

***EVALUATION OF HEALTH MANAGEMENT INFORMATION SYSTEM DATA OF
NEW DELHI, NCT DELHI (2010-2015)***



Submitted to



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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
OPD	Out Patient Department
OPV	Oral Polio Vaccines
PRC	Population Research Centre
RCH	Reproductive and Child Health
SBA	Skilled Birth Attendant

ACKNOWLEDGMENT

HMIS is NHM **Health Statistics Information Portal**. This portal is a gateway to a wealth of information regarding the Health Indicators of India. The information available on this portal is being compiled from Health Management Information System (HMIS) and other varied information sources such as National Family Health Survey (NFHS), District Level Household Survey (DLHS), Census, SRS and performance statistics. The Health Statistics Information Portal facilitates the flow of physical and financial performance from district level to state HQ and the Centre using a web based Health Management Information System (HMIS) interface.

The HMIS report sponsored by the Ministry of Health and Family Welfare (MoHFW), Government of India to monitor the performance of programmes and interventions under National Health Mission (NHM).

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 New Delhi District.

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KEY FINDINGS

The study is based on the observation of the HMIS Data (2010-11 to 2014-15). The observation from HMIS data are following:

- The numbers of the committed outliers are more than the validation errors.
- The maximum numbers of outliers are related to family planning, child immunization, patient services, laboratory testing and details of death reported during the months with probable causes. While Validation errors are only found in child immunization.
- There is significant increase in the ANC registration and institutional deliveries.
- The Numbers of home deliveries attended by SBA has decreased over the time period, except in the year 2014-15; the marginal increase has noticed in 2014-15.
- The percentage of C-sectional deliveries out of total deliveries increased over the time. The C-sectional deliveries conducted at private facilities are more than the C-sectional deliveries conducted at public facilities.
- After ANC registration the pregnant women were receiving all 3ANC checkups, TT2 or booster, 100 IFA tablets etc. the variations were seen in the trend of receiving these services over the time period 2010-2015.
- Out of total mothers who were registered for JSY incentive, few beneficiaries' mother had received their JSY incentive after home and institutional delivery.
- The rate of abortions and MTPs has increased for the first two years (2011-12 and 2012-13) and after that it declined in the year (2013-14 and 2014-15).
- Out of total sterilization conducted at public and private facilities, the rate of male sterilization was very less. Moreover the numbers of tubectomies and IUCD conducted at public or private institutions witnessed very high.
- Children received all three vaccination mainly OPV0, BCG, and measles. Overall percentage of vaccination among children is satisfactory. There is gap in BCG & measles has seen in district. The regular session of immunization held at New Delhi district.
- The involvement of ASHAs in immunization session also increased significantly.

1. INTRODUCTION

New Delhi district is one of the eleven revenue districts of NCT Delhi. New Delhi is the capital of Delhi and it has a strong historical background. It was ruled by some of the most powerful emperors in Indian history. Mughals ruled Delhi in succession starting from Qutab-ud-din to Khiljis, Tughlaqs. The city of Delhi passed on to the hands of the British in 1803 AD. It was only in 1911, when the capital of British Empire was shifted from Calcutta to Delhi, that Delhi got its present prestige. After independence also, a kind of autonomy was conferred on the capital but it largely remained a chief commissioner's regime. In 1956 Delhi was converted into a Union territory and gradually the chief commissioner was replaced by a Lt. Governor. In 1991, the national capital territory Act was passed by the parliament and a system of diarchy was introduced under which, the elected Government was given wide powers; except law and order which remained with the central Government. The actual enforcement of the legislation came in 1993.

The present study is based on maternal and child health indicators of New Delhi district. This study would try to evaluate the performance of HMIS indicators with the help of standard reports, validation summary and probable validation & outliers reports.

SOCIOECONOMIC AND DEMOGRAPHIC PROFILE: DELHI AND NEW DELHI

The geographical map of the Delhi State and New Delhi district is presented in Figure 1.

Figure 1: New Delhi district, Delhi



Table 1: Key demographic indicators: All India, Delhi and New Delhi (Census 2011)

Description	India	Delhi	New Delhi
Actual Population (actual unit)	1,21,05,69,573	16,787,941	142,004
Male (actual unit)	62,31,21,843	8,987,326	77,942
Female (actual unit)	58,74,47,730	7,800,615	64,062
Population Growth (%)	17.7	21.21	20.72
Sex Ratio	943	868	822
Child Sex Ratio	NA	871	894
Literacy (%)	73	86.21	88.34
Male Literacy (%)	80.9	90.94	92.24
Female Literacy (%)	64.6	68.85	83.56
Child Proportion (0-6 Age) (%)	13.60	NA	8.99
Boys Proportion (0-6 Age) %	13.80	NA	8.64
Girls Proportion (0-6 Age) (%)	13.40	NA	9.40

Source: Census 2011

- Table 1 shows the demographic indicators of India, Delhi and New Delhi district from Census 2011. As per Census 2011, population growth in Delhi 16,787,941 of which 142,004 resides in New Delhi district.
- The male population is relatively higher in Delhi. Similarly, New Delhi has higher number of males at 77,942 males than females at 64,062.
- The sex ratio is 943, 868 and 822 in India, Delhi and New Delhi respectively. The child sex ratio however is relatively higher in the state and New Delhi district.
- The literacy rate of Delhi is 86.21 percent and 88.34 percent in New Delhi. Also, the female literacy rate is lower than male literacy rate in both the state and the district.
- Further, as per census 2011, the child proportion in the district was very low at 8.99 percent with 8.64 percent for boys and 9.40 percent for the girls.

2. DATA AND METHODS

The present study is descriptive in nature where HMIS data has been used for cross sectional and comparative analysis of maternal health, child immunization, institutional deliveries and family planning. HMIS is Based on a composite index calculated on 16 RMNCH+A indicators covering the following 4 stages of lifecycle: Pre-pregnancy/reproductive age, Pregnancy care, Child birth / delivery, Post natal, maternal and new born. Data has been extracted from standard reports located at HMIS portal. The purpose of the study is to analyse the

performance of reproductive and child care indicators in of New Delhi district for the period 2010-11 to 2014-15. The data has been extracted from following web link: https://nrhm-mis.nic.in/MOHEFW_MIES/UI/Reports/frmStandard_Reports.aspx

3. VALIDATION AND OUTLIERS

The table-2 shows the validation errors, outliers and share of validation errors of New Delhi District in state errors. In New Delhi district, numbers of outliers are more than validation errors during the time period 2010-15. Maximum validation errors 13 and outliers 74 are committed in 2013-14. None of the case has seen in which both (validation errors and outliers) the errors were committed over the time period in district.

