

Evaluation of Essential Health Care Delivery Services in Nepal

(Final Report)

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Abbreviations

ANC	Antenatal Checkup
BCG	Bacillus Calamite Guerin
CDP	Community Drug Program
CHMC	Community Health Management Committees
CPR	Contraceptive Prevalence Rate
CYP	Couple of Years Protection
DPT	Diphtheria Pertusis Tetanus
EHCDs	Essential Health Care Delivery Services
EHCS	Essential Health Care Services Essential Health Care Services
FCHV	Female Community Health Volunteers
FGD	Focus Group Discussion
FP	Family Planning
HFMC	Health Facility Management Committee
HP	Health Post
IMCI	Integrated Management of Childhood Diseases
MCH	Maternal and Child health
MDG	Millennium Development Goal
MoHP	Ministry of Health and Population
MWRA	Married Women of Reproductive Age
NDHS	Nepal Demographic Health Survey
NGO	Non-Governmental Organization
NHRC	Nepal Health Research Council
OPD	Outpatient Department
ORC	Outreach Clinic
PHCC	Primary Health Care Centre
PNC	Postnatal Checkup
SHP	Sub-Health Post
SWOT	Strengths, Weakness, Opportunity and Threats
TT	Tetanus Toxoid
VDC	Village Development Committee

Chapter 1 INTRODUCTION

1.1 The Background of the Study

Despite the gains in key health indicators over the past 15 years, such as in reduction of child mortality rate (40%) and fertility rate (20%), poor public health interwoven with poverty still pose a challenge in Nepal's efforts to poverty reduction. Poverty and poor health compounded with inequitable distribution of resources, non-responsiveness to citizen voice and sustained exclusion of the excluded from accessing the public services have long been considered as the impediments in Nepal's realization of the overall health sector goals including the development goals. The government's commitments to bridge the gap between the haves and the have-nots through improved and equitable allocation of resources, increased empowerment, inclusion and partnership have been expressed in its various policy papers like Poverty Reduction Strategy Paper (PRSP), Agenda for Reform (2004), Health Sector Programme Implementation Plan (2003), the Local Self Governance Act (1998), Medium Term Expenditure Framework (2002), Millennium Development Goals (MDGs) and the current development plans. The Ministry of Health and Population (MoHP) aims to achieve 'a health system in which there is equitable access to coordinated quality health care services in rural and urban areas, characterized by self-reliance, full community participation, decentralization, gender sensitivity, effective and efficient management and private and non-governmental organization (NGO) sector participation in the provision and financing of health services resulting in improved health status of the population.' MoHP recently issued a new *Health Sector Strategy: An Agenda for Reform* in 2004, with the objective of 'meeting the health and welfare needs of all, especially the poor, women and other vulnerable groups.' The new health sector reform strategy summarizes eight areas for key reforms and outputs, directly pertaining to how the country can better meet the challenge of health needs, especially among poor and disadvantaged groups, and women.¹ These include: (a) ensuring universal access to essential health care services using cost-effective interventions; (b) establishing public-private NGO partnerships to deliver quality health care services; (c) decentralizing the health system for fair and efficient delivery; (d) obtaining better value for health expenditure through pre-paid alternative health financing mechanisms; (e) providing access to services outside of health care facilities and (f) monitoring health sector performance through logical frameworks. The recently formulated National Health Sector Programme – Implementation Plan (2003-2007) based on the Second Long Term Health Plan (1997-2017), encourages a move away from project towards a more programmatic, sector-wide approach, in order to deliver health services in a more sustainable and equitable manner.

¹ National Development Forum (2004), Policy Paper on Health Sector Development of His Majesty's Government of Nepal: Pre-Consultation Meeting. Kathmandu, MoHP.

At present MoHP has taken a number of affirmative actions and policy reforms in health sector. HMG/MOHP has been reorienting and revitalizing the health services delivery through the traditional alternative, and particularly, modern system of medicine. The second long term health plan (SLTHP 1997-2017) has defined 20 key service interventions under the Essential Health Care Services (EHCS) and made concerted efforts to allocate its resources for equitable and accessible health services throughout the country. However maintaining equitable access to quality health care services still pose a challenge due to many reasons. The coverage of health services has fluctuated over the years with improvement in some programs and stagnation in many. There is no doubt, effectiveness of the service delivery is determined by both the demand and supply side. Hence identifying the factors that impede to the access, quality and utilization of the health services particularly by the marginalized and disadvantaged sections of the country is of utmost importance at present.

1. 2 Rationale of the study

Since the Alma Ata Declaration in 1977, health promotion had been a major interest in the implement action of primary health care services in most countries. Yet, despite this interest, the goal of 'health for all by the year 2000', could not be achieved. In many third world countries, good quality basic health care is still lacking.

Nepal is considered to be one of the poorest counties in the world. Furthermore, when it comes to health, all indicators reveal that Nepal is going to be one of the worst off countries in the world. The average life expectancy of a Nepalese people was 59 years. Neo-natal mortality rate stands at 39, infant mortality rate at 64 and child (under 5 years) mortality rate at 91 per 1000 live births for every 1000 births. The maternal mortality rate remains high at 415 per 100,000 live births. Availability of Essential Health Care Services (EHCS) to the population living within 30 minutes travel time to health facility (HF) (per 100) was 70 (Government of Nepal, Annual Report, 2002/2003).

Essential Health Care Services (EHCS) comprises prioritized and specific health programs such as safe motherhood and family planning, child health, control of communicable diseases and strengthened outpatient services (NHSP-IP, 2004-2009).

