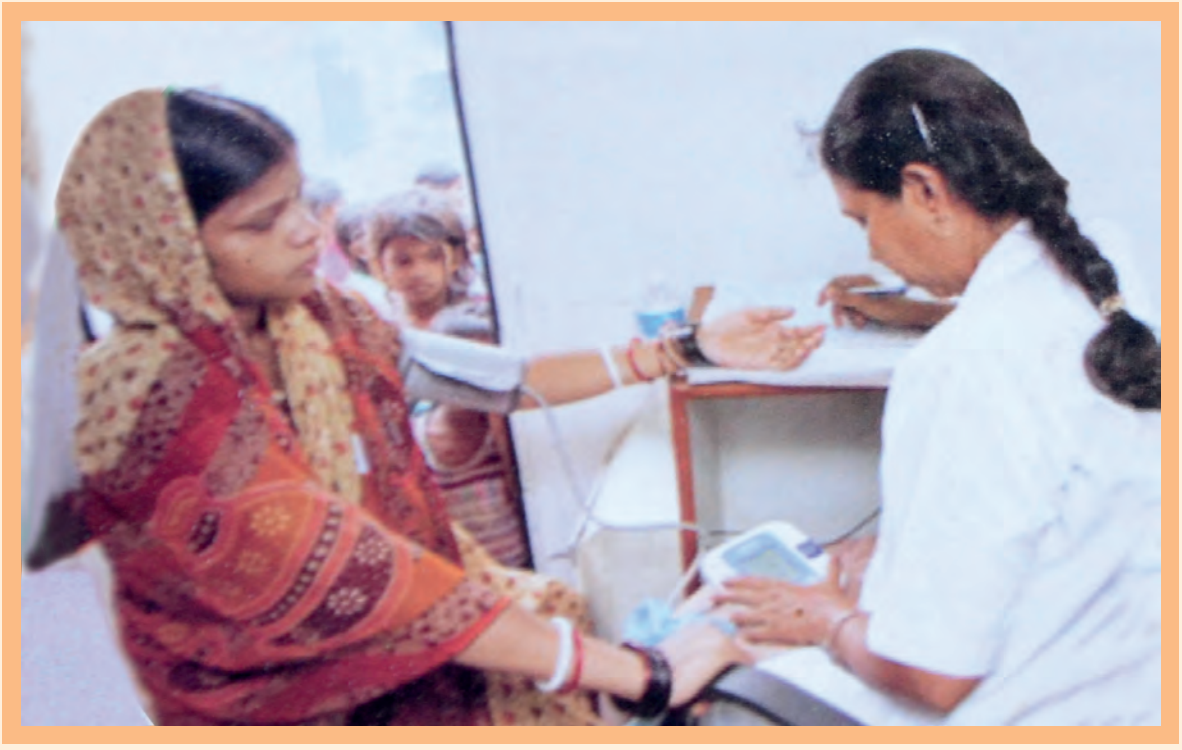
Controlling Maternal Mortality



Chapter 4:
Controlling Maternal Mortality

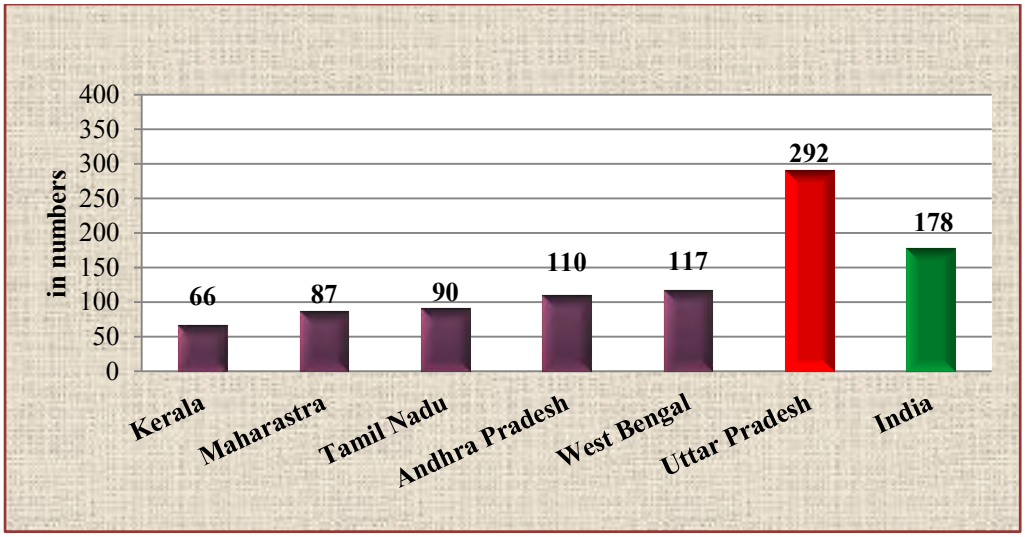
Introduction

Inadequate health care and nutritional support, unsafe deliveries, lack of access to birth control and spacing methods and illegal termination of pregnancies are the primary factors for high rates of maternal and infant mortality in India and the State of Uttar Pradesh. Misuse of diagnostic technologies for sex determination and illegal termination of pregnancies has been discussed in Chapter 3. The issues and programmes relating to health care and nutritional support to pregnant women, lactating mothers and children below six years of age have been covered in Chapter 5 of this report. This Chapter mainly focuses on implementation of programmes related to safe deliveries and family planning.

4 Maternal and Infant mortality

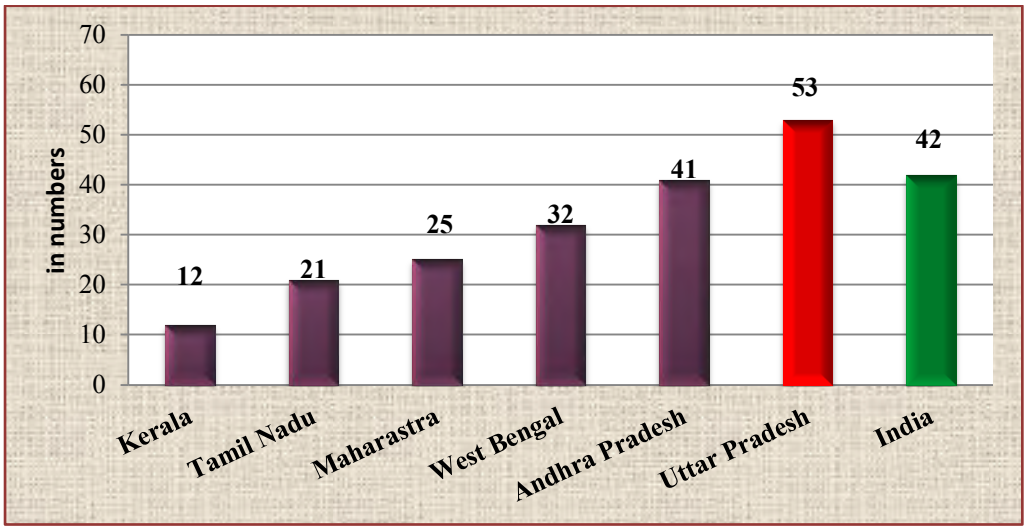
The Maternal Mortality Rate (MMR) in respect of the State of Uttar Pradesh during 2010-12 was estimated by Registrar General of India to be 292 deaths per one lakh live births as compared to all India average of 178 deaths during this period. The MMR in the State was much higher in comparison to other States such as Maharashtra, Tamil Nadu, Kerala and West Bengal as shown in the chart 4.1 below:

