction to the study

Almost 600,000 women die each year worldwide from pregnancy-related complicacy, 99% of whom belong to the developing countries. About 1 in 48 women in developing countries die from pregnancy-related causes compared to 1 in 1,800 in developed country (Radkar and Parasuraman, 2007). In India around 27 million women give birth every year and account for more than 20 per cent of the global burden of maternal mortality, which is the largest for any country (Krupp and Madhivanan, 2009).

I have selected Jharkhand state for my dissertation topic, which is a low-performing state in India. Jharkhand ranks below the national average on most social and health indicators. A large proportion of the population lives in rural areas, which do not access to a basic infrastructure like roads, safe drinking water and electricity (RGI, 2001).

The overall aim of the study is to analyse the existing maternal health care in the public health system and recommend a feasible PPP model to improve institutional delivery services in Jharkhand.

This chapter concerns the background of maternal health status, policy context, public health system, aim, objective and stakeholders involved in maternal health care.

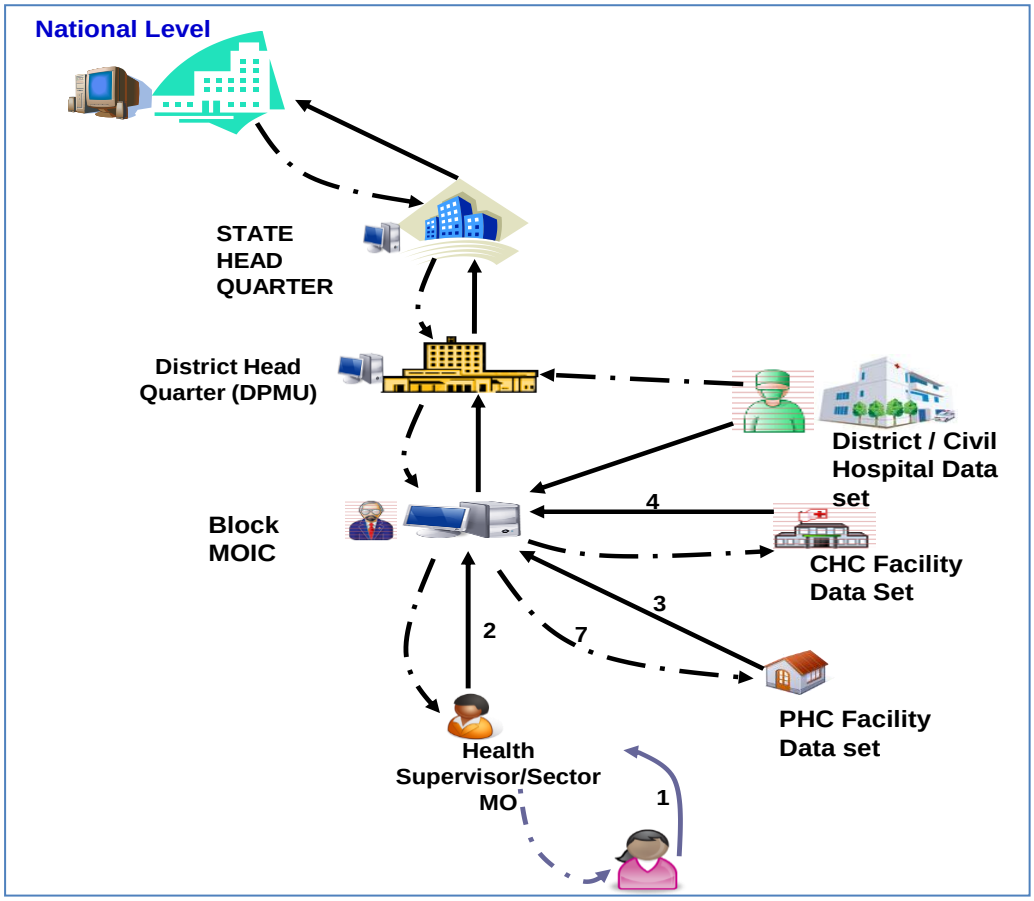
1.2 Background

Maternal health is one the biggest public health challenges in India and, according to the World Health Organisation (WHO), 136,000 maternal deaths take place annually in India. In 1990 the global burden of disease in India contributed 25% to Disability Adjusted Life Years (DALYS) lost due to maternal health conditions (Vora, *et al.*, 2009). In 2009, the maternal mortality ratio (MMR) was 212 deaths in India, and in Jharkhand state it was 371 deaths per 100,000 live births, which was the highest in the country (SRS, 2011).

Maternal mortality is one of the indicators of gender-based discrimination in Indian society. Indian women experience social and cultural determinants along with biological-related complicacy during pregnancy and at the time of delivery (Rani, *et al.*, 2007). Socio-economic and cultural causes are major determinants, which affect the reproductive behaviour of women. For example, evidence shows that in India MMR is lower among educated women in comparison to illiterate women (McCarthy, 1997). Furthermore, the health status of women, such as nutrition, anaemia, young age and multiple pregnancies are other factors that affect MMR. The decision-making power of women regarding conception, burden of housework and secondary status in the family are contributory factors (Rai, *et al.*, 2011). Apart from that, there are three delays in medical treatment contributing to deaths in pregnant women. The first delay occurs in deciding to seek care on the part of the individual, the family, or both the second delay is in actually reaching an adequate health care facility and the third delay arises in receiving adequate care at the health care facility (Thaddeus and Maine, 1994).

In 1987 the Safe Motherhood Initiative was launched with an emphasis on the developing world to reduce maternal mortality and morbidity (WHO, 1996). In India, the Child Survival and Safe Motherhood Programme (CSSM) was launched in 1992, for expansion of existing maternal health services. In 1994, the International Conference on Population and Development recommended taking appropriate action for maternal and child health (Measham and Heaver, 1996). Following the recommendation, in 1997 the Indian Government launched the Reproductive and Child Health (RCH) programme to integrate CSSM intervention. The idea behind the RCH programme was to provide need-based demand-driven and quality improvement (Pallikadavath, *et al.*, 2004). Afterwards, in 2005, RCH-II was introduced to improve maternal health with the key objective of increasing safe delivery services (Kalter, *et al.*, 2011). To achieve the objective, the Indian Government and the Ministry of Health and Family Welfare (MoHFW) initiated several programmes to ensure safe motherhood and to reduce MMR. In 2005, the National Rural Health Mission (NRHM) was introduced with a special focus on reducing maternal and neonatal mortality. Under NRHM, various strategies were used to increase institution delivery, financial incentives to pregnant women being one of them (MoHFW, 2006).

Figure: 1 Indian health services system



Source: (NRHM, 2011)

The above figure shows the Indian health services system; the arrows indicate the flow of services from higher to lower level and the dot arrows denote the feedback system (NRHM, 2011) (See Appendix 2). After independence, India followed a three-tier (Figure 1) health care system to reach the neediest people in remote places. Even after emphasis on equity health

services, there remains a problem in the quality of health services in India (Vora, *et al.*, 2009).

1.3 Rationale of the topic

According to a World Bank report, in 1993-94 health expenditure in India was around 1.1% of Gross Domestic Product (GDP) (IIHMR, 2000). India's Government needs adequate resources at all three levels, i.e. primary, secondary and tertiary to provide quality health services. Low budgetary provisions have created serious problems at all levels in the delivery of health services (Bhatt, 2000). Evidence shows that public health services are not capable of coping with the increasing demands of health needs. Therefore, focus has been concentrated on medical care and not on the comprehensive quality of health care. In this changing situation the Government has strategically invaded the private sector to become involved in health care services (Mehra, 2008).

Public Private Partnership (PPP) is one of the integral parts of the global health sector to solve these new challenges. Involvement of the private sector is considered for improving the efficiency of the public sector with its limited resources available (Barnes, 2011). The huge infrastructure of the Indian public health system is underutilised because of inadequate resources. In response, the private sector has grown and has gained considerable experience in addressing the needs of the community (Bhatt, 2000). Responding to this, in NRHM and RCH-II, policy-makers emphasise the importance of PPP in gaining private sector efficiency and ensuring coordination for the achievement of public health goals (WHO *(a)*, 2007).

This study will attempt to explore the feasibility of the PPP model for Jharkhand to improve maternal health services, which will reduce the MMR in the state.

1.4 Aim

To assess the appropriateness of PPP for improving maternal health to reduce maternal mortality and morbidity by improving institutional delivery services in the public health system in the Jharkhand state of India.

1.5 Objective

1. To assess the present maternal health status in respect of institutional delivery services in Jharkhand.
2. To analysis the problem of public health services in providing institutional delivery services to pregnant women in Jharkhand.
3. To review the existing PPP health care services in developing countries and to analyse it in the context of Jharkhand to improve institutional delivery services.
4. To identify and recommend a PPP model for reducing maternal mortality in Jharkhand.

1.6 Major stakeholders

a. Policy and decision-makers

- The Secretary of Ministry of Health and Family Welfare (MoHFW) of Jharkhand and Mission Director (MD) of NRHM, Jharkhand.
- The Director of Reproductive and Child Health (RCH) of Jharkhand.
- The State heads of international funding agencies United Nations International Children's Emergency Fund (UNICEF), CARE India, and the United State Agency for International Development (USAID).

b. Service providers

- Programme Directors of various Non-Government Organisations (NGOs) working on reproductive health issues in Jharkhand, including directors of various national and international funding agencies, who support the RCH programme in Jharkhand.
- The Public Health system Chief Health Medical Officers (CHMO) from all districts of Jharkhand.
- Chief executive of 'private for profit' health care providers from the all districts of Jharkhand.
- Head of all faith-based health care providers, especially missionary health care providers.

1.7 Author's experience

I was associated with an NGO Public Health Resource Network (PHRN) as a community health fellow for the period from January 2009 to September 2010. The PHRN is a national level NGO engaged in delivering capacity-building activities to the dedicated individuals and organisations for whom health equity is a major concern.

My responsibilities with PHRN as a community health fellow were to strengthen community processes in the decision-making process envisaged under NRHM, capacity-building of community health workers and facilitating the preparation of district and state annual health action plans. In my eleven year professional career in the development sector I experienced maternal health problems as being a big challenge in India. I worked in four different states of India and found there is a huge gap in the public health system to fulfil maternal health demands.

