



Assessment of immunization status of under-five children in migrants of Haldwani block, District Nainital.

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ABSTRACT Objectives: 1. To determine the coverage of childhood immunization among migrants. 2. To study the factor responsible for partial or non-immunization. Methodology: A population based cross sectional study is being conducted during 15 November 2014 February 2015 among children aged between 12–60 months whose parents were migratory. Out of all the clusters of migrants in Haldwani block, 2 were randomly selected. The child was considered as immunized or not immunized based on information on the immunization card. A pretested predesigned semi structured questionnaire was used to collect data. Results: Out of the total sample immunization card of 27.88% children was present, and majority of them 55.76% were found to be partially immunized followed by fully immunized in 34.61% and only 9.6% of them were found to be non-immunized. Most common reason for partial or non-immunization was fear of side effects 60% followed by inconvenient timing in 52% of cases. Conclusion: Immunization coverage in children of migrants was found very low and Majority of children were partially immunized.

KEYWORDS :

INTRODUCTION:

According to present estimates, there are an approximate 214 million international migrants, 740 million internal migrants and an unknown number of migrants in an irregular situation throughout the globe¹. According to national sample survey organization (2008) “a household member whose last usual place of residence any time in the past was different from the present place of enumeration was considered as a migrant member in a household”². India's immunization programme is one of the largest in the world in terms of beneficiaries served, vaccinations delivered, and the geographical spread and diversity of the regions covered³. Despite the basic infrastructure, India remains the nation with the largest number of children who have not received immunizations⁵. Immunization coverage is better in urban than rural areas⁴. The migration of children from one region to another had been found to be associated with low vaccination coverage⁶. Less than 70% migrant children of 1–3 years complete their immunizations⁷. Vaccination coverage is hampered by difficulty in accessing medical care, costs, complex transport and storage requirements, and by user characteristics, such as low education, parental knowledge, attitude and family poverty⁸⁻¹². However, we anticipate and argue that within the urban areas disparities and inequities persist in immunization coverage and that the socioeconomically disadvantaged, particularly those who migrated from rural villages, are more vulnerable and may contribute to the lower uptake of immunizations. With this background we planned this study is on children of the migrant's labourer (from various districts of Bihar, Chhattisgarh and Uttar Pradesh) for sand extraction from Gaula River which flows alongside the Haldwani block with objective of: 1. To determine the coverage of childhood immunization among migrants. 2. To study the factor responsible for partial or non-immunization. **Migrants:** We had considered migrants as those who moved in to the surveyed area in the last 6 month.

METHODS AND MATERIAL:

Population based cross sectional study was conducted in the settlements of sand extraction labourers in the Haldwani block of district Nainital along the river Gaula. They work alongside the 12 release gates of Gaula and reside in their temporary huts there. Out of the twelve release gates (clusters) two gates namely Motahaldu and Beriparao were selected by simple random sampling. In each cluster household with under-five children were visited and all the children (who were vaccinated according to national immunization schedule) of those household were included in study. The study was conducted from 15 November 2014 to 15 February 2015. After taking a verbal consent data were collected from the adult care-givers of the under five children using predesigned and pre-tested questionnaire. Thus information on socioeconomic status, birth order, literacy status and occupation of parents, place of delivery and immunization status of each child. The immunization status of the child was determined from

the immunization card, and in the absence of immunization cards, mothers or any other responsible and reliable member were asked to recall whether the child had received different vaccines (including the number of doses for each) as well as reception of vitamin A supplement. If they fail to remember anything about the vaccination the child was considered as not immunized with the vaccine under consideration. **FULLY IMMUNIZED:** If he/she had received one dose of Bacillus Calmette Guerin (BCG) vaccine, three doses of diphtheria, pertussis, tetanus (DPT) vaccines, three doses of oral polio vaccine (OPV), three doses of hepatitis B vaccine (HBV) and one dose of measles vaccine. **UNIMMUNIZED:** If he/she had received none of these vaccines, and **PARTIALLY IMMUNIZED:** If some doses were given, but immunization was not complete. The OPV given in pulse polio immunization (PPI) was not considered for Classification. In case of a partially/non-immunized child the reasons for not immunizing were asked. **Ethical considerations:** The study was approved by the Institutional Ethics Committee. Data were entered and analyzed using SPSS v17.

