

CHAPTER III

Proposal

To increase the immunization coverage: A strategy to reduce infant mortality rate through the training and mobilization of maternal and child health workers in Dang of Nepal

3 Introduction:

3.1 Rationale of the study

Efforts have been made by the Nepal government to boost the immunization program in the country. Several programs and project aimed at increasing immunization coverage have been implemented but results obtained were only good for a short period. Moreover, there has been no evaluation conducted on how far these previous programs and projects attained their objectives.

The government of Nepal has recognized that immunization is a major problem for maternal and child health development during the past decade. In response to this problem the Ministry of Health initiated the Expanded Program for Immunization in 1976 as a additional component of their communicable disease

program. The Expanded Program for Immunization has been included in National five year plans in 1978 and still in Ninth national five year plan (1997 to 2002) it is on topmost priority.

Much has been said about the importance of training and evaluation in development programs (Morris, 1990). It has been emphasized that training and evaluation are essential for the improvement of program design, program management and program implementation, as well as serving as a basis for judging program quality. In addition a careful program evaluation is needed as basis for continued planning, and can be used to establish the merits of a particular program (Parchicula, 1986).

This study, deals with a training and evaluation of the program. At this stage it is seen more appropriate and timely to train and evaluate the community health workers and monitor their performance . In addition, training and evaluation would help to identify appropriate ways of achieving maximum coverage, as well as strategies and option to improve the implementation of the EPI program. In detail, the training and the evaluation will assess if a substantial increase in immunization coverage has been achieved. Likewise, it will identify improvement in immunization practices adopted by the parents and determine if attention are paid towards it.

The present study will add a substantial volume of information to the project, so as to improve the program. This is anticipated with the view that the findings will be of considerable use and interest to several categories of people: the program implements, local officials, health experts, as well as the planners and policy - makers all of whom are regarded as the pillars in the program's operation.

It is hoped that the study will be useful in re-shaping and re-directing the activities in operation for the betterment of the program. Moreover, accurate and timely information in the current development of the program are important feedback mechanisms to facilitate adjustments and better implementation of the plan. Furthermore, the results of the study are envisioned to provide planners and decision-makers with important performance and policy recommendations necessary in adjusting development effects to better meet plan objectives.

3.2 Statement of Problem

An annual reports of fiscal year 1994/1995 prepared by Department of Health Services, His Majesty's Government of Nepal, claims 78 percent of measles immunization coverage. In this report, they have acknowledged that the target population for immunization was underestimated and because of this the actual coverage of immunization could be lower than what is shown in this report.

TABLE 3.1 Estimated immunization coverage (%) by Region, Nepal 2051/2052

| Vaccine | National | EDR | CDR | WDR | MWDR | FWDR |
|---------|----------|------|-------|------|------|------|
| BCG | 84.5 | 78.7 | 101.8 | 84.9 | 69.8 | 64.5 |
| OPV3 | 77.6 | 73.6 | 97.5 | 78.1 | 57.9 | 54.2 |
| DPT3 | 76.8 | 73.4 | 94.3 | 78.7 | 58.1 | 54.0 |
| Measles | 78.2 | 69.2 | 92.8 | 79.0 | 68.8 | 65.8 |

Source: Annual report 1995, Department of Health Services, Nepal

EDR (eastern development region). **WDR** (western development region).
CDR (central development region) **MWDR** (mid-western development region).
FWDR (far-western development region).

This table shows the immunization coverage in Nepal during Fiscal year 1994/ 1995. The reported immunization coverage at the national level was 85% for BCG, 78% for measles vaccine and 77% for DPT3 and OPV3 which suggests that more needs to be done to achieve the national goal (BCG, DPT3, OPV3 more than 90% and measles more than 95% (WHO, 1996). There were variations in coverage from region to region. The Far-Western Development Regions has the lowest, where as, the Central Development Regions has the highest coverage for all antigens. The coverage of Western Development Region, Eastern Development Region and Mid Western Development Region ranked second, third and fourth respectively.

In the first place, this remarkable coverage has been achieved due to special immunization days . Second factor to be analyze is that the target population that is being used as denominator for the calculation of coverage is only 3% of the total estimated population for the Fiscal year 1994 / 1995, while in the past, they were using 3.6 as a denominator. This presents a variation between 7 to 10 percent in the total coverage (Department of Health Services, Nepal; 1995).

