

HEALTH STATUS AND DISEASES IN TRIBAL DOMINATED VILLAGES OF CENTRAL INDIA

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ABSTRACT

Health is one of the important indicators of social development. Health of indigenous or tribal people is the perception and conception in their own cultural system with less awareness of the modern health care and health sources. The article analyzes on as to how Gond tribes of Madhya Pradesh react to both indigenous and exogenous health management practices? What are the facilitating and inhibiting factors in their health management? How their health and diseases shall be managed in a sustainable manner? The study was conducted in a tribal dominated panchayat of Schedule V area. Interview schedule, case study, observation, group interview and documentary sources were the tools used for data collection. Historically, tribals have followed traditional healing practices. But today, not only the number of those who were not attending to any healing method have decreased significantly but also their dependence on modern health practices have increased. Villager's dependence on state initiated health management mechanisms like PHC and CHC have significantly increased. There is a need to capacitate the traditional healers by linking them with modern health institutions. If properly linked and managed, they can be an integrating force between tribal masses and the modern health practices. Also, the health centres need to be fully equipped round-the-clock with doctors and medicines.

BACKGROUND

The World Health Organization (WHO) defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity.” It is well recognized that health is not the exclusive domain of medical science because every culture, irrespective of its simplicity and complexity, has its own beliefs and practices concerning diseases. No culture works with a meaningless approach in its treatment of diseases. Every culture evolves its own

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system of medicine in order to treat diseases in its own way. Thus, treatment of disease may vary from group to group. To understand health and health related problems in a proper perspective, it is very important to consider the socio-cultural issues, economic dimensions and environmental aspects. This is more relevant in the context of tribal people, particularly living in the rural areas.

Although the National Health Policy, 1983 accords high priority to extending organized services to those residing in the tribal, hilly and backward areas as well as to the detection and treatment of endemic diseases affecting tribals, yet they continue to be one of the fragile population, mainly due to their poor health and disease management. Tribal health is one of the important areas for action in the health sector. The major contributors to the increased disease risk amongst tribal communities include- (i) poverty and consequent under nutrition; (ii) poor environmental sanitation, poor hygiene and lack of safe drinking water leading to increased morbidity from water and vector-borne infections; (iii) lack of access to health care facilities resulting in the increased severity and duration of illnesses; (iv) social barriers and taboos preventing utilization of available health care services; (v) vulnerability to specific diseases like G-6 PD deficiency, yaws and other endemic diseases like malaria etc. Also, the tribal population, being heterogeneous, there are wide variations in their health status, access to and utilization of health services.

The different tribal communities in India, represents a heterogeneous group. There is considerable variation in the context of socio-economic life, custom and tradition and behaviour and practices. Similarly, variations are also there in the context of demographic features. There is one factor common among all tribal communities except North-east tribals, it is low literacy rate and poor health status and indigenous method of disease management. The tribal illiteracy has a close link between health and disease management.

Health and disease management reflect the social solidarity of a community. In a tribal community, for example, illness and the consequent management of disease is not always an individual or familial affair, but sometimes the decision about the nature of treatment is taken at the community level. In the tribal areas, in case of some specific diseases, not only the diseased person or his/her family, but the total village community is affected. All the other families in the village are expected to observe certain taboos or norms and food habits. The non-observance of such practices often calls for action by the Village Council/ Caste Panchayat. One cannot deny the impact of this psychological support in the context of treatment and disease management.

The common beliefs, customs, traditions, values and practices connected with their health and disease have been closely associated with the treatment of diseases. In most of the tribal communities, there are number of folklores related to health. Knowledge of folklore of different socio-cultural systems of tribals may have positive impact, which could provide the model for appropriate health and sanitary practices in a given eco-system. Tribal health system and medical knowledge over ages known as 'Traditional Health Care System' or 'Indigenous Health Practices' depend both on the herbal and the psychosomatic lines of treatment. While plants, flowers, seeds, animals and other naturally available substances formed the major basis of treatment, this practice always had a touch of mysticism, supernatural and magic, often resulting in specific magico-religious rites. Faith healing has always been a part of the traditional treatment in the Tribal Health Care System, which can be equated with rapport or confidence building in the modern treatment procedure. Certain practices are suggested to avoid illness or diseases, while some are prescribed to have better health. These should not be ignored as mere folk-beliefs, but need careful attention. There are different folklores to avoid illness, during illness, regarding food and so on.

It has also been noted that among the tribals there is high incidence of communicable diseases, like: Tuberculosis, Hepatitis, Sexually Transmitted Diseases (STDs), Malaria, Filariasis, Diarrhoea and Dysentery, Jaundice, Parasitic infestation, Viral and Fungal infections, Conjunctivitis, Yaws, Scabies, Measles, Leprosy, Cough and Cold, HIV/AIDS, etc due to lack of sanitation and unhygienic living (Balgir 2005). Though the tribal communities constitute nearly 8 per cent of the total population of India, they contribute 25 per cent of the total malaria cases and 15 per cent of the total Pf cases, leading to 30-50 per cent malaria deaths in India. A high transmission of Pf is in the forest regions because malaria control in such settlements is unattainable due to technical and operational problems. In tribal areas, the diarrhoeal/dysentery diseases including cholera occur throughout the year attaining peak during the rainy season (from June to October). The acute diarrhoeal problems were basically due to poor environmental hygiene, lack of safe drinking water, improper disposal of human excreta, aggravated by low literacy, socio-economic status coupled with blind cultural belief, lack of access to medical facilities leading to serious public health problems.

With the coming of the state in the tribal areas during pre and post-independence number of changes are taking place in both material and non-material culture of tribal masses. Change in health and disease management is one among them. How tribes at large perceive health and disease today? What are the common diseases among them? Do the traditional and indigenous methods and the modern and exogenous interventions go hand in hand or there is conflict between both of

them? How they perceive and react to the new intervention which is by and large institutional? What is the state of functioning of traditional health management practices? Is there relevance and possibility of integration between the traditional and the modern treatment methods? How functioning of state induced modern health and disease management mechanisms may be made inclusive and tribal friendly in a sustainable manner? In order to address these issues this paper has written.

Study Area

The study was conducted in Pathai Panchayat of Sahpur Development Block of Betul district in Madhya Pradesh. Logic behind selecting Sahpur Block was numerical predominance of tribal population (64 per cent and included in Schedule V area). In Pathai panchayat more than 99 per cent population is tribal and is either Gond or Korku. The entire area of Sahpur is dominated by Gond population and Korku tribe exists only in a few villages. Pathai is located at a distance of about 4 kms, Nishana is 6 kms and Bhagtandhana is 8 kms from Sahpur Development Block office as well as Betul-Itarsi National Highways (NH 69). There are 386 households i.e. Pathai (200), Nishana (124) and Bhagtandhana (62) in Pathai Panchayat and all of them participated in the study. Details are as under:

TABLE 1
DEMOGRAPHIC PROFILE OF PATHAI PANCHAYAT

S. No.	Profile	Pathai	Nishana	Bhagtandhana
1	Household [^]	201	124	62
2	Population [^]	1174	672	338
3	Tribal Population [^]	1078 (91.8%)	618 (92.1%)	337 (99.7%)
4	Farmer *	85	100	52
5	Labourer*	410	56	45
6	Engaged in other work*	36	87	9
7	Literacy rate*	37.7	26.5	27
8	Name of tribe [^]	Gond	Gond	Gond & Korku
9	Geographical Area#	598.290 Hec.	3 6 3 . 8 0 4 Hec.	120.608 Hec.
10	Sex Ratio*	1030	1030	971

Note: * Data obtained from Census 2001. # Data obtained from Patwari (Revenue Official).

[^] Data obtained from field work.

Pathai Panchayat is numerically dominated by illiterates, poor and non-workers. 56 per cent households do not have land and villagers depend on wage work, farm work or both for their livelihood. The villages are near to forest. Historically tribes have been dependent on this forest for their social and economic requirements. Even today significant numbers of tribal women collect firewood from this forest in order to meet their daily needs. But in the broader sense the forest is now no more an important source of livelihood for the inhabitants of Pathai Panchayat villages.

METHODOLOGY

Interview schedule and interview guide were the two specific techniques used to collect data. Those who participated in the study were head of the household (usually male), anganwadi worker working at PHC, traditional medicine men (Bhagat), private practitioners working at Sahpur and health functionaries working at Community Health Centre (CHC) Sahpur. Information was also collected from secondary source especially from records provided by PHC, CHC and Mobile Health facility working under Deen Dayal Antyodaya Upchar Yojna. Fieldwork was carried out during 2007-09 and the findings of the study are as under:

DISCUSSIONS

Villagers Perception about Health and Disease

Perception of villagers, doctors and other health workers working in Pathai Panchayat and Sahpur was mapped to get comprehensive and comparative picture of different aspects of health and disease. So far as tribes are concerned, they have their own perception about health and healthy person. To them, healthy person is one who eats properly (5.5%), looks pleasant (18.4%), has slim body (2.3%), move around here and there easily (8.8%), looks neat and clean (5.4%), is active in day to day life (2.7%), performs hard physical work (7.9%), avoid alcohol (2.4%) and carry a glow on their face (6.9%). Happy life (8.3%), consumption of vegetarian food (3.4%) and straight posture of body (3.7%) are also indices of good health.

The interpretation about root cause of diseases in Pathai Panchayat villages are based on objective consideration. Fatalistic or metaphysical interpretation is today largely absent from the scene. Patel (1991) studied traditional health management practices among Baiga primitive tribe of Madhya Pradesh. He documented number of religious beliefs, supernatural power, unhygienic food habit, faith in the concept of sin and virtue, birth and re-birth belief, violation

of taboos etc. which were held responsible by Baigas for various diseases. He also found number of traditional treatment like worship, black magic, herbs and medicinal plants etc; being used by them for treatment. There was no role of modern medicine used for the treatment of about 44 diseases among them.

