BASIC SURVEY REPORT ON POPULATION

AND FAMILY PLANNING

IN

THE KINGDOM OF NEPAL

MARCH, 1986

JAPAN INTERNATIONAL COOPERATION AGENCY

MEDICAL COOPERATION DEPARTMENT

PREFACE

It is with great pleasure that I present to His Majesty's Government of Nepal this report of the Basic Study on Family Planning and Maternal and Child Health.

The report is based on the results of a field survey, which was carried out from 6th to 26th December, 1985, by a Japanese survey team commissioned by the Japan International Cooperation Agency (JICA), following the request of His Majesty's Government of Nepal.

The survey team, headed by Dr. Nobuo Matsumoto, had a series of discussions with the officials concerned of His Majesty's Government of Nepal and conducted a wide-ranged field survey and data analyses.

I sincerely hope that this report will be useful as a basic reference for implementation of the on-going Family Planning and Maternal and Child Health Project and thereby contribute to the promotion of the health status of the people and friendly relations between our two countries.

I wish to express my deep appreciation to the officials concerned of His Majesty's Government of Nepal for their sustained cooperation extended to the Japanese Team.

March, 1986

Shousuke SUENAGA
Executive Director,
Japan International
Cooperation Agency

At the Ministry of Health
(left to right)
Mr. Akira Naruse,
Dr. Nobuo Matsumoto,
Mr. Minoru O'uchi, and
Mr. Nobuyoshi Watahiki

Discussion on Inception Report, FP/MCH Project,
Ministry of Health
Dr. T.B. Khatri, Project Chief, FP/MCH Project

Discussion on the Inception Report
Dr. S.P. Battarai, Deputy Chief,
FP/MCH Project (left)
Dr. Madhav Joshi, Deputy Chief,
FP/MCH Project (center)
Mr. Tatsuo Hoshi, Resident Representative, JICA Kathmandu
Office (right)

Courtesy call on the Japanese Embassy in Nepal
Mr. Renzo Izawa, Councilor (second from right)

ii.

The FP/MCH Project headquarters
Drugs to ease side effects after taking pills or receiv-
ing Depoprovera injection (contraceptive injection)
are handed to the visiting women at the Health
Center.
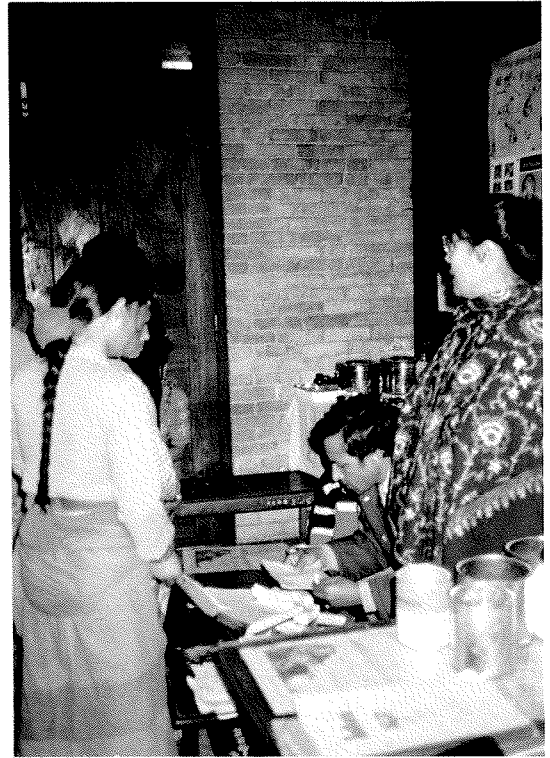
The FP/MCH Project headquarters
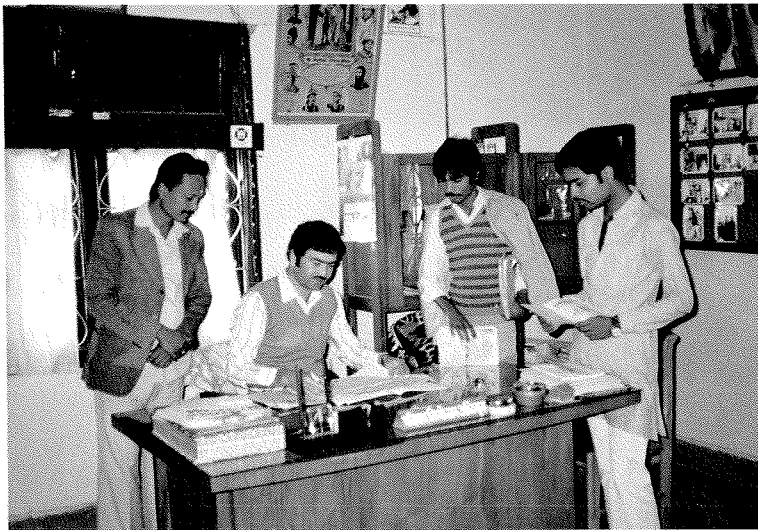*A Nepalese woman receives Depoprovera injection.*

Regional FP/MCH Training Center,
Pathalaiya
Supervisors receive training.

Dhanusha FP/MCH District Office
  The family planning logo and
  slogan "A Small Family is a
  Happy Family" are posted on the
  facade of the building.

Dhanusha FP/MCH District Office
  Staff meeting for the family plan-
  ning campaign.
  Mr. S.B. Adhikari, FPO, Dhanusha
  FP/MCH Office

Pediatric ward of Janakpur Hospital

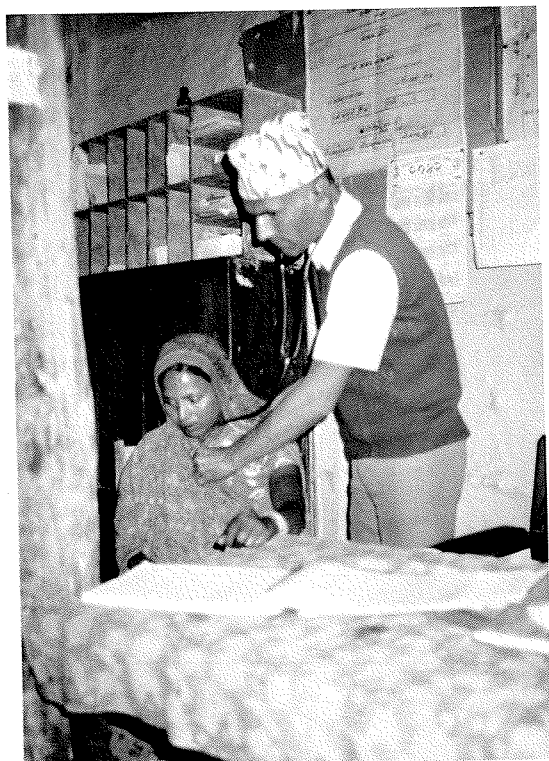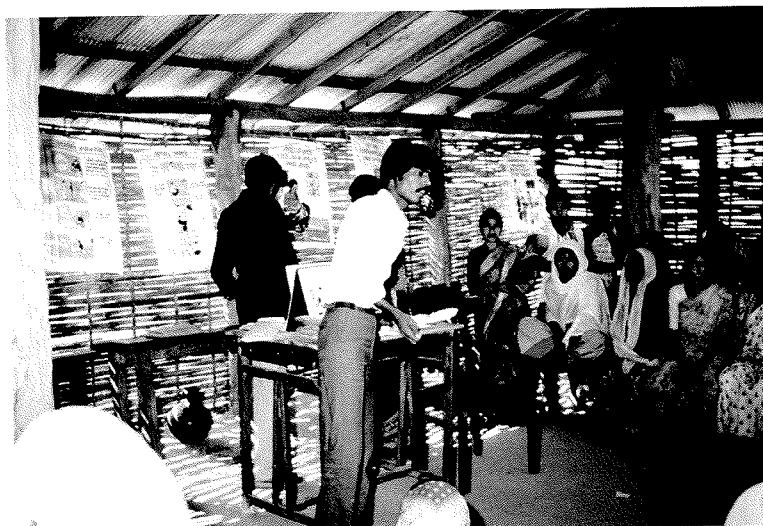iv.

Chisapani Health Post
A scene of medical examination on a FP/MCH medical service day (Dhanusha District)

Mothers' Club implemented with the aid of UNFPA
Staffers are being taught how to prepare sugar and salt water against dehidration (Dhanusha District).

Sabaila Health Post
A scene of medical examination.
Mr. Amarnath Gha, Health Post in charge, Sabaila Health Post (Dhanusha District)

Sabaila Village
A villager holding the certificate for sterilization (Dhanusha District).
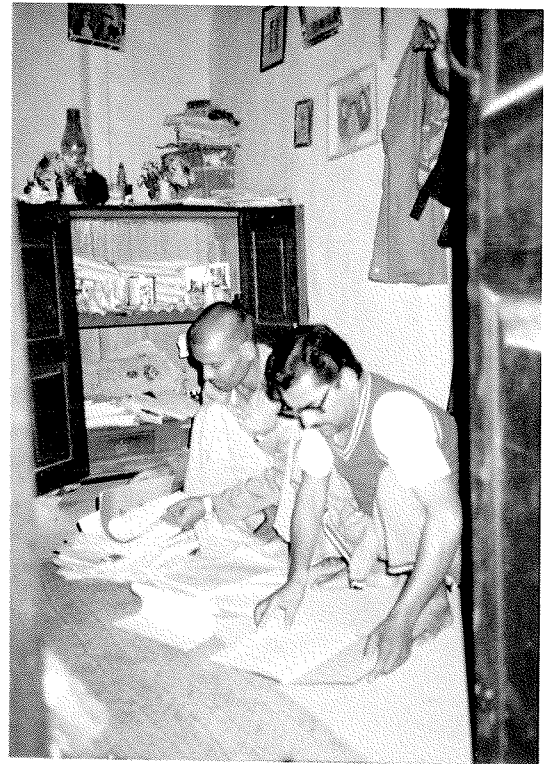
Barmajhiya Village
A scene of management of birth registrations, death registrations and voters' lists.
Mr. Ramendradeep Dhakal, Panchayat Prodhan (right)
Mr. Jainandan Dubey, Panchayat Secretary (left)
(Dhanusha District)

Barmajhiya Village
An interview with Mr. Sakldo Prasad Singh, Ayurvedic doctor (right)
Mr. J.N. Singh, FPO, FP/MCH Project (second from right) and Ms. Yuiko Nishikawa, Survey Team Member (third from left)

vi.

Dhulikhel FP/MCH District Office
  Meeting for the field survey.
  Mr. Shyam Kaji Shrestha, FPO,
  Dhulikhel FP/MCH District
  Office (second from right)

At Dhulikhel FP/MCH District Office
  Survey team members receive explanation about
  locations of health clinics, health posts.
  Mr. Hidehiro Shimizu, Survey Team Member
    (right)
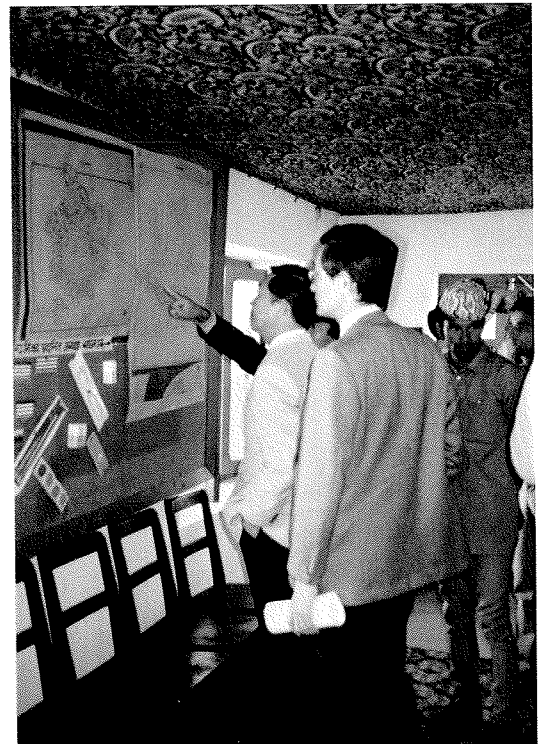
A scene of an interview survey near Khopasi Health
Post.

Nala Health Post (pilot area)
  The offices of Panachayat and Agricultural Cooperative are also in this building.

Nala Health Post
  Mr. Krishna Man Maivandhar, Health Assistant

Vicinity of Khopasi Health Post
  Since the roads are not in good condition, it is necessary to use a jeep in conducting survey.
  Mr. Akihiko Itoh, Survey Team Member (left)
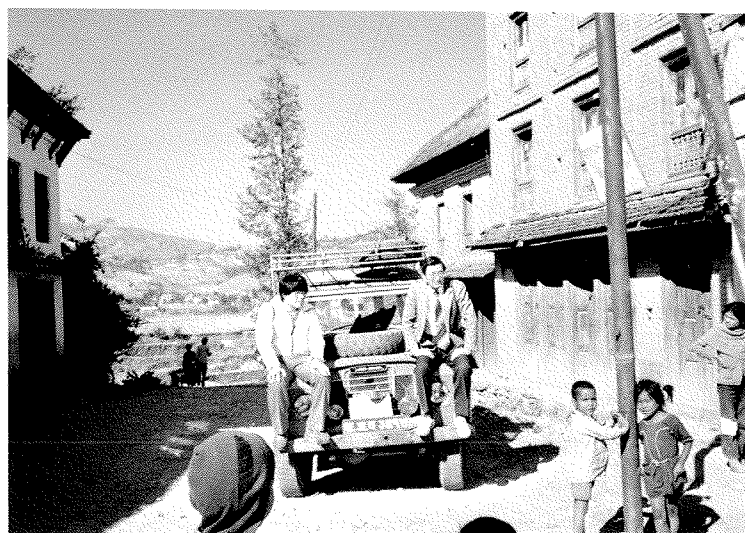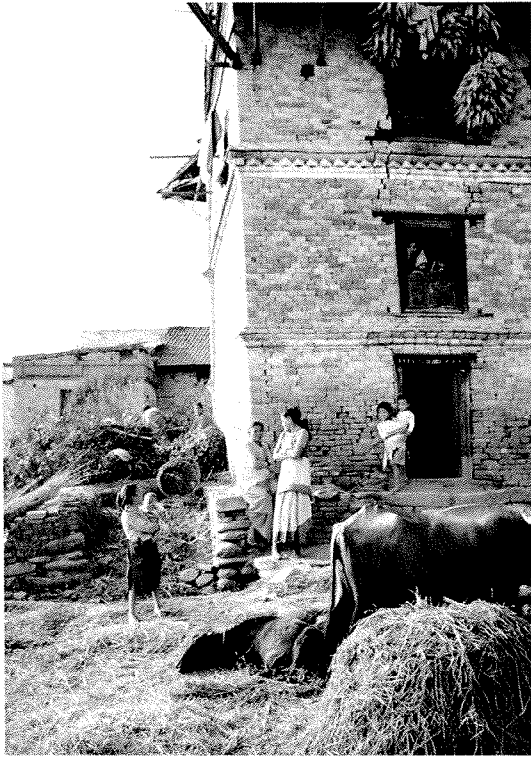
Nala Village, Kavrepalanchok
A typical 3-story brick house in Nala Village. On the third floor is a kitchen where sacred fire is used.
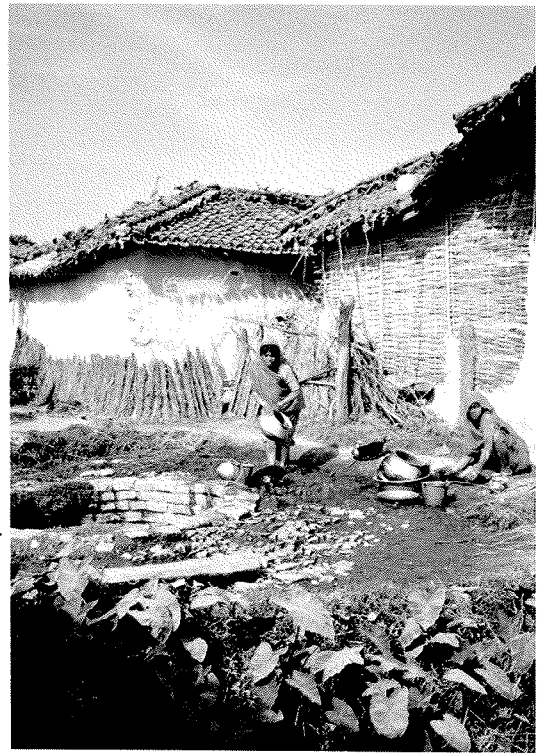
Ramdaiya Village, Dhanusha
A scene of a common well being used by a villager.
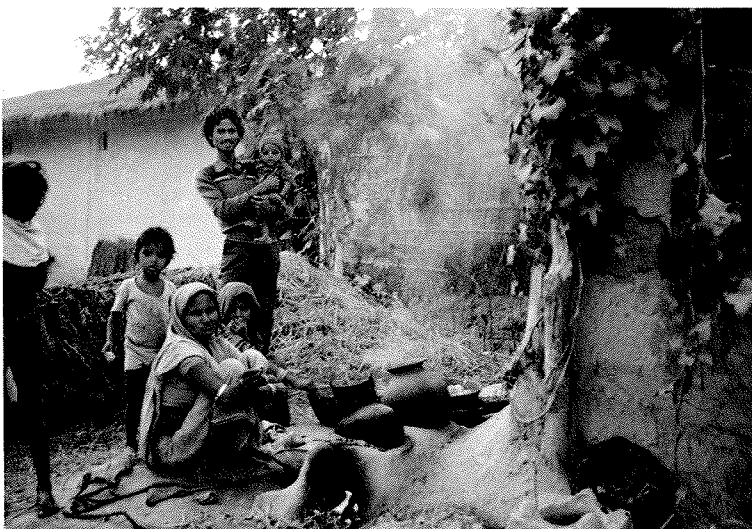
Barmajhiya Village, Dhanusha
A scene of preparing a meal.

WHOLE AREA OF NEPAL

Kavrepalanchok

Dhanusha

0   50   100 km

x.
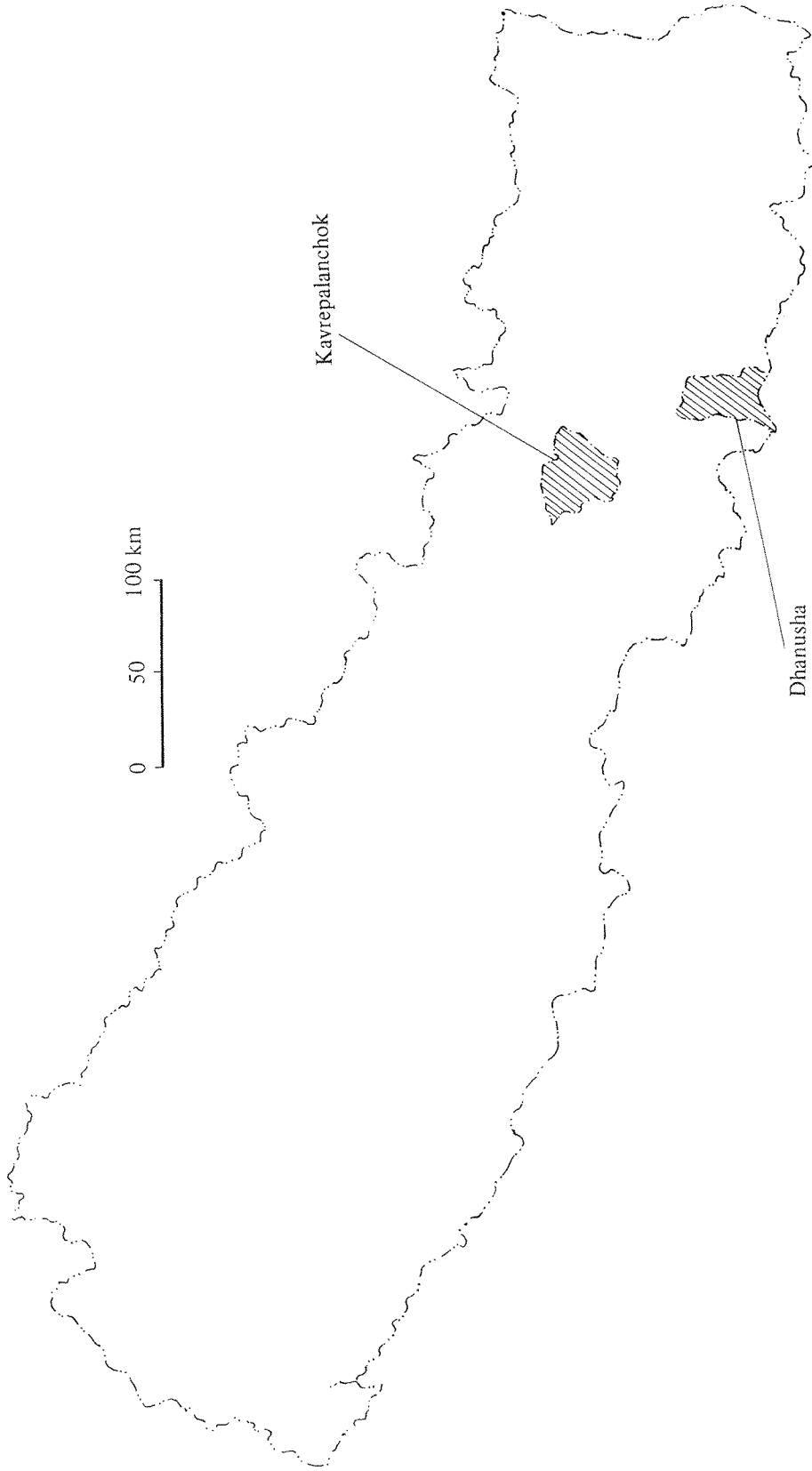
DHANUSHA DISTRICT: SURVEY AREAS AND HEALTH POST LOCATIONS

DHANUSHA

N
W — E
S

Dhalhetur

Baxeshwar
Bhuchaker
Hariharpur
JADP
Shantlpur

Chisapari
Godar

Barmajhiya

Ramdaiya
Sirela

Sabaila

Janakpur

Ghodhas

▲	:	FPDO
▣	:	H.P. with Clink
□	:	H.P.
★	:	Zonsl Hospital
●	:	V. Panchyal

0   5   10 km

□ Derpur

N

W — E

S

Anaekot   Aneikot

□

Tukucha □   □
                                                     Jnidi

▨
Hala   ▨
                                     Panchkual

MISSION HOSPITAL — Banepa
☆   ▨   □ Bhagwati
□ Ugratara

                ▨ Dhulikhel
Health Center ○ ▲ FP. D. Office
                                                        ▨
                                                     Bhumlutar

                                    ▨ : Health Post and/or Clinic

        Sunehan
        □
        Khorashi □ Sankupali
□
Biumedanda ▨
        Khorashi
            □
        Balthali
□
Chalal

0   5   10 km
|_____|_____|

CONTENTS

Chapter 1

PROBLEMS AND METHODS

CHAPTER 1 <u>PROBLEMS AND METHODS</u>

In implementing the family planning/MCH project (a five-year project), it is necessary to plan the programs related to this project on the basis of the findings of the preliminary surveys. Also it is necessary that, in planning these programs, more rational decisions are made so that these programs may be socially acceptable and lead to better results. In this connection, the following three conditions of essential health care should be noted.