UNICEF is a major funding agencies in Nepal for the immunization program. Annually they published the immunization reports. According to their most recent report (Table3.2) measles vaccination coverage is only 57%. This reports also supports the low coverage of immunization in Nepal. Exceeding 100% coverage for one or more vaccines, especially in the Central region also justify the questions regarding the under estimation of target population.

**Table 3.2 Percent coverage of 1 year old child and Pregnant women 1996
Nepal**

| BCG | DPT3 | POLIO3 | Measles | TT2 |
|-----|------|--------|---------|-----|
| 61% | 63% | 62% | 57% | 11% |

SOURCE: UNICEF 1997

3.2.1 Immunization Schedule:

Vaccine should be given in doses at the right age with proper interval between doses with the completion of the schedule by one year of age. Timely vaccine delivery will ensure that children receive protection against the six deadly vaccine preventable diseases, at the earliest possible age. Any later immunization will only delay the development of protection and will therefore unnecessarily expose those children to diseases

Table. 3.3 The EPI Schedules

| Vaccine | Doses | Target Age | Minimum interval between doses |
|----------------|--------------|--|---|
| BCG | One | At Birth | |
| DPT | Three | 6 Weeks 10 Weeks 14 Weeks | 4 Weeks |
| OPV | Three | 6 Weeks 10 Weeks 14 Weeks | 4 Weeks |
| Measles | One | After 9 months | |

Source: Department of Health Services (1995), Nepal.

3.2.2. Dang District (Intervention group)

Dang District is situated in the Mid-Western Region of Nepal. The total population of this District is 387,439 and the target population of EPI under 1 year is 13,087 and under-five year population is 62,436 (Department of Health Services, 1995). Measles immunization coverage in this district is 69.4%. that is 9% lower than national coverage. Health facilities are as follows;

- * District Hospital 1 25 beds
- * Eye Hospital 1 50 beds
- * Ayurvedic Hospital 1 15 beds
- * Health center 4 3 beds in each
- * Health post 11
- * Sub- Health post 26
- * INGOs / NGOs 4 (Health related)

3.2.3. Bardiya District (Control group)

Bardiya district is also situated in the Mid-Western-Region of Nepal. The geographical situation of Bardiya district is almost similar to the Dang district. The distance of Bardiya district is 50 KM from the Dang district. The total population of Bardiya District is 321,537 and the target population of EPI under 1 year is 10,496 and under five year population is 49,930 (Department of Health Services).

Measles immunization coverage in this district is 65 %. Health facilities of Bardiya district is as follows:

| | |
|---------------------|--------------------|
| * District Hospital | 1 |
| * Health center | 3 |
| * Health post | 12 |
| * sub-health-post | 24 |
| * INGOs / NGOs | 7 (Health related) |

3.3 Purpose of the study

The purpose of the study is to increase immunization coverage of the under five children in Dang district through the maternal and child health worker by giving them training regarding Expanded Program for Immunization. Training of the health care provider is a major component regarding knowledge, attitude and behavior towards immunization. The main focus of the study is to give the training to the maternal and child health workers concerning Expanded Program for Immunization and application of knowledge to increase immunization coverage. The impact evaluation will be carried out after completion of a one year program intervention. The service statistics will be used to evaluate the program.

3.4. Goal of the project

The goal of this project is to reduce the child and infant mortality of Nepal caused by infectious diseases which can be prevented by immunization.

3.4.1. Objective of the Study

A. General objective

The general objective of this project is to improve the EPI (Expanded Program for Immunization) of Nepal in order to increase the immunization coverage.

B. Specific objectives

The specific objectives of this project are to:

1. Develop the EPI curriculum for maternal and child health workers training.
2. Train the maternal and child health workers of the 26 sub-health posts in Dang District.
3. Evaluate the training regarding knowledge, attitude and behavior of the maternal and child health workers.
4. Evaluate the immunization program of the Dang (intervention) and Bardiya (Control) districts.

5. Compare the impact of the program with control group and feedback to the system.

3.5 Research question:

The research question is: will the training of maternal and child health workers of Dang district improve the immunization coverage in PHC setting, in comparison to Bardiya district (control group).

