CHAPTER IV

DATA EXERCISE

4.1 Introduction

The purpose of the study is to increase health services utilization at rural health posts, through the regular supply of essential drugs and quality improvement in Nyagdi district, west Nepal. Essential drugs will be made available through community financing, managed and controlled by health post committees from September 1998 to July 1999 for study purpose. The main components of the study will be planning, designing and implementing the community drug scheme. An impact evaluation of the scheme will be done after one year. The proposed impact evaluation of the study program will mainly answer the following questions.

1. Are health services utilization by villagers increased through the community financing and mobilization of health post committees?
2. Are the availability of essential drugs improved and the patients receive all necessary drugs from the health facility?
3. Are there any negative effects on health services utilization especially to poor and preventive care?
4. Are villagers satisfied and willing to pay the charges for the drugs dispensed from the health post?

Focus group discussions, structured interview with villagers and review of health post statistics will be the techniques for evaluating the impact of proposed intervention program.

4.2 Objectives of the data exercise

The entire data exercise was done in Nepal, in order to refine data collection methods and develop data collection instruments. Another aspect of doing data exercise was to gain more experience and confidence relating to data collection procedures and research techniques. Because of the language problem and socio-cultural differences relating to health services and population, this data collection was done in Nepal with the following objectives.

1.To test data collection tools developed for the purpose of the study.

2.To refine and develop data collection methods and techniques proposed in the study.

3.To develop more confidence on research techniques and learn people's perceptions about health services and user fee.

4.3 Preparation for data exercise

When I decided to go to Nepal for data exercise, a proposal for data collection was prepared and submitted to my thesis advisor. After receiving his feedback and approval, I went to Nepal on 13 February 1998. Information was also sent to INF

Community Health Projects Director and Myagdi District Health Officer regarding proposed data exercise via e-mail.

I started my data collection work from 19 February 1998. A discussion was held with INF Director and Myagdi District Health Officer and the outline of data exercise proposal was presented. After discussing with District health authority, Oakum health post was chosen for the proposed data exercise. Necessary information was sent to health post in charge and village development chairman from District health Office.

On 21 February 1998, I discussed with West Myagdi Community Health and Development Program Manager about my data collection in Takum. After the discussion, the Manager agreed to provide one senior staff for the period of data exercise. The staff is a health personnel with training on research methods and facilitation skills. I spent a full day with him for orientation regarding focus group discussion and household survey.

When we finished necessary preparation, we started our journey to Takum on 23 February 1998 and reached Takum. on 24 February 1998. We met Village Development Committee Chairman, Health Post In charge and mothers' group chairperson on the same day and decided the place, time and participants for the focus group discussions. After this initial meeting with village leaders and Health Post in Charge, we made plan for collecting data.

4.4 Introduction to Datum Village Development Committee

Takum. is one of the Village Development Committees (VDC) in Myagdi district and lies along the Myagdi and Dangkhola river valleys. This VDC is situated in west of Myagdi district and take one and a half-day to reach from the district head quarter. There are six villages namely Dharapani, Takum, Kafildada, Machhim, Sibang add Hilapokharj. There are all together 660 households and 3980 population in Takum VDC.

The main occupation of the population is agriculture and livestock. Merger (a tribe of Tibeto-Burman origin), Brahmin and Kshetry (Indo Aryan origin) and Bishowkarma (Lower caste group) are the major caste living in Takum VDC. The estimated female literacy rate is 59 % in Takum. VDC, which is probably the highest in Myagdi.

Takurn health post is the only health facility for people living in Takum and other two VDCs. This health post is situated in Takum village and staffed by one Auxiliary Health Assistant (AHW), one administrative clerk, one village Health Worker (VHW) and two peons. The nearest hospital is in the district head quarter, which takes one and half days from Takum to reach. The nearest drug shop is in Darbang and takes 4-6 hours from Takum.

4.5 Data collection techniques

Focus group discussions, structured interview and review of health post statistics were the main techniques used for collecting primary and secondary data. The purposes and procedures of different data collection techniques were as follows.