1.8 Conclusion

This chapter presents a summary of the maternal mortality status at global and national levels and the policy context to achieve the MDG-5. This chapter also introduced the prospect of PPP in improving maternal health, and the aim, objectives and stakeholders in this study. It also included the author's experience and interest in the topic.

Chapter Two

Methodology

2.1 Introduction

The last chapter was about the background for the dissertation including the aim and objectives of the study. This chapter will describe the study method and conceptual framework used for the study. This section will also describe and justify the conceptual framework for analysing the strategies. It discusses the strategy for literature search, source of data and keywords used, with inclusion and exclusion criteria used, for selection of appropriate literature.

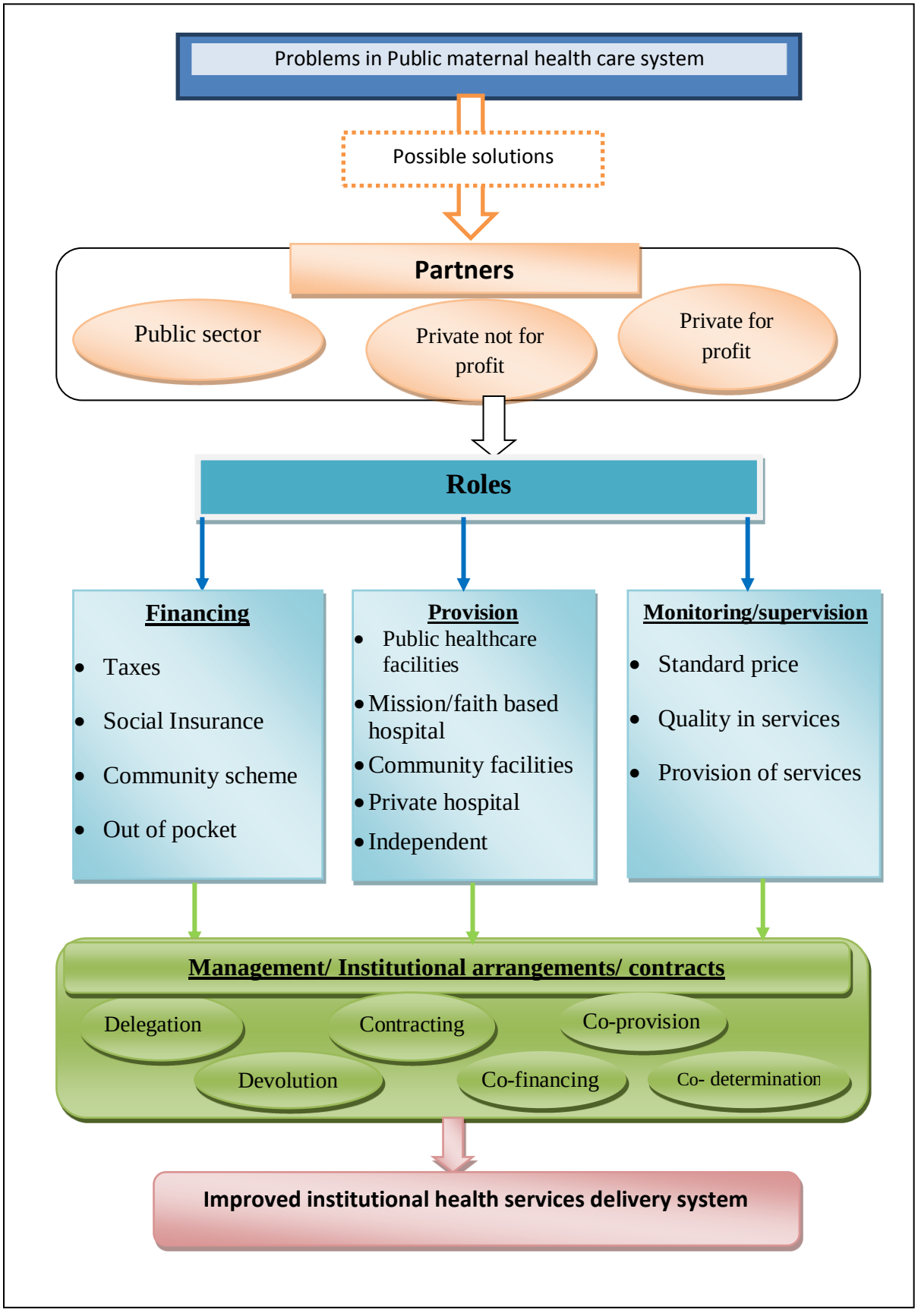
2.2 Type of Study

This study will be an in-depth analysis to try and discover a possible solution to the existing problem of high maternal mortality due to lack of an institutional delivery system in Jharkhand. I will explore possible PPP intervention to improve the maternal health services, especially institutional delivery services in Jharkhand.

2.3 Conceptual Framework

Figure 2 shows the conceptual framework of the study; this framework is adopted form Jutting (1999) and described the process accomplished by different partners in the health sector to achieve the common objective of accessing quality of health services in efficient ways, therefore, it is relevant to my aim of the study.

Figure: 2 - Conceptual Framework



Source: Adapted from Jutting, 1999 and modified by the Author

2.3.1 Description of Conceptual Framework

The conceptual framework is taken from the PPP model for developing countries by Jutting (1999). This model is similar to the Indian context; central government has introduced strategies to reduce maternal mortality by improving the public health system in the country. Private profit and non-profit organisations are also contributing their efforts through local and national-level programmes for maternal health to increase institutional delivery (Barnes, 2007).

The above framework will be used to improve the public institutional delivery system by PPP in the public health system. There can be three service providers in health sectors, firstly, the public sector includes central as well as state or provincial-level government; secondly, private-not-for-profit - there are several health service providers in the state, such as NGOs; thirdly, private-for-profit plays a major role in providing health care services, including private hospitals and individual doctors.

According to Jutting (1999), these partners can play three types of role. Firstly, under financing roles, the central and local governments provide finance to the public health sector. Private financing can be in the form of social insurance, community schemes, out-of-pocket and private insurance. Then, each partner plays a different role in provision, like health care, education etc. For different partners the significance of incentive is dependent upon their objectives. Furthermore, the important role of partners is supervision and monitoring of the service delivery (Jutting, 1999).

2.3.2 Justification of the Conceptual Framework

This conceptual framework is used for the analysis of different possible partners in the health sectors and their contribution to the health services in Jharkhand. In the situation analysis this framework provides guidance to analyse the different roles of partnership. At the end it discussed the different types of partnership in the health sector. Furthermore, different types of PPP models will be analysed for feasibility of implication in Jharkhand.

2.4 Selection of themes

Case studies from different types of PPP model have been selected for the thematic purposes. The study spanned contracting out to non-profit and profit-making organisations, a social franchising model and a voucher scheme, all of which were analysed. All these case studies were selected from similar contexts and are involved in maternal health issues.

2.4.1 Optional appraisal of intervention framework

This appraisal tool will be used to analyse different programme interventions. The feasibility assessment is selected to analyse intervention in different criteria and select effective strategies in the Jharkhand context.

Wally and Wright's (2010) criteria for optional appraisal will be used for the feasibility assessments, which are the following:

1. Technical effectiveness: assess the outcome of the intervention.

2. Organisational feasibility: assess the ease or difficulty faced during intervention implementation.

3. Socio-cultural and political feasibility: assess the acceptability or difficulty faced by the community or intervention team.

4. Financial feasibility: assess the cost of the intervention in terms of human resources, materials and money required to sustain the process.

2.5 Strategies for Literature search

2.5.1 Source and method of data collection

In order to conduct the study, secondary data will be used from various sources, such as published books, journal articles and various reports from government or agencies. Both printed and electronic media will be used to extract information for the dissertation. Apart from published material, the author's personal experiences with previous work will also be used in this study. The University of Leeds library was used to collect printed material, and search engines and databases were used for collecting electronic material.

2.5.2 Search engines and databases

The University of Leeds database was used to get online materials, like journals and articles, namely: Global Health, ScienceDirect, Popline and Pubmed. Apart from that, the websites of renowned organisations that are working in the health sector were used. The World Health Organisation (WHO), USAID, MoH&FW, NRHM and the National Health System Resource Centre (NHSRC) were major organisations' websites, which were used to collect the relevant information. Reference lists from the journals were also used to collected materials for this study.

2.5.3 Key words used in search

Key words were used to access the relevant documents and information for this dissertation. Firstly, I broke down my dissertation topic into key words and phrases: "Public private partnership", "India", "Jharkhand", "Developing countries", "Health care", "Private health sector" and "Public health sector". Then I used synonyms for the key words: for "public" I used "government" "state" and "community"; for "private" I selected "profit", "enterprises" and "company"; for "partnership" I opted for "collaboration" and "sharing"; and for "developing countries" I used "poor" and "low income countries". To search for the articles, I used a search engine from the University of Leeds library website, namely: http://library.leeds.ac.uk/medicine.

Table 1: Example of resource materials/search strategies

Data Source	Combination	Hits	Key word
PubMed	[#1 AND #2]	41704	# 1 Public* OR Government*
	[#1 AND #2] AND #3	141304	
	[#1 AND #2]AND #3] AND # 4	54963	# 2 Private* OR profit* OR Nongovernmental organisation*
	[#1 AND #2]AND #3AND # 4] AND # 5	2032	
Medline	[#1 AND #2]	7063	#3 Partnership* OR Collaboration* OR Cooperation* OR Mix
	[#1 AND #2] AND #3	937	
	[#1 AND #2]AND #3] AND # 4	725	# 4 Health* OR Maternal health* OR Maternal mortality*
	[#1 AND #2]AND #3AND # 4] AND # 5	82	
Popline	[#1 AND #2]	757	#5 India* OR Jharkhand* OR Developing countries*
	[#1 AND #2] AND #3	70	
	[#1 AND #2]AND #3] AND # 4	47	
	[#1 AND #2]AND #3AND # 4] AND # 5	12	

Source: Author

Table 1 is the examples of literature search strategies from the PubMed, Medline and Popline database, the same strategies were used for ScienceDirect and Pubmed.

2.5.4 Inclusion and exclusion criteria:

Searches from the above strategies gave me a lot of journals and articles related to the key words used. In order to get the most relevant resources, inclusion and exclusion strategies were used. The following selection criteria were used to limit the number of articles, which are more appropriate to the dissertation topic.

