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## NATIONAL RURAL HEALTH MISSION AND ITS IMPACT ON MATERNAL HEALTH STATUS IN INDIA

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### ABSTRACT:

Safe motherhood practices and child survival programmes are critically important in a country that is experiencing high infant mortality, child mortality and maternal mortality. Maternal mortality and infant mortality rate has been an indicator of maternal health services. Maternal mortality rate can be reduced by promoting institutional deliveries. Realizing the importance of maternal and child health care services, the Government has introduced Janani Suraksha Yojana an integral component of NRHM (since 2013 National Health Mission) under the

maternity benefit scheme to promote institutional deliveries. Thus the study aims to evaluate the impact of NHM on institutional deliveries and maternal mortality rate in India. The study is based on secondary data for the period 2005-2016 collected from National Health Mission, Government of India, and Statistics Niti Aayog and from Ministry of health and family welfare department Government of India. The study found that NHM has made significant impact in increasing institutional deliveries. The maternal mortality rate has shown considerable decrease after the implementation of NHM. There is need of effective implementation of NHM in high focus states where the MMR rate is still high.

**KEYWORDS:** National Health Mission, Institutional delivery, Maternal mortality rate, Janani suraksha Yojana.

### INTRODUCTION:

According to the World Health Organization, Every day, approximately 830 women die from preventable causes related to pregnancy and childbirth. 99% of all maternal deaths occur in developing countries and almost all of these deaths occurred in low-resource settings, and most could have been prevented. Most maternal deaths are preventable, as the health-care solutions to prevent or manage complications are

well known. All women need access to antenatal care in pregnancy, skilled care during childbirth, and care and support in the weeks after childbirth. Maternal health and newborn health are closely linked. Maternal mortality is higher in women living in rural areas and among poorer communities. Reduction of maternal mortality is an area of concern for the governments across the globe. According to SRS Estimates the maternal mortality rate is still high at 130 per 1, 00,000 live births in India by 2016. Between 2016 and 2030, as part of the Sustainable Development Goals, the target is to reduce the global

maternal mortality ratio to less than 70 per 1,00,000 live births. Maternal mortality rate has been an indicator of maternal health services. Efforts to address the issue of maternal mortality rate have gained momentum with the launch of NHM under the maternity benefit scheme to promote institutional deliveries.

### REVIEW OF RELATED LITERATURE:

Patra et al, (2013) studied performance of NRHM on health care service and tried to analyze the influence of NRHM funding on strengthening the health care service by setting up primary

health care service and community health care and its impact on health care indicators. The study found that funding under NRHM has a positive impact on health care provision and health care indicators.

**Usmani et al(2017)** studied the performance of NRHM on maternal mortality before and after its implementation and identified the disparity in health care among the states and there is no improvement MMR and attributed its failure to its ineffective implementation of the programme and emphasized the critical assessment of the programme.

**Kulkarni et al(2017)** conducted an analytical study to review the National health mission in the context of millennium development goals and stressed on the effective utilization of funds to implement the programme to reduce maternal mortality rate. The paper concluded the optimal use of resources with proper implementation strategies may definitely result in the reduction of maternal mortality rate.

**Mavalankar et al(2009)** conducted a case study in Gujarat to examine the maternal health situation and found in spite of various programme initiatives maternal health situation faces several challenges and the case study analyzes the maternal death A1A00 in relation with maternal health delivery system and identifies various causes of limiting success of the system and has suggested the strategies to improve health care delivery system with public and private partnership.

**Dongre(2014)** studied the effect of Janani Suraksha yojana institutional deliveries and MMR. This is a comparative study has observed that increase in institutional deliveries and found a gap between its utilization in high performing and low performing states and finds that increase in institutional deliveries is due to the improvement in availability and access to various medical facilities at the rural sector.

A study conducted in Varanasi by **Kaushik et al(2010)** found that the literacy and educational status has profound influence on the level of awareness about the programme. The study reflects that concerted efforts are needed to popularize the programme by electronic and print media for health messages.

### OBJECTIVES:

To study the beneficiaries of maternal health scheme under NHM

To study the impact of institutional delivery on MMR

**Hypothesis:** Institutional deliveries have significantly reduced MMR.

**Methodology:** The study is based on secondary data collected from National Health Mission, Government of India, and Statistics Niti Aayog and from Ministry of health and family welfare department Government of India.

**Table: 1 Demography and health profile of Karnataka and India 2011**

Indicators	India
Population(census 2011)(in crore)	121.01
Annual exponential growth Rate(%)2001-2011	1.63
Crude Birth Rate(SRS 2016)	20.4
Crude Death Rate(SRS 2016)	6.4
Total Fertility Rate(SRS 2016)	2.3
Sex Ratio (SRS 2016)	943
Infant Mortality Rate(SRS 2016)	34
Female Literacy Rate(2016)	64.6
Maternal Mortality Rate(2014-16)	130
Mean Age at effective marriage(2016)	22.7

Table-1 showing the demographic profile of India as the population of India was 121 crores and the annual exponential growth rate was 1.6 percent. The Crude birth rate and the crude death rate was 20.4 and 6.4 respectively in 2016 according to Sample Registration System. Similarly the Total Fertility

Rate was 2.3 and the sex Ratio was 943 per 1000 males in the year 2016. . The maternal mortality ratio was 130 per 1 lakh live births where as the infant mortality was 34 per 1000.

