

NATIONAL HEALTH MISSION

A REPORT ON HEALTH MANAGEMENT INFORMATION SYSTEM NHM

**CENTRAL DISTRICT, DELHI
SUBMITTED TO
MINISTRY OF HEALTH AND FAMILY WELFARE**

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ABBREVIATIONS AND ACRONYMS

ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activists
BCG	Bacillus Calmette Guerin
HMIS	Health Management Information System
IUCD	Intra Uterine Contraceptive Device
JSY	Janani Suraksha Yojana
MoHFW	Ministry of Health and Family Welfare
MTP	Maternal Termination of pregnancy
OPV	Oral Polio Vaccines
PRC	Population Research Centre
RCH	Reproductive and Child Health
SBA	Skilled Birth Attendant
MTP	Medically Terminated Pregnancy

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This study has tried to evaluate the data of health services being provided under NHM, Ministry of Health and Family Welfare, Government of India. Mainly we have evaluated the health indicators i.e. institutional delivery, JSY, maternal health, child immunization and family planning. This study has tried to bring out the emerging policy issues which are not addressed so far. We have tried to evaluate the performance of different health indicators of Central District.

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EXECUTIVE SUMMARY

STUDY BACKGROUND

This study has tried to evaluate the performance of maternal and child health indicators on HMIS portal of Central district from the financial year of 2010-11 till 2014-15. Indicators regarding ANC checkups, Institutional deliveries, Home deliveries and Family planning were taken into consideration. Besides health indicators we have also analyzed the number of validation and outliers in the district to evaluate the overall performance of HMIS in the district.

KEY FINDINGS

- ✚ The shares of probable outliers in HMIS data have increase and it was found that number outliers were found more in the data of family planning and patient services. Percentage share of validation errors have shown declining trend in central district. Most of the validation errors were reported in the category of child immunization.
- ✚ There was decline in the percentage of women who registered for ANC check-ups but increasing trend has been observed among the women who received 3 ANC check-ups. When it comes to institutional deliveries there was increase in the number of institutional deliveries in the year 2011-12 but after that declining trend has been seen in the district. When it comes to home deliveries, there was decline in the number of home deliveries and increase in the number of home deliveries handled by SBA attendant.
- ✚ The performance of JSY registration is showing declining trend both in district and state, similarly there was decline in the percentage of home deliveries got JSY incentive.
- ✚ Percentage of C- section conducted has increased in both public and private institutions in the district. But the share of C-sections conducted was still more in private institutions.
- ✚ Number of reported maternal deaths in district have declined after 2012-13. While in state increasing trend has been seen after 2011-12.
- ✚ Percentage of MTPs conducted at public health institutions have declined from the year 2010-11 till 2014-15. Further the percentages of MTPs conducted at private institutions have increased in the district.
- ✚ Overall sterilizations conducted at public health institutions have declined. But out of the conducted sterilization the percentage of tubectomies were more than the vasectomies in the district. Further percentage of people who opted for IUCD insertion was higher in public health facilities in comparison to private health facilities.
- ✚ Percentage of live births who got BCG vaccinations was higher in the district, it was reported more than hundred percent. Further the dropout rate between BCG vaccinations and Measles have declined in district. Whereas percentage of immunization sessions conducted in district have increased.
- ✚ Number of reported Infant deaths have shown increasing trend in both central district and state.

1. INTRODUCTION

The Health Management Information System (HMIS) of India is designed to contribute towards effective planning and administration at all levels of management viz. block, district and state. As such, all the health facilities (including non-government facilities) in India are encouraged to regularly report data in the prescribed HMIS formats which is then compiled and committed forward to the Ministry of Health and Family Welfare (MoHFW). This information is available for formulation, monitoring and evaluation of National Health Mission (NRHM), improvement of health service delivery and assessment of progress towards district, state and national health objectives. Besides, the health status reports generated from HMIS data are helpful while engaging with health policy and planning.

The need for an efficient Health Management Information System (HMIS) is well acknowledged. Given its relevance, regular monitoring and quality assessment of HMIS data is critical to ensure access to reliable information for decision-making and operational health services performance. For this purpose, the Ministry of Health and Family Welfare (MoHFW) has invited the Population Research Centres (PRCs) to assess the data quality of HMIS data and to examine the underlying causes of errors data quality of key HMIS indicators. The overall objectives of the report are:

- To study the performance of maternal and child health indicators from the data present in HMIS portal.
- To analyze probable outliers and validation errors present in the HMIS data.

This report will be entirely based on secondary data extracted from HMIS portal from the standard reports.

1.2 STUDY OBJECTIVES

The broad objective of the study is to examine the level of reporting of maternal and child health services mainly institutional delivery and immunisation in the HMIS and to unravel the underlying causes for data error. The specific objectives of the study are as follows:

- To study the performance of maternal and child health indicators at the district level.
- To identify reasons behind increase or decline in probable outliers and validation errors.
- To suggest measures to improve HMIS data.

1.3 STUDY APPROACH

This HMIS study is based on secondary level analysis of HMIS data of different districts of Delhi. The present study will focus on performance of key HMIS health indicators in the central district of Delhi. We have extracted data from the financial year 2010-11 till 2014-15 from standard reports of HMIS portal. We have tried to focus mainly on two components of HMIS, a) performance of key health indicators in the district and b) errors and outliers present in the HMIS data. For that we have taken data from the following files; a) F.1 Performance of key HMIS indicators (up to district level), b) I. Validation summary, c) J. Data Quality – Probable validation and outliers. After the extracted the data we have developed a format according to which data was analysed and then recommendations were given. This study is basically analytical in nature whose main purpose is to examine the present quality of HMIS data and how far health indicators have improved after the advent of National Health Mission. This study will useful in identifying the gaps in the present data set and health indicators.