The first condition is "essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community."

The second condition is "essential health care realized at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination."

And the third condition is "essential health care realized through the community members' full participation."

It goes without saying that this five-year project must satisfy all these conditions.

For this purpose, it is necessary to do preliminary assessment work prior to planning the programs related to this project, namely to collect accurate data and information on family planning and MCH and analyze and evaluate them carefully before planning and implementing the programs.

This survey was conducted as a part of the preparatory stage in "Tentative Implementation Schedule of the Project" (TISP) (one of the attached documents). This survey was, therefore, designed to determine the following 9 indicators indispensable in evaluating this project.

Nine Indicators as the Ultimate Goals

(1) Rate of medical check-ups of pregnant women

(2) Rate of medical check-ups of children

(3) Rate of immunization

(4) Changes major diseases

(5) Infant death rate

(6) Maternal mortality rate

(7) Acceptance rate of family planning

(8) Birth rate

(9) Others

In evaluating the above indicators, it is necessary to identify the sources of existing data and examine the reliability of these data, in order to have a clear grasp of the actual situation. From this perspective, the scope of this survey was determined as follows.

(1) Analysis and evaluation of existing data and information

   1) Data and information on national level
   2) Data and information on model areas

(2) Evaluation of statistical procedures relative to existing data and information

   1) Identifying government bodies and organizations with NGO status concerned with public health and medical information

   2) Evaluation of the reliability of data and information available at the smallest administrative units and the current data and information collecting system

   3) Evaluation of the data and information dissemination system

(3) Evaluation of the validity (reliability) of interview surveys

   1) Evaluation of the validity (reliability) of past interview surveys on dynamics of population and health care services

2) Evaluation of the validity (reliability) of interview survey in model areas in this project and the method of the survey

Existing data and information in the above (1) and (2) were collected direct from the Family Planning/MCH Project and the authorities concerned. Analysis of the data and information is shown in Chapter 2 of this report. In the two model areas -- Kavrepalanchok and Dhanusha Districts, data were collected direct from district offices, health posts and hospitals. In the Kingdom of Nepal, however, there are few reliable data related to the above (1) and (2). This deficiency must be rectified by some means or other. Interview survey in the above (3) can be used for this purpose. In this survey, a family interview survey (preliminary test) was conducted using a questionnaire on family planning, MCH and social environment which was prepared beforehand. Also a map indicating geographical distribution of health posts and geographical areas covered by them was prepared. Thus this survey was aimed at quantitatively analyzing the problems of family planning and MCH and the functions of health posts, and thereby providing a statistical base for use in implementing the FP /MCH Project.

Chapter 2

REVIEW AND ANALYSIS OF EXISTING DATA AND INFORMATION AND STUDY OF STATISTICAL PROCEDURES

CHAPTER 2 REVIEW AND ANALYSIS OF EXISTING DATA AND INFORMATION
AND STUDY OF STATISTICAL PROCEDURES

1. Population Statistics on District Level
    - Total Population and Sex/Age Distribution -

The 1981[1] census shows breakdowns of Nepal's total population by region (5 regions), zone (14 zones) and district (75 districts). Shown in Fig. 2-1 are the age pyramids of the population by five-year age groups for the Dhanusha and Kavrepalanchok Districts covered by this survey.

In Dhanusha, the age 0-10 male population segment shows an age group distribution pattern similar to that indicated in the 1971 census, while the district's female population shows an age group distribution pattern similar to that indicated by the country's total female population in the 1981 census. In Kavrepalanchok, on the other hand, the sex/age distribution of its population shows a typical population growth pattern. Also in this district, data were obtained on the populations of its 68 panchayats[4], but sex/age distributions are unknown.

Fig. 2-1 Age Pyramids of the Population by Five-Year Age Groups
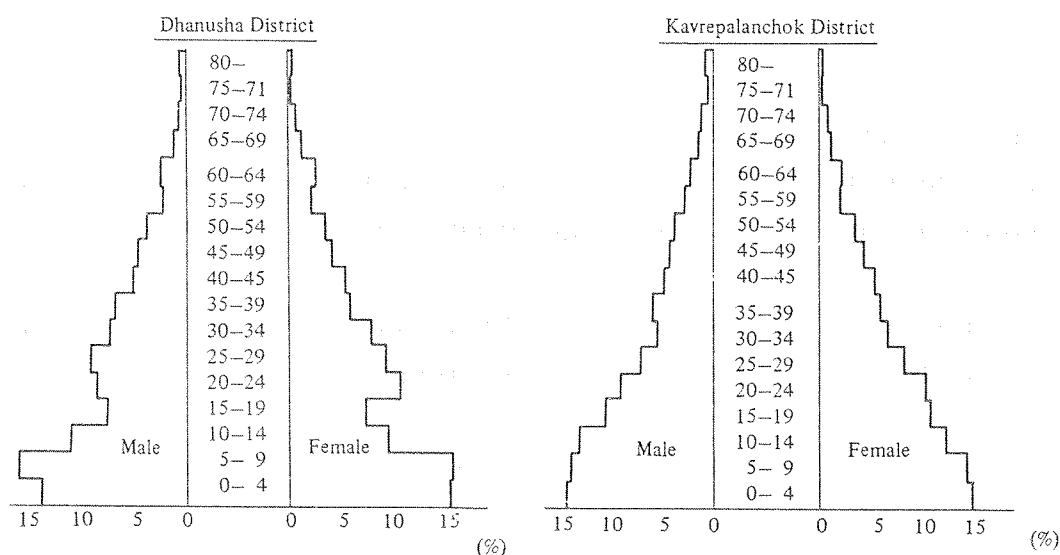
Source: Reference (1)

(1)　Breakdown of Dhanusha District's Population by Age Group
　　　(0-14, 15-64 and 65 and above age groups)

Table 2-1

	Total population (%)	Male population (%)	Female population (%)
Young age population (0–14)	173,991　(40.2)	92,049　(40.9)	81,942　(39.5)
Productive age population (15–64)	246,999　(57.1)	127,118　(56.5)	119,881　(57.7)
Old age population (65 and above)	11,579　(2.7)	5,733　(2.6)	5,846　(2.8)
Total population	432,569　(100.0)	224,900　(100.0)	207,669　(100.0)
Young age population index	70.4	72.4	68.4
Old age population index	4.7	4.5	4.9
Dependent population index	75.1	76.9	73.2
Aging index	6.7	6.2	7.1

Source: Reference (1)

In comparison with the national level population structure, that of the Dhanusha District clearly shows that this district has a relatively small old age population and a relatively large productive age population.

(2)　Breakdown of Kavrepalanchok District's Population by Age Group
　　　(0-14, 15-64 and 65 and above age groups)

In comparison with the Dhanusha District, the Kavrepalanchok District has a larger old age population. Its old age population index is a little higher than the national average.

Table 2-2

	Total population (%)	Male population (%)	Female population (%)
Young age population (0–14)	123,343 (40.2)	63,190 (40.5)	60,153 (39.9)
Productive age population (15–64)	173,258 (56.4)	87,130 55.7)	86,128 (57.0)
Old age population (65 and above)	10,549 (3.4)	5,898 (3.8)	4,651 (3.1)
Total population	307,150 (100.0)	156,218 (100.0)	150,932 (100.0)
Young age population index	71.2	72.5	69.8
Old age population index	6.1	6.8	5.4
Dependent population index	77.3	79.3	75.2
Aging index	8.6	9.3	7.7

Source: Reference (1)

Both districts show very high percentages of the young age population (supported by the productive age population). The same is true of Nepal's total population. If Nepal's population goes on increasing, the ratio of young age population to the country's total population will become still higher.

2. Vital Statistics

The figures (actual numbers and rates) obtained of annual live births, deaths, infant deaths, stillbirths, maternal deaths, marriages, divorces, life expectancy, causes of death, etc. serve as very important indicators to explain the dynamics of population, sanitary condition, maternal and child health services and so on.

Examination of the reliability of the published figures, those obtained as a result of our interview surveys and those calculated on the basis of the data obtained in this survey is shown in the pages that follow.

(1) Outline of Registration System and Registration Forms

Mr. Luxman Bahadur Basnet of the Civil Registration and Vital Statistics Office told us that calculations are being done on the 5 major indicators (live births, deaths, marriages, divorces and migrations) for 40 districts and provided us with relevant data and information.

Outline of the Registration System is as shown in Fig. 2-2.

Fig. 2-2 Organization Chart of Registration System
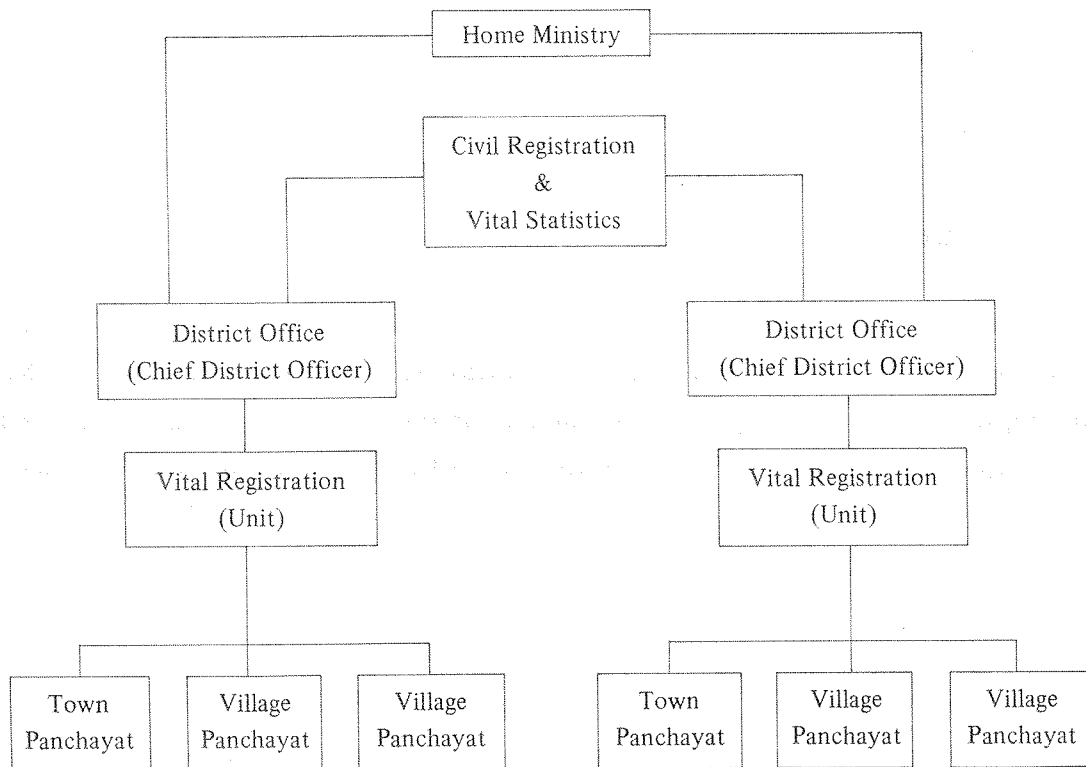
The data and information we obtained on the Registration System on national and district (40 district) levels are summarized as follows.

(2) Itemized Vital Statistics

1) Crude Birth (Rate)

National, rural and urban birth rates are available for 1974/1975, 1976 and 1977/78[5] as well as for 1981 and 1985[3]. In all cases the birth rate 9 adjsuted) exceeds 40. Unadjusted birth rate in the 1977/78 sample survey is 33.5 (urban 26.3, rural 35.8).

On the other hand, the result of our calculation for each of the 40 districts which was done on the basis of raw data[7] on birth registrations in the 40 districts and the population data in the 1981 census is shown in Table 2-3.

The lowest birth rate was 0.76 for Rasuwa District with a population of 30,241 and the highest birth rate was 25.62 for Jhapa District with a population of 479,743. There were 108,040 births registered for the total population of 10,631, 588 in the 40 districts (108,352 birth registrations in the raw data, but this is a miscalculation). Thus we get a crude birth rate of 10.16 (for a 1,000 population).

Furthermore, when these figures are compared with those for 16 districts which are included in both the Sample Survey (1977-/78)[5] and Reference (7), there are no coincident figures. The smallest gap is 1 to 1.8 and the largest 1 to 33.5 (see Table 2-4).

From this we may conclude that, if the figures in the Sample Survey reflect the actual situation more accurately, there are so many unregistered live births.

Table 2-3 Birth and Death Rates Calculated on the Basis of the 1981 Census Data and CRVS Raw Data CRVS Raw Data (1984)

No.	District	1981 Census			CRVS Raw Data (1984)			
		Population of District (%)			No. of Registered Birth	Crude Birth Rate	No. of Registered Death	Crude Death Rate
		Total	Male	Female				
1.	Zlam	178,356	92,031	86,325	2,566	14.38	2,278	12.77
2.	Jhapa	377,743	252,011	227,732	12,292	25.62	11.52	2.40
3.	Dhankula	127,781	66,183	63,571	2,357	18.18	472	3.77
4.	Harang	534,672	278,355	356,337	7,787	14.56	913	0.17
5.	Sunsari	344.394	178,355	166,239	3,464	10.05	563	1.63
6.	Udayapur	159,805	80,530	79,275	3,217	20.13	286	1.79
7.	Saptari	377,055	198,376	184,679	3,542	9.34	387	1.28
8.	Siraha	375,358	174,758	180,400	1,630	7.34	483	1.27
9.	Sindhuli	183,705	93,251	70,454	2,311	12.58	393	2.13
10.	Uhanusa	432.567	224,700	207,669	7,885	18.23	1,083	2.50
11.	Maholtari	361,054	187,097	173,762	4,882	13.52	873	2.41
12.	Sarlahi	398,766	205,971	192,775	3,392	8.51	511	1.28
13.	Sindhupalchok	232,326	122,663	107,663	289	1.24	124	0.53
14.	Pasuma	30,241	15,717	14,522	23	0.76	14	0.46
15.	Nawaket	202,976	104,473	98,483	336	1.66	62	0.31
16.	Dhading	243,401	124,538	118,863	941	3.87	376	1.54
17.	Kavre	307,150	156,218	150,732	2,107	6.86	457	1.49
18.	Bhaklapur	159,767	81,533	77,734	613	3.84	427	2.67
19.	Kathmandu	422.237	227,934	174,303	2,594	6.14	684	1.62
20.	Lalitpur	184,341	97,678	86,683	307	1.67	415	2.25
21.	Makwampur	243.411	125,450	117,931	1,821	7.48	224	0.32
22.	Chilwan	257,571	133,347	126,222	2,630	10.13	310	1.17
23.	Ranthat	312,526	173,161	157,365	4,461	13.42	738	2.22
24.	Baza	318,957	165,107	153,830	2,428	7.61	341	1.07
25.	Parsa	284,338	146,342	137,976	4,670	16,79	350	1.34
26.	Gorhha	231,294	114,614	116,680	1,167	5.05	371	1.60
27.	Kaski	221,272	112,024	107,248	1,873	8.46	520	2.35
28.	Fanahu	223,438	113,316	110,122	3,036	13.59	523	2.34
29.	Syanglo	271,824	129,616	142,208	2,692	9.70	701	3.31
30.	Nawalpaiasi	308,828	159,162	149,666	2,345	7.59	438	1.42
31.	Polpa	214,442	108,687	105,753	2,487	11.60	587	2.74
32.	Rupandahi	377,076	176,783	182,313	2,735	7.21	464	1.22
33.	Kapllvaitu	270,045	143,400	126,645	4,587	16.79	559	2.07
34.	Dang Deukvri	266,373	135,835	130,538	1,773	6.66	437	1.65
35.	Jumla	68,797	35,870	32,907	122	1.77	61	0.89
36.	Suikhel	166,196	83,382	82,814	884	3.32	91	0.55
37.	Banke	205,323	107,280	78,083	3,410	16.61	461	2.25
38.	Bardiva	177,044	103,877	75,165	1,175	6.00	346	1.74
39.	Kailali	257,705	135,978	121,727	320	1.24	146	0.57
40.	Kathanpur	168,771	93,171	75,800	843	5.00	170	1.01
		1,063,588			108,040	10.16	20,145	1.89

Source: Civil Registration and Vital Statistics Office, Reference (7)

Table 2-4 Comparison of Birth and Death Rates in Sample Survey
(1977/78) and CRVS Raw Data (1984)

Locality in the Sample	Birth Rate		Death Rate	
	Sample survey 1977/78	CRVS 1984	Sample survey 1977/78	CRVS 1984
Kathmandu City	25.22		7.86	
Lalitpur City	25.94		10.88	
Bhaklapur City	35.95		10.41	
Total Urban	26.31		8.29	
Kathmandu District	37.78	6.14	16.48	1.62
Lalitpur District	38.27	1.67	17.21	2.52
Bhaklapur District	47.79	3.84	15.52	2.49
Syaogja District	37.55	9.90	17.37	3.31
Bara District	41.59	7.61	11.96	1.07
Chitwan District	32.62	10.13	12.51	1.19
Siraha District	38.86	4.34	19.27	1.29
Sunsari District	28.97	10.05	13.33	1.63
Dhankula District	31.72	18.18	9.35	3.79
Illam District	36.91	14.38	17.28	12.77
Surkhet District	36.82	5.32	12.40	0.55
Dailekh District	40.12	—	23.97	—
Kailali District	41.58	1.24	15.74	0.57
Solukhumbu District	36.79	—	10.22	—
Junmla District	32.40	1.77	17.30	0.89
Total Rural	35.80		14.71	
Grand Total	33.53		13.18	

Source: CRVS: Civil Registration and Vital Statistics Office, Reference (5) and (7).

2) Crude Death (Rate)

As in the case with Crude Birth (rates), figures of Crude Death (rates) were shown in Table 2-5. We get a crude death rate of 18.5 for 1981 and 16.6 for 1985[3].

Table 2-5 Crude Death Rate (CDR) and Infant Mortality Rate (IMR) by Urban-rural Residence and Sex, 1974-1975, 1976 and 1977-1978

Residence and Sex	1974–75		1976		1977–1978	
	CDR	IMR	CDR	IMR	CDR	IMR
Urban						
Males	8.7	55.2	8.2	55.3	13.2	72.8
Females	9.4	59.2	9.7	50.2	10.9	60.8
Both sexes	9.0	57.1	8.9	52.8	12.0	67.2
Rural						
Males	18.9	143.9	21.9	130.7	19.3	111.1
Females	20.7	235.9	23.2	140.6	17.7	99.1
Both sexes	19.8	134.8	22.6	136.1	18.6	105.1
Nepal						
Males	18.6	141.2	21.5	128.4	17.9	109.9
Females	20.6	123.0	22.8	137.9	16.2	97.9
Both sexes	19.5	132.5	22.2	133.6	17.1	104.0

Source: Reference (2).

According to the 1984 figures for the 40 districts (Table 2-3), on the other hand, 913 deaths are registered in Morang District. Thus we get a crude death rate of 0.17 for the district, the lowest of the 40 districts, while 2,278 deaths are registered in Ilam District or a crude death rate of 12.77, the highest of the 40 districts. The crude death rate for the total population in the

40 districts is 1.89 (for a 1,000 population) (see Table 2-3). In the comparison for 16 districts the registered figures were all smaller than the reported figures, just as in the case of Crude Births (rates).

Thus we may conclude that there were also so many unregistered deaths.

3) PMI (Proportional Mortality Indicator)

PMI is an indicator to indicate the proportion of "50 and over" age group mortality to the national total. By this indicator we can determine whether young age group mortality or "50 and over," age group mortality is predominant. This indicator is a very valuable indicator in that it can be obtained on the basis of statistics on deaths by age group alone even if mortality statistics by cause of death are unavailable.

