An Overview of Key Indicators of HMIS: Experiences with Haryana

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ABSTRACT

Reducing maternal and child mortality is the most important goal of the National Rural Health Mission. Indian government has worked towards its commitment to achieve the Millennium Development Goals. Huge investments are being made by Government of India to achieve these goals. A well framed roadmap is being developed for accelerating child survival and improving maternal health and 16 indicators is selected for this purpose. The improvement in these indicators shows the way towards the achievement of MDGs. India has made considerable progress over the last few years since NRHM in the area of maternal and child health, which was further accelerated after introduction of RMNCHA+ () strategy which appropriately directs the states to focus their efforts on the most vulnerable and disadvantaged sections of the society in the country. Main focus is healthy mothers and child. It also emphasizes on the need to reinforce efforts in those poor performing districts that have already been identified as the high focus districts. 'Continuum care' is required to have equal focus on various life stages. Improvement in these indicators provide an understanding the importance of 'continuum of care' to ensure equal focus on various life stages. Some low performing districts had shown an improvement over period of time in its RMNCHA+ indicators.

Keywords - Key indicators of HMIS. Health indicators in Haryana, RAMNCHA+ Approach

1. INTRODUCTION

The eleventh plan focused on the development of public health systems and services that are mandatory to health needs of people and affordability of health care. This Plan emphasized on the special attention to the health needs of the adolescent girls, women of all ages, children below the age of three, older persons, disabled and tribal groups. Several time bound goals were laid out like reducing MMR, IMR, IFR, Increasing sex ratios etc. which continued in next 12th plan. Under the 12th Five-Year Plan (2012-2017) following goals were laid out; Reducing the IMR to 25 per 1,000 live births; Reducing the MMR to 1 per 1,000 live births; Reducing the national fertility rate to 2.1; Increasing the child sex ratio in the 0-6 year age group to 950. Under the 12th Five-Year Plan, the G.O.I. projected that it will spend US $3 trillion on health between 2013 and 2017. India recognizes that achieving these goals will require a broad strategy that links reproductive, maternal and child health services and promotes the delivery of evidence-based interventions along a continuum of care from household to community to health facility. This recognition led the MOHFW/ NRHM to develop a new, more comprehensive Reproductive, Maternal, Neonatal, Child Health and Adolescent (RMNCH+A) strategy. The 11th Five Year Plan essentially focused on a number of thrust areas, including improvements in public healthcare facilities in rural areas through National Rural Health Mission, enhancing health facilities in states through Pradhan Mantri Swasthya Surakha Yojana (PMSSY), increasing health human resources by relaxing norms for setting up Medical Colleges in the states and initiating measures to prevent & control the emerging problem of non-communicable diseases. Haryana State has made considerable progress over the last two decades in the sector of health, especially with the introduction of NRHM and this has improved the availability of and access to quality health care for the people, especially for those residing in rural areas, the poor, women and children. While the country aims to set one collective goal towards reducing preventable maternal, newborn and child deaths by 2017, it is increasingly becoming apparent that there is varied and unequal rate of progress within the states and districts. The national & state 'score card' is being introduced as a tool to increase transparency and track progress against reproductive and maternal health & child survival indicators related with intervention coverage. Among the sates, J&K, Bihar, Jharkhand, Magalaya, Arunachal Pradesh are very poor performing states whereas Haryana, Rajasthan, Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Odisha, West Bengal are amongst the low performing states. With the intervention

of government, the situation in improving very fast in Haryana and during April- Sep, 2014-15, Haryana has come out as a good performing state (dash board analysis).

2. OBJECTIVE OF THE STUDY

1) To analyze the performance of 'Key' indicators of HMIS since 2010-11 in the state of Haryana and ;
2) To gauze into Quality of data reported in HMIS

3. DATABASE AND METHODOLOGY

In order to achieve the above said objectives of the present study, HMIS data has been downloaded on 19th December 2014 and has been used to study the percent change in various performance indicators of HMIS from the year 2010-11 to 2013-13. Further, the performance indicator during last four years i.e. the 2010-11 to 2013-14, has been plotted on graph. The formula used for calculating the percentage change is as follows;

Percentage change during the two years = ((P0-P1)/P0)*100

Where P0= Value during the year 2010-11 and P1 is the value during the year 2013-14

4. INDICATORS PERFORMANCE

4.1 Pregnancy Care Indicators

The main motive behind pregnancy care services is to provide optimal health during the pregnancy period and to increase the likelihood of a good pregnancy outcome by encouraging positive behaviors and preventing health problems during pregnancy period. The use of folic acid in planned pregnancies during the peri-conception phase (three months before and three months after conception) is helpful for the prevention of neural tube defects and other congenital anomalies. As most obstetric complications and maternal deaths occur during delivery and in the first 48 hours after childbirth so, the intra-partum period which is particularly a critical time for recognizing and responding to obstetric complications and seeking emergency care to prevent maternal deaths. There is need to maximize facility based deliveries or skilled attendance during home births in 'difficult to reach areas' and referring women to emergency care in case of complications, and also monitoring postpartum mothers. Following table presents the proportion of first trimester registration to total ANC registration which is important indicator of RMNCHA+ intervention introduced in year 2013.

4.1.1 THE PROPORTION OF FIRST TRIMESTER REGISTRATION TO TOTAL ANC REGISTRATIONS

A glance at the above table reveals that majority of districts recorded positive change in first trimester ANC registerations. The facility level reporting interduced during the year 2012-13 definitely have impact on data reporting levels and more over it has been noticed from table that district Fatehabad has recorded maximum postive change in registeration but still its ANC registerations are comparetably lower than the other distrcits like Jind, Rohtak, Karnal , Sirsa and Ambala ect. Though district Mewal has shown a positive change but first timestor ANC registeration are quite low as only 20 percent first reigisteration were there in the year 2010-11 which increased to 28.5 percent during the year 2013-14. In Haryana as a whole, there is nearly 6.61 percent change in ANC registerations to Total ANC registeration from the year 2010-11 to 2013-14 and overall there is increase with mild variations over the period of four years.

TABLE 4.1.1 Proportion of First Trimester Registration to Total ANC Registrations					
Years Districts	2010-11	2011-12	2012-13	2013-14	Change from 2010-11 to 2013-14
Haryana	46.9	51	50.3	50	6.61
Ambala	40.7	43.8	44.9	57.3	40.79
Bhiwani	40.8	42.6	43.3	53.1	30.15
Faridabad	38.6	60.1	62	40.9	5.96
Fatehabad	34.7	37.8	42.2	56.2	61.96
Gurgaon	36.2	53	48.7	40.4	11.60
Hisar	59.3	59.6	58.9	65.7	10.79
Jhajjar	39.5	59.3	56.5	50.5	27.85
Jind	75.6	67.9	61.1	63.5	-16.01
Kaithal	59.8	54.1	49.1	55.1	-7.86
Karnal	59.5	65	61.1	62.3	4.71
Kurukshetra	39.6	43.6	47.9	53.4	34.85
Mahendragarh	33.6	35.4	45.7	52.5	56.25
Mewat	20	24.2	25.7	28.5	42.50
Palwal	44.6	48.9	43.9	41.5	-6.95
Panchkula	46.3	46.8	50.7	56.9	22.89
Panipat	76.6	50.5	57.3	41.7	-45.56
Rewari	47	46.1		48	2.13
Rohtak	51.9	56.1	61.9	60.7	16.96
Sirsa	68.9	65.9	62.5	57.9	-15.97
Sonipat	28.5	41.4	44.6	44.6	56.49
Yamunanagar	41.3	44.3	43.4	51.3	24.21

Source: HMIS portal

District Panipat(76.6 percent), Jind(75.6 percent) and Hisar (59.6 percent) had the maximum first trimester registeration to total registeration during the year 2010-11 but all these districts reigistered a negative percentage change. So there is need to look into the causes for low first trimester registeration during the year the year 2013-14.

