

Determinants of Utilization of Services under Family Welfare and Healthcare Schemes of Government of Rajasthan: A Study of Rural Areas of Western Rajasthan

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Abstract: Improving on the health indicators in Rajasthan still remains a big challenge for government in spite of all efforts and expenditures. Indicators like Total Fertility Rate, Infant Mortality rate and Maternal Mortality Ratio of the state that is 3.1, 55 and 318 (SRS 2007 - 2009) respectively; are still higher than the National average. The Sex Ratio in the state is 926 (as compared to 940 for the country). Comparative figures of major health and demographic indicators also clearly show that Rajasthan is lagging behind the average national performance.

In last two decades Government has launched several initiatives in the field of family welfare and healthcare like Janani Suraksha Yojna, Primary Health Centres, Community Health Centres, Asha Sahyoginis, Jan Mangal Yojna etc. The present study focuses on detecting the key areas that require improvement for proper implementation of the healthcare and family welfare schemes. The study reveals that people have an inclination to avail benefit of the government facilities but several factors were identified as barriers. Apart from illiteracy, lack of awareness and psychographic barriers, the main determinants affecting the utilization of Government facilities included lack of infrastructure, improper disbursement of incentives, lack of trained staff at Health Centres and indifferent behaviour of the healthcare staff. In some of the remote areas and micro interior places, transport facilities also played a significant role. The discussion and recommendations highlight the fact that Government of Rajasthan has to re-design the implementation of its initiatives to yield the desired outcomes.

Keywords: *Healthcare, Family-Welfare, Government Schemes, Rajasthan.*

I. INTRODUCTION

Any nation's growth and development depends on the health and wellbeing of its people. The fields of Macroeconomics already recognizes the contribution of human capital to economic growth. A health population leads to healthy society thus leading to healthy economy of a nation. Insufficient health systems have an inconsistent and crippling influence on the economic health of developing nations. The researches have proved that the countries that need healthcare systems the most, are paying the heaviest price. Good health has a positive, sizable, and statistically significant effect on aggregate output. Little variation is found across countries in average work experience, thus differentials in work experience account

for little variation in rates of economic growth. (1) And unfortunately India is still lagging behind than other nations of the world on the health indicators (Annexure 1). The main reason behind this can be contributed to the composition of Indian population, where the rural population overweighs the urban population and the rural areas score low at most of the health indicators in comparison to the urban population. (Table 2 (a) and 2 (b))

Item	Rajasthan	India
Total Population (Census 2011) (In Crore)	6.86	121.01
Decadal Growth (%) (Census 2011)	21.44	17.64
Crude Birth Rate (SRS 2013)	25.6	21.4
Crude Death Rate (SRS 2013)	6.5	7
Natural Growth Rate (SRS 2013)	19.1	14.4
Infant Mortality Rate (SRS 2013)	47	40
Maternal Mortality Rate (SRS 2010-12)	255	178
Total Fertility Rate (SRS 2012)	2.9	2.4
Sex Ratio (Census 2011)	926	940
Child Sex Ratio (Census 2011)	883	914
Schedule Caste population (in crore) (Census 2001)	0.97	16.67
Schedule Tribe population (in crore) (Census 2001)	0.71	8.43
Total Literacy Rate (%) (Census 2011)	67.06	74.04
Male Literacy Rate (%) (Census 2011)	80.51	82.14
Female Literacy Rate (%) (Census 2011)	52.66	65.46

Table 1: Demographic, Socio-economic and Health profile of Rajasthan State as compared to India

(Source: <http://nrhm.gov.in/nrhm-in-state/state-wise-information/rajasthan.html> accessed on 21-01-2015)

The circumstances are complicated because the major part of population of Rajasthan lives in rural areas. Almost 75%

of the total population in the state is rural. In rural areas, the female sex ratio was 933 females per 1000 males. The total number of children between 0-6 years living in rural areas was 8,414,883. Average literacy rate in rural areas was 61.44 (2) Due to high rate of illiteracy in rural areas, though the gap between rural and urban for literacy ration is decreasing since 1991. (3) There is a great disparity in the urban and rural healthcare scenario in India and Rajasthan is not an exception.

Indicator 2007	Rural	Urban
Crude Death Rate	8.0	6.0
Infant Mortality Rate	61.0	37.0
Neo natal Mortality rate	40.0	22.0
Post natal Mortality rate	20.0	16.0
Still Birth rate	9.0	8.0

Table 2 (a) Health Indicators for Rural and Urban India for year 2007

Source: National Health Survey, taken from <https://futurechallenges.org/local/the-frailty-of-rural-healthcare-system-in-india/> accessed on 24-02-2015.