In actuality, however, we could obtain no data including figures for deaths by age group or those including PMI.

It will be necessary to obtain statistic data on deaths by age group in future surveys.

4) Infant Mortality (Rate)

Infant mortality rate is a very important indicator by which we can evaluate MCH and sanitary condition.

As in the case of PMI, we were unable to obtain any data on infant deaths. It appears that in the Kingdom of Nepal where home delivery is common there is something a miss with the birth registration method.

Table 2-6

	Sample survey 1977/78			Census	NCP
	1974/75	1976	1977/78	1981	1985
Total	132.5	133.6	104.0	123.0	111.5
Male	141.2	128.4	109.9	117.0	105.6
Female	123.0	137.9	97.9	128.0	117.8

Source: Reference (5) for 1974/75, 1976, 1977/78; Reference (1) for 1981; Reference (3) for 1985.

5) Causes of Infant Death

It is also important to know the causes of infant deaths. Although we were unable to obtain data on the causes of infant deaths on antional and district levels, data on the causes of infant deaths at 10 hospitals (265 beds) in 1974/75 were available[8] (see Table 2-7). According to the data, pneumonia ranks first, followed by enteritis and other diarrhoeal diseases, avitaminosis and other nutritional deficiencies, and infective diseases. However, statistics on "1 to 4 years" age group show that enteritis and other diarrhoeal diseases rank first, measles fifth and tetanus sixth. Many of these diseases can be prevented through the spread of vaccination.

6) Maternal Death (Rate)

We were unable to obtain data on maternal deaths. But we have instead a very important indicator to indicate the health level of expectant and nursing mothers.

Although data on maternal deaths are unavailable, the hospital statistics show that many expectant and nursing mothers are suffering from complications.

Table 2-7 Major Causes of Death (in %) All Discharges of
10 Hospitals (265 beds) 1974/75

Rank No.	For Age: Under 1 year	
1	Pneumonia	27.2%
2	Enteritis and other diarrhoeal diceases	22.2%
3	Avitaminoses and other nutritional deficiencies	6.2%
4	Meningitis	6.2%
5	Acute respiratory infections	4.9%
6	Bronchitis, empylysema and asthma	3.7%
	Total	70.4%

Rank No.	For Age: 1—4	
1	Enteritis and other diarrhoeal diseases	21.6%
2	Symptoms and ill defined conditions	16.8%
3	Pneumonia	11.2%
4	Meningitis	8.0%
5	Measles	4.8%
6	Tetanus	3.2%
	Total	65.6%

Source: Reference (8)

Table 2-8 shows classification of diseases among inpatients at 10 hospitals (in 1974/75, excluding normal delivery). Of the total number of discharge of 6,776, infective and parasitic diseases rank first and complications of pregnancy, child-birth and puerperium eighth (242 or 3.6%). Similarly, of the total number of discharge in Table 2-9 (9 hospitals), complications of pregnancy, child-birth and puerperium rank eighth (3.2%).

Table 2-8 Major Groups of Diseases among In-patients Treated in
10 Hospitals in 1974/75 (Excluding normal delivery)

Rank Order	Diseases Groups	Number of Discharge	%
1	Infective and parasitic diseases	2,171	32.0
2	Diseases of the respiratory system	1,690	24.9
3	Gymptoms and ill-defined conditions	627	9.3
4	Accidents, paiscning and violence	623	9.2
5	Diseases of genito-urinary system	411	6.0
6	Diseases of blood and blood-forming organis	281	4.2
7	Diseases of the circulatory system	262	3.7
8	Complications of pregnoncy, child-birth and puerperium	242	3.6
9	Diseases of the digestive system	242	3.6
10	Diseases of the nervous system and sense organs	237	3.5
	All Disease Groups	6,776	100.0

Source: Reference (8)

Table 2-9 Morbidity Pattern among In-patients Treated in Nine Hospitals

Rank Order	Diseases Groups	Number of Discharge	%
1	Infective and parasitic diseases	1,658	28.9
2	Diseases of the respiratory system	2,630	28.6
3	Symptoms and ill-defined conditions	1,002	10.9
4	Accidents, poisoning and violence	799	8.7
5	Diseases of the genito-urinary system	564	6.1
6	Diseases of the digestive system	386	4.2
7	Diseases of the circulatory system	336	3.7
8	Complications of pregnancy, child-birth and puerperium	289	3.2
9	Diseases of th nervous system and sense organs	279	3.0
10	Endocrine; nutritional and metabolic diseases	245	2.7
	All Disease Groups	9,188	100.0

Source: Reference (8)

Table 2-10   First Six Major Couses for Hospitalization by Age-Groups
and Sex (10 Hospitals - 265 beds - 1974/75)

Age: Under 1

Major causes for hospitalization are the same for both sexes:

1.   Infective & parasitic disenses
2.   Diseason of respiratory system
3.   Symptoms and ill-defined conditions
4.   Diseases of the nervous system and sense organs
5.   Accidents; poisoning and violence
6.   Endocrine, nutritional and metabolic diseases

Age: 1 — 4

Males	Females
1. Infective and parasitic diseases	1. Infective and parasitic diseases
2. Diseases of respiratory system	2. Diseases of respiratory system
3. Accidents, poisoning and violence	3. Symptoms and ill-defined
4. Symptoms and ill-defined	4. Endocrine, nutritional and metabolic diseases
5. Endocrine, nutritional and metabolic diseases	5. Accidents, poisoning and violence
6. Diseases of the norvous system and sense organs	6. Diseases of nervous system and sense organs

Age: 5 — 14

Major causes for hospitalization are the same for both sexes:

1.   Infective and parasitic disenses
2.   Diseases of respiratory system
3.   Accidents, poisoning and violence
4.   Symptoms and ill-defined conditions
5.   Diseases of genito-urinary system
6.   Diseases of blood and blood-forming organs

Age: 15 — 44

Male	Females
1. Infections and parasitic diseases	1. Infectious and parasitic diseases
2. Accidents, poisoning and violence	2. Complications and pregnancy, child birth and the puerperium
3. Diseases of respiratory system	3. Diseases of genito-urinary system
4. Symptoms and ill-defined conditions	4. Symptoms and ill-defined conditions
5. Diseases of digestive system	5. Diseases of respiratory system
6. Diseases of genito-urinary system	6. Diseases of blood and blood-forming organs

Age: 45 and above

Males	Females
1. Infectious and parasitic diseases	1. Infectious and parasitic diseases
2. Diseases of respiratory system	2. Diseases of respiratory system
3. Accidents, poisoning and violence	3. Diseases of circulatory system
4. Symptoms and ill-defined conditions	4. Symptoms and ill-defined conditions
5. Diseases of circulatory system	5. Disease of nervous system and sense organs
6. Diseases of digestive system	6. Accidents, poisoning and violoence

Source: Reference (8)

Table 2-10 shows classification of major causes for hospitalization
(by age group and sex). In this table, complications of
pregnancy, child-birth and puerperium rank second as the cause
for hospitalization for the 15-44 age group.

In the 1978/79 data[9], on the other hand, complications of
pregnancy, child-birth and puerperium rank first (23.3%),
indicating a sharp increase in number. Although factual data on
maternal deaths are unavailable, the large number of inpatients
suffering from complications of pregnancy, child-birth and
puerperium implies that actual maternal deaths are numerous.
Findings of our interview survey implies that home delivery is a
common practice in Nepal. Also the current sanitary condition in
this country seems to evidence this.

It will be possible, through good use of the hospital statistics, to
have a clear grasp of the actual situation relative to the causes
of death and the prevalent diseases.

7)   Stillbirth (Rate)

Due to lack of mortality statistics by cause of death, we were
unable to obtain satisfactory stillbirth statistics on national level.

But we could obtain the following figures as a result of
calculation based on the figures for live birth and stillbirth
included in the hospital statistics, which are shown in Reference
(10) (see Table 2-11).

At a total of 45 hospitals there were 849 stillbirths and 973 live
births. Thus we got a stillbirth rate of 466.0.

The value of 466.0 is about 10 times as much as that for Japan -
45.5 in 1983 (spontaneous stillbirth: 25.4   artificial stillbirth:
20.1).

But we are not so certain of the reliability of this value in view of the fact that the definition of stillbirth varies from one country to another and home delivery is a common practice in the Kingdom of Nepal.

Table 2-11

Dev. Region & Zone (No. of hospital)		Live births	Stillbirths	Stillbirth rate*
Eastern Dev. Reg.				
Mechi zone	(1)	20	22	523.8
Koshi zone	(6)	51	67	567.8
Sagarmatha zone	(4)	46	39	458.8
Central Dev. Reg.				
Jamakapur zone	(3)	83	48	366.4
Nasayani zone	(2)	145	69	322.4
Bagmati zone	(12)	357	407	532.7
Western Dev. Reg.				
Gandaki zone	(5)	95	83	466.3
Dhaulagiri zone	(2)	20	10	333.3
Lumbini zone	(5)	154	103	400.8
Mid. and Far Dev. Reg.				
Bheri zone	(2)	—	—	—
Seti zone	(2)	—	—	—
Maharkali zone	(1)	2	1	333.3
Total	(45)	973	849	466.0

* Stillbirth rate = Stillbirths / (Live births + Stillbirths) x 1,000
Source: Reference (10)

8) Perinatal Death (Rate)

Perinatal deaths are the sum total of late stillbirths (after the 28th week of pregnancy) and early infant deaths (within a week after birth) and perinatal death rate is indicted by the ratio of perinatal deaths to 1,000 live births.

This indicator, long publicized by WHO since 1950, serves as a comprehensive infant death indicator which makes up for the deficiency of other infant death indicators. In fact, during the period from after the 28th week of pregnancy to within a week after birth, maternal health condition greatly affects the health condition of the baby. In addition, the definition of stillbirth varies from one country to another. Thus it is very difficult to draw a reliable conclusion from mere comparison of infant death indicators.

In the Kingdom of Nepal, however, no statistics on perinatal deaths are available. It is necessary to improve on the country's hospital statistics, registration system and MCH.

9) Marriage and Divorce

The number of marriages in the 40 districts was calculated on the basis of the data included in Reference (7). Marriage Registration Form is available in Nepal, but it is unknown whether this form is used correctly.

Divorces are not registered at the Civil Registration and Vital Statistics Office. This is because a court decision has ruled out this procedure.

10) Life Expectancy

Table 2-12

	Male	Female	Total
1954	27.1	28.5	—
1961	34.7	32.5	—
1971	41.9	39.1	—
1974	45.0	42.0	—
1981	50.9	48.1	49.5
1985	52.9	50.1	51.5

Source: Reference (11) for 1954, 1961, 1971, 1974; Reference (1) for 1981; Reference (3) for 1985.

Since 1961 female life expectancy has always been lower than male life expectancy. This is reportedly because of the very high maternal death rates[11].

11) Migrations

In the 1977/78[5] Sample Survey statistics on migrations as shown in Table 2-13 are reported.

Comparison of the data for some districts which border India shows wide differences in migration rate. In the raw data on migration registrations in Reference (7), very low values are reported. As in the cases of live births and deaths, there seem to be many unregistered migrations.

3. Statistics on Diseases

No national level statistical data on diseases are available in Nepal. So we had no alternative but to estimate the whole picture based on some hospital statistics.

Table 2-13

Locality in the Sample	Out Migration Rate	In Migration Rate
Kathmandu City	118.04	58.89
Lalitpur City	179.08	38.49
Bhaktapur City	31.22	19.39
Total Urban	111.42	52.79
Kathmandu District	23.45	20.77
Lalitpur District	33.36	14.75
Bhaktapur District	27.37	20.42
Syangja District	63.13	42.48
Bara District	13.59	11.14
Chitwan District	43.00	21.11
Siraha District	33.88	22.38
Sunsari District	38.68	13.50
Dhaukuta District	44.73	12.61
Illam District	48.33	28.12
Surkhet District	74.97	49.41
Dailekh District	56.80	26.58
Kailali District	149.37	34.31
Solukhumbu District	48.03	15.33
Jumla District	11.95	8.81
Total Rural	44.03	23.01
Grand Total	59.98	30.05

Source: Reference (5)

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(1)　10 Major Groups of Diseases among Inpatients[8]

As shown in Tables 2-8 and 2-9, infective and parasitic diseases top the list at about 30%. Accidents, poisoning and violence rank fourth at 8-9%. We were told that these are related to mountaineering.

(2)　First 6 Major Causes for Hospitalization by Age Groups and Sex[8]

As shown in Table 2-10, the major causes for hospitalization are shown for each of the 5 age groups (under 1, 1-4, 5-14, 15-44, and 45 and over). For each age group, infective and parasitic diseases rank first.

With males in the 15-44 age group, however, accidents, poisoning and violence rank second, while with females in the same age group complications of pregnancy, child-birth and puerperium rank second.

Taken overall, it appears that infective diseases (parasitic diseases) and nutritional diseases are prevalent in Nepal.

(3)　10 Major Groups of Diseases among Outpatients[8]

As shown in Table 2-14, infective and parasitic diseases top the list as in the case of inpatients, at 35.7%, followed by diseases of skin and subcutaneous tissue, diseases of the respiratory system, and diseases of the digestive system.

Table 2-14 Outpatient Morbidity - Males and Females
Major Groups of Diseases

Rank	Dieseases Group	Case Number	Examined, %
1	Infective and perositic diseases	2,959	35.7
2	Diseases of skin and subcutaneous tissue	1,049	12.7
3	Diseases of the respiratory system	1,024	12.4
4	Diseases of the digestive system	831	10.0
5	Diseases of the nervous system	748	9.0
6	Diseases of the genite-urinary system	583	7.0
7	Accidents, poisonings and violence	441	5.3
8	Diseases of the musculoskeletal system and	235	2.8
9	Endeerine, nutritional and metabolic diseases	221	2.7
10	Diseases of blood and blood-forming organs	196	2.4
	Total	8,287	100.0

Source: Reference (8)

(4) Rate of Parasitic Infection and Classification of Parasites

Rates of parasitic infection for two age groups in two districts are reported, as shown in the table below.

Table 2-15

Place	1-12 years	13 years & above	Total	Tire No.	Infection Rate
Bhaktapur	2,112	2,183	4,295	3,898	91.0%
Panchkhal	3,301	5,310	8,611	7,432	86.3%
	5,413	7,493	12,906	11,320	87.3%

Source: Reference (8)

Of a total of 12,906 samples of feces, 11,320 showed positive reaction. The average infection rate is 87.7% (the figure in the table seems to be a miscalculation). But there is a significant difference in infection rate between the two districts.

Table 2-16 shows a breakdown of parasitic infections by types of parasite - askaris, hookworm and trichuris. There are wide differences in infection rate for each type of parasite between the two districts. But in each district askaris infection is prevalent.

According to Dr. Benzamin D. Cabrera[8], an imaginal askaris in man's intestines consumes 2.3 g of carbohydrate and 0.7 mg of protein a day. Also he reports that it hinders absorption of vitamin A. So it is a matter of urgent necessity to exterminate parasites.

Table 2-16

(A) Bhaktapur

	1—12 years	13 years & above	Total
Askaris	1,544 (73.1%)	1,712 (78.4%)	3,256 (75.8%)
Hookworm	97 (4.6%)	209 (9.6%)	296 (6.9%)
Trichuris Trichuria	853 (40.6%)	890 (40.8%)	1,743 (40.6%)

Source: Reference (8)

(B) Panchkhal

	1—12 years	13 years & above	Total
Askaris	1,855 (56.2%)	2,770 (52.2%)	4,625 (53.7%)
Hookworm	977 (29.6%)	2,505 (47.2%)	3,482 (40.4%)
Trichuris Trichuria	762 (23.1%)	1,437 (27.1%)	2,199 (25.5%)

Source: Reference (8)

4.　Summary of Problems of Population Census-Related Data
　　and Information Collecting System

We have thus far pointed out the contradictory differences between the data and information obtained from the sample surveys, population statistics, vital statistics and statistics on diseases compiled by the Kingdom of Nepal authorities and those we directly collected by comparing the two sets of data and information.　Here we will summarize these problems so that this summary may serve as reference data for use in our future surveys.

In the first place we must point out that we obtained so little accurate information from the existing statistical data collected in this survey, that there were very wide differences in value between the existing data and those we directly collected through interview surveys, and that as a consequence it was impossible to draw a true picture of the Kingdom of Nepal, which is suggestive of a true picture of this country.

It would be very difficult to have an accurate grasp of the population and vital statistics of the Kingdom of Nepal based on the current statistical system in this country.　We can identify several important problems as possible reasons for this.　It is desirable to improve on the following in order to obtain accurate statistical data in this country.

(1)　Administrative Problems

　　1)　The central government's machinery concerned with population and vital statistics is not fully centralized.　There is a well-defined, hierarchical health organization headed by the Ministry of Health.　But the actual situation is quite different from what is defined by such an organization chart.　The actual organization is highly decentralized and there are no smooth communications among local authorities concerned.　It is necessary to centralize the health statistical system itself.

2) Improvement of the registration system

A clear idea of resident registration, statistical data compiling and population problems is lacking. For example, the number of infants under 1 year of age are not included in the number of household members, nor are members of poor families registered. Furthermore, no figures for social increase (immigrations) are included in the statistical data.

3) Development of public transport

In order to promote residents' registration, it is necessary to streamline the registration procedures by increasing the number of places for registration procedures by increasing the number of places for registration and optimizing their locations. This is particularly the case with areas which lack adequate transport facilities.

In conducting an interview survey in mountainous areas investigators have to go on foot from house to house. In Terai District in particular road conditions worsen in a certain season.

4) A mere shell of the penal regulations

This relates to the registration system and government officials' awareness of the problems involved.

5) Necessity of improving data processing methods

In some government offices data processing has been computerized, but in all other government offices manual calculation is a common practice, causing many miscalculations. Joint use of data by means of an online system is desirable.

6) Development of an individual resident registration system

Individual resident registration is indispensable in monitoring changes in population structure. In actuality, there are so few people who knows their own correct dates of birth. As a result, it is impossible to obtain accurate data on age distribution of population, live births and deaths.

7) Enhancing statisticians' skills through their training

Any statistical data collection work requires the skills of well-trained statisticians. It is imperative to improve on the current statistical system in which any person capable of reading and writing is qualified as a statistician. Supervisors are all college graduates, but there are so few of them.

8) Improvement and expansion of medical facilities

Medical facilities are an important source of data and information on causes of death and diseases. In this connection, it is necessary to train and properly post medical professionals (medical doctors, nurses, midwives, clinical examiners, etc.)

9) Hospital statistical data collection system

It is possible to compile accurate data on causes of death and diseases by collecting data and information from medical facilities.

10) Improvement of environmental hygiene

There are many diseases which can be prevented by analyzing statistics on diseases and causes of death. They are also related to environmental hygiene.

(2) Problems on the Part of Residents

1) Enhancing residents' awareness of their obligation to register

The existing penal regulations are rarely enforced. In addition, many residents are reluctant to go out for registration due to possible loss of time (decrease in income) caused by lack of adequate transport facilities.

2) Effort to increase literacy rate

It is necessary to increase literacy rate to promote registration and spread of knowledge of sanitation. For this purpose it is necessary to increase school attendance rate.

Also it is necessary to make the Nepalese calendar compatible with the solar calendar so that residents can remember their correct dates of birth.

3) Improvement of residents' knowledge of sanitation

In view of the fact that infective diseases are one of the major causes of death, it is imperative to improve residents' knowledge of sanitation.

4) Improving residents' eating habits

Infants' malnutrition and vitamin deficiency can be prevented by improving residents' eating habits.

5) Enhancing utilization of medical facilities

6) Promoting early maternal medical examination, delivery at medical facility and delivery under the supervision of the midwife.

There are many cases of complications of pregnancy, delivery and

puerperium.

In addition to the above-mentioned problems, we felt it necessary to collect accurate data and information through house-to-house interview surveys in order to improve statistical data on population and health in Nepal.

In the case of infant mortality, for example, it is possible to know the structure and sex/age distribution of each family population through a house-to-house interview survey. Furthermore, it is possible to collect accurate data on live births, stillbirths, early neonatal deaths, neonatal deaths, infant mortality, child mortality, school child mortality, adult mortality, causes of adult deaths, miscarriages, premature childbirths, plural births, defective births, etc, by asking married women questions about the number of conceptions, child-births, child deaths and existing children.

For this purpose, it is necessary to reexamine questions to be asked in interview surveys and enhancing investigators' knowledge and skills. For the purpose of keeping continuous records from the standpoint of MCH, it is necessary to make full use of the mother-and-child notebook mentioned in Chapter 6, 3. as an individual health record.

On the other hand, population growth is triggered by decreases in infant mortality reate, decreases in total number of deaths and increase in old age population, as well as increases in birth rate. In this context, it is of vital importance to have an accurate grasp of deaths by age group in promoting the FP/MCH projects. In the 1976 and 1981 FP/MCH projects statistical data were compiled of the childbearing age population (15-49 age group) only. In view of the fact that many women under 14 years of age will reach the childbearing age in several years, it is important to collect data on births and deaths for all age groups. For this purpose, it is desirable to plan and implement a census

of the survey areas. In addition, long-term data and information collecting work as mentioned in Chapter 6.

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Chapter 3

FIELD SURVEY REPORT

CHAPTER 3   FIELD SURVEY REPORT

1.   How Health Posts and Health Clinics are Utilized

(1) Dhanusha District

Reported here is a new attempt to evaluate the functions of health posts and health clinics. While it is impossible to expect advanced medical care services in the light of apparent shortages of hospitals and medical doctors, the importance of health posts and health clinics in Nepal's current health and medical care system is self-evident. Therefore, it seems necessary to quantitatively evaluate their functions to improve Nepal's health statistics and prepare reference data for use in future research and cooperation works.

