EVALUATION OF HEALTH MANAGEMENT INFORMATION SYSTEM DATA OF SHAHDARA DISTRICT, NCT DELHI (2011-2015)

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
HB	Haemoglobin
HMIS	Health Management Information System
IFA	Iron and Folic Acid
IUCD	Intra Uterine Contraceptive Device
JSY	Janani Suraksha Yojana
MoHFW	Ministry of Health and Family Welfare
MTP	Maternal Termination of pregnancy
NCT	National Capital territory
OPD	Out Patient Department
OPV	Oral Polio Vaccines
PRC	Population Research Centre
RCH	Reproductive and Child Health
RMNCH+A	Reproductive, Maternal, Newborn, Child and Adolescent 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.

I am extremely thankful to Shri CRK Nair, Additional Director General (stats) Ministry of Health and Family Welfare (MoHFW), Additional Director General (Stats), Shri P.C. Cyriac Deputy Director General (Stats) and Ms Navanita Gogoi, Director (Stats), Ministry of Health and Family Welfare, Government of India for constant support and encouragement.

At IEG our director, Professor Manoj Panda has been constant source of inspiration to us. I would like to express our gratitude towards him.

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KEY FINDINGS

The study based on the observation of the HMIS Data (2011-12 to 2014-15). The observation from HMIS data are following.

- The numbers of the committed outliers are more than the validation errors.
- There is significant increase in the ANC registration and institutional deliveries.
- The Numbers of home deliveries attended by SBA has increased over the time period, except in the year 2014-15; the decline has been 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 percentage of these services increased in 2012-13 and after that the percentage has decreased in 2013-14 and 2014-15.
- The beneficiaries' mother had not received their JSY incentive after institutional delivery. The main reason behind nonpayment of JSY benefit might be the beneficiaries do not have bank account.
- The rate of abortions and MTPs has increased for the first two years (2011-12 and 2012-13) and it declined in the last two 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 Shahdara district. The involvement of ASHAs in immunization session also increased significantly.

1. INTRODUCTION

Shahdara district is one of the eleven revenue districts of NCT Delhi. It came into existence from September 2012 when two new districts were formed by modifying the limits of the sub divisional. In 2012, Delhi cabinet gave in- principle approval to the formation of two new districts, the chief minister Sheila Dikshit saying the decision would make revenue and district administration more efficient. Prior to that, the setup of nine districts and 27 sub-divisions had come into effect in 1997. There used to be only one district for whole of Delhi with district head quarter at Tis- Hazari. Earlier, the city has only one district magistrate. All 11 district commissioners have become district magistrate now.

Shahdara is an Urdu word which means "the door of kings" derived the fact that this is one of the oldest settlement districts since mugal dynasty period situated in east – northeast suburban area of Delhi and share its boundaries with Uttar Pradesh state. Shahdara has great historical, social, economical and cultural importance. Shahdara has been divided into two municipal council zone of Delhi- North Shahdara and South Shahdara. These zones are bounded by important areas like Dilshad Colony and Dilshad Garden, Preet Vihar, Tahirpur, Bhajanpura and Yamuna Vihar. Chota bazaar and Bada bazaar are the oldest and most famous market place especially for sweets, fruits, vegetables and groceries.

Further, Shahdara sub district divided into two sections namely Old Shahdara or Purana Shahdara and New Shahdara or Navin Shahdara with Kanti Nagar, Nathu Colony, Ghonda Colony, Rohtash Nagar and Jhilmil Colony, Badarpur, Subhash Mohalla or Colony, Maujpur, Vishwas Nagar, Krishna Nagar, Ram Nagar, Ashok Nagar, Mansarovar Park, Shivaji Park, Balbir Nagar, Bholanath Nagar, Govardhan Behari Colony, East Arjun Nagar Jyoti Nagar, Bhagwanpur Khera and Gokulpur in close proximity.

Figure 1: Map of Shahdara District, Delhi.

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 Shahdara district for the period 2011-12 to 2014-15. The data has been extracted from following web link: https://nrhm-mis.nic.in/MOHFW_MIES/UI/Reports/frmStandard_Reports.aspx

3. VALIDATION AND OUTLIERS

The major errors encountered while collecting data are categorized as outliers and validation errors.

Table 1: Validation errors, Outliers and share of "Shahdara District" in Delhi state errors

	Shahdara District			Delhi	Share of Shahdara District
Years	VE*	O*	BOTH*	Total Error#	Validation Error
2011-12	20	66	0	196	10%

2012-13	15	42	0	170	9%
2013-14	19	50	0	155	12%
2014-15	11	57	0	145	8%

source: hmis 2011-2015
note: * - j.data quality -probable outliers and validation errors, # - i file validation summary
ve- validation errors, o-outliers, both - validation errors and outliers

Table-1 shows the validation errors, outliers and both the errors were highlighted with cream, pink and yellow colors. In Shahdara district, the numbers of outliers are more than validation errors during the time period 2011-15.Maximum validation errors 20 and outliers 66 are committed in 2011-12. After that performance has improved in committed validation errors and outliers. None of the case has been seen in both (validation errors and outliers) were committed over the time period in district.