Graph 4.1: Proportion of   first trimester registration to total ANC registrations
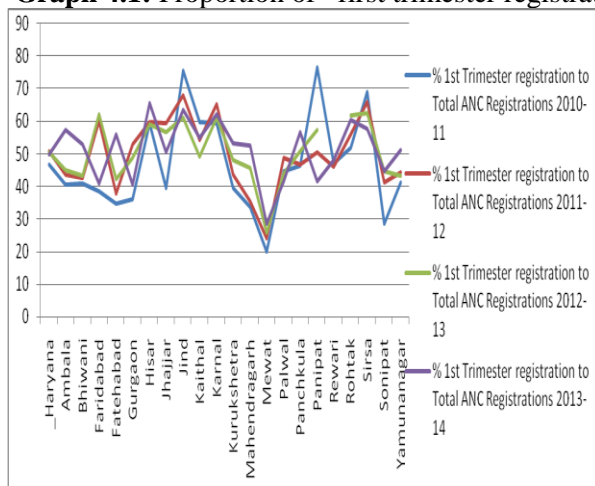

The perusal of the table 2 reveals that over a period of time the proportion of ANC 3 check up to total ANC has declined in majority of the districts' showing negative percentage change   in 2013-14 as compared to 2010-11. The 4 districts' which registered positive change are Rohtak, Karnal, Hisar and Ambala whereas Mewat district has the lowest proportion of women   receiving ANC 3 checkups to is comparatably low.

Table 4.1.2 % Pregnant Woman received 3 ANC checkups to Total ANC Registrations					
Years Districts	2010-11	2011-12	2012-13	2013-14	% Change from 2010-11 to 2013-14
Haryana	77.3	81.8	84.9	61.3	-20.70
Ambala	65.2	77	91.4	71.3	9.36
Bhiwani	90.6	85.2	84.8	66	-27.15
Faridabad	74.1	81	87.8	53.1	-28.34
Fatehabad	84.3	91	95.5	67.4	-20.05
Gurgaon	87.2	85.8	75.9	60.5	-30.62
Hisar	65.2	69.7	74.1	73	11.96
Jhajjar	72.1	80.1	93.7	62.4	-13.45
Jind	74.4	89.4	81.2	60	-19.35
Kaithal	92.9	96.7	100.8	54.3	-41.55
Karnal	67.6	78.2	81.8	75.5	11.69
Kurukshetra	84.8	86.5	87.7	64.7	-23.70
Mahendragarh	97.7	88.8	110.7	60.7	-37.87
Mewat	57.2	76.4	68.3	45.9	-19.76
Palwal	75.2	75.4	84.1	60	-20.21
Panchkula	91.9	91.9	105.1	44.6	-51.47
Panipat	89.2	78	62.4	38.3	-57.06

| Rewari	78.9	72.2	85.5	72.6	
					-7.98
Rohtak	41.7	80.6	76.6	66.9	
					60.43
Sirsa	79.9	79	88	71.5	
					-10.51
Sonipat	82.8	78.9	85.7	66.4	
					-19.81
Yamunanagar	101.3	89.7	95.3	66.8	
					-34.06

Source: HMIS portal
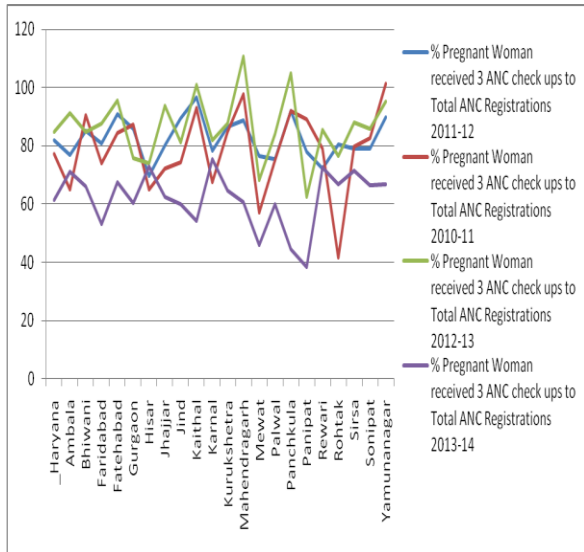
Highly fluctuating trend in receiving the 3 ANC check -ups has been noticed in majority of the districts. Haryana state as a whole, there is decline of 20.7 percent in the year 2013-14 from the year 2010-11. Though there should be increase in the proportion of 3 ANC registrations to total ANC registrations but this scenario predicted by the HMIS says otherwise which indicated that there is need to look at data reporting errors.

4.1.2 Proportion of Pregnant Women Received TT2 or Booster to Total ANC Registration
   Graph 4.1.2: Proportion of pregnant women received TT 2 or Booster to total ANC Registrations
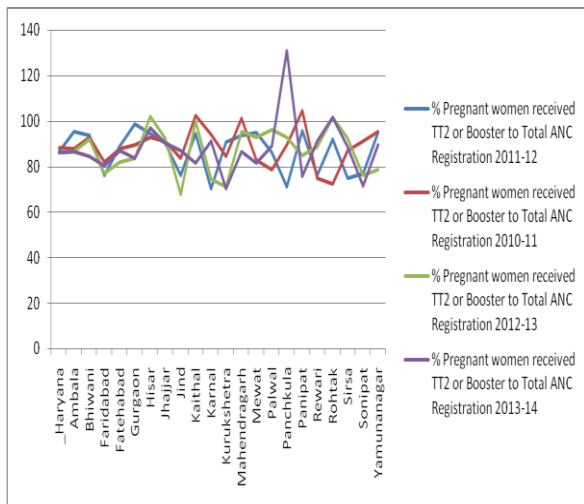
The perusal of the table 3 and the graph reveals that majority of the districts has recorded negative percentage change in receiving TT2 or Booster from 2010-11 to 2013-14 and overall there is slight fluctuating pattern. This decline signifies the either the gap in the child bearing period or declining family size which may be important from point of view population control.

Table 3 Proportion of pregnant women received TT 2 or Booster to total ANC registrations				
Years　　　Districts	2010-11	2011-12	2012-13	2013-14	% Change from 2010-11 to 2013-14
Haryana	88.4	86.5	86.5	86.3	-2.38
Ambala	87.9	95.1	86.9	86.6	-1.48
Bhiwani	92.6	93.7	92.1	84.8	-8.42
Faridabad	82.1	76.3	77.1	80.5	-1.95
Fatehabad	87.6	88.8	82	87.2	-0.46
Gurgaon	89.5	98.5	83.7	83.9	-6.26
Hisar	92.9	94.4	102.1	97.4	4.84
Jhajjar	91.1	90.4	92.5	90.5	-0.66
Jind	83.5	76	68	87.1	4.31
Kaithal	102.5	94.4	100.1	81.6	-20.39
Karnal	94.2	70.3	74.8	91.4	-2.97
Kurukshetra	84.5	90.7	71.3	70.5	-16.57
Mahendragarh	100.9	93.5	95.6	86.7	-14.07
Mewat	82.9	94.9	93.1	81.9	-1.21
Palwal	78.6	86.1	96.3	89.3	13.61
Panchkula	89.5	71.2	93	131	46.37
Panipat	104.4	95.8	85.1	76.1	-27.11
Rewari	75	76.1	88.9	91.5	22.00
Rohtak	72.4	91.7	101.5	101.7	40.47
Sirsa	86.8	75	92.6	89	2.53
Sonipat	91.2	76.9	76.4	71.7	-21.38
Yamunanagar	95.3	94.9	78.9	89.5	-6.09

Source: HMIS portal

The Districts which registered positive change are Rohatk (40.47 percent), Rewari (22 percent), Hisar(4.84 percent), Jind (4.31 percent) and Sonipat (2.53 percent). Another reason for theses variations may be the facility level reporting. District Fatehabad and Jhajjr showed lowest negative percentage change i.e 0.46 percent and 0.66 percent respectively. Overall, in Haryana there is decline of two points with consistent declining pattern.

4.1.3 Proportion of Pregnant women given 100 IFA to total ANC Registration

The perusal of the table 4 revels that the overall there is decline of less than one percent in proportion of pregnant women given 100 IFA tablets to total ANC registration but there are nine districts which registered a positive change and among these districts Rohtak has registered maximum positive change of 71.87 percent from 2010-11 to 2013-14 with mild fluctuation in 2012-13. It has been noticed that overall, there is fluctuating trend in percentage of women receiving 100 IFA tablets to total ANC registration.