Table 2: Validation Errors, Outliers and Share of “New Delhi” in Delhi State Errors

Years	New Delhi District			Delhi	Share of New Delhi District
	VE*	O*	BOTH*	Total Error#	Validation Error
2010-11	5	29	0	233	2%
2011-12	12	49	0	196	6%
2012-13	4	68	0	170	2%
2013-14	13	74	0	155	8%
2014-15	10	37	0	145	7%

Source: HMIS 2010-2015

Note: * - J.data quality -probable outliers and validation errors, # - I file validation summary

Ve- Validation Errors, O-Outliers, Both - Validation Errors and Outliers

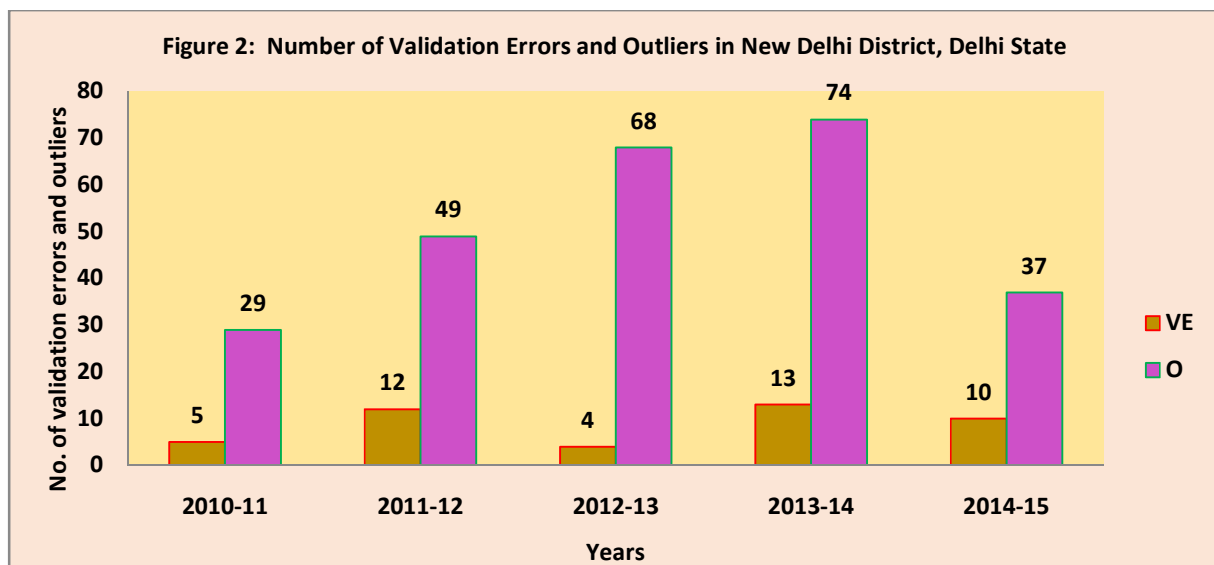


Figure - 2 bar graph shows the number of validation errors and outliers in district. An Increasing trend of the committed outliers has seen in the year 2010-11 to 2013-14. There is variation in the trend of the committed validation errors during the time period 2010-11 to 2014-15. In 2014-15 the committed validation errors and outliers significantly decreased by 37 and 10 from 74 and 10 in the year 2013-14.

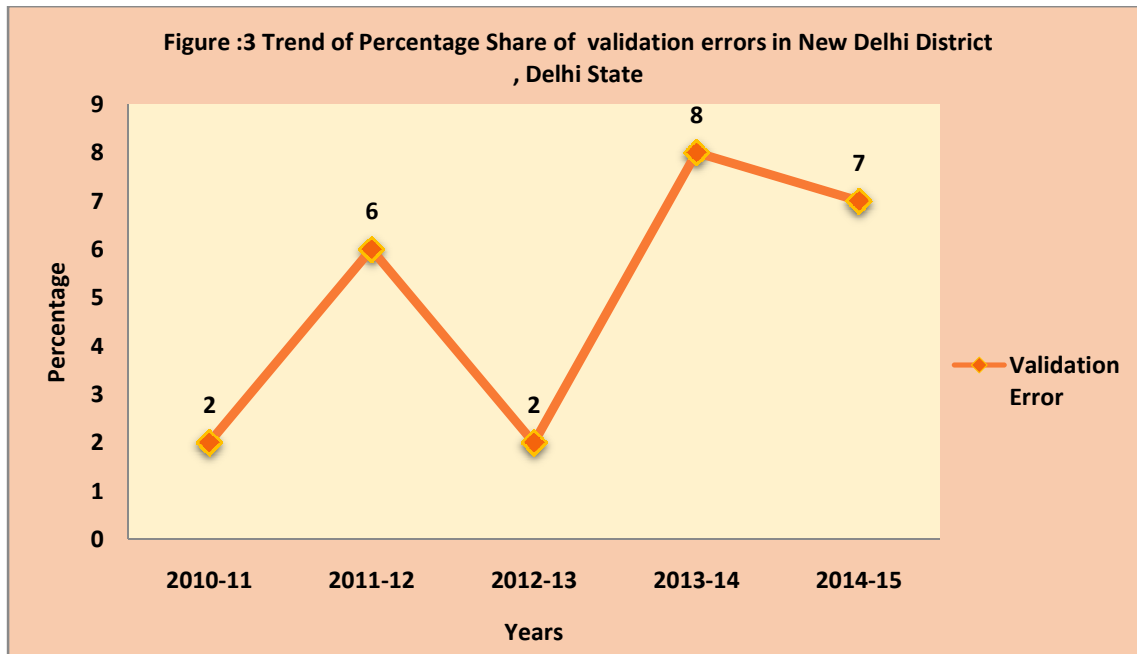


Figure- 3 shows the trend of percentage share of validation in New Delhi District. The district share of validation errors out of total errors committed by Delhi state is 2 % to 8 % through the years. The variation in trend line is visible in the above graph over the years. It is increasing to 6% in 2011-12, after that declined to 2% in 2012-13. Then again increased to 8% in 2013-14 and then declined to 7% in 2014-15.

Table 3: Themes of validation errors and outliers of New Delhi 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										
M1	Ante natal care services ANC					1		1		3	
M2	Deliveries			2		2		3			
M3	Number of Caesarean C-Section deliveries performed at					1					
M4	Pregnancy outcome & weight of new-born	1				1					
M5	Complicated pregnancies	1		4		1		6		2	

M6	Post - natal care	1		2				1			
M7	Medical Termination of Pregnancy (MTP)			2		3		1			
M8	Rti/sti cases	2		2		1		1		2	
M9	Family planning	1		7		12		7		12	
M10	Child immunization	6	5	6	12		4	4	13	3	10
M11	Number of Vitamin A doses	1						1			
M12	Number of cases of Childhood Diseases reported during the month 0-5 years:	1		1		1		3		2	
Part B	Other programmes										
M13	Blindness control programme	2		3				3			
Part C	Health facility services										
M14	Patient services			6		19		12		2	
M15	Laboratory testing	6		9		8		11		4	
Part E	Mortality details										
M17	Details of deaths reported during the month with probable causes	7		5		18		20		7	

Source – HMIS 2010-2015 – J. Data quality – probable outliers and validation errors

Table 3 Shows the theme of each validation errors and outliers for the time period 2010-11 to 2014-15. The maximum numbers of outliers and validation errors are related to themes: child immunization (63) followed by Details of deaths reported during the month with probable causes (57), family planning (39), patient services (39) and laboratory testing (38). While the minimum outliers and validation errors are related to themes; Caesarean C-Section deliveries (1) followed by Number of Vitamin A doses (2). The maximum numbers of outliers are related to family planning, child immunization, patient services, laboratory testing and details of death reported during the months with probable causes. While Validation errors are only found in child immunization.

