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FINAL REPORT ON

A
STUDY OF THE
EFFECTIVENESS OF PULSE POLIO
IMMUNIZATION PROGRAMME
(PIIP) - 2053 B.S.

1998

TO,
The Nepal Health Research Council
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A
STUDY OF THE
EFFECTIVENESS OF PULSE POLIO IMMUNIZATION
PROGRAMME (PIIP)
2053 B.S.

Background:

PIIP-2053 was observed on 21st Mangsir & 4th Magh 2053. It was for the first time in Nepal. The objective of PIIP is to eradicate the wild strains of polio virus from the community. For this objective to be met, all children below 5 years of age, irrespective of their primary immunization status are included in this programme. This programme is supposed to be of immense help in the WHO goal of eradication of poliomyelitis by the year 2000 A.D.

The study was conducted during the months of April-October '97 in four VDC's nearby Dharan Municipality viz. Hanshposha VDC, Jhumka VDC, Aanpgachhi VDC & Bhedetar VDC. A total of 506 households were surveyed on the questionnaire basis.

INTRODUCTION OF THE COMMUNITY

All the communities included in the study truly represented the rural Nepali community. Taking into the consideration that the caste, ethnicity, income & education status etc. affect the general awareness about the immunization, a variety of population was surveyed on random basis. The communities selected were no different than the average rural Nepali village in a sense that the villages were under-privileged in the field of health facilities & many others.

EPIDEMIOLOGIC STUDY OF THE COMMUNITY

This included Caste/Ethnicity, Religion, Income per year, Educational status and Occupation.

Caste/Ethnicity

The distribution of the population by caste/ethnicity showed that 46.24% of the sample population were Tharus. It was followed by Brahmins (15%), Chhetri, Rai/Limbu and Others (Muslims, Buddhists, Sardar etc.) respectively.

Total No. of households -506

S.No.	Caste/Ethnicity	Number	Percentage (%)
1.	Brahmin	76	15
2.	Chhetri	44	8.69
3.	Rai/Limbu	35	6.91
4.	Tharu	234	46.24
5.	Others (Muslims, Buddhists, Sardar etc.)	117	23.12
	Total	506	100

Religion

Majority of the population followed Hindu religion. Only few of the population (4.15%) followed other Non-Hindu religions.

S.No.	Religion	Number	Percentage (%)
1.	Hindu	485	95.85
2.	Non-Hindu (Muslims, Buddhists, Christian, Kirants etc)	21	4.15
	Total	506	100

Income per year

In each household, the respondents were asked about the sources of income from various fields like agriculture, business, employment etc. The sources of income in kind were converted to money based on the prevailing market price of the commodity.

43.87% of the population had a family income of greater than Rs. 10,000 per year. 22.33% of them had family income of Rs. 7001-10,000 per year whereas only 6.32% of them had a family income of upto Rs. 2000 per year.

S.No.	Yearly Income (Rs)	Number	Percentage (%)
1.	Upto Rs. 2,000.00	32	6.32
2.	Rs. 2,001.00-5,000.00	40	7.9
3.	Rs. 5,001.00-7,000.00	99	19.56
4.	Rs. 7,001.00- 10,000.00	113	22.33
5.	> Rs.10,000.00	222	43.87
	Total	506	100

Education Status

Head of the family members of each household was asked for his education status. Study revealed that almost half of the population was illiterate. 36.95% of them had education of below 10th std. Only 7.9% of the population had passed SLC and less than 4% of the population was educated above SLC level.

S.No.	Education	Number	Percentage(%)
1.	Illiterate	257	50.79
2.	Test Pass or below	187	36.95
3.	SLC	40	7.9
4.	Intermediate	13	2.57
5.	Bachelors	8	1.58
6.	Masters	1	0.19
	Total	506	100

Occupation

The study showed that the percentage of farmers is the highest (37.35%). Labours came to stand second with 33.20%, majority of whom were daily-wages workers. Business and service came out to be less with about 15% each:

S.No.	Occupation	Number	Percentage(%)
1.	Business	73	14.42
2.	Farming	189	37.35
3.	Service	76	15.02
4.	Labourer	168	33.20
	Total	506	100

STUDY OF THE TARGET POPULATION

Target population of the study was children below 5 years. In 506 households surveyed, there were 735 children.

