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Disparities in Health in State of Haryana

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ABSTRACT

Equitable health care is feasible through proper resource allocation and access to health care is resolute by health needs and utilization of public health services. 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. Increasing urban-rural socio-economic disparities jeopardized the fairness in social welfare and particularly the equity of access to health care, which has been widely considered a key objective of health care policies, in turn putting the disadvantaged communities in especially vulnerable position by increasing their health risks. The present study is primarily concerned with the analyzing the progress/ availability of public health care facilities during the periods of development in the state of Haryana, India and differences in District level health indicators while discussing the provision, availability, accessibility and utilization of health care facilities in the study area i.e. shortlisted from the State of Haryana. This study concludes disparities in health indictors over a period of time as disparities among the Districts /regions in the availability of infrastructure and other health indictors. Though, the government has declared socially backwards Districts of Haryana, as high priority Districts yet, the situation seems as it is and has sans improved or marginally improved .Similarly the lack of proper awareness w.r.t. utilization of available health care facilities as provided by the Governments both Union and State also contributed to widening of disparities in some backward Districts of Haryana. There has been a dire need to motivate the people about the proper utilization of available health care services provided by the respective Governments and reconsideration and Redressal of the health issues is also required at both levels - consumption as well services providing provisions . Access issues is also essential for informing public decision- and policy-making aimed at providing better life to its citizen.

Keyword- Health Indicators. Disparities in Health , Health Care Utilisation

1. INTRODUCTION

Disparities in Health sector can be determined through proper allocation of available resources and utilization as well as demand for health care needs. Equitable health care is possible through proper resource allocation and access to health care is determined by health needs. In any Nation, the health status of its populace is an important precondition that determines it's economic as well as social development. The socio-economic development of a country, among other things, largely depends on the overall quality of it's human resources. The quality of human resources can be visualized in terms of health of its population along with the educational and technological skills that it possesses. While, the state of health may be attributed to contribution of health care facilities in public vis-a-vis private sector along with the nutritional levels and levels of standard of living. The nature of services provided by public sector differs significantly from that provided by the private sector. Besides providing curative services, the public sector also provides a number of preventive services. It also aims at educating mass population towards environmental cleanliness and some preventive measures to combat certain diseases. The services provided by public sector may be subsidized, whereas the one provided by the private sector are not so cheap as its profit and business oriented and more so is concentrated amongst urban populace. In such a situation the paramount accountability for providing health care facilities and financing in the remotest area of any nation, lies mainly with the public sector as the State has a pivotal role in securing

and ensuring better health facilities as one of the Constitutional Directive Priniciples. Hence, the present study is primarily concerned with the analyzing the progress/ availability of public health care facilities during the periods of development with main focus on the state of Haryana, India and differences in District level health indicators while discussing the provision, availability, accessibility and utilization of health care facilities in the study area i.e the state of Haryana, India. Since the time India attained independence, the government of India has tried it's level best to evolve administrative and institutional means to provide health care facilities to people living in urban as well as in rural areas within accessible limits or distance so that these may be utilized by all irrespective of their social and economic status. Unfortunately, to one's dismay, the provisions of health care facilities have largely got concentrated in few pockets and locations which are undoubtedly urban centers or the urban industrial enclaves[1]. The locational dimension effect the utilization of public health care facilities. Further, the recent studies have also shown that despite steady improvements in the overall health indices of Indian provinces, the rural area and minorities populace still experience a lower quality of health services and are less likely to receive routine medical procedures and have higher rates of morbidity and mortality than the non-minorities and the urban area[2]. Rural population disproportionately suffers from chronic diseases in comparison to the general public of living in urban agglomerations[3]. But lack of access to quality health care in rural areas is attributed to pooroad infrastructure, illiteracy and shortage of health care workforce, thereby hindering the utilization of preventive health services and considerable compromising the implementation of wellness and healthy lifestyle programs. The general lack of routinely reported information on social and economic differences in health sector has certain implications. The ways that health disparities are patterned socially may help us understand their nature and how best to address them (Adler N, Boyce ,1993; Macintyre S. 1994). Differences in health that suggest a socioeconomic threshold at or near the poverty line (e.g., a high rate of a particular illness among the poor, contrasted with more favorable and similar rates for all other income groups) would support targeted policies to address aspects of deprivation. experienced by the most disadvantaged. Equity in social welfare has long played a major role in shaping national policies [Liu et al., 2002]. However, with the introduction of continued pursuit of the market-oriented reforms resulted in increasing urban-rural and intra and inter-regional socioeconomic disparities [Zhao, 2006].

Introduction about Haryana

The State of Haryana, in Union of India, was created on November 1, 1966. The state of Haryana in republic of India is geographically a small State accounting for only 1.3 percent of the country's total area and 2.09 percent of the population. As per the 2011 census 65 percent of its population is rural and 35 percent lives in urban areas. The male literacy rate is 84 percent whereas the female literacy rate is 66 percent . In this State, the institutional delivery has gone a long way in protecting the mother as well as the infant child and in promoting better mother-hood practices. In the State of Haryana institutional deliveries have increased from **43.3% in 2005 to 85.9% in 2014 (CRS)**. Deliveries in the Government institutions/hospitals etc. have increased remarkably from **16.30%** in 2006 to **49.20%** in 2014, out of total deliveries(NRHM website).

1.1 Demographic, Socio-economic and Health profile of Haryana State as compared to rest of India figures

The Socio-economic and health profile of the State of Haryana has been presented in form of table adapted from HMIS, Ministry Of Health & Family Welfare, govt. of India. It has been indicated from the table that decadal growth rate of population in Haryana is more than the average India's population growth rate. Infant Mortality is slightly higher but maternal mortality is comparatively lower. Total fertility rate and Crude Birth rate are just reaching to national average. Crude deaths rates are below the national average thereby leading natural growth rate of population. In terms of literacy parameters, Haryana is doing better in comparison to rest of Indian States, while sex ratios depicts otherwise. This is the gray area where there has been a dire need to change the mind set of society and in this the health facilities can play a pivotal role by educating aspirating couples to have equal preference for both the sexes.

Indicator	Haryana	India
Total population (Census 2011) (in crores)	2.53	121.01
Decadal Growth (Census 2011) (%)	19.9	17.64
Infant Mortality Rate (SRS 2013)	41	40
Maternal Mortality Rate (SRS 2010-12)	146	178
Total Fertility Rate (SRS 2012)	2.3	2.4
Crude Birth Rate (SRS 2013)	21.3	21.4
Crude Death Rate (SRS 2013)	6.3	7
Natural growth rate (SRS 2013)	15	14.4
Sex Ratio (Census 2011)	877	940
Child Sex Ratio (Census 2011)	830	914
Schedule Caste population (in crore) (Census 2001)	0.4	16.6
Schedule Tribe population (in crore) (Census 2001)	Not Notified	8.43
Total Literacy Rate (%) (Census 2011)	76.64	74.04
Male Literacy Rate (%) (Census 2011)	85.38	82.14
Female Literacy Rate (%) (Census 2011)	66.77	65.46

