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## Abbreviations/Acronym

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

## Acknowledgement

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 portal provides periodic reports on the status of the health indicators. 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 South-West District of Delhi NCT.

This study is sponsored by Ministry of Health and Family Welfare (MoHFW). I am extremely thankful to Shri CRK Nair, Additional Director General (stats) Ministry of Health and Family Welfare (MoHFW), Government of India for their constant cooperation.

I would like to thank our faculty member Dr. Ruby Alambusha Singh at PRC, IEG for her continuous support to research staff at PRC. I would also like to thank research team members at PRC IEG who have helped in the preparation of this report.

**Ms. Manisha Bothra**

**Dr. Suresh Sharma**

## Executive summary

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 very high in the district and there has been no decline in the number over the years. Surprisingly the share of the South-West district in the total errors has not reduced even marginally over the years.
- The trends in the ANC registration and institutional deliveries show a declining path since the number of ANC registration and institutional deliveries in the south-west district has declined considerably over the years in the district. However the number of home deliveries has increased over the years.
- The Numbers of home deliveries attended by non-SBA has increased over the five year period. Thus the district should focus more upon encouraging institutional deliveries and imparting SBA trainings.
- The percentage of C-sectional deliveries out of total deliveries increased over the time. The C-sectional deliveries conducted at private facilities are considerably higher than The C-sectional deliveries conducted at public facilities.
- Out of total ANC registration the pregnant women were receiving all 3ANC checkups, TT2 or booster, IFA 100 tablets and there has been an increase in the percentage over the years.
- The percentage of beneficiaries receiving JSY payments is very low and the main reason for the same was that most of the beneficiaries did not have a bank account.
- The number of abortions and MTPs has declined in the district contrary to the state where the number of abortions has increased over the years.
- Out of total sterilization conducted at public and private facilities, the rate of male sterilization was far below the female sterilization. However there has been a gradual decline in the total number of sterilizations due to adoptions of new spacing methods like IUCD, oral pills etc.
- Children received all three vaccination mainly OPV0, BCG, and measles. Overall the percentage of children fully immunized is satisfactory. However the percentage of children given BCG out of total live-births is higher than 100 per cent, Migration can be one of the possible reason
- The regular session of immunization were held at South-West district. The involvement of ASHAs in immunization session also increased significantly.

**DELHI**  
DISTRICT MAP



**Table 1: Key Demographic Indicators: All India, Delhi & South-West Delhi**

Description	India	Delhi	South-West
Approximate population	121 Crores	1.68 crores	2,292,958
Actual population	1,21,05,69,573	16,787,941	2,292,958
Male	6,231,843	8,987,326	1,246,046
Female	58,74,47,730	7800615	1,046,912
Population growth	17.7	21.21	30.65%
Sex ratio	943	868	840
Child sex ratio	914	871	845
Density /km <sup>2</sup>	416	11320	5,446
Area km <sup>2</sup>		1483	421
Literacy	73	86.21	88.28
Male literacy	80.9	90.94	93.14
Female literacy	64.6	80.76	82.50
Child proportion (0-6 Age)	13.6	2012454	11.69%
Boys proportion (0-6 Age)	13.8	1075440	11.66%
Girls proportion (0-6 Age)	13.4	937,014	11.72%

Source: Census 2011

- The population of South-west district is 2,292,958 out of which 54.4 percent are male and 45.6 percent are females.
- Population growth was 30.65 percent and sex ratio was 840 females per 1000 males which were quite low in comparison to other districts.
- Literacy rate was 88.28 per cent which was higher in males in comparison to females.

## 2. Data and Methods

The data source for the present study is HMIS data for the year 2011-2015 based on HMIS portal. The portal provides periodic reports on the status of the health indicators. 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. The purpose of study is to analyze the data for the period 2010-11 to 2014-15. Out of 11 districts of Delhi, South-West is newly formed district. South-West district was formed in September 2012 with the sole motive of magisterial matters, revenue courts, issue of various statutory documents, registration of property, conduct of elections, relief & rehabilitations, land acquisition and various other areas which



are too numerous to be numerated. The study of South-West district was focused for the period 2011-12 to 2014-15.

In the present study, HMIS data of South-West district downloaded from [https://nrhm-mis.nic.in/MOHEFW\\_MIES/UI/Reports/frmStandard\\_Reports.aspx](https://nrhm-mis.nic.in/MOHEFW_MIES/UI/Reports/frmStandard_Reports.aspx) is used for descriptive, cross sectional and comparative analysis Maternal health, Child immunization, Institutional deliveries. Firstly, all the relevant data were entered in the excel sheet. The data is analysed in excel sheet. The results were interpreted by working out the averages and the percentage.

### 3. Validation and outliers

Table 2: Validation errors, outliers and share of validation error of South-West district in state errors

Year	District			Delhi	Share of South-West District
	VE	O	Both	Total Error	Validation Error
2010-11	35	50	2	233	15.02
2011-12	19	44	1	196	9.69
2012-13	22	58	0	170	12.94
2013-14	24	46	0	155	15.48
2014-15	22	54	0	145	15.17

\* VE: Validation Error, \* O: Outlier,

Table 1 shows the validation errors, outliers and share of validation errors of South-West district in state errors. From the above mentioned table we can see that in both state and district outliers were higher than the validation error. 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. When we see the share of validation errors we can see that South-West district was stagnant, as their share of validation error has been close to 15 per cent except for 2011-12 and 2012-13. Outliers were very high in the district relative to the state.

Figure 1 shows the trends in validation errors and outliers in the South-West district of Delhi. It can be observed that outliers have increased over the five years from its levels in 2010-11, however there is no clear upward or downward trend. The validation errors have declined considerably in the district over the years.