Figure 2: Numbers of Validation Errors and Outliers in Shahdara District, Delhi State

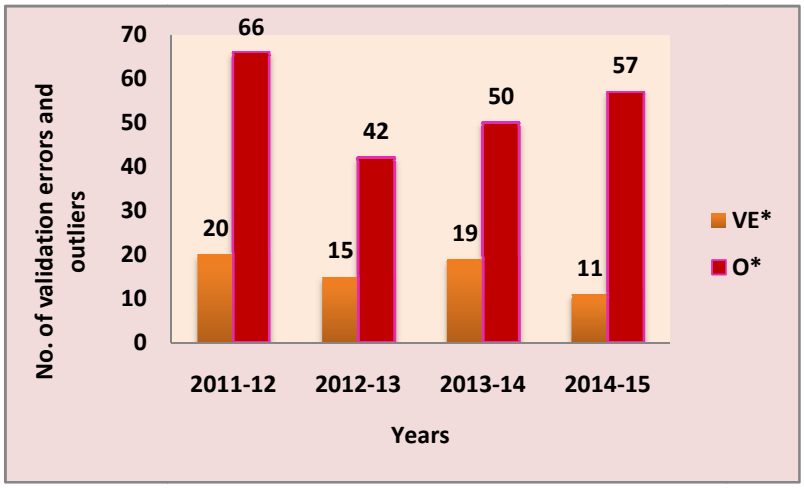

Figure - 2 shows the trends of validation errors and outliers in district. The trend of outlier errors is increasing after 2012-13. However, the number of outlier has decreased to 42 in 2012-13 from 66 in 2011-12. After that it shows an increasing trend. There are variations in the trend of outliers from 2011-15.

Figure 3: Trend of Percentage Share of validation errors in Shahdara District , Delhi State

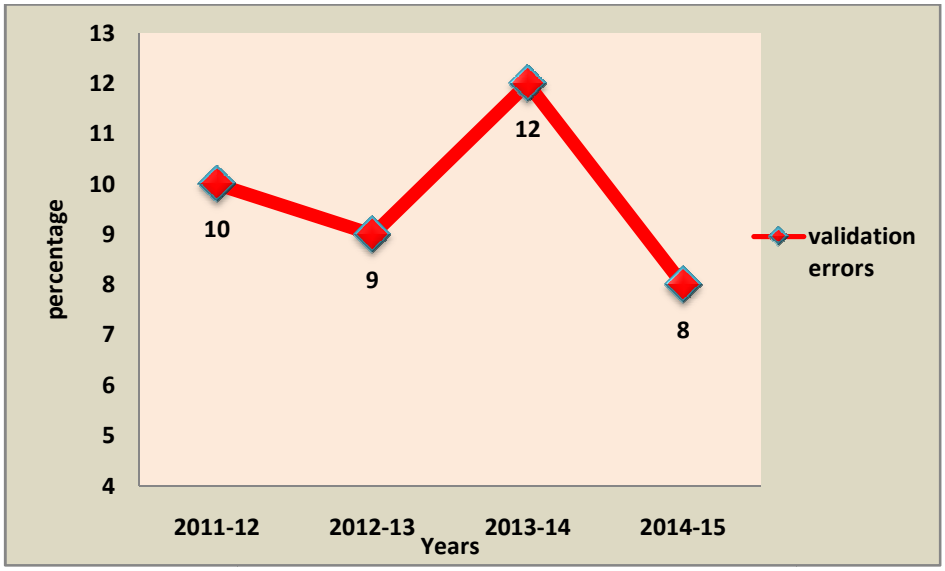

Figure - 3 shows the trend of percenatge share of validation errors in shahdara district. Out of total errors committed by Delhi state, share of Shahdara district is 8% to 12% through the years. The variation in trend line is visible in the above graph over the years. It declined to 9% in 2012-13, after that increased to 12% in 2013-14. Then again it declined to 8% in the resent year 2014-15.

Table 2: Themes of validation errors and outliers of Shahdara District

THEMES		Years							
ID	DETAILS	2011-12		2012-13		2013-14		2014-15	
	THEMES	O	VE	O	VE	O	VE	O	VE
Part A	Reproductive and child health								
M1	**Ante natal care services ANC**	**6**				**5**		**4**	
M2	Deliveries	6		3		4			
M3	Number of Caesarean C-Section deliveries performed at					4			
M4	Pregnancy outcome & weight of new-born	1	2	1				1	
M5	Complicated pregnancies		2	2				1	
M6	Post - natal care	1	1						
M7	Medical Termination of Pregnancy (MTP)			1					
M8	Rti/sti cases	1				2		1	
M9	**Family planning**	**13**		**14**		**5**		**13**	
M10	**Child immunization**	**4**	**15**	**7**	**15**	**7**	**19**	**15**	**11**
M11	Number of Vitamin A doses	1		1				3	

M12	Number of cases of Childhood Diseases reported during the month0-5 years:	4						3	
Part B	Other programmes								
M13	Blindness control programme	2		1		3		2	
Part C	Health facility services								
M14	**Patient services**	**10**		**1**		**4**		**6**	
M15	**Laboratory testing**	**13**		**1**		**5**		**2**	
Part E	Mortality details								
M17	**Details of deaths reported during the month with probable causes**	**4**		**10**		**11**		**6**	

Source – HMIS 2011-2015 – J. Data quality – probable outliers and validation errors

Table-2 shows the theme of each validation errors and outliers for the period of 2011-15. The maximum numbers of outliers and validation errors are related to themes: child immunization (93) followed by family planning (45), details of deaths reported during the month with probable causes (31), patient services (21), laboratory testing (21) and ANC services (15). The highest validation errors occurred only in child immunization (60). Similarly, the highest outliers occurred in family planning (45) followed by child immunization (33) ,details of deaths reported during the month with probable causes (31) , patient services (21) and laboratory testing (21).