For this purpose, we investigated the geographic and demographic areas covered by each of these medical facilities and prepared a map indicating this. This map show how many patients (cumulative total) from each panchayat visit the health clinic. In this survey we compiled new data based on existing raw data in collaboration with the Nepalese staff. In addition, we tried to collect or prepare maps of villages covered by these medical facilities.

1)   Subjects of Survey and Survey Methods

i.   Survey area

First of all, we identified the location of each health post or health clinic on the map. Then we showed the survey areas on the map (see the map shown in the beginning page of this report). This map was prepared on the basis of maps used at the FP/MCH District Office in Janakpur. And the health clinic attached to Chisapani Health Post in Godar was chosen as the survey area. At this health clinic a map

indicating the number of households and villages under the control of this health clinic is prepared by Mr. R.A. Yadav (Senior A.H.W.). This map and patients' clinical records over the past several years kept at this clinic were very helpful. It was impossible to investigate the other health posts because some of them were closed when we visited and because at the other we were unable to examine patients' clinical records due to our own time limitations.

We also prepared maps of health posts and vicinities in Ramdaiya and Sabaila.

ii. Survey methods

    a.   We had health post staffers enumerate the names of panchayats covered by them and estimate each panchayat's population from the population and number of households of each panchayat reported by fieldworkers.

    b.   We had health post staffers read the addresses of the patients written in their clinical records and tell the panchayat each address belongs to.

    c.   We calculated the number of patients in each panchayat for 1983 and 1984 from these records. The panchayats under the control of other health posts were classified as "Others."

    d.   Each panchayat was identified on the maps.

    e.   Annual cumulative number of patients visiting the health clinic, total population and the distance from the health clinic were calculated for each panchayat, and a map indicating the results was prepared.

f.   Photos of the maps used at the health posts were taken.   When such maps were unavailable, we prepared one based on the information we obtained from villagers.

2)   Findings

i.   Chisapani Health Post

There are six panchayats (Godar, Labatoli, Barmajhiya, Bharatpur, Yagyabuoomi and Umaprempur) under the jurisdiction of Chisapani Health Post in Godar.   Total population, annual cumulative number of patients, distance from the health clinic (since most of these panchayats are located in a relatively flat area, average distance was calculated on the basis of the length of the road between the central point of the panchayat and the clinic) for each panchayat are summarized in Table 3-1 and Fig. 3-1.   Fig. 3-1 shows the locations, total populations and annual cumulative numbers of patients of the six panchayats, which was made up on the basis of the map kept at Chisapani Health Post.

The ratio of annual cumulative number of patients to total population in each panchayat for 1983 and 1984 is: 6% and 7% in Godar, 9% and 12% in Labatoli, 1% and 1% in Barmajiya, 2% and 4% in Bharatpur, 2% and 2% in Yagyabuoomi and 0.1% and 0% in Umaprempur.   The ratio of the number of patients from panchayats under the jurisdiction of other health posts to the total number of patients are 13.6% and 17.7%.   Not a few of them came from the neighboring district (since Godar borders the neighboring district).

Table 3-1 How Godar Health Post is utilized.

Panchayat	Population	No. of patients/Year [**]		Distance	Remark
Godar	3,362	186	(228)	0.5 km	Adjoins H.P.
Labatoli	1,000*	86	(119)	3 km	Adjoins H.P.
Barmajiya	3,753	34	(52)	4 km	A river crosses the route. Detour is necessary in rainy season.
Bharatour	3,000*	65	(108)	3 km	Village on East-west Highway
Vagyabuoomi	4,000*	67	(91)	7 km	Village on near East-west Highway
Umaprempur	3,000*	4	(0)	9 km	Village on East-west Highway
Others		70	(129)		

Source: Patients' clinical records kept at Godar H.P.
   Population: based on information from F.W.
   * : approximate value.
   ** : 1983 (1984)
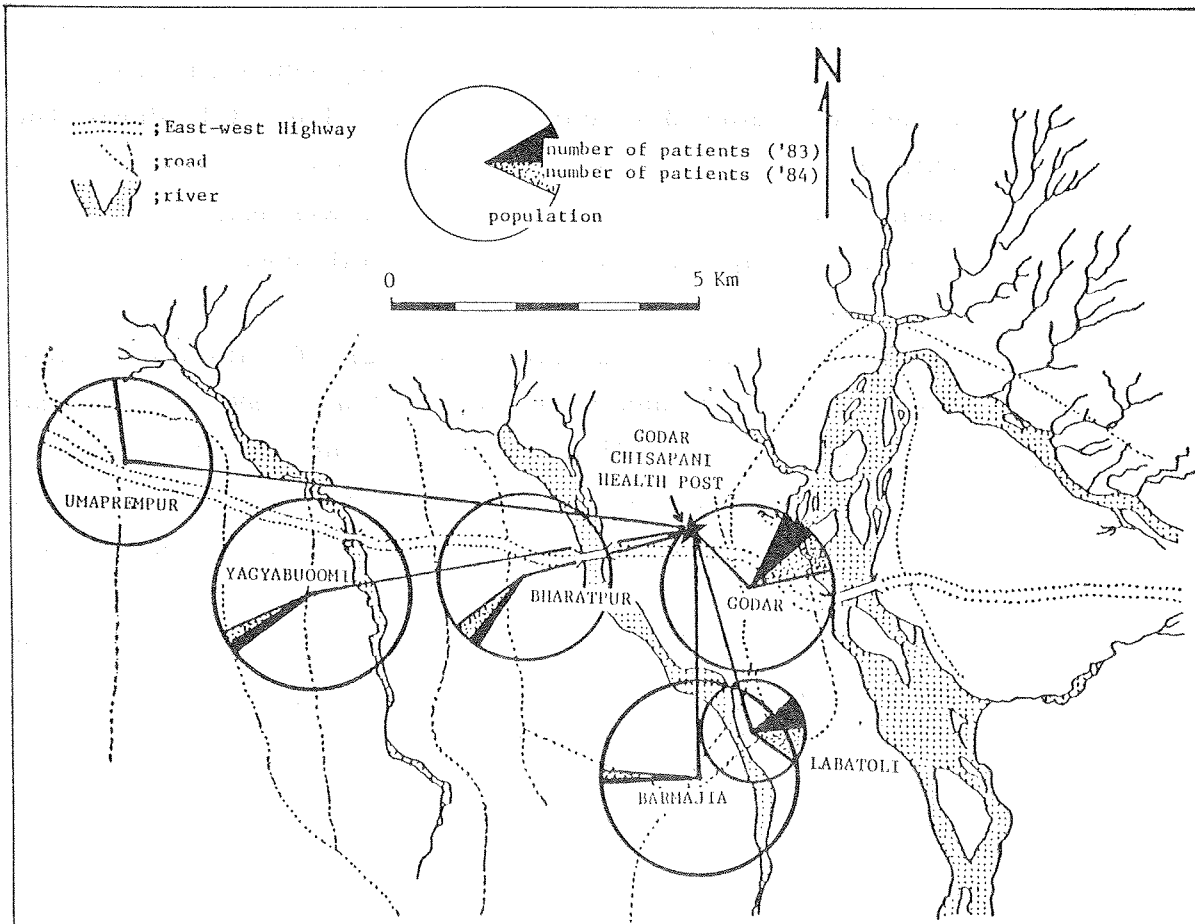
Fig. 3-1 How a Health Clinic is utilized, Dhanusha

ii. Map of Health Post and Vicinity

Figs. 3-2 and 3-3 show maps of health posts and vicinities in Ramdaiya and Sabaila.

According to the information we obtained from villagers, Ramdaiya's adult population (precise definition unknown) is about 4,500. A health post located in the neighboring village is not utilized so often by the residents of this village. When seriously ill, they go to the hospital in Janakpur. An A.H.W. working at the health post in the neighboring village resides in this village and offers medical services including vaccination (1 rupee per vaccination). There are a total of 12 wells (7 of which were investigated) in this village and each well is used by an average 36 households.

Sabaila has an adult population of about 4,500 (estimated total population is 15,000 to 20,000). There are 3 aged persons who are more than 90 years old. Every year about 700 babies are born. Ten children on the average utilizes the health post a day. Children's school attendance rate is about 80% and about 200 students attend the high school located on the outskirts of the village. Most of the villagers think that the health post is useful, but hope that a hospital will be built near their village. (Currently the nearest hospital is located 27 to 30 km away from the village. When necessary, they walk to the hospital.) Diarrhea, dysentery, parasitic diseases (ascaris and tapeworms) and whooping cough are the major diseases in this village. Some villagers contract cholera, typhoid or malaria from time to time. A villager maintained that something should be done about the river running across the village, which spawns flies and mosquitos. Of the 3 wells investigated, an average 55 households use each of them.
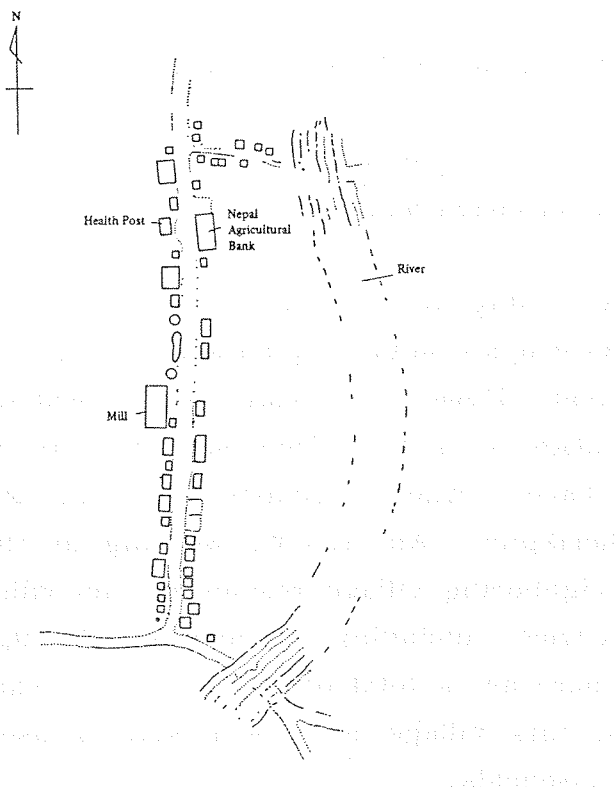
Fig. 3-2　Map of Sabaila Village
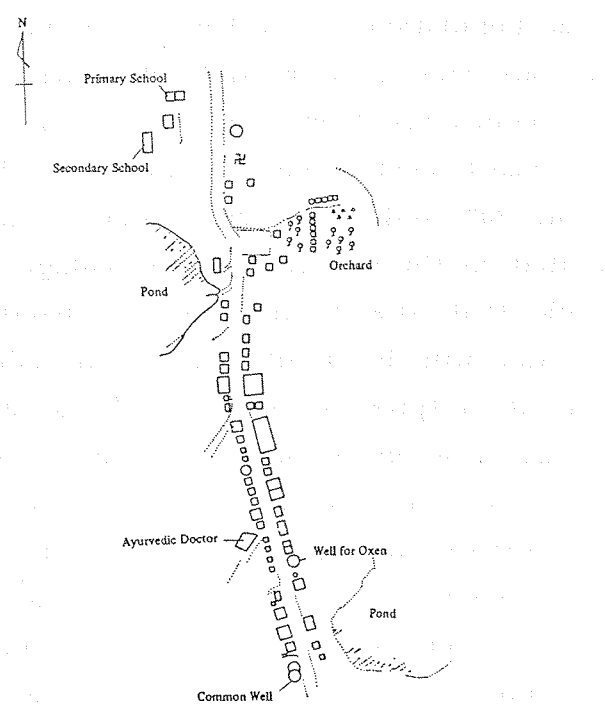
Fig. 3-3　Map of Ramdaiya Village

3) Discussion

Dhanusha District which borders on India is located in the vast subtropical plains of Terai. In the rainy season the rivers rise and the roads are fragmented by floods. Godar is located in the northeastern end of the district, on the East-west Highway.

In this survey the rate of utilization of its health clinic was calculated at 2.4% on the average. It would be difficult to judge the propriety of the rate based on the findings of this survey only. In comparison with Kavrepalanchok District, for example, the rate itself is about one-twelfth that of Kavrepalanchok. But the percentage of patients who come from villages under the jurisdiction of other health posts is very high. It would be possible to evaluate the rate if the morbidity rate in this district is known. But the current medical statistics in Nepal does not cover this aspect of vital statistics. Also it would be impossible to estimate the morbidity rate on the basis of the utilization rate since statistical data on this district's economic condition are unavailable. If we are to investigate the areas covered by health clinics, it will be necessary to investigate all the other health posts and health clinics in this district.

It seems comparison of the utilization rate in each panchayat under the jurisdiction of Chisapani Health Post in Godar will reveal the geographical factors involved. For example, the distance from the clinic may not be the sole reason for the difference in utilization rate. It appears that the utilization rate in Barmajhiya Panchayat where it is necessary to make detours in the rainy season is so small for the relatively short distance from the health clinic. In this respect, we have yet to examine the findings of a future survey to do more precise monthly calculations. It is certain that public works to improve roads and build bridges will greatly contribute to the increase in utilization rate. It should be noted, however, that almost all patients walk or are carried on someone else's shoulders to and

from the health clinic. We found that the utilization rate was higher in Labatoli, a neighboring village, than in Godar where the health clinic is located. This may relate to the economic condition ad sanitary environment in each village. We have yet to investigate this matter in a future field survey.

It will be possible to classify patients' clinical records by types of diseases. In this survey, however, we had no time to investigate the medical services offered at the health clinics in Dhanusha, evaluate them and compare them with those offered in Kavrepalanchok District. Judging from the names of diseases mentioned in patients' clinical records, it would be very difficult to do classification based on a universal criterion (international classification, for example).

(2) Kavrepalanchok District

In this district also we tried to quantitatively evaluate the functions of health posts and health clinics.

The health clinics in this district do nothing more than calculation of the monthly total number of patients (Tables 3-2 and 3-3). In this survey, therefore, we investigated the geographic and demographic areas covered by each health post or health clinic and prepared a map indicating the results of our investigation - how many patients (cumulative total) from each panchayat visit each health clinic during a specific period.

Table 3-2 Changes in Annual Total Number of Patients Visiting Khopasi Health Clinic

	New		Old	
	Male	Female	Male	Female
1980–1981	4,378	3,009	942	663
1981–1982	4,476	2,451	972	601
1982–1983	4,115	2,868	833	551
1983–1984	3,267	2,603	721	660
1984–1985	3,139	2,697	729	755

Source: Patients' clinical records kept at Nala Health Clinic.

Table 3-3 Monthly Total Number of Patients Visiting Nala Health Clinic

(Male/Female)

	New			Old		
	0 – 4	9 – 14	15 –	0 – 4	5 – 14	15 –
January, 1985	14/ 7	18/14	24/34	5/10	4/10	30/35
February	9/ 9	9/11	41/48	0/ 5	6/ 5	38/45
March	10/20	24/26	45/45	9/10	6/16	35/32
April	32/17	35/16	65/71	26/12	15/14	37/53
May	16/23	32/27	77/55	3/ 1	17/11	25/23
June	17/24	29/34	94/57	2/ 5	9/12	56/35
July	24/28	55/55	57/57	9/ 7	17/15	54/41
August	41/43	73/64	91/92	23/ 9	77/50	89/80
September	32/26	62/38	67/89	12/19	39/19	65/71
October	33/23	57/37	74/98	17/15	34/19	57/75
November	10/10	25/21	40/39	7/ 2	14/17	28/58
December	20/36	25/15	31/52	6/ 6	9/12	37/45

Source: Patients' clinical records kept at Nala Health Clinic

Table 3-4 Monthly Total Number of Patients Visiting Panchkhal Mobile Health Clinic

	Number of Patients (Male/Female)			Total
	0 – 4	5 – 14	15 –	
August, 1985	32/22	205/111	288/151	814
September	29/13	204/ 43	238/101	625
October	27/17	172/ 50	243/154	643
November	7/ 9	45/ 18	102/ 53	234
December	12/ 8	65/ 26	132/ 72	314

Source: Patients' clinical records kept at Panchkhal Mobile Health Clinic

We complied new data on the basis of existing raw data in collaboration with the Nepalese professionals.

Furthermore, we collected or prepared maps of health posts and health clinics and vicinities so that these may serve as reference data for use in future surveys.

1) Subjects of Survey and Survey Methods

    i.   Survey areas

First of all we identified the location of each of the health post and health clinics in Kavrepalanchok District on the maps. Then we indicated the survey areas on the map (see maps in the beginning page of this report). These maps were prepared on the basis of maps used at Dhulikhel FP/MCH Office and more precise ones we obtained later. Khopashi Health Clinic, Nala Health Clinic and Panchkhal Mobile Health Clinic were chosen as survey areas. We regret that we had no time to investigate those health clinics which are attached to other health posts. We prepared also maps of Khopashi and Nala Health Posts and vicinities.

    ii.   Survey method

        a.   We had health post staffers enumerate the names of panchayats covered and mention each panchayat's population reported by the fieldworkers. When no such statistical data were available, we used data provided by Director of FP/MCH Office.

        b.   We had health post staffers cite patients' addresses written in Nepali (some of them were written in English) and kept at each health clinic and the name of the panchayat each patient belongs to.

c.   We calculated the monthly number of patients who visited each health clinic for the period from March to April 1985. Figures for other health posts are classified as "Others."

d.   We then identified the location of each panchayat on the map.

e.   We prepared a map indicating the monthly number of patients, total population, distance from the health clinic and geographical conditions of each panchayat.

f.   We took photos of all the maps used at each health post or health clinic. When no maps were available, we prepared maps based on our own investigation of the health posts and vicinities.

2) Findings

i.   Khopashi Health Post

There are 6 panchayats - Khopashi, Sunthan, Chalal, Balthali, Sankupali and Bhumedanda - covered by Khopashi Health Post. Each panchayat's total population, monthly number of patients, distance from the health clinic (the length of the road from the center of panchayat to the health clinic) and geographical conditions are shown in Table 3-5 and Fig. 3-4. Fig. 3-4 shows each panchayat's population and annual cumulative number of patients.

The ratio of the monthly number of patients to total population in the six panchayats is: 7.2% in Khopashi, 2.4% in Sunthan, 1.0% in Chalal, 4.3% in Balthali, 1.5% in Sankupali and 0.9% in Bhumedanda. The ratio of the number of patients from panchayats covered by other health posts to the total number of patients is 7.4%. A patient who
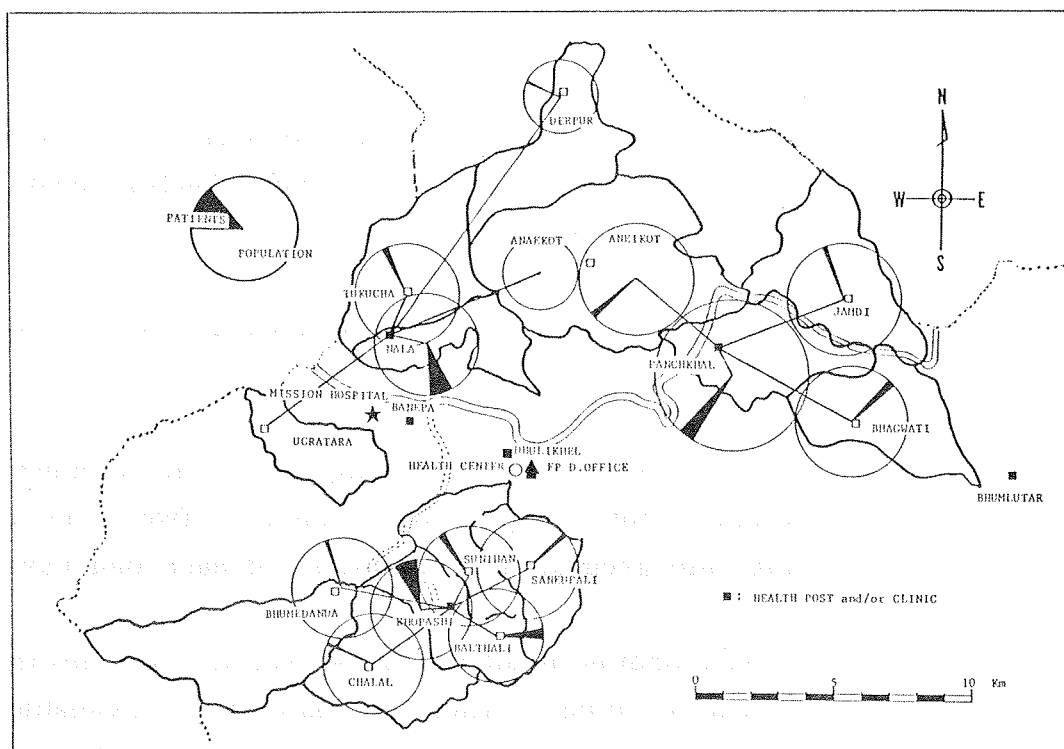
Fig. 3-4 How Health Clinics are utilized; Kavre

Table 3-5 Rate of Utilizationn of Khopashi Health Clinic

Panchayat	Population	Monthly Total No. of Patients*	Distance	Remark
Khopashi	2,767	200	1 km	Located on a low hill.
Sunthan	2,940	72	3 km	Located near the health clinic, but there is no bridge over the river crossing the route.
Chalai	3,495	35	7 km	
Balthali	2,413	104	2 km	
Sankupali	3,176	49	3 km	It is necessary to skirt around fields and mountains.
Bhumedanda	3,040	27	9 km	Located in the western end of the district.
Others	—	39	—	

Source: Patients' clinical records kept at Khopashi Health Clinic.
Population: based on figures reported by fieldworkers a year ago.
* : March—April, 1985.

came from Kathmandu visited the health clinic during her first stay back at old home after her marriage.

ii.   Nala Health Post

We were told that there are 5 panchayats - Ugrachandi - Nala, Tukucha Nala, Derpur Naya, Anaekot and Ugratara - covered by Nala Health Post. Each panchayat's population, monthly total number of patients, distance in a straight line between the center of panchayat and Nala Health Clinic and geographical conditions are shown in Table 3-6 and Fig. 3-4. We were unable to obtain the figure for Ugratara's population (this panchayat is isolated geographically). Since Nala Health Post does not keep records on each panchayat's population, we used the figures provided by FPO..

