TASK-4

SUMMER INTERNSHIP ASSIGNMENT

International Institute of Health & Hospital Management Research,

New Delhi-110075

"IMMUNIZATION COVERAGE AMONG CHILDREN IN RURAL INDIA"

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TITLE OF THE STUDY:

Immunization coverage among children in rural India.

INTRODUCTION:

Immunization is a free, powerful and proven tool for Elimination and regulation of various highly infectious disorders. Quick against 27 infection or disease. The agents, vaccines and many others were created Many are either under pipeline or in the process of Growth-Development. The vaccine plan Varies according to country by number with antigens; but antigens such as Tuberculosis, DPT Poliomyelitis and (i.e. Diphtheria, Pertussis, Tetanus) Measles form part of global vaccination Schedule. In India the immunization plan was Started with the intention of protecting children against vaccine Preventable Diseases (VPD). Since suboptimal UIP immunization coverage, this plan has Just modest success in lowering the burden of VPD. India 's immunization coverage is still far away from the target of 100 per cent vaccination given the long commitment of non-profit and public bodies, there are only small areas of vaccine coverage. There are wide differences between states and districts in the proportion of partially immunized and unimmunized children. Recent studies have shown that the key reasons for the failure to reach children in the country with all vaccinations are lack of knowledge among parents of the benefits of vaccination, fear of adverse effects following immunization and operational factors. In December 2014, the Ministry of Health and Family Welfare of India launched the Indra Dhanush Mission to achieve more than 90% maximum immunization coverage in the country by 2020 with the aim that it will gradually close immunity gaps and improve immunization coverage.

Globally, there is a rising increase in the rate of immunization coverage, with this rate of diphtheria pertussis and tetanus-3 (DPT-3) vaccination increasing to percent in 2017, from 72 percent in 2000 and 21 percent in 1980. According to the 2017 joint report by the World Health Organization and the UN International Children's Fund, Throughout the South East Asia Region (SEAR), the immunization rate for DPT-3 is 88 percent and for measles containing the vaccine 87%. Maldives has the highest immunization coverage in this region (99 percent) and Indonesia has the lowest (79 percent) while India is in the intermediate (88 percent) group.

The Universal Immunization Program (UIP) in India is the world's largest with annual cohorts of around 26.7 million children and 30 million pregnant women. The 2015--2016 National Family Health Survey-4 (NFHS-4) estimates that 62 per cent of children aged 12--23 months have been completely immunized in India (BCG, 3 doses of DPT, OPV, and one dose of measles each). According to this national survey, in rural areas and urban areas of India, 61.3 percent and 63.9 percent of children aged 12--23 months were completely immunized. Puducherry has the highest (91.3 percent) and Nagaland has the lowest (35.7 percent) percentage of immunization coverage while Uttar Pradesh, Bihar, and Jharkhand have 51.1 percent, 61.7 percent, and 61.9 percent, respectively.

RATIONALE:

First, when it comes to immunization, India is a major contributor to the world of unvaccinated children. Therefore, it is essential to understand the pattern of complete immunization coverage in general and specific vaccines, particularly between the different geographies of India. Second, many publications on various health indicators suggest the pervasiveness of economic inequality among children. Therefore, it is imperative to study the pattern of inequality between the subgroups of the population that are better and worse. Third, the WHO Commission on Social Determinants of Health has strategically positioned itself to reduce health inequalities and considers gender as one of the main determinants. It is widely established that there is still a pronounced gender bias in India, which favors men over women. In the same vein, this study is a review to understand immunization coverage across regions of India. The present study will offer the complex pattern of inequality in the regions of India and provide guidance in policy formulation according to current challenges.

RESEARCH QUESTION:

How Immunization Coverage will improve in rural regions of India?

AIMS & OBJECTIVE:

1. To determine the immunization coverage in rural area of India.
2. To determine the factors which affect the immunization coverage.
3. To find out the reasons for immunization failure.

METHODOLOGY:

This is a community-based cross-sectional descriptive research conducted in rural population using the WHO cluster sampling approach for evaluating immunization coverage and related factors. The research was performed for 2 years.

Criteria for Inclusion:

Children ages 12 to 23 months.

Children whose parents / guardians are happy to take part in the research.

