Editorial

GENDER BUDGETING IN HEALTH

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This decade has witnessed a greater emphasis for women empowerment yet women still face many disparities in access to and control over resources which get reflected in key parameters like health, nutrition, education, etc. Recognizing the gender inequalities, India's planning process has tried to address these concerns through its Five-Year Plans.

The Five-Year Plans from IInd to Vth during 1956-'79 prioritized on improving maternal and child health services, supplementary feeding for the children and expectant mothers. The Vth Plan (1974-'78) witnessed a shift from 'Welfare Approach' to 'Developmental Approach' for women. For the first time, the VIth Plan (1980-'85) accepted women's development as a separate economic agenda by allotting a separate chapter to focus on women's concerns in the economic development of India. The VIIth Plan (1985-'90) emphasised on the identification of Beneficiary-Oriented Schemes in developmental sectors which extended direct benefits to women. Universal Immunization Programme (UIP) was launched at this point of time. The VIIIth Plan (1992-'97) shifted from 'Development' to 'Empowerment Approach' and ensured free flow of benefits to women in education, health and employment. The IXth Plan (1997-2002) declared 'women empowerment' as its strategic objective. It accepted the concept of women's component plan to ensure that at least 30 per cent of the funds/benefits of all the development sectors flow to women. The gender audit of the budget 2002-'03 revealed that the budgetary allocation to women-specific schemes increased only in the area of family planning. To achieve the gender equality goals, the Xth Five-Year Plan (2002-'07) called for the three-pronged strategy of social empowerment, economic empowerment and providing gender justice to create an enabling environment of positive economic and social policies for women and eliminating all forms of discrimination against them. The XIth Plan highlighted the 'philosophy of empowerment' and advocated an inclusive and integrated policy and strategy for economic, social and political empowerment of women. The Plan focused on three areas: violence against women, economic empowerment and women's health.

Budgets can reinforce existing gender biases or they can bring in more equality. Gender-based budgets are tools to awaken the governments to the reality that gender relations affect the men, women, boys or girls in the society and how each one gets benefited from or hurt by the budget decisions. Gender-based budget initiatives analyze the budgets and its impact on women, men and family. Gender-based budget analysis provides a useful lever to get increased budget allocations for education, health and social services. Based on gender analysis, gender-based budgets are in the forefront of research-driven gender advocacy. The fundamental premise of Gender Budgeting lies in the fact that the social and other parameters for girls and women are generally worse than men and even from the same socio-economic strategy. Unless these

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barriers are addressed in the planning and development process, the development of girls and women are unlikely to be realized in the economy of any nation.

Gender Budgeting (GB) or Gender Responsive Budgeting (GRB) is about ensuring that government budgets and the policies and programmes address the needs and interests of individuals that belong to different social groups. GB looks at the biases that can arise because a person is a male or female and considers the disadvantages suffered as a result of ethnicity, caste, class or poverty status, location and age. It is a methodology to assist governments to integrate a gender perspective into the budget as the key national plan for public expenditure. It is important to note that Gender Budgeting is not about equal allocation of funds, i.e. 50 per cent to men and 50 per cent to women and to create separate budgets to address gender concerns. It is about assessing the differential need patterns of vulnerable groups, women and how these can be addressed through differential allocations through budgetary provisions for major programmes, policies or interventions.

The Government of India introduced Gender Budgeting in the union budget from the year 2005 and mandated the setting up of gender budget cells in all Ministries and Departments. It highlighted the need for budget data to be presented in a manner that brought out the gender sensitivity of the budget allocations in order to ensure that public resources are allocated in an equitable manner. The Approach Paper to the XI Five-Year Plan states that gender equity requires adequate provisions to be made in the policies and schemes across Ministries and Departments. The idea is that allocation of funds through such budgeting would promote women's development directly.

Ministry of Finance developed a 'Charter for Gender Budget Cells' with the intention of implementing and committing to various Gender Responsive Budgeting (GRB) initiatives. The objective is to influence and effect a change in the policies of the ministries in a way that could tackle gender imbalances, promote gender equality and development, and ensure that public resources through the Ministry budget are allocated and managed accordingly. All the ministries are now expected to demarcate a minimum of three largest programmes in terms of budget allocation and conduct an analysis of gender issues. The analysis would include an assessment of how many women have actually benefited from those schemes and also monitoring and evaluation to know whether the money was spent as planned with an impact of the programme on women.

Some of the priority action areas to promote gender equity in the field of health are mainstreaming gender during the planning stage, gender analysis, reporting formats, analysing budgetary provisions and their impact, and health insurance. The planning stage must emphasise on women's participation and decision-making at local level, enabling the elected women representatives to participate in the budget-making and measures to be taken in enabling women to participate in village health plans which is the focus of all planning in the health sector. Similarly, gender analysis of selected programmes targeting women and assessment studies with a view to analyze the gender perspective also forms the key strategy. There is a scope for analyzing the programmes and strategies, interventions and policy initiatives from the perspectives of their impact on the status of women as reflected in the important macro-indicators like literacy, maternal mortality rate, women's health and their participation in the work force.

The reporting formats and information systems have to develop in such a manner that data are disaggregated by sex. It should also include indicators affecting the coverage and quality of the services being provided. There is a need to analyze the differential impact of expenditures across all implementation aspects to ensure that the resources are benefiting the target group as per the objectives of the scheme. For example, specific components of a programme could be analyzed i.e. how the lessons learnt could influence future programme design. Besides, mid-course corrections of existing interventions to incorporate specific gender dimensions may form the part of the Project/Policy appraisal. Possible initiation of health insurance schemes for women in view of their vulnerabilities and barriers to access health services is also another area of concern that needs to be dealt on prority.

Gender Budgeting is needed to identify the felt needs of women and reprioritizing these through budgetary provisions, particularly by tracking the public expenditure keeping the gender issues in focus vis-à-vis the developmental concerns expressed through various policies of the Government. The need is to analyze the budgets scheme-wise, sector-wise, category-wise with their budget estimates, revised estimates and the actual expenditure. This type of analysis will reveal how the macro-policies are affecting the gain at the micro-level.

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EXISTING PRACTICES AND BARRIERS TO AVAIL OF MATERNAL HEALTHCARE SERVICES IN TWO SLUMS OF ALIGARH

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ABSTRACT

Pregnant women living in urban slums are a vulnerable group having limited access to urban healthcare facilities. Slums in the same city may differ from each other in their characteristics and health indicators. Hazardous maternal health practices are also common in the slums. Barriers to avail of healthcare services are well documented. This cross-sectional study was carried out in two urban slums of Aligarh to determine the existing maternal healthcare practices during pregnancy and childbirth and barriers to avail of these services. A house-to-house survey was conducted and 200 mothers having live births in the study period were interviewed. The main outcomes measured were intake of ante-natal care, natal care and post-natal care. Rates of hazardous health practices and reasons for these practices were elicited. Hazardous maternal health practices were found to be common in the slums. At least one ante-natal visit was accepted by a little more than half of the mothers but delivery was predominantly home-based in hazardous conditions. Important barriers to avail of the healthcare facilities included family tradition, financial constraints and rude behaviour of healthcare personnel in hospitals. Significant differences existed between the two slums. Barriers to utilization of health care services and facilities at the local level must be identified and addressed in district- evel planning for health.

Key Words: *Urban Slums, Maternal Health, Hazardous Delivery Practices, Barriers to Utilisation.*

Our urban population is increasing at a very rapid pace. It is estimated that the current 286 million urban population will increase to 432 million by 2021 (Census 2001). Rapid urban growth has led to an increase in the number of urban poor, especially those living in the slums. According to the draft document of the Government of India for the National Urban Health Mission 2008-2012, the urban slum population of 37.3 million in 2001 is expected to be 62.5 million in 2008[1].

Slums are described as compact areas with a population of at least 300 (60–70 households), living in poorly built, congested dwellings in an unhygienic environment. Infrastructure, sanitary and drinking water amenities are usually lacking. In 2003, a UN expert group recommended a provisional operational definition based on inadequate access to safe water, inadequate access to sanitation and other infrastructure, poor structural quality of housing, overcrowding, and insecure residential status[2].

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There are several reasons for this inaccessibility of urban slums to healthcare infrastructure. These include inequitable distribution of facilities and/or infrastructure for primary healthcare and maternal healthcare services, inadequate referral services, lack of human resource and overburdened healthcare facilities. It has been unequivocally shown that utilisation of ante-natal and skilled delivery services improve pregnancy outcome[3-5]. It is also known that several factors influence the utilization of these basic healthcare services[6]. There is evidence to show that the demand side barriers to access services such as tradition, lack of knowledge, and financial constrains may be as important as supply factors in deterring patients from utilising services[7,8].

A number of socio-cultural and economic factors determine their quality of life and knowledge and attitude about health matters. Depending on these factors, the slums may differ from each other in their indicators of health[9].

Developing countries like ours are faced with the problem of providing basic healthcare for this rapidly increasing population. However, the infrastructure and facilities are not expanding at a rate which can keep up with the demand. Thus, whatever facilities are available must be used in a cost-effective and evidence-based manner to have the maximum impact. A situation analysis and evidence-base is needed for local level planning to bring about equitable access to the existing healthcare facilities[10]. There is a need to investigate the causes of differences in utilisation of services in different slum populations based on scientifically approved methodology.

OBJECTIVES

Keeping in mind the above facts, the present study was carried out with the following objectives:

i. To determine the existing maternal healthcare practices during pregnancy and childbirth in two urban slums; and
ii. To compare healthcare practices and barriers to services utilization between the two slums.

METHODOLOGY

In the present cross-sectional study, two slums situated in peri-urban areas at two different ends of the city were selected purposively. Slum A had good civic amenities compared to Slum B which was unregistered in the municipality and was thus, a 'grey area'.

Slum A (Nabi Nagar/Jamalpur) had a population of 27,518 living in 5,297 households (Table 1). Most of the people were working as daily-wagers, labourers and vendors and belonged to the lower socio-economic group. A few families belonged to the retired lower level government employees. Healthcare services available within 2 kms radius of the area which included a tertiary care health facility (medical college), one private nursing home offering facilities for ante-natal care and delivery services, one health sub-centre, and one health clinic for children, managed by the 'Polio Partners'. Polio Partners' is a network for national polio eradication among the under-served and it includes the Departments of Community Medicine and Paediatrics, JN Medical College; UNICEF, Rotary International and the District Health Administration. A cadre

of local community level workers are employed by UNICEF with the primary objective of improving coverage of oral polio vaccine by social mobilization and tracking of newborn children.

Slum B (Mehfooz Nagar) had a population of 19,957 living in 3,712 households (Table 2). Most of the people were rag-pickers, rickshaw pullers and labourers at construction sites. A large number of them were unemployed. The healthcare services available within 2 kms radius included a health clinic for children managed by the 'Polio Partners' and two unqualified private health service providers (quacks). The nearest government healthcare facility was the district hospital situated at 6 kms away.

Records of all the mothers having live-births in November 2007 were obtained from the community level workers of UNICEF working in the area. There were records of 102 live-births in Slum A and 105 live-births in Slum B. But four mothers in Slum A and three mothers in Slum B could not be contacted. These households were visited by a female researcher. The mothers were interviewed in a non-formal and non-judgemental manner after obtaining informed consent from the family. Data were recorded in a pre-tested proforma. Appropriate counselling, treatment and referral services were provided to the mothers, as needed. Data were analysed using SPSS 12. Z-test for proportions was used wherever relevant. A value of 0.05 was considered as significant.

TABLE 1
POPULATION DISTRIBUTION IN SLUM A (NABI NAGAR)

S. No.	Area	Name of CMC	No. of house-holds covered	Population of households	Newborn in Nov. '07
1.	Hamdard Nagar 'A'	Warisha Fatima	440	2,300	8
2.	Asif Nagar	Hina	516	2,500	7
3.	Hamdard Nagar 'B'	Shabana	514	2,150	10
4.	Hamdard Nagar 'B' Gali	Rana Yasmeen	450	2,400	9
5.	Badam Nagar	Simran	462	2,900	8
6.	Nagla Jamalpur	Noor Jahan	465	2,500	7
7.	Goal Market/Nabi Nagar	Farhat Sultana	494	2,350	8
8.	Jatav Mohalla, Jamalpur	Hans Lata	317	1,250	7
9.	Badi Masjid, Jamalpur	Farzana	201	835	5
10.	Chhoti Masjid	Saba Naaz	313	1,500	8
11.	Gulzar Gali	Tanveer Jahan	480	3,000	11
12.	Nagla Jamalpur	Shabnam	189	833	4
13.	Asif Nagar	Rukhsana	456	3,000	10
Total	5,297	27,518	102		

TABLE 2
POPULATION DISTRIBUTION IN SLUM B (MEHFOOZ NAGAR)

S. No.	Area	Name of CMC	No. of house-holds covered	Population of households	Newborn in Nov. '07
1.	Kanjar Wali Gali	Shaista	401	2,408	14
2.	Taraspur Wali Gali	Meena	395	2,356	13
3.	Ghosht Wali Gali Rt. hand	Saira	470	2,293	11
4.	Ghosht Wali Gali Lt. hand	Noor Jahan	399	2,193	13
5.	Back of Jala Area	Guddo	404	2,223	10
6.	Lenter Wali Masjid	Jannat	358	1,969	10
7.	Bypass Lallah ki Shop	Rabia	375	2,062	12
8.	Vilcking Wali Gali	Aysha	395	2,172	10
9.	Back of Nevri Society	Muneer	335	1,842	8
10.	Nala Bypass	Wazeer Khan	180	439	4
Total	3,712	19,957	105		

FINDINGS

Socio-economic Profile: Findings show that all the mothers belonged to low social class. The environmental conditions were particularly hazardous for women living in Slum B, due to water logging and unsafe drinking water supply. Most of the mothers were young as 94.5 per cent of them were less than 30 years, 90 per cent were illiterate or just literate, and 65 per cent of them were living in unitary type of families (Table 3).

TABLE 3
SOCIO-ECONOMIC VARIABLES OF THE STUDY POPULATION

	Home		Institution		Total	
	No.	%	No.	%	No.	%
1. Type of family						
Unitary	113	71.0	17	41.5	130	65.0
Joint	46	29.0	24	58.5	70	35.0
Total	159	100.0	41	100.0	200	100.0
2. Age of mother						
20-30	149	93.7	40	97.6	189	94.5
31-40	10	06.3	01	02.4	11	05.5
Total	159	100.0	41	100.0	200	100.0
3. Education of mothers						
Illiterate and just literate	153	96.2	27	65.9	180	90.0
Literate	06	03.8	14	34.1	20	10.0

Total	159	100.0	41	100.0	200	100.0
4. Decision for place of delivery taken by						
Husband	10	06.3	14	34.1	24	12.0
Mother-in-law	34	21.4	07	17.1	41	20.5
Self	69	43.4	15	36.6	84	42.0
More than one person	46	28.9	05	12.2	51	25.5
Total	159	100.0	41	100.0	200	100.0

Maternal Health Practices: The maternal health practices were ante-natal check-ups, delivery practices, post-natal check-ups and early infant feeding practices. 52.5 per cent of the mothers had at least one ante-natal check-up at a government or a private facility. More number of mothers in Slum A had availed of ante-natal check-up as compared to mothers in Slum B. This difference was statistically significant. A majority of the (60.5%) mothers had received at least one Tetvac injection during pregnancy. Many women received this injection from private providers without undergoing any ante-natal check-up. Significantly more number of mothers had received this injection in Slum A than in Slum B (Table 4).

TABLE 4
ANTE-NATAL SERVICES RECEIVED BY THE MOTHERS

	Slum A		**Slum B**		**Total**	
	No.	**%**	**No.**	**%**	**No.**	**%**
At least one ante-natal check-up						
Yes*	63	64.3	42	41.2	105	52.5
No	35	35.7	60	58.8	95	47.5
Total	98	100.0	102	100.0	200	100.0
At least one injection Tetvac						
Yes*	74	75.5	47	46.1	121	60.5
No	24	24.5	55	53.9	79	39.5
Total	98	49.0	102	51.0	200	100.0

*p value < 0.05 = Significant, **p value > 0.05 = Not significant

Place of Delivery: Home delivery was the norm in both the slums with 79.5 per cent of all the mothers giving birth at home. The rate of home delivery in Slum B (92.2%) was significantly higher than in Slum A (68.4%). Of the 20.5 per cent mothers who had institutional deliveries, it took place either at a government facility or a private nursing home. The number of mothers with institutional deliveries in Slum A was three times more than the mothers in Slum B (Table 5).