Chart: 4.1: MMR of Uttar Pradesh vis-à-vis India and other states



The Infant Mortality Rate (IMR) in Uttar Pradesh during 2012 was 53 deaths per 1000 live births, which was also significantly higher as compared to the all India average and IMR in other States as shown in Chart 4.2 below:

Chart: 4.2: IMR of Uttar Pradesh vis-à-vis India and other states



The female IMR in 2012 in the State was 55 deaths per thousand live births as compared to all India average of only 44 deaths. Uttar Pradesh was among the States having the highest female IMR in the country (57 deaths in Assam, 59 in Madhya Pradesh, 54 in Orissa and 51 in Rajasthan). Many other states have much lower female IMR such as 13 deaths per 1000 live births in Kerala, 26 in Maharashtra, 22 in Tamil Nadu, 26 in Delhi and 29 in Punjab.

As per the UN Millennium Development Goals (MDG) for improvement in maternal health, the MMR has to be brought down to 109 deaths per one lakh live births by 2015. Hence, MMR in the State is more than double the target of MDG 2015. National Health Mission (NHM) aims to bring down the MMR to 200 deaths per lakh live births upto 2017. Given the high rate of MMR in India and in the State of Uttar Pradesh, the NHM target appears to be quite inadequate to achieve the targets of MDG 2015.