Table 4.1.3 Proportion of Pregnant women given 100 IFA to Total ANC Registration				
Years Districts	2010-11	2011-12	2012-13	2013-14	% Change from 2010-11 to 2013-14
Haryana	88.4	78.1	64.7	87.8	-0.68
Ambala	92.8	88.2	78.1	90.1	-2.91
Bhiwani	77.8	57.8	57.4	83	6.68
Faridabad	114.1	92.3	72	99.5	-12.80
Fatehabad	57.3	69.3	51.2	98.2	71.38
Gurgaon	110.8	83.3	82.9	79	-28.70
Hisar	72.2	82.4	86.8	78.9	9.28
Jhajjar	91.7	75.2	61.3	110.5	20.50
Jind	93	86.1	48.7	87.3	-6.13
Kaithal	98.9	80.7	44.3	83.5	-15.57
Karnal	80.4	76.6	60.4	102.1	26.99
Kurukshetra	82.2	70.4	44.3	77.5	-5.72
Mahendragarh	102.1	102.2	103.4	93.8	-8.13
Mewat	83.7	68.4	42.4	63.4	-24.25
Palwal	60.1	51.5	58.4	73.9	22.96
Panchkula	90.4	73.9	54.4	159.5	76.44
Panipat	143.7	115.2	62	60.4	-57.97
Rewari	93.9	75.7	81.4	94.6	0.75
Rohtak	75	92.1	91.3	128.9	71.87
Sirsa	86.9	74.4	83.7	79.2	-8.86
Sonipat	71	66.5	60	91.6	29.01
Yamunanagar	90.6	71.4	46.8	75.5	-16.67

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Maximun decline has been noticed in case of Panipat district of 57.97 percent. So there is needed to look upon the data reporting errors. In some cases, the proportion of women receiving is more than 100 percent like in case of district Faridabad, Gurgaon, Mahendergarh, Panipat in the year 2010-11 whereas, Jhajjar, Karnal, Panchkula and Rohtak reported more than 100 percent women receiving 100 IFA to total ANC registration during 2013-14 which indicated the error of double reporting.

4.1.3 Proportion of Pregnant women given 100 IFA to Total ANC Registration
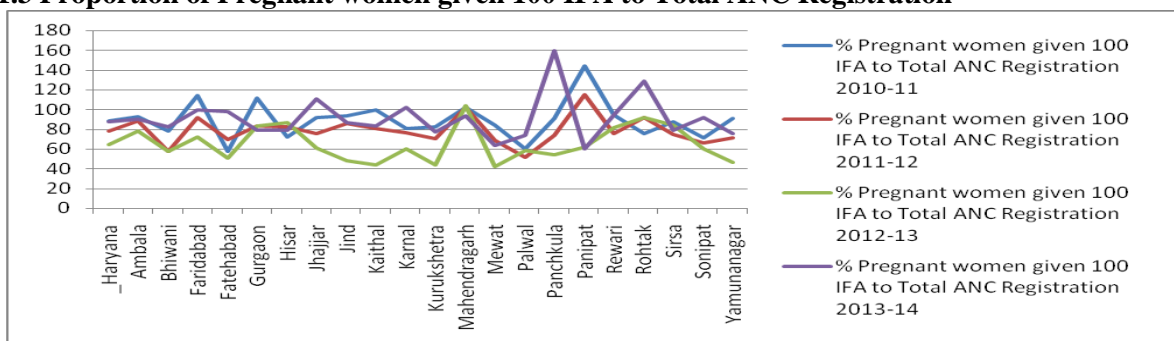
4.1.4 Proportion of cases of Pregnant women with Obstetric Complications and attended to reported deliveries

Proportion of Pregnant women with Obstetric Complications and attended to reported deliveries					
Years Districts	2010-11	2011-12	2012-13	2013-14	% Change from 2010-11 to 2013-14
Haryana	8.4	7.9	10.7	25	197.6
Ambala	5.1	9.3	13	23.8	366.7
Bhiwani	11.8	0.8	19.7	22.8	93.2
Faridabad	8.9	11.2	7.7	20.3	128.1
Fatehabad	11.4	11.1	10.4	21	84.2
Gurgaon	4.3	3.4	4.2	36.6	751.2
Hisar	5	3	10.9	19	280.0
Jhajjar	10.4	8.5	13.2	32.8	215.4
Jind	3.4	3.6	2.9	14.6	329.4
Kaithal	9	11.4	8.7	43.3	381.1
Karnal	1.8	1	13.5	17.2	855.6
Kurukshetra	18.1	21	25	47.3	161.3
Mahendragarh	12.6	11.3	4.9	26.6	111.1
Mewat	0	2.2	0.1	35.5	-
Palwal	13	4.7	1.1	27	107.7
Panchkula	6.3	5.8	4	31.1	393.7
Panipat	4.4	5.6	5.9	12.5	184.1
Rewari	15.6	12.7	14.3	16.6	6.4
Rohtak	15.8	27.5	29.1	9.8	-38.0
Sirsa	2.5	1.6	4	8.3	232.0
Sonipat	4.6	1.2	6.1	25.9	463.0
Yamunanagar	16.1	12.8	18.7	49.3	206.2

Graph 4.1.4: Proportion of cases of Pregnant women with Obstetric Complications and attended to reported deliveries
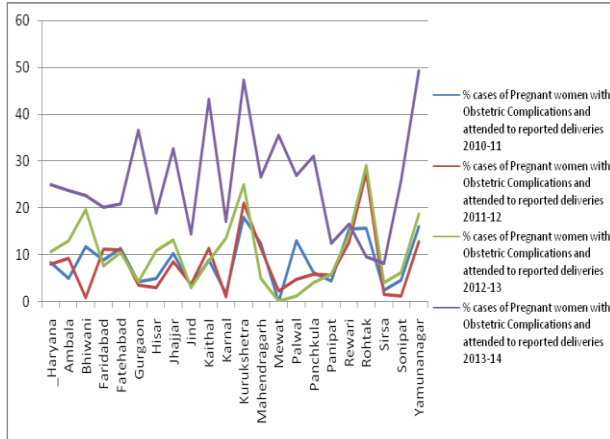
The perusal of the above table(5) reveals that there is significant change in obstetric complications attended to total deliveries in all the districts except district Mewat where either the data is not reported or none of case of obstetric complecations hanlded during the first three years under study and during the year 2013-14, 35.5 percent cases of pregnant women with obsteric complications and attended to reported deliveries

in Mewat which is comparaively high when compared all other districts except few of districts like Kaithal, Yamunanagar, Kurukshetra and Gurgaon.Thus, this indicated that the situation is improving in the state as overall there is nearly 198 percent change in this performance indictor.

4.2 CHILD BIRTH INDICATORS
4.1.1 Proportion of SBA Attended Home Deliveries to Total Reported Home Deliveries
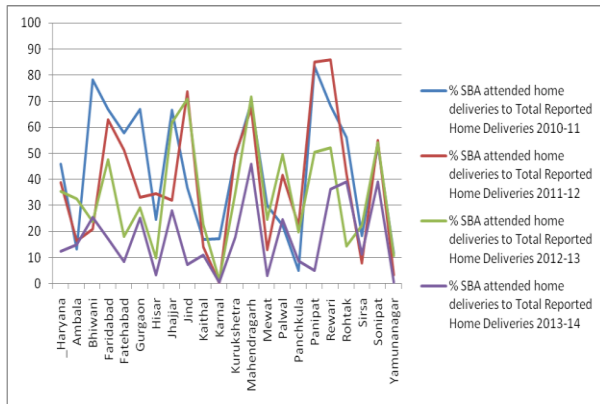
The share of home delivery attended by the skilled birth attended is an important indicator influencing mother child health. Table 6 presents the share of SBA attended deliveries in total reported home deliveries. It is depicted from the table that majority of the districts are showing negative change over the year which may not be the good indicator as proportion of. SBA attended home deliveries to the total reported home deliveries are declining.

During the earlier years under study, this proportion was quite high except Panchkula, Yamunagar followed by the Karnal district. Whereas, Panchkula is the only district which showed maximum positive change in the share of SBA attended home deliveries but it has been noticed from the table and the graph that this district has witnessed very low share during earlier years which with wide fluctuation(spur) during 2011-12 & 2012-13 which further declined to 8.9 percent during 2013-14 from nearly 22 points in the year 2011-12. Further, it has been noticed that district Karnal, Yamunagar and Panipat reported maximum decline from 95 percent to 93 percent, thus there is need to look upon the home deliveries as well SBA attended home deliveries and whether all the facilities are entering data because there is decline in the year 2013-14 except Rohtak district. It has been noticed there are changes in every indicator after the introduction of facility level reporting so there is need to look upon whether the data quality has improved after the facility level reporting? The perusal of the table reveals that there is something wrong with the data reporting levels regarding this indicator.