TABLE 5
PLACE OF DELIVERY IN BOTH THE SLUMS

	Slum A		**Slum B**		**Total**	
	No.	**%**	**No.**	**%**	**No.**	**%**
Place of delivery (n = 200)						
Home*	67	68.4	92	90.2	159	79.5

Institution (govt* hospital or private hospital)	31	31.6	10	9.8	41	20.5
Total	98	100.0	102	100.0	200	100.0

*p value < 0.05 = Significant

Home Deliveries: A total of 159 mothers delivered at home. Hazardous practices were found to be common in home deliveries. A majority of home deliveries were assisted by untrained birth attendants (78%) which were higher in Slum B (84.8%) as compared to Slum A (68.7%). More than half of the home deliveries took place in squatting position without adequate perineal support. Aseptic precautions such as washing of hands with soap and water, using clean surface for delivery, use of sterile cord tie and sterile blade for cutting the cord were studied. Majority of the mothers claimed that the birth attendants did not take aseptic precautions (84.3%). In 51.6 per cent of the home deliveries, the cord was cut by the edge of a broken cup. The difference for taking aseptic precautions in childbirth between Slum A and Slum B was marginal (Table 6).

TABLE 6
HAZARDOUS PRACTICES IN HOME DELIVERIES

	Slum A		**Slum B**		**Total**	
	No.	**%**	**No.**	**%**	**No.**	**%**
Home deliveries conducted by untrained dais (n = 159)						
Yes*	46	68.7	78	84.8	124	78.0
No	21	31.3	14	15.2	35	22.0
Total	67	100.0	92	100.0	159	100.0
Delivery position						
Squatting**	38	56.7	51	55.4	89	56.0
Lying down**	29	43.3	41	44.6	70	44.0
Total	67	100.0	92	100.0	159	100.0
Aseptic precautions taken						
Yes**	14	20.9	11	12.0	25	15.7
No	53	79.1	81	88.0	134	84.3
Total	67	100.0	92	100.0	159	100.0
Any problem during labour						
Yes**	7	10.4	10	10.9	17	10.7
No	60	89.6	82	89.1	142	89.3
Total	67	100.0	92	100.0	159	100.0
Umbilical cord cut by the edge of a broken cup						
Yes**	41	61.2	41	44.6	82	51.6
No	26	38.8	51	55.4	77	48.4
Total	67	100.0	92	100.0	159	100.0

*p value < 0.05 = Significant, **p value > 0.05 = Not significant

Reason for Choosing Place of Delivery: The most common reasons cited for home delivery were family tradition (47.2%), economic constraints (16.3%) and rude

behaviour of hospital staff (17.0%). There was a significant difference in the reason most commonly cited for choosing home delivery between the two slums. While tradition was the more common reason in Slum B, economic constraint was a more common reason amongst mothers in Slum A. Data given in Table 7 show that government hospital was chosen mainly because of perceived skilled attention available (66.7%) or due to complications in index pregnancy or earlier pregnancy (33.3%). The main reason for choosing private nursing home was also because of perceived skilled attention given (53.0%), good behaviour of the staff (17.6%) or because it was close to home (17.6%).

TABLE 7
REASONS FOR CHOOSING THE PLACE OF DELIVERY

	Slum 'A'		Slum 'B'		Total	
	No.	**%**	**No.**	**%**	**No.**	**%**
Reasons for choosing place						
1. Home delivery (n = 159)						
Tradition*	24	35.8	51	55.4	75	47.2
Economic reason*	20	29.8	06	06.6	26	16.3
Rude behaviour of personnel in hospital	10	14.9	17	18.5	27	17.0
No body to take care of home	05	07.5	05	05.4	10	06.3
No knowledge of other options	00	00.0	05	05.4	05	03.1
No complication/No need	03	04.5	07	07.6	10	06.3
Fear of hospital	05	07.5	01	01.1	06	03.8
Total	67	100.0	92	100.0	159	100.0
2. Govt. hospital (n = 24)						
Skilled attention available	13	81.3	03	37.5	16	66.7
Some problem during earlier or present pregnancy/delivery	03	18.7	05	62.5	08	33.3
Total	16	100.0	08	100.0	24	100.0
3. Private nursing home (n = 17)						
Close to home	02	13.3	01	50.0	03	17.6
Skilled attention available	08	53.3	01	50.0	09	53.0
Good behaviour of hospital staff	03	20.0	00	00.0	03	17.6
Some problem during earlier or present pregnancy/delivery	01	06.7	00	00.0	01	05.9
Not taken up by medical college doctor	01	06.7	00	00.0	01	05.9
Total	15	100.0	02	100.0	17	100.0

*p value < 0.05 = Significant, **p value > 0.05 = Not significant

DISCUSSION

It was found that hazardous health practices were common in both the slums. At least one ante-natal visit and Tetvac injection was accepted by more than 50 per cent of the

mothers but delivery was predominantly home-based, assisted by untrained traditional birth attendants. The healthcare services were not optimally availed of in spite of physical accessibility. The important barriers cited by the respondents for not going for institutional delivery included tradition, financial constraints and rude behaviour of the hospital staff. Mothers were the main decision-makers.

Intake of ANC is an important intervention for reducing maternal and perinatal morbidity and mortality. In the current study, at least one ante-natal visit was availed of by 52.5 per cent of the mothers, using either the government or private facility. This is more than the overall ante-natal coverage rate in Uttar Pradesh which is 25 per cent[11] but less than as reported by slum dwellers in Delhi[12] (74.3 %). In an ICMR study conducted earlier covering 26 districts in 14 states, 73.9 per cent of the mothers reported to have availed of at least one ante-natal visit[6]. In the present study, a number of mothers visited private facilities for availing of Tetvac injection only. Thus, the rate of utilization of at least one Tetvac injection was more than the rate of ante-natal check-ups.

Home delivery is the norm in urban slums and most of the home deliveries are conducted by untrained birth attendants. The findings in the current study are consistent with other studies[9,10,13,14]. Home delivery was the preferred choice in both the slums for a majority of women. Most of the deliveries were conducted by untrained birth attendants. However, there is a significant difference in intake of maternal healthcare services between the two slums, ante-natal coverage being lower and home delivery rate being higher in Slum B than in Slum A.

To understand the difference in availing of the healthcare facilities, we must keep in mind the factors such as physical accessibility, household practices, cultural norms and economic affordability. It has also been shown that in two urban areas, the contrasting healthcare availability causes differences in the use of maternal health care services[15]. In the present study, as the socio-cultural background was similar in both the populations, the difference was probably because of lack of physical accessibility to healthcare facilities in Slum B where the nearest maternal healthcare facility was at least 6 kms away.

Hazardous home delivery practices were found to be common. Untrained birth attendants conducted most home deliveries making the woman squat, no aseptic precautions were taken, and cutting of the umbilical cord was done with the edge of a broken cup. It is interesting to note that while choice of home as a place of delivery was significantly higher in Slum B, the difference in rates of hazardous practices was marginal between the slums. Delivery in squatting position is beneficial because it shortens the duration of the first and second stages of labour. However, without proper perineal support provided by birthing chairs or cushions, incidence of maternal injury such as perineal tear is very high. Thus, 56 per cent of the home deliveries conducted in squatting position are considered to be hazardous for the mother[16].

Untrained traditional birth attendants do not normally use aseptic precautions. The traditional methods of cutting the umbilical cord with the edge of a broken cup are found to be common even today. Such unhygienic practices have also been described by other workers in South Asia[17-19]. These practices are hazardous for the mother and the newborn.

For many of these urban families, pregnancy and childbirth are not an area of concern on a priority basis. In developing countries like India, it takes a huge effort to change the practice of home delivery by traditional untrained attendants to delivery by trained birth attendants or from home delivery to institutional delivery. This is despite the fact that the emphasis on the Reproductive and Child Health Programme (RCH) across the country is to promote institutional deliveries. Moreover, there is evidence to show that skilled birth attendants, ANMs or doctor is an important variable in promoting maternal and child health[9]. It is also possible to reduce maternal mortality and morbidity even where resources are limited by using a variety of models of care2[0,21]. There is an ongoing debate about re-enforcing home-based delivery strategies with skilled birth attendants in developing countries[22].

In the present study, the knowledge and attitude for institutional delivery was observed to be poor as most of the women feel home delivery is a normal process that doesn't require expert intervention. Tradition as a reason for choosing home reflects a lack of knowledge of importance of safe delivery practices. This lack of knowledge was significantly more common in Slum B where physical access to health facilities was also lacking. Other studies have also highlighted lack of knowledge as an important barrier to utilization of care and have pointed out that knowledge improves utilisation rates. A study from Uttar Pradesh concludes that patient education is of vital importance[4] and even a low level of counselling can improve this, thus, increasing the ante-natal utilisation rate at the existing healthcare services by the mothers[12].

Attitude of healthcare workers and their rude behaviour may also create barriers to access, turning the mothers away from the government facilities to private hospitals or to traditional home delivery practices. In the private sector (and also in the public sector where drugs and investigations have to be paid for), poverty may be the limiting factor. In the present study, in Slum A, where healthcare facilities are physically accessible, the main reasons for home deliveries are economic constraints and rude behaviour of the hospital staff.

Limitations

The area covered is relatively small but typical of most registered and unregistered slums. Utilization of institutional services by mothers in Slum A may be influenced by the presence of the medical college within 2 kms radius of the dwelling area and may be more than usual for both the slums due to the referrals from 'Polio Partners Health Clinics'.

CONCLUSION

Utilization of healthcare services is poor in urban slums even though physical accessibility is present. Social and cultural barriers are more common in slums where healthcare services are not reachable. Skilled birth attendants are not reaching to those who need them the most. Access to health services leads to improved intake of maternal healthcare facilities. Accessibility to healthcare services of slum population must be taken into account in the district health planning process. Healthcare services need to be scaled up so that ante-natal services and skilled birth attendants are available for all. The health education component of care can bring about changes in attitude and practice. This component should be strengthened in the healthcare delivery system.

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REFERENCES

1. National Urban Health Mission (2008-2012): Draft Document: Meeting the Health Challenge; www.uhrc.in/downloads/Reports/NUHM-Draft.
2. UN-Habitat (2007): Press Release on Its Report, The Challenges of Slums: Global Report on Human Settlements, 2003.
3. CARROLI G., ROONEY C & VILLAR J. (2001): How Effective is Ante-natal Care in Preventing Maternal Mortality and Serious Morbidity? An Overview of the Evidence; Paediatric Perinatal Epidemiology, 15 (suppl. 1): 1-42.
4. BLOOM S.S., LIPPEVELD T. & WYPIJ D. (1999): Does Ante-natal Care Make a Difference to Safe Delivery? A Study in Urban Uttar Pradesh, India; Health Policy and Planning, 14 (1): 38-48.
5. SINHA S. (2006): Outcome of Ante-natal Care in an Urban Slum of Delhi; Indian Journal of Community Medicine, 31 (3): 189-191.
6. CHANDHIOK N., DHILLON B.S., KAMBO I. & SAXENA N.C. (2006): Determinants of Ante-natal Care Utilization in Rural Areas of India: A Cross-sectional Study from 28 Districts (An ICMR Task Force Study); Journal of Obstetrics and Gynaecology of India, 56 (1): 47-52.
7. ENSOR T. & COOPER S. (2004): Overcoming Barriers to Health Service Access: Influencing the Demand Side; Health Policy and Planning, 19 (2): 69-79.
8. GRIFFITHS P. & STEPHENSON R. (2001): Understanding User's Perspectives of Barriers to Maternal Health Care in Maharashtra; Indian Journal of Biosocial Science, 33, p 339-359.
9. DE BERNIS L., SHERRATT D.R., ABOUZAHR C. & LERBERGHE W.V. (2003). Skilled Attendants for Pregnancy, Childbirth and Post-natal Care; British Medical Bulletin, 67, p 39-57.
10. ISLAM M. (2007): The Safe Motherhood Initiative and Beyond; Bulletin of the World Health Organization, 85 (10): 735.
11. Basic Facts: Uttar Pradesh (2005-07): Unpublished Report of the Project Concurrent Assessment and Technical Assistance to Districts of Uttar Pradesh, Sponsored by the Department of Family Welfare, Government of Uttar Pradesh, Through Department of Community Medicine, Chhatrapati Shahuji Maharaj Medical University, Lucknow.
12. AGGARWAL O.P., KUMAR R. & GUPTA A. et al (1997): Utilization of Ante-natal Care Services in Peri-urban Areas of East Delhi; Indian Journal of Community Medicine, 22 (1): 29-32.
13. BAQAI A.H., WILLIAMS E.K. & DARMSTADH G.I. et al (2007): Newborn Care in Rural Uttar Pradesh; Indian Journal of Paediatrics, 74 (3): 241-246.
14. AGARWAL P., SINGH M.M. & GARG S. (2007): Maternal Healthcare Utilization among Women in an Urban Slum in Delhi; Indian Journal of Community Medicine, 32 (3): 203-205.
15. DE BERNIS L, DUMONT A. & BOUILLIN D. et al (2000): Maternal Morbidity and Mortality in Two Different Populations of Senegal: A Prospective Study (MOMA Survey); British Journal of Obstetrics and Gynaecology, 107 (1): 68-74.

16. ALLAHBADIA G.N. & VAIDYA P.R. (1993): Squatting Position for Delivery; Journal of Indian Medical Association, 19 (1): 13-16.
17. CHAUDHRY U.K. (2006): Traditional Practices of Women from India: Pregnancy, Childbirth and Newborn Care; Journal of Obstetric, Gynaecology and Neonatal Nursing, 26 (5): 533-539.
18. OSRIN D., TUMBAHANGPHE K.M. & SHRESTHA D. et al (2002): Cross-sectional, Community-based Study of Newborn Infants in Nepal; British Medical Journal, 325, p 1063.
19. WHO:RHT/MSM/:98.4 Reproductive Health (Technical Support) Maternal and Newborn Health: Safe Motherhood. Care of the Umbilical Cord: A Review of the Evidence (Unpublished Report): 8.
20. RONSMANS C. et al (1997): Decline in Maternal Mortality in Matlab, Bangladesh: A Cautionary Tale; Lancet, 350: 1810-1814.
21. PATHMANTHAN I. et al (2003): Investing Effectively in Maternal and Newborn Health in Malaysia and Sri Lanka; World Bank, Washington DC.
22. MARSHALL G., SAHA S. & BORGHI I. (2006): Equity in Use of Home-based or Facilitybased Skilled Obstetric Care in Rural Bangladesh: An Observational Study; Lancet, 367: 327-332.

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IMPACT OF EDUCATION ON RURAL WOMEN ABOUT PREPARING ORS AND SSS: A STUDY OF THE PRIMARY HEALTH CENTRE, UVARSAD, GANDHINAGAR

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ABSTRACT

Management of acute diarrhoeal diseases in under-five year children has still remained a challenge to the medical profession in the third-world countries. Of the estimated 4 million children deaths occurring annually world-wide due to diarrhoeal diseases, approximately 60 per cent are caused by dehydration. These deaths are easily preventable by Oral Rehydration Therapy (ORT) and correct case management. The present study aimed at assessing the existing knowledge of women in the reproductive age group concerning the management of diarrhoea, imparting health education for diarrhoea and reassessing their knowledge. This was a longitudinal educational interventional study. Total 380 women in the age group of 15-44 years were included in the study. The common profile of women was young, married and either illiterate or educated up to primary standards. Before the educational training programme, 314 (82.63%) women could mention about home available fluids which increased to 334 (88.83%) after training. 133 (35%) women could enumerate some steps in preparation of ORS solution before training which later increased to 267 (71.01%) during post-assessment ($z=10.64$, $p<0.01$). There was a significant increase in the proportion of women who could measure one litre of water correctly for preparation of ORS solution after they were imparted the knowledge (from 35% to 69.15 %, $z=10.00$, $p<0.01$). Although the proportion of women who responded to any of the four steps for preparation of SSS increased significantly after the training programme, only 16.49 per cent of the women could repeat all the four steps for the preparation of SSS even after training. Women who could correctly responded to continuation of breast-feeding and not withholding foods during diarrhoea were 47.63 per cent and 76.86 per cent respectively pre and post-training. The current study served the purpose of improving knowledge of participants. Health professionals can play a critical role as effective communicators in the community.