4. ASSESSMENT OF KEY RCH AND FAMILY PLANNING INDICATORS

The reproductive and child health (RCH) programme was launched in October 1997. The Main aim 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 3: Reported levels of ANC registration, institutional deliveries and home deliveries in Delhi State and Shahdara District

	District			State			Percentage share of District		
Year	ANC Reg.	Insti. Del.	Home del.	ANC Reg.	Insti. del.	Home del.	ANC Reg.	Insti. Del.	Home del.
2011-12	68703	26457	84	822846	204,175	10291	8.4	13.0	0.8
2012-13	84475	32353	313	852,363	223459	13807	9.9	14.5	2.3
2013-14	100,000	31526	548	890,664	230,929	13910	11.2	13.6	3.9
2014-15	109,777	36237	861	874,226	247,999	16642	11.5	14.6	5.2

Source – HMIS 2011-15, F.1. Performance of Key HMIS Indicators (up to District Level)

The table-3 shows the percentage of institutional deliveries, home deliveries and ANC registration in 2011-15. The percentage of institutional deliveries is very high as compared to home deliveries in Shahdara district and Delhi as a state. There is an increasing trend in ANC registration in district and state. The percentage of intuitional deliveries has increased from 13 % (2011-12) to 14.5% (2012-13). In the year 2013-14, institutional deliveries decreased by 13.6% and again it increased by 14.6% (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 4:Percentage share of home deliveries out of total deliveries in Delhi state and Shahdara 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**
2011-12	84	26541	0.32	10291	214,466	4.8
2012-13	313	32666	0.96	13807	237,266	5.82
2013-14	548	32074	1.71	13910	244,839	5.68
2014-15	861	37098	2.32	16642	264,641	6.29

Source – HMIS 2011-15, F.1. Performance of Key HMIS Indicators (up to District Level)

Table-4 shows the percentage of home deliveries out of the total deliveries reported at district and state. The percentage of home deliveries is very less at district and state level. The above table shows only 2.32 % of home deliveries in 2014-15 out of total deliveries at district. In the 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 : Trend of Home Deliveries at Shahdara District and Delhi State

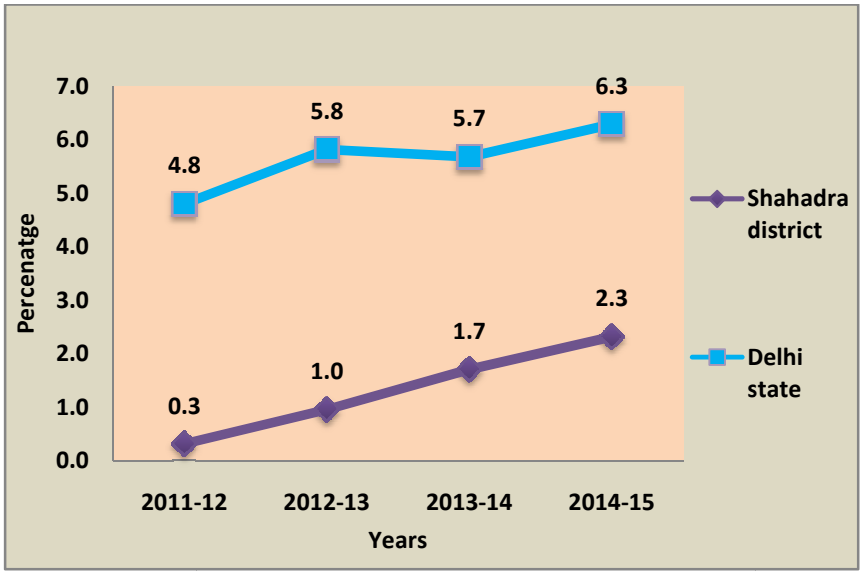

Figure - 4 shows the trend of Home Deliveries at Shahdara district and Delhi state. The percentage of home deliveries shows an increasing trend at district and state level. In case of state it has shown a decline in the year 2013-14 but district has followed a rising trend over the period from 2011-12 to 2014-15.

Table 5: Distribution of home and institutional deliveries, Delhi State and Shahdara District

Indicators: Home and institutional 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										
Number of home deliveries attended by SBA trained (Doctor/Nurse/ANM)		1240	43	1439	132	1923	275	2204	29	2665
Number of home deliveries attended by Non SBA trained (trained TB/Dai)		7118	41	8852	181	11884	273	11706	832	13977
% SBA attended home deliveries to Total Reported Home Deliveries		14.8	51.2	14	42.2	13.9	50.2	15.8	3.4	16
Mothers paid JSY incentive for home deliveries		96	2	75	0	253	0	122	0	83

Source – HMIS 2011-15, F.1. Performance of Key HMIS Indicators (up to District Level)

Table-5 shows the distribution of institutional and home 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 % through the years. At district level the percentage of home deliveries attended by SBAs trained (Doctor/Nurse/ANM) declined from 51.2 to 42.2% in 2011-12 from 2012-13. Again in 2014-15, there is decline in home deliveries attended by

SBAs trained (Doctor/Nurse/ANM) from 3.4% to 50.2% in 2013-14. Out of 75 mothers who were paid JSY incentive for delivery at state level, only 2 mothers were from Shahdara district in 2011-12. After 2011-12, no mother's were paid JSY incentive at district level, while in the state there is increase in number of mothers who were paid JSY incentive.

