

## Help seeking behavior of mothers of children with and without measles in Shahpur block of district Kangra, Himachal Pradesh, India, 2008

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### ABSTRACT

**Background:** Measles is rightly called as captain of killer team in India. In Himachal Pradesh, despite high immunization coverage, the outbreaks are occurring. Based upon two outbreaks, we conducted a qualitative comparative study to describe the help seeking behavior of mothers of children with measles and to recommend appropriate remedial measures to prevent further outbreaks.

**Method:** We reviewed the factors under beneficiaries' related head. We used case-definition of measles adapted by the WHO. We conducted four Focus Group Discussions; two in Shahpur case block and two in Nagrota Bagwan comparative block with 20 mothers each in group. We enrolled all 69 mothers of children with measles and equal number of mothers in comparative similarly situated non measles block-matched for age and sex. We used a pre-designed pre-tested data collection semi structured qualitative questionnaire. We compared the responses from mothers of children exposed and unexposed to selected characteristics by Focus Group Discussions and in-depth interviews.

**Result:** Eighty percent of respondents from case block call measles as Dharassali; 95% mothers have bodily experience of measles. 68% respondents under Shahpur block attribute measles to the curse of goddess-Mata ka vardaan hei and in other block, 55% hold contagion as the cause for illness. For treatment (help) seeking behavior of mothers, 68% from case block go for faith healers followed by 12% by village elders/neighbors/friends/relatives while 59% from comparative block opt for doctors. Nutritional care is given in the form of restricted diet in case area. As follow up practices in the post recovery phase from illness, 58% respondents from Shahpur block invoke the blessings of the goddess Sheetla while 68% of mothers from Nagrota Bagwan block attend the medical clinic.

**Conclusion/Recommendations:** Faith healing is the principal help seeking behaviour in measles in poor hills. Aggressive IEC activities should be targeted for economic and social behavioral change rather than informing the community and (iii) Improving access to health care facility through provision of mobile services regularly in the remote areas.

**Key word:** Measles; Outbreaks; Beliefs and barriers; Help seeking behaviour.

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### INTRODUCTION

Help-seeking behavior is defined as any action or activity carried out by an adolescent

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who perceives herself/himself as needing personal, psychological, affective assistance or health or social services, with the purpose of meeting this need in a positive way. This includes seeking help from formal services-for example, clinic services, counselors, psychologists, medical staff, traditional healers, religious leaders or youth programmes-as well as informal sources, which includes peer groups and friends, family members or kinship groups and/or other adults in the community[1]. The overlapping categories of help-seeking

behavior are (i) Help-seeking for specific health needs, including health services (in the formal health care system or via traditional healers and pharmacists), as well as seeking health information. This is generally called "health-seeking" behavior as in cases of outbreaks of measles[2], (ii) Help-seeking behavior related to personal stress or problems, as in the case of family crises; or problems related to chronic or acute ill-health[3].

Two reported outbreaks of measles in highly immunized hilly areas were investigated under two sub centers, namely, Sailli and Sarah. In Sailli, the total number of cases were 51 with overall attack rate-6%; (Sex Specific AR-male 12% while female 7%)[4]; and in Sarah there were 18 cases in all with overall attack rate as 4.2%; (Sex specific AR-male 6.94% and the female 7.2%)[5]. All the case patients belonged to 5 years plus age group (Range being 5 years to 17 years) during the period from September to November, 2006. The last reported outbreak of measles in the block was 8-9 years ago. During the same period no such outbreaks were reported from any other blocks within the district. Hence, a study was undertaken with the objectives; (1) To describe the help seeking behavior of mothers of children with and without measles and the factors associated with it and (2) To recommend appropriate remedial measures to prevent and control further outbreaks.

## MATERIALS AND METHODS

For this study an in-depth review of the literature on the help seeking behavior of mothers and subsequent factors associated with measles outbreaks enabled selection of specific issues/factors. Many factors are reported to be associated with measles such as geographically difficult hilly areas, poor socio-economic strata with unemployment; marginalized sections like scheduled castes/tribes; illiteracy, overcrowding, beneficiary related issues like help seeking behavior of mothers; community/mothers' beliefs and barriers of people seeking health/help from the local chelllas/quacks/village elders/relatives/neighbours/friends[6].