Porportion of SBA attended home deliveries to Total Reported Home Deliveries					
Year Districts	2010-11	2011-12	2012-13	2013-14	% Change from 2010-11 to 2013-14
Haryana	45.9	38.7	35.4	12.5	-72.77
Faridabad	66.9	62.8	47.7	17.2	-74.29
Fatehabad	57.7	51.2	18	8.5	-85.27
Gurgaon	66.9	33.2	29.2	25.1	-62.48
Hisar	24.6	34.4	9.8	3.4	-86.18
Jhajjar	66.5	31.9	61.7	28	-57.89
Jind	36.7	73.7	70.8	7.5	-79.56
Kaithal	16.8	14.1	22.5	11.1	-33.93
Karnal	17.2	0.2	1.3	0.7	-95.93
Kurukshetra	48.5	49.7	34.9	17.8	-63.30
Mahendragarh	69.4	67.1	71.7	45.8	-34.01
Mewat	29.8	13	24.5	3.1	-89.60
Palwal	22.4	41.5	49.7	24.7	10.27
Panchkula	5	22.3	19.8	8.9	78.00
Panipat	83.2	85.1	50.5	5	-93.99
Rewari	68.1	85.9	52.2	36.1	-46.99
Rohtak	55.9	42.2	14.5	39	-30.23
Sirsa	18.2	8	22.4	11.2	-38.46
Sonipat	52.9	55.1	54	39	-26.28
Yamunanagar	11.5	3.4	10.8	0.6	-94.78

Source: HMIS portal

4.2.2 Proportion of institutional deliveries to total ANC registration

Graph 4.2.2: Proportion of institutional deliveries to total ANC registration
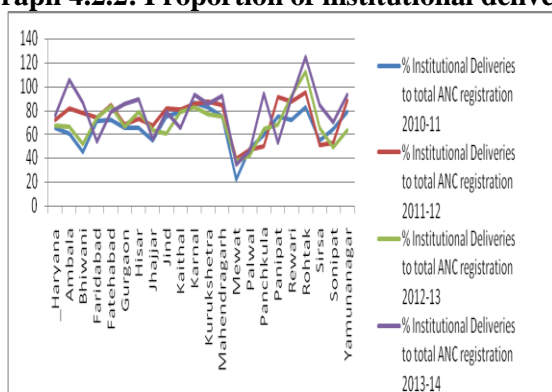
The perusal of the Table 7 reveals that although there is increase in institutional deliveries to total ANC registeration in Haryana and recorded 14.92 percent change in the year 2013-14 from that reported in the year 2010-11 but there is a fluctuting trend in all the districts except one i.e Rohtak which registerd consistent increase in istitutional deliveries to total ANC.

District Panipat(30.73 percent), Faridabad(-24.37 percent), Kaithal(-17.45 percent) and Palwal(--4.38 percent) recorded percentage change during the year 2013-14 from 2010-11 which indicates there is the need to re-examine the data reporting status and whether the private instituions are reporting the data at district head quarter or not? There is need to pay attention on district Mewat as percentage of intitutional deliveries to total ANC registeration is comparatelably low.

Table 7 Proportion of Institutional Deliveries to total ANC registration					
Districts \ Year	2010-11	2011-12	2012-13	2013-14	% Change from 2010-11 to 2013-14
Haryana	65.7	71.9	66.8	75.5	14.92
Ambala	60.4	81.8	66.6	106.3	75.99
Bhiwani	45.6	77.5	52	86.1	88.82
Faridabad	71	74.4	73.6	53.7	-24.37
Fatehabad	72.2	84.5	83.3	78.6	8.86
Gurgaon	65.4	68.6	65.9	85.6	30.89
Hisar	65.4	73.4	78.5	89	36.09
Jhajjar	54.8	67.7	62.9	55.1	0.55
Jind	75.1	81.6	60.1	79.1	5.33
Kaithal	79.1	80.3	78.4	65.3	-17.45
Karnal	86.8	85.7	83	93.4	7.60
Kurukshetra	82.7	87.4	76.4	85.9	3.87
Mahendragarh	75.1	84.9	75.1	92	22.50
Mewat	22	39.5	37.2	34.2	55.45
Palwal	48	47.1	41.8	45.9	-4.38
Panchkula	59.3	50.3	63.9	94.1	58.68
Panipat	75.5	91.3	68.1	52.3	-30.73
Rewari	72.7	87.1	92.5	90.2	24.07
Rohtak	83.3	95.1	112.6	125.2	50.30
Sirsa	55.1	51.2	65.5	84.9	54.08
Sonipat	64.1	53.1	48.8	70.2	9.52
Yamunanagar	79.3	88.3	63.6	93.2	17.53

4.2.3 Percentage of c-section deliveries (public+pvt.) to reported institutional (public + pvt.) deliveries

Graph 4.2.3 Proportion of C-section deliveries (Public + Pvt.) to reported institutional (Public + Pvt.) deliveries
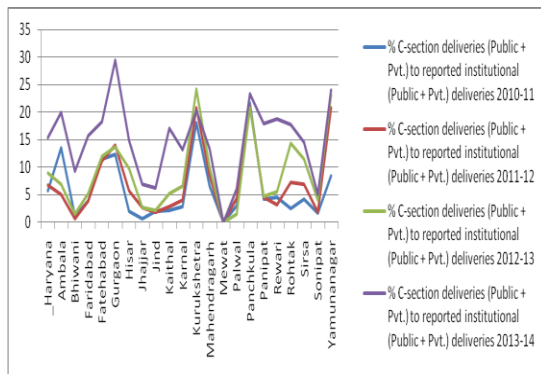
A glance at the table 8 depicts that there is significantly positive change in C-section deliveries over the period of the time. Maximum change has been noticed in the Jhajjar district followed by Bhiwani and Rohtak and other side there is no information on C-section in Mewat district which shows Zeros entries.

Moreover, there is consistent increase in c-section deliveries in majority of the districts with slight fluctuating trend. District wise variation in proportion of C-section deliveries has also been noticed.

Table 8 Proportions of C-section deliveries (Public + Pvt.) to reported institutional (Public + Pvt.) deliveries					
Year Districts	2010-11	2011-12	2012-13	2013-14	% Change from 2010-11 to 2013-14
Haryana	5.7	6.8	8.9	15.4	170.18
Ambala	13.5	5.1	6.9	20	48.15
Bhiwani	1.2	0.7	1.5	9.3	675.00
Faridabad	3.9	3.9	5.2	15.7	302.56
Fatehabad	11.5	11.1	11.9	18.2	58.26
Gurgaon	12.3	14	13.7	29.4	139.02
Hisar	2.1	5.8	9.8	14.9	609.52
Jhajjar	0.6	2.7	2.7	6.9	1050.00
Jind	2.1	1.8	2.2	6.3	200.00
Kaithal	2.2	2.9	5.2	17	672.73
Karnal	2.9	4.1	6.5	13.1	351.72
Kurukshetra	18.1	20.8	24.1	20.3	12.15
Mahendragarh	6.5	8.4	9.9	13.4	106.15
Mewat	0	0	0	0	-
Palwal	3.1	4.4	1.5	6	93.55
Panchkula	21.6	20.9	20.7	23.4	8.33
Panipat	4.3	4.5	4.8	17.9	316.28
Rewari	4.6	3.2	5.6	18.8	308.70
Rohtak	2.5	7.2	14.4	17.7	608.00
Sirsa	4.2	6.9	11.5	14.5	245.24
Sonipat	1.7	1.8	4.1	5.1	200.00
Yamunanagar	8.4	20.8	23.1	24	185.71

4.3 POSTNATAL MATERNAL AND NEW BORN CARE INDICATORS

The postnatal home visits by ASHA workers are required irrespective of the place of delivery for maternal and new born care. In case of home delivery, the first visit should takes place within twenty-four hours of birth. In all other cases, at least three postnatal visits to the mother and six postnatal visits to the newborn are required to be made within six weeks of delivery/birth. In case of the institutional deliveries, the earlier hours after delivery are crucial and the women as well new born required special care during these hours, thus the stay at the facility matters. Following are the postnatal maternal and new born care indicators:

4.3.1 Proportion of Women discharged in less than 48 hours of delivery to Total Reported Deliveries at public institutions