The MDG target for IMR was 28 deaths per 1000 live births by 2015. Both IMR and female IMR in the State are almost two times higher than the MDG 2015 targets.

Therefore, high incidence of maternal under nourishment, low incidence of institutional deliveries and high prevalence of unsupervised home deliveries, high maternal mortality rate, non-adoption of appropriate family planning methods and prevalence of low weight children and under-nourishment of girls over boys are some of the most important issues that need to be given due attention by the Government. For this purpose, we have reviewed implementation of *Janani Suraksha Yojana* (JSY), *Maternal Death Review* (MDR) and Family Planning Programme of the government, as discussed in this chapter. Our findings are as follows:

Audit Findings

4.1 Janani Suraksha Yojana

JSY beneficiaries at Community Health Centre, Allahabad

Janani Suraksha Yojana (JSY) is being implemented with an objective to reduce Maternal Mortality Rate (MMR) & Infant Mortality Rate (IMR) and to provide safe motherhood by encouraging institutional deliveries. To promote institutional deliveries at Government health centres, an incentive of ₹ 1,400 in rural area and ₹ 1,000 in urban area is provided to the beneficiaries.

4.1.1 Budget allotment and expenditure

A total expenditure of ₹ 2,196.56 crore was incurred on JSY against allotment of ₹ 2,380.11 crore during 2010-15 (***Appendix 4.1***). Audit observed that the annual expenditure under the scheme remained almost static during last five years despite prevalence of high maternal and infant mortality rate in the State much above the national average and also of UN development goals. The funds allotted under the scheme were also not fully utilised with significant shortfalls in 2012-13 and 2014-15.

4.1.2 Institutional Deliveries

As per JSY guidelines, institutional deliveries refer to deliveries in government health centres, *viz.*, districts hospitals, community health centres, primary health centres, sub-centres etc.

The targets and achievements of institutional deliveries in the State during 2010-15 were as detailed in the table below:

JSY ward at Community Health Centre, Allahabad.

Table 4.1: The target and achievement of institutional deliveries

(Figures in lakh)

Year	Registered pregnant women	Target for institutional deliveries	Percentage of col. 3 to 2	Achievement of institutional deliveries	Percentage of achievement against registered pregnant women	Percentage of achievement against target
1	2	3	4	5	6	7
2010-11	54.26	20.58	38	23.22	43	113
2011-12	49.39	24.50	50	23.18	47	95
2012-13	49.70	26.87	54	21.82	44	81
2013-14	57.10	25.00	44	23.86	42	95
2014-15	55.56	26.57	48	23.24	42	87
Total	**266.01**	**123.52**	**46**	**115.32**	**43**	**93**

(Source: Information provided by Directorate, Family Welfare)

Out of a total of 266.01 lakh registered pregnant women during 2010-15, only 123.52 lakh (46 *per cent*) were targeted for institutional deliveries in government institutions. The overall achievement of targets in respect of institutional deliveries was 93 *per cent* during last five years. In test checked districts it was found that the shortfalls in achievement of targets were significantly high in Ambedkar Nagar, Azamgarh, Bareilly, Meerut and Varanasi **(*Appendix 4.2*).**

Annual targets for institutional deliveries are fixed by the Directorate, Family Welfare and communicated to concerned Chief Medical Officers (CMOs) of the district. Reasons for fixation of low target (46 *per cent*) for institutional deliveries were not explained by the department. Audit observed that there was lack of government health centres in rural areas as only 773 CHCs, 3,538 PHCs and 20,521 Sub centres were functional in the State as on March 2015 against the required number of 1,555 CHCs, 5,183 PHCs and 31,100 Sub-centres respectively as per norms based on population of census 2011. Further, majority of institutional deliveries were in rural areas, as shown in the table below:

Table 4.2: Details of area wise institutional deliveries under JSY

Year	Institutional Deliveries				
	Total institutional deliveries	Rural Area	Percentage	Urban Area	Percentage
2010-11	23,22,042	21,41,092	92	1,80,950	8
2011-12	23,18,216	21,30,959	92	1,87,257	8
2012-13	21,81,699	19,96,089	91	1,85,610	9
2013-14	23,86,147	21,79,600	91	2,06,547	9
2014-15	23,23,579	21,16,957	91	2,06,622	9
Total	**1,15,31,683**	**1,05,64,697**	92	**9,66,986**	8

(Source: Information provided by Directorate, Family Welfare)

It is evident from the above table that more than 90 *per cent* of the institutional deliveries were in rural areas. Inadequate government health facilities, lack of access to government health centres and non-affordability of private nursing homes/hospitals may have forced rural poor to depend more on home deliveries to be done by unskilled birth attendant. On being pointed out in audit, department accepted (August 2015) the fact and replied that efforts are being made to provide health facilities to general public by construction of CHCs/PHCs as per norms.