4. ASSESSMENT OF KEY RCH AND FAMILY PLANNING INDICATORS

The reproductive and child health (RCH) programme was launched in October 1997. The Main objective of the programme is to reduce infant, child and maternal mortality rates. Assessment of key reproductive and child health and family planning indicators are related to complete health performance at district and state level. In the present study, mainly the assessment of key indicators of reproductive and child health, family planning;

.institutional delivery, ANC registration and facilities after ANC registration to all the beneficiaries, and child immunization were analysed.

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

Year	District			State			Percentage share of district		
	ANC Registered	Institutional deliveries	Home deliveries	ANC Registered	Institutional deliveries	Home deliveries	ANC Reg.	Inst. del.	Home del.
2010-11	21818	14242	-	768,916	168,217	8,358	3	8	-
2011-12	78416	40665	260	822846	204,175	10291	10	20	3
2012-13	71,890	40,094	416	852,363	223459	13807	8	18	3
2013-14	70695	39,891	486	890,664	230,929	13910	8	17	3
2014-15	79097	42,420	463	874,226	247,999	16642	9	17	3

Source – HMIS 2010-15, F.1. Performance of Key HMIS Indicators (up to District Level)

The table-4 shows the percentage of institutional deliveries, home deliveries and ANC registration in 2010-11 to 2014-15. The percentage of institutional deliveries is very high as compared to home deliveries in New Delhi district and Delhi as a state. In 2010-11, no home deliveries conducted in New Delhi district while 8358 home deliveries conducted in Delhi state. The district share of institutional delivery is 17% to 20% through the years 2011-12 to 2014-15. The percentage of institutional deliveries has decreased to 18% in 2012-13 from 20 % in 2011-12. In the year 2013-14, institutional deliveries decreased by 17% and remained stable at 17% in 2014-15. The percentage of ANC registration out of total deliveries is significantly higher. According to given assumption the higher percentage indicates multiple registration as well as deliveries conducted outside of district and state.

Table 5: Percentage share of Home Deliveries out of Total Deliveries in Delhi State and New Delhi District

	District	State
--	----------	-------

Year	Home deliveries	Total reported deliveries	Percentage of home deliveries to total reported deliveries	Home deliveries	Total reporter deliveries	Percentage of home deliveries to total reported deliveries
2010-11	-	14,242	-	8,358	176,575	4.7
2011-12	260	40,925	0.6	10291	214,466	4.8
2012-13	416	40,510	1	13807	237,266	5.82
2013-14	486	40,377	1.2	13910	244,839	5.68
2014-15	463	42,883	1.1	16642	264,641	6.29

Source – HMIS 2010-15, F.1. Performance of Key HMIS Indicators (up to District Level)

Table-5 shows the percentage of home deliveries out of the total deliveries reported at New Delhi district and state. The percentage of home deliveries shows an increasing trend. The percentage of home deliveries is very less. The table -6 shows only 1.1% of home deliveries in 2014-15 out of total deliveries at district. In Delhi state there is a gradual increase in the percentage of home deliveries over the years, the percentage of home deliveries decline from 5.82% to 5.68% in 2013-14 from 2012-13.

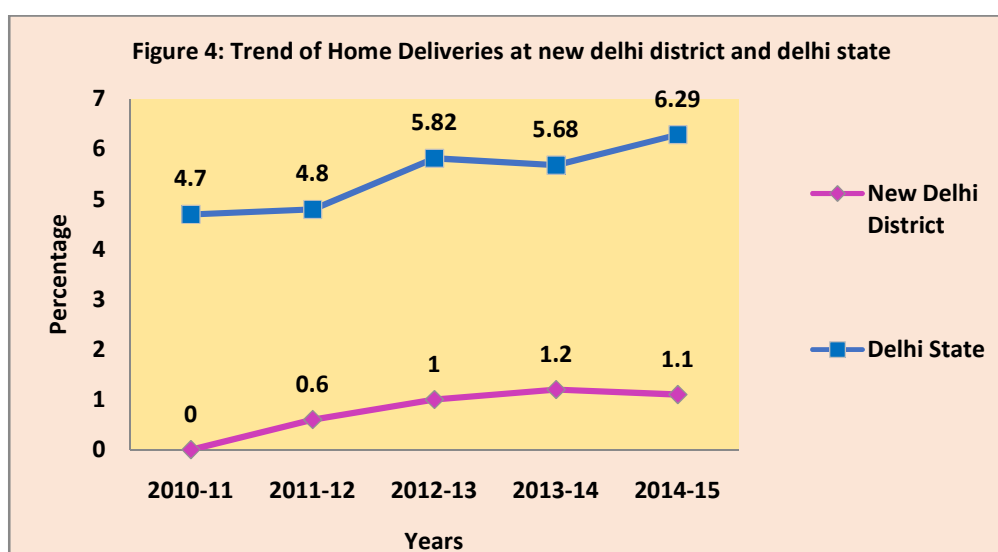


Figure-4 shows the home deliveries at New Delhi district and state level during the year 2010-15. The increasing trend of home deliveries is visible at district and state level. Home deliveries at district level are very less than the state level. The maximum percentage of home deliveries is 1.2% in 2013-14 at district level and at state level it is 6.3% in 2014-15.

Table 6: Distribution of home and institutional deliveries, Delhi State and New Delhi District

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	260	10291	416	13807	486	13910	463	16642
Number of home deliveries attended by SBA trained (Doctor/Nurse/ANM)	-	1240	34	1439	17	1923	11	2204	13	2665
Number of home deliveries attended by Non SBA trained (trained TB/Dai)	-	7118	226	8852	399	11884	475	11706	450	13977
% SBA attended home deliveries to Total Reported Home Deliveries	-	14.8	13.1	14	4.1	13.9	2.3	15.8	2.8	16
Mothers paid JSY incentive for home deliveries	-	96	10	75	40	253	17	122	17	83

Source – HMIS 2010-15, F.1. Performance of Key HMIS Indicators (up to District Level)

Table-6 shows the distribution of home deliveries and institutional deliveries at district and state level. The percentage of home deliveries attended by SBAs trained (Doctor/Nurse/ANM) at state level is 14% to 16 % throughout the years. At district level a sharp decreased in the percentage of home deliveries attended by SBAs trained (Doctor/Nurse/ANM) to 4.1% from 13.1% in 2012-13. While in 2014-15, there is gradual increase in home deliveries attended by SBAs trained (Doctor/Nurse/ANM) from 2.3% to 2.8% in 2013-14.