The health system of Nepal, at the central level, consists of the Ministry of Health and Population (MOHP), Department of Health Services (DoHS) with various divisions and units. In the regional level it has five regional health service divisions. The curative services are provided through hospitals at central, regional, zonal and district levels and through hospitals, primary health care centers (PHC), and health posts (HP) and sub health posts (SHP) at the sub-districts level. District health offices are mainly responsible for preventive and promotive services. The Ayurvedic dispensaries and

Ayushadhalaya are delivering Ayurvedic system of medicine. Besides this, Homeopathic and Unani system of medicine also exists. Despite the high priority given by the Government of Nepal, the status of health service is low as measured by all available indicators.

The Government of Nepal, MOHP is determined and committed to provide quality health services to all the populations of Nepal. The national healthy policy 1991 provided a policy framework to guide health sector development. Based on this, MOHP formulated the second long-term health plan, 1997-2017. The vision of health and development envisaged by the proposed plan is to put in place a health system in which there is equitable access to quality health care services. But the coverage of services has fluctuated over the years, with improvement in some programs and failing to meet the targets in others. Obviously, there is a need to make improvement in programs that failed to meet the targets. In order to make an improvement in programs; an evaluation for essential health care delivery services (EHCDS) need to be carried out.

1.3 Objectives of the study

As laid out in the ToR, the general and specific objectives of the study were as follows:

General Objective

To evaluate the EHCDS program implementation with special emphasis on long-term sustainability and to recommend measures for the effectiveness of the program activities.

Specific objectives:

The specific objectives were six folds:

- To review the essential health services provided by public health facilities,
- To assess the level of progress and analyze the extent to which the achievements have supported the EHCDS program goals and their objectives,
- To analyze the effectiveness, sustainability and continuity of EHCDS,
- To assess the equity and efficiency in delivering EHCS,
- To assess the quality of care from the client and provider perspectives,
- To assess the inclusion of marginalized and disadvantaged populations in accessing the health care services

1.4 Scope of work

The scope of the proposed evaluation study is as follows:

- Review the following essential health care services
 - Out patients care
 - Reproductive health services
 - Expanded program on Immunization
 - Control of AIDS and sexually transmitted diseases
 - Leprosy control
 - Tuberculosis control
 - Integrated management of childhood illnesses
 - Nutrition supplementation enrichment, education and rehabilitation
 - Vector borne diseases control
- Review out patient and in-patient services provided by (i) District hospital, (ii) Primary health care center, (iii) Health post, (iv) Sub-health post, (v) PHC outreach, (vi) Aurveda Ausadhalaya, and (viii) District Ayurveda health center.

1.5 Expected Outputs

- Analyzed level of progress in delivering EHCS in most recent five years.
- Assessed the access to EHCS and identified the barrier in seeking care.
- Assessed the gender, geographical, financial equity in service delivery
- Assessed the health care services used by the marginalized populations
- Assessed the allocative and technical efficiency in EHCS
- Assessed financial and strategic sustainability of EHCS
- Assessed the service delivery strategies and options.
- Analyzed the strength, weakness, opportunities and threats while planning and implementing the EHCDS in the public health facilities.
- Assessed the quality of EHCS in the public health facilities.
- Assessed the client friendliness of EHCS at public facilities
- Assessed the availability of physical facilities and human resource in the health facilities.
- Assessed the availability of drugs and medical supplies, equipments and instruments.
- Assessed the community viewpoints regarding the essential services provided by public health facilities.
- Assessed and explored the possibility of the private sectors involvement in providing essential services.
- Assessed the user charges and affordability for the services provided by public health facilities.
- Evaluated EHCDS program's targets and achievements.
- Analyzed benefits received by poor, disadvantaged and marginalized population.

Chapter 2 EVALUATION METHODOLOGY

2.1 Research Design and Methods

A descriptive cross-sectional research design with a combination of qualitative and quantitative methods will be employed for the proposed formative study. The study will basically cover the components of essential health care and related activities. This comprehensive formative evaluation will basically review the coverage, relevancy, appropriateness, quality, access, effectiveness and sustainability of the existing EHDCS strategies and activities over Nepal and identify the gaps and constraints along with the best practices of the same in Nepal.

2.2 Study Area

The study covered a total of 10 districts from all five development regions and three ecological zones, comprising mountain, hill and terai. The list of the sampled districts is as follows:

Solukhumbu, Jhapa, Parsa, Mustang, Kaski, Surkhet, Dang, Doti and Kanchanpur districts (*Please see Table 2 below*).

2.3 Study Population

The study had covered different categories of stakeholders. The community /household level people, youth and adolescents, grassroots health workers and facility level health workers including district and below levels were the primary respondents while the policy makers, supervisors, evaluators and decision makers at the district, regional and central levels were the key informants.

In regards to the health facilities from district to the below levels a total of 271 health facilities do exist in Nepal at present. The population of the health facilities are as follows:

Box 1: No of Health Facilities from district to below levels in Nepal

Health Facility	No.
No of District Hospitals:	62
No. of PHCC :	188
No. of Health Posts :	698
No. of Sub-HP :	3129
No of Ayurvedic facilities:	
District Ayurved Health Centres:	55
Ayurvedic Dispensaries:	216
Source: DoHS 2003/2004, LMIS, MOHP, 2001	

All the health facilities from the study VDCs, including municipality of the study districts were covered by the study. The District Hospital and Ayurvedic health facilities were also included in the sample of the health facility.