- Publication year: I have restricted selected publications to 1990 onwards except one journal.
- Context specific: articles which were written on the developing and middle-low income countries were included; articles related to developed or high income countries were excluded.
- Language: Only articles published in English were included for the study.

2.6 Study Limitations

Conducting a study with secondary data is difficult because the information may not be relevant to the subject or context. To overcome this limitation I have selected articles related to the same context. There are few articles available related to public/private partnership in

the health sector from developing countries. Also, PPP is relatively new for developing countries therefore there are limited publications.

There are variations for the same information from different sources of articles. For example, the MMR is quoted differently by different sources. Governmental sources quoted very high MMR in India whereas other agencies, like the United Nations (UN) and other funding agencies quoted lower MMR. There is much contradictory information available in different sources of publication and it is difficult to select the authentic information.

Also, the word limit of 10,000 was not enough to describe the situation and intervention analysis of the study.

2.7 Conclusion

This chapter describes the methodology of study using the conceptual framework and its description and justification for selection of the framework. Strategies used for literature searches, key words used in inclusion and exclusion criteria, as well as the limitations of the study, are also described. The next chapter will give details regarding the situation analysis and factors for high MMR in Jharkhand in relation to the conceptual framework.

Chapter Three

Situational Analysis

3.1 Introduction

This chapter gives brief information about Jharkhand and the maternal health situation and health system in the state. It discusses the situation of the public and private health sectors. Also constraints of maternal health services are described in the cause analysis method and the author analyses the problem by using the conceptual framework. All over this chapter will address the first and second objectives of the study.

3.2 About Jharkhand

Jharkhand state was formed in November 2000 after separation from Bihar state (See Appendix 1). According to the Census of India (2001), the population of the state is about 29.2 million with 78% of the population residing in rural areas. The state consists of 22 districts, 35 sub-divisions and 212 administrative blocks. Remarkably, 54% of the population live below the poverty line; also 28% of the population falls into the category of Scheduled Tribe (ST) or indigenous community (Rani, *et al.*, 2007). Furthermore, research has shown that an indigenous person or ST in India is 1.2 times more likely to experience excess mortality compared to a non-indigenous person with the same standard of living (Subramanian, *et al.*, 2006).

Table 2: Vital demographic, socio-economic and health profile of Jharkhand compared to the rest of India.

S.No	Indicators	Jharkhand	India
1.	Crude Birth Rate (%)	26.1	23.1
2.	Crude Death Rate (%)	7.3	7.4
3.	Total Fertility Rate	3.2	2.7
4.	Infant Mortality Rate	48	55
5.	Maternal Mortality Ratio	371	254
6.	Female Literacy Rate (%)	38.9	53.7

Source: (Census of India 2011)

The above table reflects some vital indicators of the state of Jharkhand with comparisons to the country as a whole. All the key development indicators of Jharkhand are poor by comparison with nation indicators. The goal for the Government of India was to reduce MMR to under 100 and the Infant Mortality rate to under 30 by the current year 2012 (NRMH, 2011).

3.3 Maternal Health situation in Jharkhand

A recent report from the Registrar General of India showed that the maternal mortality ratio declined from 400 maternal deaths to 371 per 10,000 live births from 2001 to 2003, but it still accounts for the largest contribution to women's deaths (SRS, 2011). India has the largest number of maternal deaths and accounts for 22% of all maternal deaths worldwide (WHO

(b), 2007). Also, about two-thirds of these maternal deaths occur in just nine states, Jharkhand being one of them (Barnett, *et al.*, 2008). According to SRS (2011), the MMR of Jharkhand is 371 which is higher than the national average.

Table 3: Vital maternal health indicators in India and Jharkhand

Indicators (In %)	NFHS 2 (1998-1999)		NFHS 3 (2005-2006)	
	India	Jharkhand	India	Jharkhand
Pregnant women with anaemia	50	64	58	68
Three antenatal check ups	44	25	51	36
Institutional deliveries	34	14	39	19
Deliveries conducted by health personnel	42	18	48	29
Mothers received postnatal care within 2 months of delivery	16	NA	42	17

Source: (NFHS-3, 2006)

The above table reflect the poor health services for the maternal health, more than 50% pregnant women in the country are anaemic and situation of Jharkhand is worse. Percentage of anaemic cases is in increasing trends. Status of three antenatal cares (ANCs) is also near to half in Jharkhand compared to the national average with slight improvement 25% to 36% in the year 2005-06. Institutional delivery, delivery conducted by health personnel and mother received postnatal care are the three indicators which are below than half of national indicators.

Table 4: Vital reproductive health services situation in Jharkhand

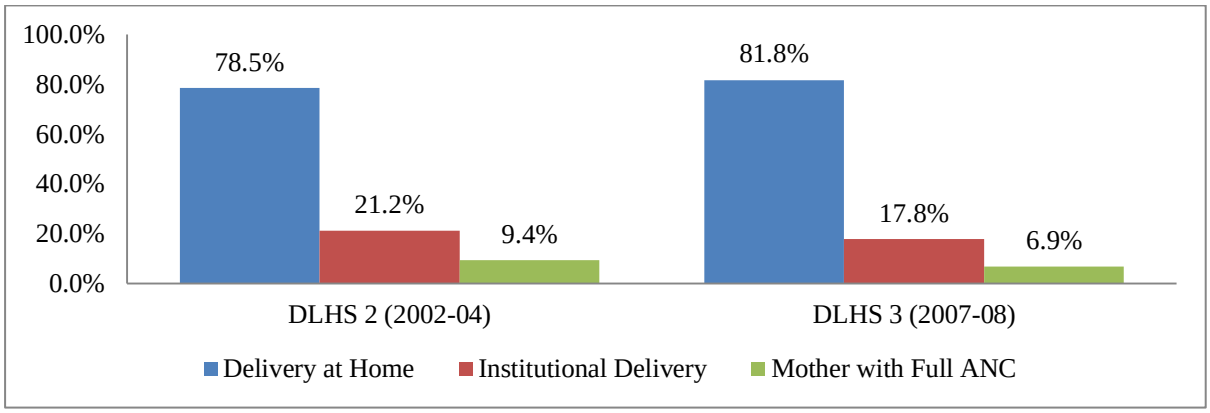
S.No.	Indicators	Jharkhand		India	
		DLHS -2 (2002-04)	DLHS-3 (2007-08)	DLHS -2 (2002-04)	DLHS -3 (2007-08)
1.	Mothers who received 3 or more antenatal care check-ups (%)	30.7	31.6	50.4	51.0
2.	Mothers who had full ANC (%)	9.3	9.1	16.5	19.1
3.	Institutional deliveries (%)	21.2	17.8	40.9	47.0
4.	Children 12-33 months of age fully immunised (%)	25.7	54.1	45.9	54.1
5.	Children aged 6-35 months exclusively breastfed for at least 6 months (%)	7.8	49.5	22.7	24.9
6.	Use of any modern contraceptive method (%)	31.1	30.8	45.2	47.3

Source: DLHS, 2010

Table 3 shows some of the important reproductive health-related data from District Level Household and Facility Survey (DLHS, 2010) data. All the indicators for Jharkhand are below the average national indicators.

3.3.1 Status of Institution delivery in Jharkhand

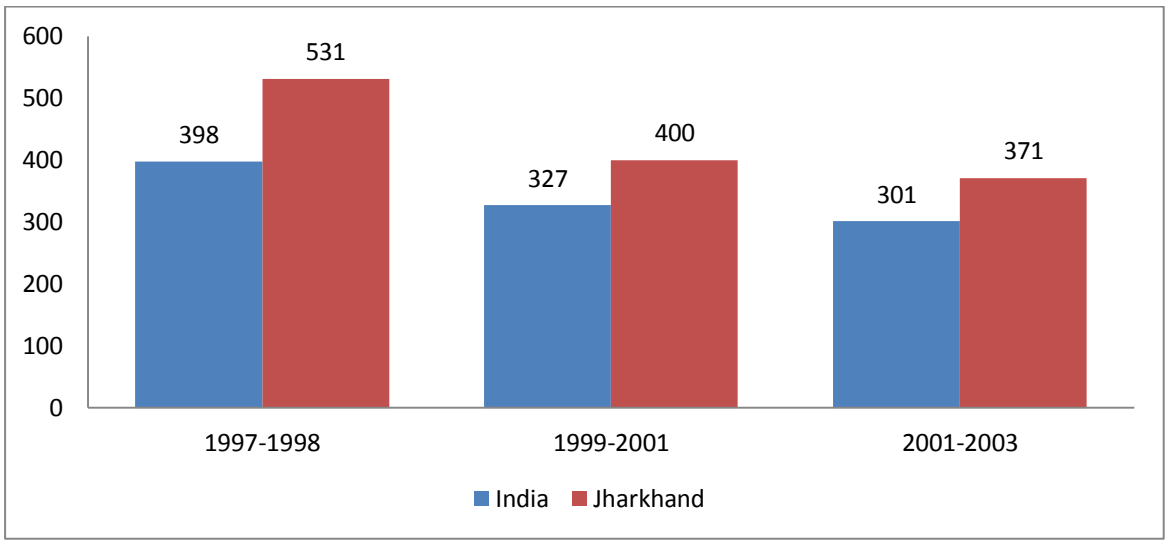
Figure: 3 Status of delivery at home, institutional delivery and Mother with full ANC in percentages.



Source: DLHS, 2010

The above figures show that the indicator related to institutional delivery in Jharkhand is in a decreasing trend on the other hand delivery at home is in increasing trend.

Figure: 4 MMR trends over the year in Jharkhand and India



Source: Sample Registration System 2011

The above Figure 4 shows that there was a declining trend in MMR during the years 1997 to 2003 in both India and Jharkhand but that the latter was still higher than the national average.

3.4 Maternal health system in Jharkhand and India

In Indian mixed economy, the state played a prominent role in the economy and welfare services by investing in health, education and other services (Baru, 1998). After independence, the India Government developed a three-tier health care delivery system: primary care at village and cluster level, secondary care at the district and sub-district level, and tertiary care at the state level (Vora, et al., 2009). The public health care system in India

is provided with budget allocations by both states and central government. The central government provides direct and matching grant support to states for health care services for various programmes under policy initiatives (Bhat and Jain, 2006).