Indicator	Rural	Urban	Combined	Reference Year
Population (Million)	716.0	286.0	1002.0	2000
Birth Rate	30.0	22.6	28.3	1995
Death Rate	9.7	6.5	9.0	1997
IMR	80.0	42.0	72.0	1998
MMR (per 100000)	438.0	378.0	408.0	1997
Stillbirth Rate	10.8	5.3	10.5	1995
% Deliveries attended by untrained people	71.0	27.0	59.0	1995
% Deaths attended by untrained people	60.0	22.0	54.0	1995
Total Fertility Rate	3.8	2.8	3.5	1993
% Children who received all vaccinations	31.0	51.0	-	1992-1993

TABLE 2 (b) Disparity of Rural and Urban Health Sector in India

(Source: Sample Registration System, Government of India, 1997-98) taken from http://www.health.mp.gov.in/Maternal_Mortality_in_India_1997-2003.pdf accessed on 22-01-2015.

And the picture worsens if we compare rural versus urban statistics of health indicators like: Infant mortality rate (IMR), The IMR is very high in rural areas (55 per 1000 live births) as compared to urban areas (34). Neo-natal

mortality, which refers to number of infants dying within one month and Neo-natal health care, which is concerned with the condition of the new-born from birth to 4 weeks (28 days) of age; is also very high in rural areas (38 per 1000 live births) as compared to 21 in urban areas in 2009. The neonatal mortality rate also varies considerably among Indian States and Rajasthan stands at third position.

To deal with problems of illiteracy and poor scores on the health indicators, the infrastructural facilities have been expanded in the state significantly in the last decade in the form of Sub Centres (SC), Primary Healthcare Centres (PHC) and Community Health Centres (CHC) and the staff which include Doctors, Health assistants and Health Workers. (Table 3)

Particulars	Required	In position	Shortfall
Sub-centre	15172	11487	3685
Primary Health Centre	2326	1528	798
Community Health Centre	581	382	199
Health worker (Female)/ANM at Sub Centres & PHCs	13015	17638	*
Health Worker (Male) at Sub Centres	11487	1592	9895
Health Assistant (Female)/LHV at PHCs	1528	1420	108
Health Assistant (Male) at PHCs	1528	201	1327
Doctor at PHCs	1528	1755	*
Obstetricians & Gynecologists at CHCs	382	14	368
Pediatricians at CHCs	382	11	371
Total specialists at CHCs	1528	148	1380
Radiographers at CHCs	382	260	122
Pharmacist at PHCs & CHCs	1910	551	1359
Laboratory Technicians at PHCs & CHCs	1910	2639	*
Nursing Staff at PHCs & CHCs	4202	11926	*

Table 3 Health Infrastructure of Rajasthan (Source: RHS Bulletin, March 2012, M/O Health & F.W., GOI) taken from <http://nrhm.gov.in/nrhm-instate/state-wise-information.html> accessed on 12.01.2105

Due to efforts of NHRM the MMR has been decreasing during last two Decades (Table 4)

(4):

Trend (year & source)	
2001-03	445
2004-06	388
2007-09	318
2011-13	248
2013-15	193

Table 4: Maternal Mortality Ratio (MMR) Trends in Rajasthan

The National Health Rural Mission (NHRM) has improved the infrastructure for the Healthcare schemes and Health Services are provided to the community through a network of Sub-centres, Primary Health Centres (PHCs) and Community Health Centres (CHCs) in the rural areas and Hospitals and Dispensaries etc. in the urban areas. The Primary Health Care infrastructure in rural areas has been developed as a three-tier system.

The present study undertakes to investigate the utilization of services in the rural areas for the following main schemes of government:

- **Family Planning Initiatives:** family planning methods which are most commonly used in India include Birth control pills, condoms, sterilization, IUD (Intrauterine device) etc. Total birth rate is affected by implementation of these methods by government.
- **Sub-Centres (SCs):** the first contact point between people and healthcare is Sub-Centre which is staffed with Auxiliary Nurse Midwife (ANM) and one Male Health Worker MPW (M). The major responsibilities of a SC includes interpersonal communication in order to bring about behavioral change and provide services in relation to maternal and child health, family welfare, nutrition, immunization, diarrhea control and control of communicable diseases programmes. The Sub-Centers are provided with basic drugs for minor ailments needed for taking care of essential health needs of men, women and children. There were 147069 Sub Centres functioning in the country as on March 2010.
- **Primary Health Centers (PHCs):** PHC is the first contact point between village community and the Medical Officer. The PHCs are established and maintained by the State Governments There were 23673 PHCs functioning as on March 2010 in the country. A PHC is manned by a Medical Officer supported by 14 paramedical and other staff. It acts as a referral unit for 6 Sub Centres. It has 4-6 beds for patients. The activities of PHC involve curative, preventive, primitive and Family Welfare Services.
- **Community Health Centres (CHCs):** CHCs are being established and maintained by the State Government under MNP/BMS programme. CHCs are referral points for four PHCs and has four medical specialists i.e. Surgeon, Physician,

Gynecologist and Pediatrician supported by 21 paramedical and other staff. It has 30 in-door beds with one OT, X-ray, Labour Room and Laboratory facilities. It serves as a referral centre for 4 PHCs and also provides facilities for obstetric care and specialist consultations. As on March, 2010, there were 4535 CHCs functioning in the country.