Source: Adapted from HMIS Portal

1.3 Health Infrastructure in Haryana, India

The position of health infrastructure in Haryana is not very good. It has been indicated from the table that health infrastructure is quite low as per the requirement as there is nearly 40percent shortage of Schedule Cast, 5 percent shortage of Population Health Centre(PHC) and more than one percent shortage of Community Health Centres(CHC).There is also shortage of medical officers at PHC,, shortage of Obstetricians,Gynecologists, Pediatricians and other health specialists. There is also shortage of about four percentof laboratory technicians at CHCs and PHCs, 20 percent shortage of male health workers, Female Health workers at PHCs are nearly 48 percent more than required, one percent more health assistants, 12 percent more nursing staff at PHCs and CHCs, 8 percent more pharmacists at PHCs and one percent more pharmacists at CHCs

Particulars	Required	In position	Gaps %
Sub-centre	4159	2520	39.4
Primary Health Centre	657	447	5.0
Community Health Centre	164	109	1.3
Health worker (Female)/ ANM at Sub Centres & PHCs	2967	4973	-48.2
Health Worker (Male) at SubCentres	2520	1682	20.1
Health Assistant (Female)/LHV at PHCs	447	398	1.2
Health Assistant (Male) at PHCs	447	503	-1.3
Doctor at PHCs	447	342	2.5
Obstetricians & Gynecologists at CHCs	109	11	2.4
Pediatricians at CHCs	109	10	2.4
Total specialists at CHCs	436	29	9.8
Radiographers at CHCs	109	142	-0.8
Pharmacist at PHCs & CHCs	556	880	-7.8
Laboratory Technicians at PHCs & CHCs	556	394	3.9
Nursing Staff at PHCs & CHCs	1210	1698	-11.7

Source: RHS Bulletin, March 2012, Ministry Of Health & Family Welfare., Govt.Of India

2. Objective of the Study

1) To study the spread of Public Health Services across the State of Haryana;

2) To examine the inter-District disparities in area of health indicators;

3. Data Base and Methodology

In this study data from secondary sources like statistical abstract of Haryana and Data from HMIS portal has been used and composite index for estimation of District wise disparities have been used. The composite index has been computed by taking average value of all the indictors may be called as deprivation indicators as:

$$I(ij)= (X(ij)- Min(ij))/(Max(ij)-Min(ij))$$

Whereas, average value i.e. disparity index $=\sum_{i=1}^{n} I(ij)/n$

4. Limitations of Study

Though the District wise disparities have been studied but identification of causes of these disparities require primary enquiries. Further studies are suggested in order to gauze the causes of disparities in some indicators like per lakh of population utilization of OPD and IPD public health services, causes of disparities in new born low birth babies etc. Moreover, secondary data has been used, so that there may be some data reporting errors. With this issue, present study may have somehow given an indication of District wise disparities in the state of health in state of Haryana, India.

5. Results and Discussion

Section 1

5.1. Disparities in Availability of Facilities Over a Period of Time

5.1.1Change in Facilities Per Lakh of Population

Over a period of time there has been a net increase in health facilities but when we compare this change with the change in population and the change in facilities per lakh of population, there have been reported significant positive changes in number of health facilities till 1990-91 but after wards there has been decline in health facilities per lakh of population and drastic decline has been noticed in urban areas e.g. the year 1990-91 acted as dividing year. Development indicates "increase in quantity along with the quality", but this pattern of per lakh population distribution health facilities depicts otherwise. During the year 1990-91, on per lakh of population nearly 22 health facilities were available but in 2010-11; this proportion declined to 18 despites huge investments in rural as well as urban health sector, thereby indicating the rapid increase in population (Table 1).

Table 1: HEALTH FACILITIES PER LAKH OF POPULATION

Year	Rural	Urban	Total	Per Lac of Population Rural	Per Lacs of Population Urban	Percentage increase/ decrease
1970	709	131	840	8.70	7.48	-
1980	1286	194	1480	12.88	6.93	36.28
1990-91	2703	334	3037	21.78	8.24	59.46
2000-1	2734	338	3072	18.19	5.53	-21.25
2010-11	2953	291	3244	17.89	3.29	-11.91

Source: Statistical Abstract of Haryana 2013-14

Table 2: Area Covered per institution and Beds Per Lakh of Population

Year	1970	1980	1990-91	2000-1	2010-11
Area covered per institution in square km	53	30	15	14	14
Institution per lac population(Rural + Urban)	8	10	15	14	14
Beds per lac population	64	69	65	52	40

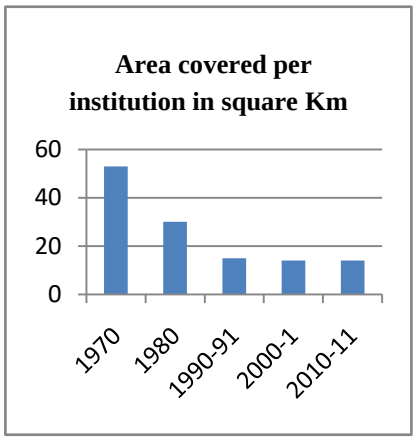
Source: Statistical Abstract of Haryana 2013-14

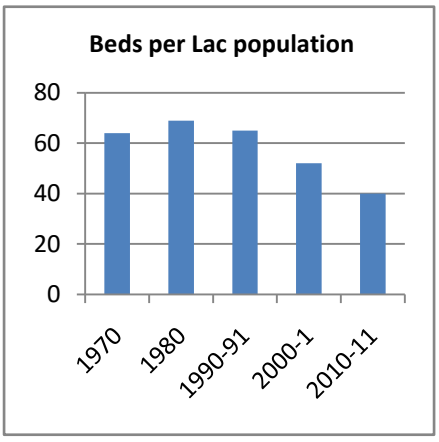
5.1.2 Area Covered Per Institution and Beds Per Lakh of Population

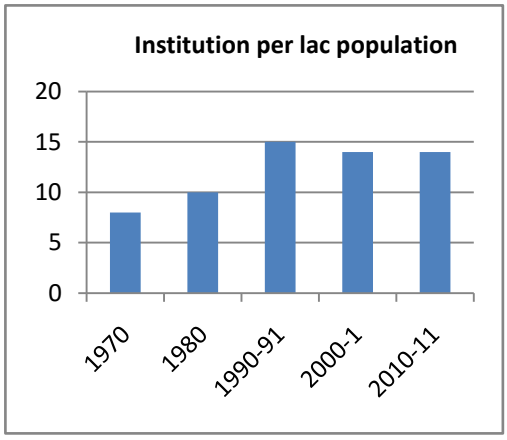
Area covered per lakh of population has also decreased with the passage of time where as area covered under institution per lakh of population repeated the general trend of increasing up to the year 1990-91 and decelerating thereafter and remained constant during 2010-11(Table 2). There is decrease in area covered by the health facilities and counts of beds per lakh of population thereby indicating increasing population load despite huge expenditure in hospital infrastructure.

5. 1.3 Spread of AYUSH Institution

Over the period time, there has been a net increase in the number of ayurevedic dispensaries and though the Unani dispensaries/ system of medicine was more in demand initially but latter on there was not much expansion. Homeopathic system of medicine was introduced in later 90's in public health facilities and over the period of time there was expansion in Homeopathic dispensaries / institutions. Overall there have been sizable increase in Ayurevedic, Unani and Homeopathic Institutions but the per lakh of population availability of Ayurevedic, Unani and Homeopathic Institution shows more or less consistent pattern(Table 3).