In 1994, the Programme of Action of the International Conference on Population and Development (ICPD) recommended that meeting reproductive health needs is a critical requirement for human and social development. The conference declared that reproductive health care is a basic component of health care and should be provided by the state (WHO, 1994). Following the of ICPD recommendation, in 1997 the Government of India launched the Reproductive and Child Health (RCH) programme for implementation. The main objective of RCH programme was to provide need-based, client-centred, demand-driven and high quality services (Pallikadavath, et al., 2004).

3.4.1 Public Health System

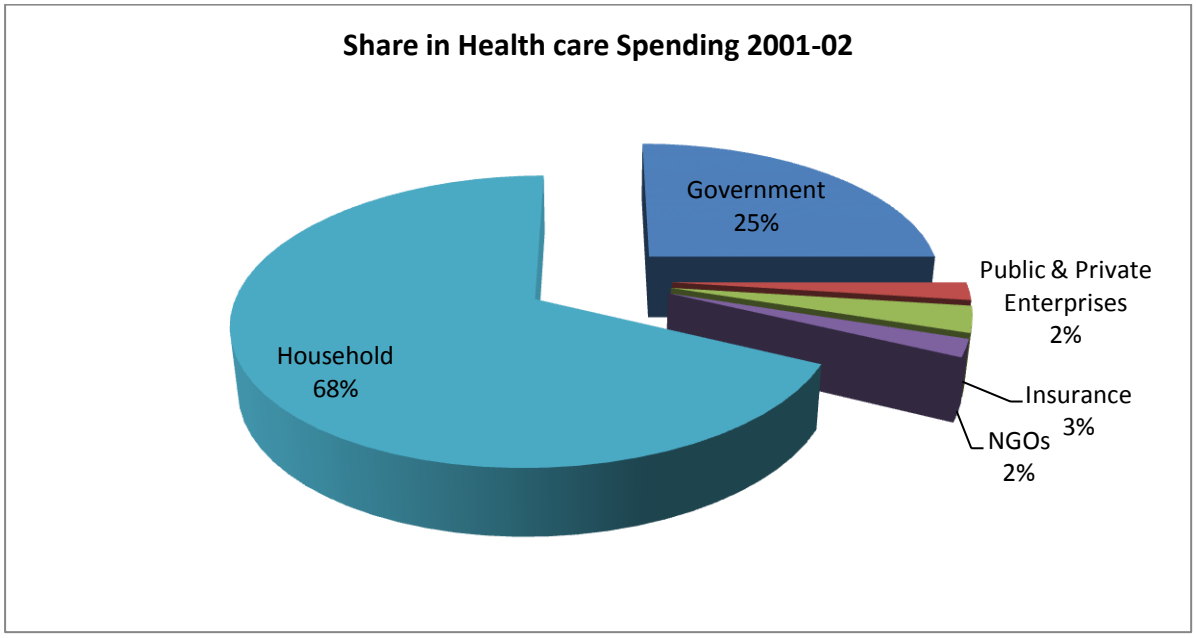
To improve the availability of, and accessibility to, quality health care, the India Government recently launched the National Rural Health Mission (NRHM) for the period 2005-12. The focus of NRHM is especially on rural poor, women and children and this programme was launched in 18 poor health performer states in India (MoHFW, 2010). Jharkhand is one of the 18 states where NRHM has been launched with the objective of providing health care to the rural population and to reduce child and maternal mortality in the state. Therefore, considering the MDGs and also the goal of the NRHM to reduce MMR, the government of Jharkhand set some RCH-related targets for the year 2011-12 (NRHM, 2005).

3.4.2 Private health sector

In 1982, the National Health Policy (NHP) of the Government of India (GOI) recognised that due to financial constraints the public health system was unable to serve the objective of providing effective and efficient health care. The NHP recommended encouraging the establishment of private doctors and private health clinics (Bhatt, 2000). After that, the pharmaceutical industry provided support and have monopolised control over the people's health. Today, the fact that the private sector is most easily accessible and acceptable for health services is recognised and utilised by the people (Duggal, 1988).

Over the many years the private health sector has grown considerably in provision and financing aspects and 78% out-of-pocket costs on health account for the total health expenditure. Private health expenditure in India is 4.25%, insurance coverage is minimal and most of the expenditure is out-of-pocket (Bhat, 1996). About 57% of hospitals and 32% hospitals beds are in private hospitals. The study suggests that 80% of qualified registered doctors are working in the private sector (Duggal, 1988).

Figure: 5 Health Finance Indicators in India



Source: Source: Central Bureau of Health Intelligence (CBHI), 2006

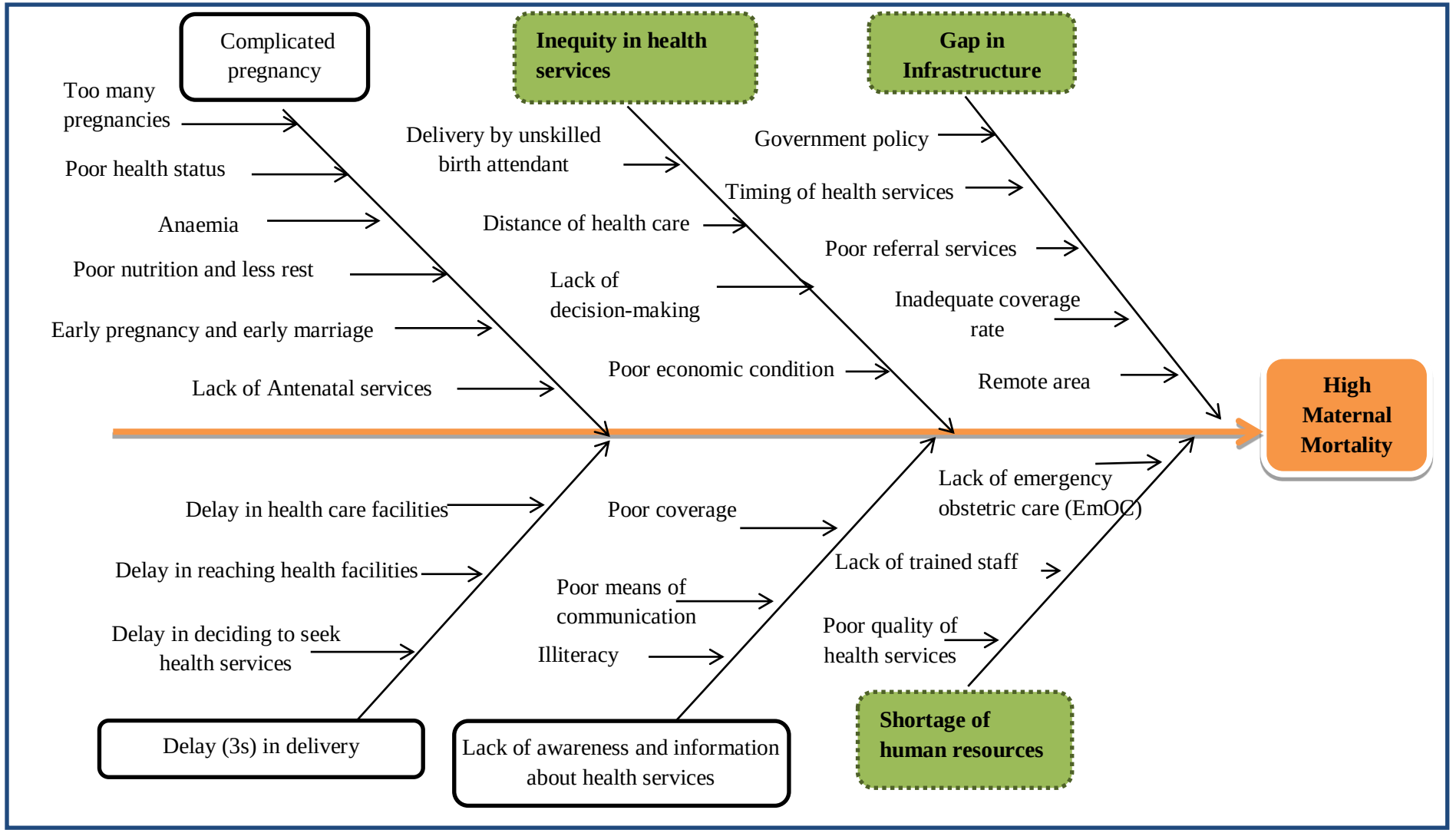
The figure 5 shows that in India spending on household is still high and it contribute 68% of total spending on health. On the other hand Insurance contribution is only 3% also public and private enterprises and NGOs contribution is negligible 2% for each.

3.5 Constraints in Maternal Health Care Services in Jharkhand

There are social, economic, cultural and political causes behind the poor maternal health care situation in the state. In the situation analysis all the causes are discussed which constrain the Maternal Health Care Services (MHCS) in Jharkhand. All the root causes contribute towards high maternal mortality in the state.

The author has used situation analysis to show the relation between root causes of high MMR in the state. In Figure 5 fishbone methods are used for situation analysis and only three highlighted root causes have been selected for further analysis in this dissertation.

Figure 6: Cause analysis of high MMR in Jharkhand



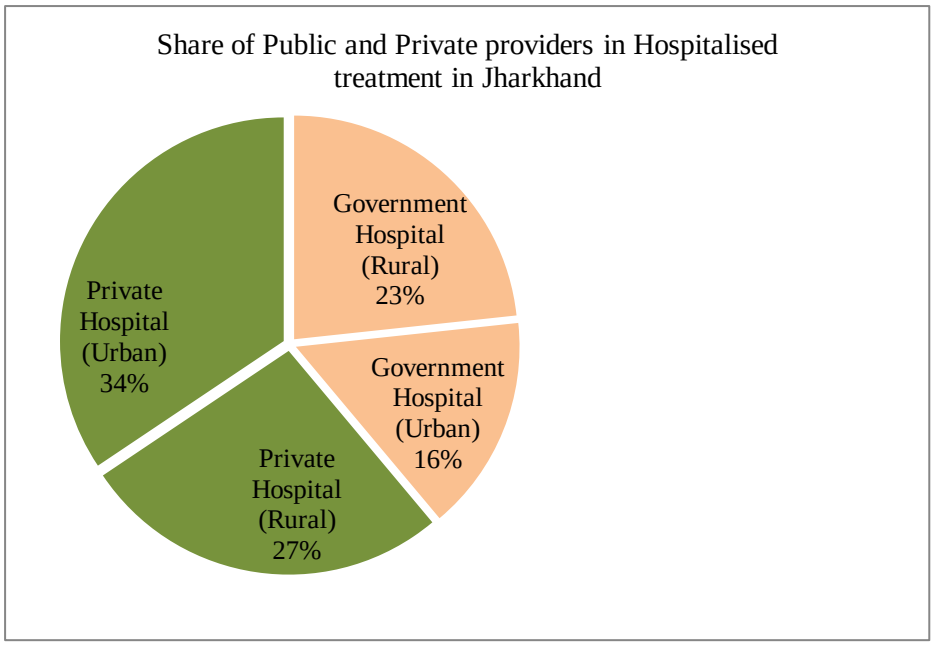
Source: Author

3.5.1 Gap in infrastructure

After introduction of NRHM, the Indian Public Health System (IPHS) put emphasis on creating infrastructure. Despite this, over 50% of health sub-centres and 30% of PHCs do not have their own buildings (See Appendix 4). More than half of Community Health Centres (CHCs) and First Referral Units (FRUs) do not have residential quarters for staff (Vora, *et al.*, 2009).