Among the tribes of Pathai Panchayat villages, the situation is totally different today. They have by and large objective interpretation of both health and disease management. For instance, most of the diseases – both simple and complex, are perceived (30%) as due to lack of cleanliness. Here cleanliness refers to cleanliness of one's body, clothes, houses, use of pure and safe drinking water, cooking utensils and so on. 27 Per cent villagers said that people become ill because their food habit and meal time is not properly managed. Remaining respondents perceived use of chemical fertilizer in agriculture contributing to increase diseases. Carelessness, consumption of unclean water and rotten food, use of meat and regular consumption of *Mahua* liquor, which is very common in Pathai, Nishana and Bhagtandhana village, and lack of proper and in time medical check-ups on a regular basis also contribute to the rise of diseases. Role of black magic or religion was hardly rated by any respondent as a key of health and disease management. Hence, all the villagers expressed objective views about indices and roots of both health and disease. Khera (1990) also observed the same thing while conducting study on Baiga tribe of Madhya Pradesh. According to him "The Baiga are fully acquainted with the mosquitoes, the deadly cerebral malaria that infests the region as well as other poisonous insects and have developed special protective measures for it as well as for snake bite, bear bite, dog bite etc. It is their knowledge about medicinal plants and herbs that has made them famous. Indeed a Baiga is sought after as the healer of the area". Similar studies carried out by NIHFW among the Gond (Muria and Madia), Bhatra, Halba tribal groups of Bastar district of Chhatisgarh showed following trends (Basu et al. 1989):

- (a) The average protein calorie intake was found to be much less in the Gond children as compared to Bhatra and Halba children.
- (b) Higher frequencies of Biot's spot, Angular stomatitis and mottling of teeth were found among Gond children as compared to Bhatra and Halba children.
- (c) Muscular wasting was noticed to be higher in Gond children as compared to Bhatra children.

Doctors Perception about Disease

To them some of the common diseases and health problem found in Sahpur area in general and Pathai Panchayat villages in particular (as narrated by 2 MBBS doctors who are practicing at Sahpur) are fever, vomiting and dysentery,

malaria, joint-ache, cough and cold, body-ache, swelling in leg, swelling in lever, tuberculosis, chicken-pox and small-pox, throat infection, piles, skin disease, sexually transmitted disease, jaundice, abortion, anaemia, habit of eating soil, snake bite, delivery, fracture, tooth pain, wound, cut, itching, and so on.

According to them, such diseases occur primarily because of malnourishment, lack of vitamins in food, poverty, lack of awareness about health and disease management, lack of sufficient treatment facility at Sahpur hospital, lack of de-worming treatment, etc. They observed that tribes not only make delay in approaching doctor/proper health service provider, but also there is total lack of follow-up on the part of patients. Chaudhary and Singh (2006) observed a similar narrative made by the local medicine man which inhibit patient to approach modern health institution at the earliest. The healer narrated: "If somebody is bitten by scorpion, crushed *kapur* is applied on the bitten part to remove poison. If it fails, which usually does not, then *jhar-phuk* technique is used. If bitten by snake like Kobra, Kaili, Padmani and Patalhari, both *jhar-phuk* technique and very small tablet made out of poisonous kalihari kund is taken with water. If it fails then only patient is brought to hospital at Tamia".

Respondents hesitate to revisit doctors when they are asked to visit twice or thrice. As a result, the treatments remain incomplete which in many case results in re-appearance of some of the diseases especially malaria in a more complicated form (typhoid), after few weeks or months. It was reported that in many cases most of the patients suffering from common ailments do not complete the total course of treatment as prescribed by doctors. Needless to mention that cataract, itching, ulcer and malaria are the very common diseases in the entire district, since long (Gazetteer of India, 1907, reprint 1999: 228).

On the basis of these two sets of interpretation; especially of health and disease, it may be said that both experts and villagers have more or less similar perception about types of diseases as well as factors and conditions which originates and contributes to these diseases. Tribal perception about health and diseases in an objective manner clearly refers to the fact that now gone are the days of magico-religious explanation of disease and illness. This development has taken place because of numerous exogenous factors, especially due to the state initiated health management institutions at the village and at the district level.

Disease Preventive Measures at Village level

At the family level many of the villagers take regular bath, use soap for bathing, follow modern teeth cleaning methods, take food in time, consume so-called clean

water, wash hand after toilet and most of the villagers also do physical labour. At the village level, some efforts are made by Anganwadi Workers to make villagers aware about importance of environmental cleanliness and names and reasons of air and water born disease, villagers are also advised to take precaution in their day to day life in order to keep away the diseases. In the recent past several efforts have been initiated at the village level in order to improve health and disease management of villagers. Important among these are:

Total Sanitation Campaign

Total Sanitation Campaign (TSC) is an intervention for environmental up-gradation. This project is directed to provide toilet facility in all the households where this facility is not available. Besides household, this facility is provided to all the schools and Anganwadi Kendras. It is also directed to encourage cleanliness in the village and teach lesson to keep hygienic atmosphere of cooking place and space clean in and around house and the place where drinking water is kept.

So far as Pathai Panchayat villages are concerned, here during 2007-08 in more than 50 per cent household toilet facility was provided. It was promised that this facility will be extended to other households in the due course. It was assumed that villagers will use this technique and help each other in the environmental up-gradation, which will subsequently keep them healthy.

But the picture was altogether different in 2009. We observed that most of the toilets are not in a working condition. Length and breadth of toilet is small and villagers hesitate to use it because of its narrow size. In certain cases it is used only by children. There are other inhibiting factors. The village is surrounded by forest and there is no paucity of open space. Therefore, by habit, villagers prefer to defecate in the open space and the so-called awareness programme initiated by PHC and Gram Panchayat has turned out to be a failure to change the mindset of the people. Also, villagers prefer open space because it requires less amount of water in comparison to their home based recently constructed toilets. In some of the households, however, people use their toilet in the rainy season. It is needless to mention that in large number of houses *Mahua* liquor is prepared for their own consumption as well as for market. We observed that some of the toilets, which is totally unused, villagers use it as a store room for *mahua* liquor equipments. We have observed that villagers at large neither know the negative implications of huge consumption of *mahua* liquor on their health nor they know the positive impact of use of family based toilet on their health and environment.

Safe Drinking Water

There are 22 Hand Pumps in Pathai Panchayat i.e. Pathai (11), Nishana (8) and Bhagtandhana (3) villages. However, during 2006-09, 28 wells were constructed under MNREGS of which 23 are well used even today. These wells satisfy domestic as well as agriculture requirement of water in a successful manner. In the past, villagers at large used to face drinking water problem. Today not only this problem is resolved but also this scheme has ensured supply of safe drinking water.

Public Distribution System (PDS)

In order to address the problem of food insecurity and mal-nutrition there is a special provision for the poor. Blue and yellow ration cards have been issued to obtain food grain at the cheaper rate from the local PDS shop for BPL family. For instance, while APL (Above Poverty Line) card holders receive wheat at the rate of Rs. 7/- per Kg., BPL (Below Poverty Line) and most poor (Antyodaya Anna Yojana) Card holders (Yellow Card) receives at the rate of only Rs. 3/- and Rs. 2/- per Kg. respectively. Other food grains have also been provided to them at the cheaper rate. But Kerosene Oil has not been given in subsidized rate to BPL or AAY card holders.

TABLE 2
FOOD GRAINS PROVIDED BY PDS AT PATHAI PANCHAYAT VILLAGES

Category of Family	Item	Quantity (in Kg/Liter)	Price (per Kg./Liter)
APL (White Card)	Wheat	10Kg.	7/-
	Kerosene Oil	4 Lt.	10/-
BPL (Blue Card)	Wheat	20Kg.	3/-
	Rice	4 Kg.	6.50/-
	Sugar	2Kg.	13.50/-
	Kerosene Oil	5 Lt.	10/-
Antyodaya Anna Yojana (AAY) (Yellow Card)	Wheat	31Kg.	2/-
	Rice	4Kg	3/-
	Sugar	2Kg.	13.50/-
	Kerosene Oil	5 Lt	10/-

Source: Obtained from PDS Shopkeeper on Dec. 2008 .

Social Forestry

During 2007-08 efforts were made by Panchayat to undertake plantation work in Pathai and Nishana village. In Pathai 27.5 acres of government land were undertaken for this purpose. Similarly in Nishana village 32 acres of land came under social forestry project. Altogether Rs. 1.30 lacs was spent during 2007 and 1.50 lacs in 2008 for plantation purpose. By doing this Panchayat created 7875 man-days employment under MNREGS. Towards the end of 2007 it was found that about 40 per cent of the seedlings had dried. To fill up the gap new seedlings were planted in 2008. Since this is a social forestry project therefore, in the due course, besides environmental up-gradation this project is also supposed to meet needs of fuel, fodder and non-timber forest produce to villagers.

Health and Disease Management

Number of institutional and non-institutional agencies/bodies are working both at the village and at the Block level to provide modern health and disease management to villagers. Most of these arrangements have been made by the government. Important among these are:

Primary Health Centre (PHC)

PHC is working in Pathai since the middle of 2008. It covers four villages namely Nishana, Pathai, Bhagthandhana and Palaspani. Centre has one trained health worker (ANM). Besides serving at the Centre the worker also moves in each of the villages for awareness generation as well as for extending treatment facility to the needy. Some of the important assignments performed by the PHC are: distribution of medicine free of charge, complicated cases are referred to Sahpur Community Health Centre (CHC), assist villagers to understand procedure to take medicine as prescribed by CHC, awareness generation relating to preventive measures etc. Some of the diseases commonly treated at PHC are fever, cough, dehydration, stomach pain, knee pain, vomiting, eye ailment, cough and cold, headache, breast pain, teeth pain, pneumonia, wound, ear ailment, itching and so on. In the case of failure or partial issues the case is referred to the Sahpur CHC or District Hospital.

During last one year (October 2008 to September 2009) PHC treated altogether 1013 patients belonging to Pathai, Nishana, Bhagtandhana and Palsapani villages. Most of the patients were between the age group of 6 to 35 years. July and August were the peak months during maximum number of patients received treatment.

TABLE 3
AGE AND MONTH-WISE NUMBER OF PATIENTS WHO AVAILED TREATMENT
AT THE PHC

Months	Age (in Years)						Total
	0-1	2-5	6-14	15-35	36-60	60+	
Oct. 08	7	8	24	40	19	01	99
Nov. 08	11	16	16	15	20	5	83
Dec. 08	05	13	22	21	07	10	78
Jan. 09	-	13	10	16	14	06	59
Feb. 09	03	19	28	12	17	03	82
March 09	06	33	16	16	16	04	91
April 09	01	09	07	05	04	03	29
May 09	02	11	05	15	06	-	39
June 09	03	12	09	22	06	06	58
July 09	01	16	29	26	17	10	99
Aug. 09	04	38	74	68	33	13	230
Sep. 09	06	15	18	13	10	04	66
Total	49	203	258	269	169	65	1013

Source: Taken on 20/11/2009 from Register available at PHC Pathai village.

In spite of the fact that on an average 84 patients were treated in each month during 2008 and 2009. PHC and the ANM (Auxiliary Nurse Mid-wife) is facing some of the fundamental challenges in its day to day functioning. These challenges are of two type viz. challenges at the place of work and challenges relating to procedural mechanisms. While the former includes resistance by husbands or other male family members in the case of permanent sterilization of women, confusion among women that sterilization will contribute to number of ailments in the due course such as weakness, illness and fatness, problem of interaction between ANM worker who knows Marathi language and villagers who do not know this language and so on. The latter category includes shortage of essential medicines which PHC receives from CHC, lack of essential treatment facility and lack of instruments like delivery related package, pathological test facility and lack of helping hand. Today the coverage area is big and PHC worker has also to attend weekly meeting on Saturday at CHC, as a result of which she is not available at PHC on that particular day.