Figure 5: Trend of Institutional deliveries to total ANC registration in Shahdara District and Delhi State

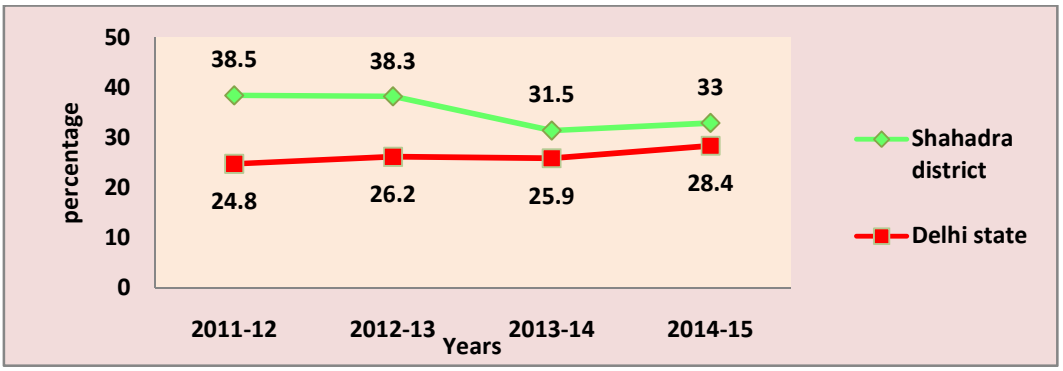

Figure - 5 shows the trend of Institutional deliveries to total ANC registration in Shahdara district and Delhi state. At state level the institutional deliveries out of total ANC registration is showing an increasing trend for the period 2011-15. While at district level the institutional deliverers were constant at 38 %. Thereafter it starts declining to 31.5%and 33% in 2013-14 and 2014-15.

4.1MATERNAL HEALTH

Maternal Health activities in the district involve ANC registration, delivery services, JSY services, and managing risky deliveries. With regard to ANC registration, 3 antenatal visits, 100 IFA tablets and TT2 or booster the district sees an improvement. Table 6 presents the detailed picture of maternal health in the district.

Table 6: Key indicators related to antenatal care, Delhi State and Shahdara District

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	-	768916	68703	822846	84475	8,502,363	100,000	890,664	109,777	874,226
Number of Pregnant women registered within first trimester	-	193234	22427	218,195	30,816	259033	37,471	276,523	45,350	303,725

Number of pregnant women received 3 ANC check ups	-	357777	50210	432,411	64960	471,435	59,118	531,436	29,616	249,692
TT2 or Booster given to Pregnant women (numbers)	-	196899	19272	216,240	26501	228143	25,501	231,488	29,616	249,692
% Pregnant Woman received 3 ANC check ups to Total ANC Registrations	-	46.5	73.1	52.6	76.9	55.3	59.1	59.7	44.4	58.6
% Pregnant women received TT2 or Booster to Total ANC Registration	-	25.6	29.1	26.3	31.4	26.8	25.5	26	27	28.6
Number of Pregnant women given 100 IFA tablets	-	3668008	48054	454006	60,752	514,510	60543	522,123	45,812	482,855
% Pregnant women given 100 IFA to Total ANC Registration	-	47.7	69.9	55.2	71.9	60.4	60.5	58.6	41.7	55.2
Number having Hb level<11 (tested cases)	-	253055	19972	275,101	25971	294786	31,722	274,161	42,162	305,471
Number having severe anaemia (Hb<7) treated at institution		17836	1127	17,343	2181	20022	2366	24,263	2825	19,448
% Pregnant women having severe anaemia (Hb<7) treated at institution to women having hb level<11	-	7	5.6	6.3	8.4	6.8	7.5	8.8	6.7	6.4
% New cases detected at institution for hypertension to Total ANC Registrations	-	2.6	2.7	2.2	8.4	2.6	3.6	3.5	2.1	2.7

Source – HMIS 2011-15, F.1. Performance of Key HMIS Indicators (up to District Level)

The table-6 shows health care indicators related to ANC at district and state level. This indicates that the pregnant women are aware of maternal and health care facilities. According to reproductive and child health (RCH) programme the pregnant women registered for ANC (Ministry of Health and Family Welfare, 1997) checkups. During ANC checkups they receive TT2 or Booster, information, iron folic acid tablets, etc.

After registration of ANC, the trend of receiving TT2 or Booster is fluctuating at district level and at state level it is increasing over the time period (2011-12 & 2014-15). In 2013 -14 there is decline in percentage of women receiving TT2 or Booster to 25.5% and then a marginal increase in percentage of women receiving TT2 or Booster i.e. 27% in 2014-15 at district level. At state level, there is slight increase in percentage of women receiving TT2 or Booster i.e. 28.6% in 2014-15 as compared to 26% for the year 2013-14.

Out of total ANC registration, there is increase in cases of hypertension at district level compare to state level.