2.4 Sample Size and Sampling Process

As demanded by the ToR, a multi-stage probability sampling was applied in selecting the sample districts, VDCs and households from the cross-section of the country. The sample comprised 880 individual interviews, 145 key informants, 400 FGD participants (40 FGDs), 80 exit clients interviews and review of the records of the inpatients and out patients in the months of Bhadra, Paush and Baisakh 2001/2002 (2058), 2003/2004 (2060) and 2005/2006 (2062). (Please refer Table 2, 3, 4 and 5 below)

Table 1: Levels of sampling

Stage of sampling	Sampling Unit	Number of sample	Remarks
Primary selection	District	10 districts	-
Secondary selection	VDC	40 VDCs	4 VDCs from a district, 2 from urban and 2 from rural areas were selected from each district
Tertiary selection	Household	800 HHs	20 households from a VDC

The study had drawn sample from the cross section of the entire country representing mountains, hills and terai districts of Nepal. Altogether 10 districts from 15 strata (Five regions and three eco-zones) were covered for the study. These districts were finalized in consultation with the Technical Committee of the NHRC. The districts sampled for the study were as follows:

Table 2: Distribution of Sample by Development and Eco-Zones

S.No.	Development Region	List of Districts	Sample districts
1.	Eastern Development Region (EDR)		
	<i>Mountain</i>	Taplejung, Sankhuwasabha, Solukhumbu	Solukhumbu
	<i>Hill</i>	Bhojpur, Dhankuta, Ilam, Khotang, Okhaldhunga, Panchther, Terathum, Udayapur	-
	<i>Terai</i>	Jhapa, Morang, Sunsari, Saptari, Siraha	Jhapa
2.	Central Development Region (CDR)		
	<i>Mountain</i>	Dolakha, Sindhupalchowk, Rasuwa	-
	<i>Hill</i>	Bhaktapur, Dhading, Kathmandu, Kavrepalanchowk, Lalitpur, Makwanpur, Nuwakot, Ramechhap, Sindhuli	Lalitpur
	<i>Terai</i>	Dhanusha, Mahottari, Rautahat, Bara, Parsa, Sarlahi, Chitwan	Parsa

3.	Western Development Region (WDR)		
	<i>Mountain</i>	Mustang, Manang	Mustang
	<i>Hill</i>	Arghakhachi, Baglung, Gorkha, Gulmi, Kaski, Lamjung, Myagdi, Palpa, Parbat, Syanga, Tanahu	Kaski
	<i>Terai</i>	Nawalparasi, Rupandehi, Kapilbastu	-
4.	Mid-Western Development Region (MWDR)		
	<i>Mountain</i>	Humla, Mugu, Jumla, Dolpa, Kalikot	-
	<i>Hill</i>	Dailekh, Pyuthan, Salyan, Surkhet, Jajarkot, Rukum, Rolpa	Surkhet
	<i>Terai</i>	Banke, Bardiya, Dang deukhuri	Dang
5.	Far Western Development Region (FWDR)		
	<i>Mountain</i>	Bajhang, Bajura, Darchula	-
	<i>Hill</i>	Achham, Baitadi, Dadeldhura, Doti	Doti
	<i>Terai</i>	Kailali, Kanchanpur	Kanchanpur
	Total	75 districts	10 districts

Map of Study Districts



2.5 Methods of Data Collection

The study used a mix of qualitative and quantitative techniques. A systematic study of the available documents was made first. Then after, an inception report on the proposal was presented and shared in the NHRC meeting hall. The comments and suggestions offered by the participants and the technical experts were incorporated into the methodology proposed for the evaluation.

Key informants and individual interviews, focused group discussions and record reviews from the health facilities and organizations were the main techniques for data collection. Separate set of interview guidelines were developed for this purpose.

The following methods were used for the purpose of data collection:

i. Individual In-depth Interviews

The sample of community people, and health care providers both at the facility and community levels were taken as the sample for the study. A semi-structured questionnaire was developed for the individual interviews. The interview questionnaire focused on the objectives of the study by using different sets of questionnaire.

Table 3: Total Number of Participants for In-depth Individual Interviews

Sr.#	Category	Number of sample in each district		
		Male	Female	Total
1	Mothers with Under 2 yr. children	-	800	800
2	Health service providers in the facility level	40	40	80
	Total	40	840	880

ii. Key Informant interviews

The key informants for the study from different health facility levels and strata will be as follows:

Table 4: No. of Key Informant Interviews

Sr.#	Category	Number of sample		
		Male	Female	Total
1	District Health personnel	10		20
2	Social leaders/ community key informants	40	40	80
3	NGOs/CBOs representatives	20	20	40
4.	Central level key informants	5		5
	Total	75	70	145

The findings from the key informants were used to cross validate the findings from other sources. It covered planning, implementing, monitoring and evaluation of the EHCDS activities along with the strengths, gaps, weakness, opportunities and lessons learned in the health sector of Nepal.

iii. Focus group discussion (FGD)

A total of 40 FGDs were conducted in the 10 sample districts. Eight to ten participants were included in each focus group discussion. While selecting the participants homogeneity in terms of gender and age was maintained. However, it was not too homogeneous in order to pull out diverse opinions and experiences.

Table 5: Number of FGDs Done in the Sample Districts

Sr.#	Category	Number of FGDs		
		Male	Female	Total
1	Community People	10	10	20
2	Community health workers	5	5	10
3	CHMCs	10		10
Total		25	15	40

The FGDs were done with the community people, health workers and CHMCs. A field researcher had facilitated the FGD and another note taker had write notes of the discussion. The FGD facilitator followed the FGD guidelines developed by the study team.

The FGD participants were pre-informed on the purpose, venue and time of the discussion. A neutral set up was created to conduct the discussions. Gender compatibility between the facilitator, note taker and participants was taken care of. Separate set of FGD guidelines were developed, pre-tested and used for different stakeholders. The discussions were transcribed on notebooks and tape-recorded. The findings of the FGDs were analyzed by desegregating them into different “domains” and “themes” following the question routes.