### A) Study design

A comparative observational study.

### B) Study period

14th Nov., to 14th Feb., 2008.

### C) Study area

Sub centers Sailli and Sarah, Shahpur block (Measles outbreak Exposed) and sub centers Mallan and Samloti of Nagrota Bagwan (Measles non exposed) block of district Kangra which are more or less similarly placed.

### D) Study population

Community members for Focus Group Discussions and mothers of children (from 5 years to 17 years) with and without measles of sub centers Sailli and Sarah, Shahpur block (Exposed) and sub centres Mallan and Samloti of Nagrota Bagwan comparative (Non exposed) block of district Kangra.

### E) Sample size

Community members for 4 Focus Group Discussions (FGD) with (two FGDs-one male and second female) for cases. One FGD consists of 20 males and similarly, second one with 20 females separately under Shahpur block and equal numbers of FGDs for comparison under Nagrota Bagwan block; and all mothers of total 69 case patients of two outbreaks in the Shahpur block with exposure to measles (5 years to 17 years with median 9 years) in study area with equal number-age and sex matched in comparative Nagrota Bagwan block were taken while the population characteristics were the same.

### (F) Operational definitions of Measles WHO

definition: We defined a case as the occurrence of fever with rash with or without cough; coryza and conjunctivitis in a resident of the villages under sub centres Sailli and Sarah of Shahpur block (Kangra) between 1st September to 30th November 2006.

### G) Data collection technique and tools

*Study team*

Beneficiary related issues: We carried out an

assessment of help seeking behavior of mothers of cases and mothers of age and sex matched controls in comparative block using Focus Group Discussions (FGDs) and in-depth interviews of all mothers of total 69 case patients with exposure to measles in study and comparative blocks. For this exercise, we constituted two teams of health workers. In each team, there were six health workers; three males and three females and they were supervised by two male health supervisors. The whole team was trained and supervised by two senior medical officers. This process was carried out by interviews using check list of questions and interview schedule using qualitative standardized questionnaire. We also compared the responses for four FGDs and in-depth qualitative interviews of all mothers of total 69 case patients of two outbreaks in study Shahpur and comparative Nagrota Bagwan blocks. We sought and obtained clearance from ethical committee from National Institute of Epidemiology, Chennai. We analyzed the data by MS-excel sheet, Stat calc and using Epi info version 3.3.2.

## RESULTS

Brief description of both areas: Topographically and demographically, both blocks are more or less similarly placed. Both the study blocks are hilly situated at the altitude of 2600 feet to 2900 feet above the sea level. Population characteristics of both blocks are more or less same. 25-30% of SC/ST and 4-5% of ST with 30% of OBC categories and rest others constitute the caste configuration. In case block, we have 36 sub centers, 5 primary health centers, one community health centre with 90% of the man power in position while in comparative block, 38 sub centres, 5 primary health centres and two community health centres with 95% of human resource in position.

### Beneficiaries related issues

*Distribution of baseline characteristics in the study group*

Age: The median age of the case and comparative groups children was 9 years while mean was 9.6 and the mode was 6 (range being

5-17years), as the study was matched for age and sex only. So, out of 69 cases, 35 (51%) case group and comparative group were <9 years and 34 (49%) children were >9years of age. Sex: The proportion of the males in cases and controls were high 43 (62.3%) while those of the females were 26 (37.7%). Religion: All case and comparative groups were belonging to Hindu religion. Type of family: Only 45 cases (65.2%) and 49 (71.0%) were having the nuclear families.

The cultural epidemiology and help seeking behavior of mothers of children in Shahpur and Nagrota Bagwan blocks were assessed with (i) Focus Group Discussions and (ii) for in-depth qualitative interviews, we recruited all 69 mothers for total case patients and equal numbers in 1st comparative group from Shahpur block and 2nd one from non measles Nagrota Bagwan block. They were exposed to the selected variables for knowing socio-economic status; the community as well as the personal beliefs/barriers of the mothers of the affected and non affected areas coupled with knowledge, attitude and practice; time and distance from health care facility; attitude towards the health system variables etc.