Out of 75 mothers who were paid JSY incentive for delivery at state level, only 10 mothers were from New Delhi district in 2011-12. In 2012-13, 40 mothers out of 253 who were paid JSY incentive. For the next two years 2013-14 and 2014-15, 17 out of 122 and 17 out of 83 mother's were paid JSY incentive.

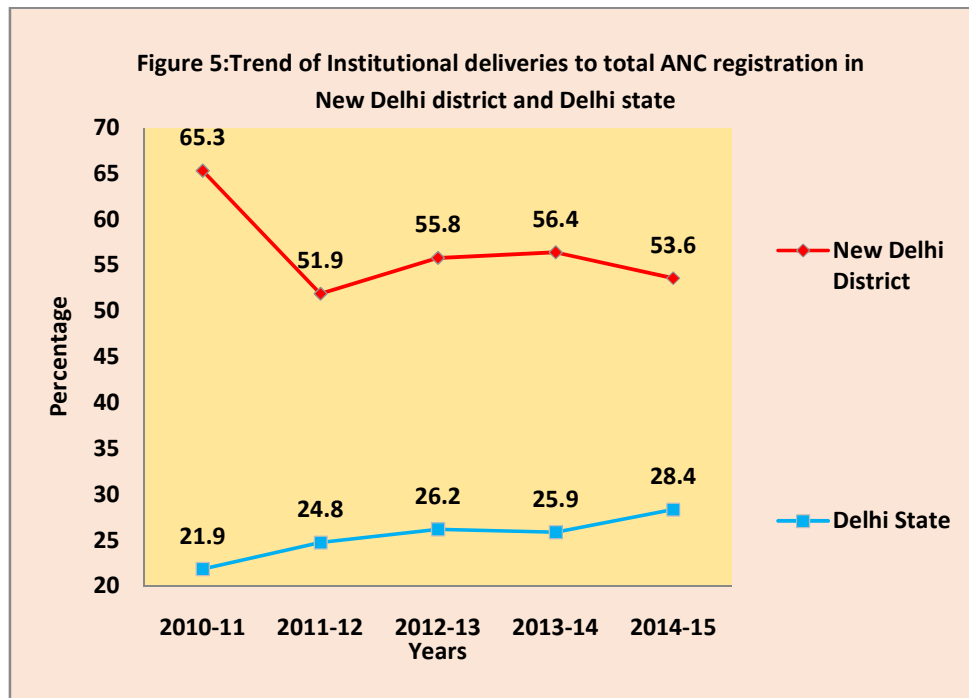


Figure -5 shows the trend of institutional deliveries at New Delhi district and state level. In district, the trend shows the variations in institutional deliveries over the time period. While in state it shows an increasing trend for the same time period. At district level, in 2011-12 a sharp decline to 51.9% from 65.3% in 2010-11 has seen and after that it increased for two consecutive years (2012-13 and 2013-14). In most recent years 2014-15 53.6% institutional deliveries conducted at district level.

4.1 MATERNAL HEALTH

Maternal Health activities in the district involve ANC registration, delivery services, JSY and JSSK services, and managing critical deliveries. With regard to ANC registration, 3 antenatal visits, 100 IFA tablets and TT2 or booster the district sees an improvement. Table 7 presents the detailed picture of maternal health in the district

Table 7: Key indicators related to antenatal care, Delhi State and New Delhi District

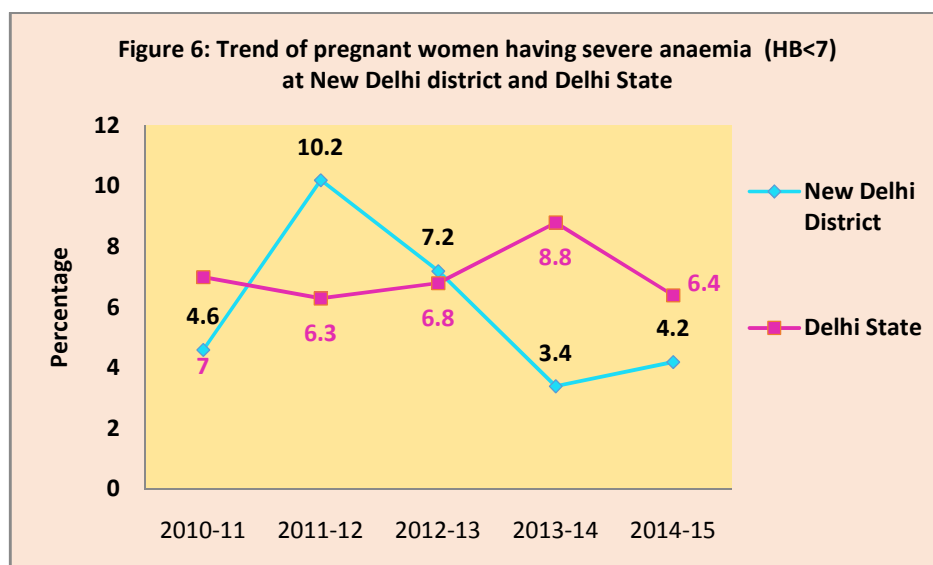
Indicators: Maternal Health	2010-11		2011-12		2012-13		2013-14		2014-15	
	D	S	D	S	D	S	D	S	D	S

Total number of pregnant women Registered for ANC	21,818	768916	78,416	822846	71,890	852,363	70,695	890,664	79,097	874,226
Number of Pregnant women registered within first trimester	3,185	193234	13,168	218,195	13,397	259033	12,682	276,523	18,940	303,725
Number of pregnant women received 3 ANC check ups	5,056	357777	40,465	432,411	38,278	471,435	42,022	531,436	54,408	249,692
TT2 or Booster given to Pregnant women (numbers)	5,312	196899	23,674	216,240	19,817	228143	19,947	231,488	21,507	249,692
% Pregnant Woman received 3 ANC checkups to Total ANC Registrations	23.2	46.5	51.6	52.6	53.2	55.3	59.4	59.7	68.8	58.6
% Pregnant women received TT2 or Booster to Total ANC Registration	24.3	25.6	30.2	26.3	27.6	26.8	28.2	26	27.2	28.6
Number of Pregnant women given 100 IFA tablets	1,164	3668008	43,291	454006	38,333	514,510	37,623	522,123	41,071	482,855
% Pregnant women given 100 IFA to Total ANC Registration	5.3	47.7	55.2	55.2	53.3	60.4	53.2	58.6	51.9	55.2
Number having Hb level<11 (tested cases)	5,462	253055	42,813	275,101	42,794	294786	35,952	274,161	38,984	305,471
Number of pregnant women with Hb level < 11 (tested cases)	25.0	17826	4.356	17.242	2.962	20022	1.212	24.262	1.627	10.448

having severe anaemia (Hb<7) treated at institution										
% Pregnant women having severe anaemia (Hb<7) treated at institution to women having hb level<11	4.6	7	10.2	6.3	7.2	6.8	3.4	8.8	4.2	6.4
% New cases detected at institution for hypertension to Total ANC Registrations	0.7	2.6	2.5	2.2	2.2	2.6	3.8	3.5	3.4	2.7

Source – HMIS 2010-15, F.1. Performance of Key HMIS Indicators (up to District Level)

Table-7 shows health care indicators related to ANC at New Delhi district and state level. The table shows the increasing number of ANC registration over the years except the most recent year 2014-15. In 2014-15 the number of ANC registration decreased to 874226 (2014-15) from 890664 (2013-14). Similarly, at district level (2011-12) there is a sharp increased to 78416 from 21818 (2010-11). After 2011-12, the number of ANC registration start decreasing to 71890 and 70695 for next two years (2012-13 to 2013-14). And again it increased to 79097 (2014-2015).