Figures showing area covered per institution, availability of beds and intuitions per lakh of population

Table 3: Ayurevedic, Unani and Homeopathic Institution

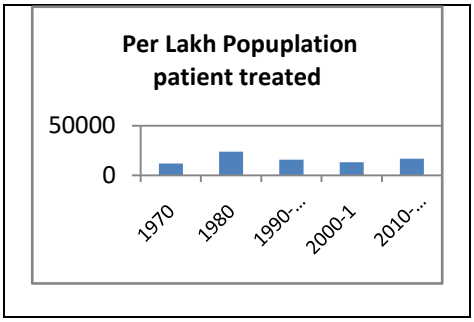
Year	Ayurevedic	Unani	Homeopathic	Total	Per Lacs of Population
1970	183	17	-	200	2.02
1980	330	20	-	350	2.74
1990-91	389	19	9	417	2.53
2000-1	433	21	20	474	2.24
2010-11	462	17	20	499	1.97

Source: Statistical Abstract of Haryana 2013-14.

Table 4: Ayurevedic, Unani and Homeopathic staff and Patient Treated in Haryana

Year	Medical Personnel (Vaidyas/Hakims/ Homeopathic) doctors	Dispenser/ Compounder	Patient Treated	Per Lacs of Population
1970	202	200	1191527	12036.0
1980	350	350	3036941	23749.3
1990-91	417	417	1369987	15808.0
2000-1	416	365	2762499	13064.8
2010-11	402	459	4249473	16762.3

Source: Statistical Abstract of Haryana 2013-14.



5.1.4 Staff Available and Patient Treated in Ayush Services

An overview of staff available in Ayush services per lakh of population(Table 4) in Haryana shows more or less somewhat on an average equal distribution per lakh of population. More staff/ practitioners were available in Ayurvedic health services than in the Unani and Homeopathic pattern of medicine thereby signifying least importance of these services than Ayurevedic pattern of medicine. Over a period of time per lakh of population patient treated by Ayush public health facilities has increased from 1236 persons to 16762 persons.

5.1.5 Staff Position in the State

An overview of sanctioned and filled posts(Table 5) of medical and paramedical staff. There is little gap in group 'A' which included all medical staff including DGHS, AGHS, DHS, Training, Lab/ FW/ Malria/ Dental, CS/PMO,SMO, SDS, DD(M&E) MOs.,

group 'B' as assistant directors, physiotherapist, private sectary, biologist, district family welfare officer and Dental surgeon and 'D' which included sweeper, peon, ward servant, Dresser and Lab attendant but Group 'C' which included the staff like radiographer, Pharmacists, dietician, lab technician and attendants, health workers and clerks etc. witnessed wider gaps in staff in position and required staff.

Table 5: Staff Position in the State (As on 28.8.2015)

Category of Regular Staff	Sanctioned Posts	Filled Posts	Vacant Posts
Group –A1*	3263	2599	664
Group –B2*	789	628	161
Group –C2*	14801	10049	4752
Group –D2*	2304	1514	790
Total	21157	14790	6397

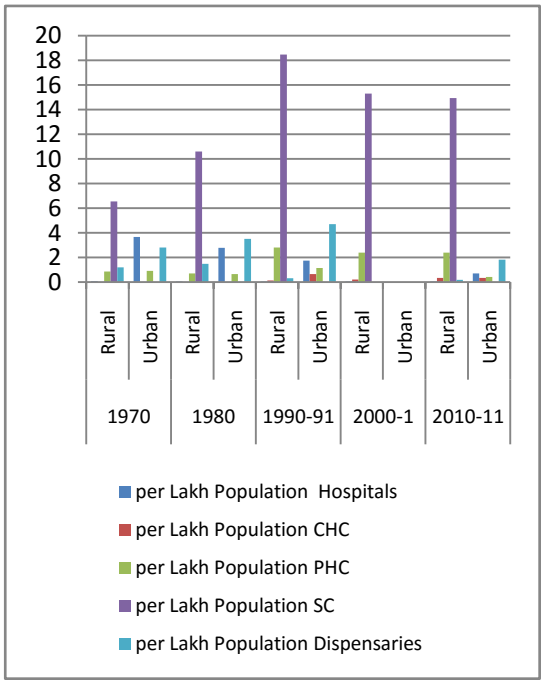
Source: Directorate of Health, Haryana

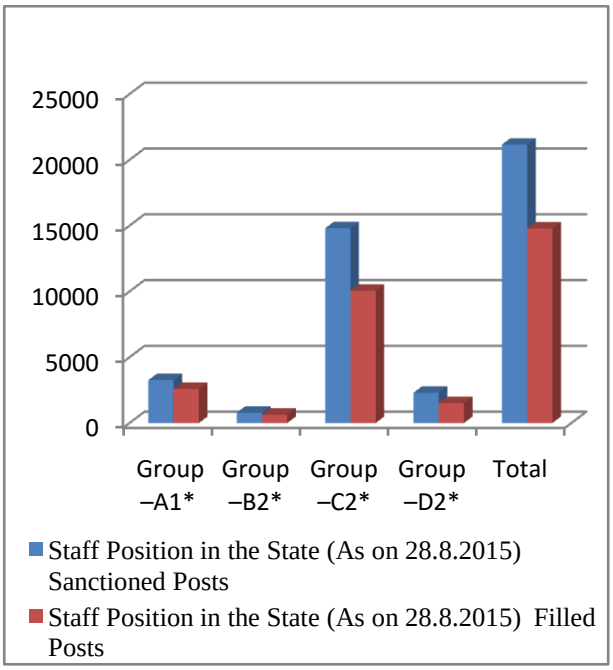
1*- *All medical staff including DGHS,AGHS,DHS,Tarining, Lab/ FW/ Malria/ Dental,CS/PMO,SMO, SDS, DD(M&E) MOs.*

2- Assitant Directors, Physiotherapist , Private Sectary, Biologist, District Family welfare officer and Dental surgeon.*

3- Includes Staff Nurses, Matron,*

4- Sweeper, Peon, Ward servant, Dresser and Lab attendant (*





Area Specific – Rural and Urban Disparities:

5.2.1 Comparison of Availability of Hospitals, CHCs, PHCs, SCs and Dispensaries per lakh of Population in Rural – Urban areas in the State of Haryana Since1970

Maximum number of sub centre have been witnessed in Hisar, Sonipat and Jind followed by Sirsa and the number of sub centre is directly associated with the number of CHC in the district and PHCs. Each of the districts has one District Hospital(DH) while DH in Karnal is upgraded as Kalpana Chawla Medical college and Hospital, at present there is no DH.