**Figure 1: Trends in validation errors and outliers in “concerned district”**

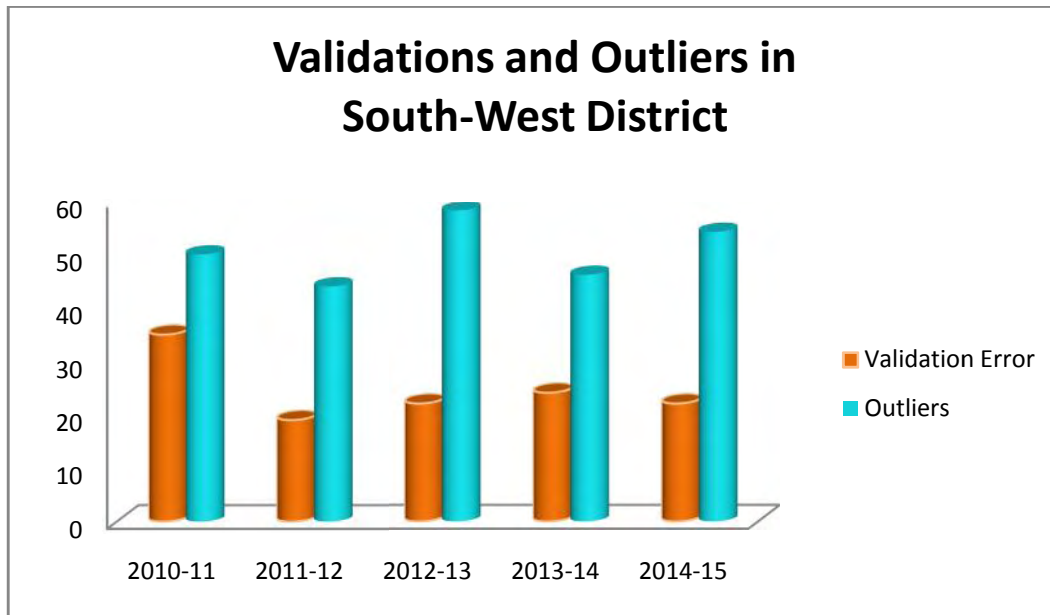
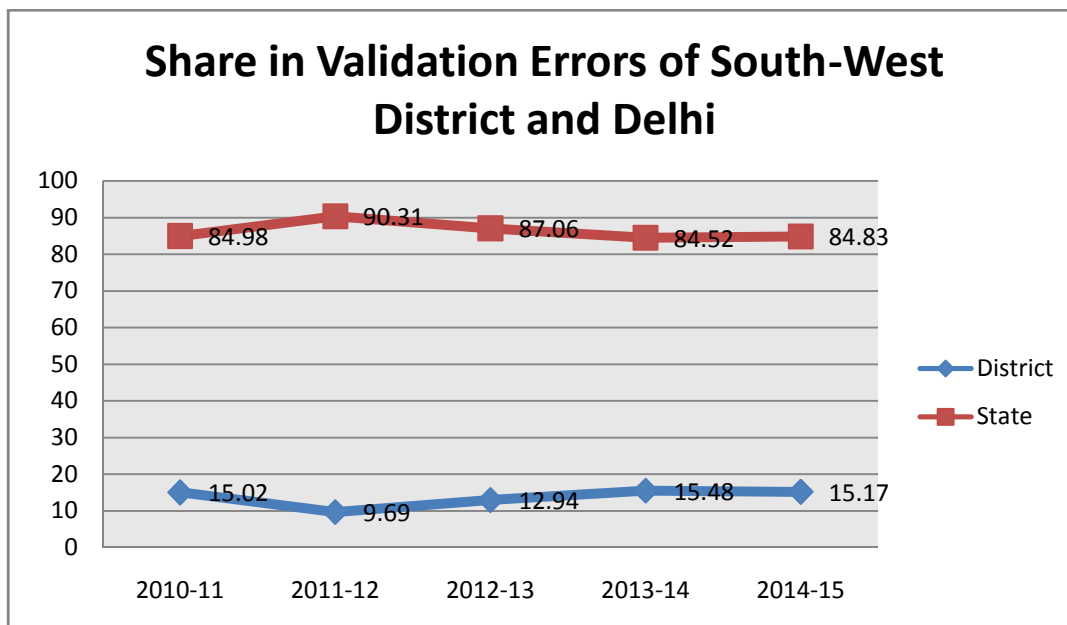


Figure 2 depicts the share of validation errors of South-West district and Delhi across the years. From the figure we can conclude that the share of validation errors of South-West district has remained stagnant around 15 per cent and has declined to 10 per cent in the year 2011-12.