Figure 6: Trend of 3 ANC checkups to total ANC registrations in Shahdara District and Delhi State

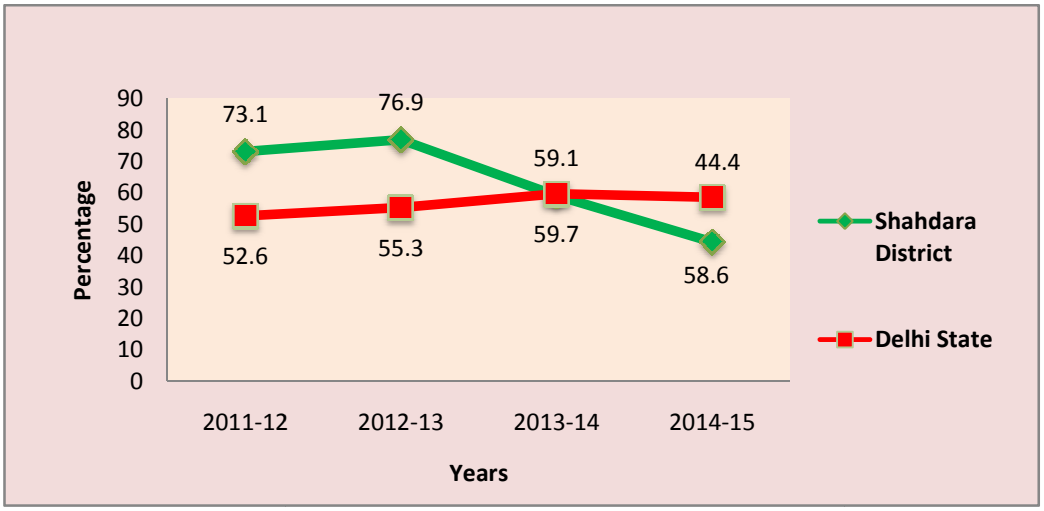

Figure - 6 shows the trend of 3 ANC checkups at district and state level. At district level the trend of all 3 ANC checkups increased from 73.1% in 2011-12 to 76.9% in 2012-13. Then it is starts declining i.e. 59.1% and 44.4% in 2013-14 and 2014-15. At state level the percentage of women receiving 3ANC checkups shows an increasing trend for three consecutive years i.e. 2011-12 to 2013-14. Then marginal decreased to 58.6% in 2014-15 at state level.

Figure 7: Trend of pregnant women having severe Anaemia (HB<7) at Shahdara District and Delhi State

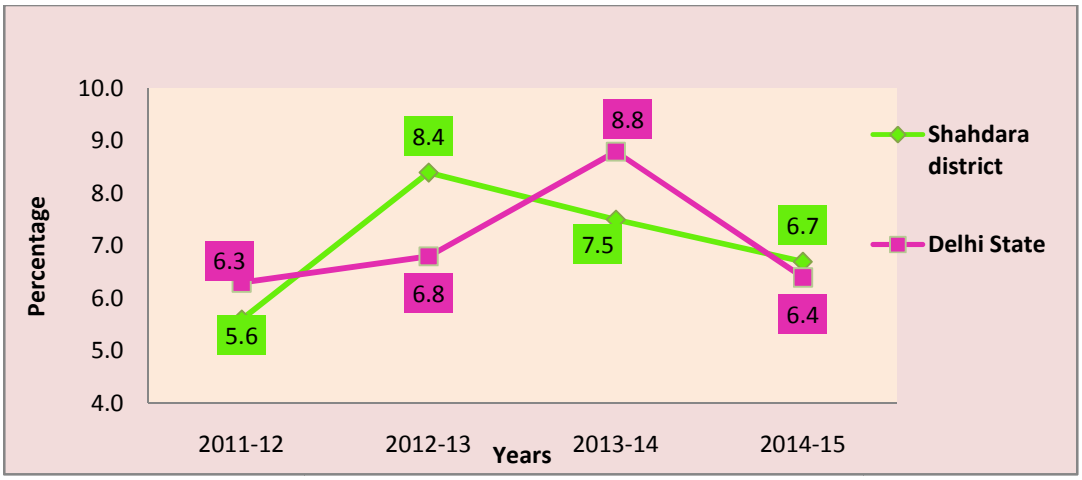

Figure – 7 shows the increasing trend of women having anemia during their pregnancy. At district level registered pregnant aneamic women ranged from hb less than 7 or less than hb 11. In 2013-14, district and state witnessed maximum cases of anemic pregnant women in which 8.8% at state level and 7.5% at district level. Thereafter, it declined in recent year 2014-15 i.e. 6.7% at district level and 6.4% at state level.

Table 7: Distribution of C-section deliveries in public and private facilities, Delhi State and Shahdara District

Indicators: C-section 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		33071	4,975	37980	4,975	37,980	6,687	40,961	8,978	45,758
Number of C-section deliveries conducted at private facilities		8352	711	14,990	1,227	16,806	967	19,896	1,162	24,001
% C-section deliveries (Public + Pvt.) to reported institutional (Public + Pvt.) deliveries		24.6	18	23.4	19.2	24.5	24.3	26.4	28	28.1
% C-sections conducted at public facilities to Deliveries conducted at public facilities		23.2	16.4	18.9	16.7	19.9	22.6	22.1	26.2	22.3
% C-sections conducted at Private facilities to Deliveries conducted at private facilities		32.7	41.4	48.3	49.2	51.5	50.1	54.3	58.2	56.4

Source – HMIS 2011-15, F.1. Performance of Key HMIS Indicators (up to District Level)

Table-7 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

Out of total deliveries, percentage of C-sections deliveries conducted at public facilities is less than the percentage of C-sections deliveries conducted at Private facilities in each year at both levels state and district.