Table 6: Type of facility i.e. availability of Hospitals, CHCs, PHCs, SCs and Dispensaries per lakh of Population in Rural - Urban the State of Haryana Since1970

Year	1970		1980		1990-91		2000-1		2010-11	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Hospitals	6	64	6	78	8	71	7		6	63
Per Lakh Population	0.07	3.65	0.06	2.79	0.06	1.75	0.05	0.00	0.04	0.71
CHCs	-	-	-	-	15	26	32		56	30
Per Lakh Population	0	0	0	0	0.12	0.64	0.21	0.00	0.34	0.34
PHCs	71	16	71	18	348	46	361		393	36
Per Lakh Population	0.87	0.91	0.71	0.64	2.80	1.13	2.40	0.00	2.38	0.41
SCs	534		1060		2293		2299		2465	
Per Lakh Population	6.55	0.00	10.61	0.00	18.48	0.00	15.30	0.00	14.93	0.00
Dispensaries	98	49	149	98	39	191			31	162
Per Lakh Population	1.20	2.80	1.49	3.50	0.31	4.71	0.00	0.00	0.19	1.83
Total	709	129	1286	194	2703	334	2699	0	2951	291

Source: Statistical Abstract of Haryana 2013-14.

Section 2 District Wise Disparities in Haryana

6.2.2 Inter District Disparities in Health Facilities.

2.1 Comparison of Availability of Hospitals, CHCs, PHCs, SCs and Dispensaries per lakh of Population in Rural - Urban the State of Haryana Since1970

Maximum number of sub centre has been witnessed in Hisar, Sonipat and Jind followed by Sirsa and the number of sub centre is directly associated with the number of CHC in the district and PHCs. Each of the districts has one DH while DH in Karnal is upgraded as Kalpana Chawla Medical college and Hospital, at present there is no DH.

Table 7: Inter District Disparities in Health Facilities

	District Wise Availability of Health Centers In Haryana (As on 31 st, March,2014)				
Districts	No. of Sub-Centre	No. of PHCs	No.of CHC	No. of SDH	No. of DH
Ambala	18	**4**	**2**	1	
Bhiwani	42	**9**	**4**	1	
Faridabad	13	**2**	**1**	1	
Fatehabad	18	**4**	**1**	1	
Gurgaon	13	**3**	**2**	1	
Hisar	35	**8**	**2**	1	
Jhajjar	27	**6**	**2**	1	
Jind	28	**7**	**1**	1	
Kaithal	23	**6**	**0**	1	
Karnal	25	**6**	**1**	0	
Kurukshetra	21	**5**	**0**	1	
Mahendragarh	24	**7**	**1**	1	
Mewat	13	3	0	1	
Palwal	13	4	0	1	
Panchkula	10	2	0	1	
Panipat	16	3	0	1	
Rewari	18	5	1	1	
Rohtak	22	5	0	1	
Sirsa	25	8	0	1	
Sonipat	32	6	1	1	
Yamunanagar	18	6	1	1	
Haryana	2542	454	109		20

Source: Rural Health Statistics

5.2.3 Inter District Disparities' In Distance Coverage of Health Facility

Table 8. Inter District Disparities' In Distance Coverage of Health Facility

Distance coverage of Health Facility/ Availability of facility at Distance of KM					
Districts	SC	PHC	CHC	SDH	DH
Ambala	15	87	394	787	1574
Bhiwani	22	114	531	1195	4778
Faridabad	12	57	371	741	741
Fatehabad	25	141	635	2538	2538
Gurgaon	17	97	419	629	1258
Hisar	20	114	498	1992	3983
Jhajjar	15	68	306	1834	1834
Jind	17	97	386	0	2702
Kaithal	16	101	386	2317	2317
Karnal	17	101	420	0	2520
Kurukshetra	13	73	306	0	1530
Mahendragarh	14	79	271	1899	1899
Mewat	18	116	502	0	1507
Palwal	15	105	340	0	1359
Panchkula	20	90	449	0	898
Panipat	14	79	423	0	1268
Rewari	14	89	319	1594	1594
Rohtak	15	79	349	0	1745
Sirsa	28	171	535	0	4277
Sonipat	13	66	354	2122	2122
Yamunanagar	16	98	295	1768	1768
Haryana	2	9	39	214	4277

Source: HMIS Data 2014-15(April -March) down loaded on 28th, Aug, 2015

As per guidelines a SC should fall within the peripary of 15KM so here is in Haryana

5.2.4 Inter District Disparities in Institutional Deliveries, Non Institutional Deliveries and

5.2.5 Proportion of Deliveries Conducted At Public Institutions

The highest proportion of deliveries taking place in Public Health Institution (PHI) is in Mewat(100 percent), Mahendergarh(nearly 81 percent), Panchkula(81) and Palwal (76) followed by a Jhajjar an indication of dependence of the population of these districts/ areas, more on public health facilities rather than the private health facilities. When we compare these districts with other districts in terms of best performing districts on HMIS 16 indicators (RMNCHA+ indicators), these districts witnessed comparatively lower performance and required attention under high focused districts. It is witnessed from the table- 9 that the bordering areas or districts have comparatably lower share of institutional deliveries in public.

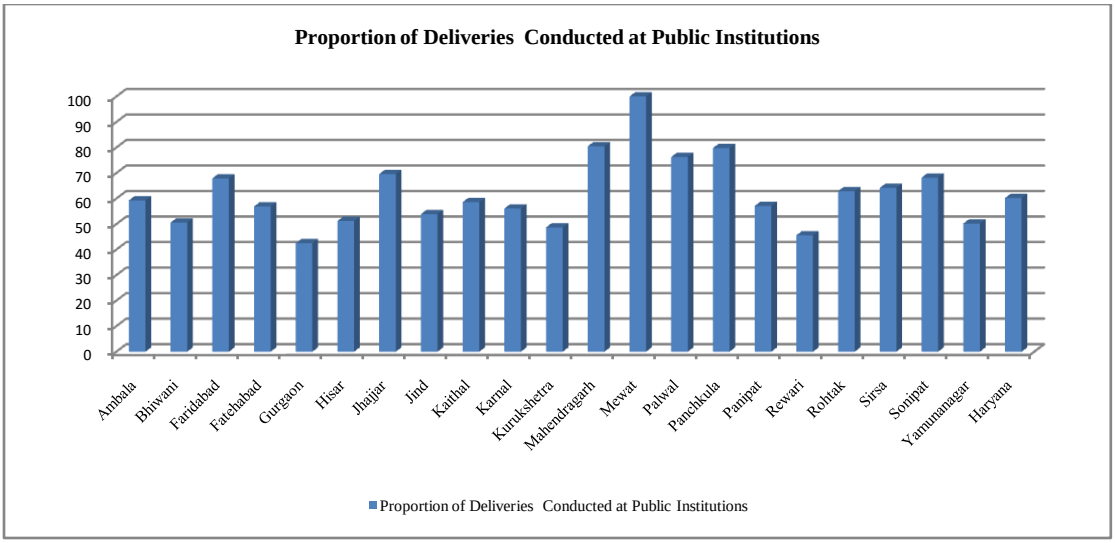


Table 9 Inter District Disparities in Institutional Deliveries, Non Institutional Deliveries And Proportion of Deliveries Conducted At Public Institutions