**Figure 2: Share of validation errors in total errors for “concerned district” and State**



**Table 3: Data items with validation errors and outliers, South-West 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	VE	0	VE	0	VE	0	VE	0	VE
M1	Ante Natal Care Services ANC	4	0	2	0	2	0	4	0	4	0
M2	Deliveries	2	1	3	0	1	0	0	0	3	0
M3	Number of Caesarean C-Section deliveries performed at	1	0	1	0	0	0	0	0	0	0
M4	Pregnancy outcome & weight of newborn	0	6	0	0	0	3	1	0	1	0
M5	Complicated pregnancies	3	2	2	0	6	0	2	0	5	0
M6	Post - Natal Care	6	0	0	1	0	9	0	12	0	10
M7	Medical Termination of Pregnancy (MTP)	1	1	1	5	1	0	0	0	0	0
M8	RTI/STI Cases	0	0	2	0	3	0	3	0	1	0
M9	Family Planning	3	0	15	0	9	0	10	0	17	0
M10	CHILD IMMUNIZATION	2	17	4	0	9	12	6	12	3	12
M11	Number of Vitamin A doses	0	0	0	0	2	0	2	0	2	0
M12	Number of cases of Childhood Diseases reported during the month 0-5 years:	2	0	4	12	2	0	1	0	3	0
Part B	Other Programmes										
M13	Blindness Control Programme	3	0	0	0	2	0	1	0	0	0
Part C	Health Facility Services										
M14	Patient Services	4	0	4	0	6	0	7	0	6	0
M15	Laboratory Testing	2	0	5	0	7	0	7	0	5	0
Part E	Mortality Details										
M17	Details of deaths reported during the month with probable causes:	14	0	0	0	8	0	3	0	5	0

Table 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. The number of outliers in aggregate has remained fairly stable but further bifurcation shows different trends. The outliers in the category of post-natal care have reduced substantially over the years. There has been a marginal increase in the number of outliers in the category inpatients services, laboratory testing and decline in the category of details of deaths reported during the month with probable causes from its levels in the year 2010-11. 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. The numbers of outliers were highest in the category of Family Planning; the outliers have

increased from 3 in 2010-11 to 17 in 2014-15. Validation errors were highest in the immunization category precisely because the number of children given BCG outweighs the total live births. Thus the category of Child Immunization has recorded a very high number of both validation errors and outliers throughout the five year period.

#### 4. Assessment of Key RCH and Family Planning Indicators

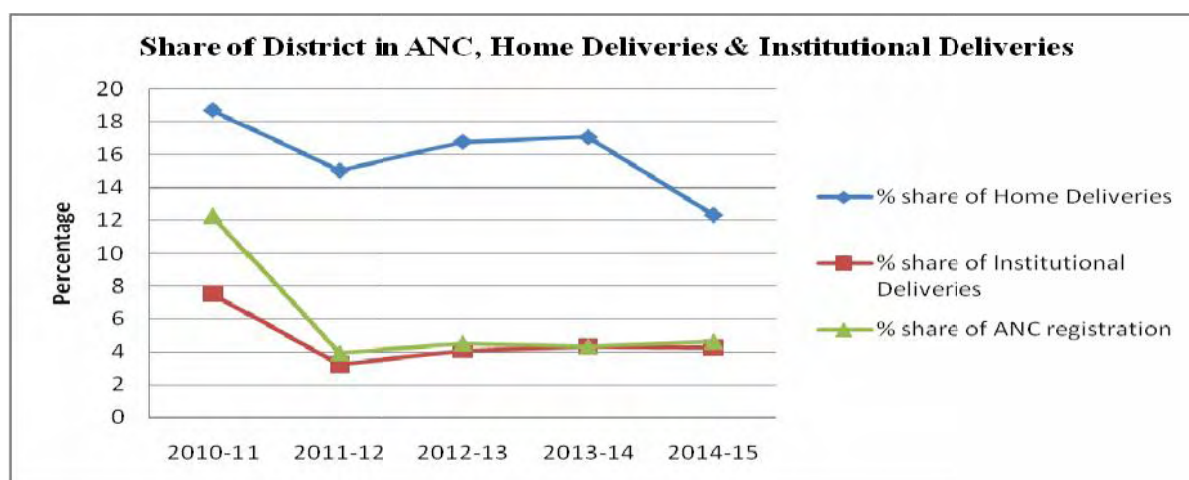
Table 4: Reported levels of ANC registration, institutional deliveries and home deliveries in “concerned district” and Delhi

Year	District			State			% share of district		
	ANC Registered	Institutional deliveries	Home deliveries	ANC Registered	Institutional deliveries	Home deliveries	% share	% share	% share
2010-11	94419	12666	1563	768916	168217	8358	12.27	7.52	18.70
2011-12	32567	6622	1548	822846	204175	10291	3.95	3.24	15.04
2012-13	38706	9172	2319	852363	223459	13807	4.54	4.10	16.79
2013-14	38842	9991	2375	890664	230929	13910	4.36	4.32	17.07
2014-15	40735	10613	2056	874226	247999	16642	4.65	4.27	12.35

Table 4 shows that the share of the district in the state in ANC registration and institutional deliveries has reduced drastically over the five years and the percentage share of home deliveries was fluctuating between 15 to 18 per cent and has fallen to 12 per cent only in the current year. Surprisingly there has been an increase in the number of home deliveries in the South-west district over the years.

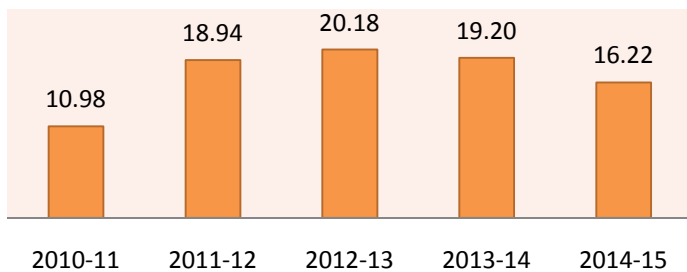
Figure 3 depicts the percentage share of home deliveries of South-West district out of the state has declined over the years. However the percentage share of institutional deliveries and ANC registration has although reduced from its initial levels at 2010-11 and has remained stagnant between three to four per cent.