Recommendations:

- Achievement of targets for institutional deliveries should be ensured in all the districts of the State especially with higher population of rural poor.

- Adequate health infrastructure may be created in rural areas by establishing more CHCs/PHCs/Sub-Centres as per norms to ensure safe and hygienic institutional deliveries.

- Transparent system should be adopted by the Department for fixing the targets of institutional deliveries.

4.1.3 Home Deliveries

(i) Home deliveries by Skilled Birth Attendant

Under JSY, an incentive of ₹ 500 per case was to be paid to BPL women for home deliveries attended by Skilled Birth Attendant (SBA), for her care during delivery and to meet incidental expenses of delivery. Targets and achievements under home delivery are detailed in the following table:

Table 4.3: Targets and achievements under Home delivery by SBA

(Numbers in lakh)

Year	Home deliveries under JSY (deliveries for which incentive was paid)		Achievement in *per cent*
	Target of home deliveries by Skilled Birth Attendants (SBA)	Achievement against Target of home deliveries by Skilled Birth Attendants (SBA)	
2010-11	0.42	0.19	45
2011-12	0.50	0.10	20
2012-13	0.14	0.05	36
2013-14	0.15	0.02	13
2014-15	0.12	0.01	08
Total	**1.33**	**0.37**	28

(Source: Information provided by Directorate, Family Welfare)

It is evident from above table that there were huge shortfalls in achievement of targets for home deliveries by Skilled Birth Attendants. The shortfalls have increased from 55 *per cent* in 2010-11 to 92 *per cent* in 2014-15 due to lackadaisical approach of the department.

(ii) Home deliveries by unskilled birth attendants

As per the information provided by the department, the total number of safe deliveries through government institutions and home deliveries by SBAs was 115.69 lakh during 2010-15. The department also informed that as per information collected through various surveys, about 20 to 25 *per cent* of the deliveries were taking place in private nursing homes/hospitals. Thus, total number of safe deliveries in the State including Government institutions (115.32 lakhs), Private nursing homes/hospitals (38.56 lakh) and home deliveries by skill attendants (0.37 lakhs) would work out to 154.25 lakh against total registered pregnancies of 266.01 lakh during the period 2010-15. This implied that a large number of rural poor approximately 111.76 lakh (42 *per cent*) had to depend on home deliveries by unskilled birth attendants during last five years. On being pointed out in audit, no specific reply was given by the department.

Recommendations:

- The shortfalls in achievement of targets for home deliveries by SBAs should be minimized by proper monitoring.

- Health infrastructure and SBA network in rural areas should be strengthened to minimize the number of unsafe deliveries through unskilled attendants.

4.1.4 Severely anaemic women

Detection and listing of severely anaemic pregnant women was an important activity for which it was provisioned that an incentive of ₹ 100 per case was to be paid to ASHA for listing and follow up of severely anaemic women. Scrutiny of records of test-checked district revealed that details of total number of severely anaemic pregnant women had not been maintained at any test checked districts defeating the objective of detecting and making suitable intervention in terms of medical care and nutrition to them.

4.1.5 Non-accreditation of private nursing home

As mentioned in the action plan of the department, 20 to 25 *per cent* deliveries were conducted in private hospitals and nursing homes. The GoUP prescribed[1] (March 2008) to accredit minimum one private hospital/nursing home per *Tehsil* in a district to promote institutional deliveries and safe motherhood.

Scrutiny of records of the Directorate revealed that no private nursing homes and hospitals were accredited in the State for JSY purposes.

Thus, non-accreditation of private nursing home/hospitals affected the promotion of institutional deliveries and safe motherhood under JSY.

[1] 3667/-5-09-08-9(113)/05 *Chikitsa Anubhag*-9 dated 05.03.2008.

Recommendation: The Government should ensure registration of private hospitals and nursing homes under JSY to promote institutional delivery and safe motherhood.

4.1.6 Accreditation of sub-centres of CHC/PHC

At least 50 *per cent* sub centres running in government buildings were to be accredited under JSY with a view to increase institutional deliveries[2]. These sub centres were to be accredited as early as possible for maximization of institutional deliveries by Auxiliary Nursing Midwife (ANM) and to ensure availability of benefit of JSY to beneficiaries in these sub centres. The responsibility of accreditation and activation of maximum such sub centres in districts was given to CMOs.