Districts	Percentage of Deliveries			
	Institutional Deliveries	Non Institutional	Proportion of Deliveries Conducted at Public Institutions	Rank(Composit Rank)
Ambala	96.4	3.6	59.3	10
Bhiwani	83.7	16.3	50.6	17
Faridabad	83	17	67.9	7
Fatehabad	75	25	56.9	13
Gurgaon	91.4	8.6	42.5	21
Hisar	79.2	20.8	51.2	16
Jhajjar	80.6	19.4	69.6	5
Jind	83.3	16.7	53.9	15
Kaithal	78.3	21.7	58.6	11
Karnal	83.8	16.2	56.1	14
Kurukshetra	87.2	12.8	48.7	19
Mahendragarh	88.5	11.5	80.5	2
Mewat	35.5	64.5	100	1
Palwal	59.3	10.7	76.3	4
Panchkula	97	3	79.8	3
Panipat	78.8	21.2	57.1	12
Rewari	95.3	4.7	45.6	20
Rohtak	86.6	13.4	62.9	9
Sirsa	83	17	64.2	8
Sonipat	75.3	24.7	68.2	6
Yamunanagar	85.4	14.6	50.2	18
Haryana	79.3	20.7	60.2	-

Source: HMIS Data 2014-15(April -March) down loaded on 28th, Aug, 2015 and CRS 2013

5.2.5 Type of Attention at Birth As Per Civil Registration System

Mewat District has recoreded higestest number of births attended by DR/ Nurses/ trained Dia while Palwal and Karnal Districts followed by Mewat reported highest number of births attended by traditional births attendants and births Attended by close relatives. Moreover this table gives an overview of total births that took place during the year 2014. The maximum births took place in government institution Faridabad(16842), Rohtak District(16726) followed by Karnal, Mewat and Gurgaon Districts. In addition Faridabad and Gurgaon Districts have maximum number of births that took place in private Institutions while on the other side health facilities as people might prefer to go for deliveries in other adjoining States. **(TABLE 18)**

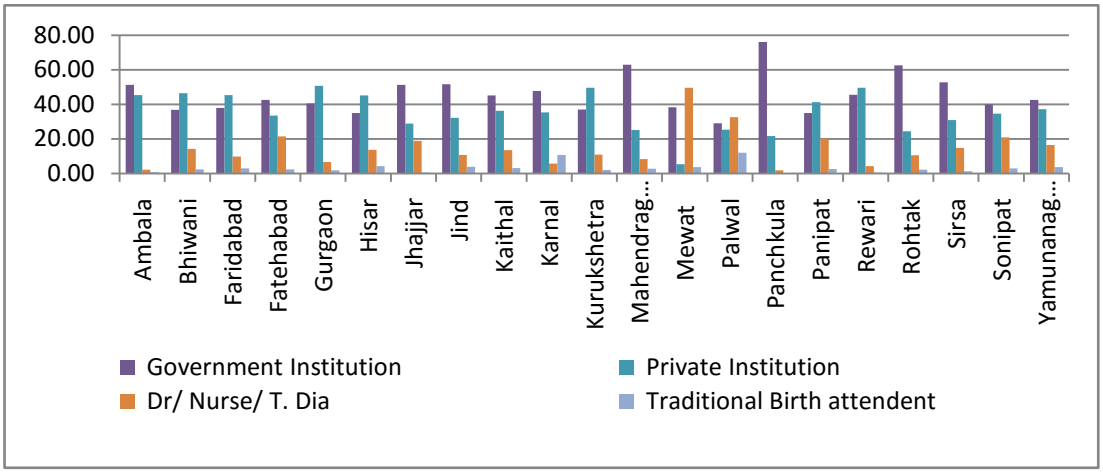


TABLE 18: TYPE OF ATTENTION AT BIRTH AS PER CIVIL REGISTRATION SYSTEM

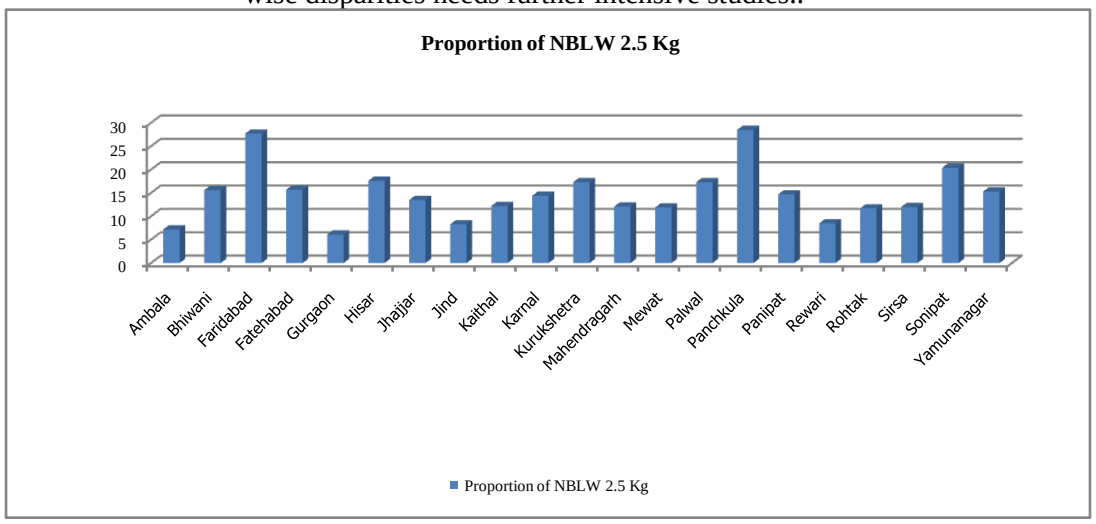
Districts	Government Institution	Private Institution	Dr/ Nurse/ T. Dia	Traditional Birth attendant	Relative or other	Total
Ambala	10642	9400	448	166	71	20727
Bhiwani	11011	13862	4245	718	36	29872
Faridabad	16842	20096	4368	1347	1670	44323
Fatehabad	9755	7706	4911	554	3	22929
Gurgaon	15057	18868	2504	692	0	37131
Hisar	13941	17961	5444	1678	731	39755
Jhajjar	8114	4566	2982	74	105	15841
Jind	13370	8329	2758	1009	435	25901
Kaithal	10568	8466	3162	716	450	23362
Karnal	15474	11435	1871	3497	73	32350
Kurukshetra	7742	10392	2300	437	37	20908

Mahendragarh	10634	4237	1420	466	117	16874
Mewat	15057	2095	19511	1489	1196	39338
Palwal	8556	7477	9569	3539	290	29431
Panchkula	10207	2908	253	24	17	13409
Panipat	9487	11211	5473	682	301	27154
Rewari	8681	9437	815	88	3	19024
Rohtak	16726	6535	2812	599	50	26722
Sirsa	13736	8042	3840	332	116	26066
Sonipat	11615	10063	6051	874	436	29039
Yamunanagar	10278	8987	3959	898	2	24124
Haryana	247493	202073	88696	19879	6139	564280

Source: Civil Registration System

5.2.6 District wise proportion of newborn babies weighing less than 2 kg at the time of birth

District Panchkula and Faridabad recorded maximum proportion of newborn babies weighing less than 2 kg at the time of birth with the share of nearly 29 percent low weigh babies. Karnal, Palwal, Kaithal and Hisar Districts too have significantly higher share of low weight babies at birth time. Guragaon, Ambala , Sonipat and Kaithal have significantly lesser proportion of low weight born babies. Reasons behind these District wise disparities needs further intensive studies..