**Table-2 Percentage of State-wise and year wise beneficiaries Under Janani Suraksha Yojana from 2012-13 to 2014-15**

Sl.No.	States	2005-06	(%)	2013-14	(%)	2015-16	(%)
<b>High Focus states</b>							
1	Assam	17523	2.37	451748	4.24	184864	4.08
2	Bihar	0	0	1695843	15.92	535273	11.82
3	Chattisgarh	3190	0.43	290276	2.72	157376	3.47
4	Jharkhand	0	0	283562	2.66	115010	2.53
5	Jammu & Kashmir	2134	0.28	143129	1.34	49668	1.09
6	Madhya Pradesh	68252	9.23	1010824	9.49	432635	9.55
7	Odisha	26407	3.57	530089	4.97	212764	4.69
8	Rajasthan	10085	1.36	1106262	10.39	518553	11.45
9	Uttar Pradesh	12127	1.64	2388204	22.43	1029860	22.7
10	Uttarakhand	1360	0.81	95344	0.89	45738	1.01
11	Arunachal Pradesh	167000	22.6	11827	0.11	203	0.004
12	Himachal Pradesh	1585	0.21	15766	0.14	7651	0.16
13	Manipur	0	0	17064	0.16	644	0.014
14	Meghalaya	471	0.06	20151	0.18	546	0.012
15	Mizoram	1056	0.14	12871	0.12	44	0.0009
16	Nagaland	0	0	13390	0.12	7830	0.17
17	Sikkim	1128	0.15	2383	0.022	131	0.002
18	Tripura	2247	0.30	15502	0.14	1050	0.023
<b>Non High Focus States</b>							
19	Andhra Pradesh	167000	22.6	383135	3.59	128830	2.84
20	Goa	57	0.007	1100	0.01	557	0.012
21	Gujarat	0	0	253005	2.37	107702	2.37
22	Haryana	1825	0.24	44076	0.41	8727	0.19
23	Karnataka	50542	6.84	383251	3.59	181554	4.00
24	Kerala	0	0	138527	1.30	46855	1.03
25	Maharashtra	5650	0.76	403405	3.78	151398	3.34
26	Punjab	11595	1.56	96873	0.90	38449	0.84
27	Tamil Nadu	321567	43.51	457770	4.29	214936	4.74
28	Telangana	----	-----	----	-----	64339	1.42
29	West Bengal	31363	4.24	363655	3.41	253068	5.58
<b>Non High Focus Small and UTs</b>							
30	Andaman and Nicobar Islands	314	0.042	366	0.003	6730	0.14
31	Chandigarh	0	0	899	0.008	8897	0.19
32	Delhi	0	0	12096	0.11	7789	0.17
33.	Lakshadweep	114	0.015	992	0.009	1019	0.02
34	Puducherry	379	0.05	3754	0.035	7726	0.17
	India	738911	100	106484879	100	4546933	100

Source: Ministry of Health and Family Welfare, Government of India.

The above table Table.2 shows state wise beneficiaries of Janani Suraksha Yojana, a maternal health scheme under NRHM in India from 2005-2016. The number of beneficiaries in the high focus states such as Bihar, Chhattisgarh, Himachal Pradesh, Jammu Kashmir, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh and in Uttardhand are increasing since 2015. This is because of lack of awareness about the programme due to low educational status. The NRHM focuses on these states because the maternal mortality rates are high in these states and the states where these states are lagging behind in health infrastructure and transportation facilities and hence these are grouped under Empowered Action Group (EAG) States. In the non high focus state such as Karnataka, Andhra Pradesh, Kerala, Goa and Maharashtra the NRHM has shown meagre impact in accessing the maternity benefits under the scheme.

### Beneficiaries Under Janani Suraksha Yojana: A Maternity Benefit Scheme under National Health Mission

States	2005-06	(%)	2010-11	(%)	2015-16	(%)
<b>High Focus States</b>	148359	20.07	7897423	72.98	3299880	72.57
<b>Non High Focus States</b>	589599	79.79	2862827	26.76	1196415	26.31
<b>Non High Focus Small and Uts.</b>	807	0.1	97545	0.91	10488	0.002
<b>Total</b>	739811	100	1076783	100	4503783	100

- The beneficiaries of JSY in 2005-06 in high focus states was only 20.7% where as in non high focus states the utilization of JSY was 79.79% and hence the implementation of the programme was delayed in small and UTs and thus the utilization was meager at 0.1%.
- The Percentage of the utilizers of the scheme substituted from non high focus states to high focus states thus the utilizers of the scheme increased to 72% in high focused states in 2015-16 and in non high focused states it decreased to 26 in the same year.

