

# Key Issues Regarding Immunization of Children

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## ABSTRACT

**Introduction:** Immunization is the key component for child health. It acts as a protective shield to keep the children safe against the infectious diseases. However, millions of children still miss the routine vaccines. Globally, the efforts are being intensified to increase the coverage of vaccines especially in low coverage areas. Still, there are several challenges to promote the acceptance and adherence to the vaccination schedule.

**Materials and methods:** A survey of 200 households was conducted and adults (Parents/guardian) were interviewed. The tool consisted of 7 items related to the demographic profile and 10 items consisting of vital issues related to immunization for non-acceptance or adherence to the vaccination.

**Results:** 49% of the subjects were in the age group of 21-30 years, 64% were females, 82.5% were parents, 46% had 2 children in the family, 29% were educated upto 12<sup>th</sup>, 46.5% were homemakers and 89% visited government health facility for vaccination. The major issue identified was inadequate communication and lack of motivation for immunization (28%). 21% did not take the child for vaccination at the time of last dose due to sickness. 17.5% were not adequately informed regarding when and where to go for vaccination. 16% missed last dose of their child's vaccine due to forgetfulness or inconvenience to manage time. 15.5% believed that vaccines are not effective. Other issues included lack of trust in health services (7.5%), health facility located at a far distance (6.5%), vaccines are not necessary (5%), serious side effects related to the past vaccine (4%) and 2% believed that immunization is not safe.

**Conclusion:** The results indicated that there is a need to increase the awareness related to immunization. Information, education and communication will help to motivate the beneficiaries and decrease the gap between availability and utilization of services.

**Key Words:** Immunization, Issues, Children

## INTRODUCTION

Immunization is the most vital intervention in the medical science, as a cost effective measure to prevent and control the communicable illnesses, which contribute significantly to the children mortality rates across all the developing nations. It is an

effective strategy to reduce the burden caused by infectious or communicable diseases.<sup>[1]</sup>

Immunization acts as the key for survival of children. It is estimated that more than half among the most vulnerable children in the world, still miss out the essential or major

vaccines, which are required for a health life and survival. This missing of routine vaccines can be a life threatening challenge for the infants. [2]

India has made a significant progress related to health indicators, in the last two decades, particularly regarding the indicators related to child health. Immunization acts as a shield to keep our families and communities safe against the infectious diseases. However, despite of this progress, an important proportion of mortality and morbidity related to children is still contributed by the communicable diseases. Though there is a clear evidence that vaccines are effective to save lives and protect against the diseases, millions of children still miss out the vaccines, which puts them and their communities at risk of infection and deadly outbreak of disease. [2]

Globally, the main reasons for death among children less than five years of age are pneumonia, diarrhea and malaria, along with preterm birth, asphyxia and congenital anomalies. [3]

In 2022, it is estimated that India accounted for about 1.6 million unvaccinated and under vaccinated children. To promote immunization coverage at global levels, it is vital to prioritize measures and efforts in the countries having the highest number of unvaccinated children. Additionally, ensuring the coverage of vaccination in nations with low coverage rates, is equally important. [4]

There are several challenges to full immunization coverage including limited capacity of staff, gaps in predicting demand and cold chain management. Moreover, India lacks a vigorous system which tracks the coverage of vaccines or vaccine preventable diseases.

Parent's knowledge related to vaccine, employment status, level of education, income or socio-economic status, size of family, lack of access to health care services and self-efficacy, doubts regarding effectiveness of vaccine, forgetfulness regarding vaccine appointments, etc. are the

major factors associated with adherence to vaccination schedule or regimen. [5]

Perception and attitude of parents regarding immunization has a significant influence on their decisions related to the vaccination of their child/ children. [6]

An important aspect in achieving the full immunization coverage is sharing the information and motivating the parents of children. It is important to create awareness regarding the importance and role of vaccination and it should be ensured that the parents and caregivers receive the entire relevant information regarding immunization schedule. They should be clearly educated about when and where vaccination is to be given, the duration or interval between the doses and the importance of maintaining compliance and not missing the vaccine dose.

Therefore, having a detailed understanding of all the factors that influence or predict the childhood vaccine uptake, is imperative to design and adopt the specific targeted health interventions to deal with these barriers. This may help to enhance the likelihood of uptake and adherence to the routine immunization and thus, help to prevent and control the infectious diseases. [5]

The government seems to be investing many resources including timely availability of vaccines free of cost, increasing manpower to deliver the services, motivating the public and creating awareness regarding the need and benefits of immunization. Still, there is a need to identify and remove all the barriers to increase the acceptability and utilization of immunization services by the people. [7]

The routine immunization programme should be further strengthened with regular and periodic rounds for intensification, special target approach to accelerate efforts in the low coverage areas and priority groups to address and tackle the issues regarding immunization. [8]

**Objectives**

- The main objective of the study was to assess the key issues related to immunization of children.

**MATERIALS AND METHODS**

A survey was conducted in the selected community of Goindwal Sahib, District Taran Taran to assess the key issues related to immunization of children. A household survey was conducted and the adults were interviewed. A sample of 200 subjects who fulfilled the inclusion criteria (adult population aged among 21-50 years, parents/ guardian residing with the children, willing to participate in the study) was selected. The tool consisted of 7 items related to the demographic profile including

age, gender, relationship of respondent with the child, number of children in the family, educational status, occupation, type of health facility visited for immunization and 10 items consisting of vital issues related to immunization, reported by the respondents for non-acceptance or adherence to the vaccination schedule. The reliability and validity of tool was established. Permission was collected from the authorities to conduct the study. Informed written consent was taken from the study subjects. Confidentiality and anonymity were maintained. Data was collected during the month of October-November, 2023.

