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A study to explore the determinants of child health in Melghat, Maharashtra

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ABSTRACT

Background: Melghat is the hilly forest region of 312 small villages, known as one of the most underdeveloped regions in Maharashtra. The employment in Melghat is exploitative, enslaving and gender discriminatory. An estimated 5,000 tribal children died of malnutrition in Melghat in 92-97. **Objectives:** To find out situation of child mortality in Melghat and investigate any under reporting, and explore determinants of child health qualitatively. **Material and Methods:** The study was conducted in five PHC areas of Melghat area namely Sadrawadi, Bairagad, Dulghat Rly, Tembursonda and Hatru. Data on vital statistics was collected for April-July 2008 and corresponding period for year 2007. Line listing of all child deaths occurring during the period was done to find any under reporting. Verbal and social autopsy of deaths was done including social autopsy in one PHC village to find out underlying factors responsible for such deaths. Data was analysed using ATLAS. ti 5.5 and ANTHROPAC 4.98 to form matrix of socio-cultural-economic factors. **Results:** A total of 73 U6 deaths and 911 live births were reported from the study area. Thus the U6MR for the area is 80.1 for this period compared to 66.9 for corresponding period of previous year. Therefore, according to the vital statistics, U6MR in Melghat was not higher compared to other parts of the country, if under reporting is not there. Further, neonatal deaths accounted only 39.7% of U6MR. Improper childrearing practices, poor diet intake by pregnant women, early marriages, poor spacing of children, lack of health education and awareness, adequate income and purchasing power reasons for the precarious state of child health. **Conclusions:** Increasing awareness regarding govt. policies such as NREGA and JSY alongwith an effort to popularize the public infrastructure and harping at the cycle of poverty-illiteracy-lack of information will accelerate development in ghat area.

Key words: Child mortality, Melghat, Social autopsy

BACKGROUND

Melghat is the hilly and forest region of nearly 312 small villages and known as one of the most underdeveloped regions in the Maharashtra state. [1] The main population is of Korku tribe, which is primitive and is marginalized from the development processes. An estimated 5,000 tribal children died of malnutrition in Melghat during year 92-97. [2] Only in 1997 nearly 1,500 children died in Melghat due to malnutrition and lack of proper healthcare. [3] This was a shock to many people. When the media picked up this shocking story, it generated a wave of criticism directed at the government and its inability to provide for the tribals who have inhabited the forests for centuries.

The pied pipers of death in Melghat are Government policies and failures, specifically discrimination against indigenous projects, bondage of adult members of the tribe to their creditor employers, the lowest daily minimum wage approved by the Government of Maharashtra and land grabbing by usurious creditors. [4] The ICDS administrators assumed that additional calories are a panacea for malnourishment. Specific malnutritions, namely iron, calcium, Vitamin A, B, C, D, etc. deficiencies, immune system dysfunctioning; distortions in the

metabolic processes and disease-related damage / depletion is ignored. [5] Medical records show that all signs of under-nourishment and epidemics in Melghat were ignored until the shocking death toll was published in newspapers in August 1993. The employment in Melghat is exploitative, enslaving and gender discriminatory. [6] There are 400 schemes for the tribals, which are meant to look after their needs from the womb to the grave. But the tribals did not know what these schemes were and those who do, are not interested in using them.

OBJECTIVES

With this background the current study was undertaken aiming to fulfil the following objectives:

1. To find out the situation of child mortality in Melghat area and investigate any under reporting, and
2. To explore the determinants of child health and child deaths qualitatively.

Study setting: The PHC wise U6MR was more than 60 per 1000 live births for five PHC areas in the Melghat area prior to the study period; Sadrawadi (90.9), Bairagad (85.9), Dulghat Rly (82.3), Tembursonda (68.6) and Hatru (60.0). More than 50% of under six deaths in these five PHCs occurred among children who were severely malnourished (grade III and IV).

Study duration: As part of the investigation for child deaths in Melghat, the investigating team collected the data on vital statistics from the district health system for the months April-July 2008 (4 months period) and a corresponding period for the year 2007.

Data collection and analysis: Line listing of all the child deaths was done to find out if there is any under reporting of the data. Verbal autopsy of deaths reported was done including social autopsy. Further social autopsy in one village in each of the five PHCs was done to find out the socio-economic and cultural factors responsible for such deaths. In-depth interview with traditional birth attendant, anganwadi worker, ANM from one village of the each PHC area with key-informant interview with Sarpanch and other stakeholders of village was done to explore the situation. Data was analysed using ATLAS. ti version 5.5 and ANTHROPAC version 4.98 for qualitative findings of the study and to form the matrix of socio-cultural-economic factors determining behaviour and child health in Melghat area.