- **Janani Suraksha Yojana (JSY):** The Jannani Suraksha Yojana (JSY) is a 100% centrally sponsored scheme and it integrates cash assistance with delivery and post-delivery care. The scheme was launched with focus on demand promotion for institutional deliveries in States and regions where these are low. It targeted lowering of MMR by ensuring that deliveries were conducted by Skilled Birth Attendants at every birth.
- **ASHA:** Government of India's Ministry of Health & Family Welfare (MoHFW) has introduced Accredited Social Health Activists (ASHAs) that is the name for society health personnel. This is as a portion of National Rural Health Mission (NRHM) which started in the year of 2005 and targeted completed execution for the year of 2012. Once completely executed "an ASHA in all Village" is there in Indian country, an aim that converts into two lakh fifty thousand ASHAs in ten states. (5)
- **Jan Mangal:** Rajasthan is a only State in the country, where community based distribution of contraceptives and other services like mobilizing people for safe sexual behaviour, immunization, distribution of ORS etc is being implemented through community based volunteers-Janmangal Couples. This programme was started in the beginning of last decade (1992) in two districts Udaipur and Alwar. In the year 1995 the programme was expended up to 9 districts .Now looking into the success of the programme it has been expended in all the 32 districts of the state. Under this around 39065 JMC are working in the entire state. (6)

Along with this there are number of financial benefits provided for utilization of schemes:

Particulars	Rural areas			Urban Areas		
	Mother package (Rs.)	ASHA Package (Rs.)	Total (Rs.)	Mother package (Rs.)	ASHA Package (Rs.)	Total (Rs.)
Institutional Deliveries	1400	600	2000	1000	200	1200
Home Deliveries (Only for BPL Women)	500			500		

Table 5: Financial Assistance under JSY and ASHA

But still the utilization of these services show a low score when it comes to rural area. The health centers are poorly equipped, understaffed and there also lack of trained staff on the centers. Low Utilization of these services is depends upon the quality of care which is an outcome of poor infrastructure, rude behavior of staff and purchase of medicines was critical to the final decision of the patient. (7).

So the current study endeavors to undertake a qualitative analysis of utilization the government services and the tries to identify the factors which are responsible for low rate of utilization of the services by the beneficiaries.

II. MATERIALS AND METHODS

2.1 Study Area, Sampling and Data Sources

The study was conducted in Rajasthan and took into consideration Osian tehsil of Jodhpur District and Pokharan tehsil of Jaisalmer District. These locations were selected purposively as they represent the areas with major health interventions and are also representative of population. The survey was conducted in the year 2014-15. 250 Female respondents were chosen on the basis of purposive sampling and interviews were conducted through structured schedules to collect primary data due to the rural background and language limitations. With the response rate of 72%, 180 responses were compiled. Women respondents were selected as the outcome indicators focus mainly on women and children. The sample included various demographic and socio-economic categories.

2.2 Empirical Model and Variables

The factors affecting the utilization of services are classified as:

- Individual factors such as age, education, work status, religion, household income and age at effective marriage
- Infrastructural issues like Lack of Staff, lack of training to staff, shortage of trained doctors,

unavailability of healthcare serves centres in proximity (5 kilometers.)

- Managerial factors such as rude behaviors of staff, absence of the staff and doctors, irregular disbursement of the financial incentives and lack of awareness of the schemes were also taken as affecting factors. The availing of services in the health care sector is dependent on and behavioral issues. (8)(9)(10)(11).The behaviour of staff and mutual trust between patient and the staff are very important drivers.
- Physical accessibility also plays important role in the use of health services. (12) The distance or time required to travel is a main determinant.
- Personal and Social factors like reluctance, traditions and socio-cultural beliefs towards large family emerge as the major constraints towards adopting Family Planning methods. Female literacy, age at marriage of girls, status of women, strong son preference, and lack of male involvement in family planning, are also significant factors associated with adoption of small family norm.
- Financial Incentives: The research also shows that financial incentives are not so strong factor to affect the utilization of services
- Political interference, absence of sufficient human resources and less managerial centralization is also responsible for underutilization of government healthcare services.(13)
- The factors like Cost, location of healthcare services and its relationship to access for public transport) and administrative efficiency has been found to be significant affecting the utilization of healthcare services. (14).

The data was entered into SPSS 16 for statistical analysis. Data was analyzed using distributive statistics and some of the quantitative data was analyzed through central tendency measures.

2.3 Descriptive information about the demographic Profile of Respondents:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	15-30	96	53.3	58.5	58.5
	31-45	41	22.8	25.0	83.5
	45-60	21	11.7	12.8	96.3
	61 and above	6	3.3	3.7	100.0
	Total	164	91.1	100.0	
Missing	System	16	8.9		
Total		180	100.0		

Table 6: Distribution of Age Groups of Respondents (Yrs)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Illiterate	84	46.7	51.2	51.2
	Till 8 th	43	23.9	26.2	77.4
	9th-10 th	21	11.7	12.8	90.2
	above 12th	16	8.9	9.8	100.0
	Total	164	91.1	100.0	
Missing	System	16	8.9		
Total		180	100.0		