The ratio of the monthly total number of patients to total population in the 4 panchayats is: 7.1% in Ugrachandi Nala, 2.0% in Tukucha Nala, 0.35% in Derpur Naya, and 0.0% in Anaekot. The ratio of the number of patients from panchayats covered by other health posts to the total number of patients is 1.6%.

iii.   Panchkhal Health Post

There are 4 panchayats - Panchkhal, Bhagwati, Aneikot and Jamdi - covered by Panchkhal Mobile Health Clinic. Each panchayat's population, monthly total number of patients, distance from the center of panchayat to the health clinic and geographical conditions are shown in Table 3-7 and Fig. 3-4.

Table 3-6 Rate of Utilization of Nala Health Clinic

Panchayat	Population	Monthly Total No. of Patients*	Distance	Remark
Ugrachandi Nala	3,200	227 (255)	0 km	Located at the foot of a mountain.
Tukucha Nala	3,022	59 (80)	2 km	Located at the back of a mountain.
Derpur Naya	1,710	6 (8)	11 km	It is necessary to cross or skirt around a mountain.
Anaekot	1,500	0 (3)	7 km	It is necessary to cross or skirt around a mountain.
Ugratara	?	11 (23)	5 km	Geographically isolated.
Others	—	5 (3)	—	

Source: Patients' clinical records kept at Nala Health Post.
Population: based on FPDO's data.
* : March—April (April—May) (1985)

Table 3-7 Rate of Utilization of Panchkhal Mobile Health Clinic

Panchayat	Population	Monthly Total No. of Patients*	Distance	Remark
Panchakhal	6,689	223	1 km	Located in a flat area.
Bhagwati	3,227	52	7 km	
Aneikot	3,565	52	5 km	Located on a highway.
Jamdi	3,942	36	5 km	Located on a highway.
Others	—	73	—	

Source: Patients' clinical records kept at Panchkhal Mobile Health Clinic.
Population: based on figures reported by fieldworkers 2 years ago.
* : March—April (1985)

The ratio of the monthly total number of patients to total population in the 4 panchayats is: 3.3% in Panchkhal, 1.6% in Bhagwati, 1.5% in Aneikot and 0.9% in Jamdi. The ratio of the number of patients from panchayats covered by other health posts to the total number of patients is 16.7%.

iv. Maps of the health posts and vicinities

Figs. 3-5 and 3-6 show maps of Khopashi and Nala Health Posts and vicinities. Fig. 3-6 was prepared on the basis of a map of Nala Village the existence of which was pointed out by Mr. Prakash who collaborated with us in investigating Nala Village.

Panchkhal Mobile Health Clinic is utilizing a picture map of the village in its medical services to residents of the panchayat.

Fig. 3-5 Map of Khopashi Health Post and Vicinity
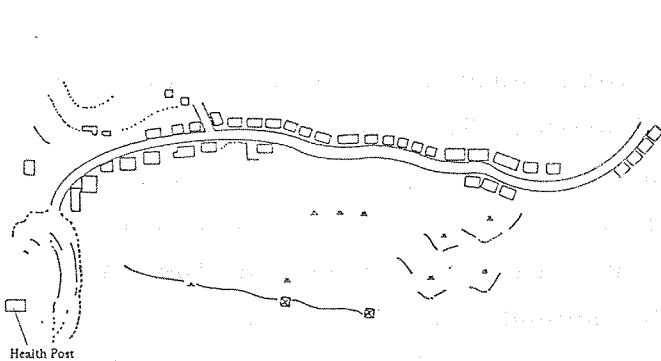
Fig. 3-6 Map of Nala Health Post and Vicinity

Health Post

Primary School

High School

Way to Banepa
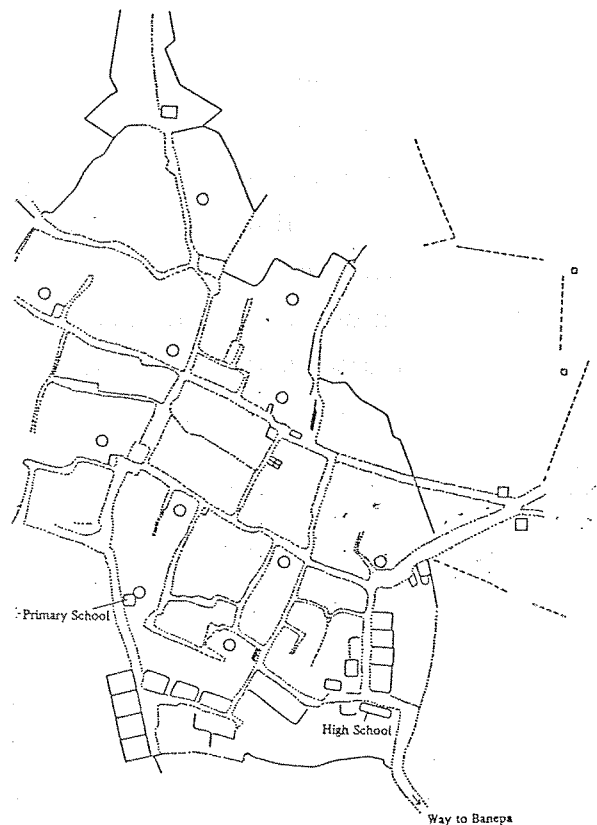
3) Discussion

Kavrepalanchok District is located in undulating hills in the eastern part of the Kathmandu Basin. When visiting the health post by car, we saw terraced fields and shelf fields, and the Himalayas appearing between them, from the car window. Khopashi Health Post covers the panchayats located in the mid-western end of the district (near Kathmandu), Nala Health Post those located in the northwestern pat of the district (near Bhagdapur) and Panchkhol Health Clinic those located in the mid-northern part of the district. Khopashi Health Post is located on a gently-sloping hill, Nala Health Post at the foot of a mountain in a vast valley and Panchkhal Health Clinic in the center of a flat area. It was interesting to notice that each of these facilities is located on the outskirts, not in the center, of the village (the same is true of Godar Health Post in Dhanusha District).

The ratio of the monthly total number of patients to total population was 2.7% in Khopashi, 3.1% in Nala (excluding Ugratara) and 2.1% in Panchkhal, the average being 2.6% (S.E.: 0.37). How these figures should be evaluated is a very difficult question. The monthly facility utilization rates for the three clinics are equivalent to the annual utilization rate for Godar Health Post in Dhanusha. But it is irrelevant to reach a final conclusion without investigating the economic background, hygienic environment, morbidity rate, etc. of the two districts. Similarly, it is not so easy a task to make comparison of the three health clinics in Kavrepalanchok District. For example, Panchkhal Health Clinic, which is not open all the year round, has lower monthly utilization rates than other clinics. But it has the highest ratio of patients from panchayats covered by other health posts to the total number of patients. Nala Health Clinic has the highest average utilization rate, but the utilization rates in the panchayats covered by this clinic differ widely. This clinic is used almost exclusively by patients from two Nalas.

This may be because Nala Health Clinic is located so far away from Derpur Naya and Anaekot and in addition it is necessary to cross or skirt around a mountain to reach the health clinic. The opposite is the case with Panchkhal Health Clinic which is located in a flat area.

In this survey we were unable to investigate the health clinics in Banepa, Dhulikhel and Bhumlutar. It is necessary to investigate these clinics in order to examine all the areas covered by health posts and health clinics in Kavrepalanchok District.

Lastly it should be noted that at Panchkhal Mobile Health Clinic statistical data are classified by types of diseases based on ICD.

2. Interview Survey in Model Areas

(1) Dhanusha District

1) Method of selecting samples

In conducting a home visit interview survey in Dhanusha District, we tried to find out problems from the viewpoint of the users of medical services.

(a) In Janakpur the residents tend to utilize medical facilities located in the village rather than a health post near the village which provide insufficient medical services. There are many medical facilities - Janakpur Hospital (50 beds), private clinics and pharmacies - in Janakpur, which seems to explain the low health post utilization rate.

(b) By contrast, it appears that health posts are very important medical facilities in places far away from Janakpur.

(c) It seems that the villagers tend to utilize medical facilities other than health posts in a village located halfway between

two health posts.

We selected samples on the basis of the three points mentioned above.

We selected 4 households in Ramdaiya Village in terms of (a), 7 households in Sabaila Village in terms of (b) and a household in Barmajiya Village in terms of (c). As this was a short-term survey we selected a relatively small number of samples in this survey, and the questionnaire of this time was used as a kind of pre-test.

In the next section, some of demographic indicators and location of the village surveyed and the findings of this survey are described.

2) Findings of survey

   i. Ramdaiya Village, Ramdaiya Panchayat

       Population: 4,122
       No. of households: 754
       No. of cases of sterlization: 161
       No. of the households surveyed: 4

       (Location)
       12 km away from Janakpur

       (Findings of Survey)

       The findings of the survey of the 4 households are as shown in Table 3-8. The households surveyed are three households owning land (8 bigha, 3 biga and 0.3 biga) and a household engaged in peddling. The unit of land area in Nepal varies from one region to another, but in Janakpur 1 bigha is equal to 0.7 ha. As anticipated at the time of

Table 3-8 Findings of Survey (Ramdaiya)

	(a)	(b)	(c)	(d)
No. of family members (Figure in parentheses indicates no. of children)	8 (4)	5 (3)	7 (2) Living with brothers and sisters	6 (4)
Occupation (Figure in parentheses indicates size of landholding)	Farming (8 bigha)	Farming (3 bigha)	Carpenter Land (0.3 bigha)	Commerce (Selling POP rice)
Education Husband Wife Sons Daughters	Literate with no education Illiterate Education suited for school age Illiterate	Completed 4-year course Illiterate Education suited for school age Illiterate	Illiterate Illiterate Education suited for school age 	Illiterate Illiterate Education suited for school age Illiterate
Source of water supply	Individual well	Common well	Common well	Common well
Lavatory	Not installed	Installed	Not installed	Not installed
Utilization of health post	Not utilized When ill, go to private clinic in Janakpur, when seriously ill, go to India	Not utilized Go to hospital in Janakpur	Not utilized When ill, go to Ayurdedic doctor	Not utilized Obtain drugs from brother working for health post
Medical check-ups of pregnant women	None	None	None	None
Place of child-birth	Home	Home	Home	Home
Infant deaths	2	1	1	None
Family planning Method & source of information	Male: sterilization In mobile camp 10 years ago	Condom PBHW's home visit	Female: sterilization In village sterilization campaign	Female: sterilization PBHW's home visit

selecting the villages to be surveyed, in Ramdiya near Janakpur the health post utilization rate is low. They scarcely go to health post.

As regards family planning, PBHW's activities and the mobile clinic are playing an important role. The residents' educational level is low. They scarcely read periodicals or newspapers. Being so poor, they cannot afford to listen to radio broadcasts. Thus PBHW's visits to explain about family planning seem to be exerting a great influence on them.

As to MCH, on the other hand, pregnant women are not accustomed to receiving regular medical examination until the time of delivery. At the time of delivery, the traditional midwife is called in. But when the traditional midwife is absent, some member of the family acts as attendant. Even from this limited survey, we could conclude that in this village pregnant women's health care and medical services do not prevail so well.

As to the source of water supply, it differs widely according to the size of land holding (here area of land holding can be considered an economic indicator). The household owning land of 8 bigha owns an individual well for its exclusive use. In Dhanusha the average per capita land holding is 0.21 ha.[6] By this standard, the households (a) and (b) own the average size of land.

During this survey several villagers always accompanied us. But women strictly observe the custom of "parda" and hide themselves somewhere in the house when a stranger comes. So it was very difficult to interview women in this survey. As is clearly shown in Table 3-8, there is a clear difference between males and females in educational level. At the household (a), the head of the household has opinion that it

is not necessary to have female members get higher educa-
tion because they usually marry early. Also this household
is reluctant to let its female members go out even for educa-
tion. It should be noted, however, that economic factors
are not necessarily the reason for the low level of women's
education. As mentioned above, the household surveyed are
quite affluent households in Dhanusha. They are simply
conservative and cliquish as far as education of women is
concerned.

There is a point to be noted as to the age of marriage.
That is, the age of infant marriage does not necessarily
means the age at which their married lives begin. For some
time after infant marriage the married infant couples live
separately from each other. Thus it is hasty to consider
the age of marriage one at which married females' repro-
ductive age starts. It is essential to bear this in mind
when asking a married woman her age of marriage.

ii. Sabaila Village, Sabaila Panchayat

Population:	5,957
Male:	3,065
Female:	2,892
No. of households:	952
No. of cases of sterilization:	145
No. of households surveyed:	7

(Location)

It is two hours by car from Janakpur to this village (58 km
on the trunk road and 30 km on the village road). It was
in the dry season that this survey was conducted. The
village road was so slippery that it was very difficult to
drive on it. But the river was so low that it was easy to
cross the river. In the rainy season (June-September) the

river rises so high that it is very difficult to visit the village in that season.

(Main Facilities)

Medical facilities: Health post, FP/MCH clinic. Sub-
                         center, Ayurvedic Clinic was closed
                         when we visited the village because
                         it was the harvest season.

Educational facilities: Primary school;   1
                         Middle school; 1
Bank: 1

(Findings of Survey)

In this survey our Nepalese counterparts also conducted an interview survey of 4 households on their own. Thus we could obtain a total of 7 samples in this village. In Sabalia the villagers' residential blocs are classified according to social status (caste). In the map of Sabaila Village, which was shown in Fig. 3-3 in 1. of this chapter, the area on the south of the health post is inhabited by people of rather low caste such as shoemakers and agricultural workers and the area on the north of it by people of high caste. Of the 7 households surveyed, 6 are engaged in farming. Three households are land-owners and the remaining three are agricultural workers. In the survey conducted by our Nepalese counterparts, some questions remained unanswered due to inadequate prior explanation. In this survey the difference as shown in Table 3-9 was noticed between the landowners and the agricultural workers. As was the case with our survey in Ramdaiya Village, there were differences in source of water supply, concept of vaccination, reception of medical care services, etc. according to the size of land

holding. More affluent households are more receptive to medical care services, vaccination and so on. In Sabaila Village which is located far away from Janakpur, PBHW's activities were not so conspicuous as in Ramdaiya Village. Two FP/MCH Health Aids are stationed in this village. They offer medical care services once a week at FP/MCH Clinic (45 patients on the average in a clinic day) and conduct house-to-house visit for the rest of weekdays.

Table 3-9 Findings of Survey (Sabaila)

	Landowner	Agricultural worker
Electricity	Not installed	Not installed
Lavatory	14 bigha: installed Ohters: not installed	Not installed
Source of water supply	Individual well	Common piped water, common well
Place of childbirth	14 bigha: medical facility 5 bigha: home/lady H.W. 3 bigha: home/lady A.H.W.	Home/traditional birth attendant
Vaccination	14 bigha: small pox, BCG 3 bigha: DPT 5 bigha: did not have children vaccinated but want to have grandchildren vaccinated.	None
Family planning	Only one household (sterilization, parents of 3 sons and 2 daughters)	None
Place of purchases	Foods: in village Others: in the nearest town	In village (clothes and so on are provided by landlord.)
Health post	Utilized sometimes. When seriously ill, go to Janakpur Hospital.	Used only once. Prescribed same medicine at every diagnosis./Go to private clinic.

iii. Barmajhiya Village, Barmajhiya Panchayat

Population:	3,667
Male:	1,967
Female:	1,700
No. of households:	707
No. of cases of sterilization:	78

(Location)

This village is located 4 km away from Godar Health Post and 5 km away from Sabaila Health Post. It is 2 hours' walk from the trunk road to this village.

(Main Facilities)
Primary school: 1

(Findings of Survey)

We had only one sample household in this survey. However, we could have interviews with an Ayurvedic doctor, the Panchayat pradhan and Panchayat secretary in this time. The questions we asked of the Ayurvedic doctor were important in collecting information on the medical care services in villages located halfway between two health posts and their residents' attitude to medical care services. Also the questions we asked of the Panchayat secretary were important in collecting information on the data collection system in the smallest administrative units (data on live births and deaths).

(a) Interview with Dr. Sakldo Prasad Singh, an Ayurvedic doctor

Dr. S.P. Singh was born in India and obtained a degree from Ayurvedic College Patna, Bihar in 1951. In 1954 he

started practice in Barmajhiya Village at the villages' request, and 15 years ago he acquired Nepalese nationality. Currently he covers 10 to 11 villages.

He examines or treats 10 to 15 patients a day. He makes house calls even on patients living 6 to 7 km away. Dispensing is separated from medical practice. A pharmacy in Ragnatpur is 2 km away from this village and villagers have to get drugs there. Doctor's fee is 10 Rs. According to Dr. Singh, half of the village's total population are utilizing the health post and the remaining half are utilizing his clinic. He also told us that the health post's medical care system in insufficient and that serious cases are sent on to Janakpur Hospital or private clinics there.

Dr. Singh has 3 sons and 4 daoughters. Two daughters who are married live separately. Regarding education of his children, he gives his sons to college level education and his daughters to secondary level education. In comparison with other households in Dhanusha, he is more liberal about education of daughter. It seems that the role of fathers who have the decision on education of children is quite important in raising the educational level of youngsters.

(b) Interview with Mr. Ramendradeep Dhakal, Panchayat pradhan

Mr. Dhakal, now serving his first term as Panchayat pradhan, said that the most important problem facing Barmajhiya Village is how to cope with floods as a result of the Charnath River overflowing its banks.

(c) Interview with Mr. Jainandan Duvey, Panchayat secretary

Mr. Duvey participated in the 1981 census as an

enumerator, conducting interview surveys. Prior to the start of interview surveys, he received guidance in district Panchayat, and then conducted interview surveys checking the questions and answers against those in the 1971 census. According to him, it takes about 20 minutes to interview a household.

(On Vital Statistics)

Barmajhiya Village introduced the vital registration system 4 months ago. Up until December 1985, 5 live births were registered (according to Dr. Singh, there were 15 to 20 births during the past 4 months). As data from Vital Registration office 7,885 births were registered in 1984 in Dhanusha. From this figure we get a crude birth rate of 18.23^{O}/oo. According to various sample surveys, the average birth rate in Nepalese rural area is about 40°/oo. Then it follows that in this village about one-third of actual births are registered. If Dr. Singh's observation is right, one-third to one-fourth of actual births are registered in this village. It can be said that this fact reflects the whole picture of birth registration in Dhanusha District. It is those who want to acquire Nepalese citizenship and the affluent class that register births. One must have citizenship to be a government employee or to have his land registered. In other words, those who need citizenship are people of high educational level, or people of affluent class. This means that all other people are indifferent to birth registration. A penalty is only 1 Rs. for the delay in registering (within 35 days).

(d) Findings of the home-visit interview

The subject of this survey was a landlord who owns land of 25 bigha. Although prohibited by law, he has two wives. In his first marriage he had no child for 7 years. So he

married another woman. But later both wives bore him children. The first wife gave birth to 3 sons and 3 daughters and the second wife a son and a daughter. The two wives live together now. In Nepal where men only have inheritance rights, there are remarriages because of no childbirth. In the case of this survey, it seems he remarried because of the problems of inheritance. He underwent sterilization 12 years ago.

3) Points Specially Noted in Conducting the Survey

In Barmajhiya village, we first interviewed a Panchayat secretary to have an overview of the village. It is necessary to interview a key person in the village first in order to know outline of the village and the information collection system in the village.

It is of important to prepare questions to be asked of husbands only and those to be asked of wives only. For example, questions related to living conditions, assets, sources of information and development scheme should be asked of husbands only and those related to health, MCH and so on of wives only. In this way we can obtain more accurate replies.

When asking the respondent (his or her) age, ask questions in the checklist one after another to confirm the respondent's age. For example, the respondent's age of marriage and birth date should be confirmed after the ages of the householder and h is wife were confirmed. Also the difference between the age of infant marriage and the age of actual marriage should be noted. Furthermore, when the respondent's age of first childbirth is so low, it is necessary to reconfirm her present age. As regards the educational level of the respondent, it often happens that his or her school age does not coincide with his or her grade. In such case, it is necessary to see if it is due to the respondent's failure in examination or if the respondent's knowledge of his or her own age is wrong.

In Nepal where an registration system is not implemented well, it is one of the most difficult tasks to confirm the respondent's age. According to an ESCAP report, only 13% of all married women knew their accurate dates of birth. So it is necessary to know the respondent approximate age by asking questions as mentioned above.