4.5.1 Focus group discussions

Focus group discussion method was planned to obtain in-depth information on health services utilization by the villagers. Two focus group discussions were conducted in one rural village prior to structured interview. Bearing in mind that it would provide some ideas to develop interview instrument. Health problems/ status, health services utilization, financing mechanisms and health service satisfaction were the main contents of the focus group discussion. Two focus group discussions for male and female were conducted. There were 9-12 participants in each group. The participants for female group discussion were selected purposively from the members of mothers' group. The participants of male group were taken from different socio-economic strata. The male group discussion was conducted nearby the health facility whereas female group discussion was conducted little farther at the health facility. The venue and time were decided after discussing with health facility anchorage and village leaders. The discussion was in Nepali language, which was easy to speak and understand by the group members and moderator. The discussions went for about one and half-hours. These focus group discussions were conducted with the help of the moderator who is the staff of West Myagdi Community Health Program, Myagdi with

training on facilitation skills and research methods. The outline of focus group discussions and guidelines were prepared in Nepali language (English version of the outline and discussion guidelines are presented in Appendix) and these were discussed with moderator prior to the fieldwork.

4.5.2 Interview schedule

Household survey was planned in order to collect more information on health service utilization, health status/problems, and ability to pay for the services from the villagers. The reason for conducting household interview was mainly to find out socio-economic status of the population, sources of treatment and perceptions of the rural people regarding to the community financing. A total of 45 household heads were interviewed by using interview schedules (interview guidelines are presented on appendix). Interview was conducted in Nepali language with translation from English questionnaire.

4.5.3 Review of health post statistics

Health post service statistics relating to outpatient visits, immunization, family planning and availability of essential drugs during January to December 1997 were reviewed at Takum health post, Myagdi district, Nepal. Health postmaster registers, outpatient register, Stock book and monthly reports were used for collecting necessary information. Information collected through the revision of health post statistics were as follows.

I. Monthly outpatient attendance.

II. Average number of drugs per prescription.

III. Average drug cost per prescription.

IV. Family planning use rate.

V. Immunization coverage rate

VI. Drug cost recovery ratio.

VII. Availability of essential drugs.

Health post in charge and administrative clerk were requested to provide records and reports for 1997. The researcher then collected necessary data from these records and reports. Health post staffs were consulted when necessary to avoid confusions. Many schedules and tables were prepared for recording the data (these are presented in appendix).

4.6 Sampling

Sample population included in different data collection methods were not sufficient to represent whole population of Oakum Village Development Committee. Because of the high cost and manpower required for the representative sample size, only two focus group discussions and 45 households were included in this data exercise. A small sample size was included in the data exercise in order to test the appropriateness of the tools proposed for the study.

The participants for focus group discussions were selected purposively among the village people. VDC chairman was requested to gather the required number of male participants for focus group discussion. A request was made to select participants from different socio-economic strata from the Takum village similarly, the chairperson of local mother's group selected the participants for female group discussion.

A total of 45 households were included in household interview and these were selected by using the technique of stratified random sampling. For this, the VDC was divided into nine geographical strata and 5 subjects were selected randomly by using family folder list, from each strata. Then, after list of selected households for each stratum were prepared. The selected house-hot were contacted with the help of ward chairman and household head or an adult person present at the time of survey was interviewed. An case of non-responses or absence of adult people in the sampled household, the closet household was included in the study.

A total of 120 prescriptions from clinic register were selected by using simple random sampling. For this, all the prescriptions were numbered first and 120 were chosen from the box and number of drugs prescribed were calculated.

4.7 Duration

There were for preparation and collecting data in the field. The average duration for focus group discussions was 1.5 to 2 hours. The average time taken for a

household interview was 25 minutes. The most time consuming work was review of health post statistics and it took three full days for collecting proposed information.