Table 7: Distribution of Education of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	< 15 Yrs	6	3.3	3.7	3.7
	15-18 Yrs	29	16.1	17.7	21.3
	19-22 Yrs	123	68.3	75.0	96.3
	23-25 Yrs	6	3.3	3.7	100.0
	Total	164	91.1	100.0	
Missing	System	16	8.9		
Total		180	100.0		

Table 8: Distribution of Age of Marriage of Respondents

Age of First Delivery

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	< 19 Yrs	6	3.3	3.7	3.7
	19-22 Yrs	46	25.6	28.0	31.7
	23-25 Yrs	112	62.2	68.3	100.0
	Total	164	91.1	100.0	
Missing	System	16	8.9		
Total		180	100.0		

Table 9: Distribution of Age of First Delivery of Respondents

III. RESULTS**3.1 Awareness Level for Various Schemes:**

From Table 10 it is very clear that the awareness level still for the various schemes of the government is not very high. Out of all the schemes which were undertaken for the study, more awareness was shown for Janani Suraksha Yojna and Primary Health Centres but for ASHA and Jan Mangal Yojna it was comparatively lower.

Name of schemes	Awareness level %
Janani Suraksha Yojna	69.9
ASHA	23.3
Jan Mangal Yojna	16.4
PHC/CHC/SC	72.1

Table 10: Awareness Level for various Schemes

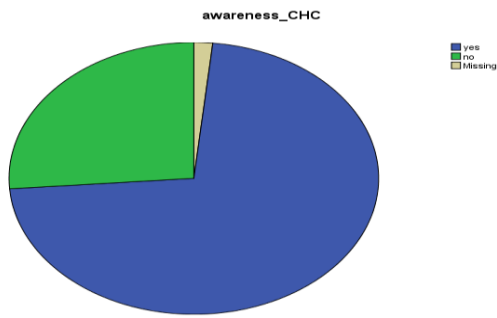


Figure 1. Awareness Level for Community Health Centres

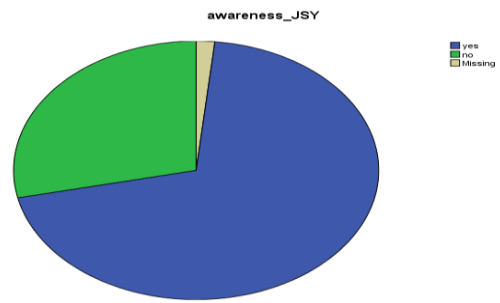


Figure 2. Awareness Level for Janani Suraksha Yojna

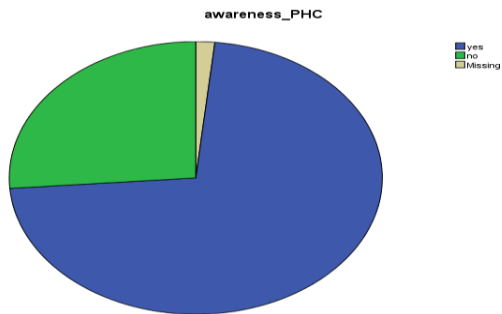


Figure 3. Awareness Level for Primary Health Centres

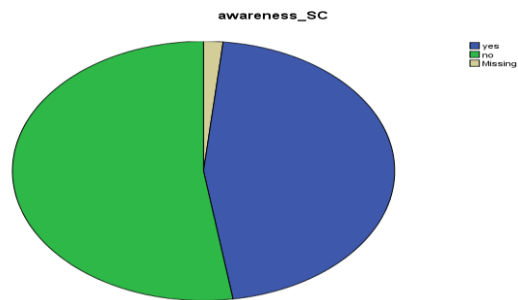


Figure 4. Awareness Level for Sub-Centres

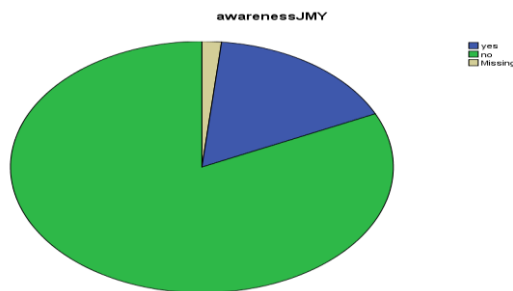


Figure 5. Awareness Level for Jan Mangal Yojna

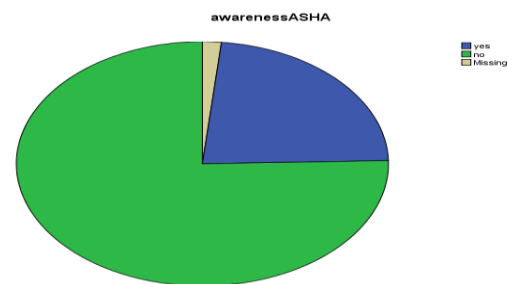


Figure 6. Awareness Level for ASHA Scheme

3.2 Utilization of Services:

3.2.1 JSY: From the Table 11 it is clear that 60% of the respondents have never taken benefit of JSY. Only 20%

of the respondents have taken benefit of JSY during 100% of the deliveries. And rest of the respondents have availed the benefits of JSY 50% times or even lower.