2 .CENTRAL DISTRICT

Central district is the administrative unit of Delhi. It is bounded by the Yamuna River on the east, and by the districts of North Delhi to the north, West Delhi and South West Delhi to the west, New Delhi to the south, and East Delhi to the east across the Yamuna. According to the 2011 census Central Delhi has a population of 578,671, roughly. The district has a population density of 23,149 inhabitants per square kilometre (59,960/sq mi). Its population growth rate over the decade 2001-2011 was -10.48%.^[1] Central Delhi has a sex ratio of 892 females for every 1000 males, and a literacy rate of 85.25%

Fig 1: Map of Delhi and Central District



Table 1: Key Demographic Indicators: All India, Delhi & Central

Description	India	Delhi	Central	Source
Approximate population	121 Crores	1.68 crores	582320	census2011
Actual population	1,21,05,69,573	16,787,941	582320	census2011
Male	6,231,843	8,987,326	307281	census2011
Female	58,74,47,730	7800615	274499	census2011
Population growth	17.7	21.21	-9.9	census2011
Sex ratio	943	868	892	census2011
Child sex ratio	914	871	905	census2011
Density /km2	416	11320	27730	census2011
Area km2		1483	23	census2011
Literacy	73	86.21	85.14	census2011
Male literacy	80.9	90.94	87.5	census2011
Female literacy	64.6	80.76	82.49	census2011
Child proportion (0-6 Age)	13.6	2012454	10.77	census2011
Boys proportion (0-6 Age)	13.8	1075440	10.70	census2011
Girls proportion (0-6 Age)	13.4	937,014	10.86	census2011

- Total population of central district is 582320 out which 52.7 percent is male population and 47.1 per cent is female population. The population growth is -9.9 in the district.
- Sex ratio in central was better in central district which was 892 in comparison to whole of Delhi.
- Literacy percentage was 85.14 per cent out of which 87.5 percent male were literate and 82.49 percent of females were literate.
- Child proportion (0-6 Age) was 10.77 out which boys constitute 10.70 and girls were 10.86 in proportion in the district.

3. Validation and outliers

Table 2: Validation errors, outliers and share of validation error of central district in state errors

Year	District			Delhi	Share of Central District
	VE	O	Both	Total Error	Validation Error
2010-11	5	51	0	233	2.1
2011-12	8	69	0	196	4
2012-13	6	63	0	170	3.5
2013-14	3	52	0	155	1.9
2014-15	1	65	0	145	0.7

* VE: Validation Error, * O: Outlier,

The table no 2 shows the validation errors, outliers and share of validation errors of central district in state. From the above mentioned table we can see that validation error in both state and district was lower than the outliers. When it comes to validation errors central district was performing well, as their share of validation error has reduced considerably. Outliers were higher in the district in comparison to the state. The share of district's validation errors has been calculated by adding the errors of each district and then taking out the percentage share of the concerned district.

Figure 2: Trends in validation errors and outliers in Central District

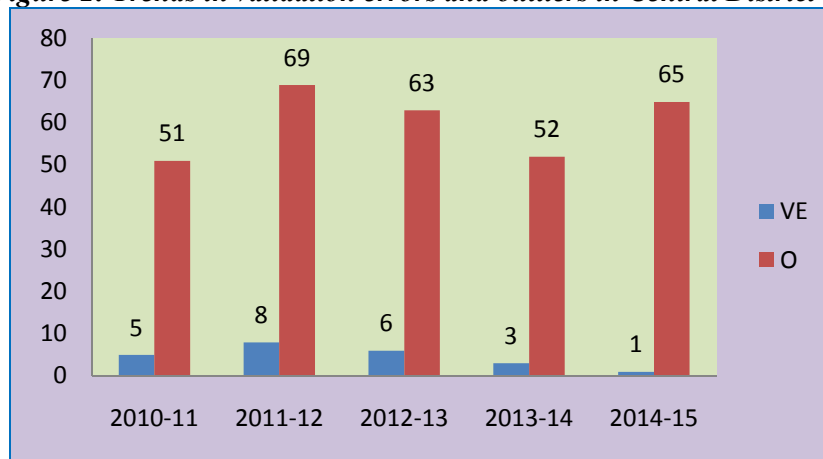


Fig 3: Trends in Validation errors in Central District and Delhi

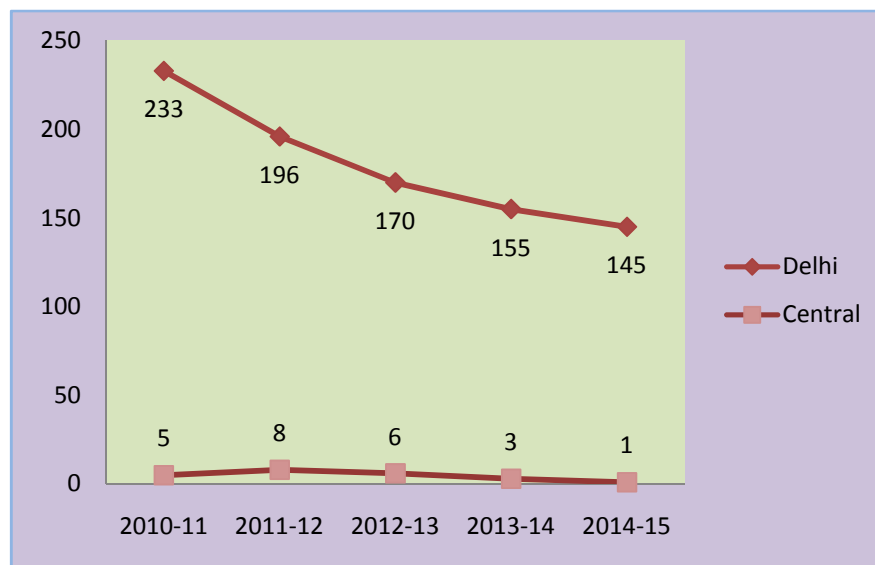


Fig no 3 shows the trends in validation errors in both central district and state. As we can see from the figure trend has shown declining trend in both district and state. This indicates that most of the districts were performing better when it comes to checking validation errors in the HMIS data.

The table no 3 shows the data items with validation and outliers from the year 2010-11 till 2014-15. Indicators such as deliveries, family planning, child immunization, patient services, laboratory testing and details of death reported during the month with probable causes. There was decline in the number of outliers in the category of deliveries over the years. Similar case was seen in patients services, laboratory testing and details of deaths reported during the month with probable causes. But in the case of family planning and child immunization there was subsequent increase in the number of outliers. Number of validation errors was higher in the category of child immunization.