Graph 4.3.1: Proportion of Women discharged in less than 48 hours of delivery to Total Reported Deliveries at public institutions
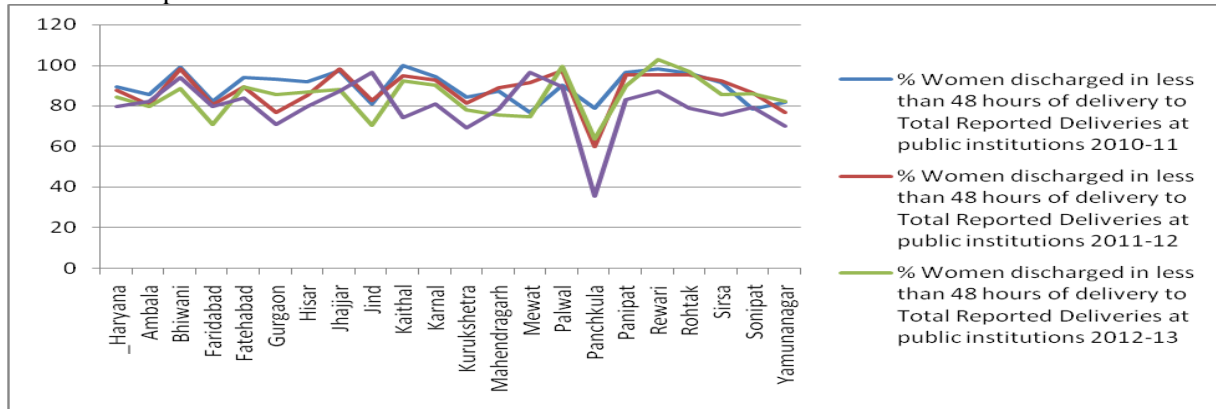

| Table 9. Proportion of Women discharged in less than 48 hours of delivery to Total Reported Deliveries at public institutions					
Years Districts	2010-11	2011-12	2012-13	2013-14	% Change from 2010-11 to 2013-14
Haryana	89.7	87.8	84.2	79.5	-11.37
Ambala	85.9	80.5	79.4	82.1	-4.42
Bhiwani	99.2	98.3	88.6	93.8	-5.44
Faridabad	82.3	80.6	70.8	79.4	-3.52
Fatehabad	94.2	89.4	89.4	83.6	-11.25
Gurgaon	93.1	76.8	85.5	70.6	-24.17
Hisar	92.2	85.2	86.9	79.6	-13.67
Jhajjar	97.4	98.3	87.8	87.1	-10.57
Jind	80.9	82.8	70.3	96.2	18.91
Kaithal	100	94.8	92.1	74.1	-25.90
Karnal	94.6	92.9	90.2	80.8	-14.59
Kurukshetra	84.4	81.4	77.9	69	-18.25
Mahendragarh	87.5	89.1	75.5	78.3	-10.51
Mewat	76.9	91.7	74.6	96.4	25.36
Palwal	90.5	97.4	99.3	89.3	-1.33
Panchkula	78.8	60	63.5	35.4	-55.08
Panipat	96.5	95.2	89.5	83.1	-13.89
Rewari	98.2	95.5	102.8	87.3	-11.10
Rohtak	96.1	95.2	96.7	78.6	-18.21
Sirsa	91.7	92.5	85.3	75.2	-17.99
Sonipat	78.4	86.6	85.7	79.2	1.02
Yamunanagar	81.9	76.7	82	69.7	-14.90

Here, Table 9 presents the proportion of women discharged in less than 48 hours of delivery to total Reported Deliveries at Public Instituions. The glance at this table depicts that there is negative percentage change in the proportion of the women discharged in less than 48 hours of delivery to Total

reported deliveries at Public Institutions in the year 2013-13 as compared to the year 2010-11 and over the period of the time under study, in a state as whole, there is decling trend but in majority of the districts, there is fluctuating trend in proportion of women discharged in all the districts. Though district Mewat witnessed maximum positive percentage change in this indicator since the year 2010-11 to 2013-14 but its porportion of women discharged in less than 48 hours is comparatably low in 2010-11. As it has been noticed in during the PIP monitoring that shortage of beds in main reason for women getting discharged in less than 48 hours in case of normal delivery though the institutional deliveryies has been incresed singnificantly in Haryana district as a whole.

4.3.2 Proportions of newborns having weight less than 2.5 kg to newborns weighed at birth

The perusal of the Table 10 reveals that proportion of newborns having weight less than 2.5 kg to newborns weighted at birth showed a negative change in Haryana state as a whole and nearly 60 percent of the witnessed decline in the proportion of children weighing less than 2.5 kg to newborn weighted at birth which is a good indicator. Although there are some of the districts like Hisar, Bhiwani and Panchkula which showed drastic positive change in the year 2013-14 over the year 2010-11 but when we look at figure recorded during the year 2010-11, there were comparatably low in the year of the comparison. District Panchkula, Faridabad, Karnal and Fatehabad have a high proportion of newborns having weight less than 2.5 kg to Newborns weighed at birth. So, there is need to look at issues regarding the low weight births.
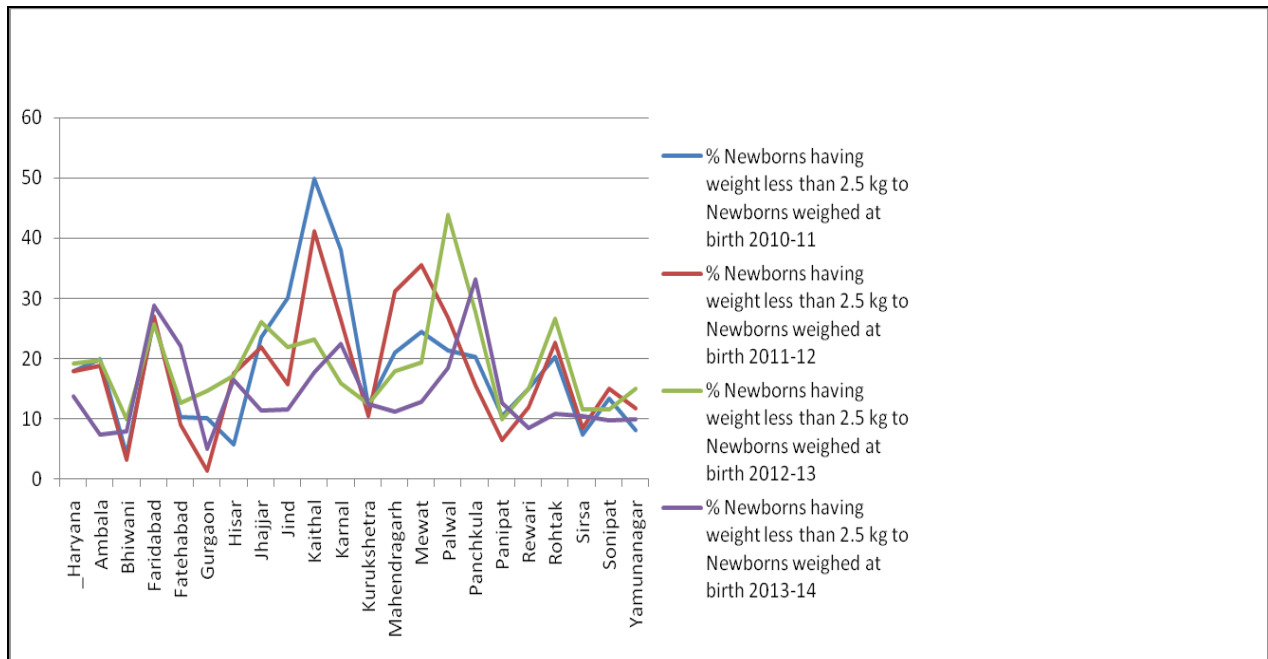
4.3.3 Proportion of newborns visited within 24hrs of home delivery to total reported home deliveries

The perusal of the above Table (11) reveals that in majority of the district's the proportion of newborn visited 24 hrs of home delivery has been declined over the period of time which may be due to the wrong /faulty reporting of the data and need arises to look into the causes of this declining trend which may not be actual situation. Because, it has been noticed while interviewing beneficiaries of JSSK during the field

visits that ASHAs used to visit each and every ANC seeking/ pregnant women of their area though ANM may not have visited in the majority of the cases due to posting of single ANM at some sub-centers.