Benefit of JSY		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	108	59.0	60.0	60.0
	33%	6	3.3	3.3	63.3
	40%	6	3.3	3.3	66.7
	50%	24	13.1	13.3	80.0
	100%	36	19.7	20.0	100.0
	Total	180	98.4	100.0	
Missing	System	3	1.6		
Total		183	100.0		

Table 11: % of past deliveries when JSY was availed

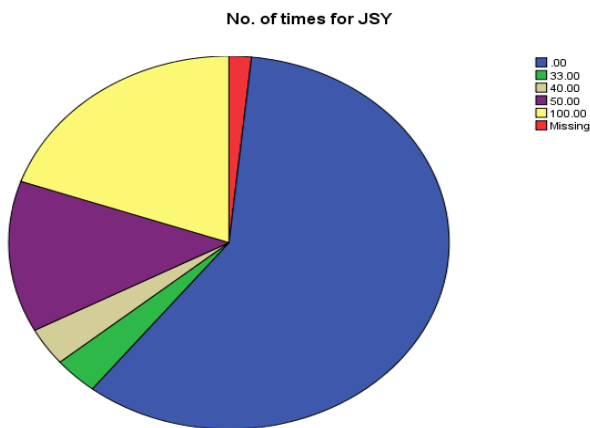


Figure 7

3.2.2 Visits to nearby PHC/SC/CHC in last three months:

From Table 12 it is clear that 73.3% of the respondents have never been to a PHC/ CHC or SC in last three

months. Only 3.3 % of the respondents have visited 4 or more than 4 times their nearby PHC/CHC/SC in last three months.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	132	72.1	73.3	73.3
	1	36	19.7	20.0	93.3
	2	6	3.3	3.3	96.7
	4	6	3.3	3.3	100.0
	Total	180	98.4	100.0	
Missing	System	3	1.6		
Total		183	100.0		

Table 12: Visits to nearby PHC/SC/CHC in last three months

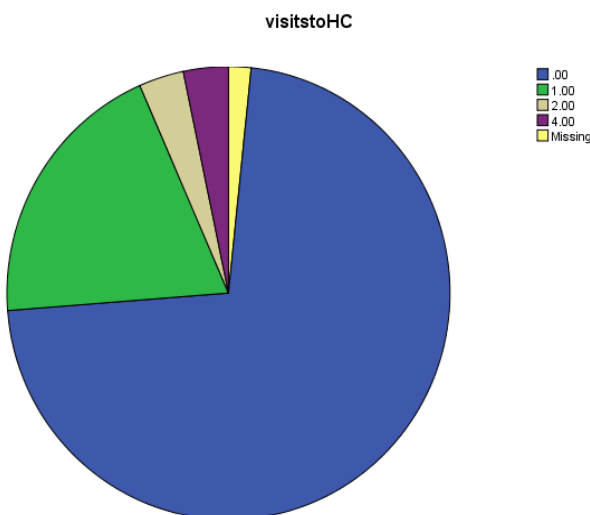


Figure 8

3.3 Satisfaction level for various Determinants:

In the study for above variables, a five point scale was taken, and the mean scores show following results:

3.3.1 Satisfaction with the Behavior of Staff: The items in this category show low scores as 2.43, 2.8, 3.13 and 2.56 which is a negative indication.

3.3.2 Faith in Training and Capabilities of Staff at Health Centres: For training and capability of staff respondents have shown scores 3.00 and 3.5 which is neutral and slightly positive respectively.

3.3.3 Satisfaction with Financial Incentives and Benefits: The scores in this category also are on the lower side. The mean satisfaction score with disbursement is 2.6 which is a negative indicator. However satisfaction score with amount is 3.2 which is not very high.

3.3.4 Readiness of Staff for Service: For this variable also the mean score is 2.8 which is not negative but still not satisfactory.

3.3.5 Availability of Doctors: Here the mean satisfaction score is 3.7 which is slightly positive and it shows that doctors are present in the health centres during their working hours

3.3.6 Availability of Staff: With a mean score of 3.2 availability of staff again has a neutral score and moreover but people have not given a negative indication for availability of staff.

3.3.7 Capability of Doctors: In this item people have shown the highest score which is 3.8. Respondents have a positive perception towards the capability and skills of a doctors and have faith in their treatments.

3.3.8 Overall Satisfaction with Treatment: The overall treatment experience again come to 3.4 which is not negative but it is also not positive.