Key Words: Childhood Diarrhoea, Home Available Fluids, Oral Rehydration Salt, Sugar Salt Solution.

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Acute diarrhoea is a major cause of morbidity and mortality in infants and young children all over the world, more so in the developing countries. Of the estimated 4 million child deaths occurring annually in the world due to diarrhoeal diseases, approximately 60 per cent are caused by dehydration. Ironically these deaths are easily preventable– by taking right action at the right time. It requires oral rehydration therapy (ORT) and correct case management. Oral rehydration therapy (ORT) includes rehydration and maintenance fluids with oral rehydration solutions (ORS) combined with continued age-appropriate nutrition.

Appropriate educational and training materials need to be prepared to transmit priority messages on the preparation and administration of ORT solutions and importance of continued feeding during diarrhoeal episode. Mother requires individual instructions and often need to observe a practical demonstration and practice mixing a number of times in order to prepare ORS or Sugar Salt Solution correctly. It is also recommended that standardized cups for water, salt and sugar measurements be provided to households as a ready means of ensuring the correct preparation of SSS in the home-based management of diarrhoea[1].

OBJECTIVES

The present study was carried out on a group of rural women in the age group of 15-44 years had following objectives:

i. To assess existing level of knowledge for management of childhood diarrhea,
ii. To educate them for correct diarrhoea management, and
iii. To assess impact of educational training programme.

METHODOLOGY

The current study was carried out in the villages of the Uvarsad primary health centre of Gandhinagar district in Gujarat. There are seven villages covered by the PHC. It is a fact that a mother or a woman in the family takes care of the sick family members. Moreover, management of childhood diarrhoea is more concerned to a mother or a woman of child bearing age or a potential mother. Sample size was calculated based on the knowledge level of 50 per cent and error of 10 per cent after carrying out a pilot study among the target population and it was calculated as 380. The records of PHC were utilized to find out the number of target women (15-44 years) in each village. Thereafter, cluster sampling technique was used to locate 10 clusters, 38 women in the age group of 15-44 years were selected as sample respondents from all the seven villages. Three villages had two clusters located in them whereas the rest four had one cluster each in them. A pre-designed and pre-tested proforma was used to record the information. Recording of the basic characteristics was carried out in the first part of the proforma and the second part of the proforma was used for pre as well as post-educational knowledge assessment. The study was carried out in two phases. First phase included assessment of pre-educational knowledge and diarrhoeal disease educational training which was given with help of posters, charts, photographs and demonstrations. The educational contents were reinforced by repetition and encouraging participants to interact freely to clear their doubts on the subject. After that, few women from each group were asked to repeat demonstration of preparation of ORS solution and Sugar Salt Solution (SSS). The assessment of

post-educational knowledge which forms the second phase of study was carried out after three months. Sample loss was minimized by arranging revisits. Emphasis was given on prevention and correction of dehydration by early administration of ORT and continued feeding during diarrhoeal episode.

FINDINGS

The women under the age of 30 years accounted to 52.63 per cent of the study population. Mean age of the study population was 29.48 years. Approximately one out of three (one-third) women was illiterate. There were 21 (5.52%) women who received college education. Among them, 347 (91.32%) were married and 23 (6.05%) were unmarried. The distribution of women who were living in nuclear and joint family was almost equal (Table 1).

TABLE 1
SOCIO-DEMOGRAPHIC PROFILE OF WOMEN

Characteristics	No. of women	Percentage
Age group (years)		
15-19	38	10
20-24	78	20.53
25-29	84	22.10
30-34	72	18.95
35-39	54	14.21
40-44	54	14.21
Educational Status		
Illiterate	138	36.22
Primary	134	35.26
Secondary	87	22.90
College	21	5.52
Marital Status		
Unmarried	23	6.05
Married	347	91.32
Divorcee	2	00.53
Widow	8	2.10
Type of Family		
Nuclear	195	51.32
Joint	185	48.68

In educational training programme the emphasis was made on home management of diarrhoea by using various home available fluids, ORS solution, Sugar Salt Solution and continued feeding (breast-feeding and other foods) during episodes of diarrhoea. Use of home available fluids was emphasized with the help of poster. Women were told that various home available fluids like rice ware, dal water, tomato soup, weak tea, coffee, milk, tender coconut water and fruit juices may be used to prevent and correct dehydration. Table 2 shows that before the educational training programme, 314 (82.63%) women could mention them which increased to 334 (88.83%) ($z=2.45$, $p<0.05$).

TABLE 2
KNOWLEDGE ABOUT THE USE OF HOME AVAILABLE FLUIDS IN DIARRHOEAL MANAGEMENT

Knowledge	Number	Percentage	P value
Pre-training (n=380)	314	82.63	<0.05
Post-training (n=376)	334	88.83	

The WHOs' ORS sachet was shown and its contents were discussed. Measurement of one litre of water was demonstrated by using home available utensils like glasses, tea cups, mugs and steel lota (standardization against measuring glass was done). Preparation of ORS was demonstrated by dissolving the contents of the sachet in one litre of clean drinking water. It was emphasized that ORS with adequate concentration of salt tastes like tears and women present in the session were asked to taste the solution. It was told that the solution should not be heated (it will become concentrated) and can be used within 24 hours. Few women in the group were asked back to demonstrate the procedure after the demonstration of steps. 133 (35%) women could enumerate some steps in the preparation of ORS solution before training which later increased to 267 (71.01%) during post-assessment ($z=10.64$, $p<0.01$). Findings in Table 3 reveal that a significant increase was observed in the proportion of women who could measure one litre of water correctly for the preparation of ORS solution (from 35% to 69.15 %, $z=10.00$, $p<0.01$). The understanding of women about adding total contents of packet to one litre of water increased significantly and also the proportion of women who could enumerate all the four steps in preparation of ORS solution increased significantly ($z=4.22$, $p<0.01$).

TABLE 3
KNOWLEDGE OF WOMEN ABOUT ORAL REHYDRATION SALT SOLUTION

Knowledge about	Pre-training (n=380)		Post-training (n=376)		P value
	No.	%	No.	%	
Measurement of one litre of water	133	35	260	69.15	<0.01
Add total contents of packet and dissolve	133	35	242	64.36	<0.01
Use solution within 24 hours	133	35	189	50.27	<0.01
Do not heat it	133	35	189	50.27	<0.01
All correctly replied	133	35	188	50.00	<0.01
Could say something about ORS preparation	133	35	267	71.01	<0.01

The following measurements were demonstrated for the preparation of SSS:

i. One pinch of common salt, involving two fingers upto first crease.
ii. 200 ml of water by standardizing steel glass against measuring glass.
iii. One tea spoonful of sugar.

Common salt so measured was added to 200 ml of water and dissolved in it. It was emphasized that the solution obtained must be less salty than tears and should be

thrown away if it is too salty; it should be prepared again using a little less salt. One tea-spoonful (TSF) of sugar was added to it and dissolved. Data given in Table 4 show that the preparation of SSS was known to 5.79 per cent of the women which increased to 27.66 per cent after training (z=8.41, p<0.001). Preparation of SSS was demonstrated in 200 ml of water during educational training and four steps were shown for the same. Although proportion of women who responded to any of the four steps for preparation of SSS increased significantly after the training programme, only 16.49 per cent of them could repeat all the four steps for the preparation of SSS even after training (z=4.74, p<0.001).

TABLE 4
KNOWLEDGE OF WOMEN ABOUT PREPARATION OF SUGAR SALT SOLUTION

Knowledge about	Pre-training (n=380)		Post-training (n=376)		P value
	No.	%	No.	%	
Take two finger pinch salt	22	5.79	94	25	<0.01
Dissolve in one glass (200 ml) of water	22	5.79	103	27.39	<0.01
Taste the solution	22	5.79	63	16.76	<0.01
Add one tea-spoonful sugar	22	5.79	89	23.67	<0.01
All correctly replied	22	5.79	62	16.49	<0.01
Could say something about ORS preparation	22	5.79	104	27.66	<0.01

Continuation of breast-feeding and not to withhold food was explained with the help of posters. Data in Table 5 reveal that the importance of continued feeding in the treatment of childhood diarrhoea was known to 181 (47.63%) women in the pre-training phase which increased to 304 (80.85%) women in post-training phase (z=10.17, p<0.001). There was a significant increase in proportion of women who said that all types of food should be continued during diarrhoeal episode (z=8.79, p<0.001). Women who correctly responded to both were 47.63 per cent and 76.86 per cent respectively before and after the training (z=8.69, p<0.001).

TABLE 5
KNOWLEDGE ABOUT FEEDING DURING DIARRHOEAL EPISODE

Feeding	Pre-training (n=380)		Post-training (n=376)		P value
	No.	%	No.	%	
Breast-feeding	181	47.63	304	80.59	<0.01
Other foods	190	50.00	290	77.12	<0.01
Both correctly replied	181	47.63	289	76.86	<0.01

DISCUSSION

Mothers and other family members can often treat children who have diarrhoea with fluids and foods that they have at home. Health workers can help the mothers through demonstration on how to prepare this. Out of the total respondents, 200 (52.63%) of the sample women were less than 30 years. Mean age of the respondents was 29.48 years. More than two-third of them were either illiterate or educated upto primary

standards. This reflects the literacy status of women in the locality. Similar results were also observed in several other studies[2-4]. In the present study, 82.63 per cent of the women believed in giving HAF as soon as diarrhoea starts. In other studies, the figures stood at 38 per cent[4], 42 per cent[5] and 8.2 per cent[3] respectively. 35 per cent of the women could correctly prepare the ORS solution in one litre on water before training which increased to 50 per cent after training which is 90.7 per cent as reported in another previous study[4]. 10.56 per cent of the women in the current study could mention about adding one full packet of ORS to one litre of water while the figures are 7.5 per cent[3] and 38.6 per cent[5] in two earlier studies. Awareness about SSS was reported as 5.79 per cent before training which increased to 27.66 per cent after training in the present study. Correct preparation of SSS was known to 5.79 per cent of the women before training which increased to 16.49 per cent after training. Findings prove that training could significantly convince women about the importance of continued feeding during diarrhoeal episode as only 47.63 per cent of the women had the knowledge during the pre-training phase which increased to 80.85 per cent in post-training phase.

A significant increase was observed in the awareness level of women regarding continued breast-feeding to their children suffering from diarrhoea. It increased from 47.63 per cent to 80.59 per cent as a result of training. In some other studies, the percentages of post-training knowledge of women about continued breast-feeding of children suffering from dirrhoea were 97 per cent[4] and 86.11-92-32 per cent[6] respectively. As far as continuation of all other types of foods other than breast-feeding are concerned, 47.63 per cent of the women had proper knowledge of it before training which increased to 77.12 per cent after training. Another study reported that 57.14 per cent of the women had proper knowledge of continuation of foods other than breast-feeding before training which increased to 66.25 per cent after training.

CONCLUSION

The present study served the purpose of improving the knowledge and skill of participant mothers and potential mothers. The study identified that despite the technological revolution in the field of diarrhoeal disease management, the information revolution is yet to come. The action needs to be taken at three levels; the household, the community and the clinic or hospital for improving the knowledge level of the target audience. Clear and consistent messages should be used by all the health care providers. Active community participation is required for increasing the ORS acceptance in the community. So, appropriate educational and training materials need to be prepared to transmit and disseminate the messages to empower the mothers and other family members. In this regard, health professionals can play a critical role as effective communicators in the community. These are not one-time activities but continuing education and training will be required to sustain the awareness level of the target population.

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REFERENCES

1. AKPEDO G.O., OMOTARA B.A., WEBB G.D. & IGENE J.O. (1997): Caretakers' Knowledge and Preparation Abilities of Salt Sugar Solution in North-Eastern Nigeria; J. Diarrhoeal Dis Res, Dec., 15 (4): 232-40.
2. UNICEF (1990): Diarrhoea in Rural India- A Nationwide Study of Mothers and Practitioners.
3. N.I. BHANDARI, QADEER & BHAN M.K. (1995): Patterns of Use of Oral Rehydration Therapy in Urban-Slum Community; JIMA, June, 93 (6): 239-42.
4. K. ANAND, LOBO J., SUNDARAN K.R. & S.K. KAPOOR (1992): Knowledge and Practices regarding Diarrhoea in Rural Mothers of Haryana; Indian Pediatrics, July, 29 (4): 914-17.
5. N. GUPTA, JAIN S.K., RATNESH, U. CHAWLA, HOSSAIN S. & VENKATESH S. (2007): An Evaluation of Diarrhoeal Diseases and Acute Respiratory Infections Control Programmes in a Delhi Slum; Indian J Pediatr., May, 74 (5): 471-6.
6. C.P. MISHRA, KUMAR SATISH, TIWARI I.C. & PRASAD D.N. (1990): A Study of Some Diarrhoea Related Practices in Urban Mirzapur; Indian Journal of Public Health, March, 34 (1): 6-10.

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A COMPARATIVE ANALYSIS OF INSTITUTIONAL AND NON-INSTITUTIONAL DELIVERIES IN A VILLAGE OF PUNJAB

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ABSTRACT

This study attempts to make a comparative analysis of various characteristics pertaining to institutional and non-institutional deliveries. The study revealed that in spite of the efforts in this direction, two out of every five deliveries were taking place at home. This was the situation in a village located in the periphery of a state capital that had easy access to all the health facilities. Scheduled caste, landless, daily-wagers and higher order pregnancy couples preferred non-institutional deliveries to institutional deliveries. Families with higher income level went more for childbirth at a health facility. The main reason of delivering at a health facility or home was delivery being easy and convenient (74%) or cultural factors (68%). The most common first feed given to a newborn child was breast milk/colostrums (53%) in a health facility and cow/buffalo milk (31%) at home. In case of non-institutional deliveries, umbilical stump was applied antiseptic to only 12 per cent of the cases.

Key Words: Institutional, Non-institutional/home, Delivery, Newborn, Women, Knowledge.

Overall development of a country is incomplete without women who constitute nearly half of the human resource potential available. A woman requires special attention during 15-44 years of her life since she gets matured sexually and socially, gets married, conceives and gives birth to children during this phase. If proper care is not taken during this childbearing process, then it affects the overall health especially the reproductive health of the woman as well as the health and well being of the newborn child. In real sense, the place of delivery is an important aspect of reproductive health care provided to the mother and the quality of care received by the mother and the newborn baby depends upon the place of delivery.

Institutional delivery means giving birth to a child in a medical institution under the overall supervision of trained and competent health personnel where there are more amenities available to handle the situation and save the life of the mother and child. If the child is born at home, then chances of getting infected from unhygienic environment are more and it is very tough and sometimes impossible to handle child-birth complications. In India, it is a prevalent practice to deliver the child at home instead of taking the pregnant women to some health facility. This is more common in rural areas as compared to urban areas. Institutional births result in reduced infant and maternal mortality and increased overall health status of the mother and the child[1].

Many programmes in India like the Child Survival and Safe Motherhood (CSSM) and the Reproductive and Child Health (RCH) programme are focused on this aspect.

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Under these programmes, encouraging deliveries in proper hygienic conditions only by trained health staff and to provide better health care to the mothers and children are emphasised. Our government's commitment in this direction is reflected in the goals of the National Population Policy (NPP), National Health Policy (NHP), and the National Rural Health Mission (NRHM) launched by the Honourable Prime Minister of India on 12 April 2005. The NRHM has a safe motherhood intervention programme (Janani Suraksha Yojana-JSY). The objective of JSY is to reduce Maternal Mortality Rate (MMR) and Neo-natal Mortality Rate (NMR) through the promotion of institutional deliveries[2].