Criteria for Exclusion:

Children under 12 months & older than 23 months

Children whose parents / guardians do not plan to attend the study. Dividing the whole population into 30 clusters.

Fully Immunized: The child who received all the vaccine doses recommended in UIP prior to one year of age, i.e. one dose of BCG & Hepatitis B, three doses of each OPV and Pentavalent and one dose of measles & JE.

Partially Immunized: Child who did not receive all vaccinations as scheduled in UIP due to his / her age.

Unimmunized:-Child that had not been vaccinated at all.

LITERATURE REVIEW:

Immunization details included immunization card, various vaccine immunization status, BCG scar mark, vaccination source (health facility), and reason for non-immunization / partial immunization. In the present study immunization coverage was significantly associated with mother education status (p value 0.00), mother occupation (p value 0.01), and father education (p value 0.00), religion (p value 0.00) and caste (p value 0.00). Sex, family type and mother age did not have any significant association with the children's immunization status. Reasons for immunization failure: The main cause of immunization failure (including unimmunized and partially immunized) in urban and rural areas was lack of information, i.e. "Fear of side effects," i.e. 6.7 percent.

All primary vaccines (BCG, DPT, OPV, HepB V and measles) must be completed by the time the child is 12 months old, i.e. fully immunized, according to the vaccination schedule. If no single dose is given for age, she is partially immune. If there is no vaccine, it is considered to be immune or non-immune. A survey of the child's age at the start of vaccination showed that 45.72% of the children had themselves been vaccinated with BCG in the first month. In the case of OPV, at 6 months, 89.3% had completed a primary vaccination. At an average age of 9 to 12 months, 73.80 percent of the children had missed the vaccination. The reasons for vaccination failure have been examined in three sections, namely lack of information, lack of motivation and obstacles. 3.8% prevented getting the vaccine for fear of the side reaction and the same number of vaccines until another date. In the case of 4.2 children, the absence of vaccination showed that the child was sick and therefore unvaccinated. Improved health education activities are thought to increase immunization coverage by eliminating confusion about vaccination and anxiety from the side reaction. Since minor illnesses are not vaccine contraindications, most of them could be vaccinated if brought in for vaccination.

The present study showed that out of a total of 330 children aged 12 to 23 months were boys (59.7%) and 133 (40.3%) were girls. The mother was the respondent in (96.7%) of the cases (the father was interviewed when, at the time of the home visit, the mother was not available). Among them were religious Hindus (69.7%) and casts of the Tribe de la Tribu (ST) (57%). The majority of fathers (49.40%) had primary and secondary education and mothers (47.30%). For the majority of them, the father (40.30%) was a farmer / fisherman / farmer, followed by unskilled workers (25.80%), while their mothers (78.20%) were housewives. The main reasons for the failure of the full vaccination, as noted in, were the lack of awareness of the need to return for the second and third dose of vaccines (26.7%), the infant disease not brought for vaccination (26.7%), followed by fear of side reactions (20 percent), etc. The variables, which were found to have a significant association with the complete immunization status of children in the univariate analysis, were the religion of the children, social caste.

Our study found that Tamil Nadu had a high coverage of various vaccines among children aged 12-23 months, ranging from 84% to 99.8%; 80 % of children had all the vaccines. Around 16 per cent of children receiving BCG and about 13 per cent of children receiving the first dose

of DPT did not complete the entire vaccine course. Approximately one in ten FVCs were improperly vaccinated. In order to increase vaccination coverage and decrease the dropout rates, the State's immunization program needs to be strengthened. Efforts to increase the State's vaccination coverage need to focus on educating health workers on the right national vaccination schedule and need to adhere to the schedule, and reinforcing supporting supervision to ensure that children are properly vaccinated at the right age and interval. Moms must also be informed about the importance of full vaccine

Although Bihar's overall immunization coverage is less than the NFHS-4 coverage for National Immunization, this study shows a higher rate of immunization with respect to Corrected Immunization Coverage. It may be attributed to the fact that Intensified Mission Indra Dhanush and responsible vigilance and accountability of each stakeholder can fill the previous gaps together. Some of the other factors for enhanced vaccination coverage are the higher rate of institutional deliveries (81 per cent) compared to earlier and continuous program monitoring and supervision in the study area. But coverage in some blocks is still below 75 per cent, which requires further follow-up. The blocks that have corrected the coverage of immunization (100 percent) may be taken as model blocks for the state to follow some of their practices. The observed dropout rate between BCG and pentavalant-1 is only 0.61 percent, which means that nearly all children take the vaccine. Appropriate intervention needed at community level to decrease the dropout rate. Measures should be taken to increase institutional deliveries to higher because, as found in this research, it has a direct association between high vaccination coverage and lower leftovers and dropout