In Jharkhand, there is a lack of access to quality health services and most deliveries are taking place at home by unskilled birth attendants. In the rural areas of Jharkhand there is no effective referral system or any effective management for complications in pregnancy (NRHM, 2008). In the state, the gaps in infrastructure facilities have increased in response to demands on health services during past years. Institutional delivery services are not functioning well in the rural areas, and 49.34% sub-centres lack their own buildings (NRHM, 2008). Lack of equipment in the health centres also contributes towards poor institutional delivery services.

Figure 7 Utilisation of public hospitals and private hospitals for treatment in Jharkhand (2002)



Source: National Sample Survey (NSS),2006

The above Figure 7 shows the share of public and private hospitals for treatment in both rural and urban Jharkhand.

3.5.2 Lack of human resources

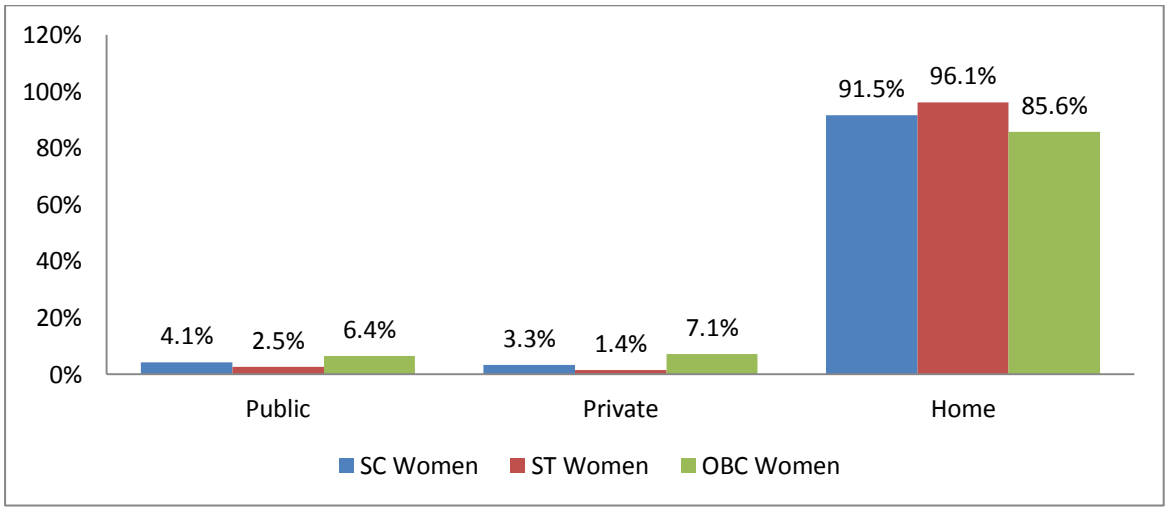
According to WHO (1994), the utilisation of skilled birth attendants (SBA) is a critical strategy for reducing MMR in developing countries. However, in India as a whole only 46.6% of births are attended by an SBA and 33.5% in rural areas. (Krupp and Madhivanan ,2009).

In Jharkhand, only 50.66% sub-centres have a building and the Auxiliary Nurse Midwives (ANM) are available only twice a week during working hours (NRHM 2008) (See Appendix 3). Also, due to geographical constraints it is not possible for the ANM to fulfil the requirements of this care at community level. An ASHA (community health worker) is deputed in every 1000+ population village, but ASHAs are not properly trained to provide post-partum care to mothers (NRHM, 2008). In some health sub-centres the ANM is available with all the required resources, knowledge and skills, but their poor motivation results in reluctance to accept services.

3.5.3 Inequality in health services:

In rural India, public health services are greatly discredited because of poor services as well as their prime focus being family planning services. In urban areas, public health clinics are inadequate, inefficient and follow bureaucratic rules (Duggal, 1988). There are also cultural gaps and discrimination in terms of caste by the service provider that affect the health care. Many times the full health staff is available in the centre but poor motivation of health staff affects the services (Baru 1998). In Jharkhand, a lot of training and capacity-building workshops were organised to enhance the skills and knowledge of the staff. However, there are cultural gaps present in the health staff; also passive discrimination of caste affects the services (NRHM, 2008).

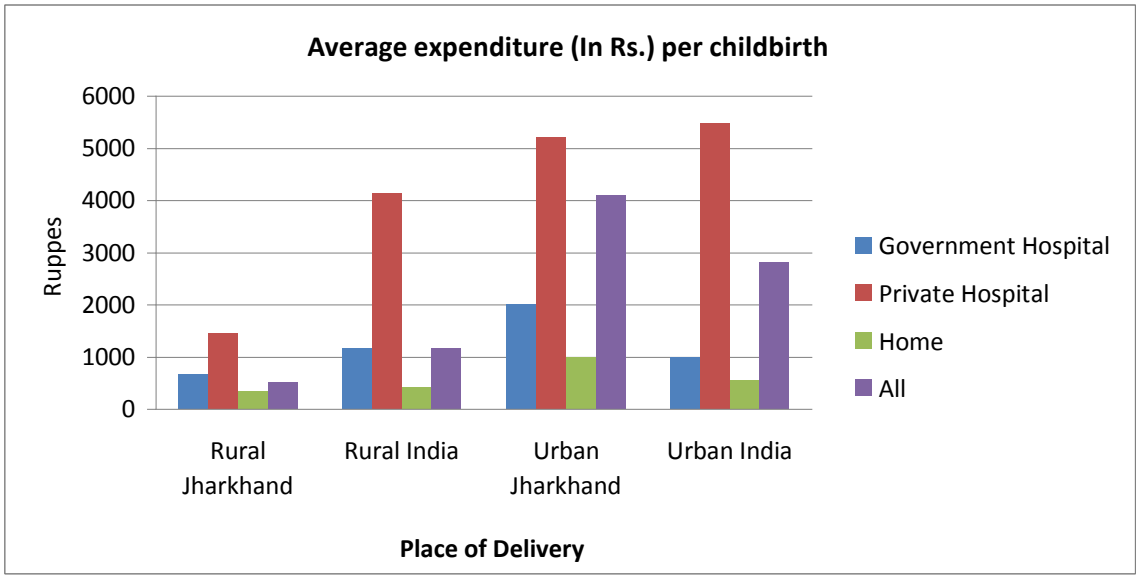
Figure 8: Distribution of institution delivery in public and private health facilities by ST, SC and Other Backward Caste (OBC) women in Jharkhand/Bihar (1992-93**).**



Source: Baru, 2006

Figure 8 above shows distribution of institution delivery in public and private health facilities during the period 1992-93. In Jharkhand and Bihar all ST, SC and OBC women and family members prefer home delivery of their babies, which accounts for more than 90% in the entire community group.

Figure 9: Average expenditure (In INR) per childbirth by place of delivery in Jharkhand and India (2002).



Source: National Sample Survey (NSS), 2006

The above figure shows the average expenditure in INR per childbirth in different places in urban and rural areas. The average expenditure per childbirth is higher in private hospitals in comparison to Government hospitals in both Jharkhand and India.

3.6 Public Private Partnership

The Indian public health system has grown in recent years and is now facing difficulties due to managerial and financial complexities. Reduction in health budgetary support and fiscal limitations create a gap in health demand against service delivery (WHO *(b)*, 2007). On the other hand, in the past few years the Indian private sector has gained experience in addressing the health needs of people effectively. 57% of outpatient primary care is provided by the private health care system in both rural and urban India (Bhatt, 2000). In response, the Indian Government introduced a health system policy and programmes, like NRHM and RCH, to emphasise the importance of a public-private partnership to ensure co-ordinated achievement of public health goals (Mehra, 2008).

In Jharkhand, the social franchising PPP model has been adopted to improve the RCH programme. This PPP franchises the model in shops and clinics by providing a brand name *Janani*. This model targets the low- and middle-income group who can afford partial payment for the health services (Baru and Nundy, 2008). Therefore, this PPP is not serving the purpose of health needs of the poorer people in Jharkhand.

3.7 Conclusion

This chapter has discussed a brief situation analysis of the MMR scenarios in India and Jharkhand. The role of public and private health sectors for maternal health has been analysed in detail. Also, the high MMR in the state due to a gap in infrastructure, lack of human resources and inequitable distribution of maternal health services has been discussed. Furthermore, high MMR in Jharkhand has been analysed using the fishbone cause analysis method.

Chapter Four

Analysis of Interventions

4.1 Introduction

This chapter addresses the fourth objective of the study and discusses the different components of PPP, types of partnership and various successful PPP case studies in maternal health care. It also analytically discusses the appropriate PPP model for improved maternal health services in Jharkhand. The analysis is based on PPP model practices of other developing countries and is contextualised in Jharkhand.

4.2 Public and private sectors

The "public" sector denotes national, provincial or state and district government, municipal administrations, local government institutions and all other governmental and inter-governmental agencies, such as WHO and UNICEF with the mandate of delivering 'public goods' (Nishtar, 2004).