Figure 8: Trend of C-section deliveries in public and private facilities at Shahdara District

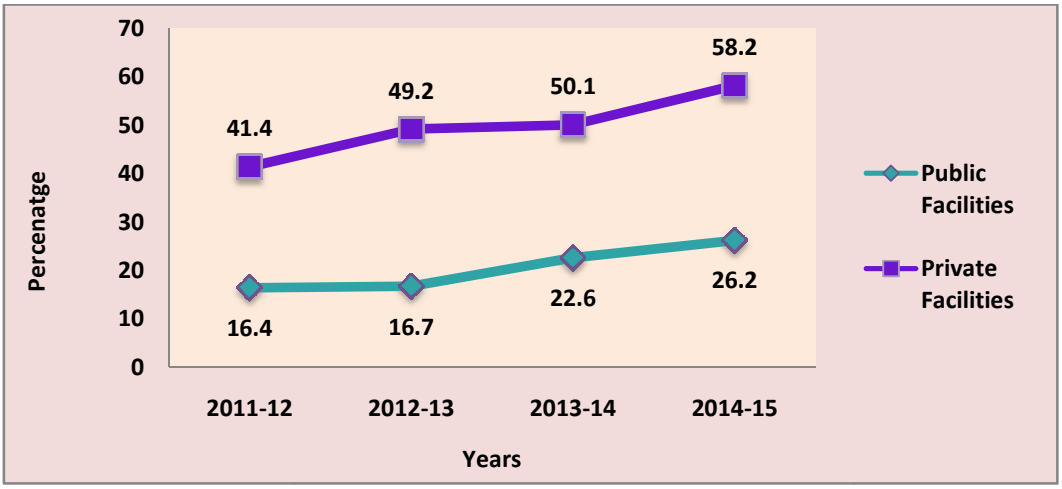

Figure – 8 shows the trend of C-section deliveries in public and private facilities at Shahdara District. During 2011-12 to 2014-2015 there is an increasing trend of C-section deliveries at public and private facilities.

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 Shahdara district is discussed in Table 8.

Table 8: JSY registration and payments for deliveries at home and public facilities, Delhi State and Shahdara 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		768916	68703	822846	84475	852363	100,000	890,664	109,777	874,226
% JSY registration to Total ANC Registration		6.2	11.6	7.5	14.6	7.6	6	4.7	4.2	3.9
% Mothers paid JSY incentive for home deliveries to Total Reported Home Deliveries		1.1	2.4	0.7	0	1.8	0	0.9	0	0.5
% Mothers paid JSY Incentive for Delivery at Public institution to Total Public Deliveries		9.9	8	11	11.6	11.7	4.7	5.9	3.1	6.8
% of cases where JSY Incentive paid to ASHA for Delivery at Public institution to Total Public Deliveries		1.4	0.5	1.3	0.4	2.1	0.3	1.5	0.1	1.7

Source – HMIS 2011-15, F.1. Performance of Key HMIS Indicators (up to District Level)

The table-8 shows the total number of women registered under JSY schemes and paid JSY incentive for home and institutional deliveries at district and state level. The trend of JSY registration is unstable at district and state level. In district the percentage of JSY registration to total ANC registration has increased from 11.6% to 14.6 % in 2012-13 from 2012-13. Then again it declined to 6% in 2013-14 and 4.2 % in 2014-15. While at state

level, JSY registration is almost constant. In 2013-14 JSY registration starts declining from 4.7 % to3.9 % in 2014-15.

Simultaneously, at district the percentage of mother's paid JSY incentive for home deliveries shows declining trend for all the years (2011-12, 2013-14, and 2014-15) except in 2012-13, none of the mother's paid JSY incentive for home deliveries. In the state there is a similar picture for the mother's who were paid JSY incentive for home deliveries. The percentage of mothers paid JSY Incentive for delivery conducted at Public institution to Total Public Deliveries has very fluctuating trend. The same fluctuating trend is visible in case of JSY incentives have paid to ASHAs for deliveries at public institutions to public total deliveries at district and state level.

Table 9: Spontaneous abortions and mtps, Delhi State and Shahdara 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		26241	4,184	27,753	4,848	30,508	3,704	29,521	2,984	31,605
Total Number of MTPs (Public) reported		15157	1,558	10,484	1,172	10,711	1,063	9,255	940	2,250
% MTPs (Public) to Abortions		57.8	37.2	37.8	24.2	35.1	28.7	31.4	31.5	26.1
% MTPs up to 12 weeks of Pregnancy to Total MTPs at Public Institutions		91.4	96.2	90.8	92.3	93.1	92.3	92.4	90.4	91.6
% MTPs more than 12 weeks of Pregnancy to Total MTPs at Public Institutions		8.6	3.8	9.2	7.7	6.9	7.7	7.6	9.6	8.4
% MTPs Conducted at Public Institutions to Total MTPs		51.7	39	47.2	39.9	48.9	48.2	44.3	44	38.1

% MTPs Conducted at Private Institutions to Total MTPs		48.3	61	52.8	60.1	51.1	51.8	55.7	56	61.9

Source – HMIS 2011-15, F.1. Performance of Key HMIS Indicators (up to District Level)

The table-9 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 2013-12 the total number of MTPs has decreased to 29521.

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. However the MTPs conducted at public institution at district level shows lower percentage than the MTPs conducted at private institution. While in both public and private institutions, MTPs shows an increasing trend.