Table 6: Methods/Tools against the Objectives for the Evaluation of EHCDS

Obj. No.	Objective	Methods/Tools	Source of Information	Respondents
1.	To review the essential health services provided by public health facilities	i. Key informant interviews ii. Interview with the service providers iii. HH interviews iv. Archival record reviews (D/PHO and health facilities)	i. ,ii and iii Primary iv. Secondary	i. D/PHO ii. Service providers iii. Mothers w_ U2 children iv. D/PHO, statistician at D/PHO
2.	To assess the level of progress and analyze the extent to which the achievements have supported the EHCDS program goals and their objectives,	i. D/PHO record/report ii. D/PHO interviews	i. Archival ii. Primary	D/PHO

3.	To analyze the effectiveness, sustainability and continuity of EHCS	i. HH interviews with mothers ii. Key informants iii. FGD with service providers and community	Primary	i. Mothers ii. D/PHO, CHMCs iii. Service providers
4.	To assess the equity and efficiency in delivering EHCDS	i. Key informants ii. Mothers iii. Exit client interviews iv. D/PHO records	Primary	i. Key people ii. Mothers iii. Clients from the service outlets
5.	To assess the quality of care from the client and provider perspectives	i. Exit client interview ii. Service provider interview iii. Interview with mothers iv. FGD with community	All from primary sources	i. Service users ii. Service providers iii. Mothers at HH level
6.	To assess the inclusion of marginalized and disadvantaged populations in accessing the health care services	i. HF utilization record reviews ii. FGDs with community people and service providers iii. Key informants interviews	i. Secondary source and Primary source	Statistician/focal person

iv. Utilization and access record reviews

The service utilization data (out patient and in patient) and health facility records and documents maintained at the district and below level health facilities were reviewed with the help of an observation checklist. All the health facilities at the study VDCs and district hospital, including an Ayurvedic dispensary were studied. In each district one hospital, one PHCC, one HP, one SHP and one Ayurvedic health facility was covered. It has been supplement to the findings of the study.

v. Exit interviews

About 2-3 exit clients from each category of health facility in each district was interviewed by using semi-structured interview schedule. Thus altogether 20 exit interviews with the health service users were conducted to assess the types and quality of the health care services and the trend of their utilizations.

vi. SWOT analyses

The strengths, weakness, opportunity and threats (SWOT) was assessed for the implementation of the essential health care services in the community and district levels. A total of 10 SWOT events were conducted for the study.

2.6 Study Process

The study proceeded through a series of activities as explained below:

2.6.1 Desk study and Reflection Phase

The global, national level and district level documents related to EHCDs policies, plan, programs and activities were systematically reviewed. Such a review was followed on in the district levels during the field survey. This review helped understand the context as well as facilitate the development of methods and tools for data collection. Moreover, it helps identify the gaps in the available literature and direct the study to fill the void of information through the field survey.

2.6.2 Interaction/sharing meeting

The study team leader, from time to time, sat together with the Technical Committee at NHRC to share and finalize the ToR, study objectives, methodology and process of study, draft tools and expected and derived outcome of the study. The team members jotted down their ideas and their comments were collected and incorporated accordingly while implementing the study. Six meetings of the Technical Committee will were held on the course of the study.

2.6.3 Development and validation of the study tools and techniques

The study tools developed by the consultant including the FGD guidelines and the interview schedule for the primary beneficiaries and community, district, and central level key informant questionnaire were presented to the Technical committee and the external experts at NHRC. Once the comments were received, the study teams again reviewed the tools and finalized them. The tools thus prepared were mock-tested in the training of the field researchers prior to the field trial. The pre-testing was done in Kavre and Bhaktapur districts, other than the sample districts. The feedback of the pre-test was incorporated accordingly to finalize the study tools.

2.6.4 Training and Orientation of the field researchers

Three day's orientation training was organized to the field researchers prior to go to the field study. The training flourished with goal, objectives, working principles and the activities of the study. Also the methodology of data collection, sample selection procedure and process, working procedure in the community, do's and don'ts and mannerisms and research ethics had been covered in the training. During the training, the field researchers were requested to administer the questionnaire and practice FGD facilitation skill to make them well acquainted with the questions and techniques of writing FGDs and interview notes.

The study team members facilitated the orientation. Each and every member of the field research team had practiced the techniques of interviewing individuals and facilitating FGDs and conducting SWOT analysis.

2.7 Quality Assurance (Supervision and quality control)

Quality controls for the collected data were ensured at various levels such in the field level, district and central level. Quality of information depends on how the process of data collection is undertaken. For this purpose, the consultant and the field officers visited the study districts themselves.

To the maximum extent possible, the consultant and field officers were with the field study team at the district and closely monitored and communicated with the locally recruited and trained enumerators. This provided sufficient room for solving the problems encountered in the field. This process was considered beneficial for concrete, precise and consolidated information collection.

2.8 Ethical considerations

Though the study was non-invasive and did not raise any strong ethical concerns, maintaining the right of the participants whether or not to participate and not disclosing their status was duly respected and followed. The informed consents of the participants were taken before preceding the study and their anonymity and confidentiality was strictly maintained. Social and cultural values of the participants were duly respected. FGD participants were provided with refreshments as a token of participation but it did not serve as inducement in any case.

2.9 Data processing and analysis

The quantitative data for the study was analyzed by using SPSS software. The qualitative data was analyzed manually. Brainwork was the main method for analyzing the piles of qualitative information collected from the field. Field notes were analyzed according to “question route” under different “themes”. Flow charts and matrices were prepared, where possible. Verbatim were categorized and supplemented in the report, with or without vignettes and wherever relevant. Tabular, graphical, illustrative, pictorial and textual presentations have been incorporated in the report.

For maintaining rigor, maximum efforts have been made to marry the qualitative and quantitative findings and to triangulate the issues in question. The study team member had supervised the information related to their study area. The consultant had taken care of all the data processing and analysis work.