Anganwadi Kendra

Anganwadi Kendra (AK) is working in Pathai, Nishana and Bhagtandhana since 1996. There is one Anganwadi worker and one helper posted at every Centre. Anganwadi Worker is responsible to motivate villagers to follow institutional delivery, family planning devices, immunization and other modern health management practices. In order to strengthen health status of women, Iron Folic Acid (IFA) tablet is frequently distributed among them. From 2007 to 2009, 199 women were provided this tablet.

Because of increasing health awareness among villagers as well as spread of state led health and disease management facilities number of children suffering from mal-nutrition is lower in comparison to the normal children. Indicators of mal-nourishment is both gender and age specific as per the indicators and guideline prepared by the WHO. Such as female infant of less than 6.5 kg and male infant of less than 7 kg are called severely mal-nourished. Similarly, female infant between 7 kg to 8.75 kg and male infant between 7.75 kg and 9.5 kg are termed as normal infant respectively. For instance, of 218 children up to 5 years in Pathai Panchayat villages during 2009, 67 per cent were normal, 24 per cent were mal-nourished and remaining 9 per cent were severely mal-nourished. However, the problem of mal-nourishment is more serious among girls in comparison to boys.

Immunization programme carried out by the Anganwadi Kendra is popular in the village. All the alive children of the specific age group are provided this facility. During 2007, 2008 and 2009, 31, 36 and 30 children were covered under immunization scheme respectively. Because of immunization project number of infant's death have significantly decreased. During 2007, 2008 and 2009 there was death of 3, 4 and 2 infants respectively. But in spite of this facility the rate of infant death is higher in comparison to death among other age groups. For instance, between 2006 to 2009 total 30 death occurred in Pathai panchayat villages of which maximum death (16) was of infant i.e. 10 male infant and 6 female infant. Also, in all the age groups rate of death is higher among men (19) than women (11). There was no case of any maternal mortality during this period.

Community Health Centre (CHC)

Community Health Centre located at Sahpur is headed by Block Medical Officer (BMO). Besides running a 30 bedded hospital the centre is also managing *Janani Suraksha Yojna* (JSY) and *Deen Dayal* Mobile Hospital (DDMH). At Sahpur CHC hospital most of the time beds are engaged. For registration, Above Poverty Line (APL) patients have to pay Rs. 2/- but for Below Poverty Line (BPL) patients

registration is free. There are 3 Doctors working at this centre. Some of the common diseases for the treatment of which patients at large visit CHC are: fever, cough, cold and headache. Delivery facility as well as family planning operation is also performed at this Centre.

During 2008, total 32,665 patients visited Sahpur CHC for treatment. In Pathai Panchayat there are about 2201 population of which 1926 patient visited this hospital. If we see month-wise variation it is evident that during the months of July, August and September maximum number (994) of patients visited to this hospital for treatment. During these three months number of patients from the CHC catchment area was also highest (12501). This shows that during these three months number of patient's increases not only in Pathai Panchayat villages but also in the entire catchment area.

TABLE 4
NUMBER OF TOTAL PATIENT REGISTERED AT SAHPUR CHC DURING JAN-DEC. 08.

Month	Sahpur	Villages		
		Pathai	Nishana	Bhagtandhana
January	2292	52	17	8
February	2014	38	18	7
March	1948	51	38	17
April	1606	67	53	29
May	1886	65	52	22
Jun	2350	71	59	37
July	3508	153	93	89
August	4424	165	107	97
September	4569	116	96	78
October	4659	56	39	17
November	2559	40	28	8
December	850	22	16	5
Total	32665	896	616	414

Source: Data obtained from OPD Register of CHC, Sahpur Block in Dec. 08.

Janani Suraksha Yojana (JSY)

This scheme was introduced to provide an opportunity of safe and institutional delivery to women from below poverty line (BPL). Under this scheme economic

assistance is provided to expected mother at the time of delivery. Earlier Rs. 700/- was paid to the concerned woman but today its amount have been increased to Rs. 1400/-. From 2005 to 2007, 175 women from Pathai Panchayat villages have received the support of Rs. 240750/- under this scheme.

Success of JSY may be realized from the fact that between 2006-09 altogether 142 births took place in Pathai Panchayats villages of which 96 took place at hospital and remaining 46 at home. While in the case of former service of nurse was received in the case of latter Dai (both trained and untrained) played crucial role. This data clearly reflect increasing trend in favour of institutional delivery.

Deen Dayal Mobile Hospital

Deen Dayal Mobile Hospital (DDMH) is directed to work in the Development Blocks which are numerically dominated by ST population. Most of them are poor with having poor access to modern health facility. This facility is extended to them free of cost. In Madhya Pradesh, this scheme was introduced on May 26, 2006 in a phased manner. Today this facility is in operation in 86 Tribal Development Blocks, with having 92 Mobile Units. If we see the statistics, it is obvious that from its inception (May 26, 2006) to February 2009, 43,75,414 patients have received treatment. During 2008-09 alone at the state level a sum of Rs. 11.78 crores have been spent on this head. A large number of NGOs have been involved in this task.

Some of the health management activities done by DDMH are as under:

1. Medical advice to patients, first aid and free distribution of medicine,
2. Health Checkup before and after delivery and free distribution of medicine,
3. Collection of blood and spittoon sample relating to malaria and TB disease,
4. Identification of serious patients in villages and refer the case to CHC and other hospitals, Immunization, and
5. Awareness programme relating to various family planning devices, welfare schemes and education.

Mode of Functioning

So far as Sahpur Development Block (SDB) is concerned here a Delhi based NGO named Jagran Solution (An Unit of Jagran Prakshan Private Limited) is running this project since October 2007. There is MOU between this NGO and Health Department of Government of Madhya Pradesh for 3 years which may be extended for another 2 years after review.

Under this scheme a properly equipped vehicle moves in the villages, attends all weekly markets and other common places. It has to follow a rout chart prepared and provided by the Block Medical Officer (BMO). The vehicle moves between 10 am to 6 pm to provide treatment, free medicine and free advice. The mobile hospital examines 100 patients each day and 300 pregnant women in each month. This target is pre-fixed. Besides the facility of GPS, Table for diagnosis, BP test instrument, instrument relating to treatment of pregnant women, IUD kit, contraceptive pills and other material, oxygen mask, blood counter, first aid kit, the vehicle is also loaded with instruments relating to popularization of population education such as TV, DVD, White Board, Chart, Loud Speaker and so on. The mobile van receives medicine from CHC free of cost and it also distributes the same without any charge.

Besides these facilities in each mobile hospital there is a facility of pathological lab, one oxygen cylinder and stature, one MBBS doctor, one pharmacist, one trained ANM, one supervisor and one driver. The mobile hospital moves for 6 days in a week and on an average 26 days in a month. In the beginning of the month rout chart prepared by BMOs in consultation with field staff, is provided to the mobile hospital in-charge. In most of the cases this chart is followed. Sector Medical Officer (SMO), BMO, DMO, CMHO, Janpad Panchayat are the important institutions which have been entrusted to examine the functioning of mobile hospital.

In short, roughly about 1950 patients are examined and treated in each month in the villages of Sahpur. Making comments on the achievement, dresser of this mobile hospital R.K. Pandegra said:

“In spite of lack of ECG machine and spittoon slide in the mobile hospital, this project has reduced the cases of disease among poor dalits and tribal in a significant manner. People at large know about mobile hospital and they eagerly wait for it. Its intervention has provided them health facility at their door step”.

Private Doctors at Sahpur

There are 06 chemist shops and private practitioners at Sahpur. The chemist shops provide advice to the patients on demand and accordingly they also prescribe medicine for various ailments even on credit. In different *Kirana* shops also medicines for minor ailments are prescribed and sold. Similarly there are 06 Allopathic doctors and 02 Homeopathy Doctors as a private practitioners at

Sahpur. Villagers of Pathai Panchayat also frequently visit to them for treatment purpose.

CONCLUSION AND SUGGESTIONS

Above observation clearly denotes that today tribes at large, especially those who are exposed to outside world, are no more dependent on their traditional healing practices in the case of most of the diseases. Only for snake bite, which is rare, they are still dependent on traditional system. Villager's dependence on state initiated health management mechanisms like PHC and CHC have significantly increased. Efforts and initiatives taken by CHC are very popular among them. More or less similar situation is PHC. The ever increasing number of patients registered for treatment at both the centres is a testimony to this observation. Also, number of schemes managed by CHC is very popular in tribal villages. Villagers do not hesitate to consult these formal institutions in need.

But this is one side of the coin. The other side needs introspection and overhauling of the total health and disease management mechanism especially in the light of the scattered and poorly connected geographical space where tribes are located and their limited psychological and economic carrying capacity. In spite of the presence of traditional medicine men in many tribal villages, tribes prefer to go to institutional arrangements. But the question is to what extent these institutions, especially PHC is well equipped? Neither the ANM is properly trained to diagnose the disease nor the centre has sufficient medicine and other essential facility to address all patients in a proper manner. Catchment area of ANM is vast. Most of the time ANM is in the field and during this time at the PHC, the visitors are unattended. Besides providing treatment the ANM worker has also to do number of official assignments. In case the ANM is an outsider and also from different cultural background and mindset, they do not associate themselves closely with villagers.

So far as CHC and its different activities are concerned, of course it has become popular over the time, but neither these interventions are well equipped nor easily available to poor tribal in need. Even in the critical situation safe delivery is not possible at the CHC hospital. Patients are referred to Betul based government district hospital. Mobile hospital is neither well equipped nor very frequent in all the villages. There is no proper and frequent monitoring of its functioning. Medicines prescribed by chemist shop is one of the testimonies to this state of affair.

It is true that tribal dependence on modern health and disease management institutions have increased over the time but still there is traditional healers. For the treatment of some of the diseases villagers still go to them. But in spite of that there is no effort to modernize these traditional healers. Traditional knowledge possessed by these healers will disappear with their death because traditionally neither they share this knowledge with new generation nor the new generation is interested to learn this knowledge. But relevance of such knowledge especially from the point of view of poor tribal cannot be completely ignored.

In the light of these findings it can be said that modern health and disease management initiatives have become very popular in tribal villages. Gradually it has made them dependant prone. It has directly or indirectly created environment and mindset against the traditional healing methods. Under the given situation if there is reluctance and apathy on the part of state and its initiatives pertaining to effective functioning of health management schemes, nobody is there to take care of health related needs and requirements of poor tribal. This calls for formulation of action agenda in such a manner that it can ensure inclusive health management for tribal masses.