5.2.7 District wise utilization of IPD (Indoor Patients Departments) and OPD (Outdoor Patients Department) services per lakh of population in public health facilities

Table (14) presents the District wise utilization of IPD and OPD services per lakh of population in public health facilities in the state of Haryana and composite index of IPD as well OPD utilsation based on HMIS data. It has been witnessed that maximum utilization of public IPD services per lakh of population is reported in Pachkula District followed by Districts of Yamunangar, Sirsa, Ambala, Rohtak and Fatehabad. Here is need to mention that GH Panchukula is under the process of NABH accreditation and

providing the best IPD services to the public from bordering as well as far flung Districts. Palwal District followed by Mewat and Karnal Districts have lowest utililisation of IPD services per lakh population. As Karnal GH has been upgraded as KCMCH (Kalpana Chawala Medical college and Hospital), hence there may be some reporting errors or establishment issues regarding the data reporting levels. The situation of Panipat District is also not good. It is also having low per lakh population IPD utilization of IPD services in public health facility otherwise it may be indicating prosperity of the District and more utilization of private health facilities for the purpose of IPDs. The utilization of per lakh population of OPD services is lowest in Mewat and Palwal Districts followed by Jind, Rewari, Sirsa, Karnal , Sonipat and Rewari Districts.

TABLE 14: INTER DISTRICT UTILIZATION OF IPD And OPD SERVICES PER LAKH OF POPULATION IN PUBLIC HEALTH FACILITIES IN THE STATE OF HARYANA

Districts	IPD (Number)	OPD (Number)	2014	Per lakh population IPD utilization during 2014	Per Lakh Population OPD utilization during 2014	Rank IPD	Rank OPD	Composite opd Index	Composite ipd Index
Ambala	48,081	13,77,434	1178551	4080	96354	5	6	0.493	0.554
Bhiwani	51,624	13,58,452	1700002	3037	69115	11	7	0.548	0.543
Faridabad	59,746	21,60,587	1975515	3024	90258	14	1	0.674	1.000
Fatehabad	49,160	8,67,172	989777	4967	72054	7	16	0.509	0.263
Gurgaon	43,140	11,71,891	1875174	2301	58568	15	13	0.416	0.437
Hisar	74,344	18,52,473	1813819	4099	93719	8	2	0.902	0.825
Jhajjar	27,027	13,97,656	982101	2752	126503	10	5	0.164	0.566
Jind	42,038	11,84,301	1382483	3041	56730	16	11	0.398	0.444
Kaithal	37,994	12,46,637	1116570	3403	90034	12	9	0.335	0.480
Karnal	60,361	16,14,286	1590074	3796	63628	17	3	0.684	0.689
Kurukshetra	35,421	12,78,949	1013649	3494	94981	9	8	0.295	0.498
Mahendragarh	38,683	8,15,448	959231	4033	80618	4	17	0.346	0.234
Mewat	22,304	5,78,087	1218025	1831	33761	20	20	0.091	0.099
Palwal	16,479	4,04,480	1122138	1469	36336	21	21	0.000	0.000
Panchkula	39,766	14,33,974	591878	6719	222812	1	4	0.363	0.586
Panipat	19,347	7,61,359	1292644	1497	54290	19	18	0.045	0.203
Rewari	27,174	7,09,683	942891	2882	62502	13	19	0.167	0.174
Rohtak	26,853	11,82,264	1099208	2443	88076	6	12	0.162	0.443

Sirsa	38,727	9,42,837	1358279	2851	62975	3	15	0.347	0.307
Sonipat	34,802	12,18,642	1550892	2244	65648	18	10	0.286	0.464
Yamunanagar	80,638	11,52,013	1275637	6321	82880	2	14	1.000	0.426
Haryana	8,73,709	247,08,625	26977435		76760	-		-	

Source: HMIS Data 2014-15(April -March) down loaded on 28th, Aug, 2015

5.2.7 District wise utilization of Ayush services per lakh of population in public health facilities

There is more inclination towards Ayush in the Districts like Hisar, Rohtak, Karnal and Ambala while Bhiwani and Palwal Districts have lowest inclination towards utilization of Ayush services reason being very clear that theses Districts have proper Ayush set up at DH and CHCs while Districts like Bhiwani, Palwal and Rewari have in majority rural set up and lesser understanding of AYUSH services (Table 16).

TABLE 16: INTER DISTRICT UTILIZATION OF AYUSH OPD SERVICES PER LAKH OF POPULATION IN PUBLIC HEALTH FACILITIES IN THE STATE OF HARYANA

Districts	Ayush OPD (Number)	2014	Per Lakh Population utilization	Rank	Composite Index
Ambala	1,20,112	1178551	9659	4	0.613
Bhiwani	44,838	1700002	2587	21	0.000
Faridabad	84,410	1975515	3277	20	0.322
Fatehabad	72,426	989777	6463	10	0.225
Gurgaon	1,15,786	1875174	4966	15	0.577

Hisar	1,67,709	1813819	8815	5	1.000
Jhajjar	84,859	982101	7267	8	0.326
Jind	79,690	1382483	4071	19	0.284
Kaithal	75,999	1116570	6366	12	0.254
Karnal	1,20,258	1590074	5725	13	0.614
Kurukshetra	91,029	1013649	7448	6	0.376
Mahendragarh	99,591	959231	10177	3	0.446
Mewat	75,887	1218025	5037	14	0.253
Palwal	51,015	1122138	4903	16	0.050
Panchkula	77,783	591878	20119	1	0.268
Panipat	57,585	1292644	4817	17	0.104
Rewari	57,623	942891	7059	9	0.104
Rohtak	1,44,585	1099208	11208	2	0.812
Sirsa	77,598	1358279	7276	7	0.267
Sonipat	1,14,925	1550892	4511	18	0.570
Yamunanagar	1,09,760	1275637	6442	11	0.528
Haryana	1,923,468	26977435	6453	-	-

Source: HMIS Data 2014-15(April-March) down loaded on Aug 28th , 2015

5.2.8 Utilization of Dental Services In Public Health Facilities.

The perusal of the above table reveals that the District Mewat has lowest index value in case of utilization of dental OPD services thus indicating either the gap in services providing or lesser utilization of dental services in public health facilities. Sirsa, Palwal, Rewari and Panipat have comparably lesser utilization of dental OPD services from public health facilities. District Bhiwani has the highest score in utilization of dental OPD services followed by Hisar, Karnal and Kurukshetra. Gaps in lesser utilization of dental services too represent the progressive and non progressive Districts requiring high focus on the developmental issues as like the Mewat and Palwal Districts which have been already declared as high focus Districts by GOI (Government of India) but still there is need to educate the people of these area to become health conscious about the oral health and the maximum utilization of public health facilities as happened in case of availing the delivery services.