Table 3: Data items with validation errors and outliers, Central District

THEMES		YEARS									
ID	DETAILS	2010-11		2011-12		2012-13		2013-14		2014-15	
		O	VE	O	VE	O	VE	O	VE	O	VE
Part A	REPRODUCTIVE AND CHILD HEALTH	0	0	0	0	0	0	0	0	0	0
M1	Ante Natal Care Services ANC	1	0	1	0	0	0	1	0	3	0
M2	Deliveries	6	0	1	0	0	0	0	0	2	0
M3	Number of Caesarean C-Section deliveries performed at	0	0	0	0	1	0	0	0	3	0
M4	Pregnancy outcome & weight of new-born	2	3	0	0	0	0	0	0	0	0
M5	Complicated pregnancies	2	0	6	0	1	0	5	0	0	0
M6	Post - Natal Care	0	0	1	0	0	0	1	0	0	0
M7	Medical Termination of Pregnancy (MTP)	0	1	1	0	0	0	1	0	0	0
M8	RTI/STI Cases	0	0	3	0	4	0	0	0	0	0
M9	Family Planning	5	0	13	0	14	0	12	0	13	0
M10	CHILD IMMUNIZATION	0	21	9	8	5	6	10	3	15	1
M11	Number of Vitamin A doses	2	0	0	0	0	0	2	0	4	0
M12	Number of cases of Childhood Diseases reported during the month 0-5 years:	3	0	5	0	6	0	4	0	4	0
Part B	Other Programmes	0	0	0	0	0	0	0	0	0	0
M13	Blindness Control Programme	2	1	0	0	1	0	1	0	1	0
Part C	Health Facility Services	0	0	0	0	0	0	0	0	0	0
M14	Patient Services	14	0	11	0	9	0	4	0	9	0
M15	Laboratory Testing	5	0	7	0	11	0	3	0	4	0
Part E	Mortality Details	0	0	0	0	0	0	0	0	0	0
M17	Details of deaths reported during the month with probable causes:	12	0	12	0	11	0	7	0	7	0

Source: Probable outliers and errors of Central District in HMIS

4. Assessment of Key RCH and Family Planning Indicators

Table 4: Reported levels of ANC registration, institutional deliveries and home deliveries in Central District and Delhi

Year	District			State			% share of district		
	ANC Registered	Institutional deliveries	Home deliveries	ANC Registered	Institutional deliveries	Home deliveries	% share	% share	% share
2010-11	102115	23408	-	768916	168217	8358	13.2	13.9	-
2011-12	159248	43584	1049	824600	204350	10115	19.3	21.3	10.3
2012-13	166763	42605	1169	850600	221920	13494	19.6	19.1	8.6
2013-14	143126	43095	1090	890664	230929	13910	16	18.6	7.8
2014-15	122758	46312	977	874226	247999	16642	14.04	18.6	5.8

Source: Standard Reports HMIS Portal

The table no 4 shows the performance of ANC checkups, Institutional deliveries, home deliveries in district and state. The data for central district for the financial year 2010-11 was not available. When it comes to ANC registration there was considerable increase in the number of ANC checkups in the district. Institutional deliveries have shown fluctuating trend there was increase till the year 2011-12 and there was decline in the year 2012-13 and then again there was increase from the year 2013-14. Similar trend was observed for home deliveries. When it comes to state there was increasing trend among ANC checkups, Institutional deliveries and interestingly in home deliveries as well. When it comes to percentage share of district, there was decline in the percentage share of ANC registration, institutional deliveries and home deliveries as well.

Fig4: The trend of Home Deliveries in District and State of Delhi

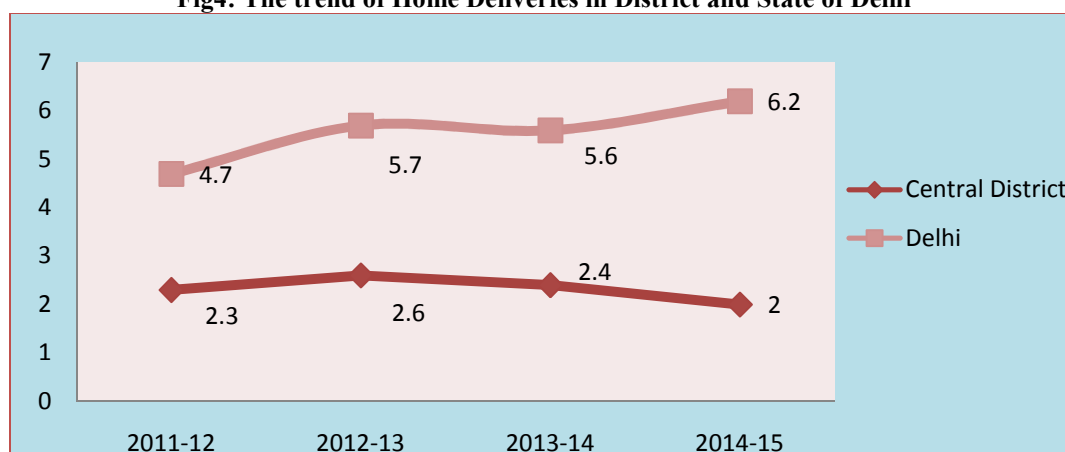


Fig no 4 shows the trend of home deliveries in central district and state. One can see that the percentage share of home deliveries out of total deliveries has declined. But on the contrary when it comes to state, increasing trend has been noticed in home deliveries.

Table no 5 shows the distribution of home and institutional deliveries in both state and district level. In this category other than home and institutional deliveries other factors such as deliveries conducted through skill trained worker and JSY payment given for both home and institutional deliveries. When home deliveries comes into picture, declining trend has

been observed in central district and on the contrary in Delhi state there was increase in the number of home deliveries over the years. Further there was substantial increase in the number of home of deliveries conducted through SBA attendant. When it comes to JSY payments, district performance was not satisfactory as the number of JSY payments have declined over the years. For the year 2010-11 data of above mentioned indicators was not available. The trend over all shows that still there is scope of amelioration in terms of imparting JSY services to the people. Still lot of difficulties are being faced by the beneficiaries to get access to their incentive which discourages them to access public health facilities.