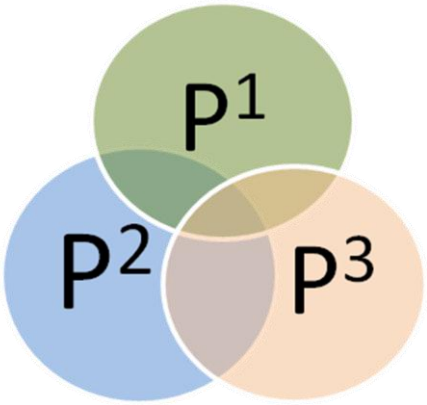
The word "private" refers to two types of institution: 1) for-profit private, encompassing commercial enterprises and 2) not-for–profit, referring to NGOs (Nishtar, 2004). Also, according to the definition of Mills, *et al.*, (2002), the private sector includes all commercial companies and groups of people, such as doctors, individual providers and shopkeepers.

4.3 Type of partnership

PPP in public health is simply defined as a partnership involving private for-profit organisations and public or non-profit organisations that have agreed to share a common objective to create social values and share the benefits and risks from the partnership (Reich, 2002).

"PPP in the health sector is any formal collaboration between the public sector at any level (national and local government, international donor agencies, and bilateral government donors) and the non-public sector (commercial, non-profit, and traditional healers, midwives and herbalists) in order to jointly regulate, finance or implement the delivery of health services, products, equipment, research, communications and education" (Barnes 2011, p.2). The above definition is appropriate to PPPs for strengthening any component of the health system and avoids judging the private partner's commitment to the social benefit.

Figure: 10 Three types of Public-Private Engagement



P1: Public-Private Interaction
Emphasis on *communication* of information to assist each entity.

P2: Public–Private Dialogue
Emphasis on *cooperation* around an issue of mutual interest.

P3: Public-Private Partnership
Emphasis on *collaboration* formalized in a contract that is jointly designed and implemented.

Adapted from SHOPS project, Abt Associated (2011)

The Strengthening Health Outcome through the Private Sector (SHOPS) project has shown three types of public private engagement (Barnes, 2011). Firstly, public-private interaction is an exchange of information between the public and private sectors, with the public sector responsible for informing and educating with regard to government health policies and regulations to the private sector. Secondly, public-private dialogue is cooperating and negotiating between public and private sectors on the government policies and regulations. Finally, public-private partnership is a formal agreement between the public and private sectors with defined roles and responsibility for effective implementation of activities to address a better outcome (Barnes, 2011).

In India, most partnerships at primary level, are contracting in or out of service, are restricted to health education, and demand a generation-type of limited curative. At secondary level PPPs are restricted to contracting out of non-clinical services, like laundry, diet etc. In most primary and secondary levels PPPs' two or three partnerships involve services (Baru and Nundy, 2008). Some of the partnerships at primary and secondary levels are very complex with involvement of many actors and overlapping of roles, like many TB control programmes in various part of India (Dewan, *et al.*, 2006).

Table 5: Common PPP forms involved in Maternal Health Care in India

Type	Description
Contracting Out (outsourcing)	In this partnership the Government pays a contractor to provide specific services and the contractor generally uses its own resources to provide these services.
Contracting In	The Government pays a contractor to organise governmental health sector services including management of human resources and equipment.
Franchising	A network of private health providers provides a set of standardised health services through their own health facilities. They provide clinical services with or without a franchise brand and receive

	payment from the client.
Voucher schemes	This PPP is a "demand-side-financing" scheme where low income groups were provided purchasing power to choose from among a panel of health service providers.

Source: Adapted from (Rosen, 2000; Ravindran, 2011)

4.4 Case study of PPPs in health sector

4.4.1 Andhra Pradesh: Urban slum health care project – contracting out of health centres to non-profit private sector.

In India, poor people in urban areas have limited availability of primary health care services including the RCH health facilities. A public health infrastructure is non-existent and only private health care providers are available in the area. The slums dwellers experience financial barriers to access sexual and RCH health services (WHO *(a)*, 2007).

In response to this, in 2000, the Government of Andhra Pradesh initiated a scheme to provide basic primary healthcare and RCH services by building an urban health centre (UHC) infrastructure through contracting out services. The aim of the scheme was to ensure high quality care and referral services for the urban poor through improved health centres. The Department of Health and Family Welfare provided support for building, equipment and medicines for the centres and contracted out the management to the NGO (WHO *(a)*, 2007).

In the years 2003 to 2005, the scheme covered 3.05 million slum dwellers in the state. During that period, the institutional delivery increased from 88% to 94% among the target population and high performance UHCs increased from 24% to 42% (WHO *(a)*, 2007). This scheme was initiated with World Bank support in 192 UHCs, but the Government has effectively managed the transition of the fund to a government programme. Apart from that, the community is actively involved in the scheme and they are responsible for selecting NGOs for the overall management of the UHCs (Annigeri, *et al.*, 2004).

Weaknesses: The study shows that UHC staff work with low motivation because of low salaries in comparison to the similar position of Government staff (Annigeri, *et al.*, 2004). Most of the UHCs are lacking basic laboratory equipment and medicines, which directly adds to the burden on patients. After transition of funds from the World Bank to the Government programme there has been a financial burden and due to political interference the Government is unable to get any contribution from user fees. Financial deficiency will threaten the sustainability of the scheme (Annigeri, *et al.*, 2004). Also, UHC is facing problems to respond to the new epidemiological change and demands of the health needs of the population (WHO *(a)* , 2007).

4.4.2 Chiranjeevi Maternal Healthcare Scheme, Gujarat, India: Contracting out to the for-profit private sector.

The government of Gujarat introduced the Chiranjeevi Scheme in April 2005 as the maternal mortality rate for the state was estimated at 172 deaths per 100,000 live births (Bhat, *et al.*, 2009). The aim of the scheme was to encourage the Below Poverty Line (BPL) family to access institutional delivery at the private hospital. Under the scheme, BPL families were

provided with financial protection, covering their out-of-pocket costs for delivery at institution (Bhat, *et al.,* 2009).

Private providers were identified by the district health team and a study was carried out for infrastructure assessment. The finalised rate was reimbursed by the State Government to the private providers on a capitation payment basis at a fixed rate for each delivery. A package of 179,500 Rupees per 100 deliveries was finalised for both normal births and those with complications by institutional delivery. The selected private practitioners who agreed to join the scheme signed a Memorandum of Understanding with the District Health authorities (WHO *(a)* , 2007).

During the first year of the scheme's implementation it covered 32,641 deliveries in the remote villages of five programme districts. In these five districts, 61% of private providers have been networked and an average of 238 deliveries has been performed by each provider. During this period institutional delivery increased from 38% to 59% in the five districts with no maternal deaths and 13 infant deaths (Bhat, *et al.,* 2009). Therefore, this scheme has improved the institutional delivery facilities among the poor families living below the BPL in the remote areas of the districts (WHO *(a)* , 2007).

Weaknesses: Evidence shows that 20% women from BPL households were not covered by the scheme and had to pay out-of-pocket expenses. Also, only 30% of women received post-partum care under this scheme (Bhat, *et al.,* 2009). Moreover, most of the private health providers were situated in the urban areas and rural women could not afford to pay for the transportation. Most private providers took only safe delivery cases and referred complicated cases to the public hospitals (Acharya and McNamee, 2009). According to the Comptroller and Auditor General (CAG) 2011, after five years the scheme failed to reduce MMR as set out in its objective. In more than 40% of blocks no private doctors had opted for the scheme and all of these are tribal-dominated blocks (Ravindran, 2011).

4.4.3 Janani - Reproductive and Child Health (RCH) services in Bihar - social franchising model

One third of the deaths in Bihar are caused due to poor RCH services and communicable diseases. Poor RCH coverage is the main reason for death and Janani is working with state and district government to address the problem. Janani is a social franchise PPP set up by a US-based NGO, started in 1995 and now operating in three other states, including Jharkhand (Manthan, 2009).

Janani consists of a two-tiered system with Surya clinics in town supported at village level by rural medical practitioners (RMPS). These RMPS and their wives were trained in primary RCH care based on WHO protocol. This network of RMPS at village level provides basic primary care diagnoses and treatment according to protocol and distributes contraceptive materials. RMPS referred patients to Surya clinics for RCH services, such as abortion, institutional delivery and sterilisation services. A Surya clinic has at least one qualified doctor, an ANM and a midwife (Ravindran, 2011). Janani provides franchises to clinics, shops and centres by giving them a brand name and is incorporated in marketing and contracting out (Baru and Nundy, 2008).

The programme was initiated with the idea of promoting family planning health services but it has evolved into an RCH and other general health services programme. After expanding the range of services, the programme is more successful for both providers and clients. The

programme plans to cover all the villages of Bihar, Jharkhand and initiate programme in two new states (Annigeri, *et al.,* 2004).

Weaknesses: Janani targets the low- and middle-income groups who can afford partial payment for treatment; the poorest population is not a target group. Also, the programme is very expensive: the estimated budget for a new initiative in Uttar Pradesh would be US$ 19 million (Annigeri, et al. 2004). The study shows that the proportion of SC and ST clients in Janani was 12.6% compared to 17.7% in other private clinics and 25.2% in public health centres (Ravindran, 2011). Besides that, Janani is facing problems in getting adequate numbers of franchises. The number of clients only accessing the programme for family planning and abortion services is not large enough for making a profit from the franchise clinics. Therefore, the franchise is looking for new services to make franchise membership profitable for private clinics (Ravindran, 2011).

4.4.4 Bangladesh and India – maternal health - voucher schemes

In 2004, the MOHFW and the Government of Bangladesh, with support from WHO, developed a maternal health voucher scheme with the aim of reducing MMR. The scheme aims for increased utilisation of quality maternal healthcare services for the group of poor women. In this scheme the MOHFW acts as the voucher management agency (VMA) that distributes vouchers to clients to access specific services (Rob, *et al.*,2011).

In voucher schemes, the government of development partners provides demand side financing (DSF) to transfer purchasing power to the poor to select services from the accredited providers and according to their agreement; providers are reimbursed (Rob, *et al.*,2011). In Bangladesh, nine sub-districts are receiving universal coverage via the programme and in 12 sub-districts only selected women were included. The selected beneficiaries are getting a package of essential maternal health care services including treatment of complicated pregnancies (Rob, *et al.*,2011).

Similarly, in India, three states are implementing the voucher scheme for maternal health with the partnership of the for-profit private sector. In Uttarakhand and Uttar Pradesh states USAID and the World Bank are implementing the voucher scheme (Ravindran, 2011). The front line women workers, the Accredited Social Health Activists (ASHA) of the government, are providing support to the scheme in rural areas. ASHAs disseminate information on schemes, distribute vouchers and accompany women to hospital (USAID, 2005).