**RESULTS**

**Table 1 Socio demographic profile of study subjects N=200**

S. No.	Variable	Frequency	Percentage	
1.	Age (in years)			
	a). 21-30	98	49	
	b). 31-40	78	39	
	c). 41-50	24	12	
2.	Gender			
	a). Male b). Female	72 128	36 64	
3.	Relation of respondent with the child			
	a). Parent b). Guardian	165 35	82.5 17.5	
4.	Number of children			
	a). 01 b). 02 c). 03 d). 04	58 92 29 21	29 46 14.5 10.5	
	5.	Educational status		
		a). Illiterate b). upto 5 <sup>th</sup> standard c). upto 10 <sup>th</sup> standard d). upto 12 <sup>th</sup> standard e). Graduate or above	16 19 52 58 55	8 9.5 26 29 27.5
6.		Occupation		
		a). Homemaker b). Shopkeeper c). Government Job d). Private Job e). Self employed	93 38 19 21 29	46.5 19 9.5 10.5 14.5
		7.	Type of health facility visited for vaccination	
	a). Government b). Private		178 22	89 11

Table 1 showed that majority (49%) of the subjects were in the age group of 21-30 years, 64% were females, 82.5% of the

respondents were parents, 46% had 2 children in the family, 29% were educated upto 12<sup>th</sup>, 46.5% were homemakers and

89% visited government health facility for vaccination.

**Table 2 Source of information regarding immunization N=200**

Source of information related to vaccines	Frequency	Percentage
a). Health workers (ANM/ ASHA/ AWW)	126	63
b). Television	22	11
c). Newspaper	12	6
d). Family/ relatives/ Friends	94	47

Table 2 showed that 63% of the subjects reported that they received information regarding immunization from health

workers, 47% from their family/ friends/ relatives, 11 % from the television and 6% from the newspaper.

**Table 3 Key Issues related to Immunization N=200**

S. No.	Issues reported	Frequency	Percentage
1.	Inadequate communication and lack of motivation regarding immunization	56	28
2.	Don't accept immunization as safe	04	2
3.	Don't know or have not been adequately informed regarding when and where to go for vaccination	35	17.5
4.	Missed last vaccine due to forgetfulness or inconvenience to manage time	32	16
5.	Lack of trust in health services	15	7.5
6.	Health facility is located at a far distance	13	6.5
7.	Believe that vaccines are not effective	31	15.5
8.	Vaccines are not required or necessary	10	5
9.	Child was sick at the time of vaccine	42	21
10.	Serious side effects related to the last/ any past vaccine given	08	4

Table 3 showed the key issues related to immunization as reported by the subjects. The major issue reported by 28% of the subjects was inadequate communication and lack of motivation for immunization. About 21% of the respondents expressed that they did not take child for vaccination during the time of previous dose as the child was sick. 17.5% of the subjects stated that they don't know or have not been adequately informed regarding when and where to go for vaccination. 16% of the subjects expressed that they missed last dose of their child's vaccine due to forgetfulness or inconvenience to manage time. 15.5% reported that they believe that vaccines are not effective. 7.5% expressed that there is a lack of trust in health services. 6.5% stated that health facility is located at a far distance. 5% believed that vaccines are not required or necessary, 4% stated that child had serious side effects related to the past vaccine and 2% believed that immunization is not safe.

## DISCUSSION

The present study identified that the most important issue regarding immunization as reported by the (28%) subjects was inadequate communication or motivation regarding immunization, followed by sickness of child at the time of last vaccine (21%). The other key issues reported were unawareness regarding where and when to go for next vaccine dose, reported by (17.5%) of the subjects and belief that vaccines are not effective (15.5%). The main reasons for partial/ non immunization among respondents as reported in a study conducted by Singh CM, Mishra A et al (2019) in low performing blocks of Bihar, where child was sick so the parents did not take the child for vaccination (27%), lack of information about the importance of vaccination (17%), followed by the reason that parents did not know where and when to go. <sup>[10]</sup> Similar reasons for non immunization were reported in a study conducted by Mahore R, Agarwal AK et al

(2018), in a high priority district of Madhya Pradesh, which identified that lack of information was the main factor responsible for partial immunization and lack of motivation remained the major reason for unimmunization. The other reasons identified by the same study were illness of child, leading to parents not taking the child to immunization centre and mother being too occupied in household work to accompany the child for immunization. <sup>[11]</sup>

## CONCLUSION

The study was conducted to assess the key issues regarding immunization of children. A survey of 200 households was conducted and adults in the age group of 21-50 years were interviewed. Majority of the subjects were parents of the children, in the age group of 21-30 years, females, educated upto 12<sup>th</sup> standard, homemakers and used to visit government health facility for immunization services. The major issues reported by the subjects were inadequate communication and lack of motivation regarding immunization services (28%), sickness of the child at the time of last vaccine (21%), didn't know or were not informed regarding when and where to go for vaccination (17.5%). 16% of the subjects expressed that they missed last dose of their child's vaccine due to forgetfulness or inconvenience to manage time while 15.5% reported that they believe that vaccines are not effective. 7.5% expressed that there is a lack of trust in health services and 6.5% stated that health facility is located at a far distance. 5% believed that vaccines are not required or necessary, 4% stated that child had serious side effects related to the past vaccine and 2% believed that immunization is not safe. Thus, the results indicate that there is a need to spread awareness and use information, education and communication techniques to increase the utilization and acceptance of immunization related services by the people.

## Declaration by Authors

**Ethical Approval:** Approved

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**Conflict of Interest:** The authors declare no conflict of interest.

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