Table 5: Distribution of home and institutional deliveries, at central district and Delhi

Indicators: Home deliveries	2010-11		2011-12		2012-13		2013-14		2014-15	
	D	S	D	S	D	S	D	S	D	S
Number of home deliveries	-	8358	1049	10115	1169	13494	1090	13910	977	16642
Number of home deliveries attended by SBA trained (Doctor/Nurse/A NM)	-	1240	23	1439	11	1894	43	2204	51	2665
Number of home deliveries attended by Non SBA trained (trained TB/Dai)	-	7118	1026	8676	1158	11600	1047	11706	926	13977
% SBA attended home deliveries to Total Reported Home Deliveries	-	14.8	2.2	14.2	0.9	14	3.9	15.8	5.2	16
Mothers paid JSY incentive for home deliveries	-	96	12	75	13	253	14	122	8	83
% Mothers paid JSY incentive for home deliveries to Total Reported Home Deliveries	-	1.1	1.1	0.7	1.1	1.9	1.3	0.9	0.8	0.5

Source: Standard Reports HMIS Portal

Table no 6 shows the position of maternal health indicators in central district and in state of Delhi. From total number of pregnant women registered for ANC checkups, we can observe that there was considerable increase in the total number of pregnant women registered for ANC check up. There was overall increase in the ANC checkups in both district and state level which shows the increase awareness among masses. When we see the overall percentage of women who received 3 ANC checkups there was considerable increase from the financial year 2010-11 to 2011-12. When it comes to distribution of IFA tablets district

was performing better than state. In the case of severe anaemic patients, there was sharp increase in the anaemic patients in the financial year 2013-14. Less number of patients reported issues such as hypertension during the time of pregnancy.

Table 6: Key indicators related to antenatal care, at Central district and Delhi

Indicators: ANC checkups	2010-11		2011-12		2012-13		2013-14		2014-15	
	D	S	D	S	D	S	D	S	D	S
Total number of pregnant women Registered for ANC	102115	768916	159248	824600	166763	850600	143126	890664	122758	874226
Number of Pregnant women registered within first trimester	13411	193234	31821	218165	34435	258367	28084	276523	34169	303725
Number of pregnant women received 3 ANC check ups	27403	357777	66376	432911	77375	471037	67510	531436	70412	512679
TT2 or Booster given to Pregnant women (numbers)	12291	196899	30741	216148	30691	227042	30841	231488	31854	249692
% Pregnant Woman received 3 ANC check ups to Total ANC Registrations	26.8	46.5	41.7	52.5	46.4	55.4	47.2	59.7	57.4	58.6
% Pregnant women received TT2 or Booster to Total ANC Registration	12	25.6	19.3	26.2	18.4	26.7	21.5	26	25.9	28.6
Number of Pregnant women given 100 IFA tablets	37524	366808	60456	455959	89606	514071	60369	522123	57455	482855
% Pregnant women given 100 IFA to Total ANC Registration	36.7	47.7	38	55.3	53.7	60.4	42.2	58.6	46.8	55.2
Number having Hb level<11 (tested cases)	26597	253055	36254	275019	31324	293761	29894	274161	30271	305471
Number having severe anaemia (Hb<7) treated at institution	907	17836	2749	17352	3369	19941	4374	24263	1103	19448
% Pregnant women having severe anaemia (Hb<7) treated at institution to women having hb level<11	3.4	7	7.6	6.3	10.8	6.8	14.6	8.8	3.6	6.4
% New cases detected at institution for hypertension to Total ANC Registrations	0.7	2.6	1.2	2.2	0.9	2.6	0.6	3.5	0.9	2.7

Table 7: Distribution of c-section deliveries in public and private facilities, at Central district and Delhi

Indicators: Home deliveries	2010-11		2011-12		2012-13		2013-14		2014-15	
	D	S	D	S	D	S	D	S	D	S
Number of C-section deliveries conducted at public facilities	5197	33071	7088	32830	7536	37980	7567	40961	8086	45758
Number of C-section deliveries conducted at private facilities	938	8352	5463	14982	5083	16806	5179	19896	5373	24001
% C-section deliveries (Public + Pvt.) to reported institutional (Public + Pvt.) deliveries	26.2	24.6	28.8	23.4	29.6	24.6	29.6	26.4	29.1	28.1
% C-sections conducted at public facilities to Deliveries conducted at public facilities	25.4	23.2	22.3	18.9	23.1	19.9	22.4	21.1	22.1	22.3
% C-sections conducted at Private facilities to Deliveries conducted at private facilities	31.6	32.7	46.3	48.3	50.7	51.5	55.6	54.3	55.7	56.4

Source: Standard Reports HMIS Portal

Table no.7 shows the distribution of c-section operations in public and private facilities of central district and state. There was increase in the number of C-sections conducted at the public health facilities in both state and district. This indicates towards accessibility towards public health institutions. But at the same time there was also increase in the number of c-sections being conducted in the private facilities. There can be two reasons for the above mentioned trend, first is increase in the rate of migration which is becoming reason behind the overload on the public facilities, and secondly due to lack of infrastructure and human resources those who can afford are opting for private health facilities. If we compare percentage of c-section deliveries conducted at public institutions and private institutions, we can see a sharp contrast in increasing percentage of deliveries conducted in private institutions which shows that large number of c-sections was being conducted in private facilities.