	N	Mean	Std. Deviation	Minimum	Maximum
Satisfaction with Behavior of Staff	180	2.4333	.99215	1.00	5.00
Readiness of staff to Serve	180	2.8000	.98253	1.00	4.00
Supportive Attitude of Staff	180	3.1333	1.78885	1.00	5.00
Dedication of staff	180	2.5667	1.05756	1.00	5.00
Training of staff	180	3.0000	1.06755	1.00	5.00
Satisfaction with Disbursement of Financial incentives	180	2.6000	1.02265	1.00	5.00
Capability of Staff	180	3.5667	3.74031	1.00	5.00
Satisfaction with amount of Financial Incentive	180	3.2000	.87421	1.00	5.00
Availability of doctor	180	3.7778	2.44848	1.00	5.00
Availability of Staff	180	3.2000	1.11566	2.00	5.00
Capability of Doctor	180	3.8333	1.07016	1.00	5.00
Satisfaction with Treatment	180	3.4000	1.08623	1.00	5.00

Table 13: Descriptive Statistics for Various Items

3.4 Access to PHC/CHC/SC:

Table 14 shows that only 36.7% of the respondents were satisfied with the location of the PHC/CHC/SC of their area. Only 33% respondents showed satisfaction with the availability of the mean of transportation to reach PHC/CHC/SC. Only 33.3% respondents said that it is convenient for them to reach nearby PHC/CHC/SC in case of emergency. And for the ease of access to nearby Health Centres only 46.7% responded answered positive.

Proximity of PHC/CHC/SC (Location)	36.7%
Availability of Transportation	33%
Convenience in case of Emergency	33.3%
Access	46.7%

Table 14: Access to PHC/CHC/SC

3.5 Use of family Planning Methods:

Table 15 shows that only 36.7 % respondents are using any family planning method.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	66	36.1	36.7	36.7
	No	114	62.3	63.3	100.0
	Total	180	98.4	100.0	
Missing	System	3	1.6		
Total		183	100.0		

Table 15 Use of Family Planning Method

IV. DISCUSSION AND RECOMMENDATIONS

- Looking on the results of study, the predictions are that there is an ongoing need to improve the poor health outcomes through improved access to health care system.
- Looking up to the interest of rural population towards private health centers, government along with strengthening rural healthcare system, should also focus on strengthening of private set ups in the remote areas fir reasonable cost and should increase the affordability for people for treatment from a private health centers.
- The poor awareness level towards the various schemes show that the communication mix of the government of Rajasthan is not efficient and the rural population is still not aware about all the benefits of the various schemes. For this, as suggested in the in depth interview, the private *Medical Practitioners, Gram Sevaks* and *Sarpanch* should be motivated to create awareness and motivate people for usage of various schemes and family planning methods.
- For the poor response for the utilization of family planning methods, when asked in the in depth interview, respondents were aware of the methods but they were apprehensive about the usage and effects the methods and there were many myths and misconceptions about the methods which can be taken care of through their proper education. In the interview they reviled that they believe more on the *Gram Sevaks, Sarpanchs* than the medical staff and practitioners so these medium of communications must be utilized more.
- Through the interviews, Cleanliness and Hygiene were also identified as affecting variables. So the efforts from the governments should be focused for providing better standards of hygiene and facilities at government health centers.
- In the in depth interview respondents complained that staff at Helath Centres pay less attention to their needs, they are not cooperative with patients and their relatives, some of the responses were like *"It seems they don't want to talk to us..."*
- Despite of slightly positive response towards the skills and capability of staff, the layman does not have faith in the skill and potential of staff. In the in depth interview the finding were that most of the patients don't rely on the suggestions and remedies suggested by the staff at Health Centres. The statements like *"They don't know anything at government Health Centres..."*.
- A research study conducted by Centre for Operation Research has already indicated a fierce need of training of ASHA, JSY and Health Centre staff people. (15)
- In the interview the general perception included statements like *"They keep money for themselves..."* *"I done even know how much amount had to be paid to me during my last delivery..."* Show that there is need to educate people about the amount of financial benefit, they are liable for. The latest initiative from

Government of Rajasthan has started sharing informing through text messages about the financial incentive schemes under JSY (Annexure 2)

- The interview also revealed that most of the respondents; when informed about the actual benefits under various schemes; were satisfied with the amount but really concerned with the right disbursement of the funds. Although some of the respondents complained about unavailability of free medicines at the PHCs. The statement such as *“The amount is sufficient if we know and get benefits in a proper manner.”* show their readiness to learn about their benefits they can avail.
- During the whole study the research team also observed that respondents were ready to listen to the information provided by the team and they were keen to learn about new schemes and the benefits which can be availed.
- The poor satisfaction with transport facilities suggests that there is lack of transport facilities available, especially in case of emergency transportation must be available to facilitate women to attend hospitals for deliveries or for referral of complicated cases. Policy on this issue needs to be framed.
- Considering the inclination towards private medical Centers Government should search for a policy for Accreditation of private providers of delivery services as it assumes a greater significance as substantial proportion of deliveries, and complicated diseases are cured by them if the family can afford.
- In the study some of the respondent also suggested for an efficient Grievance Redressal system there the necessary actions can be taken for the complaints. The government can frame a policy in this direction for better control and managerial effectiveness at the health centers.

V. CONCLUSION

The main strength of the study deserves mention: the study is based on current information collected during visits to Health Centres, which requires less memory recall. The limitations also need to be noted. However the quantitative analysis can still be extended in the upcoming researches and more representative groups like Sarpanchs, Medical Practitioners, staff at health centres, ASHA Sahyoginis etc. also need to be taken into consideration before forming any policy or strategy in the field.