Districts	**Dental OPD (Number)**	2014	Per Lakh Population utilization of Dental Services	Ranks	Composite Index
Ambala	53,622	1178551	4605	9	0.506
Bhiwani	89,883	1700002	5363	1	1.000
Faridabad	54,076	1975515	2824	8	0.512
Fatehabad	38,246	989777	3929	14	0.297
Gurgaon	43,672	1875174	2501	12	0.371
Hisar	77,540	1813819	4332	2	0.832
Jhajjar	56,410	982101	5794	6	0.544
Jind	56,339	1382483	4130	7	0.543
Kaithal	37,916	1116570	3441	15	0.292
Karnal	70,761	1590074	4531	3	0.740
Kurukshetra	65,352	1013649	6556	4	0.666
Mahendragarh	35,536	959231	3754	16	0.260
Mewat	16,451	1218025	1402	21	0.000
Palwal	31,799	1122138	2906	19	0.209
Panchkula	40,447	591878	6966	13	0.327
Panipat	34,254	1292644	2714	17	0.242
Rewari	32,558	942891	3512	18	0.219
Rohtak	45,971	1099208	4235	11	0.402
Sirsa	25,127	1358279	1880	20	0.118
Sonipat	64,880	1550892	4249	5	0.660
Yamunanagar	47,818	1275637	4249	10	0.427
Haryana		26977435		-	-

5.2.8 Type of Disease- Tuberculosis, Syphillis/ Gonorrhoea And Malaria And Typoid Ipd And Opd Patients

An overview of IPD and OPD services in case of Diseases like TB, Syphills/ Gonorrhoea and Malaria and Typoid. Majority of patient received treatment generally in by OPD services in cases of these type of diseases - are treated in OPD services. Rohtak and Ambala districts reported maximum number of cases of TB treated in OPD services followed by Hisar and Gurgaon districts while Rohatk again maximum cases of Malaria and Typoid cases treated in OPD services followed by Bhiwani and Karnal districts. District Rewari and Panipat reported lesser number of Malaria and Typoid treated patents while Panchkula had lesser number of TB cases. It has been envisaged from above table that indoor patients are comparatively more in case of TB and Malaria are more prevalent among the people of the state Haryana. Districts like Rohtak and Karnal and Panipat, Sirsa have comparatively higher Indoor Patients suffering from TB and Malaria. It has been envisaged from above table that indoor patients are comparatively more in case of TB and Malaria are more prevalent among the people of the state Haryana. Districts like Rohtak and Karnal and Panipat, Sirsa have comparatively higher Indoor Patients suffering from TB and Malaria.

Table 17 : Type of Disease- Tuberculosis, Syphillis/ Gonorrhoea and Malaria and Typoid IPD AND OPD Patients

	Tuberculosis		Syphillis/ Gonorrhoea		Malaria and Typoid	
Districts	Indoor Patients	Outdoor Patients	Indoor Patients	outdoor Patients	Indoor Patients	Outdoor Patients
Ambala	379	10793		16	244	1895
Bhiwani	266	2559		224	2904	10352
Faridabad	317	7537	1	627	229	1749
Fatehabad	62	1219		12	81	5699
Gurgaon	141	3728		501	205	1472
Hisar	245	3949		319	273	8100
Jhajjar	82	1901		32	153	3090
Jind	20	2936		603	113	1388
Kaithal	143	1370		7	41	3003
Karnal	519	3136			311	6480
Kurukshetra	99	2405		157	135	1801
Mahendragarh	152	1859		12	257	2727
Mewat	31	2219			223	1493
Palwal	29	1449		90	80	1812
Panchkula	81	818		216	350	2663
Panipat	120	3898		6	148	1104
Rewari	246	1488		9	60	1010
Rohtak	1767	17273	4	2244	829	12024
Sirsa	170	5225		214	84	2283
Sonipat	79	3270			203	1449
Yamunanagar	86	1779		408	188	4134
Haryana	5034	80811	5	5697	7111	75728

Source: Statistical Abstract 2014

TABLE 16**: INTER DISTRICT UTILIZATION OF DENTAL OPD SERVICES PER LAKH OF POPULATION IN PUBLIC HEALTH FACILITIES IN THE STATE OF HARYANA**

Districts	Dental OPD (Number)	2013	Per Lakh Population	RANKS	Composite Index
Ambala	53,622	1164461	9659	9	0.506
Bhiwani	89,883	1676035	2587	1	1.000
Faridabad	54,076	1914815	3277	8	0.512
Fatehabad	38,246	973423	6463	14	0.297
Gurgaon	43,672	1746135	4966	12	0.371
Hisar	77,540	1789835	8815	2	0.832
Jhajjar	56,410	973630	7267	6	0.544
Jind	56,339	1364203	4071	7	0.543
Kaithal	37,916	1101806	6366	15	0.292
Karnal	70,761	1561652	5725	3	0.740
Kurukshetra	65,352	996901	7448	4	0.666
Mahendragarh	35,536	946547	10177	16	0.260
Mewat	16,451	1173548	5037	21	0.000
Palwal	31,799	1094235	4903	19	0.209
Panchkula	40,447	580671	20119	13	0.327
Panipat	34,254	1261978	4817	17	0.242
Rewari	32,558	927039	7059	18	0.219
Rohtak	45,971	1085530	11208	11	0.402
Sirsa	25,127	1336889	7276	20	0.118
Sonipat	64,880	1526919	4511	5	0.660
Yamunanagar	47,818	1254807	6442	10	0.427
Haryana		26451059	6453	-	-

Source: HMIS Data 2014-15(April-March) down loaded on Aug 28th, 2015

5.2.9 Infant Deaths Maternal Deaths and Still Births

Maternal mortality remains major challenge to health system worldwide and so in India as well in state of Haryana. An overview of infants and maternal deaths along with the number of still birth during the year 2013 revealed highest number of infant deaths in district of rural Mewat while district Hisar and Rohtak have highest number of maternal deaths. District Rohtak again reported highest number of infant death followed by Mewat district. This district i.e. Mewat too reported quite large number of infant deaths. Though the number of deaths whether its maternal or infant may not be a true indicator of poor health conditions in theses districts but still there is need to look into causes of reported theses high figures. There may be data reporting errors in other districts and may be the causes behind lesser number of infant and maternal deaths. Infant deaths and maternal mortality rates may be the true indicator of maternal as well child health but still possibility of data reporting errors may not be ruled out.

Districts	Infant Deaths (2013)			Maternal Deaths (2013)			Still Births (2013)		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Ambala	120	12	132	4	0	4	40	8	48
Bhiwani	216	46	262	6	2	8	87	67	154
Faridabad	138	375	513	4	6	10	107	34	141
Fatehabad	222	15	237	2	0	2	48	4	52
Gurgaon	50	280	330	3	1	4	19	57	76
Hisar	207	312	519	4	29	33	86	93	179
Jhajjar	68	22	90	7	1	8	34	1	35
Jind	245	16	261	3	3	6	69	5	74
Kaithal	179	127	306	1	2	3	39	2	41
Karnal	224	77	301	6	11	17	68	197	265
Kurukshetra	97	60	157	7	0	7	27	32	59
Mahendragarh	98	58	156	2	0	2	22	8	30
Mewat	465	7	472	15	2	17	168	0	168
Palwal	276	16	292	10	1	11	26	81	107
Panchkula	53	45	98	0	6	6	6	159	165
Panipat	173	61	234	2	0	2	34	10	44
Rewari	83	64	147	2	6	8	11	147	158
Rohtak	73	868	941	1	40	41	5	351	356
Sirsa	173	117	290	6	7	13	46	61	107
Sonipat	224	53	277	11	0	11	42	5	47
Yamunanagar	95	92	187	2	0	2	23	7	30