3.6 Proposed Programs

The main focus of this study is to provide training to the maternal and child health workers of the Dang district regarding EPI Programs. The purpose of training is to teach maternal and child health workers how to identify the target group and immunization as well as they will develop their interpersonal communication skill with home visits and learn how to communicate effectively with parents or mother whose children are below the five years of age.

The proposed plan also includes a control group, i.e., Bardiya District, where training will not be provided. This district has the same geographical situation and immunization status as Dang district. The monitoring and supervision of immunization services, provided by maternal and child health workers after training to the community will be done as planned, in which

monitoring will help to determine the achievement of the services and supervision will help maternal and child health workers to perform their job better by improving knowledge and skill with feedback given by the supervisor.

After completing a one year of immunization services to the community in both districts, plan is to evaluate the impact of training. The details of this study proposal are described below:

Table 3.4

| SN | Programs | Commencement date |
|----|--|-------------------|
| 1 | EPI training | July 1998 |
| 2 | Implementation of services through MCHWs | August 1998 |
| 3 | Monitoring and supervision of the EPI programs | November 1998 |
| 4 | Evaluation of the program | August 1999 |

3.7 Training Program for Maternal and Child Health Workers

A Introduction

MCHW's are an integral part of the primary health care system. They are supposed to narrow the gap between terminal health institution and the community where they work as a health care providers. If they have trained for EPI target, immunization schedules, vaccination and house hold visits, they would

be able to increase their knowledge about EPI and they would provide immunization services to the community.

Regular supervision of their work by the district health supervisor will increase their ability to perform their duties well. In addition to that incentive in terms of annual increment, official recognition's and selection for upgraded training will encourage them for community work.

B. Training objective

The main objective of this training is to improve the knowledge and skill of the maternal and child health workers regarding EPI, who deals with the community health. At the end of the training, the maternal and child health workers will be able to:

- 1 know about normal EPI schedule, EPI target population, indication and contraindication of the vaccines.
- 2 discuss the benefits of the immunization for infectious diseases.
- 3 explain principles of the immunization services.
- 4 demonstrate the quality, skill and effectiveness of the EPI services.
- 5 demonstrate the community partnership for the immunization services.
- 6 provide regular house hold visits and discussion about immunization with mothers.

C. Training approach.

Competency based and participatory approach of training will be applied in the EPI training. Active participation discussion and practical involvement are essential

to develop the EPI skills and activities. These approaches are effective to developing the skills and performance of the maternal and child health worker.

Trainers will explain the skill or tasks to be learn and then demonstrate these in a simulated clinical setting under the competency-based training approach. Similarly, after completing the demonstration and discussion, trainer will observe first, their performance in classroom and then in the clinic during practices. The trainer will give feedback to maternal and child health workers, which will help them to improve their performance and increase their confidence in immunization skills.

In the participatory training approach, trainer will encourage the health worker to contribute what they know about the topic being discussed. This approach encourages the health worker to participate and discuss actively in the training. It also helps to share their experiences with other group member.

D. Training method

Group discussion, exercise, demonstration, role play, lecture, brain storming and clinical practices are the methods of EPI training to the maternal and child health workers. Lecture method of training will be used infrequently during the training because training is organized for developing the working skills of the Maternal and Child Health workers.

One handbook will be given to maternal and child health worker, which contains background information that reinforces the content of each module and that will be use through -out the training.

E. Curriculum of the training

The curriculum of the EPI training for maternal and child health worker will be the guideline to fulfill the desired objective of the program. Curriculum is divided into 4 modules each of which focused on different aspects of the EPI program.

Module 1 describes the introduction of the EPI and vaccine preventable disease. Module 2 gives information about technology update, dealing with clients and immunization schedule. Module 3 deals with merit and demerits of EPI, and social mobilization. Module 4 is concerned with immunization service

observation by participants and to gain the practical skills in the immunization clinic.

F. Duration of the training

The duration of training program will be seven days. Date of training will be confirmed after discussion with Mid-Western Regional Director, Surkhet and District Health Office, Dang.

G. Venue of the training

EPI training will be carried out in District Health Office Dang. District health office is situated at district headquarter, where all facilities regarding accommodation, security and training facilities are available.