Audit observed that only 7,226 sub centres (42 *per cent*) were accredited to the scheme as of March 2015 against 17,219 sub centres running in government buildings in the State. Whereas scrutiny of records of test-checked districts revealed that only 2,255 sub centres (39 *per cent*) were accredited to the scheme against 5,786 sub centres running in government buildings. Thus, non-accreditation of sub-centres affected the fulfilment of objectives. On being pointed out in audit reason for non-accreditation of sub centres was not furnished by the Department.

4.2 Maternal Death Review

MDR programme was started by GoI under the mission for effective reduction in MMR through qualitative improvements in delivery services to reduce maternal mortality. Under this programme it was provisioned to review every maternal death to find the gaps in the service delivery and to ensure corrective measure.

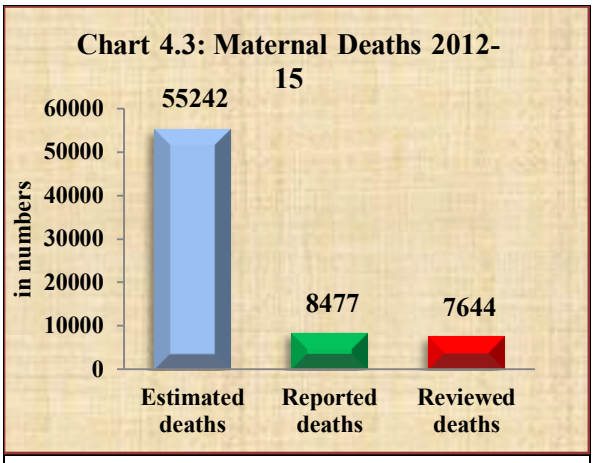
4.2.1 Budget allotment and expenditure

Audit observed that the expenditure incurred was only ₹ 1.70 crore against the allotment of ₹ 7.22 crore (***Appendix 4.3***) indicating that very few cases of maternal death were reviewed by the department.

4.2.2 Review and reporting of maternal deaths

Under the MDR, all maternal deaths (may be at home, on the way or at health units) were to be reviewed by block level MDR team, and facility based MDR committee under the leader ship of block medical officer/ Superintendent and facility nodal officer respectively. District level maternal death review committee under the chairmanship of CMO was to monitor the review reports of all types of maternal deaths in the districts. It was also provisioned that ASHAs at village level will inform all maternal deaths of her area to the concerned block medical officer so that all maternal deaths may be reported for the review.

[2] 3667/-5-09-08-9(113)/05 *Chikitsa Anubhag*-9 dated 05.03.2008



(Source: Information provided by Directorate, Family Welfare)

The numbers of estimated, reported and reviewed maternal deaths in the State during 2012-15 are as depicted in Chart 4.3. Scrutiny revealed that reported figures of maternal deaths (8,477) were only 15 *per cent* of the estimated number of maternal deaths (55,242) in the State during 2012-15 as reported by the department. Hence, large number of maternal deaths (85 *per cent*) remained unreported and 86 *per cent* of maternal deaths remained un-reviewed. As a result, in majority of the cases of maternal deaths the reasons for death could not be ascertained and verified to establish deficiency or lapse in medical care/treatment, if any, and ensure corrective measures.

Recommendation: The Government should put in place a more effective system to ensure that every case of maternal death is reported and reviewed to ascertain service delivery gaps for taking corrective measures.

4.3 Family Planning Programme

The population of the State increased from 16.61 crore in 2001 to 19.98 crore in 2011 (10.45 crore males and 9.53 crore females) registering a decadal growth rate of 20.23 *per cent* as per Census-2011. The average annual exponential growth rate (1.85 *per cent*) of the population in the State was above the national average of 1.64 *per cent*.

There is a close relationship between birth spacing and maternal health. Adequate birth spacing leads to improvement in the health of mother and the child. While motherhood is often a positive and fulfilling experience, for many women particularly living under poverty-sticken conditions (who are not literate and do not have access to birth control/spacing methods) it could be associated with suffering, ill health and even death. Lack of access to and awareness about birth control and birth spacing methods results in unwanted pregnancies and large family size putting tremendous stress on the health and wellbeing of the mother and children. Hence, it was important for the government to adopt suitable measures for popularising family planning methods in the State not only to stabilise the population but also to have a positive impact on the state of maternal health.