Weaknesses: Evidence shows, by the German Technical Cooperation on the Bangladesh voucher scheme, that there is a little improvement in the quality of the service but a lot of misreporting of safe delivery for financial advantage. Also, there are delays in reimbursement and also unofficial charges for the services providers (Rob, *et al.,* 2011). In India, the accredited providers are few and most of them are located in cities so there is a problem regarding access for rural women. Furthermore, due to the aforementioned delays and inadequate reimbursement for services they referred complicated cases to the public health facilities. The ASHA only receives an incentive for delivery services therefore she gives less importance to other health services (Ravindran, 2011).

4.5 Applicability to the Jharkhand

The application of the PPP model in Jharkhand to improve the institution delivery system will be done using the criteria mentioned in Section 2.4.2.

4.5.1 Technical effectiveness

The above studies were selected from a similar context to that of Jharkhand; these are different types of PPP model introduced to improve maternal health issues.

In the Andhra Pradesh study, all the UHCs had significantly improved health indicators related to maternal health. The advisory committee assessed 17 service indicators and all are positively improved. UHCs reached all of the target population with effective community participation in the programme (Annigeri, *et al.*, 2004).

In the first year of the Chiranjeevi scheme, institutional delivery increased from 38% to 59% in the project area with no maternal deaths. This scheme directly contributed to an improvement of access to institutional delivery among the beneficiaries; 43% were from BPL families (WHO *(a)* , 2007).

The Janani scheme has no evaluation of the effects of the programme but after effective implementation in Bihar, this programme will extend to three new states in India. Apart from that, Chhattisgarh state government replicated this model under the project management of the State Health Society (Annigeri, *et al.*, 2004).

The voucher scheme had a number of common benefits in Bangladesh and India. This scheme provided a solution to the problem of the high cost of institutional delivery by DSF. The voucher scheme has been successfully used in various parts of world (USAID, 2005).

4.5.2 Organisational feasibility

The above studies show that, in all the schemes, the Government developed separate health sectors to look after the programme.

In the Andhra Pradesh study, most of the UHCs performed well because the contracted NGOs were non-profit with strong community participation. This scheme is well designed with the coordination of NGOs and more emphasis is placed on performance and achievement of outcome. The Government provided a lot of capacity-building programmes for NGOs to achieve the targets (Annigeri, *et al.*, 2004).

The Chiranjeevi scheme was initiated by the state government therefore a sense of ownership and ensuring the success of programme was strong. The programme was designed with support from other government departments also, so it is more creative and analytic. Supervision and monitoring was an integral part of the scheme through a performance-oriented reporting system (WHO *(a)* , 2007).

The Janani scheme has no formal agreement, coordinated planning or services with the state government. The entire programme is planned, implemented and monitored by the private agency. Training programmes to the franchises and supervision are tools to maintain the quality of the programme (Annigeri, *et al.*, 2004).

Voucher schemes are suitable for the context where a variety of options is available for the demand side. In India, most of the private providers are located in urban areas where public services are also available. There is competition with public free services, especially when BPL users receive government cash incentives (Janani Suraksha Yojana) under NRHM (Annigeri, *et al.,* 2004).

4.5.3 Socio-cultural and political feasibility

Socio-cultural and political factors very much influence the development programme. In Andhra Pradesh, with the scheme's service delivery and behavioural change, community participation was an important aspect. As a result of this, community involvement was strong in this programme. On the other hand, due to opposition political pressure, patient user fee has been prohibited in UHC treatment (Annigeri, *et al.,* 2004). There is no existing plan for this programme to be sustained without support from any outside source.

In the Chiranjeevi study, apart from financial incentives to the beneficiary, the accompanying person also gets an incentive. This scheme covers the other direct and indirect costs for the women (WHO *(a)* , 2007). In the Indian context other incentives are more significant because socio-cultural barriers restrict women to the home. Therefore, out-of-pocket expense allows improved coverage of the scheme. However, there is dispute about the identification and authenticity of BPL beneficiaries. There are many complaints about the use of invalid documents by the beneficiaries (Venkatraman and Warner, 2009).

Janani targets the low- and middle-income groups that can afford partial payment for quality of health services, and poor and SC or ST caste groups are excluded from the schemes (Annigeri, *et al.,* 2004). Also, most of the franchised clinics are located in the urban areas (Ravindran, 2011).

The voucher scheme in India is supported by the government front line worker, the ASHA, in the rural areas as well as the NGO community health volunteers in urban areas. These two key people provide support to the poor women to access the services (Ravindran, 2011). However, most of the franchised clinics are located in the urban areas, which are difficult for the rural women to access.

4.5.4 Financial feasibility

The experience of Andhra Pradesh shows that there is no incentive for the NGOs to participate in the scheme as salaries of staff are low. The early programme was funded by the Indian Population Programme and then taken up by the state government (WHO *(a)* , 2007). Therefore, sustainability from additional sources of income is difficult for this scheme.

The Chiranjeevi scheme is financed by the state budget with management responsibility devolved to the district health officials. The financial flow mechanism is designed for an advance payment to avoid the delay of payment. Also, the state government used professional consultancy for fixing the amount mode of a payment to service providers (WHO *(a)* , 2007).

The Janani Scheme is an affiliated programme by DKT International and the state government only provides contraceptive material at a discounted price. Janani supports private providers to set up and operate the RCH services through franchise. This programme depends on outsourcing services and lowers the management costs from profits (Annigeri, *et al.,* 2004).

The voucher scheme is more attractive to private providers because the voucher clients increase the number of patients and revenue increases (Bhat, *et al.,* 2009). The voucher scheme attracts providers because reimbursement for services is equal to the market rate and it is additional revenue from capital costs (USAID, 2005). However, voucher schemes are difficult to administer and emergency obstetric care services are not included in the scheme (Ravindran, 2011).

4.5 Appraisal Summary

Table 6 summarises the above discussed feasibility of different PPP models in the context of Jharkhand. Different models are graded by "+" and ''-'' symbols which represent positive and negative feasibility respectively.

Table 6: Appraisal summaries

Different types of PPP models	Technical feasibility	Organisational Feasibility	Socio-cultural and political feasibility	Financial feasibility	Rank
Contracting out of health centres to non-profit private sector.	++	++	++	+	2
Contracting out to for-profit private sector	+++	+++	++	++	1
Social Franchising Model	++	+	-	+	4
Voucher Schemes	+	+	++	+	3

4.6 Conclusion

This chapter has described different types of PPPs used to improve maternal health services in a similar context to that of Jharkhand. Feasibility analysis of different models was undertaken and after appraisal, the most feasible PPP model for Jharkhand came out. The next chapter will conclude the study with recommendations for the applicable model in the study area.

Chapter Five
Recommendation and Conclusion

5.1 Introduction

Chapter 4 discussed the different successful PPPs model in the maternal health sector. The case studies from similar contexts were analysed by the feasibility appraisal. This chapter will present the conclusion, recommending the best applicable PPP model in Jharkhand. At the end of the chapter it will discuss the dissemination plan and personal reflections. Also this chapter will address the fourth study objective.

5.2 Recommendation

As shown in Chapter 4, the situation of Jharkhand's two proposed models would be effective for improving the maternal health care services. The Chiranjeevi Scheme of Gujarat would be a successful PPP example of maternal health. The Andhar Pradesh programme, through contracting out to an NGO, could be replicated in Jharkhand, where private organisations were supported from the government to serve patients free of cost. These two proposed PPP models could have a similar positive impact in the Jharkhand situation. I recommend the following stakeholders to implement the applicable PPP model in Jharkhand.

5.2.1 Recommendation to policy- and decision-makers

The list of major stakeholders appears in Section 1.6 (a) of Chapter 1.

5.2.1.1 Financing system:

The lesson learnt in Chapter 4 was that effective PPPs were financed by the government to the NGOs to sustain the programme. The major concern for implementing NGOs is timely payment of amounts for the services. The Government could provide advance monthly capital amounts to NGOs with replenished provision for smooth functioning of services. In the Chiranjeevi scheme limiting delays in reimbursement is one of the major factors for the success of the programme. Management and administrative systems for payment of NGOs should not be difficult, to avoid additional administrative loads on both the partners.

5.2.1.2 Organisational system:

Ownership of programme plays an important role for implementation of effective partnership and equitable distribution of services. State government should play a leadership role in partnership and policy implementation, and develop a separate technical team for management. The successful study suggests that state ownership should divide into district or regional levels (refer to Diagram-1) the responsibility for effective management of the programme. Contracts should be developed in a planned manner and with active participation of NGOs, and monitoring supervision would be agreed by all partners.

5.2.1.3 Capacity-building of the partners:

Partnership requires various management skills for both state and private sectors for effective implementation of the programme. The capacity for PPP requires design, implementation and monitoring of the contracts. For effective management of the programme government, officials, especially at the lower level, require various skills. Also, the private sector requires

skills to ensure effective implementation of the programme. Apart from that, the community is another important stakeholder and its capacity building is essential for effective participation and monitoring of the programme.

5.2.2 Recommendation for service providers

The list of major stakeholder appears in Section 1.6 (b) of Chapter 1.

5.2.2.1 Selection of operational area:

From the Chapter 4 case studies, one of the basic problems of private service providers is that they are mostly located in the urban areas, while the rural poor women require quality of health care in the accessible area (please refer to Section 3.5). Therefore, NGOs should concentrate on the remote places where there are mostly ST and SC population habitats. In Jharkhand, faith-based organisations could serve the health services in remote areas, because they already have functioning churches and schools in these areas.

5.2.2.2 Transparency in services:

Mostly NGOs are known for reaching the poor target groups with efficiency. However, some of the NGOs take advantage by using unethical means to maximise their profits on the cost of poor people. Monitoring would be very cost effective for the Government's system for each and every case in the remote areas. Therefore, NGOs should develop their own mechanism to monitor these activities. NGOs could negotiate for a good salary structure from the Government, at least equal to public sector workers, which could limit the dishonesty among staff at grass roots level.

5.2.2.3 Ensure community participation

Community participation is important for the success of any development programme. The community should be involved in planning, implementation and mentoring of the programme. In Jharkhand, there are many social, cultural and traditional beliefs and practices (refer to Figure 6) which prevent women from accessing maternal health services. Involvement of the community in the programme could create awareness and gender equality in society. Also, it is an effective means of interpersonal communication to provide information and benefit of the programme, especially in a situation like Jharkhand.