In spite of efforts in this direction, the desired results are still distant. A look at all the three rounds of the National Family Health Survey (NFHS) conducted till date reveal that we are still far away from the goals. During the first round of the survey in the year 1992-'93, it was seen that about only one-fourth of the deliveries were conducted at institutions in the state of Punjab as well as at the national level[3]. Then in 1998-'99, this percentage increased to 34 at the national level and 37 per cent at the state of Punjab level[4]. In the next seven years, at the time of NFHS-3 conducted in 2005-'06, the percentage of institutional deliveries increased by only seven points to 41 per cent at the national level while for the state of Punjab, the corresponding figure was 52 per cent[5].

Now we take a further look into the rural-urban break-up of the NFHS data on the deliveries taking place at the health facilities. Urban people went more for institutional births and rural people preferred to give birth at home. In 1992-'93, at the all India level, institutional deliveries in urban areas was more (58%) while it was very less in rural areas (16%). Similar wide gap also prevails for institutional deliveries in the NFHS-3 data which is 69 per cent in urban areas and 31 per cent in rural areas. The situation was little better in Punjab but still a lot of improvements need to brought. In NFHS-1, urban and rural break-up of institutional deliveries in Pubjab was 36 and 21 per cent respectively and in NFHS-3, it was 60 per cent in urban areas and 48 per cent in rural areas[5].

NPP initiated by the Government of India in 2000 speaks about safe motherhood. In the prevailing circumstances, the NPP target for 2010 (National Socio-Demographic Goal of safe motherhood through 80% institutional deliveries and 100% deliveries attended by trained personnel) doesn't seem a possibility. We should not forget that according to Census 2001, 72.2 per cent of India's population lives in rural areas and the situation is really pathetic in the rural populace[6]. In fact, the volume of deliveries in the non-institutional sector is an indicator of economic backwardness and low standards of health status in the society.

OBJECTIVE

The main objective of this paper is to make a comparative analysis of various characteristics pertaining to institutional and non-institutional deliveries.

Study Area

The study was carried out in the Mohali district in the state of Punjab. From this district, one block Kharar was chosen at random. Then from it, Kansal village was selected for carrying out the fieldwork. The relevance of choosing this village was to analyze the

grassroot situation in a village situated in the periphery of a state capital i.e. Chandigarh which had easy access to all the health facilities. This village is very near to urban areas and we try to look into the scenario in a village situated in the urban margin.

According to 2001 Census, Kansal village had a total population of 5761 residing in 1330 households. Out of all the households, 15 per cent (200) was to be covered. For the study, a sample of 200 women who had delivered at least one child in the last five years was taken. For this purpose, information about women who had delivered at least one child in the last five years was collected from the health worker posted in the village dispensary. Then 200 women were selected purposively and interviewed. If any household had more than one women coming under the desired group, then only the latest woman who delivered from that particular household was considered. Researchers collected the data and had one-to-one interaction with all the respondents in order to understand the situation properly. Then, according to the place of delivery of their last child, they were categorized under the categories of institutional and non-institutional deliveries.

Institutional and Non-Institutional Deliveries

A look at the break-up of the place of last delivery reveals that 59 per cent of the children were delivered at an institution and the remaining 41 per cent were given birth at home. In spite of all the commitments and efforts by the government and the community to increase the percentage of institutional deliveries, we were still far away from the desired goal. Although most of the efforts of the government were primarily rural-centric and the health services were within the reach of the people; still two-fifth deliveries were taking place at home only.

Socio-Economic Profile of the Respondents

Table 1 reflects the details of religion, caste and the landholding status of the couples. Number of Sikh respondents was less and all of them had preferred to go for an institutional delivery. Looking at the distribution caste-wise, respondents belonging to general and other backward castes (OBC) category had more inclination towards institutional deliveries than non-institutional deliveries. Percentage of the scheduled caste (SC) families was maximum for having non-institutional deliveries and they were at the least in category-wise to go for institutional deliveries.

When seen in relation to the landholding status of the family, landowner families had only four per cent of the total non-institutional deliveries as compared to 22 per cent of the institutional deliveries.

TABLE 1
SOCIO-ECONOMIC CHARACTERISTICS OF THE RESPONDENTS

Religion % (No.)				Caste % (No.)			Landholding % (No.)	
Hindu	**Sikh**	**Muslim**	**Christian**	**General**	**OBC**	**SC**	**Landowner**	**Landless**
Institutional Deliveries								
86.4 (102)	9.3 (11)	3.4 (4)	0.9 (1)	45.8 (54)	34.8 (41)	19.5 (23)	22.0 (26)	78.0 (92)
Non-institutional Deliveries								
92.7(76)	0.0(0)	6.1(5)	1.2(1)	35.4(29)			3.7(3)	96.3(79)

OCCUPATION

Table 2 provides the data about the earning status of the husband and wife and preference for institutional and non-institutional deliveries. Men, who were in some kind of service, were more likely to send their wives for institutional deliveries (83%) than non-institutional deliveries (54%). Among the daily wagers, findings were just the reverse. Thirty-nine and seven per cent of the non-institutional and institutional deliveries respectively were carried out on the wives of daily wagers. Majority (94%) of the respondents who had delivered their last child in a health facility were housewives. Among the non-institutional deliveries comparative percentage of housewives was less (67%) and it was more for daily-wagers (22%).

TABLE 2
MAIN OCCUPATION OF THE COUPLE

Husband's Occupation % (No.)				Wife's Occupation % (No.)				
Service	**Daily-wager**	**Business**	**Others**	**House-wife**	**Daily-wager**	**Maid/ Sweeper**	**Business**	**Service**
Institutional Deliveries								
83.0 (98)	6.8 (8)	8.5 (10)	1.8 (2)	94.1 (111)	0.9 (1)	0.0 (0)	3.4 (4)	1.7 (2)
Non-institutional Deliveries								
53.7 (44)	39.0 (32)	4.9 (4)	2.4 (2)	67.1 (55)	22.0 (18)	7.3 (6)	2.4 (2)	1.2 (1)

Income Level of the Household

Income level of the household was an indicator of the economic status of the family. All the respondents were asked about the average annual household income of their family. Then the responses were further categorized under three groups. The first one was with the annual income of less than 50 thousand rupees; the second category comprised income between 50 thousand and one lakh rupees and the last one was of the families whose income was more than one lakh rupees.

Among families with an annual household income of more than one lakh, percentage of them using services of a health facility (20%) to deliver a child was double of those preferring home deliveries (10%). Further, 30 per cent and 45 per cent of the households coming under the first category with an income of less than 50 thousand rupees had institutional and non-institutional deliveries respectively.

Demographic Profile

Another important and significant aspect in this area was the demographic profile of the couples. The table below gave a glance of the child composition of all the couples. The classification was done on the basis of the number of living children of each couple. It gave information on the basis of the sex of the child also.

Table 3 reveals that from the home deliveries, it was their first child for 27 per cent of the couples. Even at the time of the first birth when woman had no previous experience, then also people took the risk of the home delivery. If we compared the figures of women with four or more number of living children with those opting for institutional

and non-institutional deliveries then we found that it was more for non-institutional deliveries (22%) than institutional deliveries (10%). For the higher order of pregnancy; rural women tend to deliver their child at home instead of going to a health facility.

TABLE 3
DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

1 Child		2 Children			3 Children			4 or More Children			
S	D	2S	2D	1S1D	3S	3D	2S1D	1S2D	2S2D	S>=3	D>=3
Institutional Deliveries % (No.)											
18.6 (22)	7.6 (9)	20.3 (24)	2.5 (3)	24.6 (29)	0.9 (1)	1.7 (2)	5.9 (7)	7.6 (9)	0.9 (1)	3.4 (4)	5.9 (7)
Non-Institutional Deliveries % (No.)											
13.4 (11)	13.4 (11)	13.4 (11)	4.9 (4)	15.9 (13)	2.4 (2)	0.0 (0)	9.8 (8)	4.9 (4)	4.9 (4)	8.5 (7)	8.5 (7)

Note: S- son, D- daughter.

Reasons of Delivering at the Institution or Home

In any human society, care of mothers and children is the most important social-health issue. But both are subjected to inadequate health care in our society. In the context of safe motherhood and babyhood, good health and safety of both mother and child are very crucial. Indian government has been taking steps to strengthen the maternal and child health (MCH) services from the time of first and second five-year plans and MCH is one of the most vital objectives of the Family Welfare Programme in India.

Findings in Table 4 show a description of the reasons for delivering at the institution or at home. For this question, the respondents were allowed to give multiple responses. The main reasons cited by the respondents for delivering at an institution were delivery being easy and convenient (73.7%) followed by faith in the doctor (21.2%) and proximity to the hospital (19.5%).

Under various programmes and schemes like RCH, efforts are being made to involve the health personnel for advising rural people about the advantages and benefits of the institutional deliveries. Female Multi Purpose Health Workers (MPHW) play an important role during the pregnancy of the women and their home visits provide opportunities for close interaction with the pregnant women. Accordingly, they understand the problems associated with pregnancy and provide counseling as well as services as required. Yet only 13 per cent of the respondents were advised by the health functionaries about the importance and advantages of delivering the child at a health facility. It was further seen that only less than seven per cent of the respondents were worried of the infection at home. It reflects that our government's efforts in this direction were not giving the expected outcomes. We need to go a long way even before we think of achieving the desired results.

The most common response for delivering the child at home was that it was a cultural practice (68.3%) in the society. Even their older generations had given birth to their children only at home and they believe in the continuation of this practice. In their view, childbirth is a natural phenomenon and there is no need to go to a health facility. Other

main reasons cited by them were inadequate systems including shortage in supply of drugs in the hospitals (25.6%), home delivery was easy and convenient (24.4%) and poor quality of care in the hospitals (20.7%). Surprisingly, only two respondents reported financial problems at home and one was worried about the cost of care in the hospital. For more than 30 per cent of the women, distance from the hospital, lack of transportation facility or lack of escort during labour was one of the reasons for delivering the child at home.

The aggregate percentage of the respondents who were dissatisfied with the health facilities for various reasons was as high as 52.4 per cent. It included inadequate systems with shortage of supply of drugs in hospitals (25.6%), poor quality of care (20.7%), inappropriate referral system leading to overcrowding in urban hospitals (3.7%) and negative attitude of the staff in the health facilities (2.4%). This meant that our efforts to provide all the necessary facilities and comforts to the mother and child in the hospitals were not giving dividends up to the satisfaction level of the people. In spite of such a huge expenditure and inputs on the health infrastructure by the Government of India and availability of health facilities, so many people were still not happy with the services leading to more number of non-institutional deliveries.

When the respondents were asked about the reasons for the preference of home delivery, they responded that they had to take care of the various other household chores and other children also. If they went for an institutional delivery, then their household schedule gets disturbed and they were in no position to afford it. So, they preferred home delivery as it won't disturb their household activities to a larger extent and they could manage on both the fronts.

TABLE 4
MAIN REASONS OF DELIVERING AT THE INSTITUTION OR HOME

Reasons for Delivering	**Response Rate % (No.)**
At institution	
Delivery is easy and convenient	73.7 (87)
Faith in doctor	21.2 (25)
Proximity to the hospital	19.5 (23)
Problems related to home deliveries	13.6 (16)
Advised by health functionaries	12.7 (15)
Worry about infection at home	6.8 (8)
All previous deliveries were at institution	5.9 (7)
Precipitate labour	4.2 (5)
At home	
Cultural practice	68.3 (56)
Inadequate systems including a shortage of supplies and drugs in hospitals	25.6 (21)
Home delivery is easy and convenient	24.4 (20)
Poor quality of care	20.7 (17)
Onset of labour before the expected date/Precipitate labour	14.6 (12)
Distance of the hospital	13.4 (11)

Lack of transportation	9.8 (8)
Lack of escort during labour	8.5 (7)
All previous deliveries were at home	6.1 (5)
Fear about hospital	4.9(4)
Fear of surgical procedures	4.9 (4)
Family members preference for home delivery	3.7 (3)
Financial problems at home/worries about cost of care in the hospital	3.7 (3)
Inappropriate referral system leading to overcrowding in urban hospitals	3.7 (3)
Negative attitude of staff in health facilities	2.4 (2)

Note: Multiple responses allowed.

Place of Delivery

Findings given in Table 5 reveal that out of the total children born in an institution, 89 per cent of the deliveries were conducted at government facilities and only 11 per cent had utilized the services of private sector health facilities.

Sometimes due to old customs, it has been seen that woman does not give birth to the child inside the house. She is termed to be impure at that time and can enter the household only after having a bath. It is unfortunate that on one hand, she is bringing a new life on to the earth and on the other hand, she is termed polluted by her own family. So, all the women respondents who gave birth to their last child at home were asked about the exact place of delivering the baby. A little more than three-fifths of the deliveries were conducted inside the house. About 32 per cent of the deliveries were performed in a separate room. The noteworthy point was that four deliveries took place outside the house and two children were born in the backyard of the house. The babies were given birth in poor environments with insufficient medical services.

TABLE 5
PLACE OF DELIVERY

Institutional deliveries		**Non-institutional deliveries**			
Government hospital	**Private hospital**	**Inside the house**	**Outside the house**	**In a Room**	**Backyard of the house**
89.0 (105)	11.0 (13)	61.0 (50)	4.9 (4)	31.7 (26)	2.4 (2)

Feeding Practices

Mother's milk is best for the newborn babies as it provides them with all the required nutrients for their healthy growth and development. Breast milk gives the child all the required nutrients for their growth and the overall development. The advantageous aspect of breast-feed is that it is more nutritious than other milks (cow, buffalo, etc.) as it has more lactose, vitamin A, vitamin C and vitamin E and it prevents infections in the child's body. As breast milk is natural, pure and unadulterated; breast-feeding a baby is a sensible decision. World Health Organization (WHO) recommends that colostrums (i.e. the yellowish, sticky breast milk produced at the end of pregnancy) is best for the newborn child and breast-feeding should be started within one hour of the birth and up to six months exclusive breast-feeding is recommended[7].

Indian government also promotes and guides the mothers to exclusively breast-feed the child for the first six months and then to add other semi-solid and solid complementary foods for the young infants. The government has given due recognition to this aspect of child feeding practices and this can be analyzed from the fact that the Planning Commission has already recognized the importance of infant and young children's feeding practices and put goals for breast-feeding and complementary feeding in the National Nutritional Goals under the Xth Five-Year Plan[8].

Table 6 below presents a comparative picture of the type of first feed given to children in a health facility or at home. It was observed that the percentage of newborns that were given breast milk/colostrums as their first feed was almost twice in the case of institutional (53%) than non-institutional (27%) deliveries. It was seen that among home deliveries, cow/buffalo milk was the most common first feed given to the child (30%). From among the women going for an institutional delivery, 8.5 per cent of them gave formula feed/milk from the hospital. This might have done due to the delay in coming of breast milk of the mother. This was not seen in the case of home deliveries. These were some of the advantages of delivering the child in a hospital under the supervision of trained health staff. The prevalent belief behind giving goat milk as the first feed was that it would result in good health of the newborn and it was followed as an age-old custom.

It is a matter of concern was that in spite of delivering the baby in a health facility in the presence of trained health personnel, two babies were given water/water with sugar after birth and one of the newborns was given tea as the first feed.

TABLE 6
TYPE OF FIRST FEED GIVEN TO THE CHILD

Breast milk/ colostrums	Honey	Cow/ buffalo milk	Goat milk	Formula feed/milk from hospital	Ghutti	Water/ water with sugar	Tea
Institutional deliveries							
53.4 (63)	28.8 (34)	3.4 (4)	0.0 (0)	8.5 (10)	3.4	1.7 (2)	0.9 (1)
Non-institutional deliveries							
26.8 (22)	19.5 (16)	30.5 (25)	12.2 (10)	0.0 (0)	4.9 (4)	6.1 (5)	0.0 (0)

Timing of First Feed

As discussed earlier, ideally a newborn baby should be given the first feed within the first 60 minutes after birth only. One of the advantages of delivering the child at home was that 73 per cent of the newborns were given the first feed within the first 15 minutes only. Also, only 4 per cent of the children born at home were fed after one hour in comparison 10 per cent children born in institutions (Table 7). In case of institutional deliveries, the feeding time gets delayed as health staff examines the physical well being of the child before giving the child to the mother.