(2) Kavrepalanchok District

1) Method of selecting samples

In Kavrepalanchok District, Nala Village is already chosen as pilot area in the FP/MCH project. Accordingly, in this survey, Health Posts in Khopasi and Panchical and their surrounding villages were chosen as samples in order to compare with the facilities and utilization of Health Post in the pilot area.

2) Findings of Survey

i. Nala Village, Nala Panchayat

Population: 3,200
The Panchayat consists of Ugrachandi Nala Village and Tukucha Nala Village

No. of households surveyed: 3

(Location)

It takes 30 minutes by car from Banepa to this village. The roads are not in good condition. One-third of the total number of roads connecting this village to Banepa were constructed by the villagers. The Health Center is located 7 km away and Scheer Memorial Hospital 4 km away.

(Main Facilities)

Health post: 1, Primary school: 1, Middle school: 1
There is a 17-member committee responsible for maintenance
of the health post.
The health post covers a population of 32,000 to 40,000.
Major villages covered by it are:

Ugrachandi Nala Village	0 km
Tukucha Nala Village	2 km
Devpur Village	10 km
Chhap Panchayat, Bhaktapur	4 km
Janagal Village, Ugratara Panchayat	3 km

(Findings of Survey)

Nala Village mainly consists of newar and many joint families
reside. Most of the houses in this village are 3- or 4-story
brick ones. The first floor of the brick house is usually
used as pen and fodder shed. The second and third floors
are for bedrooms and storage of crops. The uppermost
floor is used as kitchen where "fire" is used. "Fire" is
regarded as a sacred thing.

(Findings of Interview Survey)

The three households surveyed are "joint" or "stem" family.
In the case of "stem", the basic family consists of three
generations a lineal ascendant. In the case of "joint," the
basic family consists of families of more than two married
brothers. In the two "joint" households surveyed, the
householders' second sons had succeeded them in the busi-
ness. It is impossible to consider this small number of
samples the whole picture of Nala Village. Among the
married brothers in joint family they seemed to have each
kitchen according to our few samples.

Table 3-10   Findings of Interview Survey of Nala Village

	Household (1)	Household (2)	Household (3)
Form of family	Joint	Joint	Stem
No. of family members	17 (9 children)	22 (18 children)	7 (4 children)
No. of married couples' households	3	2	1 (Mother is a widow.)

Education	Husband:
	  No reply
	Wife:
	  Illiterate
	Children:
	  Education for own
	  school age
		Parents are illiterate.
		Children:
		  Education for own
		  school age
			Eldest son:
			  Secondary education
			Second son:
			  Can only read, farming

Occupation, landholding	Priest, 8 ropani	Farming, 55 ropani	Farming, 12 ropani
Sources of information	Newspaper, radio	Newspaper, radio	Radio (sometimes)
Infant deaths	2	3	None
Place of childbirth	Home (hospital for one child)	Home (traditional midwife)	Home (family member, traditional midwife)
Vaccination	Small pox, DPT, Polio, GCG	DPT, Polio	DPT (only one child)
Source of water supply	Common well	Individual well	Common well
Family planning	No reply	No reply	Sterilization (female)

As shown in Table 3-10, electricity is installed in all the three households, but none of them have lavatory. We were told that they pay about 15 Rs. electricity charges a month. Two of the three households surveyed are rather rich. Each household gives education to their children according to their age and ability - up to university level. They mentioned "newspaper" as one of the sources of information, which was not observed in our survey in Dhanusha. On the

other hand, at poor families which cannot afford to sub-
scribe to newspapers face to face communications play an
important role. Therefore, fieldworkers' home visits and
travelling services are most effective in promoting FP/MCH
projects.

ii. Khopashi Village, Khopashi Panchayat

Population: 2,336
No. of households surveyed: 2

(Location)

There is a village called Panarti about 10 km away from
Dhulikhel. This village is a little larger than Khopashi
Village. Next to this village there is a river with no bridge
over it. Khopashi Village is located about 2 km away from
this river. Khopashi Village is a rather small village, but
in this village a water power utilization project, a seri-
culture project and so on are being carried on.

(Main Facilities)

Health post, FP/MCH clinic, a primary school, a middle
school, a high school and a English boarding school

(Findings of Interview Survey)

The main findings of the two households surveyed are shown
in Table 3-11.

Table 3-11   Findings of Interview Survey in Khopashi Village

	Household (1)	Household (2)
No. of children	2	7
Occupation and land-holding	Farming/7 ropani	Government employee, Farming/22 ropani
Place of childbirth	Home (family)	Home/hospitals (2 children)
Source of water supply	Common well	Drinking water/Common well Washing, bath/Piped water
Vaccination	DPT, Polio, BCG	DPT, Polio, BCG, Small pox
Family planning	Sterilization (5 years ago)	None

The head of the household (1) is a government employee. The household's land of 22 ropani is usually cultivated by husband's and wife's mothers and wife. In the busy season agricultural workers are hired (20 Rs. a day) for cultivating the land. The husband and wife have a son and 5 daughters. As they got a son now, they intend to undergo sterilization in the next mobile camp. They come to know the knowledge of family planning through other villagers. The eldest daughter is 16 years old and is now receiving education suitable for her school age. The household uses the common well 2 to 3 times a day. Bringing water from the well is a role of children. Their home is less than 1 km away from the health post. Since it is short of doctors and drugs, they usually go to hospital in Kathmandu when they fall ill.

iii. Tamagha Village, Panchikhal Panchayat

Population: 5,699

(Location)

This village is located 10 km away from Dhulikhel. The main road is in good condition. It is paved as far as Panchikal.

(Findings of Survey)

Panchikhal Health Post covers 4 panchayats. Population of each panchayat is as shown in Table 3-12.

Table 3-12   Populations of Panchayats Covered by Panchikhal Health Post

Panchayat	Population	No. of households	No. of wards	F.P.O.*
Panchikal	6,689	1,161	23	5,699
Hoksay	3,327	509	19	2,600
Anekot	3,565	623	21	1,500
Jyamdi	3,924	747	24	2,914

Note: * ; Figures provided by Family Planning Officer.
The other figures were provided by the health post in charge.

As Table 3-12 shows, the figures provided by the health post in charge differ from those provided by Family Planning Officer. The former were calculated on the basis of fieldworkers' reports and patients' clinical records, while the latter were calculated on the basis of the number of panchayats which was revised based on the 1981 census. It seems difficult to know the accurate population covered by the health post. Each health post is endeavoring to have a clear grasp of the population of each village on the basis of the findings of surveys conducted by fieldworkers. At district level, the following steps are taken to have an accurate population.

(1) Voters' lists used in elections

(2) Population calculated in censuses

(3) Lists prepared at FPO on the basis of reports from each health post and fieldworkers

As the above figures are all unofficial, further examination should be required.

(Findings of Interview Survey)

The household surveyed consists of husband aged 35, wife aged 28 and two daughters. They live together with the husband's mother. Their 2-storied house has 2 rooms. The first floor is for cattle. They own land of 7 to 8 ropani. Since revenue from land is not enough, husband and wife work as agricultural workers or sell milk to make up for the budget deficit.

As to family planning, they are not planning birth control since they have now daughters only. The wife gave birth to two daughters at home, attended by the husband's mother. As to vaccination, they said that they had their daughters vaccinated when a fieldworkers visited their home, and that they did not know what kind of vaccination it was. They utilized the health post only once. On that occasion, health worker advised to keep their children's bodies clean. When seriously ill, they go to Banepa Hospital.

3) Points specially noted in conducting the survey

Since many households in Nala Village are composed of extended families, the number of the members of a household is abot 20 on the average. It is possible to identify the household living together by identifying the household using a common cooking stove. In the households surveyed, the hoseholders' second sons seemed to have succeeded them in the business. It seems

desirable to ask first questions about the family members' respective roles and the form of the family and then ask questions about the family member(s) responsible for taking care of children and their education. Furthermore, if the family is engaged in farming, the family members' respective roles in farming and the family's collaboration system. In Dhanusha, a conservative and cliquish attitude to education of women is prevalent. In comparison with this it appears that Kavrepalanchok enjoys a somewhat higher educational level of women. But educational level in Kavrepalanchok is low and there are so few sources of information as in Dhanusha. Under the circumstances it seems face to face communications, mobile camps and fieldworkers' home visits are contributing to FP/MCH. In measuring the rate of medical check-ups of pregnant women, rate of medical check-ups of children, rate of immunization of the 9 indicators as the ultimate goals, it will be necessary to prepare questions about the current state of these activities.

(Notes)

(1) Central Bureau of Statistics, Population Census 1981 Social Characteristics Table, Vol. I, Part II. 1984.

(2) Aryal, Deepak and others. eds., Nepal District Profile A Distinctive Socio-Techno-Economic Profile of Nepal, National Research Associates, 1982, Kathmandu, p. 167.

(3) JICA, Preliminary Survey Report on Population and Family Planning in Nepal, June 1985.

(4) Terai is a malaria-infected area, which has caused the high death rate in this area. In December 1958 the Maralia Eradication Office started its effort to exterminate malaria through exhaustive home visits. In Dhanusha a total of 95 Malaria Eradication Offices were established and during the peak period fieldworkers visited as many as 100 households a day. When malaria fieldworkers visited a household, a mark certifying to the visit was put on the wall of the house. This activity was at its peak until around 1969. Currently, fieldworkers visit only those households which have malaria patients. It appears that the

home visit investigation was conducted so scrupuously. So the data collected in those days were reliable. Now that this activity has been scaled down, however, it is very difficult to obtain satisfactory data through this activity.

(Information on MEO was obtained through an interview with Mr. Kaladar Jha, MEO, Dhanusha.)

(5) Nepal FP/MCH Project, Nepal Contraceptive Prevalence Survey Report 1981, p.123.

(6) Aryal, Deepak & others, op. it, p. 162.

(7) "Parda" is a Persian word meaning "curtain or screen." In this region the word means the custom of separating women.

(8) ESCAP, Population of Nepal, 1980. p.198.

Chapter 4

AVAILABILITY OF HOME VISIT SURVEY

CHAPTER 4 AVAILABILITY OF HOME VISIT SURVEY

1. Stratified Sampling

In conducting a survey of the households in the model area, it is necessary to have the local characteristics of Nepalese rural area reflected in it. For example, if such factors as caste, ethnicity, educational background and landownership which greatly affect their daily lives are identified, it is desirable to stratify (divide into groups) the residents based on these factors and then sample each group. If a group is classified into several subgroups, the standard deviation for each subgroup is made small enough, and then each subgroup is sampled, the sampling error can be small enough. And if the sampling error is small, the number of samples can be small.

2. Census in the Pilot Area

(1) It is desirable to select a specific area indicating several local characters and analyze the factors related to the residents' acceptability to health services - such as the degree of utilization of the health post or a hospital, reasons why some of the residents have not utilized health services despite their actual bad bodily condition and whether or not they were able to meet their needs as a result of utilizing the health post or a hospital.

When a sample survey of a structure as mentioned in 1. is to be conducted, it is necessary to know to what extent Nepalese counterparts will cooperate in each of the selection, training, supervision and transfer of the investigators to conduct the survey. Furthermore its reliability may vary depending on the amount of the time and funds required, causing the problem of sampling error. In order to obtain more accurate data, we may plan and implement a census for the purpose of, for example, preparing a resident registration. Nala panchayat's population as calculated by Dhulikhel FPO District Office is 3,200. According

to the 1981 Census, the average number of household in Kavrepa-
lanchok is 6.2. Thus the households to be surveyed will be
about 500. If additional data for comparison are needed, a
similar complete population survey may be conducted like Devur
village which is also covered by Nala Health Post or a village of a
similar population which is located near Khopashi Health Post or
Panchkhal Health Post.

In such a case, there will be no sampling error. But the follow-
ing preliminary work will be necessary in order to obtain more
accurate data.

   i.   Preparing a map

       The map of Nala village is shown in Chapter 3. But it is
       insufficient because the map was prepared in so short a time
       at this time. It is necessary to prepare a more
       accurate map on which residences are plotted.

   ii.   Confirming each residence's location

       Each household location should be confirmed and each
       household should be given a household number. It will be
       best if a household number label is pasted on the wall of
       each house. The survey should be conducted in the form of
       a census to prepare a resident register based on the map
       prepared beforehand.

   iii.   Preparing a chronological table of big events for the
       purpose of confirming the respondent's age

       As mentioned earlier, it is very difficult to know the
       respondent's correct age. But it is probable that many
       residents remember their own birth dates in relation to the
       date of flood, fire, drought or the King's enthronement. So

it is advisable to prepare a chronological table of big events during the past 60 years. The investigator can confirm the respondent's correct age by positioning the respondent's birth date relative to the big events in the table which he or she remembers so well.

3. Examination of Questionnaire for Home Visit Survey

In conducting a home visit interview survey on population and vital statistics, it is essential to examine closely the questions to be asked in the survey. In this connection, we would like to propose, on the basis of the problems we noticed of this survey, that the following questions should be added in future surveys.

As regards MCH - health services to expectant and nursing mothers in particular, we have obtained a questionnaire which was once used at a hospital in the Kingdom of Nepal, which seems to have been prepared on the basis of an accurate grasp of the actual situation in Nepal.

It is desirable to investigate the following in order to obtain accurate figures for population and vital statistics. Some of these were included in the questionnaire used in this survey.

1) Household structure: see "Household" in the questionnaire.

After the number and names of household members have been confirmed,

i. date of birth,
ii. sex,
iii. age, and
iv. relation to the head of household should be confirmed.

On the basis of the figures for the above, we can obtain figures

for sex/age distribution of population, average number of household, 3-age group distribution of population (young age population, productive age population and old age population), population pyramid, sex ratio and so on.

3) Number of conceptions: see "Health Related to Mothers" in the questionnaire.

The number of conceptions does not necessarily coincide with the number of childbirths. The differential means the number of miscarriages or premature childbirths. Also we can obtain figures for live birth rate, stillbirth rate, stillbirth rate by mother's age group, perinatal death rate, sex ratio of newborn, live births by mother's age and malformation on the basis of the figures for live births.

4) Mother's health after childbirth: see "Health Related to Mothers" in the questionnaire.

We can obtain figures for early neonatal deaths, neonatal deaths, infant deaths, child deaths, school child deaths, youth deaths and adult deaths on the basis of the figures for the number of surviving children.

5) Cause of death (date of death, age and sex of each dead family member): a new question to be added.

We can obtain figures for cause of death statistics and crude death rate by asking questions on the cause of death of each dead family member. In confirming the cause of death, however, it is important to confirm who issued the certificate of death. If the cause of death is unknown but the age at the time of death is known, it is possible to calculate PMI (Proportional Mortality Indicator).

6) Place of childbirth (classified by home or medical facility,

qualification of birth attendant): see "Health Related to Mothers" in the questionnaire.

It is possible to know the situation of delivery at medical facilities and the qualification of attendant by asking questions about the place of childbirth (for each child).

7) Divorce (remarriage): see "Household" in the questionnaire.

We can obtain information on maternal deaths by asking questions about divorce (whether or not the previous spouse is alive).

4. Examination of Questionnaire

The points specially noted in the questionnaire used in this survey are referred to in Chapter 3. In asking questions of the respondent, it is necessary to make the questions specific to the respondent. The questions listed in the questionnaire used in this survey should have been divided into those to be asked of husbands and those to be asked of wives, as follows.

1) Questions to be asked of husbands

Living conditions, assets, development scheme, communications

2) Questions to be asked of wives

General health, health related to mothers

It will be more effective to ask questions of husbands first.

We will indicate the points to be noted in future surveys by commenting on the questionnaire we used in this survey, in the following pages.

DESCRIPTION OF THE SURVEY

Name of Village _____

I.　Household:

1-1　　Name of the head _____

1-2　　Present members of the household

name	relation to the head	religion	age	sex	marital status	education	occupation

(Education)

A　None　　　　　B　Primary school 4 years　　C　Primary school 8 years
D　Middle school　E　College and University

(Occupation)

Cultivator: A　Agricultural labour: B　Other wage labour: C　Others: D
Non Worker: E

1-3　　Age of marrige

Husband _____ years old
Wife _____ years old

1-4　　Place of birth

Same village: A　　Same district: B　　Same zone: C

GENERAL HEALTH

(1)   In these 14 days, did you or your family experience any disabled days which you and your family were forced to stay at home and could not work as usual?

        1.   yes _____ enter (2) to (4)

        2.   no

(2)   If so, who?

        state the name and his or her relationship to the head of household

        name: _____ , relationship _____

(3)   How long did it take for your or your family to recover from such condition?

        1.   couple of days
        2.   a week
        3.   two weeks
        4.   a month
        5.   two or three months
        8.   half of year
        7.   more than a year

(4)   How did you or your family recover from such conditions?

        1.   have a rest
        2.   take some drugs
        3.   treated by traditional healer
        4.   treated by nurse
        5.   treated by doctor
        6.   helped by neighbours
        7.   others

(5)   How far is it from your house to health post, health center, hospital, or traditional healer's on foot?

        1.   within one kilometer
        2.   1 to 2 kilometer
        3.   2 to 3 kilometer
        4.   more than 4 kilometer
        5.   more than 10 kilometer

(6)   Have you ever visited health post, health center, hospital or traditional healer?

        1.   yes _____ enter (7) & (8)

        2.   no

(7)   In this one month, how many times have you visited health post? _____ times

health center? _____ times

hospital? _____ times

traditional healer? _____ times

(8)   For what purpose did you visit there?

    1.   treatment
    2.   consultation
    3.   family planning related matter
    4.   others (specify _____)

HEALTH RETAILED TO MOTHERS

(9)   In case of getting pregnant, who diagnosed?

    1.   self-diagnosis
    2.   parent/relatives
    3.   traditional birth attendant
    4.   doctor
    5.   midwife
    6.   others (specify _____)

(10)   How many times did you consult with (doctor, midwife, traditional midwife, others) your last pregnancy?

    _____ times

(11)   Through latest pregnancy, did you experience any abnormal sings and symptoms (swelling, hypertension, proteinuria, vomitting, bleeding, etc.)

    1.   yes
    2.   no

(12)   Did you change your food intake habit during pregnancy?

    1.   yes _____ enter (13)
    2.   no

(13)   What kind of change did you do substantially?

    specify _____

(14) Where did you give birth?

       1.   home
       2.   medical institution
       3.   non medical institution
       4.   others (specify _____)

(15) Who attended at the delivery of birth?

       1.   doctor
       2.   lady health worker or midwife
       3.   traditional birth attendant
       4.   non professional birth person
       5.   others (specify _____)

(16) Have you ever experienced any infant death, that is a child who is 12 months old and less?

       1.   yes _____ enter (17)
       2.   no

(17) How many times?

       _____ time(s)

(18) Have your children ever get inoculated?

       1.   yes _____ enter (18)
       2.   no

(19) What kind of inoculation did they get?

       specify _____

(20) Did you give breast feeding to your last child?

       state the period of breast feeding

       1.   _____ months
       2.   cannot remember

(21) What kind of food did you give the child after weaning from your breast feeding?

       state the food which you have given

FAMILY PLANNING

(22) Do you want more children then you have now?

encircle with applicable number and state reason if any

1. yes reason _____
2. no reason _____

(23) How many children are ideal in your opinion?

state the number of children

_____ sons and _____ daughters

(24) Do you prefer sons to daughters?

encircle with applicable number and state reason if any

1. yes reason _____
2. no reason _____

(25) In your opinion, how much education does a boy/ a girl from a family such as yours need to get along in the world these days?

1. primary
2. secondary
3. university
4. others

(26) At what age would you say sons/daughter usually begin help to parent?

encircle with applicable number and enter the age

1. age: _____ years old
2. never help

(27) Are any of your children working for money?

encircle with applicable number

1. yes
2. no

(28)   What means of financial support do you think you will have when you and your partner are old, or can no longer work for any other eason?

encircle with applicable number

1.   help from children
2.   help from other family
3.   saving/income from business farm or other property
4.   pension/social security
5.   non
6.   others (specify _____)

(29)   Are you practicing family planning now?

encircle with applicable number

1.   yes _____ enter question No. 30
2.   no _____ enter question No. 31

(30)   If yes, since when are you practicing family planning?

state the period of year

_____ years ago

(31)   If no, have your ever practice family planning?

encircle with applicable number and state the reason to do so.

1.   yes   reason _____
2.   no   reason _____

(32)   If you are practicing family planning, what kind of method do you accept?

1.   sterilization
2.   pill
3.   IUD
4.   condom
5.   others

(33)   From where do you get information and tools of family planning?

encircle with applicable number

1.   primary health center
2.   public clinic
3.   public information paper
4.   others (specify _____)

NUTRITION

(34)   How many times do you take meals a day?

_____ time(s)

(35)   What kind of food did you take yesterday?

1.   breakfast _____
2.   lunch   _____
3.   dinner   _____

(36)   What kind of food are you taking regularly and how much do you spend per month?

1.   rice   _____ kg
2.   wheat   _____ kg
3.   milk   _____ kg
4.   others (state the name of food _____)

LIVING CONDITIONS

(37)   Please give details about the houses where you live now.

1.   number of rooms   _____ room(s)
2.   electlified
       1.   yes   2.   no
3.   with toilet
       1.   yes   2.   no
4.   when was it built?   _____ Years old

(38)   What kind of water do you use for drinking?

1.   individual tab.
2.   common tab
3.   individual well
4.   common well
5.   piped water

ASSETS

(39)   Do you and your household members have and land?

1.   yes _____ enter (40)
2.   no

(40) How many acres do you and your household members have in total?

_____ acres

(41) Do you have following goods?