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Key Indicators for India from NFHS-3	Residence				Education			NFHS-2 (1998-99)	NFHS-1 (1992-93)
	NFHS-3 (2005-06)		No educatio n ¹	<5 years complete ¹	5-9 years complet e ²	10 years complete and above ¹			
	Urban	Rural							
Marriage and Fertility									
1. Women age 20-24 married by age 18 (%)	47.4	29.3	56.2	76.5	64.8	46.2	14.1	50.0	54.2
2. Men age 25-29 married by age 21 (%)	32.3	18.1	40.3	56.4	46.8	34.0	16.4	0.8	0.8
3. Total fertility rate (children per woman)	2.7	2.1	3.0	3.6	2.5	2.4	1.9	2.9	3.4
4. Women age 15-19 who were already mothers or pregnant at the time of the survey (%)	16.0	8.7	19.1	32.6	21.2	13.5	5.2	0.8	0.8
5. Median age at first birth for women age 25-49	19.8	20.9	19.3	18.7	19.0	20.1	23.6	19.3	19.4
6. Married women with 2 living children wanting no more children ³ (%)	84.6	89.7	81.6	75.7	87.0	86.8	92.1	72.4	59.7
6a. Two sons	89.9	92.1	88.6	83.5	91.7	92.4	95.0	82.7	71.5
6b. One son, one daughter	87.0	92.8	85.3	79.0	91.2	90.4	94.7	76.4	66.0
6c. Two daughters	61.4	74.7	54.4	48.0	62.0	63.5	77.5	47.0	36.9
Family Planning (currently married women, age 15-49)									
Current use									
7. Any method (%)	56.3	64.0	53.0	52.1	63.0	58.6	61.1	48.2	40.7
8. Any modern method (%)	48.5	55.8	45.3	45.7	55.5	50.2	50.4	42.8	36.5
8a. Female sterilization (%)	37.3	37.8	37.1	39.7	46.7	37.8	26.0	34.1	27.4
8b. Male sterilization (%)	1.0	1.1	1.0	1.2	1.4	0.8	0.9	1.9	3.5
8c. IUD (%)	1.7	3.2	1.1	0.6	0.7	1.9	5.2	1.6	1.9
8d. Pill (%)	3.1	3.8	2.8	1.8	3.9	4.5	4.0	2.1	1.2
8e. Condom (%)	5.2	9.8	3.2	2.2	2.7	5.3	14.7	3.1	2.4
Unmet need for family planning									
9. Total unmet need (%)	12.8	9.7	14.1	13.6	10.4	12.9	11.4	15.8	19.5
9a. For spacing (%)	6.2	4.5	6.9	5.5	5.2	7.4	6.5	8.3	11.0
9b. For limiting (%)	6.6	5.2	7.2	8.1	5.2	5.5	4.9	7.5	8.5
Maternal and Child Health									
Maternity care (for births in the last 3 years)									
10. Mothers who had at least 3 antenatal care visits for their last birth (%)	50.7	73.8	42.8	29.8	52.1	64.6	85.3	44.2	43.9
11. Mothers who consumed IFA for 90 days or more when they were pregnant with their last child (%)	22.3	34.5	18.1	9.5	20.6	27.5	49.4	0.8	0.8
12. Births assisted by a doctor/nurse/LHV/ANM/other health personnel (%) ²	48.8	75.3	39.9	27.9	48.0	61.9	86.8	42.4	33.0
13. Institutional births (%) ²	40.8	69.4	31.1	19.8	38.9	52.9	80.6	33.6	26.1
14. Mothers who received postnatal care from a doctor/nurse/LHV/ANM/other health personnel within 2 days of delivery for their last birth (%) ²	36.8	60.8	28.5	18.0	34.1	46.4	73.4	0.8	0.8
Child immunization and vitamin A supplementation²									
15a. Children 12-23 months fully immunized (BCG, measles, and 3 doses each of polio/DPT) (%)	43.5	57.6	38.6	26.1	46.1	55.3	71.0	42.0	35.5
15b. Children 12-23 months who have received BCG (%)	78.1	86.9	75.1	64.7	80.9	88.8	96.5	71.6	62.2
15c. Children 12-23 months who have received 3 doses of polio vaccine (%)	78.2	83.1	76.5	74.1	75.4	80.4	87.0	62.8	53.6
15d. Children 12-23 months who have received 3 doses of DPT vaccine (%)	55.3	69.1	50.4	36.9	57.3	68.4	83.5	55.1	51.7
15e. Children 12-23 months who have received measles vaccine (%)	58.8	71.8	54.2	41.0	58.7	71.8	86.1	50.7	42.2
16. Children age 12-35 months who received a vitamin A dose in last 6 months (%)	24.9	26.8	24.2	17.9	25.8	30.7	34.4	0.8	0.8
Treatment of childhood diseases (children under 3 years)²									
17. Children with diarrhoea in the last 2 weeks who received ORS (%)	26.2	32.7	24.0	18.2	19.2	29.8	43.4	26.9	17.8
18. Children with diarrhoea in the last 2 weeks taken to a health facility (%)	61.5	65.4	60.2	56.2	60.5	64.6	70.4	65.3	61.9
19. Children with acute respiratory infection or fever in the last 2 weeks taken to a health facility (%)	70.5	80.1	67.5	65.6	68.4	74.4	78.8	0.8	0.8
Child Feeding Practices and Nutritional Status of Children^{2,3}									
20. Children under 3 years breastfed within one hour of birth (%)	23.4	28.9	21.5	15.9	27.7	29.1	33.0	16.0	9.5
21. Children age 0-5 months exclusively breastfed (%)	46.3	40.3	48.3	48.1	55.9	44.3	40.8	0.8	0.8
22. Children age 6-9 months receiving solid or semi-solid food and breastmilk (%)	55.8	62.1	53.8	49.1	51.5	58.4	69.6	0.8	0.8
23. Children under 3 years who are stunted (%)	44.9	37.4	47.2	53.2	48.4	41.4	26.3	51.0	0.8
24. Children under 3 years who are wasted (%)	22.9	19.0	24.1	26.8	25.0	20.4	15.1	19.7	0.8
25. Children under 3 years who are underweight (%)	40.4	30.1	43.7	50.2	45.8	34.9	20.5	42.7	51.5
Nutritional Status of Ever-Married Adults (age 15-49)									