RESULTS:

In other studies, across the country, complete immunization coverage of children reveals a similar pattern. In the tribal area of Parol, the Maharashtra FIC district of Thane was found to be 71.1 percent of Tamil Nadu reported FIC to be 79.9 percent, which was highlighted by 91.67 percent in the rural area of Tripura. Another focal study in Surajgarha Lakhisarai District in Bihar was 55.2 percent, and in the rural area of Uttar Pradesh was 50. The full immunization coverage in the Bihar and Uttar Pradesh studies is much lower and this may be attributed to the lower level of awareness and less use of health services in both territories. The correct immunization coverage in this study was 82.95 percent which is comparable to the study in Tamil Nadu, where it was 78.8 percent and 79.4 percent as per the report.

Throughout this study, the dropout rate from BCG to pentavalent 1, BCG to measles, pentavalent-1 to pentavalent-3, and pentavalent-3 to measles is 0.61 percent, 6.68 percent, 2.43 percent, and 3.46 percent, respectively. As a result, the highest dropout rate for measles antigen was observed throughout the BCG (6.68 per cent). The dropout rate from BCG to measles, pentavalent 1 to measles, and pentavalent-1 to pentavalent-3 was 15.9 percent, 12.9 percent, and 4.1 percent, respectively, according to the research done in Tamil Nadu by. It can be said in comparison that the dropout rate found in this study is better than that of Tamil Nadu.

In this report, at the survey date, the availability of the immunization card is with the 84.11 percent of the beneficiaries. The availability of the vaccination card is according to the study for more than 80 percent of the children in Parol tribal region, Thane district. The availability

was 65.7 percent in the Surajgarha Block Lakhisarai District, Bihar study and 88.4 percent in the study of Ahmedabad city's urban slums.

Nearly 63.8 per cent and 55.4 per cent of deliveries in Bihar are institutional according to NFHS4 and DLHS4, respectively. In this current study, approximately 81 percent of deliveries occur in government institutions, which, according to this result, can lead to increased immunization coverage, while in the southern states of India, the institutional delivery rate is more than 90 percent.

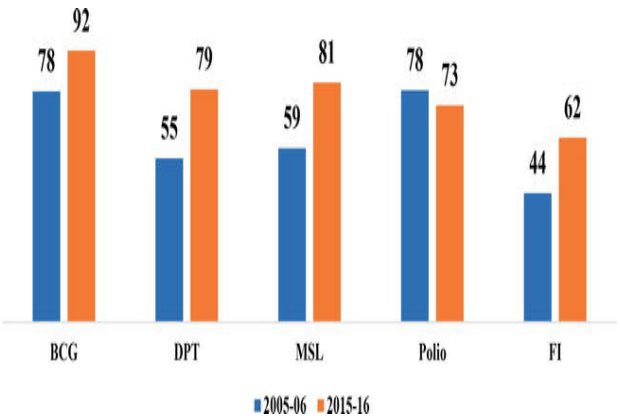
In the present report, 8.7 percent of children received one or more vaccines but did not complete their immunization until survey time and 0.35 percent were unimmunized. Research in Kochi, Kerala has shown that 10 percent of children have been partially immunized and 1have been immunized, which is almost close to our research.

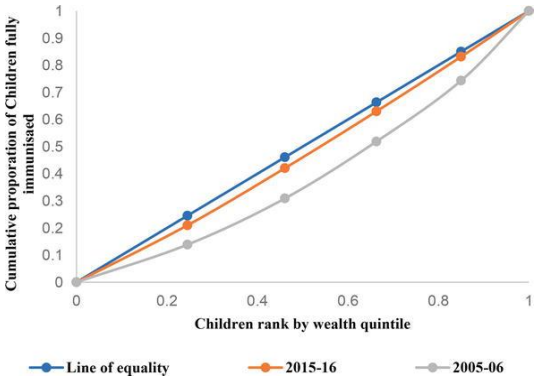
The percentage of partially immunized (20 percent) and unimmunized (4 percent) children was slightly higher in study conducted in Haryana Other studies in Lucknow district and in Lucknow district urban slums showed that lack of awareness was the main contributor to the higher dropout rate.