1.	tractor	(1)	yes	(2)	no
2.	plough	(1)	yes	(2)	no
3.	bicycle	(1)	yes	(2)	no
4.	watch	(1)	yes	(2)	no
5.	radio	(1)	yes	(2)	no
6.	television set	(1)	yes	(2)	no
7.	others (specify _____)				

(42) Do you have following cattles?

1.	cow	number
2.	buffalo	number
3.	goat	number
4.	pig	number
5.	chiken	number
6.	others (specify _____)	

DEVELOPMENT SCHEME

(43) Have you or your household member participated in any governmental scheme of rural development?

1. yes _____ enter (44)
2. no

(44) If yes, please explain the details.

(when, which scheme, purpose, amount of the help you got, result ....)

(45) What would you think about the governmental development schemes?

(46) If you are not interested in applying for the schemes, please explain reasons.

1. Scheme is not suitable for your needs.
2. Procedures are too complicated.
3. Qualification are too limited.
4. Information is not enough.
5. Others

(47) Are you participating in Panchayat activities?

    1.   yes _____ enter (48)
    2.   no

(48) If yes, what kind of activities are you participating in?

    1.   panchayat member
    2.   committee member
    3.   others

(49) If you have any type of mutual help arrangements in your village, please give the details. (Such as exchanges of labour in agricultural peak seasons, voluntary works to make/maintain common assets, help on such occasions as marriage/funeral.)

COMMUNICATION

(50) Do you/you household read newspaper/journals?

    1.   regulary
    2.   sometimes
    3.   never

(51) Do you/your household members listen to the radio?

    1.   regulary
    2.   sometimes
    3.   never

(52) What kind of programme do you listen?

    1.   news
    2.   music
    3.   stories
    4.   sport
    5.   others

(53) Do you/your household members go to see cinema?

    1.   more than once in a month
    2.   less than once in a year
    3.   never

(54)	Where do you usually buy necessary items? (mark)

	in the village	near by village	nearest town	other places
food items				
clothes, footwears				
durables				

COMMENT ON THE QUESTIONNAIRE

A chornological table of big events should be used to confirm respondent's age.

(1) Question for obtaining data on mobidity rate.

By presenting a year clalendar, responses should be filled in a calendar.

1) All family members

2) Number of disabled day

(4) When respondent is not use health post, reason for it should be asked.

(5) When it is difficult to expect reply in terms of distance, ask for reply in terms of time. For example, _____ (minutes) on foot

(6) A table which family members visited it can be prepared.

HEALTH RELATED TO MOTHERS

Respondent's age, relationship to the head of household should be confirmed

It is necessary to ask all cases of pregnancy.

(12) - (13)

We could not get suitable replies.

Is it a natural matter? Or are these things not considered so important?

(14) - (15)

Question (14) and (15) should be asked for each childbirth.

(16) - (17)

Since replies to questions (16) and (17) form basic data on infant and child deaths, questions about stillbirth and cause of death for each case of pregnancy should be asked.

(18) - (19)

Questions (18) and (19) should be asked for each child. Questions about the age at the time of vaccination and the place of vaccination should be added.

(20) Question (20) should be asked for each child.

FAMILY PLANNING

Respondent's age and relationship to the head of household should be confirmed.

(22) - (23)

Questions (22) and (23) are designed to ask the gap between the ideal and actual numbers of children. So it is desirable to add a question about the reason(s) for the gap.

NUTRITION

This is an important question for investigating malnutrition, causes of infant deaths and resistance to infection.

(34) As in this survey most of replies included snacks, it is necessary to exclude snacks. This survey was conducted in the harvesting

season, a season of abundant foods. It is necessary to collect information on the average daily number of meals throughout the year.

(36) It was impossible to get replies on monthly food cost. It is necessary to replace this question with a more pertinent one in future surveys. It is also necessary to ask a question about intake of animal and vegetable proteins.

DEVELOPMENT SCHEME

Questions (43) through (49) are designed to investigate residents. human relations and their relationships with the government in their daily lives in the community and their production activities. The questions asked in this survey were originally prepared for use in Indian villages. Since these questions appeared to be too harsh for the Nepalese farmers, it is necessary to prepare more moderate questions in future surveys.

[NEW QUESTIONS TO BE ADDED]

The following question should be added to question (45).

Did a Junior Technical Office (JTD) or any other government officials pay a visit to your house recently?

Yes/No   What Officer?

If the answer is Yes, then please ask what did he (she, they) come for? Was he very helpful to you?

The following question should be added to question (47).

When did you rate for Panchayat election last?

Question (48) should be changed as follows?

What kind of activities did you yourself participate in the village/ward? (such as road repairment, school-building, etc.)

Question (49) ahd better be supplemented as the followings.

In busy season, would you ever help your neighbours to transplant and harvest crops in their field? Do they also help you the same when your areextremely busy?

This is a question to investigate the customs of "yui" and "temagae." Replies to this question will form a good indicator to explain the degree of solidarity of the community members. If these mutal assistant arrangement do not exist, it will be necessary to hire outside farm workers in the farming season. In that case, it is necessary to investigate the cost for it. Thus this question will be also helpful in investigating farmers' in total cost of production.

Hou much did you pay for transplantation/weeding/ploughing-/harvesting?

In addition, questions about payments to child and female labourers, their working hours, their meals and form of payment - payment in kind or payment in cash - can be asked. To investigate the degree of solidarity of the community members, questions about the recent cases of some villagers selling land to others and land prices can be asked. Also, to investigate collaborative working arrangements among villages, questions about joint seeding and joint maintenance and management of water can be asked.

(50) The following question should be asked to investigate the community members' autonomous ability.

What kind of village rules (formal and informal) do you have?

The might have no such rules or be ignorant of them. But most villages have traditional codes of conduct, which are closely related to family planning, MCH and environmental conservation. If they have such rules, a question about the making of the rules - whether they were involved in discussions for establishing the rules or the rules were established by leading persons.

(51) The following question should be asked to investigate the mechanism of conference within the village.

Would you think most members of this village (homlet/word) very friendly to you, and mix very well among themselves?

(52) The above question can be supplemented with the following question about the places of meetings and communications.

Do the member of this village often meet with friends of community center/panchayat office/tea shop/friend's house?

(53) The following question should be asked to investigate mutual assistant arrangement on ceremonial occasions.

Suppose somebody of the village passes away, what would other members of the village do?

Do all the members of the village get together and arrange funneral and help the bercared? Or only limited members go and help the bereared?

(54) The following question should be asked to investigate mutual assistant arrangement in health care.

Chapter 5

SUMMARY

CHAPTER 5 SUMMARY

This basic survey on family planning and MCH is characterized by an interdisciplinary approach embracing demography, health statistics, hygienics, public health and development administration. In other words, this survey is aimed at providing an overview of the current situation of the problems related to the FP/MCH Project by collecting data and information on national and district levels and investigating the actual situation in the Kingdom of Nepal, and evaluating these problems from all angles on an interdisciplinary basis.

As to the demographic statistics, Nepal has data collected through censuses and sample surveys which were conducted in cooperation with, and under the guidance of, the United Nations. In 1986 the Ministry of Health of Nepal is scheduled to conduct a fertility and family planning survey project. And in conjunction with this project, CBS is planning a national sample survey on mortality and migration. It should be noted, however, that the values for the vital statistics shown in this survey report were calculated with a stochastic method which is applied in cases where "sufficient and accurate data and information" are not available. For example, these values were calculated on the basis of age distribution of population in a model life table. If there is a structural change in the population of Nepal due to recent sharp increases in its population and migrations both at home and abroad, it may be desirable to employ a statistical method which can have such changes in population reflected more accurately than a stochastic method which uses a model life table. For this purpose, as is pointed out in Chapter 2 of this report, it is necessary to have an accurate grasp of increases in live births, decreases in death rates for all ages, including infant death rate, and the numbers of marriages, divorces, migrations and so on. In the FP/MCH Project, sample surveys of the reproductive age population (15-49 age group) only are being conducted. But it is essential to work out a system capable of collecting accurate data on all age groups. In this connection, we have pointed out the problems related to statistical procedures, classifying them into the administrative problems, those on the part of residents and the others. As a

matter of course, the effort to resolve these problems will be confronted with many difficulties. But we may safely say that it is imperative to make every effort to overcome these problems in order to establish a registration system or a designated statistical system equivalent to, for example, the census registration system in Japan.

In Chapter 3 of this report, we have made an investigative analysis of a socio-economic environment which will make possible more effective implementation of family planning and MCH. And as a result of our analysis of the current situation on national and model area levels, we have reached the conclusion that it is quite necessary to review the country's development policies from the point of view of international and domestic conditions or that of the program provider and its recipient (user).

As to the problems of health, while it is important to improve the external conditions by, for example, promoting preventive measures and cleaning residents' living environment, it is a matter of more urgent necessity to have residents change their life-style or receive medical examination of their own accord. Gone are the days when it was imperative to provide them with knowledge of health and sanitation and improve their living environment. The Nepalese people now live in an age when more importance is attached to their motivation for self-reliance and self-determination — a drastic change in behavior. It is desirable that, from this very perspective, the country's development policies, which closely concern the people's health and even their society and economy, are analyzed, and the result of this analysis is reflected in the country's overall development programs. In other words, it is of vital importance to tackle the problems of family planning and MCH and improve the socio-economic environment related to these problems by using a compound method in which questions are raised and answered for the purpose of collecting and modifying policy-related information which can be used in solving the problems of policies in a specific environment. It goes without saying that this endeavor should include evaluation of the development policies in addition to planning and advocacy of them.

In the light of details of the past development projects in Nepal, the most important point of an economic aid project for the country is that it is promoted in a manner that will have it continued or further promoted by the Nepalese people themselves even after termination of its formal implementation period. In this connection, it is essential that a development policy is planned and implemented on the basis of careful consideration and anticipation of the Nepalese people's basic needs.

In planning a bottom-up approach to the problems of health and medical care in Nepal, the following fact should not by any means overlooked.

Nepal is a racially complicated nation. This can be explained, on one hand, by the diversity of its people's racial origins, and, on the other, by their behavioral differences due to their environmental differences. It is necessary, therefore, to examine the results of Nepal's population and health policies, from an ecological point of view based on a clear grasp of the environmental structure which forms the basis of the Nepalese people's residential areas, and from the point of view of cultural history. For example, there used to be a racial difference between plain like Terai where malaria was rampant and a mountainous area. In Terai, however, malaria has become less rampant and development projects have been promoted. Also immigration and mingled habitation have brought about many changes in the district.

Top-down modernization policy lines which ignore the above-mentioned local characteristics of Nepal's communities can never take root into the communities. In this context, it is most important to have a thorough understanding of the needs of the communities and their residents. Also in trying to solve various problems, it is more effective to employ a community involvement method in which residents are encouraged to solve problems for themselves rather than a conventional intervention method.

Furthermore, there are extreme shortages of human and physical resources in the area of health. So whether or not it is possible to secure

sufficient supply and training of human resources holds the key to the solution of this problem.

Residents' "health" is essentially a matter of their own, which should not be separated from them in the name of "medical care." For the Nepalese people, "health and medical care" are not "what should be imported from foreign countries," but are "what should be produced in their own country." "Health and medical care at their hands", not "health and medical care into their hands" should be the basic concept of medical care in a developing country.

In Chapter 4 of this report we have shown an attempt to quantitatively evaluate how health posts and health clinics are utilized, in which a map of a few villages in the model area was prepared to illustrate the current utilization of these medical facilities. It should be noted here that there still are people who have not utilized these facilities. It is necessary to investigate why these people refuse to use these facilities and whether or not the number of such people is small enough in comparison with the number of people who positively utilize these facilities, for in Nepal's local communities the problems of health and medical care are often concentrated in very poor residents.

What we must stress in summarizing this basic survey is that it is of utmost importance to establish satisfactory infrastructure, make investments aimed at enhancing the quality of human resources, and plan and implement a comprehensive development project aimed at enhancing the quality of life which is based on the achievements in the former two projects.

In other words, we must stress the importance of our basic attitude toward the problems of family planning and MCH in Nepal. For example, we should consider the financial burden involved in taking various measures, necessary expenses or an investment in the future rather than immediate balance of payments.

Maintenance and promotion of health, spread of school education and sound growth of children should lead to slowdown in population growth, on one hand, and growth of population carrying capacity, on the other.

It is to be desired that future family planning and MCH projects will be planned and implemented from the above-mentioned perspective.

SURVEY SCHEDULE,
LIST OF SURVEY TEAM MEMBERS,
MAIN INSTITUTIONS AND
PERSONS VISITED

SURVEY SCHEDULE AND LIST OF SURVEY TEAM MEMBERS, MAJOR INSTITUTIONS AND INDIVIDUALS VISITED

SURVEY SCHEDULE

Dec 6 (Fri) 13:00   Departure from Narita, JAL 717

     7 (Sat) 12:30   Arrival at Kathmandu

                       Preliminary meeting with JICA

     8 (Sun)   Discussion on Inception Report at FP/MCH Project, the Ministry of Health

         Attended by:

                 Dr. T.B. Khatri, Project Chief, FP/MCH Project,

                 Dr. S.P. Bhattarai, Deputy Chief

                 Dr. Madhav Joshi, Deputy Chief

                 Dr. B.B. Gubhaju, Demographer

                 Dr. J.M. Tuladhar, Acting Chief

     9 (Mon)   Courtesy call on Japanese Embassy in Nepal

         Organization visited:

            Ministry of Labour & Social Welfare

         Persons interviewed:

                 Mr. Nilakantha R. Padye, Joint Secretary, Social Service Division

                 Mr. Joshi, Joint Secretary, Labour Division

         Organization visited:

            Ministry of Panchayat & Local Development

         Persons interviwed:

                 Mr. M.P. Kafle, Secretary

                 Mr. S.P. Adhikari, Joint Secretary

         Organization visited:

            Central Bureau of Statistics

Persons interviwed:

    Mr. Keshar Raj Sharma, Deputy Director

10 (Tue)   Content of survey discussed at FP/MCH District
Office, Dhulikhel
Nepalese counterparts:

    Mr. Shyam Kaji Shrestha, Family Planning
Officer

Organization visited:

    Dhulikhel Health Center

Person interviewed:

    Dr. Nakul Pd. Parajuli, Medical Officer

Organization visited:

    Nala Health Post

Person interviewed:

    Mr. Krishna Man Maivandhar, Health
Assistant

Organization visited:

    Agricultural Project Service Center

Person interviwed:

    Dr. Jagdish Baral, Director

    Mr. Khalil Miyan, Deputy Executive Director

Organization visited:

    Ministry of Home Affairs, Foreign
Registration Office

Person interviewed:

    Mr. B.P.O. Kharel, Section Office

11 (Wed)   Transfer: Kathmandu to Janakpur
Organization visited:

    Regional FP/MCH Training Center, Pathalaiya

Person interviewed:

    Mr. Ramesh Candra Neupane, Regional Chief
Training Officer

Discussion on content of survey at FP/MCH
District Office, Dhanusha

Nepalese counterpart:

    Mr. Shbbhiyat Bahadur Adhikari. FPO

12 (Thu)   Inspection of Mothers' Club Programme and
Health Post

1.   Chisapani Health Post

    Mr. Ram Autar Yadav, Senior A.H.W.

2.   Pusbalpur (Mother's Club Programme)

3.   Bhuchaker (Mother's Club Programme)

4.   Hariharpur (Mother's Club Programme)

5.   Laxminibas (Mother's Club Programme)

6.   Bateshwar (Health Post)

13 (Fri)   Organization visited:

    Janakpur Zonal Hospital

Person interviewed:

    Mr. Hukom Dev Shah, Civil Surgent

Organization visited:

    Ghordghas Health Post

Person interviewed:

    Mr. Raj Kumar Pokharel, Health Assistant

14 (Sat)   Field survey of Dhalkebar H.P., Ramdaiya Village
Organization visited:

    Chief District Office, Dhanusha

Person interviewed:

    Mr. Khagendra Prasad Poudyal, C.D.O.

15 (Sun)   Field survey of Sabaila Health Post, Sabaila Village
Person interviewed:

    Mr. Amarnath Jha, Health Post in-charge
Visit to Madhubhasa Cooperative Community
Field survey of Chisapani Health Post
Interview with Supervisors, Eastern part of
Dhanusha

16 (Mon) Field survey of Labotole Village and Barmajhiya
 Village
 Interviews with:
  Dr. Sakldo Prasad Singh, Ayurvedic Doctor
  Mr. Ramendradeep Dhakal, Panchayat
  Pradhan
  Mr. Jainandan Dubey, Panchayat Secretary
 Transfer: Janakpur to Kathmandu

17 (Tue) Organization visited:
  Land Registration Office, Janakpur
 Person interviewed:
  Mr. Devlal Thechmi, Head Assistant
 Organization visited:
  Malaria Eradication Office
 Person interviewed:
  Mr. Kaladar Jha, MEO
 Transfer: Janakpur to Kathmandu
 Interim survey report: JICA Office
 Organization visited:
  Maternity Hospital
 Person interviewed:
  Dr. (Mrs.) D.S. Malla
 Organization visited:
  Administrative Staff College
  Center for Nepal & Asian Studies, Tribhuvan
  University
  Ministry of Social Welfare

18 (Wed) Meeting for the field survey:
  Dhulikhel District Office
 Organizations visited:
  Dhulikhel Health Center
  Shree Memorial Hospital, Banepa
 Person interviewed:
  Dr. Leonardo J. Vigna

Slides of patients

19 (Thu)   Organization visited:
                  Vital Statistic Office
        Organization visited:
                  Family Planning Association of Nepal
        Persons interviewed:
                  Mr. Shanker Shah, Executive Director
                  Dr. D.P. Upadhaya, Project Director
        Meeting for the field survey:
                  Dhulikhel District Office
        Field survey of Khopasi Health Post
        Person interviewed:
                  Mr. Chandra Bahadur Shrestha, Health Post
                  in-charge
        Organization visited:
                  Khopasi Supervision Center
        Person interviewed:
                  Mr. Gopal Thapa, Supervisor
        Organization visited:
                  Chief District Office, Kavrepalanchok
        Person interviewed:
                  Mr. Karna Bahadur Chand, CDO

20 (Fri)   Organization visited:
                  Nala Health Post
        Field survey of Nala Village
        Organization visited:
                  Panckharat Health Post

21 (Sat)   Field survey of Khopasi Village and Nala Village
        Interview with:
                  Mr. Madan Man Shrestha, Vice Chairman of
                  Health Post Committee

22 (Sun)   Organization visited:

               National Commission on Population

Person interviewed:

               Dr. B.P. Upreti, Secretary

Organization visited:

               Vital Registration Office

Person interviewed:

               Mr. Laxman Bahadur Basnet

Organization visited:

               Ministry of Agriculture

Organization visited:

               Small Farmer Development Programme

Organization visited:

               National Industrial Development Corporation

23 (Mon)   Meeting for the field survey:

               Dhulikhel District Office

Field survey of Panchkhal Health Post and the village near H.P.

Organization visited:

               ICIMOD (International Center for Integrated Mountain Development)

Organization visited:

               National Planning Commission

Organization visited:

               Administrative Staff College

Organization visited:

               Planning Division, Ministry of Health

Organization visited:

               UNFPA

Organization visited:

               UNICEF

Person interviewed:

               Mr. George McBean, Programme Communications & Information Officer

24 (Tue)   Survey report:
                      FP/MCH Project
                  Organization visited:
                      UNDP
                  Person interviewed:
                      Toshiko Niwa, Residential President
                  Organization visited:
                      ICHSDP
                  Person interviewed:
                      Mr. Hirulal Pajbansh, Senior Health
                      Inspector, Family Health Section
                  Organization visited:
                      Agricultural Programme Services Center

25 (Wed)   Courtesy calls on JICA Office, Japanese Embassy,
                  and FP/MCH Project
                  Organization visited:
                      Ministry of Panchayat & Local Development
      13:30   Departure from Kathmandu, TG 312

26 (Thu) 18:05   Arrival at Narita, JAL 482

LIST OF SURVEY TEAM MEMBERS

(1) Supervision:
Nobuo Matusmoto, Professor, the Jikei University

(2) Demography/Socio-economics:
Minoru O'uchi, Director, Economic Growth Research Department,
Institute of Developing Economies

(3) Hygienic statistics:
Hidesuke Shimizu, Associate Professor, the Jikei University

(4) Hygienic statistics:

Akihiko Itoh, Department of Medicine, Tokyo University

(5) Population/Family planning:

Yuiko Nishikawa, the Asian Population and Development Association

The Asian Population and Development Association organized in accordance with a contract with the Japan International Cooperation Agency (JICA) the Japanese survey team as listed above to carry out the field survey, and prepared this report. This survey was administrated by the following staff members.