Table 8: JSY registration and payments for deliveries at home and public facilities, district and state

Indicators: Home deliveries	2010-11		2011-12		2012-13		2013-14		2014-15	
	D	S	D	S	D	S	D	S	D	S
Total number of pregnant women Registered for ANC	102115	768916	159248	824600	166763	849629	143126	890664	122758	874226
% JSY registration to Total ANC Registration	5.1	6.2	6.5	7.4	5.8	7.5	4	4.7	4.1	3.9
% Mothers paid JSY incentive for home deliveries to Total Reported Home Deliveries	-	1.1	1.1	0.7	1.1	1.9	1.3	0.9	0.8	0.5
% Mothers paid JSY Incentive for Delivery at Public institution to Total Public Deliveries	8.8	9.9	13.9	11	13.9	11.7	6.2	5.9	5.6	6.8
% of cases where JSY Incentive paid to ASHA for Delivery at Public institution to Total Public Deliveries	0.1	1.4	2.3	1.3	2	2.1	1.9	1.5	1.9	1.7

Source: Standard Reports HMIS Portal

Table no 8 shows the JSY Registration and payments given to home and institutional deliveries at state and district level. There was sharp decline in the percentage of JSY registration over the years in both district and state level, the shift of mode of payment behind cheque to account payee can be one of the major reason behind decline in the JSY registrations. The date for the year 2010-11 for district was not available for the central district which should be taken into account. There was overall decline in JSY payments which should be evaluate and necessary steps should be taken to improve it.

Fig no 5 shows JSY incentive paid to mothers for their deliveries in public institutions at both district and state level. After 2012 there was decline in JSY payments both at state and district level. The reason behind this decline can be shift from cash mode to account payee mode of payment. As most of the population belonging to BPL section don't have bank accounts and it becomes a difficult process for them to open an account to access their money.

Fig 5: JSY Incentive paid to Mothers for their delivery in Public Institutions.

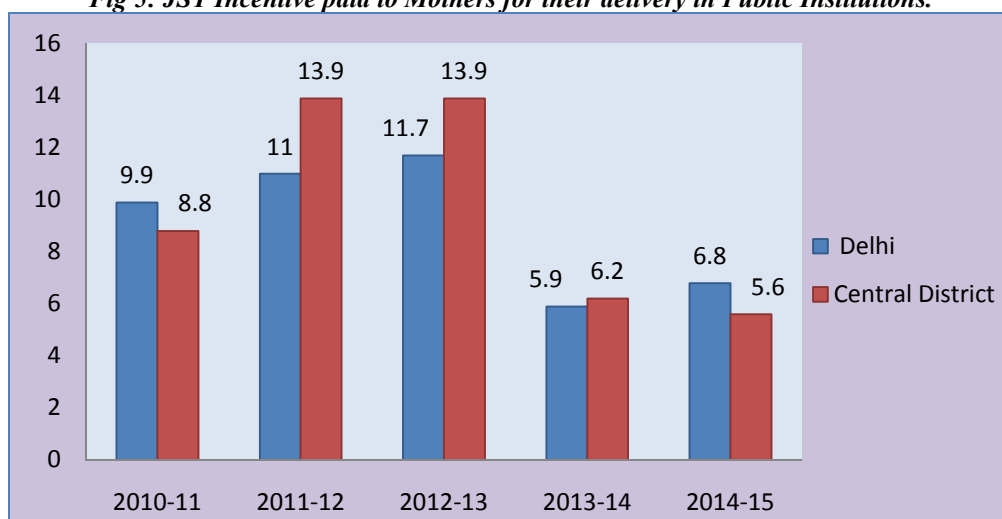


Table 9: Spontaneous abortions and MTPs, at central district and Delhi

Indicators: Home deliveries	2010-11		2011-12		2012-13		2013-14		2014-15	
	D	S	D	S	D	S	D	S	D	S
Total Number of Abortions (Spontaneous/ Induced) Reported	4456	26241	4320	27746	4494	30508	5021	29521	5043	31605
Total Number of MTPs (Public) reported	2327	15157	1803	10473	1660	10672	1523	9255	1454	8259
% MTPs (Public) to Abortions	52.2	57.8	41.7	37.7	36.9	35	30.3	31.4	28.8	26.1
% MTPs up to 12 weeks of Pregnancy to Total MTPs at Public Institutions	91.7	91.4	93.4	90.9	96.6	93.1	93.6	92.4	93.9	91.6
% MTPs more than 12 weeks of Pregnancy to Total MTPs at Public Institutions	8.3	8.6	6.6	9.1	3.4	6.9	6.4	7.6	6.1	8.4
% MTPs Conducted at Public Institutions to Total MTPs	72.7	51.7	53.4	48	49.2	48.8	41.1	44.3	42.3	38.1
% MTPs Conducted at Private Institutions to Total MTPs	27.3	48.3	46.6	52	50.8	51.2	58.9	55.7	57.7	61.9

Source: Standard Reports HMIS Portal

Table no 9 shows the status of abortions and Medical terminated pregnancies in both state and district. There was rise in number of abortions reported in both district and state. But when it comes to medically terminated pregnancies there was a declining trend in both district and state and most of the MTPs were conducted before 12th week of pregnancy. But in spite of reduction in MTPs, large numbers of MTPs are being conducted in private facilities in comparison to public facilities which show an alarming trend towards rise in illegal MTPs in both district and state.