H. Trainees

Trainees of this training will be 26 Maternal and Child Health Workers from the sub-health post of the Dang district. Maternal and child health worker of each sub-health post will give the one day orientation to the female community health volunteer in their sub-health post, prior to implementing the program.

I. Trainers

The required trainers for the EPI training will be available from the Regional Training Center and District Health Office Dang. The trainers are already trained in the EPI program. For this purpose, researcher will request to Regional Director of Health and District Health Office Dang to provide the trainers.

3.8 Implementation of the program

The researcher will organize a meeting with Regional Health Director, Regional Training Center and District Health Office, Dang to form a implementation team to implement EPI services through maternal and child workers in Dang district.

After completing the EPI training, trained maternal and child health workers will provide EPI services to their villages through five out-reach sessions. Before that, maternal and child health worker will give one day orientation to the female community health volunteers in their sub-health post. The number of female community health volunteers in each village development committee is 22 to 36 . One female community health volunteer covers 400 population.

Maternal and child health workers will divide their village development committee in five working areas after discussion with village head, other

recognized social worker, female community health volunteers and mother groups. They will give the responsibility to female community health volunteers to collect the children requiring immunization from the allocated area for them. One female community health volunteer suppose to bring 5 children with her, in each session. That will cover 110 to 150 children per month in each VDC. During immunization session maternal and child health worker will elaborate the mild side effects of the vaccine and they will ask parents to come for next visit. Immunization services will be available at out-reach clinic from 10.00 am to 2.00 PM for the children.

Immunization card will only return to the parents after completion of full immunization course. Every health service providers including maternal and child health workers need information, education and communication (IEC) materials that inform and educate them about national standers and norms of Expanded Program for Immunization. Specially, visual aids during EPI session makes attractive and likely to understand and remember messages easily by the mother or parents. This is also needed to address any misconceptions about immunization, and its advantages and disadvantage. These materials, helps health worker to remember basic things which are needed for immunization.

IEC materials such as Flash cards, flip charts and posters are effective to let them know about EPI, specially, to the illiterate mother during immunization session. It will also helps mother, to take decision about vaccination for their children. His Majesty's Government of Nepal has given the mandate to produce and disseminate the health information through different kind of methods and media in Nepal. Although, IEC materials are provided to each and every health outlet through the department of health services and district health office.

3.9 Supervision of the Immunization program

Improving the performance of the health workers is a good method to insure the success of the program. Maternal and child health workers will learn about immunization skills from the training and they will apply this skills of immunization in actual problem solving situation. Periodic supervision of immunization services by trained supervisor will help the maternal and child health workers perform their duties more effectively.

In this supervision, supervisor will supervise out-reach session of the immunization performer by maternal and child health workers. They will evaluate their competency, instruct them in what to do, teach additional skills as needed and help to solve problems as they arise. The supervision of program will done every three months during regular EPI session.

3.10 Evaluation of the training

Evaluation is an important aspect of the training. It helps to know the effects of the training to the Maternal and child health workers in terms of their knowledge, attitude and skills. It also helps to improve the future training activities. Training evaluation includes, four stages such as (1) Training process (2) Learning outcome (3) Trainees behavioral changes to evaluate the knowledge, attitude and skills of the trainees and (4) Impact of the services in the community.

3.10.1. Training process evaluation

Training process evaluation is the observation and description of how the training program is being conducted. It suggests, strengths, weakness and potential improvements in the future training program. It focuses on the training objectives, contents, methods, materials, facilities, duration, effectiveness of the trainers in conducting training and application of the training in the field.

Evaluation will be done through short written questionnaires to the maternal and child health workers for their view about Expanded program for immunization training. Then it will be done daily by observing role play, demonstration and feedback exercise of trainees during the training. The trainers will perform this

task informally during the training. It will help to determine whether the trainees have improved their immunization skills and are satisfied with the training course.

3.10.2. Learning out-come evaluation

Knowledge, attitude and behavior of the maternal and child health workers is a major component of the program. Training is provided to enhance such type of knowledge and skills of the trainees. It is necessary to measure whether their knowledge and skills has improved or not. Therefore, pre-test and post-test will be done before and after training with multiple choice and true-false questions.