Table 1: Child mortality rates in selected five PHC of Melghat as per Govt. reports

PHC	Population	Vital statistics for the period April-July 2008						U6MR Apr-Jul 2007
		Live birth	Still birth	Death reported	NMR	IMR	U6MR	
Bairagad	20082	163	3	14	36.8	49.1	85.9	100.6
Sadrawadi	39553	286	11	26	31.5	49.0	90.9	61.3
Dulghat Rly	17424	158	6	13	44.3	50.6	82.3	61.6
Tembursonda	28473	204	4	14	14.7	44.1	68.6	100.9
Hatru	8018	100	2	6	40.0	40.0	60.0	76.9
Total	**113550**	**911**	**26**	**73**	**31.8**	**47.2**	**80.1**	**66.9**

RESULTS

Quantitative results: A total of 73 deaths and 911 live births among under six children were reported from the selected five PHC in Melghat area. Thus the U6MR for the area is 80.1 for this period compared to 66.9 for corresponding period of previous year. Therefore, according to the vital statistics from the govt. health system, the U6MR in Melghat was not higher compared to the figures reported for Maharashtra or other parts of the country, if under reporting of vital statistics is not there. (Table 1) Analysis of deaths according to the age group reveals neonatal deaths accounted for only 39.7%of deaths among under six children. According to various demographic survey reports from India, the neonatal deaths account for more than 50% of under six deaths. In our study, there was no significant disparity in the reported number of child deaths during the reporting period.

Qualitative results

The main 3 reasons cited for the poor status of child health in Melghat as per several interview and discussion were topography of Melghat making it difficult to access eventually to all the domains of development including education, PRI and even rural development. Most of the tribal populations have never had an opportunity to visit the block or PHC due to reasons varying from economic draught to fear of abuse by civilized population.

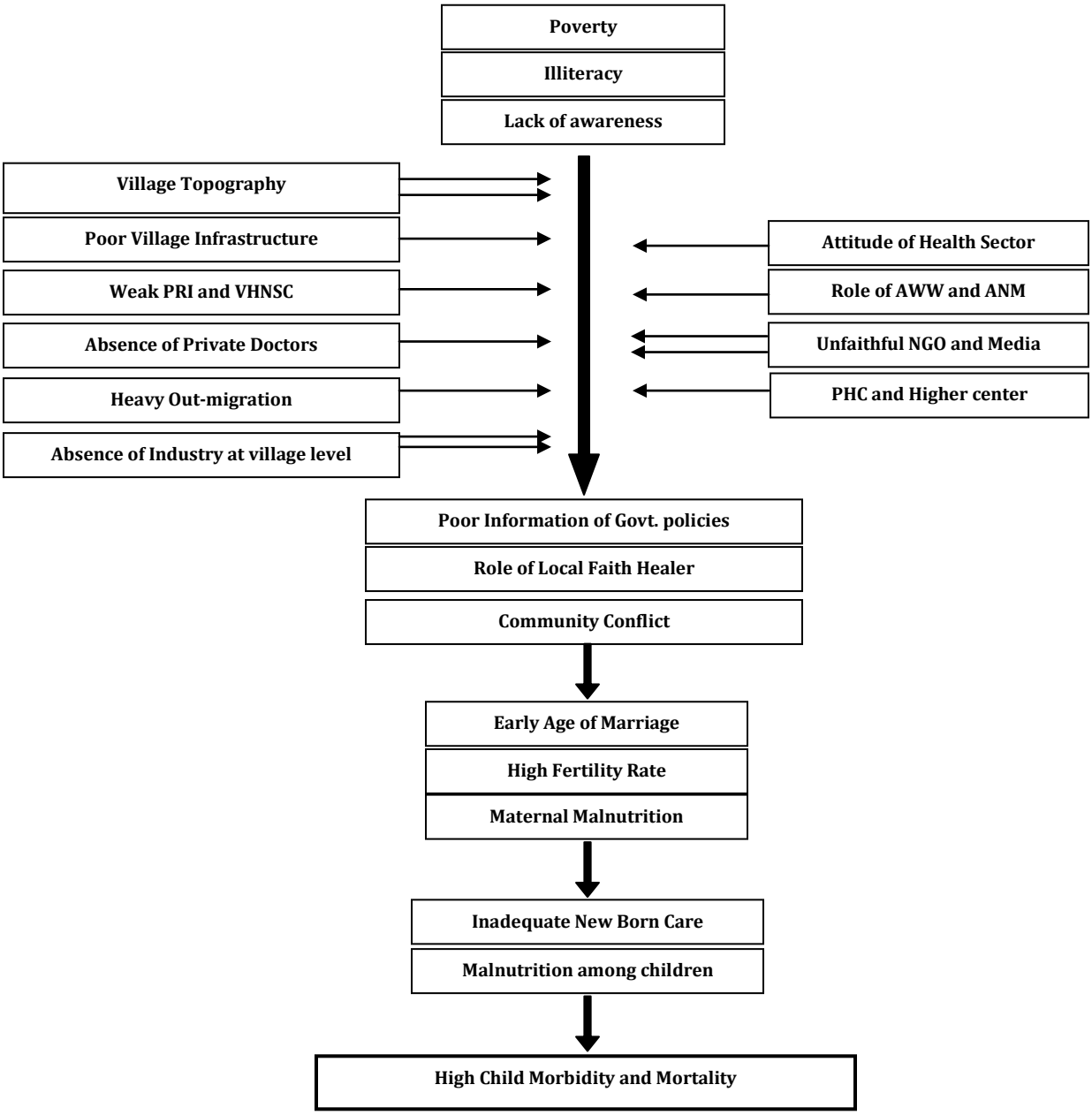
Second, the vicious cycle of poverty-illiteracy-lack of information still haunts the entire ghat area leading to several barriers of community development such as; early age of marriage of girls in the tribal community, high fertility rate among the tribal population, poor coverage of family planning programs, lack of interest and effort towards community participation and heavy out-migration to plain areas for work and wages during dry season. Third, the quality and attitude of the both health and ICDS functionary conflicts the need of the tribal community and most staff seeks attention of the administrative enigma. A conflict between Korku tribes and Gauli samaj was also evident in almost all the villages of the ghat area.