The Figure-6 shows that there is increasing trend of women having anemia during their pregnancy. At district level registered pregnant anemic women are range from hb less than 7 or less than hb 11. In 2013-14 district witnessed minimum (3.4%) cases of anemic pregnant women, while state witnessed maximum (8.8%) cases of anemic pregnant women in the same year. Out of total ANC registration, there is increase in cases of hypertension at district level compare to state level.

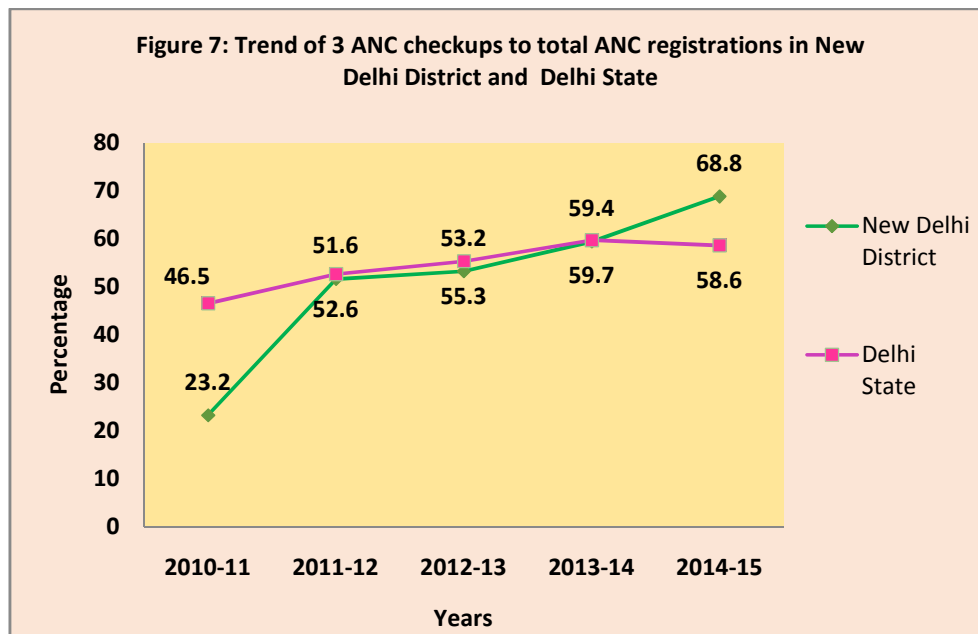


Figure-7 shows the trend of ANC checkups at district and state level. Mothers receiving 3 ANC checkups after ANC registration are following an increasing trend for the given 5 years (2010-11 to 2014-15) at district level. At state level it is following an increasing trend except for the year 2014-15. In 2014-15 the marginal fall to 58.6% from 59.7% has recorded. For the years 2011-12 to 2013-14 state and district is following almost similar trend.

Table 8: Distribution of c-section deliveries in public and private facilities, Delhi State and New Delhi District

Indicators: C –Sectional 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	2,661	33071	6,906	37980	7,076	37,980	7,832	40,961	9,328	45,758
Number of C-section deliveries conducted at private facilities	-	8352	136	14,990	97	16,806	111	19,896	89	24,001
% C-section deliveries (Public + Pvt.)	18.7	24.6	17.3	23.4	17.9	24.5	19.9	26.4	22.2	28.1

to reported institutional (Public + Pvt.) deliveries										
% C-sections conducted at public facilities to Deliveries conducted at public facilities	18.7	23.2	17.1	18.9	17.8	19.9	19.7	22.1	22.1	22.3
% C-sections conducted at Private facilities to Deliveries conducted at private facilities	-	32.7	49.8	48.3	39.6	51.5	51.9	54.3	52	56.4

Source – HMIS 2010-15, F.1. Performance of Key HMIS Indicators (up to District Level)

Table-8 shows the percentage and number distribution of C-section deliveries conducted at public and private facilities at district and state level. The table shows the percentage of C – sections deliveries conducted at private facilities are significantly higher than the C- sections deliveries conducted at public facilities. The C-sections institutional delivery ranges between 17 % to 28% at state and district during 2010-2015. At state and district level, there is a marginal increase in the percentage of C- section institutional deliveries over the time period 2010-2015.

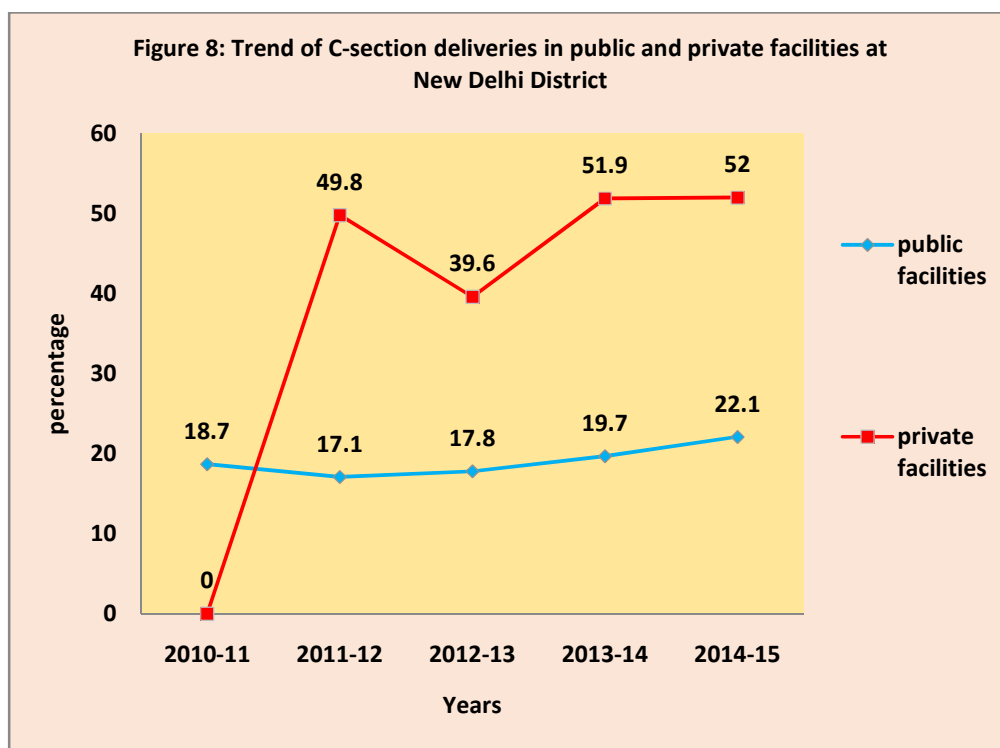


Figure-8 shows the trend of C-Sectional deliveries conducted in public and private facilities in New Delhi district. During 2010-11 to 2014-2015 there is an increasing trend of C-section deliveries at public and private facilities C-sectional deliveries conducted at private facilities are very higher than the C-sectional deliveries conducted at public facilities. At public facilities, an increasing trend of C-sectional deliveries can be seen over

the given 5 years. While at private facilities the trend is neither increasing nor decreasing over the given 5 years (2010-11 to 2014-15).