2.10 Debriefing the report

Once the data collection from the field was completed, the field officers debriefed to the study team in Kathmandu. This debriefing session helped triangulate the data and information and at the same time generated additional information for this study. The debriefing was helpful in order to complete the assignment within the stipulated time with worthy outputs

The draft report was prepared and shared with the research section and later on to the Technical Committee at NHRC. The consultant collected comments and suggestions and incorporated into the report. The final report was prepared after the collection of feedback and incorporation of the feedback given by the technical team and other stakeholders in the debriefing process.

2.11 Constraints/Limitations

Following constraints were witnessed during this study:

- i. The activities to be done for the study were greatly hampered because of the historic people's movement (*Janaandolan -2, 2006*) in Nepal. Almost three weeks were disturbing due to indefinite strike called by the political parties. As a result the task of data collection was delayed.
- ii. Lack of space and resources for the consultant and field officers (10 in total) was the next constraint faced by the study team. As many studies were simultaneously going on in the NHRC, availability of office space and computers for different study teams and their members was not possible. As a result the consultant had to share computers in his rented office building at Thapathali. The training hall for orientation and debriefing of the field officers was also rented.
- iii. Because of the absence of Member Secretary at NHRC for a longer period, it was not possible to recruit data entry personnel and a computer assistant in consultation with the Council. However, keeping the time constraint in mind to complete the study, the consultant recruited them and involved for data entry, analysis and computing.
- iv. Health facility records and health budgets were not available in some districts due to many reasons. In few other districts, the quality of records was found poor.

2.12 Work Plan

The study was completed within four months, starting from 15th of Falgun as follows:

S.No.	Activities	Month 1	Month 2	Month 3	Month 4
1.	Stakeholders meeting and ToR finalization	■			
2.	Literature Review/Report of Desk Review		■		
3.	Writing of Draft Tools and its finalization		■		
4.	Recruitment and training of field research team			■	
5.	Pre-testing of tools			■	
6.	Data collection/Field mobilization			■	
7.	Data entry and analyses				■
8.	Report writing				■
9.	Dissemination of findings for comments				■
10.	Incorporation of feedback and report finalization				■
11.	Dissemination Workshop				■

2.13 Specific Professional Responsibilities of the Study Team Members

The key assignment of the study team members was as follows:

2.13.1 Team Leader

- Coordinate and liaise the entire teamwork.
- Develop and finalize work plan
- Organize and lead meetings with NHEICC Technical Committee
- Development and finalization of the Study tools
- Team mobilization
- Supervision of study works in field and Kathmandu
- Review related project documents and literatures
- Organize staff meetings
- Presentation/debriefing of the study findings/report

2.13.2 Data Analyst/statistician

- Assist the core team in drafting the study tools
- Assist the core team in designing the dummy tables, data coding, entry and analyses
- Incorporation of feedbacks and reanalyzing, if needed
- Assist in finalizing the report

2.13.3 Research Officers

- Participate in training orientation to the field team
- Assist in recruitment of the researches
- Assist in logistical planning in Kathmandu and in the field
- Coordinate the field research team,
- Select the study VDCs, HFs and community for the study in the districts,
- Conduct and monitor data collection,
- Assist in analyzing the findings.
- Submit field report and assist in finalizing the report

2.13.4 Technical Committee

A provision of technical committee was made to guide, monitor and facilitate the study at NHRC.

The proposed committee comprised of five members:

- | | |
|--|---|
| ▪ NHRC Member-Secretary | 1 |
| ▪ NHRC Board Members | 2 |
| ▪ Chief, Health Research Section, NHRC | 1 |
| ▪ External Expert of the Study | 1 |

NHRC Research Section coordinated with all of these committee members. The decision made by the committee for the execution of the proposed project was considered final. The technical committee was formed by the NHRC executive board, which had delegated the power to the NHRC member-secretary for smooth operation of the proposed projects.

The Technical Committee reviewed the work output such as inception report, detail proposal with study tools, draft report and the final report. The draft reports was reviewed by an external reviewer and provided feedback on it.

Chapter 3

PRESENTATION OF FINDINGS

This section discusses on the EHCDS provided through the health system in the district and sub-district levels, progress and achievements made in delivering the EHCDS, effectiveness and sustainability of the EHCDS, equity and efficiency, issues of quality care and inclusion of marginalized and disadvantaged populations in accessing EHCS.

3.1 Essential Health Care Services Delivered by the Public Health Facilities

A range of preventive, promotive and curative services have been provided through a network of public health facilities in Nepal. However, the NHSP-IP has identified five key areas as priority sectors. In this study an attempt was made to assess stakeholders' knowledge on these key priority areas. It is interesting to note that in most of the districts and below district level health facilities, the service providers, including those in decision making levels were not knowledgeable on what constituted the priority health services. However after probing, many of them mentioned safe motherhood, family planning and child health and outpatient care as priority health service components. Almost all respondents did not report outpatient service delivery as priority essential health care services. The reason behind the ignorance of the priority EHCSs are reported as lack of dissemination of health sector strategy plan and programs at the district and below levels and top down approach taken in setting of district targets, plans and programs.

In most of the districts, programs that are given priority and are regular and effectively functioning are immunization, family planning services, safe motherhood (ANC check up), and nutrition and general treatment of common diseases. Problems that have not been addressed so far in community level HP, SHP and PHCC are reported as dental and oral health problems, mental disorders, injuries of bones, fractures (orthopaedics) and treatment of non-communicable diseases like diabetes, and gynaecological problems such as uterus prolapse.

Pathology and radiography services like x-ray are also not available at community level health institutions, including in PHCCs due to lack of technical manpower. As for example, in Mustang and Doti it was starkly evident.