**Figure 3: Share of District in ANC, Home Deliveries & Institutional Deliveries**



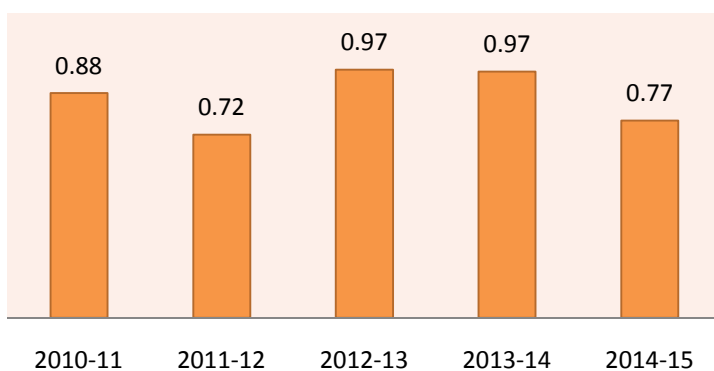
### Share of Home Deliveries to Total Deliveries in the South-West District

■ Share of Home Deliveries



### Share of Home Deliveries to Total Deliveries in Delhi

■ Share of Home Deliveries to Total Deliveries in Delhi



**Table 5: Distribution of home and institutional deliveries, district and state**

Indicators: Home deliveries	2010-11		2011-12		2012-13		2013-14		2014-15	
	Distri ct	Stat e	Distri ct	State	Distri ct	State	Distri ct	State	Distri ct	State
<b>Number of home deliveries</b>	758	8358	1337	10291	1630	13807	1424	13910	1399	16642
<b>Number of home deliveries attended by SBA trained (Doctor/Nurse/ANM)</b>	509	1240	346	1439	213	1923	165	2204	74	2665
<b>Number of home deliveries attended by Non SBA trained (trained TB/Dai)</b>	249	7118	991	8852	1417	11884	1259	11707	1259	11706
<b>% SBA attended home deliveries to Total Reported Home Deliveries</b>	67.2	14.8	25.9	14	13.1	13.9	11.6	15.8	5.3	16
<b>Mothers paid JSY incentive for home deliveries</b>	-	96	20	75	135	253	36	122	29	93
<b>% Mothers paid JSY incentive for home deliveries to Total Reported Home Deliveries</b>	0	1.1	1.5	0.7	8.3	1.8	1.4	0.9	2.1	0.5

Table 5 shows the distribution of home and institutional deliveries in the district and state. The number of home deliveries has increased up to the year 2012-13 and has declined after that but still lot needs to be done since the number of home deliveries are as high as 1399. Surprisingly, the number of home deliveries attended by non-SBA outweighs the ones attended by SBA. The percentage of SBA attended home deliveries to Total Reported Home Deliveries has declined drastically from 67.2 per cent to 5.3 per cent in the district. The percentage of mothers' paid JSY incentive for home deliveries to Total Reported Home Deliveries is very low throughout the five year period.

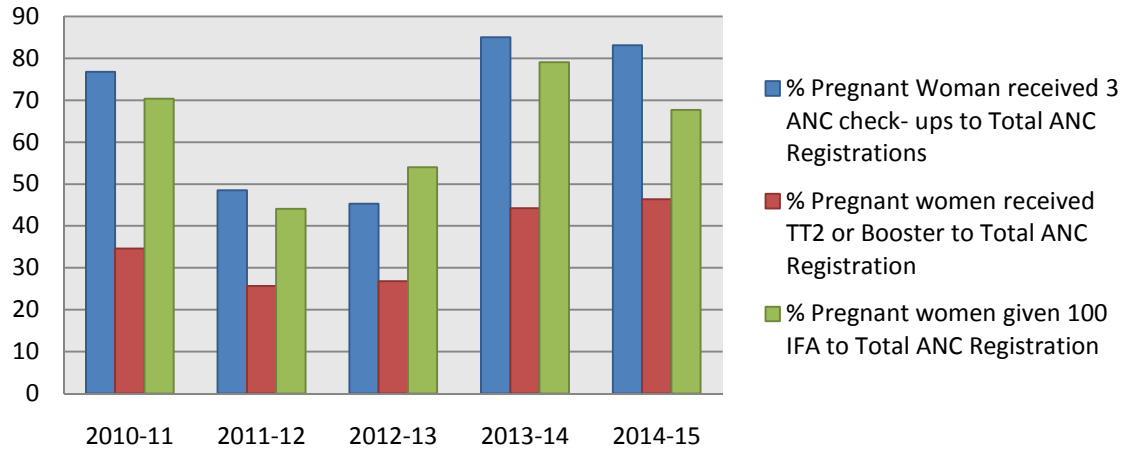
Table 6 shows the key indicators related to antenatal care in the district and state. The total number of pregnant women registered for ANC in the district is gradually declining after the year 2012-13 and contrarily the number of registrations is increasing for the state as a whole. While at the state level the number of women receiving full ANC is increasing over the years but the trend is of declining nature in case of South-West district where number has declined from 58731 to 29562 amidst the five years from 2010-11 to 2014-15.