Source: Statistical Abstract 2014

3. India's Reproductive, Maternal, Newborn, Child, and Adolescent Health (RMNCH+A) Strategy Approach

The 12th Five Year Plan has defined the National Health outcomes and the 3 goals that are relevant to RMNCH +A strategies approach as follows: Reduction of Infant Mortality Rate to 25/1000 live birth by 2017, Reduction in Maternal Mortality Ratio to 100/100000 live birth by 2017, Reduction in Total Fertility Rate to 2.1 by 2017.The RMNCH+A appropriately directs the States to focus their efforts on the most vulnerable population and disadvantaged groups in the country. It also emphasizes on the need to reinforce efforts in those poor performing districts that have already been identified as the high focus districts. Improving mother and child survival require interventions at various critical stages of life. These include adolescence, pre pregnancy period, pregnancy, delivery, neo-natal phase and childhood. In order to address this, a lifecycle approach referred to as RMNCH+A (Reproductive, Maternal, Newborn, Child health and

Adolescent) has been adopted under the National Rural Health Mission (NRHM). This strategy addresses both preventive and curative health intervention and services across various life stages, which when delivered to scale, can provide maximum gains in terms of saving lives and improving overall health status of the community. The HMIS composite index analysis of RMNCHA+ indicators reveals that Districts like Rohtak, Kurukshetra, Karnal and Ambala are doing well in overall indicators 16 indicators of Health based on a lifecycle approach was related to pregnancy care, childbirth, post-natal maternal and newborn care, and people of reproductive age while districts like Panchkula, Yamunagar, Gurgaon , Mahendergarh and Kaithal are promising districts. Rewari, Sonipat, Sirsa, Hisar and Jind are among the low per low performing districts while Fatehabad, Bhiwani, Faridabad, Pawal, Panipat and Mewat are least performing districts and needs a great attention. Composite analysis of pregnancy care indicators reveals that Kurukshetra, Panchkula, Rohatak , Karnal and Jhajjar are doing better in pregnancy care whereas, Yamunagar, Sonipat, Hisar, Mahendergarh and Kaithal are among the promising districts that is these districts are on the way to improvement. Fatehabad, Sirsa, Ambala, Jind and Rewari are low performing in pregnancy care while Bhiwani, Palwal, Gurgaon, Mewat, Panipat are the least performing districts. Further, composite index of child health care indicator reveals that Rohtak, Rewari, Mahendergarh, Kurukshetra and Ambala. While Gurgaon, Yamunagar, Panchkula, Fatehabad and jhajjar are the promising districts in child health care. Sirsa, Kaithal, Hisar, Bhiwani and Jind are low performing districts and Faridabad, fatehabad, Sonipat, karnal, Palwal, Mewat and Panipat are least performing districts. In case of Post natal care, district Gurgaon, Ambala, Rohtak, Kaithal and Jhajjar are good performing districts. While Karnal, Hisar, Jind, Sirsa and Mahendergarh are the among the Promising Districts. Rewari, Kurukshetra, Sonipat, Bhiwani and Fatehabad and least performing districts are the Palwal, Yamunagar, Panchkula, Faridabad, Panipat and Mewat. In the reproductive health indicators Jind, Hisar abd Faridabad are low performing districts. The interdependence of various components of continuum of care is well recognized very well i.e. reproductive, maternal, newborn, child, or adolescent health can be ensured only if all the life stages are healthy. RMNCH+A initiative aims to focus equally on all life stages across the continuum of care."

Table18 : Haryana District Wise Health Score Card (Based On 16 Monitoring Indicators of HMIS-April- March, 2015)

Sr. No.	Districts	Over ALL Index Value	PREGANANCY CARE	CHILD BIRTH	POST NATAL CARE	REPRODUCTIVE AGE
1	Ambala	0.5858	0.4473	0.5717	0.741	0.5722
2	Bhiwani	0.4053	0.3766	0.3459	0.5725	0.2337
3	Faridabad	0.3707	0.1977	0.3205	0.4531	0.5721
4	Fatehabad	0.4358	0.474	0.4856	0.5362	0.155
5	Gurgaon	0.5333	0.3063	0.5478	0.7666	0.5083
6	Hisar	0.4573	0.54	0.3741	0.6268	0.1205
7	Jhajjar	0.5557	0.5892	0.4644	0.6728	0.3959
8	Jind	0.4493	0.4453	0.3393	0.6136	0.2921
9	Kaithal	0.5288	0.5053	0.3832	0.6831	0.4565
10	Karnal	0.612	0.6351	0.2999	0.6383	0.8418
11	Kurukshetra	0.6324	0.7003	0.5751	0.5852	0.6552
12	Mahendragarh	0.5291	0.5345	0.6278	0.5958	0.3103

13	Mewat	0.2747	0.2504	0.0216	0.3134	0.5041
14	Palwal	0.3499	0.3505	0.253	0.5243	0.1548
15	Panchkula	0.5508	0.6828	0.4967	0.4557	0.5433
16	Panipat	0.2997	0.1366	0.3193	0.3512	0.4661
17	Rewari	0.5144	0.4316	0.7599	0.5887	0.283
18	Rohtak	0.6596	0.6492	0.9035	0.6909	0.3807
19	Sirsa	0.4596	0.4561	0.4525	0.5971	0.2433
20	Sonipat	0.4655	0.5477	0.3087	0.5815	0.2916
21	Yamunanagar	0.5415	0.5697	0.5056	0.4657	0.6567

** Quartile Values are used to determine the range

Range based on Final Index Value	.000-0.4358	Very Low Performing Districts
	0.4359 -0.5144	Low Performing Districts
	0.5145-0.5508	Promising Districts
	0.5509-0.6596	Good Performing Districts

6 Policy Implications

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 and IMR. Though the locational dimension effect the utilization of public health care facilities. Present analysis helped to gauge and understand 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.

7. Conclusions

It has been witness from the data analysis of health infrastructure over a period of time and other indicators of health that despite the steady improvements in the overall health and HMIS indicators of the Haryana State, there is wide disparities among the few of the district. These districts experience a lower quality of health services and are less likely to receive routine medical procedures and have higher rates of morbidity and mortality than non-minorities. Disparities there are some high focused districts and special budgeting is provided to these districts but district wise disparities still exist in health sector. District Faridabad is the best performing district in case of utilization of dental OPD services. But per lakh of population utilization of OPD services depicts otherwise. Same happens in case of availing the delivery services. The effectiveness of RMNCH+A interventions depends on availability, acceptability, and utilization of services and the quality of services delivered. Analysis at various levels is necessary to identify gaps in the delivery of a particular intervention or set of interventions. To facilitate this analysis, GOI conceptualized a district-level gap analysis and facility assessment approach and developed standardized tools. Results provide evidence for the

district RMNCH+A implementation plan, which should address the key gaps through short- and mid-term actions. “India has made considerable progress over the last two decades in the sector of health, which was further accelerated under NRHM. True to its vision, NRHM improved the availability of and access to quality health care by people, especially for those residing in rural areas, the poor, women and children. However, latest data and trends emerging from the national surveys demand a cohesive approach to manage child and maternal health care. Clear articulation of the strategic approach to reproductive, maternal, newborn, child, and adolescent health (RMNCH+A) is an effort in this direction.”

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