TABLE 7
TIMING OF FIRST FEED TO THE CHILD

<15 minutes	30 minutes	60 minutes	More than an hour
Institutional deliveries			
50.8 (60)	16.1 (19)	22.9 (27)	10.2 (12)
Non-institutional deliveries			
73.2 (60)	4.9 (4)	18.3 (15)	3.7 (3)

Umbilical Stump

Of the mothers who delivered at a health facility, 79 per cent of the respondents were not aware of proper care of the application of ointment and umbilical stump since the health staff themselves applied the ointment on the umbilical stump. The remaining 21 per cent said that an antiseptic was applied to the umbilical stump.

A negative consequence of home deliveries was that for three-fifth of the home deliveries, oil or ghee was applied to the umbilical stump. Another 17 per cent of the respondents informed that the attendant had applied oil and turmeric to the stump. The application of oil, turmeric or ghee on the cord stump may lead to infections and ill health of the newborn child. For only about 12 per cent of the women, an antiseptic was used.

Sometimes the attendant at the time of delivery was not aware of the care and precautions to be taken or had a casual approach or had more faith in the old customs and methods followed in the villages. This low awareness on the part of the attendant at the time of non-institutional delivery results in adverse health conditions of the new-born.

TABLE 8
OINTMENT APPLIED TO UMBILICAL STUMP

Ointment applied to umbilical stump	Nothing	Oil/ghee	Oil and turmeric	Antiseptic	Unknown
Institutional deliveries					
0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	21.2 (25)	78.8 (93)
Non-institutional deliveries					
1.2 (1)	6.1 (5)	59.8 (49)	17.1 (14)	12.2 (10)	4.9 (4)

CONCLUSION

The study revealed that about three-fifth of the women in the village of Punjab had delivered their last child in a health institution. As far as the caste of the respondents is concerned, more number of women belonging to general and OBC population

had more tendencies to opt for institutional delivery and SC couples preferred a non-institutional delivery. Economically better families were more inclined towards institutional deliveries. For the higher order of pregnancy, rural women preferred to give birth to the child at home.

The main reason for delivering a child at a health facility was that it makes delivery easy and convenient (73.7%). On the other hand, those giving birth at home, gave cultural factors (68.3%) as the most common reason. It was seen that out of the total home deliveries, four deliveries took place outside the house and two children were born in the backyard of the house.

The percentage of newborns having been given breast-milk/colostrums as their first feed was twice for institutional (53%) than non-institutional (27%) deliveries. The most preferred feed in the case of home births was cow/buffalo milk (30%). A negative outcome of home deliveries was that only 12 per cent of the mothers had applied antiseptic ointment on the umbilical stump. In all the other cases oil, ghee or turmeric was applied.

The complementing fact was that the utilization of health facilities for delivering the newborn had increased in the past. However, still 40 per cent of the total deliveries were conducted at home. This was the state of affairs in a village located on the outer edge of a big urban city and where residents had easy access to various health facilities. The results were of real concern and we have to go a long way in order to achieve the universalization of institutional deliveries. We need to work more vigorously for making motherhood safer and enhancing the child survival after birth.

REFERENCES

1. SUGATHAN K.S., VINOD MISHRA & ROBERT D. RETHERFORD (2001): Promoting Institutional Deliveries in Rural India: The Role of Ante-natal Care Services; National Family Health Survey Subject Reports, Number 20, December.
2. National Rural Health Mission (2005-2012), Mission Document, Ministry of Health and Family Welfare, Government of India.
3. International Institute for Population Sciences (1995): National Family Health Survey: Punjab 1992-93, Bombay, IIPS.
4. International Institute of Population Sciences and ORC Macro (2001): National Family Health Survey: Punjab 1998-'99, Bombay, IIPS.
5. www.nfhsindia.org/factsheets.
6. Census of India 2001; Registrar General of India.
7. RAJESWARI BALAJI, DILIP T.R. & RAVI DUGGAL (2003): Utilization and Expenditure on Delivery Care Services: Some Observations from Nashik District, Maharashtra', Regional Health Forum, WHO South-East Asia Region, Vol. 7, No. 2, 2003.
8. http://wcd.nic.in/nationalguidelines.pdf

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PERCEPTION AND USE OF PAP SMEAR AMONG MEDICAL PERSONNEL IN NEW DELHI, INDIA

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ABSTRACT

With an objective of finding out the awareness level and usage of Pap smear among medical personnel in Delhi, the study was conducted on medical personnel working in hospitals associated with a medical college in Delhi. A pre-tested questionnaire was developed which included knowledge, common myths about Pap smear, usage of the test by self and family members and the data were analyzed using Epi info software package. The results of this study show that the level of awareness about Pap smear was poor among nurses (33%), graduate medical students (35.4%) and post graduate residents (24.2%). A very low usage of Pap test in the sample group (19.7%) was found. 58.5 per cent of the respondents said that it's not the ideal time to get the test done though they fall in the eligible age group. Only (44%) of the medicos have ever asked their family members to get the test done. Awareness and usage of Pap smear among medical personnel is very low. These results strongly suggest the need for starting awareness campaigns and training programmes for medical personnel.

Key Words: Cancer Cervix, Pap Smear, Medical Personnel, Awareness, Cervical Carcinoma.

Cervical cancer is the third most common cancer in the world[1] and the commonest malignancy found among the Indian women. Almost 200,000 women, all over the world, died of this disease in 2000. In India, about 100,000 women develop this cancer every year[2] constituting about 16 per cent of the world's annual incidence of cancer[3]. Cytological screening of the cervix using Pap smear, with appropriate treatment and follow-up is the only proven strategy for the prevention of cervical cancer. There is convincing evidence that cytological screening can be an effective tool in reducing mortality from carcinoma of the cervix. It also probably helps in decreasing the incidence of cervical malignancy. In developed countries, the incidence of cervical cancer has decreased due to screening, early detection and treatment. However, in developing countries, 80 per cent of the cervical cancers are incurable at the time of detection due to their advanced stage[4]. According to AHCPR (Agency for Health Care Policy and Research), a woman's lifetime risk of developing and dying of invasive cervical cancer is nearly 1 per cent and 0.3 per cent respectively[5]. The best way to prevent this cancer

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is to undergo Pap smear during the early phase of life. Some advocate this screening as early as 20 years of age[6]. However, very little is known about the awareness level and acceptability of this test among the Indian population. This study is designed to find out the awareness level and usage of Pap smear among medical personnel in New Delhi.

METHODOLOGY

The study was conducted in a medical college and its associated hospitals situated in New Delhi. The study respondents included all medical and nursing professionals. A pre-tested questionnaire was developed which included socio-demographic characteristics of the subjects, knowledge about Pap smear, common myths about Pap smear, usage of the test by self and family members. This questionnaire was distributed in a sealed envelope and collected the next day. Sample of 245 subjects was randomly chosen from the list of residents provided by the departments. The study subjects were kept anonymous. A total of 245 forms were distributed, out of which 213 (87%) responded. Data were analyzed with the help of Epi-info computer software package. For the comparison of two proportions or many proportions, chi square test was used and statistical significance was set at 5 per cent level.

FINDINGS

Table 1 show that among the female medical personnel surveyed, the usage of Pap smear was only 19.7 per cent. The usage was even lower among medical graduates (21.8%) and post-graduates (15.0%) as compared to the nurses (36.7%). The reason cited by most of the respondents was that it was not the ideal time for them to get the test done (58.5%). The other reasons given were inaccessibility (9.6%), the test being not useful (9.6%), social embarrassment (7.4%), side-effect of the test (3.2%). Many respondents said that they never thought about it (11.7%). The usage was seen more among married nurses (90.9%) as compared to graduate and post-graduate medical personnel. It is observed that the number of females undergoing the test was increasing with the increase in age as the percentage was only 8.7 per cent among women in the age group of 21-25 years while the figure stood at almost 43.5 per cent among women aged above 30 years.

TABLE 1
USE OF PAP SMEAR TEST FOR SCREENING CERVICAL CARCINOMA BY EDUCATIONAL STATUS OF MEDICAL PROFESSIONALS

Females who had Pap smear done at least once	GNMn=30	Graduate n=99	Post-graduate n=84	Total N=213	χ2 Test	p value
Response received	30 (100)	47 (47.5)	40 (47.6)	117 (54.9)		
Yes	11(36.7)	6 (12.8)	6 (15.0)	23 (19.7)	7.46	0.02
No	19 (63.3)	41 (87.2)	34 (85.0)	94 (80.3)		
If no, why?						
1. Not a useful test	0.(0.0)	4 (9.8)	5 (14.7)	9 (9.6)	3.37	0.1
2. Social embarrassment	3 (15.8)	3.(7.3)	1 (2.9)	7 (7.4)	2.57	0.2
3. Inaccessibility	3 (15.8)	4(9.8)	2(5.9)	9 (9.6)	1.13	0.56

4. Not the ideal time as yet	11 (57.9)	26 (63.3)	18 (52.9)	55(58.5)	0.7	0.7
5. Side-effects of the test	1 (5.3)1(5.3)	1 (2.4)3 (7.3)	2 (2.9)7 (20.6)	3 (3.2)11 (11.7)		0.80.09
Married who responded yes	10(90.9)	2 (33.3)	5 (83.3)			
	17 (73.9)	5.34	0.06			
Age distribution of yes response*					19.30	<0.001
21-25 year	0 (0.0)	2 (33.3)	0 (0.0)	2 (8.7)		
26-30 year	1 (9.1)	4 (66.6)	6 (100.0)	11 (47.8)		
>31 year	10 (90.9)	0 (0.0)	0 (0.0)	10 (43.5)		
*Age <30 year Vs >30 year						

Data given in Table 2 present the responses to the questions regarding procedure and result of Pap smear. 50 per cent of the nurses and 69.7per cent and 72.3 per cent of the graduates and post-graduates respectively stated that one should not douche before Pap smear. Around 55 per cent of the personnel believed that getting a call for a repeat Pap test means that it's a bad news. 32.5 per cent of the study respondents believed that an abnormal Pap smear means that a female is at risk of cervical carcinoma. On the other hand, 30.7 per cent of the respondents thought that the test results are not reliable. This is more among nurses (33.3%) and medical graduates (35.4%) than post-graduates (24.1%).

TABLE 2
AWARENESS OF PAP SMEAR SCREENING AMONG MEDICAL PERSONNEL

	GNMn=30	**Graduate n=99**	**Post-graduaten=84**	**Total N=213**	**X2**	**p value**
When should this testing be started?						
1. Within 3 years of becoming sexually active	3 (10)	61 (61.6)	50 (59.55)	114(53.5)	27.0	0.001
2. Above 21 years	7 (23.3)	27 (27.3)	29 (34.5)	63 (29.6)	1.8	6.4
When should this testing be discontinued?						
1.Consecutive negatives	0 (0.0)	3 (3.0)	6 (1.1)	9 (4.3)	3.4	0.17
2. Post menopausal	0 (0.0)	24 (24.2)	11 (13.1)	35(16.4)	10.9	0.004
3. Don't know	23(76.7)	44 (44.8)	41 (48.8)	108(50.7)	9.7	0.007
4. Never	2 (6.7)	16 (16.2)	19(22.6)	37(17.4)	4.1	0.1
5. Other responses	5 (16.7)	12 (12.1)	6 (7.1)	23 (10.8)	2.4	0.29
Do you think Pap smear is required only in sexually active females? Yes	18 (60)	55 (55.6)	49 (59.0)	122(57.5)	2.33	0.6

You don't need Pap smear if you have passed menopause.	11 (36.7)	62 (62.6)	57 (68.7)	130(61.3)	11.9	0.001
You should douche before having a Pap smear .	15 (50)	46 (46.5)	35 (92.2)	144(67.9)	19.8	0.0005
If you get a call to come in for a repeat Pap test, it must be a bad news.	15 (50)	46 (46.5)	35 (92.2)	46 (45.3)	1.12	0.8
Do you think Pap smear results are not reliable?	20 (68.7)	64 (64.6)	63 (75.9)	47(69.3)	16.73	<0.001
Abnormal Pap smear means that woman is at high risk for cervical carcinoma.	9 (30)	25 (26.3)	31 (41.0)	59 (37.5)	16.0	0.002

Table 3 shows that responses of medical personnel regarding their advice for Pap smear given to their family members. Only 44 per cent of the medicos have ever asked their family members to get the test done of which males constitute significantly lower (30%) vis-à-vis females (50.9%). The most common reason cited for this was that they never thought about it, males accounted 29.6 per cent and females accounted 31.6 per cent. Other reasons were inaccessibility (25.6%), the test being not useful (24%), social embarrassment (24%) and side-effect of the test (5.6%).

TABLE 3
ADVICE BY MEDICAL PROFESSIONALS FOR PAP SMEAR TO THEIR FAMILY MEMBERS

	Male (n =101)	**Female (n=112)**	**Total (n=213)**	**χ2 Test**	**p value**
Have you asked your family member for Pap smear?	31 (30.7)	57 (50.9)	88 (41)	8.12	0.04
If no, why?					
1. Not a useful test	10 (14.1)	20 (17.5)	30(14)	0.35	0.5
2. Social embarrassment	14 (19.7)	16 (28.1)	30(14)	0.94	0.3
3. Inaccessibility	20 (28.2)	12 (21.1)	32(14)	0.43	0.5
4. S/E	6 (8.5)	1 (1.8)	07(3.2)	1.5	0.2
5. Other (never thought about it)	71 (29.6)	18 (31.6)	89(42)	0.02	0.8

DISCUSSION

One special feature of cervical cancer is that it is preceded by a spectrum of pre-cancerous lesions[7,8] called Cervical Intraepithelial Neoplasia (CIN) and Squamous

Intraepithelial Lesions (SIL). Their pre-invasive precursors may exist in a reversible phase of surface or in situ disease for several years. The mean age of patients with carcinoma in situ was 15.6 years younger than that of patients with invasive squamous cell carcinoma[9]. If pre-cancerous lesions are detected, they can be completely treated by ablative or excisional methods of surgery. However, if left untreated, a significant number of these may persist and progress to invasive cancer. Therefore, screening for pre-invasive and early invasive lesions of the cervix is a priority. Cytological screening of the cervix using Pap smear with appropriate treatment and follow-up is the only proven strategy for the prevention of cervical cancer. Earlier studies have reported that exfoliative cytology has a high specificity of 90-99 per cent but a relatively sensitivity of about 76-80 per cent[10-12]. After three consecutive yearly Pap smears, the sensitivity would be 88.2 per cent. There is convincing evidence that cytological screening can be an effective tool in reducing mortality from cervical carcinoma. It also probably helps in decreasing the incidence of cervical malignancy. When women are screened at 1 or 2 year intervals, the incidence of cervical cancer is reduced by 93 per cent. If they are screened at 3 year intervals, the incidence is reduced by more than 90 per cent and at 5 year intervals; the incidence is reduced by about 83 per cent[13].

In a large study from India, Luthra et al[14] screened 68,436 women and found the mean ages of mild, moderate and severe dysplasia were 33.8, 35.2 and 40.2 years respectively. Another study from South India found the average age of mild dysplasia was 31.4 years, severe dysplasia 34.3 years, carcinoma in situ 34.7 years and invasive carcinoma 42.2 years[15].

In India, the prevalence of any grade of cervical dysplasia on screening cytology has been found to vary from 1.5 to 6.3 per cent[14,16]. Shouberg[17] in his study in Mexico found 2.3 per cent of all smears as abnormal. However, in a recent study by Manos et al[18], it was found that the relative incidence of all abnormal smears in a screened population is around 5.2 per cent. In these three studies, the distribution of abnormal smears is ranging from 1.2 per cent for mild dysplasias to 0.3 per cent for malignancy[19-21].