26.	Women whose Body Mass Index is below normal (%)	33.0	19.8	38.8	40.9	34.9	28.7	16.2	36.2	na
27.	Men whose Body Mass Index is below normal (%)	28.1	17.5	33.1	38.7	34.6	28.8	15.6	na	na
28.	Women who are overweight or obese (%)	14.8	28.9	8.6	7.6	12.1	18.7	30.7	10.6	na
29.	Men who are overweight or obese (%)	12.1	22.2	7.3	3.9	6.3	10.2	23.6	na	na
Anaemia among Children and Adults										
30.	Children age 6-35 months who are anaemic (%)	78.9	72.2	80.9	84.1	78.1	77.0	69.4	74.2	na
31.	Ever-married women age 15-49 who are anaemic (%)	56.2	51.5	58.2	60.2	57.9	54.6	46.6	51.8	na
32.	Pregnant women age 15-49 who are anaemic (%)	57.9	54.6	59.0	63.0	58.5	56.2	47.4	49.7	na
33.	Ever-married men age 15-49 who are anaemic (%)	24.3	17.2	27.7	33.4	28.9	22.6	16.9	na	na
Knowledge of HIV/AIDS among Ever-Married Adults (age 15-49)										
34.	Women who have heard of AIDS (%)	57.0	80.7	46.4	30.7	78.0	96.7	40.3	na	na
35.	Men who have heard of AIDS (%)	80.0	94.2	73.0	50.7	88.3	98.3	na	na	na
36.	Women who know that consistent condom use can reduce the chances of getting HIV/AIDS (%)	34.7	56.3	25.1	12.5	47.5	81.0	na	na	na
37.	Men who know that consistent condom use can reduce the chances of getting HIV/AIDS (%)	68.1	85.6	59.5	33.9	76.0	93.2	na	na	na
Women's Empowerment										
38.	Currently married women who usually participate in household decisions (%)	36.7	45.0	33.0	34.9	35.9	43.5	na	na	na
39.	Ever-married women who have ever experienced spousal violence (%)	37.2	30.4	40.2	46.4	32.4	16.3	na	na	na

na : Not available

¹Excludes pregnant women.

²Based on the last 2 births in the 3 years before the survey to ever-married women.

³Based on WHO standard.

⁴For children education refers to mother's education. Children with missing information on the mother's education are not included in the education columns.

Annexure 1



Department of Medical, Health and Family Welfare is widely spread all over the Rajasthan state having its administrative and health services office at various levels **State HQ at Jaipur, Joint Director (Zone) offices (7), District CM&HO offices (34), Block CMO offices (249), CHCs (568), PHCs (2088) and SHC (13227).**

Various MIS projects are functional in the different sections of department. The technical services are supported by the NIC (National Informatics Centre - Rajasthan) for the design and maintenance of the online softwares. RISL (RajCOMP Info Services Limited) is providing technical support in the implementation of "Arogya Online Project" at the 15 Districts Hospitals (9 under RHSDP and 6 under NRHM).

Swasthya Sandesh Sewa (SMS Health Alerts)						
S.No.	SMS	Upto July, 13	From Aug 13 to Jan. 15	Feb-2015	Total Up to Feb 15	in Lacs
1	for Delivery schedule sent to ANM	550000	1655149	33317	2238466	22.38
2	for Immunization schedule sent to ANM	-	283944	16650	300594	3.01
3	for Vaccination reminder sent to Beneficiary	337000	3040571	158216	3535787	35.36
Total		887000	4979664	208183	6074847	60.75

Annexure 2

Author's Brief Profile:

Dr. Neelam Kalla, doctorate in HRM, has her research interests in the field of CSR, Governance and Public Policies. She has several national and international publications in her credit. She has published Articles, Research papers, Case Studies and Book reviews and presented papers in several National and International conferences.