3.1.1 Safe motherhood

Of the 811 mothers interviewed, four in 10 mothers belonged to age group 21-25 years. A little more than one fifth of the mothers (21.6%) were aged 16-20 years and 26-30 years (22.2%). The median age of mothers was 24 years.

Table 7 shows distribution of mothers by their age at first child birth. As shown in the table, nine out of ten (91%) respondent women had their first child between the age brackets 16-25 years. This trend is relatively low in mountain region (88.9%) than in hills (92.9%) and Terai (90.7%).

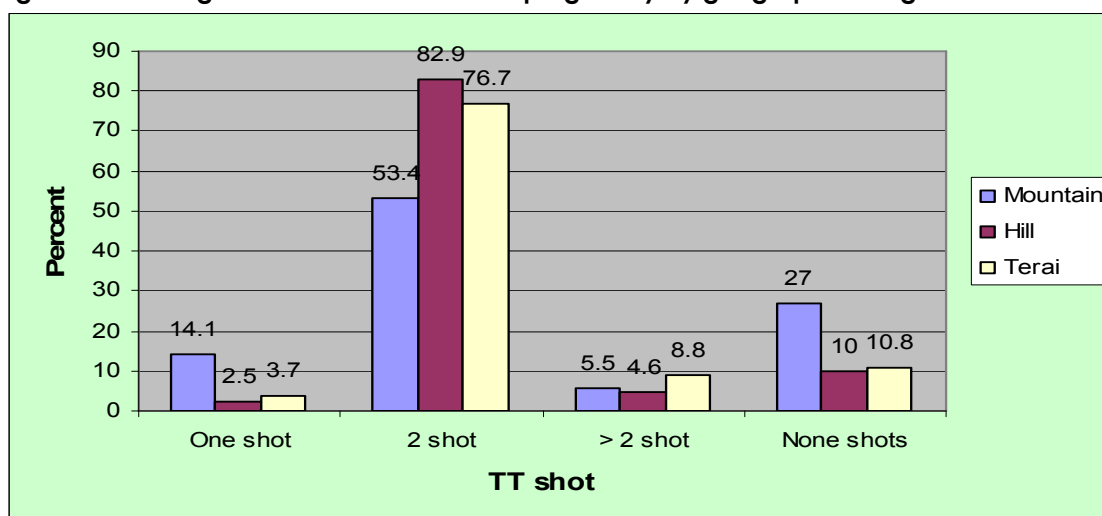
Table 7: Age of the mothers at first birth by geographical regions

Age of the mothers at first birth	Geographical regions						Total
	Mountain		Hill		Terai		
	N	%	N	%	N	%	
<=15 years	1	0.6	11	4.6	27	6.6	39(4.8)
16-25 years	145	88.9	223	92.9	370	90.7	738(91.0)
26-35 years	16	9.9	6	2.5	11	2.7	33(4.1)
>35 years	1	0.6	0	0.0	0	0.0	1(0.1)
Total	163	100.0	240	100.0	408	100.0	811(100.0)

Coverage of TT vaccine

Figure 1 presents TT vaccine coverage in the study districts. According to the mothers' self-report on the whole, more than three quarters (80.7%) of the mothers had received two or more shots of TT vaccine. However, one in ten mothers was left out while in receiving the TT vaccine. More than half of the mothers in the mountain districts had received only one shot of TT vaccine.

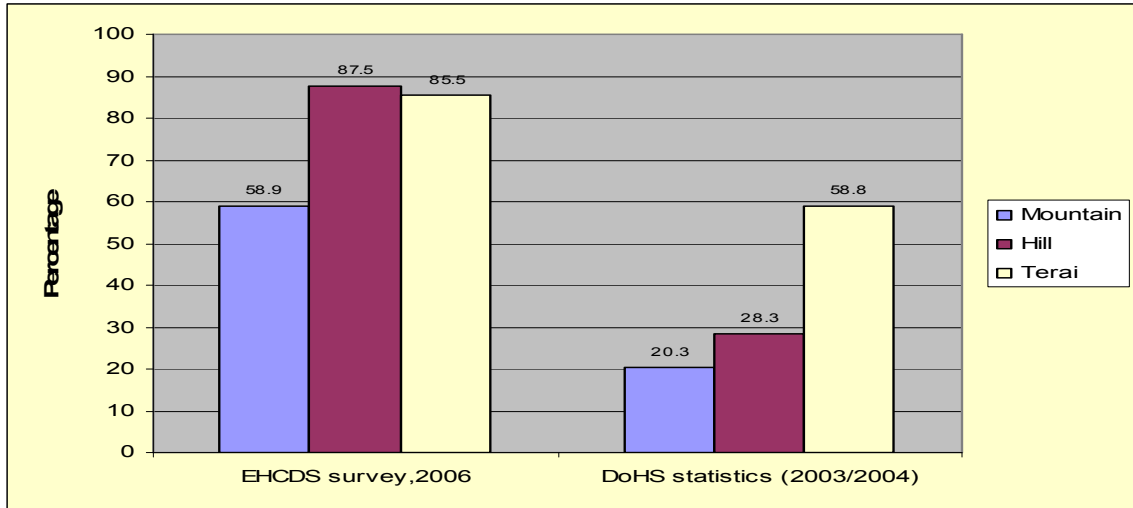
Figure 1: Coverage of TT vaccination in last pregnancy by geographical regions



Source: Evaluation of EHCDS, NHRC 2006

Figure 2 depicts survey findings regarding TT coverage in mountain, hill and terai districts against DoH's national figures.