Pre-test is necessary to know the existing knowledge of the trainees. We can measure the level of the knowledge of maternal and child health workers through pre-testing. Pre-testing of trainees help to identify the topic that which needs more emphasis and which needs less emphasis during training period. It will help both to the health workers and trainers to carry out the training smoothly. It will carried out at the first day of the training course.

It includes sharing of experience between trainers and health workers and comparing with the post-test whether they have gained knowledge and skills. Post-test is essential to measure whether their knowledge has increased as designed for effective immunization services. It helps to measure whether the

attitude and behavior of the Maternal and child health workers towards immunization service acceptor has changed or not.

3.10.3. Behavioral change evaluation

This type of evaluation will be done after months of training, which will determine whether health workers attitudes and behavior have changed after training. The maternal and child health workers have to be prepared to satisfy the mother or parents curiosity regarding immunization, so they should be fully knowledgeable about the main aspects of their programs.

People must feel immunization services is one of their own service if so, they will co-operate. They need to feel their children's health is their responsibility. Clinic observation technique will be used to evaluate the attitude and behavior of the maternal and child health workers. Supervisor have to attend the session with check list which emphasized to following activities.

* Maternal and child health workers should be knowledgeable, helpful and courteous to the community. They can influence a mother more than any other person in the health care system. If she is harassed, being afraid, she will not return again for second dose of vaccine.

* Maternal and child health workers should tell mother about the minor side effect expected from most vaccinations, especially mild fever and pain that will make the child cry. That will reduce her fear of children's discomfort and encourage her to bring him / her to complete the remaining doses.

* Take every opportunity to immunize. Check every child attending the clinic to see if he / she is eligible for immunization, and give the required vaccines that they, even if the child has been brought sick.

* Give high quality service. Try to give quick, efficient, convenient services to the community as far as possible. Ensure that the immunization are made available, whenever a mother arrives at the clinic during regular immunization days.

* Check the immunization card and be sure to return after complete immunization. Thank mother for bringing their children to the clinic and remind her of the subsequent date of immunization .

* Immunize sick children. If the child is sick, but well enough to return home, give immunization. explain to the mother that this is safe and will not cause worsening of the condition.

3.10.4. Impact evaluation

The aim of the training is to increase the immunization coverage and reduce the infant mortality rate. After completion of one year of immunization services in Dang district the impact evaluation will be carried out to assess impact of services in the community.

The approach to community participation should not only ensure acceptance of the services but also engender sustainability. The community should be informed and motivated enough to attain program objectives. This means that the whole community must want the program. To do this, the maternal and child health workers must visit and make friends with the community, know their problems, wishes and needs. They should also inform and educate them about immunization. House-visits and community gathering should be used for this purpose. Community leaders and recognized peoples in society can help. Listening to people's experience and ideas about EPI and diseases is at least as important as telling them about the program.

Table. 3.5**1. Component to be evaluated in impact**

| Knowledge of immunization | attitude towards immunization | practice(use) of immunization services |
|---|---|--|
| <ul style="list-style-type: none"> -Regarding side effects of immunization -Effectiveness of immunization -Types of immunization - Schedule of the immunization | <ul style="list-style-type: none"> -Attitude regarding the approval or disapproval of different types of immunization. -Attitude regard to ease of obtaining immunization | <ul style="list-style-type: none"> -Distance from the nearest sub-health post. -Time required to travel to sub-health post. -Cost of transportation to the sub- health post. -Number of house hold visits. -Types of services |

A. Methods of the evaluation

Methods of the evaluation will be house-hold survey to identify the immunization status of the children, knowledge, attitude and beliefs of the mothers and behavior of the maternal and child health worker towards the community. The semi-structured interview (survey questionnaire) guideline, focus group discussion guideline and official documents (statistics) will be used as data collection instruments.

I. Study population

Mothers of under five children in 26 village development committee out of 39 VDCs of Dang district and 24 village development committee out of 36 VDCs of Bardiya district. In the other VDCs, of both districts services are provided by Health Center and Health Post which have better health network.

Inclusion criteria

Mothers of under five children from 26 village development committee of Dang and 24 village development committee of Bardiya , who will not migrate during study period.