### Maternal Mortality Rate in India.(Per 1000 live births)

Sl.No.	States	2004-06	2007-09	2011-13	2014-16
1	Assam	480	390	300	237
2	Bihar/Jharlhand	312	261	208	165
3	Madhya Pradesh/Chhattisgarh	335	269	221	173
4	Odisha	303	258	222	180
5	Rajasthan	388	318	244	199
6	UttarPradesh/Uttarakhand	440	359	285	201
7	Andhra Pradesh	154	134	92	74
8	Telangana				81
9	Karnataka	213	178	133	108
10	Kerala	95	81	61	46
11	Tamil Nadu	111	97	79	66
12	Gujurat	160	148	112	91
13	Haryana	186	153	127	101
14	Maharahstra	130	104	68	61
15	Punjab	192	172	141	122
16	West Bengal	141	145	113	101
17	Other States	206	160	126	97
18	Other Subtotal	174	149	115	93

Source: Statics Maternal Mortality Ratio, NITI Aayog.

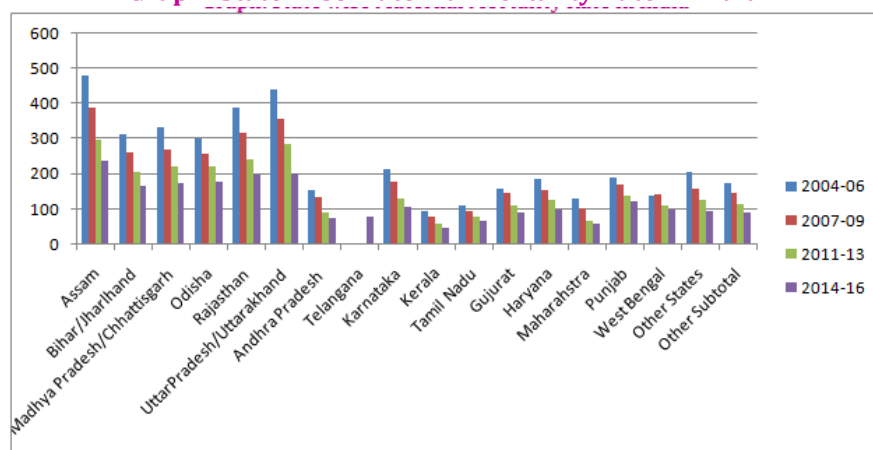
**Graph: State wise Maternal Mortality Rate in India**

Table 3: The above table and chart shows the maternal mortality rate from 2006 to 2016. The maternal mortality rate is considerably decreasing from 2006 to 2016 in all the states.

States like Assam, Bihar, Madhya Pradesh, Odisha, Rajasthan, Uttar Pradesh, Uttarakhand, Empowered Action Group states have shown highest maternal mortality ratio more than 400 in the 2004-06 has considerably decreased during the successive years and the remaining states have also shown the reduction in the MMR.

#### MAJOR FINDINGS OF THE STUDY:

1. The percentage of beneficiaries of institutional deliveries under Janani Suraksha Yojana are high in the High focus states like Assam, Bihar, Madhya Pradesh, Odisha, Rajasthan, Uttar Pradesh and Uttarakhand where in the states are lagging behind in medical and transport facilities and NRHM has made significant impact in these states in improving health infrastructure and health care delivery system.
2. The beneficiaries of institutional deliveries are in decreasing rate because low levels of information communication with emphasis on MCH is associated with lower utilization of the JSY especially in rural areas.
3. The High focus states which have shown high rates of maternal deaths up to around 400 in the year 2005-06 have reduced their ratio in the successive years after the implementation of the programme nearly up to 200 in 2015-16. This considerable decrease has shown during short period of decade with the implementation of the programme.
4. Janani Suraksha Yojana under NRHM has also implemented in the states like Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Maharashtra, Gujarat which are non high focus states because they have improved medical states and transportation facilities and in these states the institutional deliveries are less compared to high focus states but these states has also reduced the maternal mortality ratio.
5. The percentage of beneficiaries of institutional deliveries has also increased in union territories like Chandigarh, Delhi, Lakshadweep and Puducherry and Puducherry and Delhi have recorded the high institutional deliveries among Union Territories.

#### RECOMMENDATIONS:

- The number of institutional deliveries has increased during the successive years after the implementation of the programme but there is a need of effective implementation of the programme in the high focus states because the MMR rates are more than 200 to address the sustainable development goals where the target has set to reduce MMR to less than 70 in between 2016-30.



- NRHM has made considerable impact on maternal health care delivery system by increasing the number of institutional deliveries across the states but it is recommended to increase the awareness among women to access the utilization of the programme, where MMR ratio is still high in the high focus states nearly up to 200.
- The non high focus states especially southern states and south eastern states have MMR ratio more than 100 which is still high and these states should also have to make efforts to reduce MMR less than half of its ratio by next 2030.

### CONCLUSION:

NRHM launched by the Government has made a great impact in improving the health care delivery system in rural areas which can be easily accessible to the deprived sections of the society irrespective of their social and cultural differences. An innovative cash assistance programme has enabled the rural women to have a safe motherhood under the programme. The Government has to make efforts to create awareness about the programme and to improve the quality of health care delivery system in rural areas in order to reduce MMR as meet the requirements of sustainable development goals.

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