Figure 2: Coverage of two or more TT vaccines among women



Source: Evaluation of EHCDS, NHRC 2006

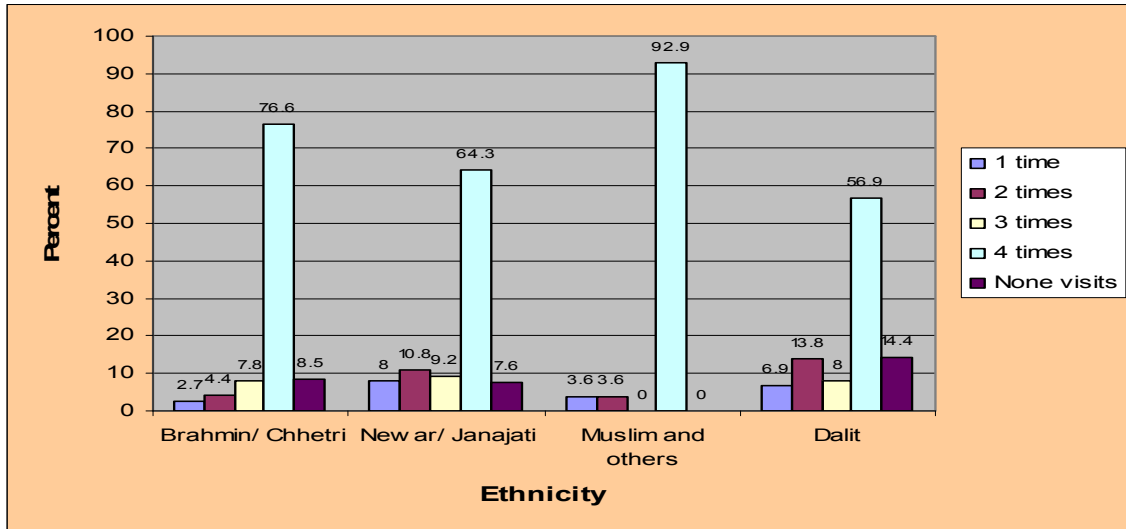
In regards to ANC checks done by the mothers, 68.2% mothers have made four ANC visits. The ANC fourth visit is highest in hills (85%) followed by terai (64.5%) and mountain (52.8%).

Table 8: Number of ANC checkup done in last pregnancy by geographical regions

Number of ANC checkup	Geographical regions						Total N(%)
	Mountain		Hill		Terai		
	N	%	N	%	N	%	
1 time	22	13.5	6	2.5	18	4.4	46(5.7)
2 times	23	14.1	3	1.3	46	11.3	72(8.9)
3 times	23	14.1	7	2.9	36	8.8	66(8.1)
4 times	86	52.8	204	85.0	263	64.5	553(68.2)
Not visited at all	9	5.5	20	8.3	45	11.0	74(9.1)
Total	163	100.0	240	100.0	408	100.0	811

Source: Evaluation of EHCDS, NHRC 2006

Figure 3: ANC checkup made by the mothers in their last pregnancy by ethnicity

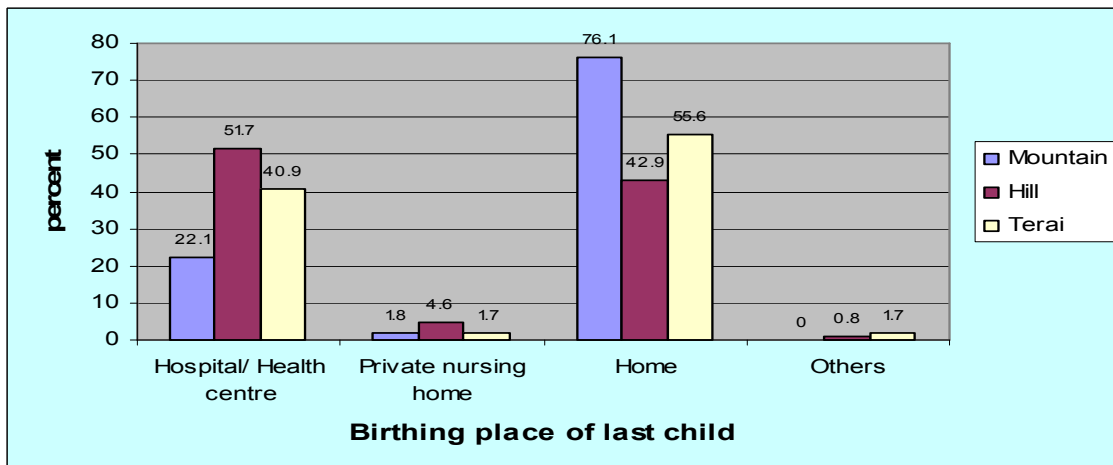


By ethnicity, seeking of ANC service seems higher among Muslim mothers as 92.9% mothers had sought four ANC visits. It is followed by Brahmin Chhetri (76.6%) and Newar and Janajati (64.3%). The fourth ANC visit is least among the Dalit mothers (56.9%).

Place of Delivery

In Nepal statistics show that nearly one fifth of the women (80%) deliver at home (DoHs, 2004/2005). It was 89% in 2001 (NDHS, 2001). This evaluation study shows relatively higher proportion of women have made deliveries at health facilities (40.3% at hospital/health center and 2.6% at private nursing homes). However, home delivery is highest in mountain region (76%). Findings from the interviews and FGDs from Mustang and Solukhumbu districts reveal that the tendency of calling health workers for delivery assistance at home is on rise. In the absence of such data at the district level, it could not be ascertain what proportion of delivery was conducted by the trained health workers at home.

Figure 4: Place of last delivery by geographical regions



Delivery at the health institution among Dalits seems lowest (33.3%), which is little higher among Newar and Janajati (37.3%). The proportion of women having delivery at health facilities is highest among the Brahmin women (45%).