Sex - distribution

Out of 735 children, 51.82% were males & 48.2% were females.

	Males	Females
Number	381	354
Percentage	51.82%	48.18%

Primary Immunization status of the children

Primary Immunization refers to vaccination against six major killer diseases of childhood given during the first year of life as follows:

- At Birth - Zero Polio, BCG
- At 6 Wks. - OPV1, DPT1
- At 10 Wks. - OPV2, DPT2
- At 14 Wks. - OPV3, DPT3
- At 9 months - Measles

Study revealed that 73.2% of the children were immunized with primary immunization while 26.80% of the children were not immunized.

	Immunized	Not Immunised
Number	538	197
Percentage	73.20%	26.80 %

COVERAGE OF PPIP - 2053

The coverage of the first PPIP held on 21st Mangsir & 4th Magh 2053 in the above mentioned communities is presented below:

Coverage of immunization of the children during PPIP.

The study found out that out of 735 children, 706 (96.05%) were immunized while 29 (3.95%) were not immunized.

Total No. of children -735

	Immunized	Not Immunized
Number	706	29
Percentage	96.05%	3.95%

Sex-wise distribution of the immunization coverage of the children during PPIP.

The study showed that out of 381 males, 367 (96.33%) were immunized while 14 (3.67%) were not immunized.

Similarly, out of 354 females, 339 (95.76%) were immunized, while 15 (4.24%) were not immunized.

The reason for lesser coverage in females could be that in our society males are given better care & attention as compared to females.

MALES

Total No. of Males=381

	Immunized	Not Immunized
Number	367	14
Percentage	96.33%	3.67%

FEMALES

Total No. of Females=354

	Immunized	Not Immunized
Number	339	15
Percentage	95.76%	4.24%

The detailed report of the study is presented below in tabulated form:

No. of household =506

No. of Children =735

S. No.	Age group (Year)	No. of Children		Immunized during PPIP		Not Immunized during PPIP	
		Male	Female	Male	Female	Male	Female
1.	0 - 1	60	70	56	65	4	5
2.	1 - 2	69	68	66	65	3	3
3.	2 - 3	76	65	74	64	2	1
4.	3 - 4	63	67	62	66	1	1
5.	4 - 5	113	84	109	79	4	5
	Total	381	354	367	339	14	15

Total No. of Children Immunized during PPIP =706 (96.05%)
 Total No. of Children not Immunized during PPIP= 29(3.94%)
 Percentage of Males Immunized = 96.32%
 Percentage of Females Immunized = 95.76%

Children not Immunized during PPIP

As a whole, the total number of children not immunized during PPIP -2053 were 29 (3.95%) as shown above. Two main reasons for children not being immunized during the PPIP were discovered as:

- (a) Ignorance, which contributed in 21 (72.4%) cases &
- (b) Distance too far which contributed in 8 (27.5%) cases.

Total No. of children not immunized=29

Reasons for not being Immunized	Number	Percentage
Ignorance	21	72.4%
Distance too far	8	27.5%

Prevalance of Post-Polio Residual Paralysis

Not a single case of poliomyelitis or its residual effects was seen in the area. It might be due to decreasing incidence of the disease & increasing coverage of the primary immunization.

FINAL REPORT

The study showed a coverage of 96.05 % in the area. The coverage was satisfactory which might be due to good co-ordination on the part of the authority and also work being relatively easier in the Terai region. The Participation of the population was satisfactory. Out of 3.95% children not Immunized during the PPIP, most were ignorant about the programme while a few complained of distance being too far.

To carry out programmes of such kind in the future in these areas, spreading awareness among people seems to be the key to success and good co-ordination and dedication of the authority is vital.