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Year Districts	2010-11	2011-12	2012-13	2013-14	% Change from 2010-11 to 2013-14
Haryana	17.9	18	19.2	13.8	-22.91
Ambala	19.9	18.9	19.7	7.4	-62.81
Bhiwani	4.1	3.2	10	8	95.12
Faridabad	26.4	27.1	25.7	28.7	8.71
Fatehabad	10.2	9	12.7	22.1	116.67
Gurgaon	10	1.4	14.8	5.1	-49.00
Hisar	5.8	17.5	17.2	16.5	184.48
Jhajjar	23.5	21.9	26.1	11.4	-51.49
Jind	30	15.7	21.9	11.6	-61.33
Kaithal	49.8	41.2	23.2	17.7	-64.46
Karnal	38	26.4	16	22.4	-41.05
Kurukshetra	12.3	10.5	12.5	12.5	1.63
Mahendragarh	21	31.2	17.9	11.3	-46.19
Mewat	24.4	35.6	19.5	12.9	-47.13
Palwal	21.4	26.9	43.9	18.4	-14.02
Panchkula	20.3	15.5	27.8	33.1	63.05
Panipat	10.5	6.5	10	12.7	20.95
Rewari	15	12	15	8.5	-43.33
Rohtak	20.2	22.7	26.7	10.8	-46.53
Sirsa	7.4	8.4	11.6	10.6	43.24
Sonipat	13.4	15	11.7	9.8	-26.87
Yamunanagar	8.1	11.8	15	9.9	22.22

Table 10 Proportion of Newborns having weight less than 2.5 kg to Newborns weighed at birth
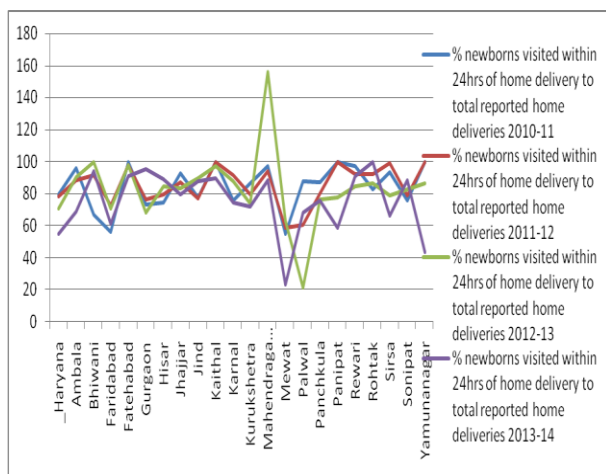
[Mewat (-58.14) and Yamunagar (-57.1) followed by Panipat, Sirsa and Ambala registered   negative percent change in this indicator which indicated that the need to look into the quality of data reporting levels at various facility levels. Districts Bhiwani (nearly 40 percent) followed by Gurgaon and Hisar are among the districts recording maximum positive change
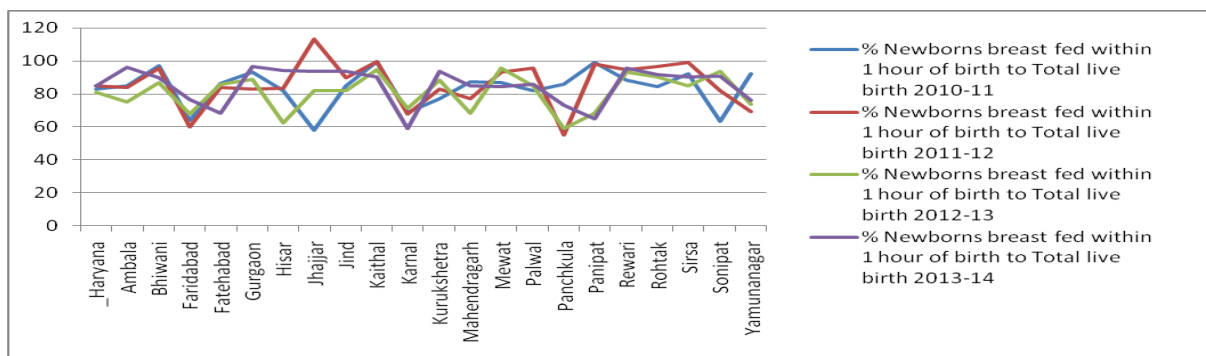
Table 11 Proportion of newborns visited within 24hrs of home delivery to total reported home deliveries				
Year Distance	2010-11	2011-12	2012-13	2013-14	% Change from 2010-11 to 2013-14
Haryana	79.9	78.4	70.8	54.8	-31.41
Ambala	96.3	88.6	90.1	68.6	-28.76
Bhiwani	67.1	92	99.6	93.8	39.79
Faridabad	55.8	72.7	70.5	60.8	8.96
Fatehabad	100	97.8	97.6	90.9	-9.10
Gurgaon	73.3	76.7	68	95.3	30.01
Hisar	74.5	79.6	84.6	89.1	19.60
Jhajjar	92.9	87.6	83.1	79.2	-14.75
Jind	77.7	77.3	89.9	87.4	12.48
Kaithal	100	100	97.4	89.3	-10.70
Karnal	75.9	91.5	87.9	74.5	-1.84
Kurukshetra	86.7	79.8	74	72	-16.96
Mahendragarh	97.4	94.6	156.1	88.2	-9.45
Mewat	54.7	58.8	63.1	22.9	-58.14
Palwal	87.9	60.5	21.2	67.6	-23.09
Panchkula	87.2	80.1	76.5	75.8	-13.07
Panipat	100	100	77.7	58.4	-41.60
Rewari	97.3	92.6	84.6	90.9	-6.58
Rohtak	83	92.3	86.7	99.6	20.00
Sirsa	93.5	99.6	78.8	65.9	-29.52
Sonipat	75.7	78.8	82.9	88.2	16.51
Yamunanagar	100	100	86.7	42.9	-57.10

4.3.4 Proportion of newborns breast fed within one hour of birth to total live birth

  The perusal of the Table 12 reveals that there are nearly fifty percent of districts which are showing negative proportion of newborns breast fed within an hour of birth to total live birth though there is not much fluctuation on year to year basis. Within districts too, there is almost smooth trend with not wide fluctuations among districts in proportion of new born breast fed within a one hour of births to total live births . The declining trend in proportion of newborns breast fed within one hour of birth to total live birth may attributed to drastic change in C- section deliveries as in majority of C-section cases, immediate breast feeding is not done. Maximum positive change has been witnessed in district Jhajjar whereas in Panipat negative change of 34 percent has been noticed.

Table 12 Porportion of Newborns breast fed within 1 hour of birth to Total live birth					
Year Districts	2010-11	2011-12	2012-13	2013-14	% Change from 2010-11 to 2013-14
Haryana	82.7	84.8	80.7	85	2.78
Ambala	85	83.8	75.1	95.9	12.82
Bhiwani	97.2	95.5	86.8	89.5	-7.92
Faridabad	64.1	59.6	67.8	76.7	19.66
Fatehabad	86.5	83.8	85.5	68.2	-21.16
Gurgaon	93	82.8	88.5	96.4	3.66
Hisar	81.7	83.3	62.3	93.8	14.81
Jhajjar	58	113.1	82	93.6	61.38
Jind	84.9	89.7	81.9	93.6	10.25
Kaithal	99.5	99.3	94.6	89.9	-9.65
Karnal	68.7	67.7	71	59.1	-13.97
Kurukshetra	77.1	82.6	88.2	93.3	21.01
Mahendragarh	87.3	76.7	68.3	84.9	-2.75
Mewat	87	93.1	95.4	84.1	-3.33
Palwal	81.9	95.7	84.9	85.8	4.76
Panchkula	85.7	54.9	59.1	73	-14.82
Panipat	99.2	97.7	68.3	64.8	-34.68
Rewari	88.1	94.6	93.1	95.2	8.06
Rohtak	84.5	96.6	90.3	91.6	8.40
Sirsa	92.4	99.1	84.6	89.9	-2.71
Sonipat	63.2	82	93.3	90.8	43.67
Yamunanagar	92	69.3	73.8	76.1	-17.28