CONCLUSION

Use of Pap smear as a screening tool for cervical carcinoma among medical and nursing personnel was as low as 19.7 per cent though they are in the eligible age group. The use tends to increase with age but still the average age group of females being started getting tested was very late. Use of Pap smear even among the family members of medical personnel is very low (41%). About 50 per cent of the respondents don't know the criteria regarding initiation and stoppage of testing i.e. the eligible age group for this test. A very high percentage of medicos think that getting a call for a repeat Pap test is a bad news. It is concluded from the study findings that medical personnel have low levels of awareness and usage of Pap test even though it is safe and the cheapest method available for cervical carcinoma screening. There is a need of starting awareness programmes and training of medical personnel on carcinoma prevention.

REFERENCES

1. PARKIN D.M., BRAY F., FERLAY et al. (2001): Estimating the World Cancer Burden: Globocan 2000; Int. J. Cancer, 94:153-6.
2. LUTHRA U.K., KOTWANI B.G., KOCHHAR M. et al. (1983): Uterine Cervical Dysplasia and Herpes Simplex Virus; Indian J. Med. Res.,78: 60-66.
3. World Health Organisation (1986): Control of Cancer of the Cervix Uteri; WHO Bull., 64: 607-618.
4. WHO Memoranda-Cervical Cancer Control in Developing Countries (1996): Memorandum of a WHO Meeting, WHO Bulletin OMS, 74.
5. Agency for Health Care Policy and Research (1999): Evaluation of Cervical Cytology; In AHCPR-Evidence Report/Technology Assessment No.5, Rockville USA: AHCPR, US Department of Health and Human Service.
6. SASLOW B., RUNOWICZ C.D., DIANE SOLOMON et al. (2002): American Cancer Society Guideline for the Early Detection of Cervical Neoplasia and Cancer; CA Cancer J Clin., 52: 342-362.
7. KOSS L.G., STEWART F.W., JORDAN M.J., BADER G.M. & DAY E. (1963): Some Histological Aspects of Epidermoid Carcinoma in Situ and Related Lesions of the Uterine Cervix; Cancer, 16: 1160-211.
8. PINTO A.P. & CRUM C.P. (2000): Natural History of Cervical Neoplasia: Defining Progression and Its Consequence; Clinical Obstetrics and Gynaecology, 43(2): 352-362.
9. BEREK J.S. & HACKER N.F. (1994): Principles and Practices of Gynaecologic Oncology; Lippincott, Philadelphia.
10. SOOST H.J., LANGE H.J., LEHMACHER W., RUFFINGER KULLMAN B. (1991): The Validation of Cervical Cytology–Sensitivity, Specificity and Predictive Value; Acta Cytol., 35(1): 8-14.
11. DI BONITO L., FALCONIERI G., TOMASIC G. et al. (1993): Cervical Cytopathology–An Evaluation of Its Accuracy Based on Cytohistologic Comparison; Cancer, 72: 3002-6.
12. VANDER GRAFF & VOOJIS G.P. (1987): False Negative Rates in Cervical Cytology; J Clin. Patho., 40: 438-442.
13. World Health Organisation (1986): Control of Cancer of the Cervix Uteri, WHO Bull., 64: 607-18.
14. LUTHRA U.K., PRABHAKAR A.K., SETH P. et al. (1987): Natural History of Precancerous and Early Cancerous Lesions of the Uterine Cervix; Acta Cytol., 31(3): 226-34.
15. BHASKARAN C.S., BHAGYALAKSHMI M. & RANI L.U. (1978): Pre-malignant and Malignant Lesions of Cervix; Ind. J. Med. Res., 67: 97-105.
16. ENGINEER A.D. & MISRA J.S. (1987): The Role of Routine Out-patient Cytological Screening for Early Detection of Carcinoma of the Cervix in India; Diagn. Cytopath., 3(1): 30-34.
17. SHOUBERG L.A., FAYHEE C., IRWIN H.R. et al. (1905): Cancer of the Cervix in a Mexican Population; JAMA, 191: 196.
18. MANOS M.M., KINNEY W.K. & HURLEY L.B. (1999): Identifying Women with Cervical Neoplasia Using Human Papilloma Virus DNA Technique for Equivocal Pap Results; JAMA, 281: 1605-1610.
19. CUZICK J., SZAROWSKI A., TERRY G. et al. (1995): Human Papilloma Virus Testing in Primary Cervical Screening; Lancet, 345: 1533-1536.

20. CRONJE H.S., PARHAM G.P., COOREMAN B.F. et al. (2003): A Comparison of Four Screening Methods for Cervical Neoplasia in a Developing Country; Am. J. Obstet. Gynecol., 188: 395-400.
21. GOEL A., GANDHI G., BATRA S. (2002): Visual Inspection of the Cervix with Acetic Acid (VIA) and Selection of Cases for LLETZ; Thesis, Delhi University, New Delhi.

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AWARENESS OF WOMEN ABOUT STDs, HIV/AIDS AND CONDOM USE IN INDIA: LESSONS FOR PREVENTIVE PROGRAMMES

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ABSTRACT

The study examines the relative importance of awareness level of STD, HIV/AIDS and condom use with socio-economic variables in India. Data collected in the third round of the National Family Health Survey 2005-'06, have been used to purse the objective of the paper. A total of 124385 ever married women of in the age group of 15-49 years from 29 major states of India were included in the study. Logistic regression model was adopted to understand the significance of HIV awareness on condom use. Analyses reveal that awareness among women about STD excluding HIV was as low as 3.2 per cent. Only 4.8 per cent of the women reported condom use at the last sexual intercourse ($p<0.05$). 42-50 per cent of the ever married women from four states of India namely Rajasthan, Jharkhand, Chhattisgarh and Uttar Pradesh are not aware of any STD and HIV/AIDS. Socio-economic characteristics such as domicile, education and wealth index of household are found to be significantly associated with the level of HIV awareness and condom use at the last sexual intercourse especially among poorer, rural and uneducated women. The study highlights the need for integrated prevention programmes that emphasise on the use of condom for HIV prevention as well as STDs. Further investigations are required to understand the reasons for the low use of condoms in India.

Key Words: STDs, HIV/AIDS, Condom, Women's Awareness, Socio-economic Variables, NFHS-3.

India has the third largest HIV infected population in the world, through the prevalence rate continues to be lower than one per cent. After UNAIDS revised the estimated number of people living with HIV in India downwards from 5.7 million to 2.5 million in 2007, it appeared that the burden of the disease in the Indian society was not as important as other issues, such as basic sanitation and food security[1,2]. In response to the epidemic, the Indian government has launched the third phase of the National AIDS Control Programme where 70 per cent of the budget was earmarked for prevention strategies and nearly 20 per cent was allocated for care and treatment[3].

Correct and consistence condom use is an integral and essential strategy of the comprehensive prevention and care programmes which reduce the risks of HIV transmission. Recent analysis of the AIDS epidemic in Uganda has recommended that increased condom use in conjunction with delay in age of first sexual intercourse and reduction of sexual partners, was an important factor in the decline of HIV prevalence in the 1990s[4]. Similar policy has helped to stabilized the national HIV prevalence in several countries like Cambodia and Brazil[5,6].

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To increase the efficiency of such an initiative, it is very important to understand how much the population knows about HIV and how much HIV preventive actions, specifically condom use, are being practiced. Several studies[7,8] have indicated high level of HIV/AIDS awareness in various groups of Indian population yet condom use among the general population is still low. Though HIV situation is diverse across the country as different cultural norms are practiced in different regions, the paper examines the relative importance of awareness level of STD, HIV/AIDS and condom use in all major states of India. An attempt has also been made to investigate the correlation of people's knowledge about STD and HIV/AIDS and condom use with socio-economic variables such as gender, age, marital status, place of residence, religion, education and wealth which can potentially highlight the population that are more susceptible to infection where preventive resources should be allocated more.

METHODOLOGY

The data collected in the third round of the National Family Health Survey (NFHS-3)[9] 2005-'06, have been used to purse the objectives of this paper. The cross-sectional design of this survey is such that it represents the population, that is, variability of population is included in the sample. Studies have shown that women are more reliable in giving answers on contraceptive use and reproductive health[10]. Therefore, women were taken as sample respondents on the study of condom use. The total 124385 women in the age group of 15-49 years from 29 major states of India, interviewed under NFHS-3, were included in the analyses.

A logistic regression model was fitted to a binary outcome, coded as 1 if the woman is aware of HIV and 0 if not aware. Similar coding was done in case of awareness about STD. Likewise; code 1 was fitted, if the woman reported condom use in the last sexual intercourse, and 0 if no condom use was reported.

The binary logistic model used in this paper is:

P(Y=1IX)=exB/1+exb
Where Y is the dependent variable representing condom use, the vector X'= (1, X1, X2……XP), with X1, X2….Xp where p are independent vairbales and B is the vector of logistic regression parameters, with B' = (B0, B1…..Bp).

Literature suggests that awareness of STD, HIV/AIDS and condom use could possibly be influenced by a number of socio-demographic factors. The study, therefore, included age of the women (15-19 years/20-24 years/25 years and above), domicile (rural/urban), religion (Hindu/non-Hindu), marital status (never married/currently married/separated/widowed/divorced), educational status (illiterate/primary education/ secondary completed/high school and above), occupation status and wealth index (poor/middle/high). An index of the economic status of the households called the wealth index was used. It is an indicator of the level of wealth that is consistent with expenditure and income measures[11].

Statistical Analysis

Statistical analysis was done using SPSS 16.0 (SPSS, Inc., Chicago, IL.USA). Univariate and bivariate analysis of socio-demographic and other variables was

performed. The Pearson's chi-square test was used to assess the significance in the categorical data. Logistic regression model was performed to determine whether the women's knowledge about STD/HIV/AIDS predicted condom use at the last sexual intercourse. A value of $p<0.05$ was considered significant.

FINDINGS AND DISCUSSION

The main focus of this study was on the awareness level of women about STD, HIV/AIDS and condom use in 29 major states in India. Table 1 presents the level of knowledge of STD and HIV/AIDS in 29 major states of India. It has been noted that awareness of women in the age group of 15-49 years about STDs excluding HIV was as low as 3.2 per cent whereas HIV/AIDS awareness was 71 per cent. These numbers are much higher when compared to the responses from populations of Sub-Saharan African countries[12]. Surprisingly, 42-50 per cent of the ever married women from four states of India namely Rajasthan, Jharkhand, Chhattisgarh and Uttar Pradesh were not aware of any STD including HIV/AIDS.

TABLE 1
AWARENESS LEVEL OF STD AND HIV AMONG EVER MARRIED WOMEN IN INDIA

State	Not aware of STD and HIV		Aware of STD excluding HIV		Aware of STD and HIV		Total
	No	%	No	%	No	%	
J&K	1031	31.5	33	1.0	2213	67.5	3277
Himachal Pradesh	478	15.0	5	0.2	2706	84.9	3189
Punjab	956	26.0	22	0.6	2703	73.4	3681
Uttaranchal	820	27.8	62	2.1	2066	70.1	2948
Haryana	988	35.4	37	1.3	1765	63.3	2790
Delhi	349	10.4	58	1.7	2942	87.8	3349
Rajasthan	1929	49.6	365	9.4	1598	41.1	3892
Uttar Pradesh	5138	42.2	654	5.4	6387	52.4	12179
Bihar	1332	34.9	644	16.9	1838	48.2	3814
Sikkim	394	18.5	15	0.7	1718	80.8	2127
Arunachal Pradesh	466	28.4	22	1.3	1150	70.2	1638
Nagaland	563	14.5	10	0.3	3323	85.3	3896
Manipur	55	1.2	3	0.1	4454	98.7	4512
Mizoram	98	5.5	1	0.1	1692	94.5	1791
Tripura	421	22.1	42	2.2	1442	75.7	1905
Meghalaya	649	30.6	5	0.2	1465	69.1	2119
Assam	1357	35.4	68	1.8	2412	62.9	3837
West Bengal	2204	32.4	168	2.5	4422	65.1	6794
Jharkhand	1472	49.5	288	9.7	1216	40.9	2976
Orissa	1239	27.3	152	3.3	3148	69.4	4539
Chhattisgarh	1740	45.7	133	3.5	1937	50.8	3810

Madhya Pradesh	1621	25.2	687	10.7	4119	64.1	6427
Gujarat	1350	36.3	407	10.9	1967	52.8	3724
Maharashtra	1243	13.8	62	0.7	7725	85.5	9030
Andhra Pradesh	1299	18.2	21	0.3	5801	81.5	7121
Karnataka	1758	29.3	52	0.9	4190	69.8	6000
Goa	473	13.7	6	0.2	2984	86.2	3463
Kerala	174	4.9	2	0.1	3390	95.1	3566
Tamil Nadu	293	5.0	4	0.1	5622	95.0	5919
Total	31890	25.7	4028	3.2	88395	71.1	124313*

*missing cases=72 not included in the analysis

The level of current use of contraceptives (no-use, condom use and other contraceptive use) among ever married women in India indicates that about 58 per cent of the women were not using any contraceptives. It is evident from the analysis that current condom use was reported by only 4.8 per cent of the ever married women (Fig.1). Only 6.9 per cent of currently married and currently non-pregnant women reported condom use in their last sexual intercourse (Fig.2). Furthermore, 55 per cent of the respondents reported the use of contraceptives other than condom (majority- female sterilization). Although condom was originally devised and used everywhere for protection against sexually transmitted diseases, it has been perceived and used in India during the last few decades, mainly as a protective devise against unwanted pregnancy. It is mainly used as a method of contraception among the reproductive age groups in India[13]. The current study also suggests that condom use is not widespread. The low levels of reported condom use could be partly due to the fact that couples in long-term relationships may not be using condoms during sex. The use of condom as a contraceptive device varies considerably among states and union territories. State-wise distribution shows that the current use of condom was the highest in Delhi (14.8%) and lowest (0.8%) in Mizoram (Table 2).

Fig.1
Percentage Distribution of Contraceptive Use among Ever Married Women in India (n=124385)

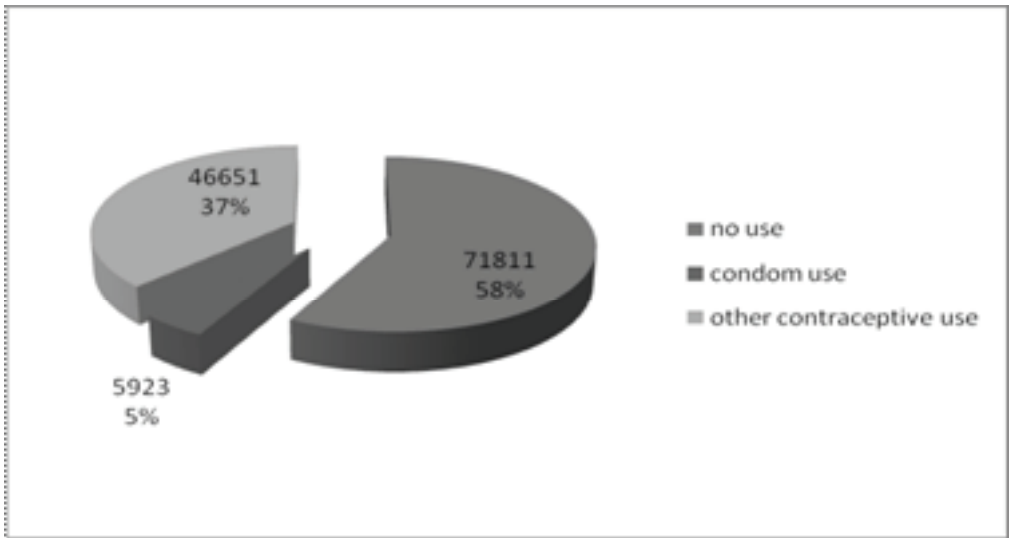
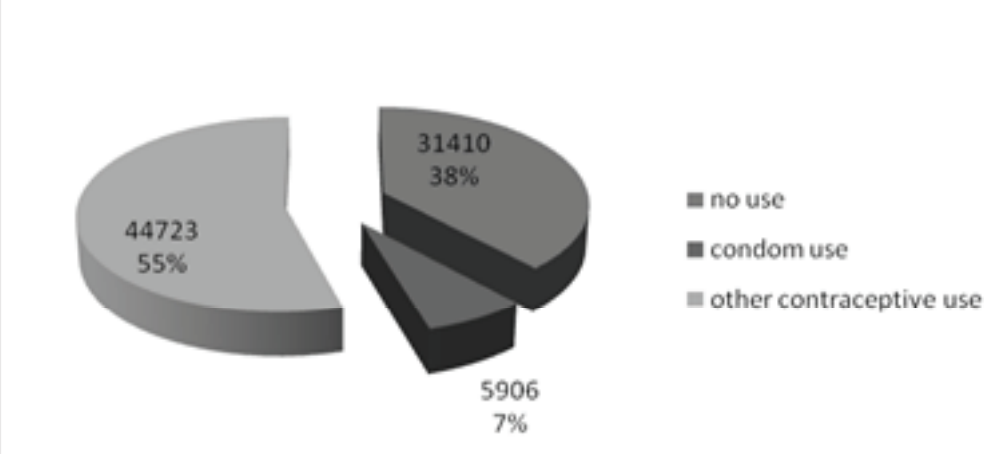


Fig.2
Percentage Distribution of Contraceptive Use among Currently Married and Currently Non-pregnant Women in India (n=82039)



Among the ever married women who were not aware of STD and HIV, condom use rate during the last sexual intercourse was only 2.7 per cent whereas the use rate was significantly higher (9.3%) among those who were aware of STD as well as HIV ($p<0.01$) (Table 3). This shows that the level of awareness about STD as well as HIV/AIDS has a strong bearing on the use of condoms as a measure of protection against these infections.