Some of the steps needs to be undertaken in this direction may be as under:

1. tribal economy, by and large revolves around their basic need and if their health status deteriorates even for few days their basic need of food etc; will be negatively affected, therefore, their health condition has to be improved and retained. For this purpose there is need to ensure proper and fruitful functioning of all the preventive measures initiated at the community level, such as supply of safe and sufficient drinking water, proper functioning of scheme like Public Distribution System (PDS), Immunization programme, Total Sanitation Campaign (TSC), Social Forestry scheme and so on. These interventions, if properly managed, will directly or indirectly create enabling factors and conditions which will not only improve health status but also it may improve other aspects of their life in a proper perspective.
2. However, functioning of all these ongoing initiatives can only be ensured provided beneficiaries at large are made aware about these schemes on constant basis. And for awareness generation, besides PHC and CHC initiatives, services of other institutions such as primary schools, gram panchayats, self help groups, NGOs etc. may be taken. In tribal areas, 'HAATS' (weekly market centres) are the focal point of activity. Each 'HAAT' should be brought under a Primary Health Centre (PHC).
3. It is true that over the time tribal's dependence on traditional healing methods have deteriorated and it is further likely to deteriorate but on this

basis alone its contribution in the past cannot be undermined. Nobody can undermine cultural legitimacy and ecological foundation of this practice. Hence, instead of discarding it, there is a need to document this knowledge in different local languages and dialects to make properties of each of the available herbs and medicinal plants popular among the masses for its wider use. There is a need to capacitate the traditional healers by linking them with modern health institutions. If properly linked and managed, they can be an integrating force between tribal masses and the modern health practices. We have to remember that modern medicine and treatment is a new entrant in the tribal world. There is also a need to organize and capacitate Jhola-chap doctors who are found in large number in villages. They are easily available, culturally accepted and many of them extend services even on credit. They have face to face relationship with poor clients. Hence, this institution needs to be capacitated and modernized in the light of current scenario.

4. There is a need to activate and strengthen PHC and CHC. Such institutions exist at their door step. Tribal's dependence on these institutions has increased over the time. This trust has to be popularized and strengthened. PHC is neither properly equipped nor the ANM is able and capable enough to create a needful environment. ANM number needs to be increased at all the PHCs. Also, an organized, structured and well-equipped training and orientation package needs to be formulated and implemented for them.

These are few suggestions from within. If handled with care, definitely it can bring some meaningful improvement in the health status and disease management of tribal masses.

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IMPACT OF BIO-SOCIAL FACTORS ON MORBIDITY AMONG UNDER-FIVE CHILDREN IN ODISHA

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ABSTRACT

Child morbidity is not a single problem with a single solution. Multiple and interrelated bio-social determinants interact and interplay demanding chain of approaches in policies and programmes to be evolved to deal with such kind of health menace. In Odisha, the infant mortality rate was 65 (NFHS-3)¹, which was less than 81 (NFHS-2)² and 112 (NFHS-1)³. The under-five mortality rate was 91 deaths per 1,000 live births. In spite of all welfare programmes and reformed strategies to address child morbidity, the infant and child mortality rates in Odisha were higher as compared to the national estimates. The higher rates of infant and child mortality in Odisha imply that, despite decline in mortality, one in 15 children still die within the first year of life, and one in 11 die before reaching the age of five. Over population and poverty are widespread in Odisha causing health threat and morbidity. Children aged under-five years, who are naturally innocent, most vulnerable and fully dependent on their parents, often suffer from viral and infectious diseases. The future of a nation is very much linked with the wellbeing of its children, which mostly depends on the children's health status. The aim of the study was to examine the prevalence of morbidity among under-5 children (0-59 months) in Odisha using NFHS-3 data and to determine the most significant factors causing such morbidity; especially Acute Respiratory Infection (ARI), diarrhoea and fever. Analysis of data revealed that age of child was a significant factor in the prevalence of ARI, diarrhoea and fever among under-5 children. Prevalence of morbidity was highest among children aged 6-23 months as they weaned off breast milk and were introduced to the complementary food. Further the study also found the significant relationship of morbidity with children's immunization status.

Key words: Under-5 children, Odisha, ARI, Diarrhoea and fever

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INTRODUCTION

Morbidity impedes the body's metabolism and retards its immune response. The poor appetite of a malnourished child leads to a fall in dietary intakes and may dictate a morbid condition. Morbidity reveals impairment in the immuno-competence of an organism and may cause death at an early stage of life. Child morbidity is not a single problem with a single solution. Multiple and interrelated determinants interact demanding chain of approaches and policies to be evolved to deal with such kind of health hazard.

The studies by Narkhede Vinod *et. al.* (2012), Srivastava DK *et al* (2012) and Abhulimhen and Okolo (2012) also report that malnutrition, respiratory infection and diarrhoeal diseases are still major problem among under five children^{4,5,6}. Kabir, Shahadat and Akhter (1997) observed morbidity differentials by place of residence, region of residence, level of income, possession of land, level of household education, type of house and access to safe drinking water and revealed that morbidity of children declines with the increase in the level of education of parents, and children living in house built with cement had lower prevalence of morbidity compared to the children who lived in mud houses in Bangladesh⁷. Islam and Chowdhury and Yusuf (1996) investigated the pattern of morbidity by children's immunization status, and revealed that the diseases affected a smaller percentage of children having been fully vaccinated⁸. Oni, Schumann and Oke (1991) conducted 12 months diarrhoea diseases surveillance on under-3 years children in a low income area of Ilorin in Nigeria and found that the age of child had a significant association with diarrhoea⁹. Declerque, Tsui and Mangani (1988) reported the maternal age and birth order as determinants of diarrhea and other child morbidities¹⁰.

As per the 2011 Census, Odisha has a total population of 419.74 lakh (rural 3,49,70,562 and urban 70,03,656)¹¹. The ST and SC population constitutes 22.8 per cent and 17.1 per cent respectively which together accounts to 39.9 per cent of the State population, higher than the all India figures (16.6% SC and 8.6% ST population).

MATERIALS AND METHOD

This study utilized the data collected under National Family Health Survey (NFHS-3) between late November 2005 and April 2006. Under these survey a sample of 3,910 households from rural and urban areas was collected who were representative at the state level.

From the selected households, 4,540 women in the age group of 15-49 were interviewed and information on 1,715 under 5 children was collected. This collected information was made available in the NFHS-3 data file for Odisha state. From the selected households, information on population characteristics, socio-cultural condition, environment, health and nutrition status were obtained. Analysis of the data file shows that the household response rate in the state as a whole was 99 per cent and the individual response rates was 96 per cent for eligible women.

Based on the information available related to bio-social determinants, this study examined the influences of five categories of determinants such as demographic, socio- economic, dietary, health care services received and environment on child morbidity; especially ARI, diarrhoea and fever. The details of the variables/factors selected against each determinant are given below:

- (a) Demographic: The variables/factors identified were age of child in months, sex of the child, mother's age at the time of childbirth and number of living children under five years of age.
- (b) Socio-economic: The variables/factors identified were mother's education, mother's occupation, religion, caste, type of housing, wealth index and standard of living index.
- (c) Dietary status: The variables/factors identified were size at birth, status of breastfeeding and status of anaemia in the child.
- (d) Health care services received: The variables/factors identified were immunization status of the child and vitamin A supplementation received.
- (e) Environmental determinants: The variables/factors identified were mass-media exposure, i.e. watching TV / listening to radio once a week, household drinking water source and type of toilet facility.

Bi-variate analysis was performed to determine the differentials of morbidity among under-5 children according to any prevailing risk factors. Pearson's chi square test of independence was performed to test the existence of any significant association between morbidity and selected risk factors. Three different models had been considered in this study. The fitted model 1 considered prevalence of acute respiratory infection (ARI) as dependent variable and it was coded as '1' if children were classified as ill with ARI during the two weeks preceding the survey, otherwise it was '0'. The model 2 considered prevalence of diarrhoea as a dependent variable and was coded as '1' if children were classified as ill due to diarrhoea two weeks prior to the survey, otherwise it was '0'. The model 3 considered prevalence of fever as dependent variable and was coded as '1' if children were classified as ill due to fever during two weeks preceding the survey, otherwise it was '0'. The study considered 19 independent variables (risk Factors) in bi-variate analysis.

RESULTS

Acute Respiratory Infection (ARI)

In this study, age of the child was found to be significantly associated with ARI. The relationship between children's age and incidence of ARI as shown in Table -1 was curvilinear. 3.0 per cent of children below the age of six months suffered from ARI, while the prevalence rate increased at age interval 6-23 months and reached 5.5 per cent during 12-23 months of age. After that it subsequently diminished and reached 1.4 per cent during 36-47 months. In 48-59 months interval it shows slight upward trend and it shoot up to 1.7 per cent. Type of housing had a highly significant relationship with the prevalence of ARI. Children living in katcha (4.4%) and semi pucca house (2.2%) together had high percentage of ARI (6.6%) as compared to the children living in pucca house (5.1%). The size at birth had a significant relationship with ARI. The children who were born smaller to size had shown ARI of 6.1 per cent (i.e. very small 4.0 and small together 2.1). The children who at the time of birth were born with average or above size showed 5.0 per cent of ARI. Thus the children who were born smaller to average/ normal size had higher risk of getting ARI compare to the children who had average or above the size at birth. Further in the study, religion was found to be significantly associated with the prevalence of ARI. Muslim children had highest percentage (6.3%) of ARI followed by Christian (3.4%) and Hindu (2.7%). However, the significance of religion on the prevalence of ARI is doubtful because in the study the sample size representing Christian and Muslim were very less as compared to Hindus. Feeding of colostrum at birth was also found to be significantly associated with ARI. Those children who were feed with the colostrum after birth by their mother had 2.2 percentage of ARI which was low as compared to those children who were not feed with colostrum (5.0%) after birth. The children whose mothers used to watch television and listen to the radio once a week had lower percentage of ARI (2.1%) than those children whose mother did not watch/enjoy any television or radio (3.8%). Prevalence of ARI was significantly higher among children (3.9%) who had not received complete course of vaccination than those who received complete course of vaccination (2.0%).

There is no significant relationship between under-5 children with their level of anaemia. However, when all level of anaemia in under 5 children was clubbed together and compared with not anaemia, the incidence of ARI is more in anaemic children.

Further the study does not show any significant relationship of the prevalence of ARI with other selected variables like sex of the child, number of living children

under 5 years of age, mother's age at the birth of child, mother's education, mother's occupation, caste, wealth index, standard of living index, vitamin A supplementation, source of drinking water and toilet facilities.