1) Administration:

Nobuyoshi Watahiki,
Chief Technical Advisor,
Medical Cooperation Department,
JICA

2) Administration:

Akira Naruse,
Chief Technical Advisor,
Medical Cooperation Department
JICA

MAJOR INSTITUTIONS AND INDIVIDUALS VISITED

1. Governmental Institutions

(1) Ministry of Health FP/MCH Project
Dr. T.B. Khatri, Project Chief, FP/MCH Project
Dr. Bhattarai, Deputy Chief
Dr. Madhav Joshi, Deputy Chief

Dr. B.B. Gubhaju, Demographer
Dr. J.M. Tuladhar, Acting Chief

(2) Ministry of Labour & Social Welfare
Mr. Nilakantha R. Padye, Joint Secretary, Social Service Division
Mr. Joshi, Joint Secretary, Labour Division

(3) Ministry of Panchayat & Local Development
Mr. M.P. Kafle, Secretary
Mr. S.P. Adhikari, Joint Secretary

(4) Central Bureau of Statistics
Mr. Keshar Raj Sharma, Deputy Director

(5) Agricultural Project Service Center
Dr. Jagdish Bara, Director
Mr. Khalil Miyan, Deputy Executive Director

(6) Ministry of Home Affairs, Foreign Registration Office
Mr. B.P.O. Kharel, Section Officer

(7) Regional FP/MCH Training Center, Pathalaiya
Mr. Ramesh Candra Neupane

(8) National Commission on Population
Dr. B.P. Upreti, Secretary

(9) Vital Registration Office
Mr. Laxman Bahadur Basnet

(10) Small Farmer Development Programme, Ministry of Agriculture

(11) National Industrial Development Corporation

(12) ICIMOD (International Center for Integrated Mountain Development)

(13) National Planning Commission

(14) Administrative Staff College

(15) Planning Division, Ministry of Health

(16) ICHSDP

        Hirulal Pajbansh, Senior Health Inspector, Family Health Section

(17-1)   Dhanusha District

        1)   Dhanusha FP/MCH District Office

                Mr. Shbbhiyat Bahadur Adhikari, Family Planning
                Officer

        2)   Chisapahi Health Post

                Mr. Ram Autar Yadav, Senior A.H.W.

        3)   Ghordghas Health Post

                Mr. Raj Kumar Pokharelz, Health Assistant

        4)   Sabaila Health Post

                Mr. Amarnath Jha, Health Post in-charge

        5)   Land Registration Office

                Mr. Devlal Thechmi, Head Assistant

        6)   Malaria Eradication Office

                Mr. Kaladar Jha, Malaria Eradication Officer

        7)   Chief District Office

                Mr. Khagendra Prasad Poudyal, Chief District Officer

        8)   Barmajhiya Village

                Dr. Sakldo Prasad Singh, Ayrvedic Doctor

                Mr. Ramendradeep Dhakal, Panchayat Pradhen

                Mr. Jainandan Dubey, Panchayat Secretary

(17-2)   Kavrepalanchok District

        1)   Kavrepalanchok FP/MCH District Office

                Mr. Shyam Kaji Shrestha, Family Planning Officer

        2)   Dhulikhel Health Center

                Mr. Nakul Pd. Parajuli, Medical Officer

3) Nala Health Post

    Mr. Krishna Man Maivandhar, Health Assistant

4) Khopasi Health Post

    Mr. Chandra Bahadur Shrestha, Health Post in-charge

5) Khopasi Supervision Center

    Mr. Gopal Thapa, Supervisor

6) Chief District Office

    Mr. Karna Bahadur Chand, Chief District Officer

7) Health Post Committee, Nala Village

    Mr. Madan Man Shretha, Vice Chairman

2. United Nations Institutions

(1) UNFPA

(2) UNICEF

    Mr. George McBean, Programme Communication & Information Officer

(3) UNDP

    Toshihiko Niwa, Residential President

3. Hospital

(1) Janakpur Zonal Hospital

    Mr. Hukum Dev Shah, Civil Surgent

(2) Maternity Hospital

    Dr. (Mrs.) D.S. Malla

(3) Shree Memorial Hospital, Banepa

    Dr. Leonardo J. Vigna

4. NGO, Others

(1) Center for Nepal & Asian Studies, Tribhuvan University

(2) Family Planning Association of Nepal

        Mr. Shanker Shah, Executive Director

        Dr. D.P. Upadhaya, Project Director

5. Japanese Embassy

        Mr. Renzo Izawa, Councillor

6. JICA Kathmandu Office

        Mr. Tatsuo Hoshi, Resident Representative

        Mr. Hiroaki Nakagawa, Staff member

7. Cooperative Survey Officer

    1) J.N. Singh, Family Planning Officer, NFP/MCH Projet

    2) Sirjana Sharma, Information Officer, NFP/MCH Project

    3) Upendra Aryal, Information Officer, NFP/MCH Project

    4) Navin K. Pyakuryal, Information Officer, NFP/MCH Project

    5) Govind B. Bhatta, Information Officer, NFP/MCH Project

    6) Kunda Raj Baidya, Audio Visual Officer, NFP/MCH Project

    7) Mira Upadhyay, Broad Casting Officer, NFP/MCH Project

    8) Hari Koirala, Nuritionist, NFP/MCH Project

APPENDICES

Appendix 1. TENTATIVE IMPLEMENTATION SCHEDULE OF THE PROJECT

TENTATIVE IMPLEMENTATION SCHEDULE OF THE PROJECT

ITEM \ FISCAL YEAR	1985/86	1986/87	1987/88	1988/89	1989/90	1990/1991
PLAN OF ACTIVITIES	PREPARATORY STAGE <REVIEW>		PHASE-I <IMPROVEMENT>	PHASE-II <INTENSIFICATION>		PHASE-III <EVALUATION AND EXPANSION>

PREPARATORY STAGE <REVIEW> (1985/86 – 1986/87)

1. Review and analysis of existing data and information (nation – wide and model areas)
   1) vital statistics
   2) health and medical statistics
2. Study of statistical procedures of the data and information
3. Examination of availability of home visit survey
4. Establishment of final target indicators
   1) rate of medical check-ups of pregnant women
   2) rate of medical check-ups of children
   3) rate of immunization
   4) changes in major diseases
   5) infant mortality rate
   6) maternal mortality rate
   7) acceptance rate of family planning
   8) birth rate
   9) others

PHASE-I <IMPROVEMENT> (1987/88)

1. Improvement of maternal and child health services in the model areas
   1) improvement of existing hospitals
   2) improvement of health posts
   3) improvement of medical check-up system and surveillance and follow up system
   4) improvement of immunization system
   5) improvement of district clinics
2. Improvement of family planning services in the model areas
   1) improvement of existing hospitals
   2) improvement of health posts
   3) improvement of I.E.C.
   4) refresher training of P.H.W.s
   5) improvement of district clinics
   6) improvement of surveillance and follow up system
3. Orientation for community leaders on FP/MCH in the model areas

PHASE-II <INTENSIFICATION> (1988/89 – 1989/90)

1. Intensification of community health service in the model areas
   1) improvement of school health services
   2) improvement of home visit health service
   3) promotion of health education
2. Intensification of family planning services in the model areas
   1) dissemination of knowledge of temporary contraceptive methods
   2) advanced training of P.H.W.s
   3) intensification of I.E.C.

PHASE-III <EVALUATION AND EXPANSION> (1990/1991)

1. Expansion of family planning services in the model areas
   1) bringing about increase of family planning acceptors
2. Evaluation and examination of model areas' activities
   1) development of I.E.C for national wide expansion
   2) evaluation of model areas activities
   3) trial examination of expansion of model areas

*Fiscal year; April to March

H. M. G / NEPAL
Ministry of Health
Nepal FR / M C. H. Project District office

S.No.	Name of panchayat	House TOTAL No.	Male	Fee.	Total population Female House no.	Store To be done	Eligible Ca.	Remarks
1	Janakpur Nagar panday	33214	17410	15914	5614			
2	Kurtha	4661	2387	2254	733	153	266	
3	Banga Shibpur	4118	2147	1971	668	177	103	
4	Bushiya	3582	1906	1676	574			
5	Bindhi	3546	1813	1733	524	117	126	
6	Bus bitti	1607	827	780	238	61	75	
7	Kapleshwar	3414	1723	1691	517			
8	Laxmipur Bagaha	3881	2006	1875	627	899	189	
9	Simger Josa	5895	3076	2879	981	252	283	
10	Lahana	4084	2136	1948	570			
11	Rank patti	3476	1817	1659	539	99	68	
12	Hashpur Kathpulla	3218	1614	1604	470	65	178	
13	Bagh Chaura	3868	1991	1877	598	140	282	
14	Suga Nikas	2610	1371	1239	423	74	181	
15	paodeshwar	3617	1914	1703	543	175	186	
16	Mahuya	3555	1855	1700	543			
17	Man Singh patti	2668	1369	1300	426	64	52	
18	Andu patti	2366	1220	1146	398	124	59	
19	Suga Madhu kaithi	3386	1791	1595	550	111	200	
20	Ram daiya	4122 432	2336	1986	754	161	111	
21	Mithileshwar Nikas	4095	1952	2143	611	73	179	
22	Tara pati Sirsiya	5488	2782	2706	848	103	200	
23	Ragura Ramali	3697	1947	1750	624	131	204	
24	Sakhuba Mahendra Nagar	6744	3511	3233	1234	225	366	
25	Saphi	5052	2617	2435	885	213	160	
26	Mithileshwar Mahu bahi	2610	1332	1278	405	32	87	
27	Bhutahi paterba	3455	1742	1513	555	45	121	
28	Gopalpur	3436	1743	1693	556	96	85	
29	Baniniya	3782	1940	1842	598	137	61	
30	Kachhuri Thura	4014	2099	1915	672			

S.No.	Name of panchayat	House Total No Population	Male	Fee.	Total population House No	Store To bo don	Eligible Co.	Remark
31	Digamber pur	5724	2962	2762	1009			
32	Hari har pur	4960	2554	2406	882	.40	307	
33	Nakatta Jhijh	4758	2472	2246	734	.98	330	
34	Uma prem pur	8120	4222	3898	1411	189	408	
35	Dhalka bar	5913	3152	2761	980	—	—	
36	Bhui chakas pur	692	370	322	115	63	179	
37	Bateshwar	4523	2323	2200	770	96	204	
38	Laxmi Nibas	4000	2064	1936	667	96	95	
39	Banga daber	6267	3194	3073	1103	160	144	
40	Tulshi	3203	1611	1592	539	138	376	
41	puspal pur	1804	919	885	315	69	48	
42	Shanti pur	2774	1433	1341	521	.89	136	
43	Dhanusha Dham	6496	3131	3265	1158	102	202	
44	Dhanusha Gobind pur	3678	1917	1661	614	142	289	
45	yagya Bhumi	9239	4820	4419	1629	334	168	
46	Raghu nath pur	8175	4240	3941	1470	261	403	
47	Tallo Godar	6146	3240	2906	1169	131	148	
48	Bharatpur	9005	4642	4563	1665	131	148	
49	patarwa	2448	1260	1188	393	75	187	
50	Bar majhiya	3667	1967	1700	707	78	100	
51	Lab toli	1927	1017	910	849	86	307	
52	Sabaila	5957	3065	2892	952	145	193	
53	Makhanaha	4663	2425	2238	768	194	215	
54	sato khar	4219	2182	2137	682	236	102	
55	Khari hani	6211	3245	2966	999	108	541	
56	Gadu kaha	3728	1975	1753	695	89	132	
57	pachhi harba	2279	1199	1080	421			
58	Jhatiyahi	3902	2024	1878	639	58	190	
59	Bala bakhar	4695	2414	2022	787	175	108	
60	Lauya klos par Shaha	2793	1437	1356	488	80	110	
61	Thila Yubdi	2566	1265	1301	406	89	132	
62	Nanu patti	2567	1406	1161	466			
63	Har bara	2608	1331	1277	471			
64	Chera kail pur	3209	1695	1514	615	66	71	

	Panchyat	House No. Total pop.	Male ✓	Fee. ✓	Total population House No.	Steri to be don	Eligibl Cu	Remarks.
	Goth Kail pur	2588	1364	1224	497	61	75	
66	Inarba	2517	1335	1182	450	38	115	
67	Patnuka	2170	1127	1043	374	30	178	
68	Lakes	3147	1685	1462	474			
69	Harine	3813	2048	1765	556	66	555	
70	Singhyahi Naskar	6342	3326	3016	1007	73	140	
71	Bisher bhosa	3342	1708	1634	539	164	445	
72	Dubes Rote Hathlat ba	4695	2396	2299	727	114	107	
73	Bal ha Goth	2612	1367	1245	363	26	146	
74	Machhi Jhitkahi ya	6057	3165	2892	1121			
75	Khajusi Chamba	4412	2308	2107	759	95	205	
76	Mahuya, Pr. ko	3079	1568	1511	520	165	199	
77	Saghara	2589	1395	1194	429			
78	Tharhi Jhijha	4502	2407	2295	756	75	160	
79	Ek Rahe	3152	1655	1497	506			
80	Bal ha Rathal	2567	1319	1248	435	56	107	
81	Baphai	1966	1089	957	345	69	84	
82	Chakleas	3863	2003	1860	645	121	134	
83	Sonigama	4328	2225	2103	299	135	174	
84	Gidhaha	3635	1844	1791	624	68	161	
85	Dhabauli	4826	2492	2334	769	145	193	
86	Aurhi	3684	1893	1791	606	102	74	
87	par baha	3103	1618	1485	424	79	111	
88	Lakhausi	2360	1188	1172	349	85	100	
89	Dhanaugi Kataiya	4620	2512	2308	707	79	196	
90	Thothi Kataiya	2649	1366	1276	397	71	154	
91	gt harba	2629	1379	1243	384	75	125	
92	Duhabi	4890	2565	2325	762	139	250	
93	Depusa Rupai tha	4839	2536	2303	753	231	164	
94	Ghos ghash	4173	2164	2019	542	190	153	
95	Bahu Arbba	3268	1678	1590	435	143	87	

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S No.	Name of panchyat	~~House~~ Total pop.	Male	Fee.	~~Total population House~~ No.	Steri to be done	Eligible C	Remarks.
96	Devdiha	7947	4216	3731	1040	137	108	
97	Lagma	3004	1615	1389	405	94	75	
98	Nagrain	3809	2061	1748	479	139	202	
99	Bahera balla	3943	2030	1913	668			
100	Mukhiya patti	3805	1975	1830	545	167	182	
101	Tulshiyahi Gabdi	3935	2021	1914	567	107	172	
102	Tulshiyahi Nikas	3073	1632	1441	488	119	207	
103	Fulgama	5956	3038	2918	1006	309	213	

Tahal panchayat :- 103

House Count: 72852

Tahal papulation: — 4.44,341

Male Count: 230571, Fee Male Count :- 213770

सि नं	पंचायतको नाम	जन संख्या
१	बनेपा नगर पंचायत BANEPA	१९५४० (11540)
२	भुम्टार BHUMLUTAR	१७५४ (1754)
३	नाल्दुम NALDUM	३०७७ (3077)
४	देउपुर (बाख्रा) DEVPUR	१७१० (1710)
५	नयागाउँ देउपुर NAYAGAUN	१७११ (1711)
६	महादेवस्थान MAHADEUSTHAN	४०७४ (4074)
७	अनेकोट ANPEKOT	१५०० (1500)
८	दुल्ग ताजा TUKUCHA	३०२२ (3022)
९	गैरी विमुना देउपुर GAIRI BISAUNA	२८८१ (2881)
१०	रवि ओपी RAVIOPI	४३७७ (4377)
११	उग्रचण्डी नाला NALA	३२०० (3200)
१२	सांगा SANGA	२९४४ (2944)
१३	उग्रतारा जनागाल JANAGAL	२९१४ (2914)
१४	श्रीखण्डपुर SHREEKHANDAPUR	१७०० (1700)
१५	बज्रयोगिनि BAJRAYOGINI	१८०० (1800)
१६	धुलिखेल DHULIKHEL	२९५४ (2954)
१७	महेन्द्रज्योती MAHENDRA JYOTI	४५३७ (4537)
१८	काभ्रे नित्य चण्डेश्वरी KAVRE NITYA	१४४४ (1444)
१९	पाटलेखेत PATLEKHET	१५०० (1500)
२०	देवीटार DEVITAR	२८८१ (2881)
२१	सुनागाउँ SUBBAGAUN	२२५९ (2259)
२२	टोखाल TOUKHAL	२३७० (2370)
२३	नाले KAVRLEY	४४२७ (4427)
२४	लिताली LITEMA DEVI	६८१८ (6818)
२५	भुमिडाँडा BHUMI DANDA	३२५९ (3259)
२६	ऐश्वर्य EISHWARYA	३४२१ (3421)
२७	महुली MAHULI	२६०० (2600)
२८	नमा गणेश्थान DHUNGAL	२८६८ (2868)
२९	धुर्ज DHUNGKHARKA	३८२० (3820)
३०	महर्षाल MAHARKAL	२६०० (2600)
३१	चासी डंग CHAUSI DANG	३०२८ (3028)
३२	गोखु CHOKULEY	४४२२ (4422)
३३	पनिखान KANPUR	३४६२ (3462)
३४	कनिबिला	५८८८ (5888)
३५	पेन्नु	

सि.नं.	पञ्चायतको नाम	जन संख्या
३५	जनरु BANAKHU	३६३३ (3933)
३६	बुधाखानी BUDHA KHANI	२३३६ (2839)
३७	मंगलटार MANGALTAR	२२२४ (२२२४)
३८	वाल्टिडं WALTING	२२२४ (२२२४)
३९	मेछिये MECHHEY	४७१३ (4713)
४०	भिमखोरी BHIM KHORI	४४४१ (4441)
४१	सिपाली चिजाजने SIPALI	१८११ (1811)
४२	महादेवटार पांगु MAHDEV THR PANGU	८०० (800)
४३	चक्कक्क नापाखोरी CHAPAKORI	४६८६ (4686)
४४	सापीडं SAPING	४०६६ (4096)
४५	खरेपांगु KHARE PANGU	४१३१ (4131)
४६	सल्ले मुखाबारी SALLEY MUCAR BARI	२१९१ (2191)
४७	गोठिघानी चोरी GOTHIPANI	२७०० (2700)
४८	मादन कुडारी MADAN KUDARI	३६७५ (3675)
४९	खातिने देउराली KATTEKE DEURALI	२६८१ (2681)
५०	खिर्ता घोराली BIRTA DEURALI	२७०० (2700)
५१	चोरी पोखरी CHAURI POKHARI	४३०४ (4304)
५२	खुसेनी शिबालाया GHUSENI SIBALAYA	४४०६ (4406)
५३	नाग्रे गाग्र्चे NANGRE GAGARCHE	१५९३ (1593)
५४	माझीफेदा MAJHI PHEDA	१५०० (1500)
५५	बेखसिमले BEKHSIMALE	१०९३ (1093)
५६	वाडथली WANGTHALI	१००० (1000)
५७	चौबास CHAUBASH	५०११ (5011)
५८	साठीघर SATHIGHAR	२६६९ (2669)
५९	होक्से बजार HOKSE BAZAR	२६०० (2600)
६०	खरेलथोक KHARELTHOK	५०४५ (5045)
६१	कोशी देखा KOSHI DEKHA	५१४६ (5146)
६२	पांचखाल PAINCHKHAL	५६९९ (5699)
६३	देउभुमि बालुवा DEUBHUMI BALUKA	७१७९ (7179)
६४	चामराङ बेसी CHAMRANG BESI	१७०६ (1706)
६५	मिल्चे MILCHE	२३०० (2300)
६६	साल्मे चकाल SALME CHAKAL	२३५२ (2352)
६७	साल्धारा SALDHARA	२३२३ (2323)
६८	धलामेटारी DHALAMETARI	३०२२ (3022)
६९	तालढुंगा TALDHUNGA	२४३८ (2438)
७०		

सि नं	पंचायतको नाम	जन संख्या
७०	डाँडागाउँ (DANDA GAUN)	२५०० (2500)
७१	खोपासी (KHOPASI)	२३३६ (2336)
७२	बथ्थली (BALTHALI)	२२०० (2200)
७३	सुथान गाउँ (SUNTHAN)	५३२१ (5321)
७४	शंखुपाटी (SANKHUPATI)	२३६७ (2367)
७५	शारदा बतासे (SARADA BATASE)	२२०० (2200)
७६	श्यामपाटी (SHYAMDATI)	२३४१ (2341)
७७	पुरानो गाउँ दाप्चा (PURANO GAUN DAPCHA)	२२०० (2200)
७८	फुलबारी (PHULBARI)	४२१९ (4219)
७९	दाप्चा छत्रेबाँझ (DAPCHACHHA TRE BANJH)	२२२२ (2222)
८०	डकाउने पोखरी (DAKAUNE POKHARI)	२२२२ (2222)
८१	खनाथोक (KHANALTHOK)	४५७६ (4576)
८२	सिखर अम्बोटे (SIKHAR AMBOTE)	५२९८ (5298)
८३	सिसाखानी (SISAKHANI)	३५४७ (3547)
८४	कन्तुजे (KANTUJEY)	२७९८ (2798)
८५	कानपुर नारायणी (KANPURI)	२७९९ (2799)
८६	पोखरी नारायणस्थान (POKHARI NARAYANSTHAN)	२६८७ (2687)
८७	सरमथली (SARAMTHALI)	२६०० (2600)
८८	मेथीनकोट (METHIN KOT)	२७९० (2790)
८९	साक्सुखर्क (SAKSUKHARKAI)	४२४५ (4245)
९०	ठूलो पर्शेल (THULO PARSHEL)	२२०० (2200)
९१	जैसीथोक (JAISHITHOK)	२३८० (2380)
९२	चण्डेनी भञ्ज्याङ (CHANDENI)	२२७० (2270)
९३	ज्यामदी भञ्ज्याङ (JYAMDI)	२६६३ (2663)
९४	कोशीघाट (KOLIGHAT)	२७८० (2780)
९५	कोलाटी पुन्द (KOLATI)	२७५५ (2755)
९६	फुल्पाटे पुन्द (PHULPATE)	२७५६ (2756)
९७	खरपाचुर (KHARPACHUR)	३६११ (3611)

कुल :- ३०३२५३ (०३८ मे जन गणना अनुसार)

३०७३ ७५