Fig 6: MTPs conducted in Private and Public Institutions at District and State

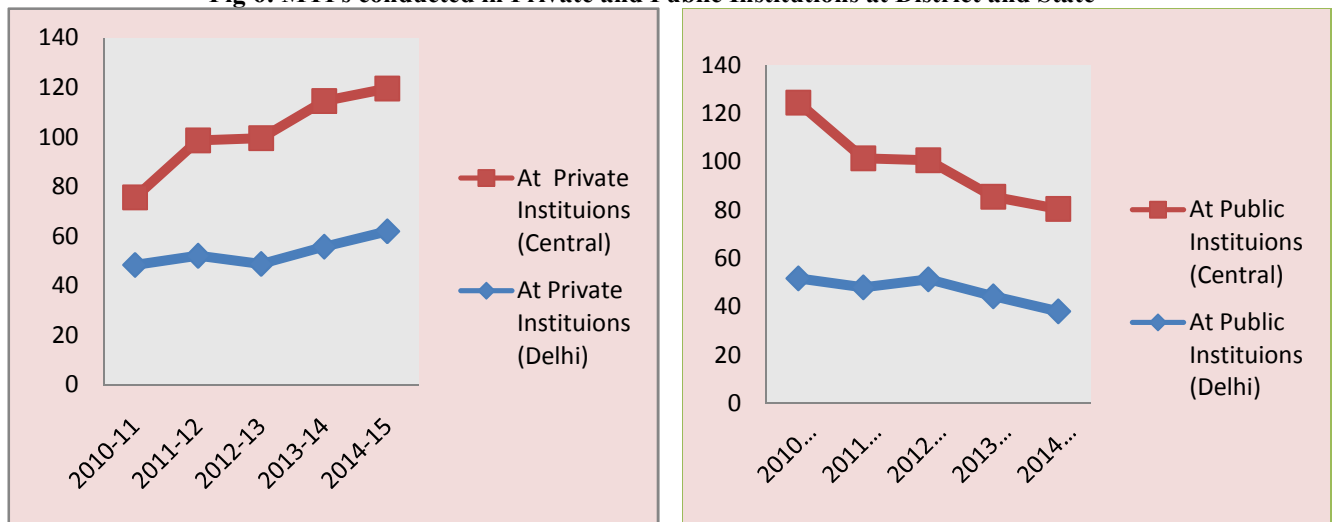


Fig no 6 shows the MTPs conducted in private and public institutions in central district and state. When it comes to private institutions, there was stability for the number of MTPs conducted in central district after 2012-13 but on the contrary there was sharp increase in MTPs when over Delhi scenario is analyzed. While in public institutions there was steady increase in the district but there was decline in the state for MTPs conducted in public institutions.

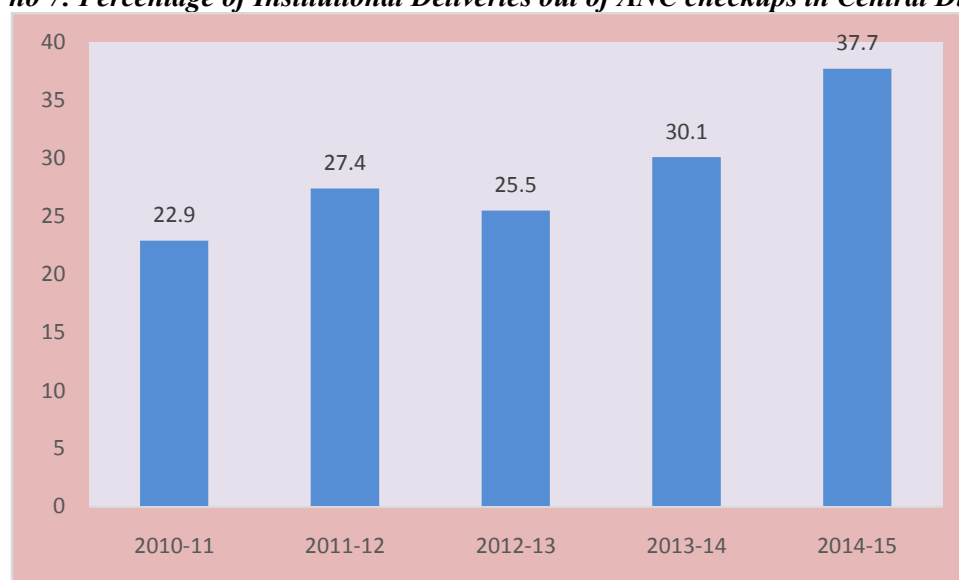
Table no 10 shows the position of tubectomies and vasectomies at the district and state level. The number of tubectomies conducted was more than the vasectomies at both central and state level. Number of serialisations has declined over the years due to upcoming spacing method such as IUCD, Contraceptive pills and Emergency contraceptive pills. If the above mentioned data is analysed then it can be seen that the number of IUCD insertions have increased over the years in both public and private sectors.

Table 10: Tubectomies and vasectomies conducted at public and private facilities, at central district and Delhi

Indicators: Home deliveries	2010-11		2011-12		2012-13		2013-14		2014-15	
	D	S	D	S	D	S	D	S	D	S
Number of Vasectomies Conducted (Public + Pvt.)	1576	2801	1549	2880	927	1594	959	1403	370	811
Number of Tubectomies Conducted (Public + Pvt.)	2760	15339	3681	17561	3452	19840	3238	19018	3225	17121
Total Sterilisation Conducted	4336	18140	5230	20441	4379	21434	4197	20421	3595	17932
% Male Sterilisation (Vasectomies) to Total sterilisation	36.3	15.4	29.6	14.1	21.2	7.4	22.8	6.9	10.3	4.5
% Tubectomies to Total sterilisation	63.7	84.6	70.4	85.9	78.8	92.6	77.2	93.1	89.7	95.5
IUCD Insertions done (public facilities)	1896	30204	4869	38196	4767	43408	5621	53812	8112	68363
IUCD insertions done (pvt. facilities)	185	2480	571	4344	569	4442	467	4075	484	3664

Source: Standard Reports HMIS Portal

Fig no 7: Percentage of Institutional Deliveries out of ANC checkups in Central District



The fig no.7 shows the percentage of institutional deliveries out of total ANC check-ups. It can be seen that there has been considerable increase in the percentage of institutional deliveries out of total ANC check-ups which indicates that more number of registered ANCs

were converted into institutional deliveries. But still there was need of improvement to increase the share of institutional deliveries among registered ANC check-ups.

Fig 8 : IUCD insertion in Central District and State

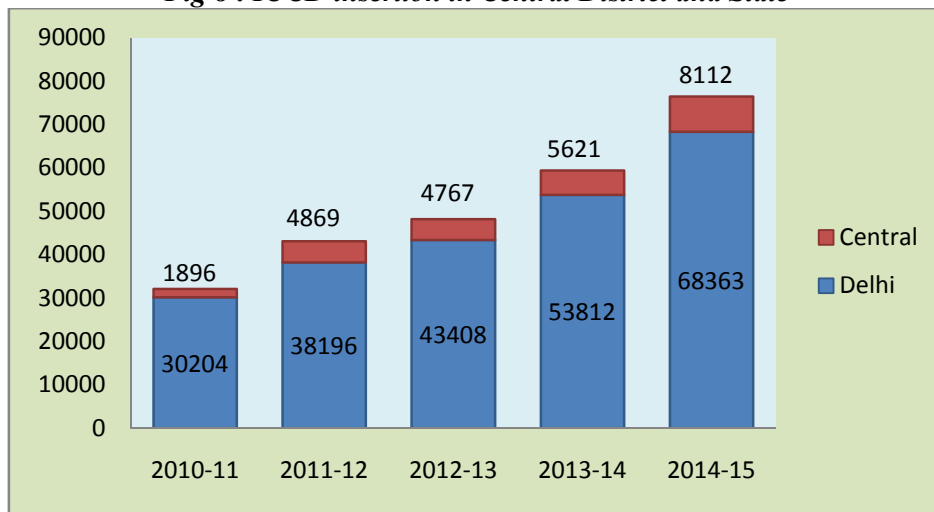


Fig no 8 shows that although the share of central district was less in overall picture of IUCD insertion in Delhi state, but there was considerable increase in the number of IUCD insertion in central district