Figure 9: Share of Shahdara District out of Total Number of Abortions (Spontaneous/ Induced) Reported in Delhi State

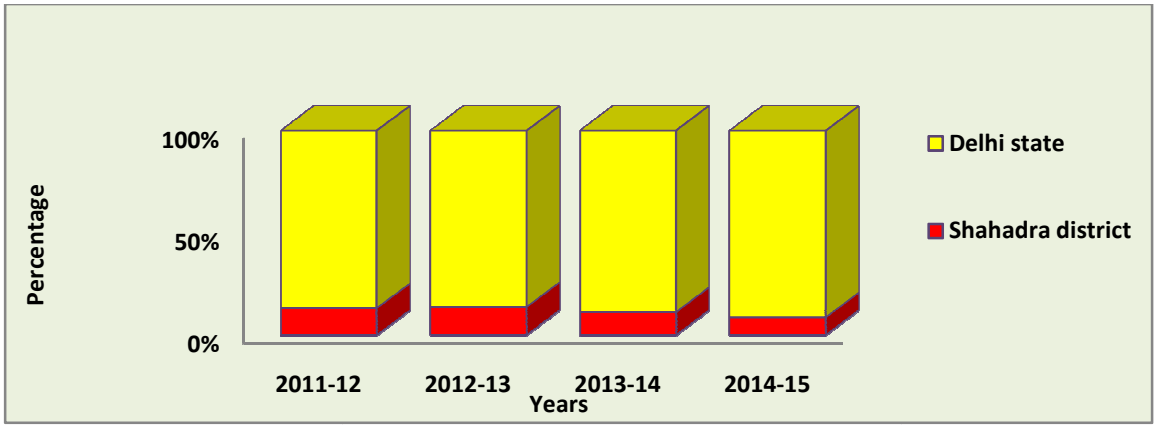

Figure- 9 shows the share of Shahdara District out of Total Number of Abortions (Spontaneous/ Induced) Reported in Delhi State. Out of total abortions conducted the share of District is 9% to 16% through the years 2011-12 to 20104-15. The maximum number of abortions was recorded 16% in the district conducted during 2012-13; thereafter it has declined to 13 % and 9% in 2013-14 and 2014-15.

4.3FAMILY 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 10 presents the detailed picture of family planning in the district.

Table 10: Tubectomies and Vasectomies conducted at public and private facilities, Delhi State and Shahdara 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.)		2801	51	2,880	44	1,594	37	1,403	28	811
Number of Tubectomies Conducted (Public + Pvt.)		15339	2,071	17551	3,037	19840	2,127	19,018	2,085	17,121
Total Sterilisation Conducted		18140	2,122	20441	3081	21,443	2,164	20,421	2,113	17,932
% Male Sterlisation (Vasectomies) to Total sterilisation		15.4	2.4	14.1	1.4	7.4	1.7	6.9	1.3	4.5
% Tubectomies to Total sterilisation		84.6	97.6	85.9	98.6	92.6	98.3	93.1	98.7	95.5
IUCD Insertions done (public facilities)		30204	2,545	38,196	4865	43,408	6,148	53,812	7,216	68,363
IUCD insertions done (pvt. facilities)		2480	556	4,344	579	4,442	409	4,075	360	3,664

Source – HMIS 2011-15, F.1. Performance of Key HMIS Indicators (up to District Level)

The table- 10 shows the status of family planning services in the state and the district. The number of reported female sterilization is very high as compare to male sterilization at district and state level. The percentage of male sterilization observed a declining trend over the time except in the 2013-14 it has increased to 1.7% from 1.4% in 2012-13 and at state level sharp decline to 7.4% has been reported for the 2012-13.

The percentage of the female sterilization is 95 % to 99 % through the years 2011-12 to 2014-15 at district level. However, at state level the female sterilization is following an increasing trend in given time period. The IUCD insertions done in the public facilities are more than private facilities at both district and state level for the given years.

Figure 10: Other Family Planning methods in Shahdara District in 2014-15

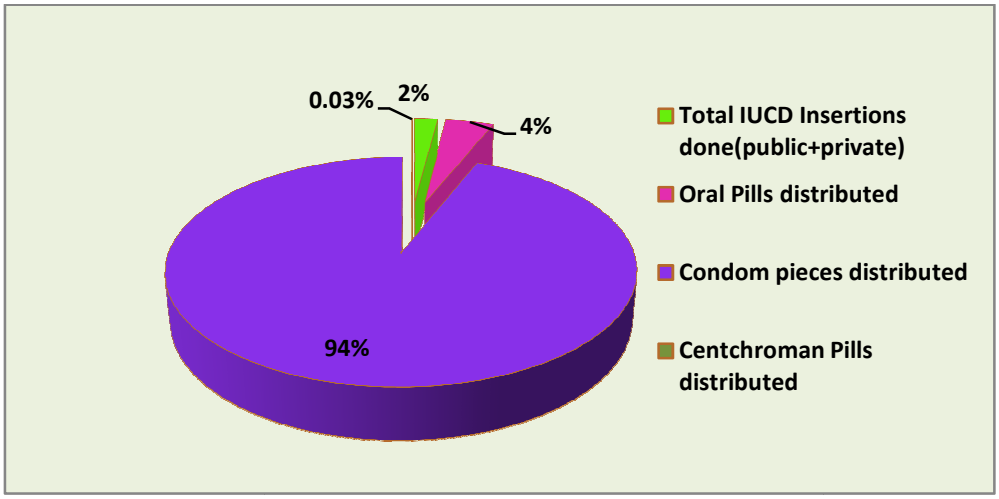

Figure-10 pie chart shows the use of other family planning methods during most recent time period 2014-15. In which distribution of condom pieces is highest (94%) followed by oral pills (4%) and IUCD insertions (2%).

4.4CHILD 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 11 presents the detailed picture of immunization in the district.