Table 4 shows awareness about HIV/AIDS amongst women and reported condom use during the last sexual intercourse by selected socio-demographic and economic variables such as age, education, wealth index, etc. Results illustrate a notable gap between the knowledge of HIV and condom use during the last sexual intercourse. For instance, women belonging to urban areas showed a high level of awareness level (86%) whereas the condom use during the last intercourse was only 10.9 per cent. Similar pattern has been observed for other demographic variables also (Table 4).

TABLE 2
STATE-WISE PERCENTAGE DISTRIBUTION OF EVER MARRIED WOMEN REPORTING CURRENT CONTRACEPTIVE USE

State	No use		Condom use		Other contraceptives use		Total
	No	%	No	%	No	%	
J&K	2173	66.2	168	5.1	940	28.6	3281
Himachal Pradesh	1498	46.9	328	10.3	1367	42.8	3193
Punjab	1967	53.4	405	11.0	1309	35.6	3681
Uttaranchal	1686	57.1	334	11.3	933	31.6	2953
Haryana	1395	50.0	242	8.7	1153	41.3	2790
Delhi	1793	53.5	496	14.8	1060	31.7	3349
Rajasthan	2383	61.2	192	4.9	1317	33.8	3892

Uttar Pradesh	7875	64.6	1011	8.3	3297	27.1	12183
Bihar	2653	69.5	88	2.3	1077	28.2	3818
Sikkim	1314	61.8	67	3.1	746	35.1	2127
Arunachal Pradesh	1148	69.7	32	1.9	467	28.4	1647
Nagaland	3106	79.7	84	2.2	706	18.1	3896
Manipur	3177	70.4	120	2.7	1215	26.9	4512
Mizoram	1126	62.9	15	0.8	650	36.3	1791
Tripura	999	52.4	48	2.5	859	45.1	1906
Meghalaya	1785	84.0	36	1.7	303	14.3	2124
Assam	2283	59.5	78	2.0	1479	38.5	3840
West Bengal	3066	45.1	289	4.3	3439	50.6	6794
Jharkhand	2059	69.0	80	2.7	844	28.3	2983
Orissa	2784	61.3	115	2.5	1641	36.1	4540
Chhattisgarh	2248	59.0	97	2.5	1465	38.5	3810
Madhya Pradesh	3338	51.9	401	6.2	2688	41.8	6427
Gujarat	1795	48.1	166	4.5	1768	47.4	3729
Maharashtra	4579	50.7	468	5.2	3987	44.1	9034
Andhra Pradesh	3430	48.1	79	1.1	3619	50.8	7128
Karnataka	3042	50.6	73	1.2	2893	48.2	6008
Goa	2392	69.1	156	4.5	916	26.4	3464
Kerala	1700	47.7	145	4.1	1721	48.3	3566
Tamil Nadu	3017	51.0	110	1.9	2792	47.2	5919
India	71811	57.7	5923	4.8	46651	37.5	124385

Table 5 describes the Odds Ratio (OR) of awareness level of HIV and condom use during the last sexual intercourse by socio-economic characteristics in India. It has been noted that women in the age group of 25 years and above were more likely to be aware of HIV as compared to women in the age group of 15-19 years (OR-1.675; $p<0.01$). Age has a relationship with condom use during the last sexual intercourse, i.e. the likelihood of use rate was 21 per cent which was significantly higher as compared to the women of other age groups.

TABLE 3
AWARENESS LEVEL OF WOMEN ABOUT STD AND HIV IN INDIA AND REPORTED CONDOM USE AT THEIR LAST SEXUAL INTERCOURSE

Awareness about STD and HIV/AIDS	**Respondents**	**Condom Use at Last Sexual Intercourse**	
		Respondents	**Used Condom Number (%)**
Not heard about STD and HIV/AIDS	31890	23843	655 (2.7)
Heard about STD but not HIV/AIDS	4028	3489	99 (2.8)

Heard about STD as well as HIV/AIDS	88395	56972	5292 (9.3)
Total	124313*	84304	6046

*missing cases=72 not included in the analysis

Odds of urban resident women, aware of HIV is 68.8 per cent higher than the rural residents when all other background characteristics were adjusted and this differential is significant ($p<0.05$). Similarly, urban residents were significantly more likely to use condom as compared to rural residents (OR-1.237; $p<0.01$). The fact that rural population is lagging behind in the use of condom and this finding needs to be addressed in developing communication strategies which would require simple messages that could be understood by the targeted population. In the religion categories, Hindus were significantly less likely to be aware of HIV as compared to non-Hindu women (OR-0.849; $p<0.000$). Likewise, Hindu women are less likely to use condom (OR-0.735; $p<0.00$). Nearly 20 per cent of the currently married women are significantly less likely to be aware of HIV than the never married women (OR-0.801; $p<0.00$). Corresponding observation has been made for the condom use. It is surprising to note that never married women reported significantly higher use of condoms than their married counterparts. Given the fact that the overwhelming majority of couples' claims to being faithful (assuming honest responses), more focus should also be given to sexually active single individuals[10].

The likelihood ratio of HIV awareness and condom use has been found to be positively associated with level of education and wealth index of women ($p<0.000$) in India. Women educated up to secondary and above, reported six times higher level of awareness (OR-6.166; $p<0.00$) and four times higher use rate (OR-4.440; $p<0.00$) as compared to illiterate women. Education is not only one of the most important socio-economic factors that is known to significantly influence individual behaviour and attitudes but it is also a fundamental indicator of a country's level of human capital development. Various studies[14] have found that education is the most significant predictor of HIV awareness and use of modern reversible methods. Similar to the findings of the present study, condom use was found to be significantly higher among educated couples in comparison to uneducated couples in Cote de' Ivoire[15]. It has also been revealed that women with high wealth index are 34 per cent more likely to know about HIV than the poorest female quintile. This was found to be statistically significant at 0.01 level. The top quintile of the wealthiest women reported 33 per cent more likely to use condoms than the bottom quintile. Literature review has also shown that low economic status usually has a negative effect on condom use[16]; i.e. wealthier people are likely to use more condoms in comparison to the poor people. While examining the HIV awareness and condom use during the last sexual intercourse by occupation, it has been depicted that women engaged in professional/technical/managerial occupations are more likely to be aware of HIV (OR-3.371; $p<0.00$). Similar variations have been observed in condom use rate though this figure is not statistically significant (OR-1.014; $p>0.00$).

TABLE 4
BACKGROUND CHARACTERISTIC OF EVER MARRIED WOMEN AWARE OF HIV/AIDS AND THOSE REPORTED CONDOM USE AT LAST SEXUAL INTERCOURSE

Background Characteristics	Aware of HIV/ AIDS Total (n=124385)		Total %	Condom use at last sexual intercourse		Total (n= 84346)	Chi Square
	Number	%		Number	%		
Age (in years)							
15-19	17047	74.39	22917	226	4.70	4807	<0.000
20-24	15707	77.00	20399	1064	7.49	14204	
25 & above	51883	69.03	75158	4757	7.28	65335	
Domicile							
Rural	39255	58.22	67424	2027	4.27	47429	<0.000
Urban	49140	86.27	56961	4020	10.89	36917	
Religion							
Non-Hindu	24369	74.68	32632	1672	7.67	21789	<0.000
Hindu	60268	70.21	85842	4375	6.99	62557	
Caste							
SC/ST	23833	64.16	37147	1098	1.56	70419	<0.000
OBC	26413	66.65	39629	1622	16.23	9991	
Other	34228	81.60	41944	3115	79.14	3936	
Marital Status							
Never married	25387	84.12	30178	37	27.21	136	<0.000
Currently married	55446	67.58	82039	5921	7.08	83654	
Separated/ widowed/ divorced	3804	60.80	6257	14	2.52	556	
Educational Status							
No education	14107	37.52	37597	1005	3.09	32486	<0.000
Primary completed	11418	67.50	16915	535	4.14	12920	
Secondary completed	46691	90.67	51495	2779	8.87	31341	
Higher	12411	99.65	12455	1727	22.74	7594	
Occupation							
Not working	56724	76.40	74250	4354	8.60	50653	<0.000
Professional/ Technical/ Managerial	5010	98.35	5094	484	17.34	2791	
Clerical	1562	96.48	1619	125	14.19	881	
Sales	2639	85.46	3088	126	6.33	1990	
Agriculture	11102	46.23	24015	398	2.20	18124	
Services	3306	74.71	4425	161	5.87	2745	

Skilled/unskilled manual	7973	67.61	11793	397	5.59	7096	
Wealth Index							
Poor	11068	37.30	29672	502	2.13	23596	<0.000
Middle	14924	66.34	22496	597	3.71	16112	
High	58645	88.45	66306	4948	11.08	44638	

TABLE 5
LOGISTIC REGRESSION OF WOMEN AWARE OF HIV
BY SELECTED SOCIO-DEMOGRAPHIC AND ECONOMIC VARIABLES

Background Characteristics	**Aware of HIV**		**Condom use at last sexual intercourse**	
	Exp (B)	**Sig.**	**Exp(B)**	**Sig.**
Age Group (in Years)				
15-19 ®		0.000		0.001
20-24	1.531	0.000	1.219	0.011
25 & above	1.675	0.000	1.073	0.340
Domicile				
Rural ®		0.000		0.000
Urban	1.688	0.000	1.237	0.000
Religion				
Non-Hindu ®		0.000		0.000
Hindu	0.849	0.000	0.735	0.000
Caste				
Scheduled caste ®		0.000		0.000
Scheduled tribe	1.033	0.191	0.342	0.000
OBC	0.736	0.000	0.665	0.000
Other	0.813	0.000	0.627	0.001
Marital Status				
Never married ®		0.000		0.000
Currently married	0.801	0.000	0.167	0.000
Widowed/ separated/ divorced	0.791	0.000	0.052	0.000
Education Status				
Illiterate ®		0.000		0.000
Primary	1.239	0.000	1.069	0.234
Middle	2.790	0.000	1.805	0.000
Secondary and above	6.166	0.000	4.440	0.000
Working Status				
Not working ®		0.000		0.000

Professional, Technical, Managerial	3.371	0.000	1.014	0.812
Clerical	2.494	0.000	1.013	0.901
Sales	1.821	0.000	0.728	0.001
Agriculture employee	0.983	0.396	0.636	0.000
Services	1.336	0.000	0.829	0.027
Skilled & unskilled manual	1.175	0.000	0.924	0.159
Wealth Index				
Poor ®		0.000		0.000
Middle	2.168	0.000	1.316	0.000
High	3.441	0.000	2.311	0.000

® Reference variable

The above findings suggest that the basic demographic predictors such as age, education and wealth index of households are the most significant predictors of STD and HIV awareness and use of condoms in India. The relationship between HIV knowledge and socio-economic correlates is quantitatively different in the model, i.e. higher levels of education and wealth increase the likelihood of awareness about HIV. Odds of being a condom user also increase by education attainment. Similar findings have been found from other countries in Sub-Saharan Africa[17].

CONCLUSION

The spread of STD and HIV/AIDS in India is a major health concern. Apart from being an effective contraceptive, condom is a good tool for protection against STD and HIV/AIDS. Condom has been an integral part of the National Family Planning Programme for decades. However, in spite of high level of awareness about STDs and of HIV/AIDS, condom use is still low as a means of protection against such infections. Despite sustained efforts, both awareness and use of condoms have remained low in India especially with respect to poorer, rural and uneducated women. Preventive policies should, therefore, be targeted to these groups by increasing awareness of STDs, HIV/AIDS and condom through effective media and interpersonal communication.

In addition, there is a need to implement policies that support women's education, especially in rural areas, for behavioural change through communication programmes especially designed for targeting rural, illiterate and poor sections of the society. The current study also highlights the need for integrated prevention programmes that focus the use of condoms for prevention of HIV as well as STDs. This study is based on secondary data analysis and the choice of variables was, therefore, restricted to what was available in the data set. Future research may examine the relationship between various socio-demographic and economic variables with condom use, taking into account the contextual factors. As in some contexts, certain dimensions may be important; while in different contexts, the same dimensions may have little or no influence on condom use. Further investigation is also required to understand the reasons for the low use of condom in India instead of increased supply through free distribution and social marketing.

REFERENCES

1. UNAIDS and WHO (2008): AIDS Epidemic Update, Special Report on HIV/AIDS, Geneva, Switzerland.
2. National AIDS Control Organization (2007): HIV Sentinel Surveillance and HIV Estimation in India; A Technical Brief, Ministry of Health and Family Welfare, Government of India, New Delhi. http://www.nacoonline.org/Quick_Links/Publication/ME_and_Research_Surveillance/.
3. National Project Implementation Plan for National AIDS Control Programme, Phase-III (2007): Government of India, New Delhi.
4. SINGH S., DARROCH J.E., & BANKOLE A. (2003): Uganda's HIV Prevention Success: The Role of Sexual Behaviour.
5. http://www.usaid.gov/our_work/global_health/aids/countries/ane/cambodia.html
6. http://data.unaids.org/Publications/Fact-Sheets01/brazil_en.pdf.
7. MARTINE COLLUMBIEN, BRAJ DAS & OONA M.R. CAMPELL (2001): Why are Condoms Used, and How Many are Needed? Estimates from Orissa, India; International Family Planning Perspectives, Volume 27, Number 4 (December), 171-177.
8. SHARMA V. et.al. (1997): Condoms: Mis-use Equals Non-use-The Condom Equation in Gujarat, India; AIDS Care, 9 (6): 707-713.
9. National Family Health Survey, India (NFHS-3), 2005-'06 (2007): International Institute for Population Sciences (IIPS) and Macro International, Mumbai, India.
10. STAN BECKER (1996): Couples and Reproductive Health; A Review of Couple Studies; Vol 27.
11. RUTSTEIN S. (1999): Wealth Versus Expenditure: Comparison between the DHS Wealth Index and Household Expenditures in Four Departments of Guatemala; Calverton, Maryland, ORC Macro.
12. SUCHINDRAN, CHIRAYATH M. UKWUANI, FESTUS A. & TSUI AMY O. (2003): Condom use for Preventing HIV Infection/AIDS in Sub-Saharan Africa; Journal of Acquired Immune Deficiency Syndromes, http://www.faqs.org/abstracts/Health/Condom-use.html.
13. MONI NAG (1995): Sexual Behaviour in India with Risk of HIV/AIDS Transmission; Health Transition Review, Supplement to Volume 5, 293-305.
14. KAMAL N. SAHA. U. & BAIRAGI R. (2007): Use of Periodic Abstinence in Bangladesh: Do they Really Understand? Journal of Bio-social Science, Vol. 38 (1): 1-14.
15. ZELLNER SARA L. (2003): Condom Use and the Accuracy of AIDS Knowledge in Cote d'Ivoire; International Family Planning Perspectives, March.
16. KISHOR S. & JOHNSON K. (2006): Reproductive Health and Domestic Violence: Are the Poorest Women Uniquely Disadvantaged? Demography, Vol. 43 (2), May, 293-306.
17. HEARST NORMAN & SANNY CHEN (2004): Condom Promotion for AIDS Prevention in the Developing World: Is it Working? Studies in Family Planning, 35 (1), 39-4.