TABLE 1
DIFFERENTIALS OF ARI AMONG UNDER-5 CHILDREN BY BIOSOCIAL FACTOR

Sl. No.	Risk Factor	Total Number of Cases	Prevalence of ARI
1	Age of child in months**		
	<6	175	3.0
	6-11	173	2.4
	12-23	342	5.5
	24-35	338	2.6
	36-47	341	1.4
	48-59	345	1.7
2	Sex of the child		
	Male	874	3.0
	Female	841	2.6
3	No. of living children under 5 years of age		
	One Child	680	3.2
	2 Children	724	2.6
	3 and above	186	3.2
4	Mother's age at the birth of child		
	<15	120	0.8
	15-19	790	2.7
	20-24	630	3.2
	25-29	140	2.9
	30+	33	3.0
5	Mother's education		
	None	802	2.1
	< 5 years complete	207	1.7
	5-9 years complete	479	2.7
	10 or more years complete	227	6.2
6	Mother's occupation		
	Not Working	1153	3.0

Sl. No.	Risk Factor	Total Number of Cases	Prevalence of ARI
	Services	44	4.5
	Agricultural Labourer	390	1.5
	Skilled & unskilled	128	3.9
7	Religion**		
	Hindu	1655	2.7
	Muslim	16	6.3
	Christian	29	3.4
8	Caste/tribe		
	Scheduled caste	321	2.6
	Scheduled tribe	465	1.9
	OBC	454	2.3
	Others	458	4.4
9	Type of housing**		
	Katcha	548	4.4
	Semi Pucca	583	2.2
	Pucca	584	5.1
10	Wealth index		
	Lowest	767	2.4
	Second	337	1.4
	Middle	288	3.7
	Fourth	199	4.7
	Highest	124	3.8
11	Standard of living index		
	Low	738	2.4
	Medium	424	3.3
	High	301	3.3
	Non de jure Resident	147	2.7
12	Size at birth*		
	Very Small	93	4.0
	Small	263	2.1
	Average or large	1152	5.0
13	Breastfeed**		
	Feed Colostrum	1406	2.2

Sl. No.	Risk Factor	Total Number of Cases	Prevalence of ARI
	Not feed colostrum	309	5.0
14	Anaemia level		
	Severe	22	0.0
	Moderate	488	10.0
	Mild	415	14.0
	Not Anaemic	488	17.0
15	Vaccination coverage***		
	Partially vaccinated	818	3.9
	Fully vaccinated	897	2.0
16	Vitamin A supplementation		
	Received Vitamin A	969	3.2
	Not received Vitamin A	746	2.3
17	Watched TV/listen to radio once a week**		
	No	651	3.8
	Yes	1064	2.1
18	Source of drinking water		
	Improved	1219	2.4
	Not improved	496	3.8
19	Toilet facility		
	Improved	254	3.1
	Not improved	1459	2.7
	Total	1715	2.8

*P<.05, **P<.01, ***P<0.001

Diarrhoea

Table-2 showed that the relationship between the under 5 children and prevalence of diarrhea as curvilinear and highly significant. The percentage of children suffering from diarrhea was highest among children aged 6-23 months (20.2%-20.6%) and lowest in the age group of 48-59 months (3.6%). Incidence of diarrhoea was found to be significantly associated with religious groups. The highest incidence of diarrhoea found in the under 5 children were Christians (17.2%), followed by Muslims (12.5%). This may be due to less number of samples representing Christians and Muslims religious group. However, the under 5 children belonging to Hindu religion showed 11.4 per cent prevalence of

diarrhoea. Further the study showed a significant relationship between the size of child at birth with prevalence of diarrhoea. The children born with average and above the size at birth had lower (16.3%) incidence diarrhoea than the children who were born smaller to size (i.e. very small (8.7%) + small (12.1%= 20.8 %). Thus the children who were born smaller to average/ normal size had higher risk of getting diarrhoea as compare to the children who had average or above the size at birth. It was also found that the prevalence of diarrhoea was significantly higher (13.8 %) among children who had not received complete vaccination than those who received complete vaccination course (9.6 %). The study does not show any significant relationship of incidence of diarrhoea with other variables selected under the present study.

TABLE 2
DIFFERENTIALS OF DIARRHOEA AMONG UNDER –5 CHILDREN BY
BIOSOCIAL FACTORS

S. No.	Risk Factor	Total Number of Cases	Prevalence of Diarrhoea
1	Age of child months***		
	<6	175	13.1
	6-11	173	20.2
	12-23	342	20.6
	24-35	338	10.3
	36-47	341	7.6
	48-59	345	3.6
2	Sex of the child		
	Male	874	12.5
	Female	841	11.0
3	No. of living children under 5 years of age		
	One Child	680	11.3
	2 Children	724	12.9
	3 and above	186	8.6
4	Mother's age at birth of the child		
	<15	120	14.2
	15-19	790	13.5
	20-24	630	10.5
	25-29	140	7.1

S. No.	Risk Factor	Total Number of Cases	Prevalence of Diarrhoea
	30+	33	12.1
5	Mother's education		
	None	802	10.6
	< 5 years complete	207	14.0
	5-9 years complete	479	12.7
	10 or more years complete	227	11.9
6	Mother's occupation		
	Not Working	1153	11.0
	Services	44	17.8
	Agricultural Labourer	390	12.3
	Skilled & unskilled	128	14.8
7	Religion***		
	Hindu	1655	11.4
	Muslim	16	12.5
	Christian	29	17.2
8	Caste/tribe		
	Scheduled caste	321	14.9
	Scheduled tribe	465	12.2
	OBC	454	9.6
	Others	458	11.1
9	Type of housing		
	Katcha	522	13.2
	Semi Pucca	545	12.5
	Pucca	453	8.6
10	Wealth index		
	Lowest	767	13.9
	Second	337	11.0
	Middle	288	9.0
	Fourth	199	9.8
	Highest	124	9.9
11	Standard of living index		
	Low	737	12.8
	Medium	424	9.4

S. No.	Risk Factor	Total Number of Cases	Prevalence of Diarrhoea
	High	301	12.0
	Non de jure Resident	145	11.0
12	Size at birth*		
	Very Small	401	8.7
	Small	1128	12.1
	Average or large	98	16.3
13	Breast feed		
	Feed Colostrum	1153	11.9
	Not feed colostrums	282	9.6
14	Anemia level		
	Severe	22	31.8
	Moderate	485	15.3
	Mild	416	12.0
	Not Anaemic	488	8.4
15	Vaccination coverage*		
	Partially vaccinated	818	13.8
	Fully vaccinated	897	9.6
16	Vitamin A supplementation		
	Received Vitamin A	969	11.9
	Not received Vitamin A	744	11.7
17	Watched TV/Listen to radio once a week		
	No	516	13.0
	Yes	1193	11.1
18	Source of drinking water		
	Improved	1219	11.9
	Not improved	496	11.7
19	Toilet facility		
	Improved	254	11.8
	Not improved	1459	11.8
	Total	1715	11.7

*P<.05, **P<.01, ***P<0.001

Fever

The association between a child's age and prevalence of fever was highly significant. Prevalence of fever was the highest (22.3%) in the age group 12-23 months and lowest (10.2 %) among children aged between 48-59 months. Mother's educational status showed significant association on the prevalence of fever. Among the illiterate mothers, 19.6 per cent of the children under 5 suffer from fever. Whereas, among the children under 5 whose mother had 10 or more years complete education, 13.3 per cent showed the occurrence of fever. In this study, mother's occupation also showed a significant relationship with the prevalence of fever among under-5 children. Further religion also showed high significant relationship with the occurrence with fever. However, the significant relationship of religion with occurrence of fever cannot be considered as valid because of few sample size representing the Christian and Muslim religious groups. Similarly, standard of living index was also found to be significantly associated with fever. Prevalence of fever was higher (17.8 %) among those children who did not receive the full course of vaccination than those children under 5 who received full course of vaccination. Besides these, the study does not show any significant relationship of incidence of fever with other variables selected for bi-variate analysis.

TABLE 3
DIFFERENTIALS OF FEVER AMONG UNDER-5 CHILDREN BY BIOSOCIAL FACTORS

S. No.	Risk Factor	Total Number of Cases	Prevalence of Fever
1	Age of child months***		
	<6	175	13.5
	6-11	173	18.4
	12-23	342	22.3
	24-35	338	19.8
	36-47	341	10.9
	48-59	345	10.2
2	Sex of the child		
	Male	874	16.0
	Female	841	15.6
3	No. of living children under 5 years of age		
	One Child	680	15.7
	2 Children	724	16.9

S. No.	Risk Factor	Total Number of Cases	Prevalence of Fever
	3 and above	186	16.0
4	Mother's age at birth of the child		
	<15	120	15.7
	15-19	790	16.2
	20-24	630	15.4
	25-29	140	15.8
	30+	33	14.7
5	Mother's education***		
	None	802	12.4
	< 5 years complete	207	16.6
	5-9 years complete	479	19.0
	10 or more years complete	227	20.4
6	Mother's occupation***		
	Not Working	1153	15.4
	Services	44	31.1
	Agricultural Labourer	390	13.3
	Skilled and Unskilled	128	21.9
7	Religion***		
	Hindu	1655	15.4
	Muslim	16	12.5
	Christian	29	36.7
8	Caste/tribe		
	Scheduled caste	321	17.8
	Scheduled tribe	465	13.7
	OBC	454	14.8
	Others	458	17.2
9	Type of housing		
	Katcha	522	15.7
	Semi Pucca	545	15.8
	Pucca	453	16.8
10	Wealth index		
	Lowest	767	14.4
	Second	337	17.9

S. No.	Risk Factor	Total Number of Cases	Prevalence of Fever
	Middle	288	14.1
	Fourth	199	19.9
	Highest	124	16.5
11	Standard of living index**		
	Low	959	13.6
	Medium	288	19.8
	High	323	14.7
	Non de jure Resident	145	13.1
12	Size at birth		
	Very Small	402	16.9
	Small	1129	15.4
	Average or large	98	16.3
13	Breastfeed		
	Feed Colostrum	1154	14.8
	Not feed colostrums	282	14.5
14	Anemia level		
	Severe	22	31.8
	Moderate	488	18.9
	Mild	415	15.2
	Not Anemic	488	15.2
15	Vaccination coverage*		
	Partially completed	818	17.8
	Completed	897	13.6
16	Vitamin A supplementation		
	Received Vitamin A	969	16.9
	Not received Vitamin A	744	14.4
17	Watched TV/listen to radio once a week **		
	No	516	12.6
	Yes	1195	17.2
18	Source of drinking water		
	Improved	1219	16.9
	Not improved	496	14.4

S. No.	Risk Factor	Total Number of Cases	Prevalence of Fever
19	Toilet facility		
	Improved	254	19
	Not improved	1459	15.2
	Total	1715	15.8

*P<.05, **P<.01, ***P<0.001

DISCUSSION

The present study revealed that age of child was a significant factor in the prevalence of ARI, diarrhoea and fever among under-5 children. Thus the present study finding showed similarity with Oni, Schumann and Oke (1991) which reported that the age of child had a significant association with diarrhoea⁹.