Table 11: Immunization – related indicators for Delhi State and Shahdara District

Indicators: Child Immunization	2010-11		201-12		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		96	94.6	93	100.2	92.6	100.5	92.7	99.8	89.9
% Newborns given BCG to Reported live birth		136.1	105.2	126.1	110.5	123.1	115	121	108.3	115.4
% Infants 0 to 11 months old who received Measles vaccine to reported live births		111	72.1	102.1	59.5	101.7	68.9	105.2	66	114.5
% Drop Out between BCG & Measles		18.5	31.5	19.1	46.1	17.4	40.1	13.1	39.1	0.8
% immunisation Sessions Held to Immunisation Sessions Planned		91.3	96	92.8	94	92.5	95.6	93.5	96	95.1
% Immunisation Sessions where ASHAs were present to Immunisation Sessions Planned		19	7.8	22	15.2	24.4	26.6	33.3	44	41.9

Source – HMIS 2011-15, F.1. Performance of Key HMIS Indicators (up to District Level)

The table-11 shows immunization 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 (2011-12 to 2014-2015). The overall performance of BCG given to new born is better at district than state

The new born giving BCG at district and state level is following an opposite trend to each other. At district level there is an increasing trend of BCG given to new born except in the year 2014-15. In 2014-15 it is declined to 108.3 % from 115% in 2013-14. While at state level it is declining over the time period.

The table shows the drop out rate of BCG and measles is high in district than in state. Almost 40 % children were dropout in BCG and measles at district level during the time period 2011-2015. 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 2011-2015is increasing at district and state level. The table shows 44% sessions were held in the presence of ASHAs at district and in state the same was 41.9% in 2014-15.

Figure 11: Trend of Child Immuniazation in Shahdara District

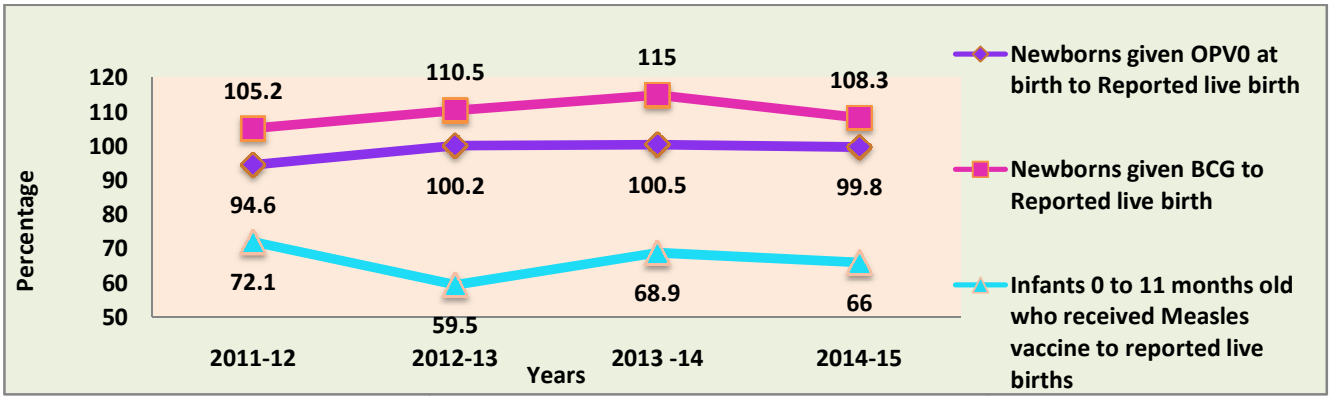

Figure – 11 shows the Trend of Child Immunization at district level in which oral polio vaccine, BCG and measles vaccine given to children out of total live birth. The vaccination given to infants during the 0 to 11 months is following an unstable trend over the period of 4 years. While the children receiving Oral polio vaccine and BCG is following an increasing trend.

5. CONCLUSION

The most frequent errors in HMIS data reporting categorized as validation errors and outliers. The numbers of outliers committed by district has declined in 2012-13; thereafter for the next two years 2013-14 and 2014-15 it increased. The maximum validation error has committed by district in 2011-12 and 2013-14, while the minimum number in 2012-13 and 2014-15.

Validation errors and outliers are basically related to particular themes. Therefore, their themes are classified accordingly and found that committed validation errors are related to highest in child immunization theme followed by Pregnancy outcome & weight of new-born, complicated pregnancies and Post - natal care.

However the outliers related to themes; family planning followed by child immunization, details of deaths reported during the month with probable causes, patient services and laboratory testing.

In the assessment of key RCH indicators, ANC registration was more than the number of institutional deliveries, indicating high dropouts. In this context the mothers receiving all 3 checkups after ANC registration is not satisfactory as it is declining over the time period at district level.

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 period at district and state level.

JSY payments which are made to the beneficiaries who are below poverty line at the time of delivery have also not performing well. 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. Over the years guidelines for such payments has changed many a times which has resulted in many lag payments. There is a very poor status of JSY payments in case of home deliveries where beneficiaries are eligible for such payments i.e. home deliveries with SBA assistance.

The positive impact of family planning programme is visible by increasing number of female sterilization and insertion of IUCD was one of the most adopted methods to avoid pregnancy. In the other family planning methods distribution of condoms is the most adopted method followed by contraceptive pills. Moreover, the constant rate of abortion and MTPs witnessed an achievement of the programme at district level. The number of reported female sterilization is very high as compare to male sterilization at district and state 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 performing 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 child immunization , Pregnancy outcome & weight of new-born and complicated pregnancies 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.