Fig 9: Total reported Maternal Deaths in Delhi and Central District

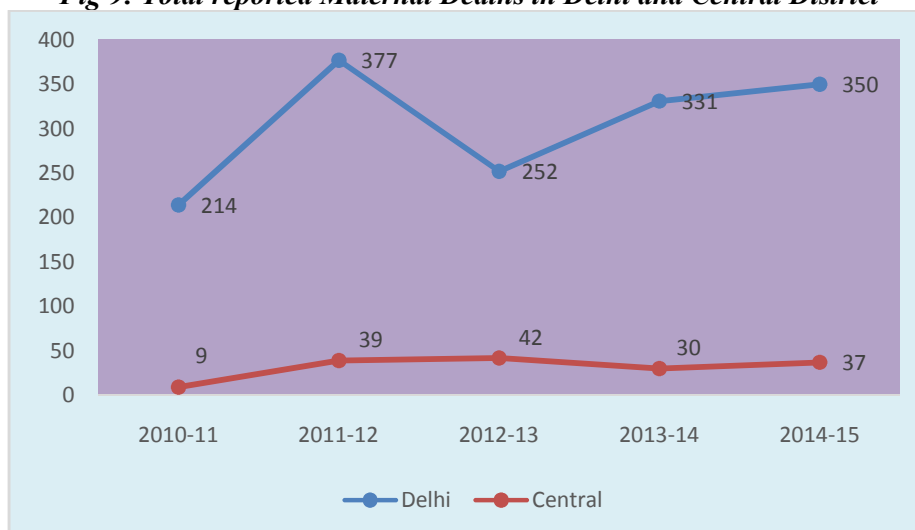


Fig no 9 is showing the trend of total number of reported deaths in district and state. When it comes to central district there has been steady increase in the number of maternal death reported. While in state there was sharp increase in the year 2011-12 followed by a decline in the year 2012-13. After that there has been steady increase in the total number of maternal death reported.

Table 11: Immunization-related indicators for Central district and Delhi

Indicators: Home deliveries	2010-11		2011-12		2012-13		2013-14		2014-15	
	D	S	D	S	D	S	D	S	D	S
% Newborns given OPV0 at birth to Reported live birth	81.9	96	86.4	93	87.8	92.6	89.8	92.7	82.5	89.9
% Newborns given BCG to Reported live birth	90.3	136.1	99.8	126.1	98.9	123.1	95.9	121	95.6	115.4
% Infants 0 to 11 months old who received Measles vaccine to reported live births	42.1	111	54.3	102.1	59.3	101.7	62.6	105.2	69.1	114.5
% Drop Out between BCG & Measles	53.4	18.5	45.5	19.1	40	17.4	34.7	13.1	27.7	0.8
% immunisation Sessions Held to Immunisation Sessions Planned	83.3	91.3	92.5	92.8	92.2	92.5	93	93.5	93.4	95.1
% Immunisation Sessions where ASHAs were present to Immunisation Sessions Planned	4	19	8.8	22	8.6	24.4	17	33.3	18.1	41.9

Source: Standard Reports HMIS Portal

Table no 11 shows the immunization related indicators for both at district and at state level. The percentage of new born that were given OPV0 has decreased over the years, it was performing well in 2012-13 and 2013-14 but again it declined in 2014-15. When it comes to percentage of BCG reported on live birth it can be seen that there is rise in the percentage which is more than 100, so it states that reported number of children who got BCG were more than the live birth in the district and state. This phenomenon has to be explained in terms why such numbers are taken for deriving such results. The large number of migration can also be one of the reasons behind more number of children given BCG dosage than the number of live birth. There should be a mechanism which can check the discrepancy in the data or such data should have explanation regarding how such results have been calculated. On a positive side the dropout rate have decreased in district from 53.7 percent in 2010-11 to 27.7 percent in 2014-15 and in state from 18.5 percent to 0.8 percent. On similar lines there was increase in the number of immunization sessions held in both state and district.

Fig 10 :Fully Immunized children (9-11 months) in central district

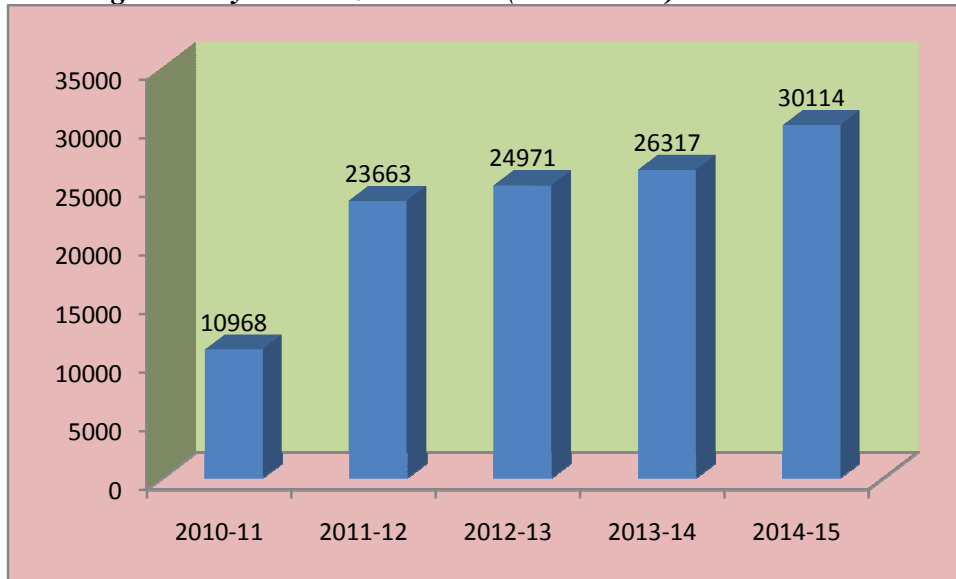


Fig no 10 shows the position of full immunization in central district, and the picture shows that there has been positive impact of immunization programs. There has been increase in the number of children who were fully immunized in spite of increase in the number of migratory population, immunization as a part of NHM was performing well in central district.