Among the under 5 children, the prevalence of morbidity was found to be highest among children aged 6-23 months when they weaned off breast milk and introduced to complementary/supplementary food. The study showed less incidence of ARI, diarrhoea and fever in the children feed on colostrum at birth than those not feed on colostrum at birth though significant relationship was found only between ARI and colostrum feeding.

The analysis showed that children whose mothers attended secondary or higher level of education were less likely to suffer from fever than children whose mothers were illiterate. Type of housing appeared as an important risk factor for ARI among children aged under-5. Children living in Kachha and semi pucca houses more commonly suffered from fever than children who lived in pucca houses. This finding was in concordance with Kabir et.al 1997 which reported prevalence of lower incidence of morbidity among the children under 5 who live in house built in cement and parents having increased level of education⁷. Children living in pucca houses enjoyed better socio- economic status, which in turn ensures better health status. Further the study showed lower incidence of morbidity i.e ARI, diarrhea and fever among the children under 5 who received complete course of vaccination. This confirms with the observation made by Islam et.al 1996 who also reported occurrence of smaller percentage of diseases among the children who are fully vaccinated⁸.

The analysis based on sex showed no significant relationship in the occurrence of ARI, diarrhoea and fever between male and female child. Thus, the present study supports the observation of Datta Banik *et. al.* (1967) which reports no difference

in the incidence of sickness between male and female children¹². Further the study was in contrast with the observation of Chowdhary *et al* (1962) reporting higher morbidity rate among female children and with Gulati PV (1965) and Maltotra P (1966) reporting high morbidity among males as compared to females^{13,14,15}. No significant association of morbidity with literacy of mother was observed in present study. Similar finding was observed by Walia BNS (1988) whereas M. Israt Rayhan (2007) observed decrease in morbidity with increase in educational level of mothers^{16,17}.

Children not having safe drinking water and sanitary toilet facility suffered more number of episodes of illness as compared to those having safe drinking water and sanitary toilet facility. However, this association was found not significant in the present study though strong association of faulty refuse disposal with diarrhoeal episodes has been reported in literature. Study by T. Barne (2011) observed that improper excreta disposal and lack of proper drainage system was associated with 47 per cent increase in diarrhoea in children¹⁸. Further, NHFS-3 report for Orissa mentioned that 12 per cent of children had diarrhoea in the two weeks preceding the survey and among them more than one- quarter of children did not received any type of treatment. 39 per cent of children with diarrhoea received less to drink than normal or no liquids at all, which can increase the risk of dehydration. 3 per cent of children under 5 years had symptoms of an acute respiratory infection.

CONCLUSION

Morbidity, clearly is not a simple problem with a single solution, multiple and interrelated determinants come into play. Thus a series of approaches and policies have to be evolved to deal with such kind of health risk among under-5 children. Emphasis should be placed on parents' education and encourage them to provide better child care. Vaccination coverage and precautions can protect babies from a substantial risk of morbidity. Integrated health services programmes might be organized for women in the setting of village meeting. This shows that educated mothers tend to make better use of health care services and provided better child care, including feeding. Government may wish to design well thought child care programmes to ensure easy access to health information and health education for parents. Community involvement, NGOs and use of media of mass communication with coverage of necessary health – care information may prove to be useful for improving health status of children under-5 years of age.

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UTILIZATION OF INDIAN SYSTEM OF MEDICINE AND HOMOEOPATHY IN UTTAR PRADESH

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Jeetendra Yadav****

ABSTRACT

This study was carried out by the National Institute of Medical Statistics with the support of Indian Council of Medical Research, New Delhi. The study was conducted in ten districts of Uttar Pradesh covering all four administrative divisions during 2012-13. Fifty villages were selected from each selected district for collection of information on utilization of ISM&H. Twenty households with at least one member who fell ill during the last three months and availed medical care services for treatment were selected from each village. Information on their preferences, reasons for not preferring these system and their views for popularizing these system was collected.

The general perception of the community about these systems along with the reasons of accepting these systems were collected from 12,581 patients. About 60 per cent of the households reported to have visited traditional healers at the time of their illness. The illnesses for which the traditional healers were visited included for Jaundice, Sciatica, Measles and Migraine. ISM&H was preferred in Government setup by 15% in case of normal ailments. Similarly, the Allopathy system was more preferred in case of serious ailments. Only about 3% sick persons as a whole were availing ISM&H. It was observed that almost same proportion of men and women availed the facility of ISM&H treatment. The reasons given by these users were mainly that it had no side effects (59%), effective (50%) and cheap (32%). More than three-fourth of the allopathic users were aware of the Ayurveda and Homoeopathy treatments. The households not using ISM&H treatment opined

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that practitioners were not easily available (49%), slow response in treatment/progress (36%) and no faith (11%). Most of the households suggested to open new Government dispensary under ISM&H and also to ensure the sufficient supply of medicines.

BACKGROUND

Indian Council of Medical Research entrusted National Institute of Medical Statistics, New Delhi to undertake the study entitled “Extent of Integration of Indian Systems of Medicine and Homoeopathy in National Rural Health Mission” in the state of Uttar Pradesh. The study involved collection of information on availability of AYUSH manpower, training status, space for OPD patients, availability of drugs and storage facility as well as involvement of doctors in all National Health Care Programmes. Information on 1650 patients attending District hospital/CHC/PHC of these system of medicine, 10,000 households (from 500 villages of 10 districts) with 12,581 patients towards the ISM&H health care was collected for the study.

METHODOLOGY

The study was conducted in ten districts of UP. Fifty villages were selected from each selected district for collection of information on usage of ISM&H. Twenty households with at least one member who fell ill during the last three months and availed medical care services for treatment were selected from each village. Information about their preferences, reasons for not preferring and their views for popularizing this system was collected. Fifty first stage unit (FSU) villages were allocated among rural and urban sectors in proportion to the rural-urban population of the district. Allocated numbers of villages were selected by using Systematic Sampling with Probability Proportional to Size (PPS), size being the population of the villages. Allocated numbers of blocks were selected from the list by using circular systematic sampling with equal probability. For selection of households, a house listing was prepared by house to house visit. Using this list, twenty households were selected randomly out of the households where at least one member fell ill during the last three months and availed medical care services for treatment.

In the study, data have been collected on the health seeking behaviour from persons who were sick (suffering from some disease) at the time of survey. The information collected relate to system of treatment availed, reasons for preference of the same and the cost of treatment. In this chapter, the results on general perception of the community about these systems along with the reasons of accepting these systems have been presented. In the study, 10,000 households

were covered to know their perception about the ISM&H. From these households in all, 12,581 sick persons (who fell sick in last three months) and taken any treatment were interviewed.

RESULTS AND DISCUSSION

The salient findings relating to households and sick persons availing ISM&H have been presented in tables.

SUMMARY STATISTICS

Total Sick Persons	12,581
Visiting traditional healers	56.5 %
Illness for which traditional healer was visited	Jaundice Snake bite Dog bite Bone setting
Reason for preference ISM&H (%) *	
No side effects	41
Body Massage after delivery	99
Hot water bath after delivery	
Medical Assistance (%)	
Normal Ailment	
Government	99
Private	15
Serious Ailment	
Government	85
Private	44
Suggestions for improvement in ISM&H (%)*	
Open dispensary	56
Supply of Medicine	76
Cheap	36
Effective	59
	32
Reason for No Preference of ISM&H (%)*	
Practitioner not available	50
Slow progress	49
No faith	36
Medicine not available	11

Availing Traditional practices (%) *	
Loose motion	8
Indigestion	56
For constipation	55
Kitchen remedies for sprain	29

* Multiple response

About 57 per cent of households reported to have visited traditional healers at the time of their illness. The illnesses for which traditional healers were visited were mainly Bone setting (43%), Dog bite (44%), Snake bite (52%) and Jaundice (65%). Jaundice, Sciatica, Measles and Migraine were the other illnesses for which the patients visited traditional healers. As a whole, ISM&H was preferred in Government setup by 15 per cent in case of normal ailments but in case of serious ailments, assistance preferred for Government setup was about 44 per cent. Similarly, the Allopathy system was more preferred in case of serious ailments. The proportion of the sick persons availing ISM&H by sex, Government/non government as well as by age has also been summarized. Only about 3 per cent patients as a whole were availing ISM&H. Among these, most of them are availing from Government setup. As regards to sex wise distribution, it has been observed that almost same proportions from both the sexes are availing ISM&H treatment. As regards to their age groups, it has been observed that older persons were utilizing the services of ISM&H as compared to younger persons.

Of those who preferred ISM&H, information has been collected on the reasons for their preference. The reasons given were mainly no side effects (59%), effective (50%) and cheap (32%). More than three-fourth of the allopathic users were aware of the Ayurveda and Homoeopathy treatment. The households not using ISM&H, reported practitioners of these systems were not easily available (49%), slow response in treatment/progress (36%) and no faith (11%). About 15 per cent of the households preferred medical assistance from government health functionaries in case of normal ailments where as they prefer private functionaries in case of serious ailments. Most of the households suggested to open new Government dispensary under ISM&H and also to ensure the sufficient supply of medicines.

