



ASSESSMENT OF IMMUNIZATION OF UNDER FIVE CHILDREN OF RURAL AND URBAN AREAS OF UDAIPUR DISTRICT, RAJASTHAN

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ABSTRACT

Background: The impact of immunization is not uniform in different social groups till today despite of EPI since long. Current study was held to assess the level of knowledge and actual practice of immunization by mothers of under five children in a rural and urban belt of Udaipur district. **Methods:** A cross sectional study was conducted in blocks Binder, Badgav, Ladiya, Kotra, Girva and Salumber of Udaipur district. Randomly 400 families (200 urban, 200 rural) were selected. **Result and conclusion:** Ample health education should be given to parents residing in rural areas to raise their knowledge regarding immunization. In rural areas anganwadi workers, ASHA etc should play a significant role in bringing awareness about immunization and their benefits. The group based approach, frequent camps would be more rewarding compared to area approach due to poor socio-economic development of marginalized group likes rural area for programmes like immunization of children.

KEYWORDS : Knowledge, Immunization, Udaipur

INTRODUCTION

In May 1974, the WHO launched the Expanded Immunization Programme globally, with focus on prevention of 6 vaccine-preventable diseases by the year 2000 for prevention and control of 6 major fatal diseases like TB, diphtheria, pertusis, tetanus, poliomyelitis and measles causing morbidity and mortality of children. These diseases are easily preventable through immunization.

In terms of benefits and costs, all the vaccines available to treat these diseases are safe, simple and effective. One of the most significant contributions of the medical fraternity to mankind is the advent of vaccines. The elaborated program of immunization started by the WHO in 1974 and has amended coverage for BCG, DPT, polio and measles to about 80% of children in developing countries.¹

In India, EPI was launched in 1978 and it was re-designated as the Universal Immunization Programme (UIP) in 1985, with a goal to cover at least 85% of infants.¹

The Indian Academy of Pediatrics has drawn time schedule ranging from birth to 18 years of age along with vaccines which is being followed in our medical centers. The 'Mission Indradhanush' was launched in 2014 in India to achieve 100 percent immunization by 2020 to protect children of country against seven preventable diseases through vaccination.¹

As a result of various programmes of immunization, there has been substantial reduction in child death in India; from 1990.²

However, the distribution of benefits has not been even across regions and communities. Hence the assessment of difference in knowledge and practice of immunization programme by tribal and non-tribal communities in a similar rural set up is a topic of research relevance.

In this prevailing scenario, it becomes the need of the hour to find factors which influence routine immunization, which will help the planners to implement the immunization programme in a better way, to achieve >85% coverage.

Objectives of the study were to assess the level of knowledge of rural and urban mothers about immunization in general and of under five children in particular; and to examine the extent of actual practice of immunization of under five children by the six blocks of residence area covered under rural and urban areas of Udaipur district of Rajasthan.

METHODOLOGY

Study Design: Cross Sectional study

Study Area: Six blocks viz Bhinder, Badgaon, Girwa, Kotra, Ladiya and Salumber of Udaipur district, Rajasthan

Study Participants: Mother of under five year old children representing rural and urban social groups.

Study Duration: January–February, 2020.

Sample Size: The sample size calculated based on share of fully immunized children in Rajasthan (54.8%) as per National Family Health Survey (NFHS-4)³ comes to 380.⁴

Data Collection: As a part of monitoring field work given by WHO, by house to house visits, arranging camps etc data was collected using pre validated structured questionnaire on KAP study on Immunization.

Statistical Analysis: Data was compiled and analyzed in M.S.Excel. With the help of Statistician data was analyzed using different statistical tests.

BASIC TERMINOLOGY

Fully immunized: When the child had received Bacillus Calmette–Guerin (BCG), three doses of diphtheria, pertusis (whooping cough), and tetanus (DPT), and three doses of oral polio vaccine (OPV) and measles vaccine.⁵

Partially immunized: When the child had received some but not all vaccines.⁵

Not immunized: When the child had not received any of the vaccine.

RESULTS AND DISCUSSION

Table 1: Demographic and Immunization details on selected households and under five children

Particulars	Rural	Urban
	N(%)	N(%)
Selected households	200(100)	200(100)
Households with pucca houses	50(25)	110(55)
Households with kutcha houses	140(70)	30(15)
Households with semi- pucca houses	10(5)	60(30)
Total Under five (U5) year children	489(55.82)	378(43.15)
Nuclear families	157(78.5)	129(64.5)
Three generation extended families	97(48.5)	64(32)
Immunization details	No. of children	No. of children
Source of information		
Health worker (ANM/AWW)	96(19.63)	45(11.9)
CHC/PHC/ Sub center	154(31.49)	189(42.06)
Mother/Guardian	239(48.88)	144(38.10)

Site of immunization		
Government	319(65.24)	297(78.57)
Private	29(5.93)	51(13.49)
Not given	141(28.83)	30(7.93)

Above table shows that current study includes 200 rural families and 200 urban families. Out of that 25%, 70% and 5% of rural families lived in pucca house, kutcha house and semi pucca house respectively. And 55%, 15%, 30% of urban families lived in pucca house, kutcha house and semi pucca house respectively. In rural area 78.5% of families are nuclear while in urban area 64.5% families are nuclear. In rural area 19.63%, 31.49% and 48.88% of immunization information was collected by health workers, CHC/PHC/ sub centers and mothers respectively. In urban area 11.9%, 42.06% and 38.10% of immunization information was collected by health workers, CHC/PHC/ sub centers and mothers respectively. In rural area 65.24% and 5.93% of children got immunized in government hospitals, private hospitals. In urban area 78.57% and 13.49% of children got immunized in government hospitals, private hospitals.