4.8 Field activities

Two focus group discussions, 45 household interviews and review of health post service statistics were the main activities carried out during this data exercise. The above activities were carried out as follows.

4.8.1 Focus group discussions

Two focus group discussions for male and female were conducted. Focus group discussion for male was conducted on 25 February 1998. VDC chairman and participants fixed the venue and time for group discussions. When we received information that the participants were gathered in VDC building, we reached there at 11 am. There were 12 participants. The WMCHDP was the moderator and VDC secretary worked as the note taker. I observed by sitting behind the group. After the introduction, the purpose of the discussion and ground rules were shared to each other. The moderator led the discussion according to the guideline. The overall atmosphere of the discussion was very impressive and friendly. All of the participants shared their views and experiences regarding health problems, services, cost of the services and community financing. The issue of community financing was the most sensitive one and some participants were too tried to dominate but the group themselves resolved the conflict.

There was pretty cold in Takum so, the discussion was held on the ground which caused some disturbance from outside people. The discussion was concluded at 1pm and then snacks were served.

Female group discussion was conducted in Machhim village, two hours far from Takum on 26 February 1998. The participants decided the venue and time for group discussions. There were 9 village women gathered in a house at 4 PM. The moderator introduced me to the participants. Permission was sought to observe the discussion but the group did not allow me. When the moderator begun the discussion I went upstairs and listen the discussion. The group participation was good and friendly. For this group discussion, note taker was not available and only tape recorder was used. The discussion concluded at 5.30 and we again met together for the snacks.

4.8.2 Household interview

A total of 45 household heads or an adult presented present at the time of visit was interviewed. A set of written questionnaires was used for recording the responses. Most of the household interviews were conducted during morning and evening time. Village ward chairman was accompanied with the interviewer for finding the samples households.

4.8.3 Review of health post statistics

Health post In Charge and administrative clerk were requested to provide registers, records and reports of Takum health post for the year of 1997. Both staffs

were found very co-operative and friendly. Monthly attendance for outpatient services, immunization services, family planning services and availability of essential drugs were included in the studying. A schedule for recording necessary data was prepared and used (schedules used for recording health post statistics are presented in appendix). Number of outpatient visits, immunization and family planning use were collected in monthly basis and drug availability was studied at three monthly intervals.

For the calculation of immunization coverage, total number of children under the age of one who have received immunization during 1997 were divided by total number of population of under one year children. Similarly for the estimation of family planning use rate, total number of regular users were divided by eligible couples. Drug per prescription was estimated by dividing total number of drugs prescribed by total sample prescriptions. Similarly drug cost recovery ratio was estimated by dividing total income by total expenditure for drugs.

4.9 Findings

4.9.1 Findings of focus group discussions

Two focus group discussions were conducted separately for male and female. All participants of both groups were married adults. Most of them were literate and some were illiterate. The participants were from different villages and caste as well. The findings of the focus group discussions were as follows.

I. Health problems of the community

Both male and female participants expressed the similar views regarding the health problems. The only difference was that female group was more concerned on female health problems. Diarrhoea, cough and fever, measles, skin diseases, worms, abdominal pain, headache was the major problems as expressed by the participants. Children under the age of five and old people were noted the most vulnerable people. The group also noted that poor sanitation and lack of cleanliness are as the causes of many illnesses.

II. Health services

The participants of both groups noted that traditional healers are still the first points of treatment in Takum. Most of the people seek advice and treatment from these faith healers. But, treatment of these people has been decreasing because of the availability of modem health facilities. Public health post was noted, as the first choice

of place for the treatment and the reason was close to the village and less expensive. Both group members noted the problem of drugs at public health facility.

III. Cost of the treatment

Traditional healers were noted, as the most expensive health care provider and health post was rated the least expensive. Private medical hall was regarded as the cheapest. The average cost per episode of treatment was reported 300-400 NRs for traditional healer and private medical practitioner. Participants of both groups noted that the usual form of payment is in cash.