The PRI in the entire ghat area seemed to have a very poor inclination for rural development. The existing VHNSC under the NRHM have a very poor organization and functioning; in addition, these VHNSCs have received no money from NRHM fund since last 9-10 month. There is sheer absence of knowledge and even opportunity of NREGA scheme in the villages. The 'Janani Suraksha Yojana' is not at all popular among the villagers even with such high home delivery rate in these villages (upto a maximum 100% in some villages).

Absence of any factories, industries or agricultural institute in the area marks the urgent need for such establishment. The govt. officials are posted in the ghat area as part of their 'punishment posting'. It may be a good idea to recruit ANM and AWW in such area who otherwise are native to the area. Most of the 'Pada Swayam Sevikas' of past have converted themselves into ASHA but have received no money from NRHM fund since last 10 months. On top of the cards the NGOs are playing meager role as expected in context to community development. People believe that newspapers, media and even NGOs are just using them for their own business and are not playing any major role in community development. There is also a marked absence of private practitioners in the whole area.

Prevalence of early age of marriage leading to low birth weight baby and poor newborn care and high fertility rate culminating in low birth weight baby and poor child care was another issue. Often a couple goes for even 7-8 children, because even if 3-4 die, other 3-4 still remain alive to continue the family. Tribals mostly believe in local faith healers (*Bhagat*) even in serious emergency situations. In some villages the baby is not wrapped till 12 days and on instances gives bath to the newborn twice a day even during fever to cool down the baby during high temperature and also to keep the child more cleanly during illness.

Fig 1: Matrix of socio-economic-cultural factors related to poor child health in Melghat



DISCUSSION

According to a survey conducted by PREM in Melghat region, lack of proper health care both by their families and the primary health centres run by the government, has resulted in increasing number of tribal women giving birth to malnourished children. [1] Inadequate basic health care, lack of elementary education and intensive land alienation of the indigenous people have been cited as the main reasons for the poor condition of the Korku tribals. [4] Improper child rearing practices, poor diet intake by the pregnant women, early marriages, poor spacing of children, inadequate health education and awareness, lack of adequate income and purchasing power have been found to be the main reasons for the precarious state of child health in Melghat.

The survey team comprising Christopher and Anita Brien found malnutrition among the pregnant women in the selected hamlets to be quite high. They were found to be eating less in the 7th, 8th and 9th month of pregnancy; at times even starving. The reason being a community belief, which is if the woman eats well during pregnancy, the child in the womb will put on weight leading to problems in delivery. According to the survey report, a significant portion of the neo-natal deaths can be attributed to poor birth practices at Melghat. The survey found delivery rooms to be generally unhygenic with lack of proper care to save the new-born child from various infections. A sick newborn is usually not rushed to the hospital and instead referred to the *bhumkas* or *bhagats* (local faith healers) who use local medicines for treatment. A delay in correct medication affects the child's health badly leading to death. [3] The study found that the health of children deteriorated in monsoon and winter. A large number of children in Melghat die of water-borne diseases including diarrheoa and dysentery with pneumonia being the major killer in the winter months. Malnutrition deaths mostly occur in the pre-sowing season when the food security dwindles. [5]

Limitations of the study

The study took limited account of information on various other development determinants such as electricity, status of schools, human resource other than health sector and agricultural production in the study area.

Recommendations

An endeavor should be made to establish source of income at local level initiating cottage and handicrafts industry in the tribal villages and on the other hand by increasing awareness in regard to govt. policies such as NREGA and JSY. Cycle of poverty-illiteracy-lack of information must be fractured to inhibit and prevent the growth of evil determinants as well as resultants of social development such as early age marriage, high fertility rate and heavy child death.

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