Similar results were found in the study of Dilip Kumar L et.al.⁶

Table 2: Comparison of immunization status with socio demographic indicators

Socio demographic indicators	Fully immunized (n=351)	Partial/Un immunized (n=525)	Chi-square (p value)
Mother's Education (n=400)			
Literate	150(52.4)	136(47.6)	33.68
Illiterate	38(33.3)	76(66.7)	(0.00*)
Sex of Child (n=876)			
Male	219(59.8)	147(40.2)	102.29
Female	132(42.6)	378(57.4)	(0.00*)
Residence (n=876)			
Rural	148(30.3)	341(69.7)	67.78
Urban	203(53.7)	175(46.3)	(0.00*)

Above table shows that 52.4% of literate mothers have immunized their children fully. 59.8% of male children and 42.6% of female children were fully immunized. In rural area 30.31% of children and in urban area 53.7% of children were fully immunized. All results are statistically highly significant at p < 0.01.

Similar results were found in the study given by Dilip Kumar L et.al. that mother's education, sex of child, type of house, cast and residence are significantly associated with immunization status.⁶

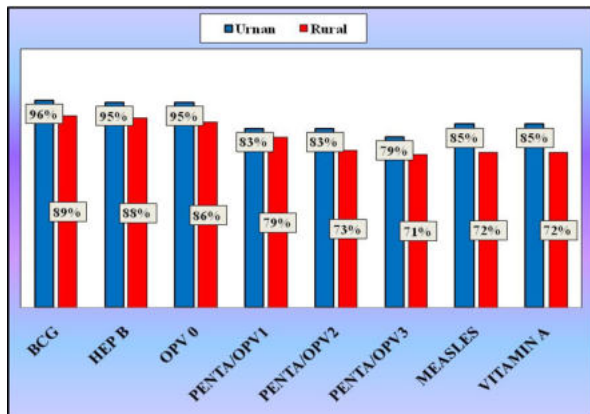


Figure 1: Multiple Bar Diagram: Immunization status among Rural and Urban children

Above figure shows the bar diagram of immunization status of rural and urban area. 96%, 95%, 95%, 83%, 83%, 79%, 85% and 85% of urban children have taken BCG, HEPB, OPV 0 dose,

Penta/OPV 1, Penta /OPV 2 , Penta OPV3, Measles and Vitamin A vaccines respectively. Comparatively less children 89%, 88%, 86%, 79%, 73%, 71%, 72%, and 72% of urban area have taken BCG, HEPB, OPV 0 dose, Penta/OPV 1, Penta /OPV 2, Penta OPV3, Measles and Vitamin A vaccines respectively.

This shows that in rural area the awareness of vaccination is less than the urban area.

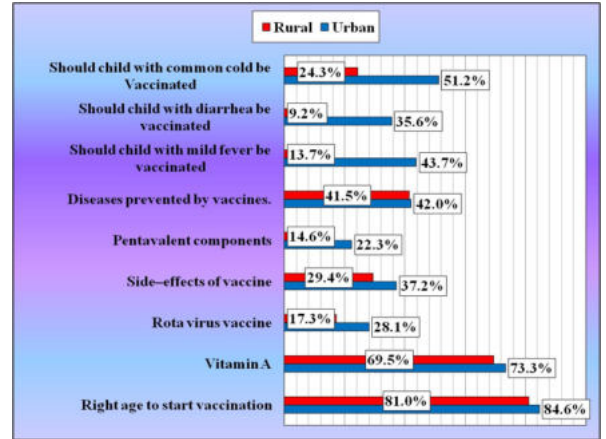


Figure 2: Mother's Knowledge regarding immunization in correct percentage answer

Above figure shows the bar diagram of about immunization. Percentage shows correct answers given by mothers or rural and urban area. It is clearly observed by above figure that rural mother's have very less knowledge in all aspects than urban mothers.

CONCLUSION

It was found that .4% of literate mothers have immunized their children fully. 59.8% of male children and 42.6% of female children were fully immunized. In rural area 30.31% of children and in urban area 53.7% of children were fully immunized. The socio economic factors like mothers literacy, type of house, residences etc. are found associated with immunization.

The study revealed that the area approach for health improvement programmes may not ensure equal distribution of benefits across communities in rural areas and urban areas.

For programmes like immunization of children the group based approach would be more rewarding. In blocks kotra, bhinder and ladaiya of rural belt more awareness camps are needed to spread the knowledge of immunization importance, it's benefits, it's side effects.

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