IV. Consumers' satisfaction

Participants of male group discussion were found satisfied with health post services. But the female participants were found dissatisfied with health post services. The reason for their dissatisfaction was mainly due to the unavailability of drugs and staffs, and their behavior. Most of the participant of female group also expressed that health post staff did not care for poor people.

V. Willingness to pay for services and drugs

Both groups expressed availability of drug is important for the villagers. They also noted that most of the time they had been buying necessary drugs from the market. If the drugs are available in the health facility, people would pay for these. Some of the female group participants were found interested in insurance related drug schemes but the male participants showed their interest in fee per item scheme. Both

groups were not agreed on flat fee system. Both group members expressed the need for exemption for people who can not pay and the committee should make the decision.

4.9.2 Findings of the household survey

Most of the respondents were from active population. 53 percent of respondents were less than 40 years of age. The average age of the respondents was estimated 39 years. There were 22 male and 23 female respondents and the ratio of male and female was 1 : 1.

Table 4.1 Age of the respondents

Age groups	Frequency	Percentage
20 ----- 30	12	26.66
31 ----- 40	12	26.66
41 ----- 50	13	28.88
51 +	8	17.78

Most of the respondents were found married/A2 percent of the respondents were married whereas 18 percent were singer. No one were found widow, separated or divorced. Educational level of the respondents was estimated very high. 80 percent of the respondents were found literate, which includes just literate to college education.

Table 4.2 Educational level of the respondents

Educational level	Frequency	Percentage
No education	9	20.00
Just literate	11	24.44
Primary level	11	24.44
Secondary level	12	26.67
College level	2	4.45

All the respondents were Hindus and main occupation was agricultural activities. Some respondents were found with other additional occupation like service (schoolteacher) and business (small shop in the village). Majority of respondents ie, 85 percent was found as farmer. Average population per household was estimated 6.4 giving an estimate of 289 population. There were more female than males among the study population.

Table 4. 3 Occupation of the respondents

Occupation	Frequency	Percentage
Farmer	38	84.44
Service	3	6.67
Business	4	8.89

Most of the people experienced some kind of illness during last 4 weeks of time. 67 percent of the respondents reported history of illnesses and injury. Fever and cough with difficulty in breathing, diarrhoea, abdominal pain, worms, skin infections, abscess, sinusitis and fracture were the most common illnesses as reported by the

respondents. The responses regarding source of treatment were found mixed. One third of the respondents were found using government health post for the treatment of illness and equal number of respondents had received no treatment. Some people used traditional healers too. Many people had found using medical hall as a source of treatment.

Table 4. 4 Source of treatment as reported by the respondents.

Source of treatment	Frequency	Percentage
Govermnent health post	10	33.33
Private medical hall	8	26.67
Traditional healer	5	16.67
Health volunteer	0	00
Self care	9	30.00

Health post was found the least expensive and traditional healers were found the most expensive source of treatment as reported by the respondents. The average cost per episode of treatment at health post, private medical hall and traditional healer were estimated Rs. 2, Rs. 175 and Rs. 365 respectively. Responses regarding ability to pay for these health services were found mixed. Among 30 respondents, 80 percent experienced no difficulty in paying these charges whereas 20 percent had experienced difficulty and reported that they had to borrow loan from their relatives for paying the cost of service. From the data, rich and middle class people experienced similar difficulty in paying but the poor were found experiencing more difficulty in paying the cost of treatment of health services.

Table 4. 5. Economic status and ability to pay

Economic status	Ability to pay					
	Affordable		had to take loan		had to sell property	
	No	%	No	%	No	%
Rich	9	82	2	18	00	00
Middle	13	81	3	17	00	00
Poor	2	67	1	33	00	00
Over all	24	80	6	20	00	00

Measurement of economic status of the population was based on three things, Food sufficiency, service or pension, business and labor work. People who had sufficient food for 12 months were rated as rich. People who had food sufficient for 6-9 months and had service or pension were rated as middle class. Similarly, people who had food for less than 6 months and had to work as laborer were rated as poor. From the information received, more than 50 percent of the respondents were found middle class people whereas 9 percent were found poor.