Exclusion criteria

Mothers of under five children from 26 village development committee of Dang and 24 village development committee of Bardiya district, who migrate to other place during study period.

B. Sampling

Dang district (intervention group)

5 Sub-health posts will be selected where immunization coverage is thought to be less than 50 % and where no any programs are being carried out in this village by INGOs and NGOs. One Sub-Health Post covers One VDC.

5 Sub-Health Post X Under five population of one VDC is (1200 to1800), mean is 1500 = 7,500 under five children of five VDCs.

No. of house hold in one VDC is (600 to 800), mean is 700 X 5 Sub-Health Post = 3500

Bardia district (Control group)

5 Sub-health post will be selected where immunization coverage is thought to be less than 50 % and where no programs are being carried out in this village by INGOs and NGOs. One Sub-Health Post covers One VDC.

5 Sub-Health Post X Under five population of one VDC is (1200 to1800), mean is 1500 = 7,500 under five children of five VDCs.

No. of house hold in one VDC is (600 to 800), mean is 700 X 5 Sub-Health Post = 3500

C. Data collection

1) Focus group discussion

A focus group discussion is defined as a group discussion in which a small number of respondents (usually 6 to 9) under the guidance of a moderator, talk about the topics of special importance for a particular research study. The informal group situation is intended to encourage participants to disclose behavior and opinions that they might not otherwise reveal in more formalized individual interview situations. The intentions of such sessions is not to provide statistically generalizable data but rather qualitative information exposing underlying attitudes, opinions and behavior patterns.

Three focus group discussion will be conducted. One with women who have children under five years of age from a village with low immunization coverage; one with female community health volunteer from the same village; one group of the maternal and child health workers from the same electoral constituency.

The objective of the discussion with village women is to collect information on knowledge, attitude, beliefs of the mother and behaviors of the health care

providers with frequency of house hold visits. This information will be use in the formulation of the questions for the sample survey. The objective of the discussion with the maternal and child health workers and female community health volunteers are to collect information on their knowledge, attitude, behavior and beliefs regarding immunization as well as work related information on workers performance.

2) Survey questionnaire

It will be used to get actual information from the mother or parents regarding the immunization program. This technique of data collection will determine the knowledge, attitude, beliefs and behavior of the service acceptor and service providers.

The semi-structured interview technique contains a core of structured and unstructured questions. This will help the interviewer to move in related directions for in-depth probing. The aims of semi-structured interview will be to explore more accurate information about immunization and factors associated with their acceptance.

Similarly, semi-structured interview will help to determine specific responses and measurement on certain topics which could not be identified by open-ended

questions and help to move from more general open-ended questions to more specific questions. Thus, this interview technique is the appropriate tools to explore the knowledge, attitude, behavior and immunization practices, because these variables are quite personal matter of an individual.

The 10 interviewers will be selected from the Nepalganj Nursing Campus. Nepalganj is located between Dang and Bardiya district. The researcher will train them by organizing 2 days orientation in Nepalganj Nursing Campus. Team will be divided into two groups: one group will collect the data from the control group district and the other group will collect the data from the intervention district. To minimize the biases, control and intervention district will not be disclosed to the interviewers. Interviewer will complete 20 interview per day and will finish within 30 days from the starting date.

3) Review of the official statistics

Official statistics will be used as a one of the technique of data collection. It will give the existing situation of the immunization in the Dang and Bardiya district. Data will be collected from the District Health Profile Registers, and monthly reports, from the Sub-Health Post. It will help to analyze the monthly trend of the immunization, target census update and continuation of the immunization services or to identify to drop-out rate.

3.11 Activities plan with time table

Plan of activities to carry out the study

| Activities | 1998 | | | | | | 1999 | | | | | | | |
|--|------|---------|-----|-----|--------|-----|------|-----|--------|-----|-----|--------|--------|--------|
| | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug |
| Meeting of research team, orientation and discussion | ↔ | | | | | | | | | | | | | |
| Training of the Maternal and child health worker | ↔ | | | | | | | | | | | | | |
| Implementation of the program | | ←—————→ | | | | | | | | | | | | |
| Monitoring and supervision of the program | | | | | ←————→ | | | | ←————→ | | | | | |
| Impact evaluation Selection of the interviewer Training of the interviewer | | | | | | | | | | | | ←————→ | | |
| Data collection | | | | | | | | | | | | ←————→ | | ←————→ |
| Data analysis | | | | | | | | | | | | | ←————→ | |
| Report writing | | | | | | | | | | | | | ←————→ | |