Fig 11: Showing total reported Infant Death in Delhi and Central District

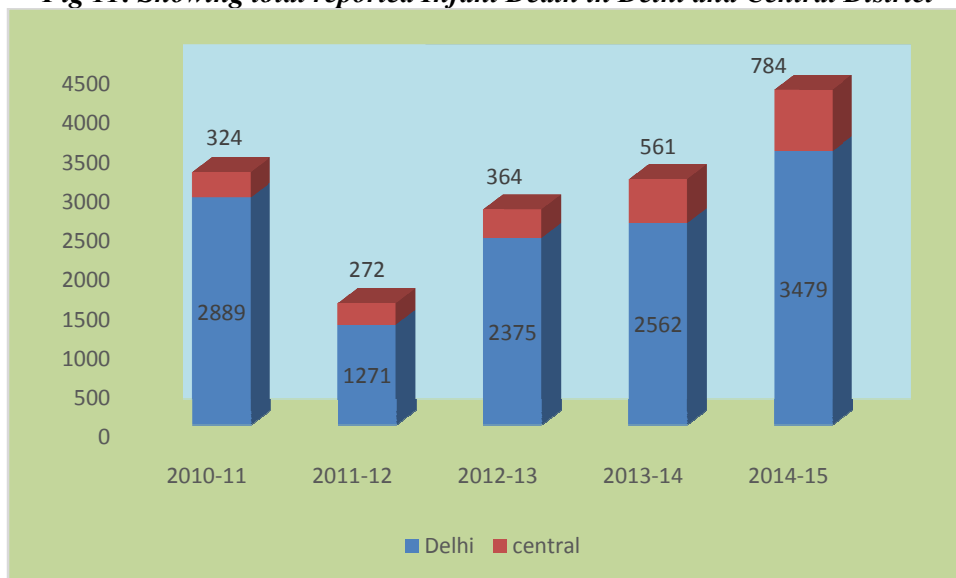


Figure no 11 is showing the position of infant death in the central district and Delhi. As we can see from the graphical representation that in the year 2011-12 there was a decline in the number of reported infant death in both district and state. But after a sharp decline, a considerable increase has been noticed over the years which indicated two scenarios; 1) Due

to advent of portals such as MCTS and HMIS there has been track on number of reported infant deaths, 2) Due to increase in the number of migratory population, there has been substantial increase in the number of infant deaths.

5. CONCLUSION AND RECOMMENDATIONS

5.1 CONCLUSION

- In central district there were more outliers in comparison to validation errors. Over the years, validation errors have declined considerably in central district. There is scope of improvement in quality of data, especially in categories like immunization which recorded highest number of validation errors.
- When it comes to assessing of RCH indicators in the district, indicators such as institutional deliveries was showing increasing trend in comparison to ANC check-ups and home deliveries which were showing fluctuating tendencies.
- Percentage share of home deliveries have declined in central district, while in state it has increased. Numbers of home deliveries attended by the SBA attendant have increase but they are still low in comparison to the home deliveries attended by the non-SBA attendants.
- Percentage of women who received 3 ANC checkups has increased in both district and state. Further there was increase in the number of anaemic women in state and in district fluctuating trend has been noticed.
- Number of c-sections conducted in public facilities has increased in both district and state.
- There was decline in the percentage of JSY payments out of total ANC registration which indicates that there has been decline in the access to JSY scheme in Delhi.
- There was decline in the percentage of MTPs in public institutions and increasing trend has been noticed among MTPs in private institutions. Further number of vasectomies has declined and number of tubectomies has increased in both state and district. Number of IUCD insertion has increased among private facilities.
- There was problem in immunization data when it comes to calculating number of children given BCG vaccination as it was more than the live birth in the district. This error should be rectified either by taking only those children who were delivered in the district or by justifying the calculation. On positive side there was decline in the percentage of drop out between BCG and measles.

5.2 RECOMMENDATIONS

- HMIS has indeed improved the procedure of data recording but still there are various gaps when it comes to quality of data. Categories such as number of children took BCG have been showing figures which are not justifiable. For instance number of children who took BCG injections was higher than the live birth in central district.
- Although the share of validation errors have declined over the period of time, but still there is need of contemplation of data from time to time in specific areas such as ANC checkups and immunization records.
- Further there should be separate mechanism of tracking migratory population in Delhi, especially in districts which share their boundaries with other states such UP and Haryana. The high level of migratory population is yet another issue which is affecting the quality of data. Proper verification of data should be done so that outcomes of the indicators should be realistic enough for further evaluation.
- It was found that in some of the probable outliers and validations data, the number which was mentioned was less the number of outliers and errors marked in the data. This should be checked as this was found in most of the files containing outliers and errors.
- It was seen that some of the indicators such as total ANC checkups and institutional deliveries were performing well till 2011-12 and after that declining trend has been seen. This should be taken into account for analyzing about the reasons behind sudden decline of these indicators.
- MTPs has increased in the private health institutions and decline has been seen in public health institutions which indicates that more people are utilising private health care for medically terminated pregnancies . When it comes to c-sections, it has increased in public health facilities but still private sector holds the major percent of c-section being conducted. So still there is major scope of improvement at the district and state level.
- Overall data quality of HMIS still needs to be improved in terms of accuracy and indicators. More reports can be uploaded which can give precise idea about the district level performance and through which data can be checked from time to time.