4.2 JANANI SURAKSHA YOJNA (JSY)

One of the important components of NHM is Janani Suraksha Yojna (JSY) which targets to reduce maternal mortality ratio and neonatal deaths by promoting institutional deliveries. Under JSY ASHAs as well as the mothers receive incentives for promoting institutional deliveries. ASHA receives a cash incentive of Rs 600 per delivery while the mother receives 700. The status of JSY payments in New Delhi district is discussed in Table 10.

Table 9: JSY registration and payments for deliveries at home and public facilities, Delhi State and New Delhi District

Indicators: JSY Registration	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	21,818	768916	78,416	822846	71,890	852363	70,695	890,664	79,097	874,226
% JSY registration to Total ANC Registration	9.3	6.2	3.7	7.5	4.6	7.6	3.4	4.7	2.8	3.9
% Mothers paid JSY incentive for home deliveries to Total Reported Home Deliveries	-	1.1	3.8	0.7	9.6	1.8	3.5	0.9	3.7	0.5
% Mothers paid JSY Incentive for Delivery at Public institution to Total Public Deliveries	10.3	9.9	4.1	11	4.5	11.7	2.2	5.9	2.4	6.8
% of cases where JSY Incentive paid to ASHA for Delivery at Public institution to Total Public Deliveries	-	1.4	0.1	1.3	0.5	2.1	0.6	1.5	1.2	1.7

Source – HMIS 2010-15, F.1. Performance of Key HMIS Indicators (up to District Level)

The table-9 shows the total number of women registered under JSY schemes and paid JSY incentive for home and institutional deliveries at district and state level. In 2010-11, no home deliveries conducted in New Delhi district. There is a variation in the trend of JSY registration at district and state level. In district the percentage of JSY registration to total ANC registration has decreased from 9.3% to 3.7% in 2011-12 to 2012-13. Then JSY registration slight increased to 4.6% in 2012-13 and again it declined to 3.4% in 2013-14 and 2.8% in 2014-15. While at state level, JSY registration increased during the time period 2011-12 to 2012-13 and after 2012-13 starts decreasing to 4.7 and 3.9 in 2013-14 and 2014-15.

Simultaneously, at district the percentage of mother's paid JSY incentive for home deliveries is almost constant except during 2012-13. In 2012-13, the percentage of mothers paid JSY incentive increased to 9.6% from 3.6% in 2011-12. In the state, the mother's who were paid JSY incentive for home deliveries were almost constant. There is a variation in percentage of mothers paid JSY Incentive for delivery conducted at Public institution to Total Public Deliveries. The same pattern of variation is visible in case of JSY incentives paid to ASHAs for deliveries at public institutions to public total deliveries at district and state level.

Table 10: Spontaneous abortions and MTPs, Delhi State and New Delhi District

Indicators: Spontaneous abortions and MTPs	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	1,288	26241	3,387	27,753	3,971	30,508	3,103	29,521	3,132	31,605
Total Number of MTPs (Public) reported	697	15157	1,806	10,484	2,141	10,711	1,535	9,255	1,515	2,250
% MTPs (Public) to Abortions	54.1	57.8	53.3	37.8	53.9	35.1	49.5	31.4	48.4	26.1
% MTPs up to 12 weeks of Pregnancy to Total MTPs at Public Institutions	95.1	91.4	92.9	90.8	92.9	93.1	89.6	92.4	89.4	91.6
% MTPs more than 12 weeks of Pregnancy to Total	4.9	8.6	7.1	9.2	7.1	6.9	10.4	7.6	10.6	8.4

MTPs at Public Institutions										
% MTPs Conducted at Public Institutions to Total MTPs	100	51.7	94.9	47.2	94.7	48.9	95.3	44.3	96	38.1
% MTPs Conducted at Private Institutions to Total MTPs	0	48.3	5.1	52.8	5.3	51.1	4.7	55.7	4	61.9

Source – HMIS 2010-15, F.1. Performance of Key HMIS Indicators (up to District Level)

The table-10 shows the total number of MTP has decreased over the years at district level while the numbers of abortions has increased at state level except in 2013-14. In 2013-14 the total number of MTPs has decreased to 3103 in district and 29521 in state. The percentage of MTPs up to 12 weeks of pregnancy out of total MTPs at public institution observed significantly very high than MTPs more than 12 weeks pregnancy.

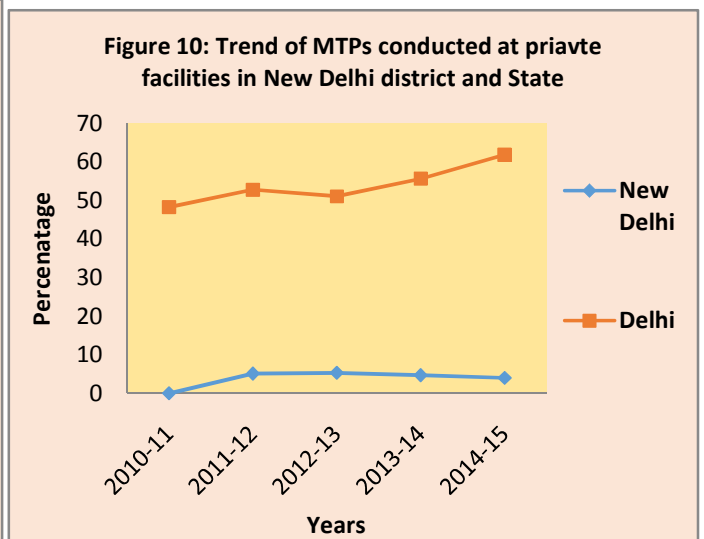
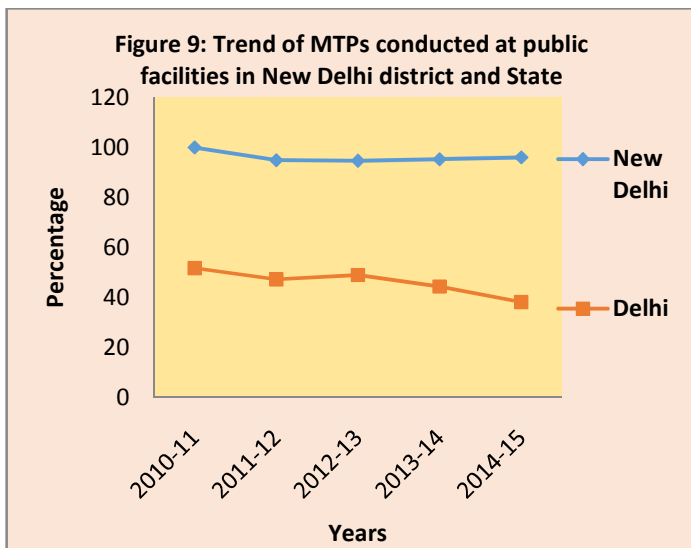


Figure-9 and 10 shows the trend of MTPs conducted at private and public facilities in New Delhi district and at state. The MTPs conducted at public institution at district level shows very high percentage than the MTPs conducted at private institution. MTPs at private public facilities are showing a constant trend over the time years from 2010-2015. While at private facilities it is unstable in state level and constant in district. Public facilities at district level performing very well in terms of MTPs.