**Table 6: Key indicators related to antenatal care, district and state**

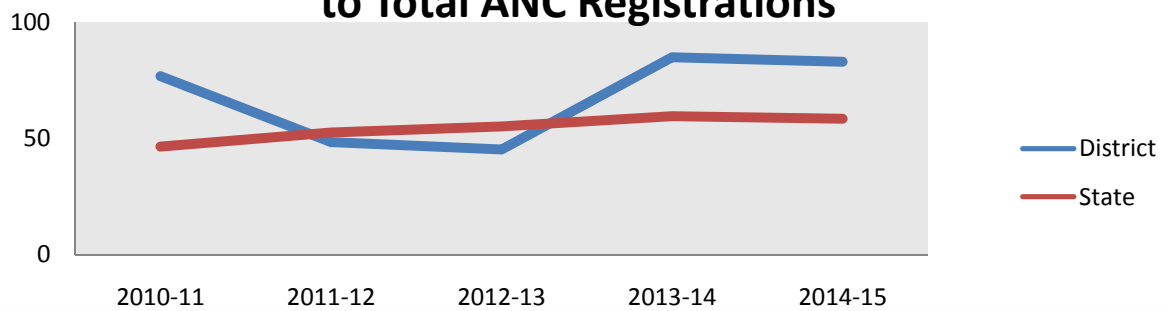
Indicators: Antenatal Care	2010-11		2011-12		2012-13		2013-14		2014-15	
	District	State	District	State	District	State	District	State	District	State
Total number of pregnant women Registered for ANC	76427	768916	21216	822846	59460	852363	37862	890664	35592	874226
Number of Pregnant women registered within first trimester	21216	193,234	24038	218195	22560	259033	17185	276523	16637	303725
Number of pregnant women received 3 ANC check ups	58731	351777	31172	432411	26950	471435	32190	531436	29562	512679
TT2 or Booster given to Pregnant women (numbers)	26462	196899	16504	216240	15931	228143	16720	231488	6511	249692
% Pregnant Woman received 3 ANC check- ups to Total ANC Registrations	76.8	46.5	48.5	52.6	45.3	55.3	85	59.7	83.1	58.6
% Pregnant women received TT2 or Booster to Total ANC Registration	34.6	25.6	25.7	26.3	26.8	26.8	44.2	26	46.4	28.6
Number of Pregnant women given 100 IFA tablets	53815	366808	28371	454006	32080	514510	29960	522123	24103	482855
% Pregnant women given 100 IFA to Total ANC Registration	70.4	47.7	44.1	55.2	54	60.4	79.1	58.6	67.7	55.2
Number having Hb level<11 (tested cases)	34714	253055	22664	275101	21915	294786	21527	274161	24344	305471
Number having severe anaemia (Hb<7) treated at institution	4718	17836	848	17343	1064	20022	1507	24263	1271	19448
% Pregnant women having severe anaemia (Hb<7) treated at institution to women having hb level<11	13.6	7	3.7	6.3	4.9	6.8	7	8.8	5.2	6.4
% New cases detected at institution for hypertension to Total ANC Registrations	3.5	2.6	4.5	2.2	2.2	2.6	2.2	3.5	5.6	2.7

Percentage of pregnant women having severe anaemia (Hb<7) treated at institution to women having hb level<11 have reduced just to half from 13.6 in 2010-11 to 6.4 per cent in 2014-15. Percentage of new cases detected at institution for hypertension to Total ANC Registrations has reduced marginally to 2.7 in 2014-15 as compared to 3.5 in 2010-11 for the district. However the percentage of new cases of hypertension has increased in the State from 2.6 per cent to 5.6 across the five year period.

## Key Indicators related to Ante-Natal Care



## % Pregnant Woman received 3 ANC check- ups to Total ANC Registrations





Indicators:	2010-11		2011-12		2012-13		2013-14		2014-15	
	District	State	District	State	District	State	District	State	District	State
Number of C-section deliveries conducted at public facilities	3713	33071	1186	32776	1596	37980	1597	40961	1451	45758
Number of C-section deliveries conducted at private facilities	261	8352	402	14990	378	16806	557	19896	780	24001
% C-section deliveries (Public + Pvt.) to reported institutional (Public + Pvt.) deliveries	16.7	24.6	18.4	23.4	19.4	24.5	20.4	26.4	20.4	28.1
% C-sections conducted at public facilities to Deliveries conducted at public facilities	16.1	23.2	15.3	18.9	17	19.9	16.6	21.1	15.1	22.3
% C-sections conducted at Private facilities to Deliveries conducted at private facilities	40.5	32.7	45.5	48.3	48.1	51.5	57	54.3	60.8	56.4

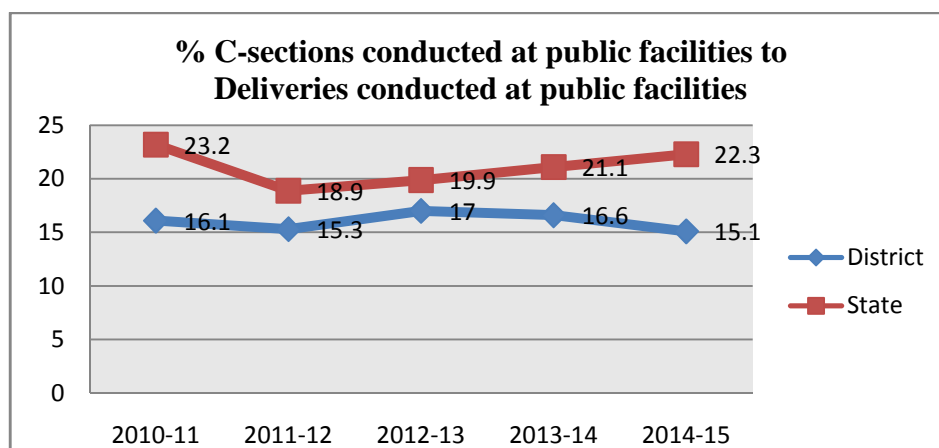


Figure 8 depicts there has been a decline in the percentage of C-Section deliveries conducted at the public facilities in the district as compared to the state. The plausible reason for the same can be shortage of specialists like gynaecologists in the district. The district had only 2 gynaecologists sanctioned under NHM and hence the higher proportions of C-section deliveries are catered by the private institutions