In the Shahpur/Nagrota Bagwan blocks, twenty females and twenty males from the different nearby villages participated in each block. The educational levels of the females participants in Shahpur/Nagrota Bagwan blocks varied from illiterates (24/8 in number); 5th standard (10/6); Middle standard (4/10) Matric standard (2/16) while those of the males participants fluctuated from illiterates (14/6 in number); 5th standard (16/12); Middle standard (2/10); Matric standard (6/10) to Graduate (2/2). In Shahpur block, the two groups of the participants had a total of 43 (forty three) children, out of which 15 have suffered from measles. All the children were immunized against measles. In Nagrota Bagwan block, the two groups of the participants had a total of 36 (thirty six) children, out of which six have suffered from measles. All the children were immunized against measles. From the above noted four FGDs (40 males and 40 females) and in-depth qualitative interviews, (69 mothers of case block and 69 mothers of comparative block), we concluded the following vital points from

all the respondents of both blocks.

In Shahpur and Nagrota Bagwan blocks, measles is locally known as Dharrssali mostly, (80%) followed by less known as Chhotti mata (15%) and the least as Bodri (5%). For bodily experience of measles, 95% respondents in Shahpur block have the personal experience in over 5 years of age but 25% respondents in Nagrota Bagwan block do not have the bodily experience of measles outbreak in the area. All measles related information has been mostly heard or got from other sources. On etiological standing, 68% respondents under Shahpur block attribute measles to the curse of goddess-Mata ka vardaan hei and hence no escape route while the 55% respondents in Nagrota Bagwan block mark contagion-chhoot is the causative factor. For health (help) seeking behavior of mothers, majority (68%) of the respondents under Shahpur block go by the established community belief and barrier that the free traditional treatment by faith healers who recites mantras and Vannan bushes movement on the body and face of the case patient for three to five days; followed by 12% by village elders/neighbors/friends/relatives and lastly, if needed, consulting doctors in the nearby health care facilities. 85% of the people of the case area go for the traditional healers. The cost of treatment ranges from nil to Rs.350/- for Shahpur block whereas that of Nagrota Bagwan block, it is Rs. 200/- to Rs. 1200/- only. 59% of the respondents in Nagrota Bagwan block prefer modern system of treatment. For the vaccination of the children, they have to travel as long hilly distance as over 6-10 kms on foot consuming 3/4th hour to 2 and 1/2 hour for nearest available health care facility with long waiting time in uncertainty.

For the first help when their child falls ill, as per their community/mothers' beliefs, Shahpur block principally goes for faith healers but the minority educated females (18%) from young generation insist for allopathic treatment while Nagrota Bagwan block respondents (65%) opts for government health care facilities but the minority older generation (14%) still advocates for faith healing. Nutritional care to the Dharrssali (Measles) afflicted child is given in the form of restricted diet, Saunfi Banaksha,

illaychi, decoction made of Gur (Local indigenous treatment formula). Seul (Heat liberating edible) should be given in abundance and smoking Sarson (Mustard seeds) is blown under the cot of the patient and the fried items be avoided. As a follow up practices in the post recovery phase from illness, 58% respondents from Shahpur block invoke the blessings of the goddess Sheetla.

Sixty nine percent respondents acknowledge the visit of the local health worker once in a month while in Nagrota Bagwan block, 74% mothers confirms the frequency of visit of worker as twice in a month. For immunization, 85% respondents in case block and 90% in second block go for vaccination in their respective sub centres at the age of nine months to one year. It is 100% mothers all the way who take children to the centre for vaccination. Protective value of vitamin A supplementation has been emphasized by 45% respondents from Nagrota Bagwan block. Ninety four percent of the respondents for case block have indicated their choice centre for immunization and health seeking practices for the common ailments in the middle of village which should be easily accessible with regular availability of the worker at sub centre Sailli.