4.3 FAMILY PLANNING

The family planning services includes distribution of oral pills, contraceptives, IUCD insertions, minilap, vasectomy and tubectomy. The district has high level of tubectomies and also the distribution of condoms and oral pills. Table 12 presents the detailed picture of family planning in the district.

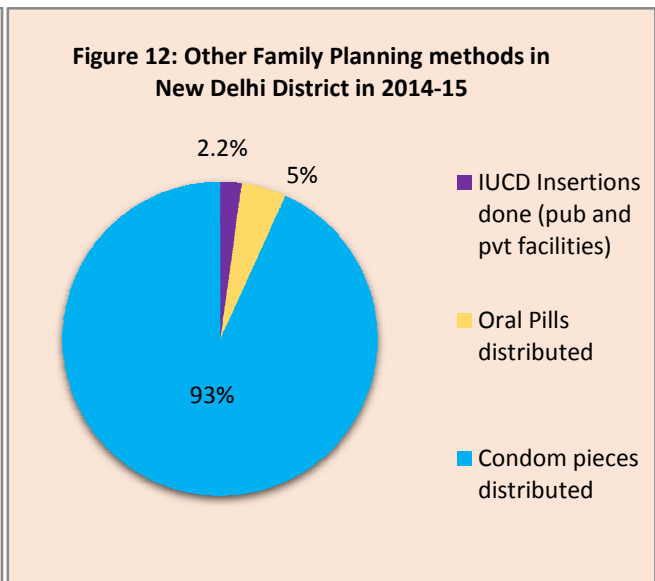
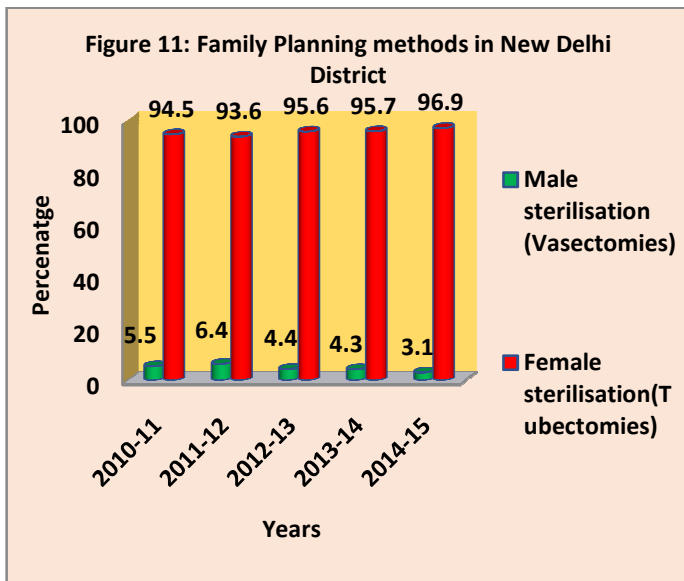
Table 11: Tubectomies and vasectomies conducted at public and private facilities, Delhi State and New Delhi District

Indicators: Family Planning	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.)	81	2801	238	2,880	171	1,594	144	1,403	98	811
Number of Tubectomies Conducted (Public + Pvt.)	1,390	15339	3,459	17551	3,696	19840	3,208	19,018	3,025	17,121
Total Sterilisation Conducted	1,471	18140	3,697	20441	3,867	21,443	3,352	20,421	3,123	17,932
% Male Sterilisation (Vasectomies) to Total sterilisation	5.5	15.4	6.4	14.1	4.4	7.4	4.3	6.9	3.1	4.5
% Tubectomies to Total sterilisation	94.5	84.6	93.6	85.9	95.6	92.6	95.7	93.1	96.9	95.5
IUCD Insertions done (public facilities)	699	30204	4,035	38,196	4,312	43,408	5,011	53,812	7,177	68,363
IUCD insertions done (pvt. facilities)	3	2480	44	4,344	30	4,442	38	4,075	22	3,664

Source – HMIS 2010-15, F.I. Performance of Key HMIS Indicators (up to District Level)

The table- 11 shows the number of reported female sterilization is very high as compare to male sterilization at district and state level. At district level the percentage of male sterilization out of total sterilization has decreased over the time period while percentage of female sterilization has increased over the time period 2012 to 2015. At state level also the same trend of male and female sterilization over the time period 2010-2015. The percentage of male sterilization is following a decreasing trend over the time except in the 2011-12 it has increased to 6.4% from 5.5% in 2010-11 at district level. The maximum (6.4%) male sterilization done at district during 2011-12 and the minimum (3.1%) was in 2014-15. While the minimum (93.6%) female sterilization done at district in 2011-12 and the maximum (96.6%) in 2014-15

The IUCD insertion done at public institutions is very high as compare to insertions done at private institutions in district and state. In 2014-15 the maximum number of IUCD insertion done at district and state i.e. 7177 at district and 68363 at state.



The bar graph in figure-15 shows female sterilization is very higher than male sterilization. The share of male sterilization out of total sterilization is only 3 % to 6.5% through the years 2010-2015.

Figure- 12 as well shows the pie chart of other family planning methods during most recent time period 2014-15. In which distribution of condom pieces is higher than oral pills and IUCD insertions.

4.5 CHILD HEALTH AND CHILD - IMMUNIZATION

There are various activities performing under Child Health in the district. The Oral polio vaccine, BCG and full immunization are given in the facilities to prevent diseases in order to reduced infant and child deaths. The Table 12 presents the detailed picture of immunization in the district.

Table 12: Immunization – Related Indicators for Delhi State and New Delhi District

Indicators: Child Immunization	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	99.6	96	107.4	93	98.2	92.6	95.7	92.7	90.7	89.9
% Newborns given BCG to Reported live birth	40.3	136.1	92.9	126.1	85.5	123.1	106.2	121	107.5	115.4
% Infants 0 to 11 months fully immunized	95.4	111	98.6	103.1	97.1	101.7	97.8	105.3	98.6	111.5

received Measles vaccine to reported live births										
% Drop Out between BCG & Measles	36.9	18.5	57.3	19.1	56.6	17.4	64.4	13.1	62.2	0.8
% immunisation Sessions Held to Immunisation Sessions Planned	93.3	91.3	92.1	92.8	92.7	92.5	90.7	93.5	94.7	95.1
% Immunisation Sessions where ASHAs were present to Immunisation Sessions Planned	11.2	19	13.9	22	25.3	24.4	31.8	33.3	39	41.9

Source – HMIS 2010-15, F.1. Performance of Key HMIS Indicators (up to District Level)

The table-12 shows immunization facilities indicators for district and state. The percentage of giving oral polio vaccine to total live birth at district level is higher than Delhi as a state in all the years (2010-2015). The overall performance of BCG given to new born is better at district than state.