**Figure 9: Trends in C-Section deliveries in the District**

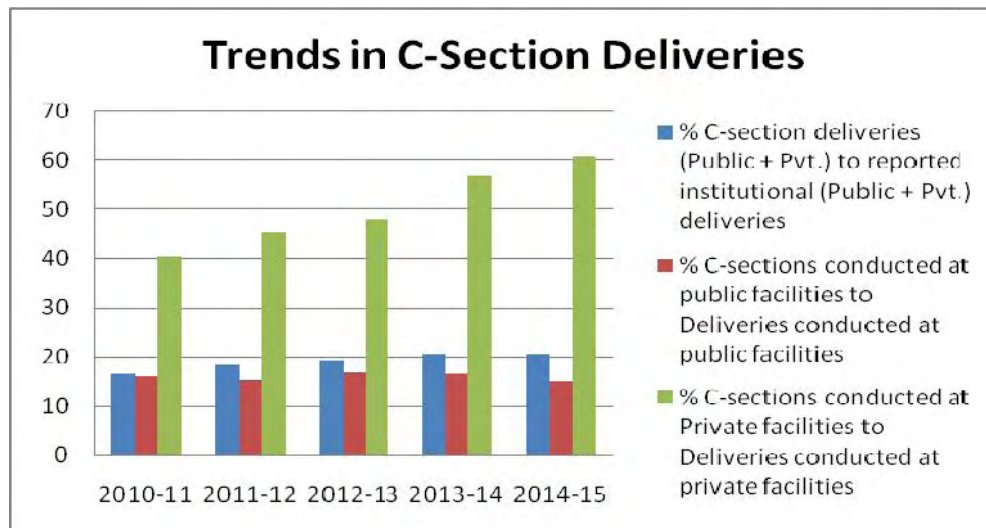


Figure 9 depicts the trends in C-Section deliveries and asserts that there has been a drastic increase in the percentage of C-Section deliveries conducted at private facilities to deliveries conducted at private facilities in the South-West district over the time period in concern. There was only a marginal increment in the percentage of C-Section deliveries conducted out of total institutional deliveries thus there has been a shoot up in the number of C-Section deliveries conducted at the private facilities implying lesser number of people are preferring C-section deliveries conducted in the public facilities over the years.

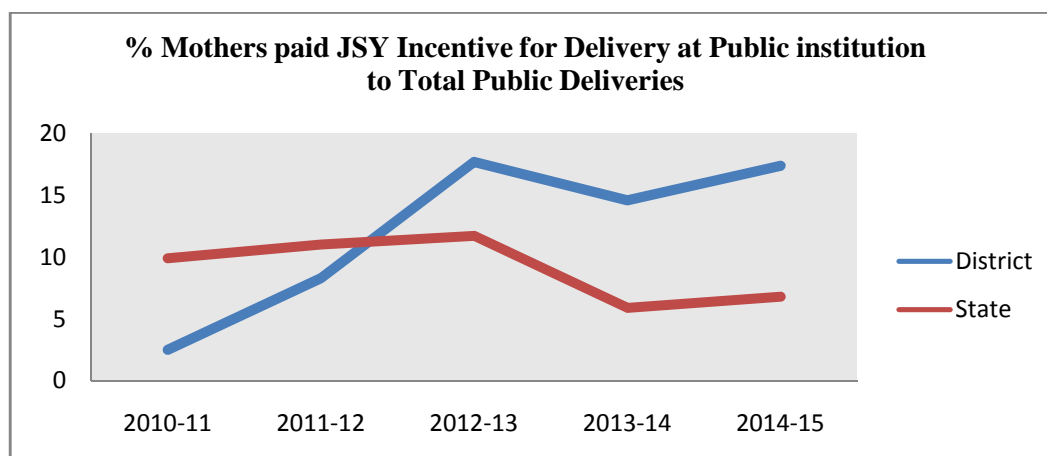
Table 8 shows the performance of indicators related to the scheme named Jannani Shishu Yojna implemented under the umbrella of National Health Mission to ensure safe motherhood under NHM aiming at reducing maternal and neo-mortality rate by promoting institutional deliveries among poor pregnant women. From the table we observe that while at the district percentage of JSY registrations has increased over the given time period from 2.3 per cent to 5.8 per cent but for the state as a whole the percentage has declined from 6.2 per cent to just 3.9 per cent amidst the five year period.

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

Indicators: JSY Registration	2010-11		2011-12		2012-13		2013-14		2014-15	
	District	State	District	State	District	State	District	State	District	State
<b>Total number of pregnant women Registered for ANC</b>	76427	768916	64273	822846	59460	852363	37862	890664	35592	874226
<b>% JSY registration to Total ANC Registration</b>	2.3	6.2	3.4	7.5	5	7.6	6.3	4.7	5.8	3.9
<b>% Mothers paid JSY incentive for home deliveries to Total Reported Home Deliveries</b>	0	1.1	1.5	0.7	8.3	1.8	2.5	0.9	2.1	0.5
<b>% Mothers paid JSY Incentive for Delivery at Public institution to Total Public Deliveries</b>	2.5	9.9	8.3	11	17.7	11.7	14.6	5.9	17.4	6.8
<b>% of cases where JSY Incentive paid to ASHA for Delivery at Public institution to Total Public Deliveries</b>	0.1	1.4	3.5	1.3	7.1	2.1	12	1.5	10.1	1.7