Source: HMIS Portal

4.3.5 Proportion of infants 0 to 11 months old who received measles vaccine to reported live births

The perusal of the Table 13 reveals that in majority of the districts proportion of infants 0 to 11 months old who received Measles vaccine to reported live births has been declined during the year 2013-14 from that reported in 2010-11 and in subsiquient years in some of the districts. This negative change may be attributed to facility level reporting and there may be errors in data reporting level which needed to be looked upon.
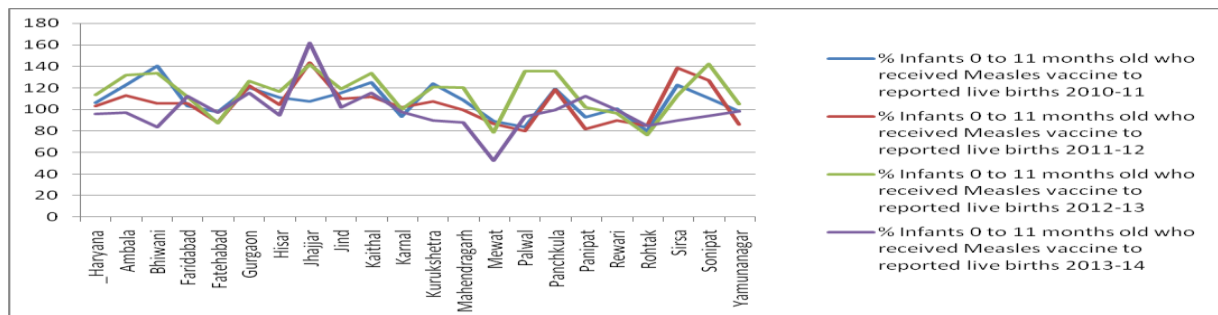
| Table Proportion of Infants 0 to 11 months old who received Measles vaccine to reported live births				
Year Districts	2010-11	2011-12	2012-13	2013-14	% Change from 2010-11 to 2013-14
Haryana	106.3	103	113.2	95.9	-9.78
Ambala	122.7	113.1	132	96.9	-21.03
Bhiwani	140.5	105.6	133.9	83.4	-40.64
Faridabad	103.3	105.5	111.5	112.5	8.91
Fatehabad	98.1	87.8	87.2	97.2	-0.92
Gurgaon	120.7	122.1	126.5	115.5	-4.31
Hisar	111.2	104.4	116.3	94.6	-14.93
Jhajjar	107.8	143.4	141.7	162	50.28
Jind	115.5	109.8	119.1	101.8	-11.86
Kaithal	125.1	111.6	133.7	115.7	-7.51
Karnal	93.5	102.1	100	97.9	4.71
Kurukshetra	124.1	107.7	121.1	89.7	-27.72
Mahendragarh	108.8	99.4	120.4	88	-19.12
Mewat	89.5	86.9	78.8	52.4	-41.45
Palwal	83.7	80	135.3	93.4	11.59
Panchkula	119.3	118.5	135.7	99.3	-16.76
Panipat	92.9	81.9	101.6	112.3	20.88
Rewari	101.1	89.6	96.3	99.6	-1.48
Rohtak	80.2	85.1	76.2	84.9	5.86
Sirsa	123.1	138.3	112.9	90	-26.89
Sonipat	110.4	126.8	142.2	94.3	-14.58
Yamunanagar	98.2	86	104.8	98.1	-0.10

Source: HMIS Portal

4.4 PRE- PREGNANCY/ REPRODUCTIVE AGE INDICATORS

In order to capitalize on the opportunity provided by increased institutional deliveries, postpartum family planning becomes another priority area for action. Placement of trained health worker in the areas of post-partum IUCD (PPIUCD) insertion at district and sub-district hospital level plays important role. Further, ASHAs are now incentivized for encouraging the couples in delaying the birth of the first child and for spacing between births. Following table shows the district wise performance of post partum sterilizations in the various districts of the state.

 The among the pre-pregancy indicator, data on post partum sterilisation is not available for the some of the districts like Hisar, Jhajjar, Jind, Kaithal Mahendergarh and Sonipat for the year 2010 to 2012, so no comparision is posible whereas 'Zeros' entires are shown for the Palwal district. There may confusion over the PPIUCD and post partum steriliasation as it has been noticed during PIP monitoring that in state of Haryana there is more stress on the PPIUCD rather than   the post partum sterlisations. Data that avaialble for some districts may not appropriate for the further research and comprision may be not much authentic. Perusal of the Table 14 and graph reveals that during last two years there is smooth pattren in Post Partum Sterilsations and the share of Post Partum Sterilisation to Total Female sterilsation is quiet low.

4.4.1 Proportion of post partum sterlisations to total female sterilizations

The glance at the Table 14 depicts that data on the proportion of post partum sterilizations to total female sterilization is either missing for the year 2010-11 and 2011-12 or reported Zero value in some of the districts and rest of the districts where the data is recorded, negative percent change has been reported which indicted poor quality of data reported in HMIS format. There is need to look into reasons for negative change in this indicator.
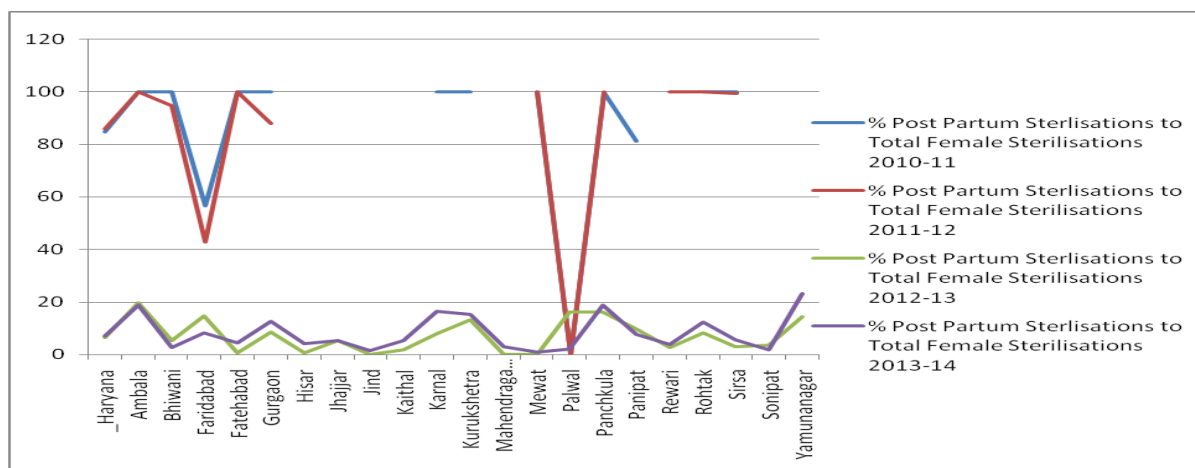
Table 14 Proportion of Post Partum Sterlisations to Total Female Sterilisations				
Year District	2010-11	2011-12	2012-13	2013-14	% Change from 2010-11 to 2013-14
Haryana	84.8	85.9	6.5	7.1	-91.63
Ambala	100	100	19.5	18.6	-81.40
Bhiwani	100	94.6	5.1	2.6	-97.40
Faridabad	56.6	42.8	14.6	8.1	-85.69
Fatehabad	100	100	0.6	4.3	-95.70
Gurgaon	100	88	8.5	12.7	-87.30
Hisar	-	-	0.7	4.1	-
Jhajjar	-	-	5.1	5.2	-
Jind	-	-	0	1.5	-
Kaithal	-	-	1.7	5.4	-
Karnal	100	-	8	16.3	-83.70
Kurukshetra	100	100	13	15.3	-84.70
Mahendragarh	-	-	0.1	2.9	-
Mewat	100	100	0	0.9	-99.10
Palwal	0	0	16.1	2	-
Panchkula	99.6	100	16	18.8	-81.12
Panipat	81.3		9.7	7.6	-90.65
Rewari	-	100	2.6	3.8	-
Rohtak	100	100	8.1	12.3	-87.70
Sirsa	100	99.5	3	5.5	-94.50
Sonipat	-	-	3.6	1.8	-
Yamunanagar	84.8	92	14.2	23.1	-72.76