3.12 Budget for the study

Budget and manpower required to conduct the study is given below. These are tentative figures and prepared based on present trend of payment in Nepal.

| <u>Person</u> | <u>Number</u> | <u>Total days</u> | <u>Allowances</u> | <u>Total</u> |
|---|---------------|-------------------|----------------------|--------------|
| Coordinator | : 1 | 1 Year | 150 USD/Month | 1800 |
| Trainer | : 3 | 7 Days | 20 USD/Day | 420 |
| Supervisor | : 9 | 60 Days | 100 USD/month | 1800 |
| Trainees | : 26 | 7 Days | 5 USD/Day | 910 |
| Interviewer | : 10 | 30 Days | 200 USD/Month | 2000 |
| Official assistant | : 2 | 7 days | 3 USD/Day | 42 |
| Total USD | | | | 6972 |
| Transportation cost | | | | 500 |
| Stationary | | | | 500 |
| Miscellaneous | | | | 500 |
| Contingency | | | | 800 |
| Total US Dollars (USD 1 =Nrs 64) | | | | 9272 |

3.13 Potential Problems

After identifying all possible facilitators / influences in the community, they should be oriented to the immunization needs, policy and schedule. They should then seek the communities assistance to work with the maternal and child health workers to help achieve immunization targets for their own' children's better survival.

Community should also be fully knowledgeable and participate in planning of the immunization sessions, e. g., date, place and time should be convenient to most of the community. In the case of the immunization comparing, advance information on date, place and time must be given.

For these reasons, it is important to involve the female community health volunteers in the orientation program. Planning with community should be done in easily understood language and followed as needed by the community people who can help the maternal and child health workers in motivation, drop-out tracking, setting the immunization clinic and given them the required orientation and practical training.

The proposed training and immunization program is a interaction between health care providers and health service acceptors. In this process, both should

interact with each other to solve the problems regarding immunization program in the community. Therefore, commitment of the health care providers is a one of the potential problems in implementing the immunization programs. If health care providers are not committed to provide regular and effective immunization services to the community, the objective of the study will not be fulfilled as desired.

Actually, no one can guarantee the commitment of the community health workers. In this regards periodic monitoring and supervision of the immunization services by the district immunization supervisor will be helpful to encourage and make them committed towards providing services to the community. In addition to this, provision of incentives like annual increment, additional grade and public recognition will help the health care provider to pay their attention towards community work.

3.14 Ethical issue

This study is aimed to identify the causes of low coverage of immunization. Through the training, monitoring and supervision of the maternal and child health workers, it will be helpful to raise the immunization coverage in the Dang district. In this course, only training of the maternal and child health workers and implementation of the immunization program will be highlighted but not hurt the

sentiments or harass any one. Unethical procedures, violation of people's right and dignity will be avoided.

Key informants will not be forced to answer the questions, but request will be made with prior information. any answers received from them but do not allow to be exposed, will be kept confidential and will not be used against them at any cost.

Similarly, household survey and interview with mother or informants will be done only upon receipt of permission from household head, elder member or from the respondent themselves. Only the information will be noted, which is related to the immunization programs. If privacy of the life of clients has been seen by the researcher during the work, that will not be exposed without their permission. In short, the ultimate goal to conduct this study is to increase the immunization coverage and reduce the infant mortality rate. During the study, rights of the research subject will be preserved.

3.15 Limitations of the study

This study covers only 50 to 60 percent of the under five population of the Dang and Bardiya districts, where immunization services are provided through the sub-health post. The rest of the under five population has not included in this

study, although, they are getting immunization services through the health center, health post and hospital. Therefore, this methods can not be applied to municipalities, metropolitan city and village development committee where immunization services are provided through the other health institutions.

For training of the maternal and child health workers and programming of the immunization, researcher have to obtain permission from the Ministry of Health. Without permission from the Ministry of Health it is impossible to carry out this program in both districts, where the health development system regarding EPI is controlled by government agencies.

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