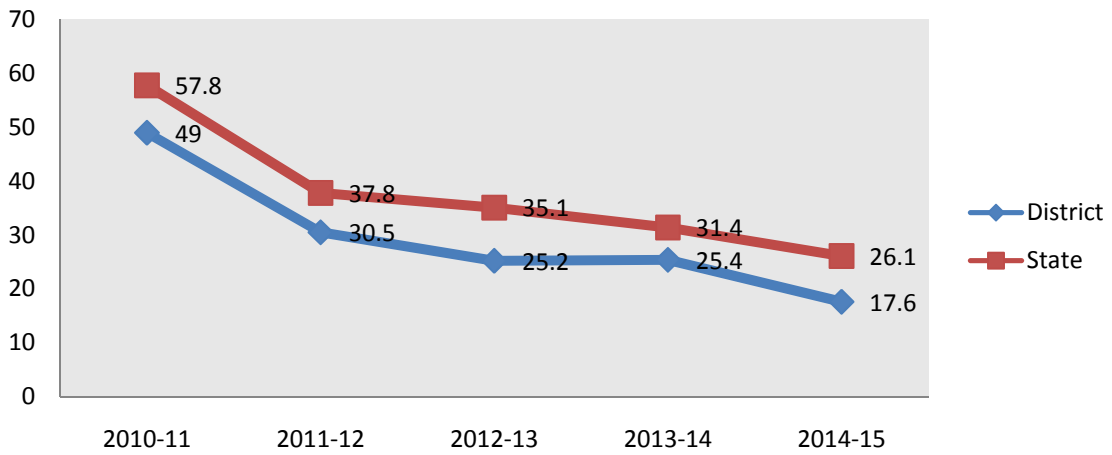
The percentage of cases where JSY Incentive paid to ASHA for Delivery at Public institution to Total Public Deliveries has increased ten folds i.e. from levels as low as 0.1 in 2010-11 to 10.1 in 2014-15 implying increased participation of ASHA workers in the South-West district. Percentage of mothers paid JSY incentive for home deliveries to Total Reported Home Deliveries also show similar trend that is increasing in case of South-West district while declining in the case of the state.

Figure 10 shows the percentage of Mothers paid JSY incentive for delivery at Public institutions to total Public Deliveries for the district and state. The district has recorded an increase in the percentage over the years and has also outperformed the percentage of the state as a whole where the trend is that of declining percentage.



Indicators: Abortions	2010-11		2011-12		2012-13		2013-14		2014-15	
	District	State	District	State	District	State	District	State	District	State
<b>Total Number of Abortions ( Spontaneous/ Induced) Reported</b>	2142	26241	1352	27753	1489	30508	1388	29521	1281	31605
<b>Total Number of MTPs ( Public) reported</b>	1050	15157	414	10484	375	10711	352	9255	225	8259
<b>% MTPs (Public) to Abortions</b>	49	57.8	30.5	37.8	25.2	35.1	25.4	31.4	17.6	26.1
<b>% MTPs up to 12 weeks of Pregnancy to Total MTPs at Public Institutions</b>	95.4	91.4	95.2	90.6	93.1	93.1	94	92.4	90.7	91.6
<b>% MTPs more than 12 weeks of Pregnancy to Total MTPs at Public Institutions</b>	4.6	8.6	4.8	9.2	6.9	6.9	6	7.6	9.3	8.4
<b>% MTPs Conducted at Public Institutions to Total MTPs</b>	44.6	51.7	57.3	47.2	52.7	48.9	57.2	44.3	45.4	38.1
<b>% MTPs Conducted at Private Institutions to Total MTPs</b>	55.4	48.3	42.7	52.8	47.3	51.5	42.8	55.7	54.6	61.9

### % MTPs (Public) to Abortions



### % MTPs conducted at Public and private Institutions to Total MTPs

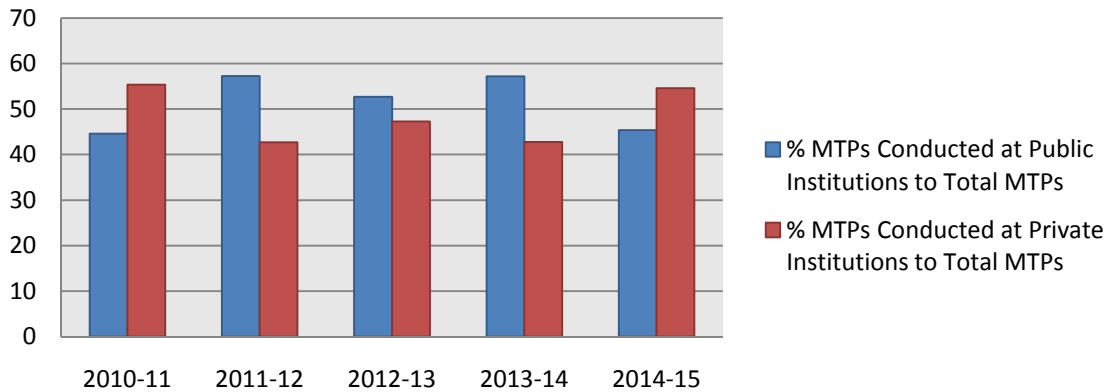


Figure 12 represents the trends that have evolved over the five year period in the South-West District. From the figure we observe that percentage of MTPS conducted at the public institutions has declined from its past levels in 2010. However the percentage of MTPs conducted at the private institutions has increased in the year 2014-15 after declining in the subsequent years post 2010-11.