Source: HMIS Portal

4.4.2 Proportion of male sterilization (vasectomies) to total sterilization
The perusal of table 15 reveals that share of male sterilisation in total sterilisation is very low and also showing declining trend over the period of time.In Haryana state as whole, there is decline of 28.21 percent in the year 2013-14 as compare to the year 2010-11. A some of the districts like karnal, Kurukshetra, Rewari, Yamunanagar and Panipat have singnificanlty higher share of male sterilisation but with passage of time, it is showing decling trend thereby depicting that the declining focus on the male sterilisation. Although maximun percentage change has been recorded in the Palwal district i.e. 766.67 percent share of male sterilisation to total stererilastions but this district is performing badly in this indicator. This district had the lowest share of male sterilisations. So, there is need to look into the data reporting status and policies regarding the family planning programs. Though the Karnal district showed decling trend in this indictor but during the year 2013-14, this district has recorded higest share in male sterilsations. On the other side Mewat district has registered maximum decline in the share of male sterilasations. Graphic analysis shows that Palwal, Hisar, Fatehabad and Sirsa are low performing districts.
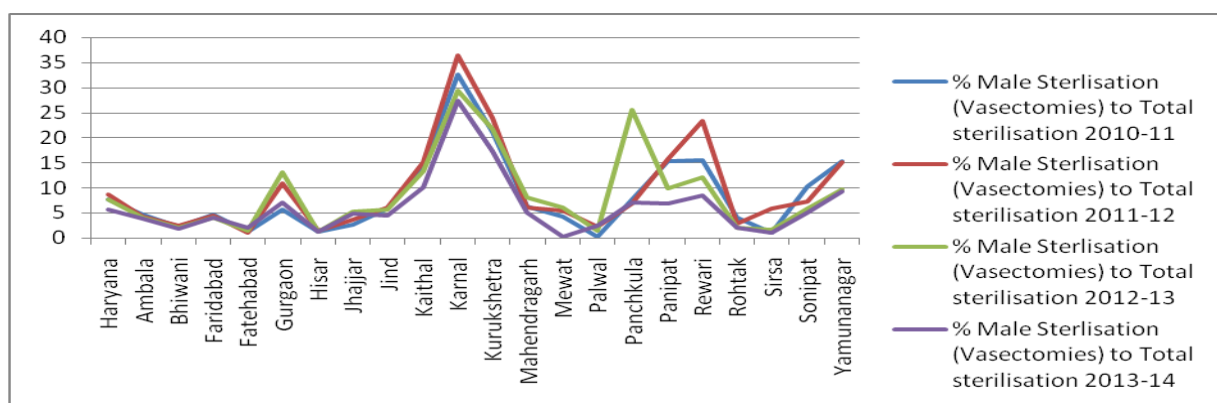

Table 15. Porportion of Male Sterlisation (Vasectomies) to Total sterilization				
Year Districts	2010-11	2011-12	2012-13	2013-14	% Change from 2010-11 to 2013-14
Haryana	7.8	8.7	7.6	5.6	-28.21
Ambala	4.8	4.2	4.1	3.8	-20.83
Bhiwani	2.3	2.4	2.1	1.8	-21.74
Faridabad	4.8	4.5	4.1	4.1	-14.58
Fatehabad	1.3	1	1.4	2	53.85
Gurgaon	5.8	10.9	13.1	7	20.69
Hisar	1.4	1.4	1.2	1.3	-7.14
Jhajjar	2.8	3.7	5.2	4.8	71.43
Jind	6	6	5.6	4.5	-25.00
Kaithal	14.5	15.1	13.3	10.1	-30.34
Karnal	32.6	36.4	29.4	27.3	-16.26
Kurukshetra	21.2	24	21.8	17.3	-18.40
Mahendragarh	6.4	6.1	8.1	5.1	-20.31
Mewat	4.4	5.5	6	0.3	-93.18
Palwal	0.3	2.3	1.5	2.6	766.67
Panchkula	7.8	6.9	25.5	7.1	-8.97
Panipat	15.3	15.7	9.9	6.9	-54.90
Rewari	15.5	23.3	12.1	8.5	-45.16
Rohtak	4.1	2.8	2.1	2	-51.22

Sirsa	1.1	5.8	1.7	1.1	0.00
Sonipat	10.4	7.3	5.9	5.1	-50.96
Yamunanagar	15.4	15	9.7	9.2	-40.26

Table 16. Proportion of IUCD insertions in public plus private institutions to all family planning methods (IUCD plus permanent

Year Districts	2010-11	2011-12	2012-13	2013-14	% Change from 2010-11 to 2013-14
Haryana	69.4	71.9	71.6	75.1	8.21
Ambala	77.1	78.1	78	73.6	-4.54
Bhiwani	61.4	69.6	65.2	74.9	21.99
Faridabad	72.3	67.3	71.1	83.9	16.04
Fatehabad	62.5	60.7	60.8	59.7	-4.48
Gurgaon	65.6	67.8	72.7	78.6	19.82
Hisar	58.1	59.6	60.2	60.6	4.30
Jhajjar	73.2	72	72.8	78.3	6.97
Jind	75.7	75.2	75.9	73.4	-3.04
Kaithal	72.5	75.9	73.1	78.2	7.86
Karnal	71.3	76.8	79.1	82.6	15.85
Kurukshetra	74.8	73.1	77	81.7	9.22
Mahendragarh	72.9	79.5	74.5	70.9	-2.74
Mewat	69.7	87.8	95.2	74.3	6.60
Palwal	72.4	73.1	73.9	71.7	-0.97
Panchkula	77.2	73.1	75.5	69.8	-9.59
Panipat	70.9	69.2	69.9	85.2	20.17
Rewari	69.3	63.9	68.8	70.1	1.15
Rohtak	70.1	70.7	73.1	77.6	10.70
Sirsa	59	81.6	68.1	67.1	13.73
Sonipat	74.4	79	72.8	78.3	5.24
Yamunanagar	73.7	76.6	72.7	76.5	3.80

Source: HMIS Portal

SUMMARY AND CONCLUSIONS

Improving the maternal and child health and their survival are central to the achievement of national health goals under the National Health Mission (NHM) as well as Millennium Development Goals and in order to bring greater impact through Reproductive and Child Health Programme, it is important to recognize that reproductive, maternal and child health cannot be addressed in isolation as these are closely linked to the health status of the population at various stages of life cycle. However, latest data and trends emerging from the data source from HMIS portal demand a cohesive approach to manage child and maternal health care. The aim of Policy should be to address regional disparities and bring structural change to the area of health which has been done more or less. Throughout the years, however, the tendency has been to align cohesion Policy to village level projects by the states. Majority of districts are doing better in ANC registrations. Overall there is increase with mild variations over the period of four years.   In low performing Mewat district the situation is improving. Panipat, Jind and Hisar doing much better in ANC registrations but highly fluctuating trend in receiving the 3 ANC check -ups has been noticed in majority

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of the districts. Fluctuating trend has been also noticed in percentage of women receiving 100 IFA tablets to total ANC registration. Jhajjar, Karnal, Panchkula and Rohtak reported more than 100 percent women receiving 100 IFA to total ANC registration during 2013-14 which indicated the error of double reporting. There is significant change in obstetric complications attended to total deliveries in all the districts except district Mewat where either the data is not reported or   none of case of obstetric complecations hanlded during the first three years under study.Among child birth indicators,   the share of home delivery attended by the skilled birth attended is an important indicator influencing mother child health **but** majority of the districts are showing negative change over the year which may not be the good indicator. SBA (skilled birth attendant) attended home deliveries to the total reported home deliveries are also declining. It has been noticed   there are changes in every indicator after the introduction of facility level reporting so there is need to look upon whether the data quality has improved after the facility level reporting? The perusal of the table reveals that there is something wrong with the data reporting levels regarding this indicator. Although there is increase in institutional deliveries to total ANC registeration in Haryana and but there is a fluctuting trend in majority of districts. There is significantly positive change in C-section deliveries over the period. In case of proportion of newborns visited within 24hrs of home delivery to total reported home deliveries   there is need to look into the quality of data reporting levels at various facility levels. This negative change may be attributed to facility level reporting and there may be errors in data reporting level which needed to be looked upon**.**

POLICY IMPLICATIONS
Access to health care, as a determinant of health, may be unequally distributed if over a period of time proper policies and reforms are not introduced. It is envisaged that the findings of this report will be used to address policy and programmatic aspects of **ensuring** equity health services in state of Haryana. This will also help the State to ultimately improve the health indicators especially with reference to MMR, IMR and reproductive health. Though the locational dimension effect the utilization of public health care facilities. Present analysis helped to gauge and understands the current service accessibility and availability. The assessment of the available resources including, infrastructure, human resources, equipment needed to deliver key RMNCH+A interventions in the health facilities and communities will facilitate focused action planning to strengthen health systems and programmer at the district and block levels and aid in addressing state specific needs.

LIMITATIONS OF THE STUDY
  Prsent study is based upon the secondary sources of data i.e. HMIS. So secondary data have its own reporting problems. More over the authenticity of HMIS data depends upon the reporting facilities and facility level reporting has its own limlitations .   There may be errors in data reporting at different levels which needed to be looked upon**.** Even the quality of data is not so good but errors can be useful if the nature of error is understood. However sensitization about the data quality issues and those trying to use this for policy or journalistic purposes will find serious limitations – especially due to incomplete reporting of private sector data and poor quality of death reporting). Also please note that interpretation of information will differ with choice of denominator. Data is also analyzed and presented so as to help districts, find data errors and correct them. Only when data is converted into information and used, do many errors become apparent (NHSRC,2016).

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