The main reason cited by most respondents in this study was the lack of availability of children on the day of vaccination followed by sickness. Andhra Pradesh showed that the most common reasons for partial / no immunization were ill children (27.5 percent), lack of knowledge of vaccination (25.12 percent), migration to other places without knowledge of place and time of vaccination (17.5 percent).

A study conducted in Haridwar, Uttarakhand and the district of Lucknow and in Lucknow's urban slums reported that low knowledge was the most common reason for partial or no immunisation. A research from the rural area of District Tonk, Rajasthan found that sickness 22 (36.06 percent) of the elder sibling as a result of the previous vaccination followed by 20 (32.07 percent) of the beneficiary 's illness at the time of vaccination was the most common cause of partial / nonimmunized illness.

A research in North India's tertiary care hospital showed that the main reasons for partial immunization and non-immunization were lack of knowledge of immunization (30.3 percent), fear of vaccine side effects (28.8 percent), and lack of knowledge of subsequent doses (22.09 percent). Other factors were: vaccination induces sterility, there was no vaccine available and no vaccinator available. In rural areas Tripura highlighted in their research that the key reasons for low immunization are lack of awareness (26.7 percent), any child's disease (26.7 percent), accompanied by fear of potential adverse effects (20 percent). The Consolidated Enhanced Mission Indra Dhanush study indicates the reason for non-vaccination is lack of awareness (45 percent), apprehension of adverse effects (24 percent), vaccine aversion (reluctance to accept the vaccine for reasons other than fear of adverse effects) (11 percent), child travel (8 percent), and program related gaps in 4 percent of respondents.





DISCUSSION:

The present research sought to re-examine the timing and uneven exposure to vaccination protection in Indian regions. Consistent with previous studies, this analysis analyzed inequalities between rich and poor, inequalities between country and city, and gender differences using the last two rounds of NFHS to explain the difference in equality between regions of India in immunization. The final round of NFHS showed a significant 18 percent improvement in full vaccination coverage compared to previous surveys. Complete vaccine coverage and vaccines against DPT and measles had improved by more than 40 percent in the period 2005-2016. The improvement in the immunization system may be due to India's national vaccination policy. The results show that differences in the broad coverage of the vaccination as well as in the overall coverage of the immunization had shown significant differences in the Policy. The inequality in full coverage of immunization was higher among the poorer groups observed in the regions. During the period between the surveys, the ratio of full immunization coverage almost halved.

This can be seen as an improvement in the vaccination rate in children from the poorest quintile of wealth. DPT coverage among children from the poorest quintile fortunes doubled, while measles improved 1.5 times over the period, helping to double full coverage of vaccinations. This can be accredited for advances in vaccination rates, dedicated, well-trained and sensitive ASHA employees, or community health workers. In the previous literature, the male benefits of vaccination were highlighted.

Vaccination / immunization are the components of primary care and the latest grassroots study showing factors such as community-level denial, unsuitable supply chain and logistics are some of the problems that need to be tackled at primary care level in order to achieve better FIC. In order to recognize high-priority areas for various stakeholders, community preparedness can be measured and contrasted between blocks.

CONCLUSION:

In addition, the coverage of immunization was found to be relatively nice in contrast with National Family Health Surveys but there is still a lot of variety to boost the national goal of Coverage of 100 per cent of immunization. In this Analysis mother education status, mother jobs, religion, age, family income and caste for the month are all closely linked to immunization

Coverage. Vaccination side effects find to be the key reason why it failed to complete Immune a baby. While most of the children have been immunized in the current sample, it's still not up to the mark. We will make it 100 percent, so that we can reduce mortality due to diseases that can be avoided by vaccines. Growing understanding and raising parental apprehension of side effects of immunization through health education, therapy, etc. will increase the number of children immunized. Increasing immunization among children is again an important part of making immunization programs readily accessible to the beneficiaries. To enhance service delivery and health education among mothers/guardians, the communication, awareness and knowledge skills of health workers need to be improved. Surveillance and referral programs in the region do need to be improved to recognise immunization defaults and raising the incidence of dropouts.

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