RESULTS:

Out of the total 104 study subject's majority 83% belongs to Hindus while Muslim and others constitute 17% of the population. Nearly half 49% represent schedule caste of the community. Around two third 73% (76) were residing in nuclear family. Majority of mothers 59.61% were working as labourers in Gaula River (majority daily wage worker unskilled). More than 44% of mothers and 25% of the fathers did not receive any formal education. Majority of the families 54.8% belong to socioeconomic class 4 (according to Prasad's modified socioeconomic scale updated November 2014). Maximum no (45.19%) of children had a birth order of 3 or more and 42.30% had a birth order of 2. Out of the total sample immunization card of 27.88% children was present, and majority of them 55.76% were found to be partially immunized followed by fully immunized in 34.61% and only 9.6% of them were found to be non-immunized. Most common reason for partial or non-immunization was fear of side effects 60% followed by inconvenient timing in 52% of cases.

TABLE 1. Socio-demographic details of the present study migrants

VARIABLE	No
SOCIOECONOMIC STATUS	
I	0
II	2
III	39
IV	57
V	6
SOCIAL CLASS	
SC	51

ST	21	
OBC	22	
OTHERS	10	
RELIGION		
HINDU	87	
MUSLIN AND OTHERS	17	
EDUCATION		
MOTHER	FATHER	
ILLETERATE	46	26
PRIMARY	34	42
MIDDLE AND ABOVE	24	36
TYPE OF FAMILY		
NUCLEAR	76	
JOINT	28	
PLACE OF DELIVERY		
HOME	64	
INSTITUTIONAL	40	
MOTHER OCCUPATION		
WORKING	62	
HOUSE WIFE	40	
BIRTH ORDER		
1	13	
2	44	
≥3	47	

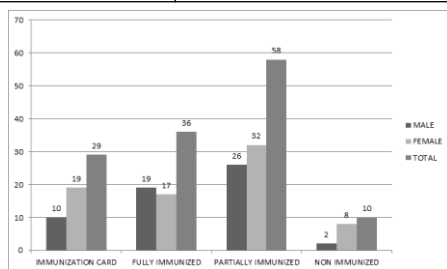


Figure 1: Distribution of the study subjects according to the status of immunization.

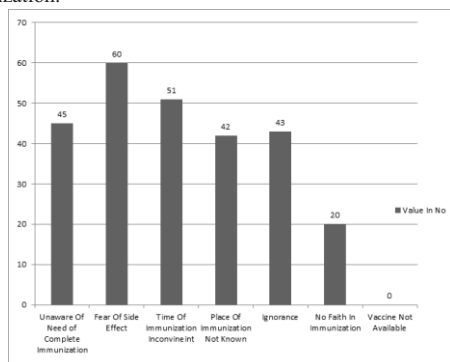


Figure 2: Distribution of the subjects according to the reasons of partial/non-immunization.(based on multiple answer type)

DISCUSSION:

In our study, among the partially immunized children, 44.82% were males, while among the non-immunized children 80% were females. This is in comparison to study from Chandigarh¹³ where no major differences were noted between the immunization statuses between the two sexes. However in the study from Jamnagar¹⁴ the coverage rates were higher amongst males. Percentage of fully immunized among migrants in our study was only 34.6%. In a study conducted by Yadlapalli et al¹⁵ in Delhi in 2010, 64.3% fully immunized children were among recent migrants and 80.8% were settled migrants. This may be because of the better immunization services and awareness regarding immunization in the city of Delhi as it is the capital of India. When asked about the reasons for partial or non immunization, majority of the migrants responded that fear of side effect (60) followed by unawareness of the need for complete immunization (45) is the cause behind the partial or non immunization of their child while in a similar study Varsha et al observed main reasons for partial and nonimmunization in migrants were unawareness of the parents in 21.8% of the subjects and parents forgot to immunize their child in 23.9% of the subjects. (21)

A limitation of the study is its retrospective reporting, which involves reporting bias and thus impacts the reliability of data.

CONCLUSION AND RECOMMENDATION:

The children of migrants are at risk of not being fully immunized because of the livelihood insecurity and alienation of their families. Migrant status favours low immunization uptake particularly in the vulnerability context of alienation and livelihood insecurity. Services must be delivered with a focus on recent migrants; investments are needed in education, socio-economic development and secure livelihoods to improve and sustain equitable health care services. Hence, making the system responsive particularly to vulnerable, socio-economically disadvantaged migrants would help in achieving full immunization coverage. There is also a need for improvement in the quality and equitable spatial distribution of maternal and child health services.

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