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SALIENT FINDINGS

System of Medicine	Preference of ISM&H (%)		Sick Persons availing ISM&H (%)
	Normal ailments	Serious ailments	
Ayurveda	1.3	.3	.9
Homoeopathy	.9	.3	1.7
Unani	0	0	.1
For ISM&H	2.2	.6	2.7

HOUSEHOLDS' PREFERRED SYSTEM BY LITERACY LEVEL

System of Medicine Preferred for	Illiterate	Up to High School	Above High School
Normal ailment			
Ayurveda/ Desi dawai	0.7	1.0	2.1
Homeopathy	0.8	0.7	1.5
Allopathic	98.5	98.3	96.4
Serious ailment			
Ayurveda/ Desi dawai	0.2	0.2	0.6
Homeopathy	0.2	0.2	0.4
Allopathic	99.6	99.5	99.1

HOUSEHOLDS' PREFERRED SYSTEM BY INCOME

System of Medicine Preferred for	Below Rs. 5000	Rs. 5000-10000	Rs. Above 10,000
Normal ailment			
Ayurveda/Desi dawai	1.4	1.0	1.6
Homeopathy	0.9	0.8	1.9
Allopathic	97.7	98.2	96.4
Serious ailment			
Ayurveda/ Desi dawai	0.3	0.3	0.3
Homeopathy	0.2	0.2	0.9
Allopathic	99.4	99.5	98.8

HOUSEHOLDS ACCORDING TO TREATMENT SEEKING BEHAVIOUR (%)

Mode of Treatment	Per cent
Visited traditional healer when ill	56.5
Type of illness for which traditional healer is visited *	
Bone setting	42.8
Poisoning due to dog bite	44.6
Poisoning due to snake bite	52.0
Poisoning due to scorpion bite	11.4
Jaundice	65.2
Sciatica	14.9
Measles	5.5
Migraine	8.7
Skin disease	0.6
Eye problems/diseases	0.0
ENT problems/diseases	0.9
Mouth and dental	6.7
Other	0.5

* (multiple response)

HOUSEHOLDS WHO MAKE USE OF TRADITIONAL HEALTH PRACTICES (%)

Households following Traditional Health/Medical Practices	Per cent
Yes	63.6
Types of traditional health/medical practices followed *	
Fresh herbs	68.1
Decoction of various raw drugs/herbs	59.4
Desi Dawai	63.3
Percentage of household using kitchen remedies for *	
Indigestion	55.4
Loose motion	56.0
Constipation	28.5
Fever	35.4
Body ache	25.0
Sprain	41.4

Households following Traditional Health/Medical Practices	Per cent
Cough and Cold	80.6
Practices followed by the ladies after delivery	
Massage	99.0
Herbal decoction	92.3
Hot water bath	99.3
Gond ke Laddo/ Panjeeri	97.1
Percentage of households who responded about the use of ghutti for newborn	79.1

REASONS FOR PREFERENCE OF ISM&H (MULTIPLE RESPONSE) (%)

Reasons for Preference of ISM&H	Per cent
Cheap	31.9
Effective	50.2
No side effect	59.0
Practitioners easily available	2.8
Frank expression of illness	2.0
Feel homely with ISM&H doctor	0.4

AWARENESS FOR ISM&H AMONG THOSE WHO PREFERRED ALLOPATHY (%)

System of Medicine	Per cent
Ayurveda/ Desi dawai	81.0
Homeopathy	82.1
Unani	16.8
Siddha	0.2

REASONS FOR NOT PREFERRING ISM&H FOR TREATMENT (%)

Reasons	Per cent
Practitioners of these systems not easily available	49.1
No faith in these systems	10.6
Slow response in treatment	35.5
Medicines are not easily available	8.4
Others	0.5

SUGGESTIONS FOR IMPROVEMENT (MULTIPLE RESPONSE)

Suggestions	Per cent
Need to open new government dispensaries	75.7
Need to ensure supply of medicines	36.4
Other	11.2

QUALITY OF REPRODUCTIVE HEALTH DYNAMICS IN THE URBAN SLUM OF DELHI

Sangita* and T. Bir**

ABSTRACT

The quality of reproductive health is viewed in the urban slum of Delhi as all women should have access to skilled care during pregnancy along with ensured detection and management of complication and safe delivery. To ascertain the determining factors of reproductive and child health behaviour, 400 pregnant and lactating women were interviewed and 10 Focus Group Discussions (FGDs) conducted in the slums of Sunlight colony-II, Indira Camp-I, Indira Camp-II, Indira Camp-III and Sidharth Basti in South Delhi. People are aware of positive reproductive health behavior like ANC registration, 3 ANC check up along with 2 TT, delivery at health institution, PNC and immunization. These facilities are available in the slum areas and are easily accessible. But most of the women were of the view that the quality and management of reproductive health behavior were imperceptible for them at their slum setting. For them, the most important dynamics of reproductive health is to address their health needs by the health care providers to whom they believe in and approach to, according to their own convenience without much beleaguer. These dynamics are suitably accomplished if the reproductive health care services are always available, easily accessible, acceptable without any hassle, and affordable as per the paying capacity in their given circumstances. It is concluded from the findings that the quality of reproductive child health practices in slum areas has been determined in two ways; i.e. (a) quality of RCH is taken for granted by the health care providers and (b) quality of RCH is understood by the perceptions and beliefs of the consumers and their level of satisfactions. In fact,

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the client satisfaction has got a significant role to determine the quality of reproductive and child health in the urban slums of Delhi.

Keywords: Reproductive Health Needs, ANC, Institutional Delivery, PNC, Immunization, Reproductive Health Quality, Client Satisfaction.

INTRODUCTION

According to 2011 census, the total population of Delhi is 1,67,53,253 of which urban population is 1,63,33,916. Total residential household is 31.76 lakhs and the proportion of slum household is 14.6 per cent¹. But as per the 2010 survey, the number of Jhuggi households is estimated to be 4.34 lakhs with a population of 22.14 lakhs. In all, 477 slum clusters have been located by physical verification of each locality in Delhi and reported by the MCD².

Antenatal care is the care of women during pregnancy with focus to achieve a healthy mother and a healthy baby at the end of a pregnancy. Institutional Delivery in a facility is performed by the qualified health personnel or skill birth attendant with the arrangement of necessary requirements to avoid complication. In the slum of Delhi only 33.4 per cent delivery is conducted in institutions against 68.9 per cent in Delhi as a whole. The pregnant women are immunized against Tetanus for self and their newborns and children are protected from seven preventable killer diseases through vaccination. The child vaccination (all) is 51.7 per cent in the slum areas and 63.2 per cent in total of Delhi³.

However, the Government has already acknowledged the non-availability of needed health service provisions, under utilization of available primary health care facilities and overcrowding at secondary and tertiary care centers in urban areas. As a result, Maternal and Child Health services to the urban poor have been recognized as important and thrust area by the government⁴.

There is a paradigm shift in the population programmes that refer to the reproductive health needs of the clients through provision of package of quality reproductive health services and address unmet reproductive health needs of the couples and individuals. In this context, the quality of care (QOC) is seen as an integral and major component of people's reproductive rights. Policymakers have also realized that health services of inferior quality do not promote equity or maximize health gains⁵. Quality of Care as applied to a public health system is defined as "attributes of a service programme that reflect adherence to professional standards, in a congenial service environment and satisfaction on the part of the user⁶.

Measuring Quality of RCH Services

Three dimensions which are crucial for a systematic approach and measuring quality of RCH services are; inputs, processes and outputs⁷⁻⁸. *Inputs* are considered to be the programme efforts that facilitate the readiness of the health professionals to provide services when a client visits the health post/clinic. Inputs include physical infrastructure, staffing, supplies, equipment, and etcetera. Availability of inputs would be critical for delivery of services as per the service delivery guidelines and protocols given.

The actual process of care given and service received includes technical and interpersonal dimensions and a range of elements. All the actions that need to be conducted by the staff of health facilities for the clients to receive quality services are covered. It has to be observed whether the providers are maintaining standards of care as specified in service guidelines. For example, RCH camp days for family planning services and ANC day for antenatal care are observed. Outputs are seen from the perspectives of clients, and providers, while service delivery results in better reproductive health outcomes leading to achievements of the programme goals.

The Quality Indicators are those that are developed or recognized by the Government of India (GOI). Each state may also have a list of additional guidelines which are used when no formal GOI guidelines are currently available for the particular service delivery interventions⁹.

The main focus of this research was to know as to how the quality indicators have been applied and ensured in the context of RCH care services in the urban slum population of Delhi. In order to get a comprehensive framework of quality of RCH services, a broad research question has been raised, as to; Were the existing RCH services (ANC, PNC, institutional deliveries and immunization etc.) effective to satisfy the RCH health needs and demands of the women living in the urban slum?

OBJECTIVE

To get rational answers of the question, the present study has been a systematic attempt to find out the effectiveness and quality of RCH services (ANC, PNC, institutional deliveries and immunization etc.) provided to deal with the client perspective-especially RCH needs and demands of the women and children living in the urban slum.

METHODOLOGY

The present study was confined to only two out of eight clusters that were legally notified slums in the South Delhi District having about 50,046 populations. As per the Directorate of Health Services, Government of NCT Delhi, there slum clusters were looked after by Rotary Club Health Post located at Sunlight Colony II that was established to cover 50,000 slum populations for RCH services like ANC, PNC, immunization, and care of institutional delivery.

The study population comprised of (a) pregnant and lactating mothers living in urban slums, (b) mothers of children below the age of 2 years in slum households, (c) community members of slum clusters, (d) ANMs of local Health Post, (e) AWWs working in the clusters, and (f) Medical Officers of Health Centers.

The sample size of the study had 400 respondents, comprising of both pregnant and lactating mothers. These mothers were the total targeted respondents from 2 randomly selected clusters i.e., Indira Camp and Sunlight Colony II. They were purposively selected for in-depth interview. Besides, all health functionaries from Health Post and all AWWs working in the slum area were also selected for an in-depth interview. 10 Focus Group Discussions from different location of slum situation were conducted to gather qualitative data from the community. 8-10 community members were selected for each FGD. Techniques of data collection were mainly interview, observation, and focus group discussion. Semi structured interview schedule as tool of data collection were used for interview of the respondents after pre-testing it from the similar field of study area. Different interview schedules were prepared and used for different categories of respondents. The researcher had recorded responses of the respondents on the interview schedule during the interview. Beside the interview schedule, check-lists were also prepared for the collection of secondary data, observation of the relevant facts and figures and focus group discussion after pilot visit made in the study areas. All interview schedules duly filled by the researcher were scrutinized for formatting, structuring and coding. Secondary and qualitative data from FGD were classified and categorized on the basis of content and process of analyzing the findings.

Importance of RCH Services

Since the Reproductive and Child Health Programme (RCH) was launched in October 1997, the promotion of maternal and child health in the slum areas has been one of the most important objectives of the family welfare programme in Delhi. This RCH programme incorporated the components covered under the

child survival and safe motherhood programme and also included an additional component relating to reproductive tract infection and sexually transmitted infections. In order to improve maternal and child health in the urban slums, Government of Delhi established a health post or family welfare centre facility for every 50,000 slum population. However, the study populations were interviewed to express their views about the importance of RCH services in the slum areas. The views of the respondents were recorded as shown in Table 1.

TABLE 1
IMPORTANCE OF RCH SERVICE IN THE SLUM COMMUNITY

RCH Service	Number (400)	Percentage
For safe delivery	379	94.8
Avoid disability and prevent diseases for children	371	92.8
Prevent death of mother and children	358	89.5

As per Table 1, 94.8 per cent of respondents in the slum area were of the opinion that RCH services were important in the locality for safe delivery. 92.8 per cent of respondent stated that RCH services were important to avoid disability and prevent diseases for children. According to 89.5 per cent of respondents, RCH services were required to prevent death of mother and children.