Table 4. 6 Economic status of the respondents

Status	Frequency	Percentage
Rich	18	40
Middle	23	51
Poor	4	9

Most of the respondents were found living with in one hour of walking distance from the health post and one third of people have been living with in 2-3 hours of walking distance from the health post. There were mixed responses regarding health

service, satisfaction, availability of drugs and role of health post committee. Most of the respondents (n = 35) were found satisfied with health services provided by the health postal people out of 45 complained that they did not receive drugs from the health posts. Most of respondents were found aware about the services and the health postal existence of health post committee.

Table 4. 7 Knowledge and attitudes of the people about health post services

Descriptions	Responses					
	Yes		No		Total	
	Free.	%	Free.	%	Free.	%
1. Satisfied with services	35	78	10	22	45	100
2. Drugs available	8	18	37	82	45	100
3. Know about services	38	84	7	16	45	100
4. Know about health corn.	29	64	16	36	45	100

A conditional question had been asked to all respondents regarding community financing of essential drugs. The question was like this "if your health committee decided to introduce fee system for supplying necessary drugs and improved the quality of services, how much would you pay for one episode of illness". What type of payment or fee mechanism would you prefer? The response of these questions were positive and all the respondents had shown their willingness to pay for the drugs if these will be made available at health post. 39 respondents out of 45 were found in Cover of fee per item drug scheme whereas only two people showed their interest in insurance related scheme.

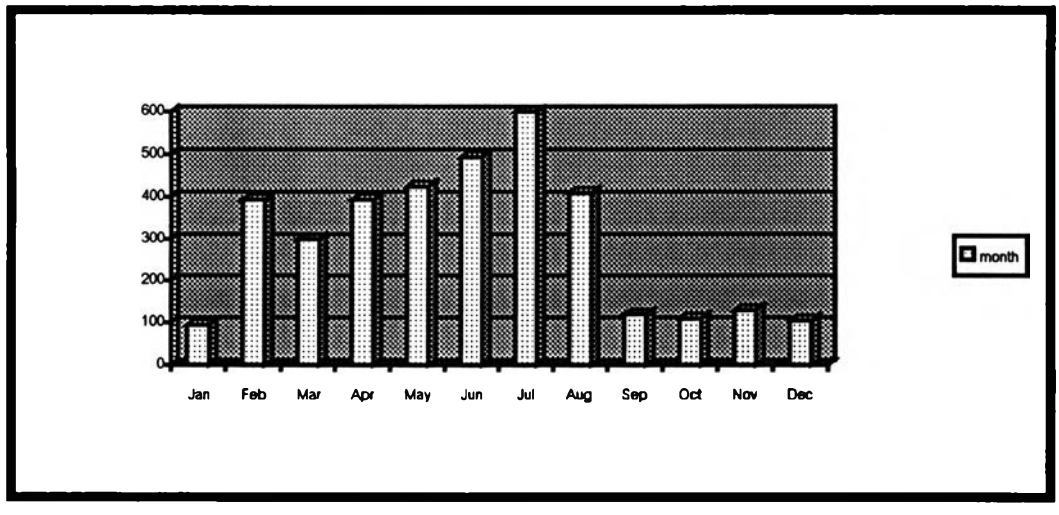
Table 4. 8. Respondents willingness to pay for drugs and fee systems

Fee systems	Frequency	Percentage	Average fee per episode
Flat fee system	4	9	NRs 31
Fee per item	39	87	NRs 35
Prepaid system	2	4	NRs 100

4.9.3 Findings of review of health post statistics

Health post statistics relating to various services and drug supply were collected in order to find out the utilization of services and drug supply situation during January to December 1997. A total of 3277 outpatients visit were recorded during 1997. The average monthly attendance of patients was 273. Looking at this monthly attendance record, increase in attendance was found during February to August. There were very few patients attending health post during September to January. The reason for this difference was due to drug supply. Takum health post received two lots of drugs during January to December 1997. The first lot of drugs was received in January 29 and second lot of drugs was received in May 8, 1997. From the inventory check, it was found that most of the basic drugs were out of stock during September to January 1997.