## DISCUSSION

Our study results need to be interpreted in context of the major factor, namely beneficiaries' related issues. The results of FGDs in two areas suggest difference in two areas with respect to knowledge regarding cause of measles, help seeking behavior, treatment and follow-up practices. Illiteracy and knowledge are complimentary. Added with beliefs and barriers in the present study, many significant factors like geographically difficult hilly areas, illiterate mothers, marginalized sections like scheduled castes/tribes; poverty etc are more inclined towards traditional unscientific lines in terms of cause and effect. Measles is locally known as Dharrssali. Shahpur block hypothesize the genesis of measles as curse of goddess despite high immunization coverage in the areas. Mahapatro M et al observed that bhattara tribal

women believe that measles (gundi) and chickenpox (maa) occur due to the wrath of the Goddess (thakurani) on the patient, they visit the 'desari' rather than a medical practitioner[7]. More crowded cases of measles are there due to their single roomed accommodation and poverty in case block. For the first help when their child falls ill, as per their community / mothers beliefs, Shahpur block principally goes for free of cost faith healers. A good chunk of mothers of the case area go for the traditional treatment just because of poverty and illiteracy in the area coupled with rigid personal and community beliefs. The other reasons may be rude behavior of health providers with difficult accessibility and availability of the health providers with long waiting time in uncertainty. The cost of treatment is not easily affordable for Shahpur block. Jagrati V et al observed that besides economic barriers, the other ones are poor means of transportation and long distances[8]. Nutritional care to the Dharrssali afflicted child is given in the form of restricted diet, Saunfi Banaksha, illaychi, decoction made of Gur. Seul (Heat liberating edible) should be given in abundance and smoking Sarson (Mustard seeds) is blown under the cot of the patient which eases measles rash to erupt soon. Avoid the fried items. Restricted food with Seul rich diet during measles was more practicable in case block. Belief barriers like food and fruit avoidance further enhances vitamin A deficiency. The severity and duration of illness were less in Shahpur case block with vitamin A supplementation. Vitamin A supplementation has the protective role in reducing the morbidity and mortality during the measles outbreaks[9]. Mayfong Mayxay et al recorded that the proportion of parents who practiced food avoidance behavior was higher in the group with measles[10], which agree with our study results. The community ill beliefs are more powerful in case block like majorities of respondents in Shahpur block believe that measles has to appear once in life time owing to the blessings of Sheetla mata-the perpetrator of the illness. As a follow up practices in the post recovery phase from illness, so they invoke the blessings of the goddess Sheetla. On the other hand, population in Nagrota Bagwan block

were aware of measles as a disease caused by close contact with infected person, resorted to treatment and follow-up by qualified doctors at healthcare facility. Mothers in comparative block area had better access to healthcare facilities as compared to case area. From in depth interviews it was evident that though socio-cultural and economic factors were more favorable among comparative group mothers as compared to case respondents. The studies by Ratho RK[11] et al, VK Desai et al[12], Murray M and Rasmussen Z[13], Jagvir Singh et al[14], R. F. Grais et al[15] and Munesh SK et al[16] support our observations.

### **Limitations**

Recall bias could have occurred with respect to recollection of immunization of the children of the both study areas. However, the bias could apply to both study areas. So the bias would be non differential.

### **CONCLUSION**

Majorities of the mothers with or without measles in the hills seek traditional first help (such as treatment seeking and follow-up practices of mothers) during illness to quacks/chelas/faith healers on account of poor socio-cultural, economic factors; myths and misconceptions; malformed beliefs and barriers.

Distant and difficult access to healthcare facility in geographically tough areas is also one of precipitating factors.

### **Recommendations**

Aggressive Information, Education and Communication (IEC) activities should be addressed towards modifying the help seeking behavior of mothers in the district, especially in the measles affected areas. It has to be targeted and boosted for economic and social behavioral change rather than informing the community. The responsibility has to be shared both by health providers, health seekers and community.

Access to health care facility needs to be improved through provision of mobile services regularly in the remote areas.

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