From this table it is clear that the slum dwellers are very much aware about the importance and utility of the RCH services in the slum settings. The residents were also clear about the benefits of RCH services as shown in Table 2.

TABLE 2
RCH SERVICE TREATMENT BENEFITS

Options	Number (400)	Percentage
Prevent death of mother and children	345	86.3
Avoid disability/prevent diseases for children	338	84.5
Save money for long hospitalization and prolonged diseases	129	32.3
Restrict small family size and allow to keep gap between children	89	22.3

Table 2 shows how existing health care treatments benefit the RCH care in many ways. 86.3 per cent of respondents in the slum stated that RCH services benefit to prevent the death of mother and children. According to 84.5 per cent of respondents, RCH services benefit to avoid disability or prevent diseases for children, while 32.3 per cent stated that RCH services benefit to save money for long hospitalization and prolonged diseases.

Responses to the benefits and RCH service facilities available in the slum areas have been noted in Table 3.

TABLE 3
RCH SERVICE FACILITIES AVAILABLE IN THE SLUM AREAS

RCH Service Facilities	Number (400)	Percentage
ANC Registration	379	94.8
ANC Check-up for Three Times	374	93.5
Immunizations for Mother and Children	387	96.8
Vitamin A and Iron Folic Acid Tablets	368	92.0
Encouragement of Institutional Delivery	337	84.3
Care for Post natal Mothers	70	17.5
Contraceptives for Family Planning	323	80.8
Counseling for Family Planning	319	79.8
Nutritional Foods for Children	326	81.5

According to Table 3, people were aware of certain RCH service facilities available in the slum areas. 94.8 per cent respondents stated that ANC registration facility was available in slum, 93.5 per cent of respondents were aware about ANC check up for three times. 96.8 per cent of respondents stated that immunization facility for mother and children were available in the slum area. 92 per cent of respondents were aware about availability of Vitamin A, Iron and folic acid Tablets. 84.3 per cent of respondents stated that encouragement of Institutional Delivery was carried out in slum area, while 17.5 per cent were aware about Post Natal Care for mothers. According to 80.8 per cent of respondents, contraceptives for family planning were available in slum and 79.8 per cent were aware about counseling for family planning facility in the slum area. 81.5 per cent respondents stated that nutritional foods for children were provided in the slum of Delhi.

RCH Services Availed by the Slum Dwellers

In the study area, the beneficiaries were of the view that they received certain quantum of RCH services as corresponding figures shown in the general annual report (April 2012 to March 2013)¹⁰ of the Health Post facility for the entire slum areas. Regarding some selective RCH services, the respondents of the study population responded that they did avail RCH services as shown in Table 4 and relevant supplementation of the brief analysis of 10 FGDs conducted.

TABLE 4
QUANTUM OF RCH SERVICES AVAILED IN THE SLUM AREAS

RCH Services	Total Cases*	Percentage
ANC registration in Govt. Health Centre	274 (344)	79.6
ANC registration in Pvt. Hospital/clinic	70 (344)	20.4
Received 3 ANC Check up with IFA Tab 100 and 2 TT	245 (344)	71.2
Yes Immunizations for children	300 (310)	96.8
Institutional delivery	213 (251)	84.8
Home delivery assisted by trained health workers	38 (251)	15.1
PNC Services provided by health workers/ANM	128 (251)	51.0
Yes Contraceptives	75 (251)	29.9

*N=400

Ante Natal Care (ANC): According to Table 4 there were certain RCH services that were availed by the respondents in slum area of South Delhi. 79.6 per cent of respondents stated that they registered for ANC in Govt. health center. 20.4 per cent said they did ANC registrations in Pvt. Hospital/clinic. 71.2 per cent of respondents received 3 ANC Check up with IFA Tab 100 and 2 TT. In this regard, the FGD findings collaborated that almost all pregnant mothers were going for ANC registration by ANMs in the Govt. institutions. Few were also going to the private clinics. But almost all pregnant mothers who were registered had undergone at least three ANC check up and received their iron, Folic acid, Calcium tablets.

Immunization: As per Table 4, there were 96.8 per cent of the respondents who got their children immunized. From the FGDs, the purpose of child immunization was very clear to all the women in the slum areas. Mothers of small children used to come forward for immunizing their children whenever the ANM and AWWs used to schedule on the fixed days to provide immunization in the slum locality. Mothers were very particular about the immunization cards; they also knew which doses were left over.

Institutional Delivery: Table 4 shows 84.8 per cent of respondents had undergone Institutional delivery. But almost all the members in the FGDs were of the opinion that institutional delivery was the best for the mother and child because it takes care of any complication during the delivery. Despite the fact, some women were going to their native place for home delivery as they considered the expertise of local dais and elder women at home more convenient than dealing with complex procedures of institutional delivery.

Home Delivery: According to Table 4, about 15.1 per cent of respondents stated that their home delivery was assisted by trained health worker in the slum area. For home delivery, in general it was viewed by the FGD members that trained dais with delivery kits were hardly available in the slum areas. It was the common belief that private clinics or nursing homes inclined to earn money for which normal delivery cases were deliberately made cesarean. The clients were not having any options in such cases.

Post Natal Care (PNC): Table 4 indicates 51.0 per cent of the beneficiaries availed the PNC services provided by health workers/ANM in the slum. However, the FGD findings indicated that after delivery PNC was significant but it was not done properly in the slum areas because some mothers used to go back to their native home for delivery. In such a situation PNC was totally neglected, consequently they sometime used to face different complications which in turn used to be detrimental for both the mother and newborn babies.

Contraceptives for Family Planning: As per Table 4, 29.9 per cent of the respondents in the slum areas were using contraceptives for family planning. But it has been found from the FGDs that the level of male involvement in family planning was very poor; hardly any male were taking initiatives in various activities and services in the area towards the contraceptives for limiting family size.

Quality of RCH Services in the Slum Areas

Quality consists of the “degree to which health services for individuals and populations increase the likelihood of desired health outcomes that were consistent with current professional knowledge.” Technical excellence with which care was provided is the characteristic of interactions between provider and patient¹¹. According to the Reproductive and Child Health programme phase II; the following are the quality indicators for monitoring the services:

Under the RCH programme, special emphasis has been laid on the health of pregnant women through good antenatal care, assisted deliveries and proper post natal care. The indicators have been given to monitor these services. What was the percentage of unreported deliveries in the quarter? What were the percentages of high risk pregnancies identified, Percentage of women having hypertension, Percentage of women having low Hb level, Percentage of home delivery by SBA (i.e. assisted by doctor/nurse/ANM), Percentage of C-sections performed (in Public facilities and in private accredited facilities), Percentage of deliveries discharged after at least 48 hours of delivery (out of public institution deliveries), Percentage of still births and maternal deaths reported.

RCH programme involves immunization of children against major vaccine preventable diseases and provision of supplement to avoid nutritional deficiencies. The indicators are to be used to monitor these services as the percentage of women receiving post partum check up to 48 hrs to 14 days and percentage of drop out from BCG to measles.

The services under this category are aimed to bring down the total fertility rate. It is aimed at eligible couples to use and promote contraceptive methods. Main indicator is the percentage of of complications following sterilization.¹²

However, the quality of RCH services has been perceived by the slum dwellers slightly in different ways. How the health care providers use to handle the patients/ pregnant women who had undergone treatment procedures of RCH services in health facilities. Their experiences were recorded as follows in Table 5.

TABLE 5
QUALITY OF RCH SERVICES PROVIDED BY HEALTH CARE PROVIDERS

Levels	Number (400)	Percentage
With Care	352	88.0
Without care	41	10.3
Not avail the services	7	1.8
Total	400	100.0

As per table 5, around 88 per cent respondents of the slum areas stated the RCH services provided by health care providers in their area were with care while 10.3 per cent stated the same to be without care. It clearly shows that majority of the mothers who had undergone RCH services were having a positive attitude towards its quality and were satisfied.

Beneficiaries' Satisfaction Level for the RCH Services Availed

On the basis of the RCH services availed, the level of beneficiaries' satisfaction has been established to understand the quality of the services provided in the slum areas. The consumer's satisfaction is the only indicator to assess the quality of RCH care for the slum population. Whether any standards are followed by the health care providers or not do not mean any things for the slum dwellers except their level of satisfaction for services they availed or want to avail. This consumer's perspective of quality has been developed on accounts of their levels of satisfaction. It has been established as shown in Table 6.

TABLE 6
LEVEL OF SATISFACTION ON RCH SERVICES AVAILED

Level of Satisfaction	Number (400)	Percentage
Fully Satisfied	218	54.5
Partially Satisfied	180	45.0
No Comment	2	0.5
Total	400	100.0

Table 6, shows that 54.5 per cent respondents were fully satisfied with RCH services in the slum, while 45 per cent of respondents were partially satisfied with these services. It implies that the quality of the RCH services is not in a bad condition for the slum population, while one can perceive and mean the quality from the slum dweller perspective. But the same may not be true from the health care provider's angle.

CONCLUSION

In conclusion, it could be stated that the slum dwellers are very much aware about the importance and utility of the RCH services in the slum settings. They are also clear that RCH services benefit to save money for long hospitalization and prolonged diseases. RCH services such as ANC, PNC, immunization, safe institutional delivery and contraceptives for family planning are available and accessible to the slum dwellers in South Delhi. Almost all beneficiaries of RCH services are availing it. But the slum dwellers are not utilizing 100 per cent of the RCH facilities and services available to them.

Whatever the RCH services availed by the dwellers are not providing 100 per cent of their satisfaction. Consumers' perspective is good enough, as 88 per cent of the

respondents mentioned they were provided RCH services with care. For these, majority (54.5%) of respondents was fully satisfied and 45 per cent were partially satisfied.

Finally, it may be stated from the findings revealed in the selected slum areas that the quality of reproductive health practices has been settled on two ways i.e. understanding quality of RCH for granted as provided by the health care providers and quality of RCH determined by the beliefs and perceptions of the clients and their level of satisfactions. In fact, the client satisfaction has been playing a significant role to determine the quality of reproductive health in the urban slums of South Delhi.

SUGGESTIONS AND RECOMMENDATIONS

Despite the available health care facilities and services in Delhi, there is a need to increase availability and accessibility of medical facilities in and around slums as the government facilities are poor in terms of provisioning of medical care services such as dispensary or mobile vans. In absence of this, the slum dwellers have to visit private doctors or unqualified quacks for consultation and medicines. MCD should provide adequate dispensaries in various slum pockets to increase its accessibility.

Health authority should increase the intensity of immunization programme and health check up camps for slums dwellers as the government run immunization programme and health check up camps in slums are highly inadequate, except pulse-polio program. The governmental steps should be taken to increase the coverage as well as frequency of such activities in the slums for both preventive and curative care to improve the health status of the slum dwellers.

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