The table shows the drop out rate of BCG and measles is very high in district than in state. More than half (55.48%) children were dropout in BCG and measles at district level during the time period 2010-2015. While at state level the drop out in BCG and measles is comparatively very less than district.

The immunization sessions held in the presence of ASHAs were comparatively less than the total session held at district and state level. The present of ASHAs during the session held in 2010-2015 is increasing at district and state level. The table shows 39% sessions were held in the presence of ASHAs at district and in state the same was 41.9% in 2014-15.

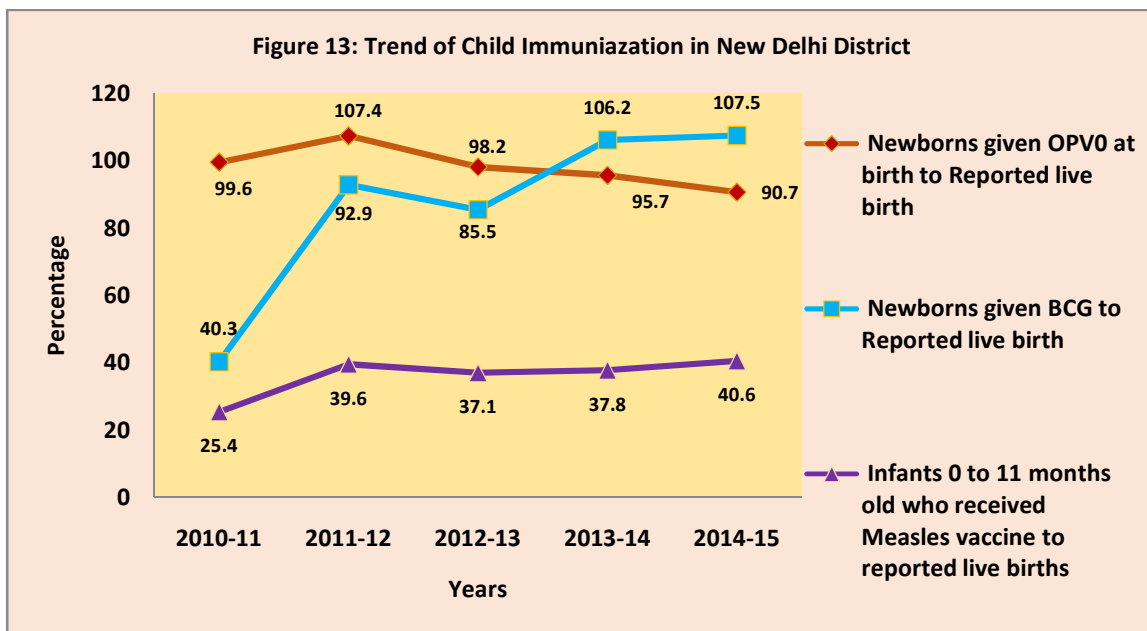


Figure -13 shows the trend of child immunization in which oral polio vaccine, BCG and measles vaccine given to children out of total live birth in New Delhi. The new born giving BCG at district and state level noticed an

opposite trend to each other. Where oral polio vaccine given to children following a decreasing trend while BCG given to newborn following increasing trend. The measles vaccine received by infants is following an increasing trend..

5. CONCLUSIONS

The aim of this particular study is to provide an overview on performance of major indicators of HMIS data. The data has taken for the year 2010-11 to 2014-15 of New Delhi district and Delhi state.

The overall performance of New Delhi district is improving in terms of maternal and child health, institutional deliveries and ante natal care. The reported level of ANC registration and institutional deliveries increased. Moreover, a sharp decline in the percentage of home deliveries attended by SBAs (Doctor/Nurse/ANM) to 4.1% from 13.1% in 2012-13 from 2011-12 after 2012-13 it is constant. The increasing rate of institutional deliveries at district level witnessed satisfactory performance of services and facilities. ASHAs worker are doing well to influence and counsel the women.

The most frequent errors in HMIS data reporting can be categorized as validation errors and outliers. The numbers of outliers committed by district increased during the time period 2011-12 to 2013-14. In 2014-15 only the outliers decreased to 37 from 74 in 2013-14. The maximum validation errors have been committed by district in 2011-12 and 2013-14, while the minimum number in 2010-11 and 2012-13. In the most recent time (2014-15), the number of outliers and validation errors is decreased.

Validation errors and outliers basically related to particular themes. Therefore, we classified their themes accordingly and found that committed validation errors are related to only child immunization theme. However the outliers related to themes; Complicated pregnancies , family planning, Patient Services, child immunization ,laboratory testing, details of deaths reported during the month with probable causes. The maximum validation errors and outliers are related to child immunization, family planning, laboratory testing and details of deaths reported during the month with probable causes.

At district level increasing trend for women received all 3 checkups over the years from 2011-2015. Overall health performance of pregnant women during their pregnancy was average. The marginal improvement in health of pregnant women is visible over the time. In this regard, severe cases of anemia have been found to be one of the major issues that have hampered the health of pregnant women and attention needs to be given in this area. C-sectional delivery is also an important area that needs further study. As the increasing number of C-sectional deliveries at public and private institutions is also visible over the time at district and state level.

All the pregnant women are not receiving their JSY incentive after home or institutional delivery. The percentage of mother's paid JSY incentive was very less in both institutional as well as home deliveries. The incentives of ASHAs were more or less not paid in case of home deliveries.

The positive impact of family planning programme is visible by increasing number of male and female sterilization and insertion of IUCD was one of the most adopted methods to avoid pregnancy. Moreover, the decreasing rate of abortion and MTPs witnessed an achievement of the programme at district level. A higher rate of MTPs conducted for up to 12 weeks in public or private institutions is visible in district comparative to pregnancy beyond 12 weeks.

Further, child immunization is working well at district level. Although, Infant were receiving vaccinations i.e., oral polio vaccine, BCG and measles vaccine but there have been significant drop outs were also reported in BCG and Measles vaccine.

The increasing rate of immunization session held in presence of ASHAs shows that the effective role of ASHAs and their ability to counsel women for accessibility of health facilities, safe delivery, immunization, family planning etc.

There is a need for more counseling to promote family planning services more effectively. More counseling of male family members is required to promote Vasectomy.

6. RECOMMENDATIONS

- HMIS has indeed improved the procedure of data recording but still there are various gap when it comes to quality of data. Categories such as number of women having 3 ANC checkups, 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 particular 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.