**Table 10: Tubectomies and vasectomies conducted at public and private facilities, district and state**

Indicators: Sterilisation	2010-11		2011-12		2012-13		2013-14		2014-15	
	District	State	District	State	District	State	District	State	District	State
<b>Number of Vasectomies Conducted (Public + Pvt.)</b>	89	2801	87	2880	73	1594	51	1403	58	811
<b>Number of Tubectomies Conducted (Public + Pvt.)</b>	27	15339	628	1756 1	753	1984 0	607	19018	340	1712 1
<b>Total Sterilisation Conducted</b>	1033	18140	715	2044 1	826	2143 4	658	20421	398	1793 2
<b>% Male Sterilisation (Vasectomies) to Total sterilisation</b>	10.6	15.4	12.2	14.1	8.8	7.4	7.8	6.9	14.6	4.5
<b>% Tubectomies to Total sterilisation</b>	89.4	84.6	87.8	85.9	91.2	92.6	92.2	93.1	85.4	95.5
<b>IUCD Insertions done (public facilities)</b>	97.5	30204	2732	3819 6	3731	4340 8	4517	53812	6360	6836 3
<b>IUCD insertions done (pvt. facilities)</b>	4186	2480	366	4344	300	4442	195	4075	138	4075

Table no 10 shows the position of tubectomies and vasectomies conducted at the public and private facilities at the district and state level. The number of tubectomies conducted was more than the vasectomies at both central and state level across all the years thus female sterilisation was a dominant mode. Number of serialisations has declined rapidly over the years due to upcoming spacing method such as IUCD, Contraceptive pills and Emergency contraceptive pills. It can be seen that the number of IUCD insertions have increased steadily over the years in both public and private sectors.

Table 11 shows immunization facilities related indicators for district and state. The table shows that the ratio of oral polio vaccine to total live birth is close to 90 per cent throughout the five year period. However the percentage has declined from 104.5 per cent to 92.6 per cent in past five years. At the state level while at state the percentage of children given oral

polio vaccine to total live birth performance is comparatively low than district performance but the percentage of immunisation sessions held to total planned sessions was higher than that of the district.

**Table 11: Immunization-related indicators for district and state-**

Indicators: Immunization	2010-11		2011-12		2012-13		2013-14		2014-15	
	District	State	District	State	District	State	District	State	District	State
% Newborns given OPV0 at birth to Reported live birth	104.5	96	89.1	93	91.9	92.6	94.9	92.7	92.6	89.9
% Newborns given BCG to Reported live birth	126.8	136.1	147.2	126.1	137	123.1	130.8	121	123	115.4
% Infants 0 to 11 months old who received Measles vaccine to reported live births	62.3	111	176.6	102.1	179.6	101.7	182.5	105.2	204.9	114.5
% Drop Out between BCG & Measles	50.9	18.5	-19.9	19.1	-31.1	17.4	-13.9	13.1	-66.6	0.6
% immunisation Sessions Held to Immunisation Sessions Planned	90.	91.3	90.9	92.8	90.1	92.5	89.9	93.5	93.7	95.1
% Immunisation Sessions where ASHAs were present to Immunisation Sessions Planned	17.3	19	37.5	22	90.1	92.5	89.9	93.5	68.9	41.9

The new born giving BCG at district and state level are more than 100 per cent throughout the time-period in concern. At district level the percentage of BCG given to newborn reported is fluctuating between 125 to 130 per cent throughout except for the year 2011-12 where the percentage was 147.2 per cent. However at state level a significant decline is recorded over the years. Therefore the overall performance of BCG given to new born is better at district than state.

The table shows at district level that the rate of dropout between giving BCG and measles has reduced significantly over the years. The immunization sessions held in the presence of ASHAs were comparatively less than the total session held at district and state level. But it was observed that the involvement of ASHAs in immunization session is increasing alarmingly at district and state over the time. The table shows 68.9% sessions were held in the presence of ASHAs at district and in state the same it was 41.9% in 2014-15. Thus higher involvement of ASHAs is observed in the district.

## Conclusion and Recommendations

### Conclusion

- In South-West district there were more outliers and there has been no reductions in the number over the years. Further over the years validation errors have remained more or less stagnant and their percentage share in the total errors of the state has not declined even marginally in 2014-15 as compared to its levels in 2010-11.
- There is a huge 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 and ANC registration the district is showing a gradual decline over the years.
- Numbers of home deliveries have increased in the South-West and surprisingly maximum percentage of home deliveries were catered by non SBA-trained thus more efforts are needed to reduce home deliveries and encourage institutional deliveries are needed in the district.
- Percentage of women who received 3 ANC checkups has increased in the district however the percentage has been lower in the state thus district although has recorded a decline in the number of women receiving full ANC but the percentage of women out of total ANC registration has increased over the years.
- Number of c-sections conducted in private facilities has increased in the district over the years precisely because of shortage of gynaecologists thus despite an overall increase in the C-section deliveries there was a gradual decline in the number of Caesareans conducted at the public institutions.
- As far as family planning indicators are concerned, the number of tubectomies was far greater than the number of vasectomies. However the total numbers of sterilisations have come down considerably in both the district and the state precisely because of more spacing methods available.
- 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.



## **Recommendations**

- There was shortage of data entry operators in the district which was needed on an urgent basis. Lack of data entry operators was hampering the quality of data. More training programmes should be organised at the district level for data entry operators since the district has very high share in the percentage of total errors in the state and the share has remained significant throughout the five year period.
- Contrary to the expected trends of declining home deliveries and increasing institutional deliveries, there has been a gradual increase in the share of district in the home deliveries and further bifurcation shows that most of the home deliveries are attended by Non-SBA trained staff thus efforts on part of district official should include more awareness programmes to encourage institutional deliveries and impart more trainings to the existing staff on SBA.