5.3 Dissemination plan

First of all, findings and recommendations of the dissertation will be summarised in the form of a presentation and it will be sent to identified stakeholders. This summary will be sent to policy- and decision-makers of the maternal health-related programme and will be translated into the local language to disseminate the service providers, especially from the district level. If any government or private sector from the policy- and decision-makers or service provider needs more information, a presentation will be done for them.

The full dissertation report will be submitted to my sponsor organisation and a presentation will be done for the executive board of the organisation. A summary of this dissertation will be put on the web page of my working organisation. A presentation seminar will be organised for the private organisation working on the health issues in the state. The abstract will be sent to journals and conferences for publication and presentation. Also, a summary will be sent to local newspapers for publication in special edition issues.

5.4 Conclusion

This study was conducted to find out the factors contributing to the poor institutional delivery system which leads to a high MMR in Jharkhand state and its possible solution. In order to improve the maternal health service, some PPP models were analysed and recommended for the Jharkhand context.

In Chapter 4, a number of successful PPP case studies were chosen for analysis because they have improved the health services in a similar context. These case studies were appraised for implementation in the Jharkhand maternal health services system. The analysis was done for different types of partnership for maternal health services and their impact on the services. Analysis was done in terms of technical, organisational, socio–cultural, and political and financial feasibility. The PPP case studies were a range from contract out to profit and non-profit organisations, voucher and franchise schemes. However, because, in my study context, poor rural women are more vulnerable towards maternal health services, I considered the Chiranjeevi scheme of Gujarat to be appropriate. Therefore, I recommended that the Chiranjeevie PPP model for BPL women, was more feasible than the other interventions.

I have come to the conclusion that either of two PPP interventions - the Chiranjeevi scheme for financial support to poor women for institution delivery and contracting out to NGOs for health services, is feasible for Jharkhand. These two models would improve the maternal health services in rural Jharkhand and reduce MMR under national and MDG targets.

5.5 Reflection

Writing the dissertation topic on reducing MMR in Jharkhand through PPP came into being by my personal experience working as a development professional in my home country. I have worked in an NGO Public Health Resource Network (PHRN) at the grass roots level. Working within the community I realised that MMR is extremely high in the area and most deaths occurred due to delays in reaching the health facilities.

In the initial period, I faced difficulties in picking the right topic for my experience on maternal health-related issues. After selecting the appropriate topic, my supervisor and colleagues from my organisation supported me in narrowing down the topic. After teaching a session on the dissertation I started work on the conceptual framework and developing an outline of the dissertation. Without the support of my supervisor it was not possible to develop a conceptual framework. My supervisor guided me in sourcing the relevant material to conceptualise my dissertation work. During the period from the beginning to the end of dissertation, I enhanced my skills and knowledge in innumerable ways. I can reflect on a few of them in my personal experience.

My skills to research good literature, both electronic and printed material, have been increased. I improved my skimming and scanning skills to find appropriate literature from the gigantic list of materials. This process also improved my computer and information technology skills. Reading a lot of material on the topic enhanced my critical reading habits and exposed me to more related literature on the topic. Now I am confident that I can find a lot of appropriate literature for any kind of topic.

When I start writing the topic, I learnt the critical writing skills on the topic and using computer skills for storage and referencing of literature. Effective writing within a limited word allowance and within a given timeframe was a major challenge. My supervisor

acquainted me with ways to follow time management as he is very particular with regard to time.

This study provided me with an opportunity for better understanding on public health issues, specifically in developing countries. Apart from that, I have gained in-depth subject knowledge on two specific issues, one being maternal health and PPP in the health sector. I will take a related topic for my doctorate degree. I hope this knowledge and these skills will contribute towards a larger positive impact on maternal health issues in my country. Also, this study would encourage NGOs of Jharkhand to explore further research on the topic and introduce better PPP model to achieve MDG-5.

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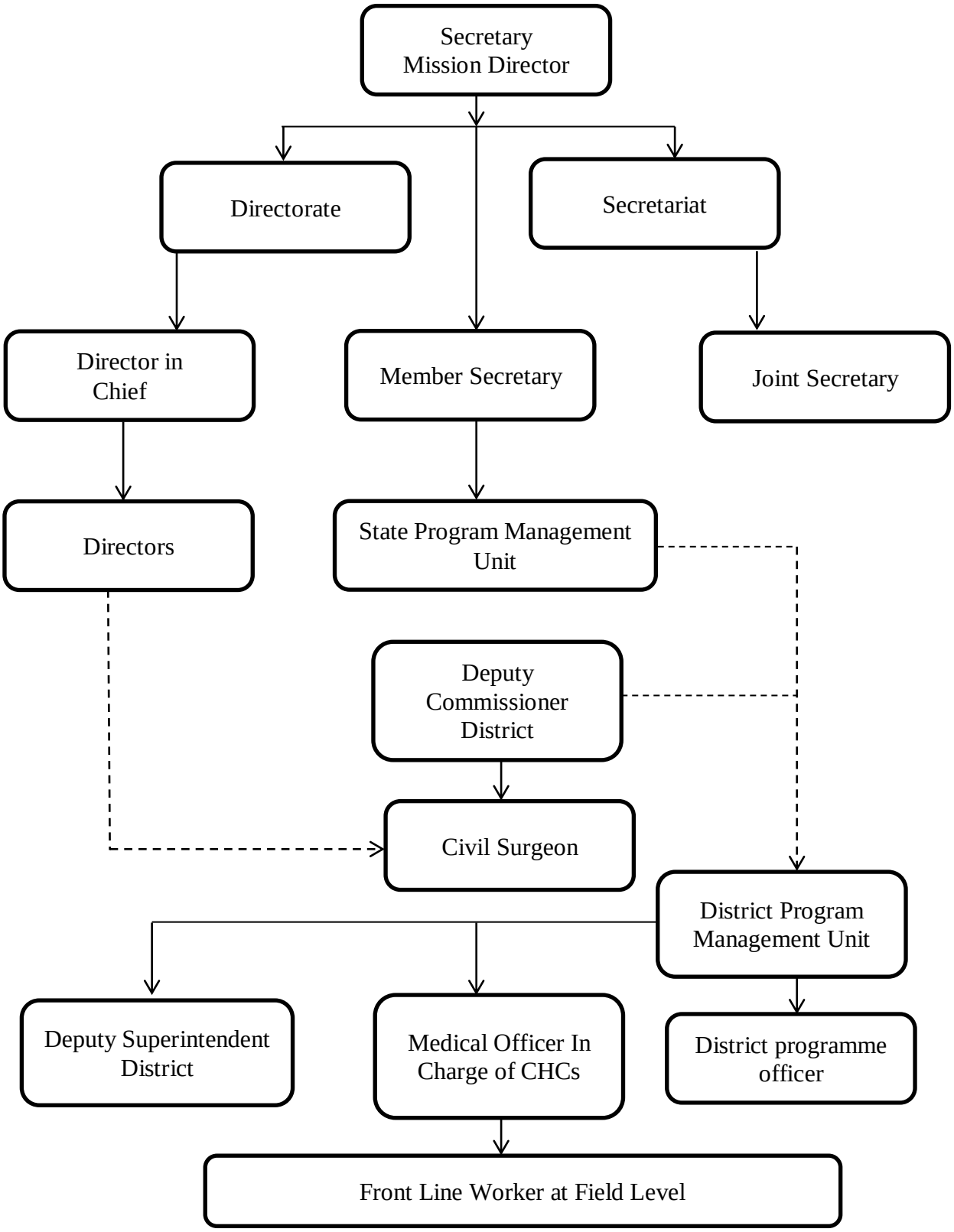
Appendices

Appendix 1: Map of Jharkhand, India

Source: maps of India

Appendix 2: Organizational chart of government health department in Jharkhand

Organizational chart



Source: NRHM, 2011

Appendix 3: Gaps in human resources as per existing facility (public) in Jharkhand

Sl.	Category	Total required as per IPHS*	Sanctioned (Regular)	Existing (Regular)	Existing (Contractual)	Existing Total (5+6)	Shortfall (3-7)
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1.	Specialist	1453	174	84	0	84	**1369**
2.	ANM	8906	4666	2978	4098	7076	**1830**
3.	Staff Nurse	2408	304	216	362	578	**1830**
4.	Male Health worker	3958	1035	418	1636	2054	**1904**
5.	Pharmacist	629	501	100	244	344	**285**
6.	Lab Technician	629	446	85	332	417	**212**
7.	Radiographer	257	54	30	96	126	**131**
8.	Medical Officer	1237	1681	1376	457	1833	

* Indian Public Health Standards; Source: Source: NRHM, 2010

Appendix: 4 Proposed public health Infrastructure as per IPHS norms district wise in Jharkhand

District of Jharkhand	**Population covered**	**CHCs**		**PHCs**		**HSCs**	
		Existing (In No.)	**Proposed (In No.)**	**Existing (In No.)**	**Proposed (In No.)**	**Existing (In No.)**	**Proposed (In No.)**
Bokaro	1777662	8	7	16	59	116	59
Chatra	791434	6	10	8	26	93	65
Deoghar	1165390	8	7	5	36	181	48
Dumka	1106521	10	9	36	46	258	45
Jamtara	653081	4	3	15	42	132	151
Dhanbad	2397102	8	7	28	80	137	342
E. Singhbhum	1982988	9	8	16	49	242	193
Garhwa	1035464	8	13	10	36	111	130
Giridih	1904430	12	11	15	57	180	201
Godda	1047939	7	6	9	40	188	63
Simdega	514325	7	6	7	22	155	26
Gumla	832447	11	10	13	42	242	41
Hazaribagh	2277475	14	13	19	76	203	252
Koderma	499403	4	3	5	17	65	35
Lohardaga	364551	5	4	10	20	73	35
Pakur	701664	6	5	9	35	121	113
Palamu	2098359	10	9	21	28	172	149
Latehar	560898	7	6	10	21	99	89
Ranchi	2785064	20	19	32	139	502	426
Sahibganj	927770	7	8	10	40	141	158
Saraikela	873613	8	7	12	39	194	65
W. Singhbhum	1233945	15	15	15	55	342	75
Jharkhand	**26945829**	**194**	**186**	**330**	**1005**	**3958**	**2761**

Source: NRHM, 2010