

Coverage of Immunization Among Poor Children

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ABSTRACT

Objective: To determine the immunization coverage among poor children

Methods: Mothers of children aged 1-5 years coming to Pediatrics Outpatient Department of Social Security Hospital, Multan Road Lahore from 1st January 2010 to 30th June 2010 were interviewed according to pre designed questionnaire. About 600 mothers were interviewed. The data then compiled was interpreted at the end of study.

Results: 59% of children receive full course of vaccination. While 9% were not vaccinated at all. 32% of children received 1-3 doses of vaccination but did not complete the course.

Conclusion: Immunization coverage of children in Pakistan is still around 60%. Our effort needs to be intensified to reach the poor children living in far off areas.

Key words: Vaccination, immunization, poor children

INTRODUCTION

All around the world every year some 12 million children die before they reach their fifth birthday, many of them during the first year of life. Seven in every 10 of these deaths are due to diarrhea, pneumonia, measles, malaria and malnutrition-often a combination of these conditions.¹ Two third deaths of these take place in developing countries. A large share of this morbidity and mortality can be prevented by vaccination of children. Vaccination is administration of any vaccine for prevention of diseases. A vaccine is an antigenic preparation used to produce active immunity against a specific disease.² Immunization is the process of introducing immunity artificially by either vaccine or administration of antibody. Active immunization involves stimulating the immune system to produce antibodies and cellular immune response that protect against the infectious agent. The current approaches to active immunization are the use of live attenuated infectious agents and inactivated or detoxified agents, their extracts or recombinant products.

Vaccines which protect against disease by inducing immunity are widely and routinely administered around the world, based on common sense principal that it is better to keep people from falling ill than to treat them, once they are ill. Vaccination is considered to be one of the most cost effective health intervention³.

When WHO initiated EPI in May 1974 less than 5% of the world children were immunized during the 1st. year of life against six killer diseases, DPT, T.B, Measles, Polio. However a quarter of worlds children,

about 25 million infants are not immunized against these killer diseases.⁴ Studies from other parts of the world have identified reasons for delay or non-immunization of children. The influence of elderly in the house, side effects of the vaccines, misconceptions regarding vaccination, missed opportunities, lack of information, socio-demographic characteristics, socioeconomic factors, sickness of the child and the vaccine not available were found to be the major reasons⁵⁻⁹.

While EPI initially focused on building sustainable routine immunization system to protect children against common childhood diseases through administration of vaccines during infancy¹⁰.

In Pakistan expanded program on immunization was launched in 1978 with the support from WHO and UNICEF. Pakistan is one of the developing countries where infant mortality rate is quite high i.e. 65/1000 live births¹¹. Nearly 1 in 10 children does not survive his or her fifth birthday. Despite the government's efforts and the EPI functioning for nearly 32 years in Pakistan, the vaccination status of children under 5 is still unsatisfactory. Utilization is higher when vaccination centers are easily accessible, have minimal administrative barriers and provide good quality care^{12,13}. Studies have shown that fixed immunization clinics often fail to reach those children who are at highest risk, i.e. those who fail to attend the health centers.¹⁴⁻¹⁶

There are still many obstacles and hurdles especially in reaching out children living in remote areas. Illiteracy is another factor which keeps many children of uneducated parents from getting vaccination.

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SUBJECTS AND METHODS

This study was conducted in Pediatrics Outpatient Department Social Security Hospital Lahore. Six hundred mothers of children aged 1 year to 5 year were included in the study. The study was conducted from 1st January 2010 to 30th June 2010. A questionnaire was designed and mothers of children aged 1-5 years were questioned regarding the age, sex and vaccination status of these children. Informed consent was taken for inclusion in study.

RESULT

Mothers of 600 children aged 1-5 years were questioned according to questionnaire. Results showed that out of 600 children 372(62%) were males while 328(38%) were females (Table 1). Further analysis of the result showed that 59% of children were fully vaccinated, while 32% children received one or two doses of vaccination but did not follow up the full course afterwards. Thus 32% children were partially vaccinated and 9% of children did not receive any dose of vaccination (Table 2).

Table 1: Sex distribution of 600 patients

Sex	=n	%age
Male	372	62
Female	328	38

Table 2: Vaccination status of children

Vaccination status	=n	%age
Vaccinated	355	59.12
Partially vaccinated	191	31.88
Not vaccinated	54	9

DISCUSSION

Immunization is one of the most cost beneficial and cost effective disease prevention measures. The proportion of the world's children immunized against the major vaccine-preventable diseases has increased from 20% in 1980 to over 80% in 1996, preventing more than 2.8 million children deaths annually.¹⁷⁻¹⁸ As a result of effective and safe vaccine, small pox has been eradicated; polio is close to world wide eradication. Though developed countries like US claim to achieve 90-95% immunization coverage, situation in developing countries is not very encouraging. Many vaccine preventable diseases remain prevalent in the developing world relating to 20 to 35% of all deaths in children under five.¹⁹

This study was done to look into the vaccination status of children coming to social security teaching hospital out door. Our results showed that almost 59% of children receive full course of vaccination,

While 9% of children did not receive any dose of vaccination. Another 32% of children were partially vaccinated due to different reason

Javed et al²⁰ conducted a survey in slum area of Lahore in 1997, in which 46% children were fully vaccinated. Another nationwide study conducted by Ilyas F published in Dawn in August 2008 showed the vaccination coverage to be just 35%²¹.

Global efforts to immunize children against life threatening diseases set a record high last year but failed to protect millions of youngsters in the world's poorest countries²². The goal of immunizing children against chief diseases responsible for child mortality and morbidity is indeed a noble one. However, it is not an easy task to achieve. In Pakistan also time and again measure are done to reach out to the children living in remote areas. "Strengthening of EPI programme" was launched in 2003-04 to expand immunization coverage up to 80% by 2009²³.

But as various results show a lot of more work needs to be done to improve the present situation. We would make following recommendations.

- Education about vaccination should begin during antenatal visits.
- TV channels, news paper should be used effectively for creating awareness about vaccination and removing the myths associated with it.
- A complete vaccination certificate can be made mandatory before admission to schools, more health care center should be set up, especially in small cities.
- Mobile teams should be increased which can deliver vaccine, directly to individuals in towns.

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