Objective of the Family Planning programme was to reduce Total Fertility Rate and improve the health status of people particularly women by encouraging adoption of appropriate family planning methods. Limiting methods of family planning consisted of vasectomy for male and tubectomy

for female. Oral pills, Condoms and Intra-Uterine Device (IUD) insertion are three prevailing spacing methods of family planning to reduce total fertility rate.

4.3.1 Budget allotment and expenditure

A total expenditure of ₹ 194.67 crore was incurred on family planning programme against allotment of ₹ 380.57 crore during 2010-15 (***Appendix 4.4***). Audit observed that despite high growth rate of population in the State, 49 *per cent* of the allocation made under the Family Planning programme remained unutilised during last five years. This implied that the department did not take adequate measures to popularise the use of family planning methods for achieving the goal of population stabilisation and improving health status of women and children.

4.3.2 Limiting Methods

Target and achievements during 2010-15 under limiting methods at State level were as under:

Table 4.4: Year-wise target and achievement of limiting methods

(Figure in lakh)

Year	Vasectomy			Tubectomy			*Per cent* of target of vasectomy in respect of tubectomy
	Target	Achievement	*Per cent* of achievement	Target	Achievement	*Per cent* of achievement	
1	2	3	4	5	6	7	8
2010-11	0.45	0.08	18	7.00	3.71	53	6
2011-12	0.50	0.09	18	6.00	3.10	52	8
2012-13	0.15	0.07	47	4.50	3.00	67	3
2013-14	0.16	0.07	44	4.83	3.20	66	3
2014-15	0.16	0.08	50	5.71	2.85	50	3
Total	**1.42**	**0.39**	**27**	**28.04**	**15.86**	**57**	**5**

(Source: Information provided by Directorate, Family Welfare)

Audit observed that:

- Achievement against target set under vasectomy was only 27 *per cent* while it was 57 *per cent* under tubectomy;

- The targets fixed for females were 20 times higher in comparison to targets for male; and

- The ratio between achievement of vasectomy (0.39 lakh) and tubectomy (15.86 lakh) in terms of absolute numbers was 1:41.

Further, scrutiny of records of test-checked districts revealed that ratio between achievement of vasectomy (0.17 lakh) and tubectomy (6.07 lakh) in terms of absolute numbers was 1:36 **(*Appendix 4.5*).**

On being pointed out by audit, it was stated by test-checked districts that targets were fixed by the directorate level confirming the fact that even the directorate failed to take gender neutral view while setting targets.

4.3.3 Spacing Methods

Scrutiny revealed that shortfall in Intra-Uterine Device (IUD) insertion at State level was ranged between 41 and 47 *per cent* while it ranged between 14 to 78 *per cen*t in 18 out of 20 test-checked districts whereas in two districts[3] achievement was more than 80 *per cent* (***Appendix 4.6***). Moreover, for most common and non-invasive methods viz., oral pills and condoms, no targets were set.

Recommendations:

- The Government should enhance awareness in the society through IEC activities to increase inclination towards vasectomy and set prudent targets for both vasectomy and tubectomy.

- The Government should enhance awareness in the society through IEC activities to adopt spacing methods for family planning.

4.3.4 Monitoring and Supervision

- As per JSY guidelines, districts were directed to make available detailed information of names, address, contract number and details of payments to beneficiaries with name of ASHA and ANM at active JSY web site at state level which was to be monitored regularly at state level. As per provision, detailed supervision and monitoring of implementation of the programme was to be ensured by JSY cell at State level. No documentary evidences were found in any of the test-checked districts in support of supervision and monitoring carried out by JSY Cell;

- As per JSY guidelines, 10 *per cent* JSY beneficiaries were to be physically verified by Chief Medical Officer (CMO) and their subordinate officers. It was found in audit that required 10 *per cent* physical verification was not done in any of the test checked districts as any evidence regarding physical verification, corrective and penal actions/directions was not found. In the absence of physical verification, it was not known as to whether JSY beneficiaries were fully satisfied with the services provided by government institutions for institutional deliveries or otherwise and financial benefits were extended only to genuine beneficiaries; and

- As per Programme Implementation Plan, to reduce MMR, listing and follow up of severe anemic pregnant women and details of high risk pregnancy cases were to be reported to CMO by sub-centres, PHCs/CHCs and health units of districts level for treatment of severe anaemia. No such reports and follow-up actions on these reports were found in any of the test-checked districts.

[3]Bulandshahr and Sultanpur.