Figure 4. 1. Monthly patient attendance at Takum health post during 1997.



Data relating to preventive health care such as immunization and family planning services also showed the similar effect of drug supply. Overall utilization of these services were found increased when drugs were available at the health post in 1997.

Table 4.9. Monthly use rate of immunization services at Takum in1997.

Months / Vaccines	Jan-Apr	May-Aug	Sep-Dec	Total	Target	Coverage
BCG	48	45	19	112	160	70.00
DPT3	42	65	22	129	160	80.62
Polio3	42	65	22	129	160	80.62
Measles	34	43	23	100	160	62.50

Use of preventive services by the Takum population in 1997 was found less than the target set by the Nepalese government. The expected coverage for child

immunization was 95 %, but the coverage for different vaccination was found less than the national target. Looking at the trend on utilization it clearly showed that there were more attendants during the first eight months of the year as compared to last quarter of the year. Similar trend on utilization of family planning services was found.

Table 4. 10 Utilization of family planning services by Takum people in 1997.

Months / Methods	Jan-Apr	May-Aug	Sep-Dec	Total	Target Population	Use rate
Depoprovera	62	47	15	124	685	18
Oral pills	21	20	6	47	685	7

From the records, it is estimated that the average drug cost per episode of illness was NRs. 14.58 (0.23 US$, 1 US$ = NRs 63). A study of 120 randomly selected prescriptions showed that an average of 2.23 drugs per prescription. Takum health post has a system of charging Abyss. 2 for registration for each OPD visits. From the study of the health post account, the annual income of the health post was NRs. 6304 in 1997. A total of NRs.47,809 was the total expenditure for the supply of drugs. Thus the drug cost recovery ratio was estimated at 13 %. From the inventory check, it was found that there were only few drugs during the months of September to January 1997.

4.10 Discussion and conclusion

Information derived from three different methods revealed that fever and cough, diarrhoea, worm infestation and abdominal pain, injuries, measles, skin infections are the most common health problems of Takum community. There is a high awareness of common acute curative care and less awareness of preventive care.

Most people choose to consult local traditional healers first before modem medical service. Health post is considered as the first choice of place for treating common illnesses and greater uptake of the health post services depends on the regular attendance of trained health worker and the continuous provision of drugs. The concentration of health post on general curative care was actually reflected the felt needs of their community for these services. Dissatisfaction is restricted to the absence of health staffs or the exhaustion of drug supply.

In comparative terms, health post charges are low, and if improved quality of care can be provided, increased fees are justifiable. Informants of both focus group discussion and household interview showed their willingness to pay for drugs. The amount of money as suggested by the respondents for one episode of treatment is two times greater than the average per capita drug cost of Talcum health post. Therefore, this suggests that people are ready to share the cost of public health services if it could meet the felt need of the community.

4.11 Limitation of data exercise

This data exercise was done in order to test the methods of collecting data. The sampling for selecting the subjects was done purposively and thus may not be the representative for the whole Talcum VDC. Therefore, information derived from this data exercise can not be generalized to the population. The broader aimed of the program as proposed in chapter 3 could only be met by a combination of appropriate sample of population of both qualitative and quantitative data collecting techniques. Quantitative and qualitative information generated by this data exercise can now be used in writing proposal especially for designing activities and these will help in targeting the proposed activities most effectively.

4.12 Lesson learned from the data exercise

This data exercise was aimed to test the appropriateness of the methods proposed for the study mentioned in chapter three. The guidelines prepared for focus group discussions were found appropriate and effective to generate expected information from the villager. The interview schedule prepared for household survey was found insufficient regarding economic status of the population and some additional questions were added. This data exercise helped me to refine proposed tools in order to receive expected information regarding health care utilization.