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PROMOTION OF MEDICAL TOURISM IN TERTIARY CARE HOSPITALS OF DELHI: OPINION OF MEDICAL ADMINISTRATORS AND MANAGERS

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ABSTRACT

Medical tourism is rapidly growing all over the world raising many health management issues. After reviewing limited available literature, it appears that the medical tourism is one of the most growing sectors. Many countries including India are very much interested in developing this tourism industry. Moreover, there are hardly any research studies available about the view of administrators of hospitals regarding promotion of medical tourism both in public and private sector hospitals. In this cross-sectional study, 20 hospitals were selected; 10 each from public and private sector. A total of 40 senior managers and administrators of these hospitals were interviewed. The information recorded in a pre-tested interview schedule and analyzed by using the SPSS version 16. Out of the 40 administrators and managers, 35 (87.5%) were aware of medical tourism and initiatives undertaken by the Government of India for its promotion. Regarding their opinion that who will be benefited from the development of medical tourism, majority of the respondents stated that medical tourists (97.5%), private hospitals (95%), department of tourism (92.5%), Government (30%) and others (62.5%) which include travel agents, hotels, airlines and also the country as a whole would be benefited. According to them, building separate block and development of infrastructure (20%), more advertisement to attract medical tourists (15%), public-private partnership (12.5%) and many more government initiatives are needed for the promotion of medical tourism. High awareness about medical tourism is beneficial for its further promotion. However, government has to be proactive for providing basic services such as infrastructure, transport, communication, security, legal guidelines and standard operating procedures.

Key Words: Medical Tourism, Opinion, Administrators, Tertiary Care Hospitals.

Traveling abroad for one's health has a long history. The ancient Greeks and Egyptians went to hot springs and baths to improve their health. During the 18th and 19th century, Europeans and Americans also flocked to health spas, sanatorium and remote places in the hope that they would get cured for diseases such as tuberculosis, gout, bronchitis or liver diseases[1]. As travel became expensive, only selected and wealthy people used to go to the Swiss lakes, the Alps, spas, mineral baths, innovative therapies

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in the Mediterranean and special tuberculosis sanatoriums where professional and specialized medical care was offered[2,3].

Medical tourism has grown dramatically in recent years primarily because of the high costs of treatment in developed countries along with long waiting lists. With the relative affordability of international air travel and favourable economic exchange rates, it has not only become easier for the patients of developed countries but also for the patients of the developing countries to travel to other countries like India for treatment[4,5].

India has emerged out to be one of the favourite destinations for most of the travelers due to its diverse cultural, spiritual and medicinal characteristics. The mass influx of medical tourists was further helped by India's deep commitment to technology, health care infrastructure, skilled professional manpower, rich historical culture and monuments. India is not only one of the world's oldest medical tourism destinations but it is also one of the most popular ones as well. According to a CII-Mckinsey report, Indian medical tourism is growing by 30 per cent per annum[6]. The Indian government also framed objectives under the reforms of health care system to "develop and promote India as a destination for affordable and high quality medical services keeping pace with the changes in the global health care industry"[7]. The success of such a programme depends on the initiatives undertaken by the administrators and managers in the healthcare system. However, there are hardly any research studies available about the views of administrators of hospitals for promoting medical tourism both in public and private sector hospitals. Hence, this research study was designed to study the opinion and initiatives undertaken by the managers of tertiary care hospitals to develop and promote medical tourism in Delhi.

OBJECTIVE

The study intends to find out the opinion of medical administrators and managers for the promotion of medical tourism in tertiary care hospitals of Delhi, India.

METHODOLOGY

The design of the study was cross-sectional. All the tertiary care hospitals of modern system of medicine located in Delhi registered with the Directorate of Health Services, Government of National Capital Territory (NCT) of Delhi were included in the study. 20 hospitals were selected, 10 each from public and private sector hospitals. A total of 40 senior managers and administrators from these hospitals who were responsible for handling patients from foreign countries or who were responsible for overall management of their respective hospitals were interviewed.

Sampling Technique: The list of allopathic tertiary care hospitals of Delhi was obtained from the Directorate of Health Services, Government of Delhi and from Delhi Medical Association who were registered with the Directorate of Health Services, Government of Delhi. Out of these lists, separate lists were prepared for private hospitals and public hospitals in alphabetical order. A sample of 10 hospitals from each list was selected randomly by the use of simple random number table and 20 per cent hospitals were enlisted as reserved in case there was any denial of consent from the selected hospitals. From each hospital, two respondents were interviewed who were Medical Superintendents or Medical Directors of the Hospital and Marketing Managers of

hospitals with a marketing unit or Deputy Medical Superintendents of hospitals not having a marketing unit.

Study Tools: A semi-structured and pre-tested interview schedule was used to get the information pertaining to their opinion about the promotion of medical tourism.

Procedure: Medical Superintendents/Medical Directors of all the selected hospitals were contacted to get their consents. As one public hospital did not agree to provide the information, then the next hospital from the reserved list of the extra 20 per cent hospitals was contacted. Senior administrators from three private hospitals did not give their consent. Therefore, three more hospitals from the list of extra hospitals were contacted. Thus, a total of 20 tertiary care hospitals, 10 each from public and private hospitals were covered in this study. Two administrators and/or managers were interviewed from each hospital after prior appointment. In total, 40 of them gave their opinion on medical tourism.

Statistical Analysis: Collected data were analyzed using the computer software Statistical Package of Social Science (SPSS) version 16.0. The group characteristics were presented in percentages and proportions. Chi-square and fisher exact tests were used to assess the any statistically significant difference between the responses of public and private hospital administrators.

FINDINGS

Background Information

Of the 40 administrators/managers of tertiary care hospitals interviewed, 20 (50%) respondents were from public sector and 20 (50%) were from private sector of Delhi. Out of these 40 respondents 20 (50%) were Medical Directors or Medical Superintendents, 12 (30%) were deputy medical superintendents and 8 respondents (20%) were marketing managers. In private sector 10 respondents (50%) were medical director/ superintendents, 8 respondents (40%) were marketing managers and 2 (10%) were deputy medical superintendents, whereas in public sector 10 respondents (50%) were medical superintendents and 10 (50%) were deputy medical superintendents and no marketing managers as there was no marketing units.

Awareness about Medical Tourism

Based on the observation of the study, out of 40 respondents, 35 (87.5%) were aware of medical tourism. All administrators/managers who were aware of medical tourism, were also aware of the initiatives undertaken by the Government of India for its promotion (Table 1). The sources of information were media (68.5%), Ministry of Tourism (11.4%) and own organization (8.7%). Sources such as Confederation of Indian Industries (5.7%) and Guidelines received from Government of Delhi (5.7%) were mentioned by private hospitals only.

TABLE 1
AWARENESS ABOUT MEDICAL TOURISM AMONG ADMINISTRATORS

Response of Administrators/ managers		Public Hospital n (%)	Private Hospital n (%)	Total N=40 (%)
Aware of Medical Tourism	18 (90)	17 (85)	35 (87.5)	
Source of Information	Media	14 (77.8)	10 (58.8)	24 (68.5)
	Ministry of Tourism	3 (16.7)	1 (5.8)	4 (11.4)
	Their own Organization	1 (5.5)	2 (11.8)	3 (8.7)
	Guidelines from Govt. of Delhi	0	2 (11.8)	2 (5.7)
	CII	0	2 (11.8)	2 (5.7)
Source of Information	Media	14 (77.8)	10 (58.8)	24 (68.5)
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	Guidelines from Govt. of Delhi	0	2 (11.8)	2 (5.7)
	CII	0	2 (11.8)	2 (5.7)

Views of Administrators and Managers on Benefits of Medical Tourism

Majority of the respondents from both the public and private sector hospitals stated that medical tourists (97.5%), private hospitals (95%), tourism department (92.5%), government (30%) and others (62.5%) which include travel agents, hotels, airlines and the country as a whole would be benefitted from medical tourism (Table 2). Although there was no statistical difference between the responses of public and private hospital administrators but more public hospital administrators were viewed that medical tourism would benefits all the stakeholders.

TABLE 2
VIEWS OF ADMINISTRATORS AND MANGERS ABOUT BENEFITS OF MEDICAL TOURISM

Who gets benefit from Medical Tourism?	Administrators/Managers		Total N=40 (%)
	Public Hospital n=20 (%)	Private Hospital n=20 (%)	
Medical Tourists	20 (100)	19 (95)	39 (97.5)
Private Hospitals	20 (100)	18 (90)	38 (95)
Government Hospitals	8 (40)	4 (20)	12 (30)
Tourism Department	20 (100)	17 (85)	37 (92.5)
Others (country, travel agents, hotels, airlines)	14 (70)	11 (55)	25 (62.5)

Opinion of Administrators and Managers about Promotion of Medical Tourism

The respondents had various opinions about the promotion of medical tourism. 20 per cent of the respondents stated that there is a need for building separate blocks for medical tourists and infrastructure development, 15 per cent told that more advertisement is required to attract medical tourists while 12.5 per cent of them stated that there is a need for public-private partnership. 7.5 per cent of the respondents each from the private as well as public sector expressed that government should take initiatives for cheaper transport and accommodation, formulation of legal guidelines, special training for service providers, tie up with insurance companies of other countries and embassies, round the clock services for transport and communication, and payment guidelines. Fewer respondents (2.5% each) were of the view that everyone should get treatment, suitable arrangement particularly for attendants, availability of data, standard operating procedures, and improved security should be made (Table 3). More administrators from private hospitals expressed their opinions to improve medical tourism as compared to their counterparts in public hospitals. However, the difference was not statistically significant.

TABLE 3
OPINION OF ADMINISTRATORS AND MANAGERS ABOUT MEDICAL TOURISM

Opinion	Public Hospital n=20 (%)	Private Hospital n=20 (%)	Total N=40 (%)
Separate block for medical tourists, infrastructure development	5 (25)	3 (15)	8 (20)
More advertisement for promotion	2 (10)	4 (20)	6 (15)
Govt. should take initiatives such as cheaper transport, accommodation, etc	1 (5)	3 (15)	4 (10)
Tie ups with GPs, insurance companies of other countries, embassies, etc.	0	3 (15)	3 (7.5)
Service providers should get special training	1 (5)	2 (10)	3 (7.5)
24 hours services for travel, transport from airport, fax, interpreter, food	0	3 (15)	3 (7.5)
Legal guidelines from the government	3 (15)	0	3 (7.5)
Payment guidelines for package and others	2 (10)	1 (5)	3 (7.5)
Services to international patient should not be offered by depriving Indian patients	1 (5)	2 (10)	3 (7.5)
Anyone coming to India should get treatment	0	1 (5)	1 (2.5)
Efforts to make better database available	0	1 (5)	1 (2.5)
Standard operating procedure should be developed	1 (5)	0	1 (2.5)

Improves the reputation of country	0	1 (5)	1 (2.5)
Public-private partnership including insurance	3 (15)	2 (10)	5 (12.5)
Improve security for medical tourist	0	1 (5)	1 (2.5)
Medical tourism should not be promoted as hospitals are overburdened with natives	3 (15)	0	3 (7.5)
No suggestions	3 (15)	4 (20)	7 (17.5)
(Percentages are not mutually exclusive)			

DISCUSSION

The awareness level about medical tourism among the administrators of both public and private hospitals was high (87.5%). This could be due to the tourism campaign known as 'Incredible India' launched by the Ministry of Tourism in which health tourism received quite a significant attention[8]. Majority of the administrator and managers from both the public and private sector hospitals stated that beneficiaries of medical tourism would be mainly medical tourists, private hospitals and the tourism department. Other than these, government and others that include travel agents, hotels, airlines and the country as a whole would also be benefited. Similar views were also expressed as reported in another study by Turner[9] who stated that medical tourism would benefit social and economic development by building health care system in developing countries.

Although the Ministry of Tourism, Government of India, is promoting medical tourism; however, some administrators from public hospitals believed that medical tourism should not be promoted because their hospitals would be further overburdened due to dual load of Indian and foreign patients. They believed that priority should be given to the poor and needy Indian patients. According to some administrators, medical tourism would affect the health equity because health resources would be diverted to private hospitals. Turner has also reported similar concerns. Similarly, Gupta10 has stated that revenue earned by corporate hospitals would not revert back to finance the public sector. According to him, such corporate hospitals have dishonoured the conditions set to receive government subsidies e.g. treatment is not provided to the poor and certain proportion of in-patients and out-patients are not treated free of cost in spite of repeated government requests. There is another threat of internal brain drain of doctors and specialists from public sector to corporate hospitals. He further stated that even today, the top specialists in the corporate hospitals are senior doctors drawn from the public sector.

However, report generated by corporate houses had another view[6]. It states that health care sector in India is one of the large contributors to the economy. It already accounts for 5.2 per cent of the GDP and provides employment to 4 million people. Growth of the sector can further increase its contribution even further to 6.5-7.2 per cent of the GDP and increase employment by at least 2.5 million by 2012[6]. This growth will further accentuate by medical tourism. This is true that medical tourism has a great potential in India due to a strong value proportion on cost and quality and service. However, key actions need to be taken by the health industry, government and individual hospitals to realize their potentials as stated by some administrators in the present study.

Countries like Thailand are more advanced in medical tourism. Their government took proactive steps to promote medical tourism. Thus, Thailand for example, became the hub of medical tourism destination (e.g. Bumrungrad hospital in Thailand started in 80s and it treats 130,000 foreign patients a year with 20% growth each year)[6]. In the present study, many administrators and managers stated that there was a need for building separate block for medical tourists, infrastructure development, more advertisement to attract medical tourists, government should also take initiatives like cheaper transport, accommodation, security of medical tourists, formulation of legal guidelines, better data generation and providing information on website, involvement of insurance companies, public-private partnership, standard operating procedure, etc. These opinion and views are useful and critical for the promotion of medical tourism in India.

CONCLUSION

India has a great opportunity and potential to develop medical tourism. Health administrators were in favour of developing medical tourism because it will boost Indian economy. However, many administrators had apprehensions that resources will be further diverted and poor patients may be deprived of availing of health care from the health facilities. Keeping these aspects in mind, the government should design an appropriate policy for medical tourism.

REFERENCES

1. http://www.understanding-medicaltourism.com/history-of-medical-tourism.php; accessed on 10 March 2009.
2. MORGAN D. (2003): Medical Tourism: Ethical Baggage and Legal Currencies; Medical Ethics Tomorrow, 63 (1): 1-5.
3. MATTOO A. & RATHINDRAN R. (2006): How Health Insurance Inhibits Trade in Health Care; Health Affair (Millwood), 25: 358-68.
4. GRAY H.H. & POLAND S.C. (2008): Medical Tourism: Crossing Borders to Access Health Care; Kennedy Institute of Ethics Journal, 18 (2): 193-201.
5. CONNELL J. (2006): Sun, Sea, Sand and Surgery; Tourism Management School of Geosciences, University of Sydney, NSW, Australia.
6. CII-Mckinsey (2002): Healthcare in India: The Road Ahead; Report by CII-Mckinsey & Co.
7. WHITTAKER A. (2008): Pleasure and Pain: Medical Travel in Asia; Global Public Health, 3 (3): 271-290.
8. Annual Report 2006-2007 (2007): Incredible India; Ministry of Tourism, Government of India.
9. TURNER L. (2007): Medical Tourism (Commentary); Canadian Family Physician; Oct., 1639-1640.
10. GUPTA A.S. (2009): People's Democracy (http://pd.cpim.org/2004/0509/05092004_snd.htm Accessed on 15 April 2009.