Table 9: Place of last delivery by ethnicity

Place of Birth last child	Caste/Ethnicity									
	Brahmin/Chhetri		Newar/Janajati		Muslim and others		Dalit		Total	
	N	%	N	%	N	%	N	%	N	%
Hospital/Health centre	133	45.1	117	37.3	19	67.9	58	33.3	327	40.3
Private nursing home	11	3.7	9	2.9	0	0	1	0.6	21	2.6
Home	149	50.5	184	58.6	9	32.1	112	64.4	454	56.0
Others	2	0.7	4	1.3	0	0	3	1.7	9	1.1
Total	295	100	314	100.0	28	100.0	174	100	811	100.0

Mother interviews reveal that one third of the deliveries (33.3%) are assisted by the mothers-in-law followed by one fourth of the deliveries (25.6%) conducted by doctor/HA/AHW. It is also interesting that more deliveries are conducted by the FCHVs (7.4%) compared to the MCHWs (2.6%). However in the absence of verification of the self-reported data it could not be concluded at all.

Table 10: Personnel who assisted last delivery by geographical regions

Personnel who assisted last delivery	Geographical regions							
	Mountain		Hill		Terai		Total N (%)	
	N	%	N	%	N	%		
MCHW	5	3.2	11	4.7	4	1.1	20(2.6)	
FCHV	18	11.5	10	4.3	29	7.5	57(7.4)	
Nurse/ ANM	23	14.6	36	15.5	75	19.6	134(17.3)	
Doctor/HA/AHW	18	11.5	88	37.8	92	24.1	198(25.6)	
Mothers- in- law	44	28.0	63	27.0	150	39.3	257(33.3)	
Friends	29	18.4	22	9.4	22	5.8	73(9.5)	
Others	20	12.8	3	1.3	10	2.6	33(4.3)	
Total	157	100.0	233	100.0	382	100.0	772(100.0)	

The **Table 10** also shows that in terai region, the trend of mothers-in-law assisted birth is higher (39.3%) than in hill (27%) and mountain (28%). Similarly, deliveries assisted by doctor/HA/AHW seems higher in hilly districts (37.8%) compared to terai (24.1) and mountain districts (11.5%).

A total of 323 women, out of 811 women interviewed, reported some complications during their last deliveries. The types of complications are presented in **Table 11** below:

Table 11: Type of complications during last delivery (Multiple responses)

Type of complications	No.	Percent
Prolonged labor	282	87.3
Retained placenta	15	4.6
Post partum hemorrhage	35	10.8
Faint/ shock	15	4.6
Others	5	1.5
Total	323	100.0

Prolonged labor was the principal complication during deliveries followed by hemorrhage (10.8%). Retained placenta and faintness was reported by 4.6 % mothers each.

Table 12: Perceived Need of birthing centre at local health post/ community by ethnicity

Ethnicity of the respondents	Need of birthing centre at local health post/ community						Total
	Yes	%	No	%	Don't know	%	
Brahman/ Chhetri	242	82.0	51	17.3	2	0.7	295
Newar/ Janajati	267	85.0	41	13.1	6	1.9	314
Muslim and others	21	75.0	6	21.4	1	3.6	28
Dalit	140	80.5	29	16.7	5	2.9	174
Total	670	82.6	127	15.7	14	1.7	811

When asked whether there was a need for a birthing center in the community, overwhelming number of mothers (670 out of 811 or 82.6%), irrespective of their caste and ethnicity, were in favor of establishing a birthing center in their community.

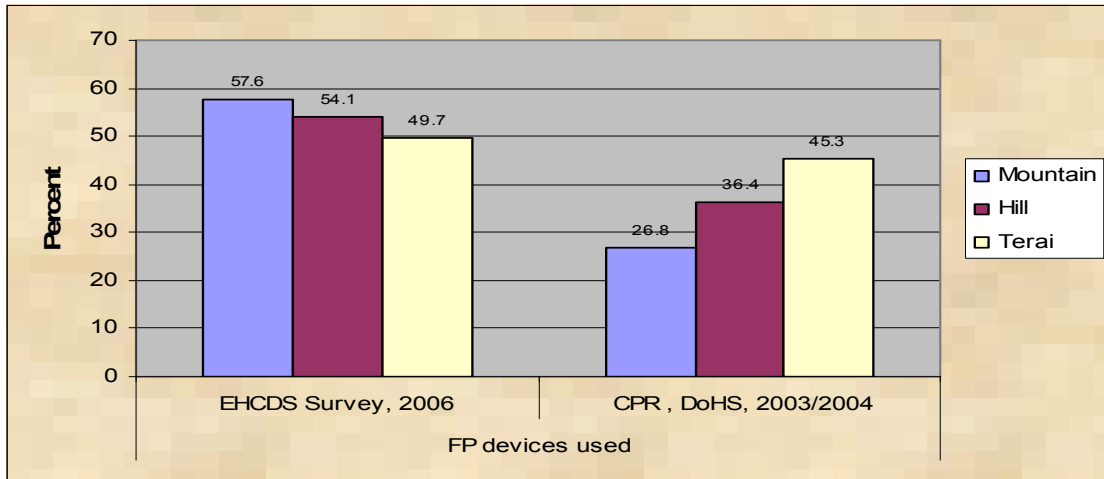
3.1.2 Family planning

The overall current FP users in this EHCDS survey was found 52.7%, which was relatively higher than the national average in the year 2003/2004 (40%). By geographical regions, the contraceptive use was highest in mountain districts (57.6%) followed by hill and terai, 54.1% and 49.7% respectively.

Table 13: Current family planning users by geographical regions (In %)

Geographical regions	FP devices used	
	EHCDS Survey, 2006	CPR , DoHS, 2003/2004
Mountain	57.6	26.8
Hill	54.1	36.4
Terai	49.7	45.3
Total	52.7	40.0

Figure 5: Current family planning users by geographical regions (In %)

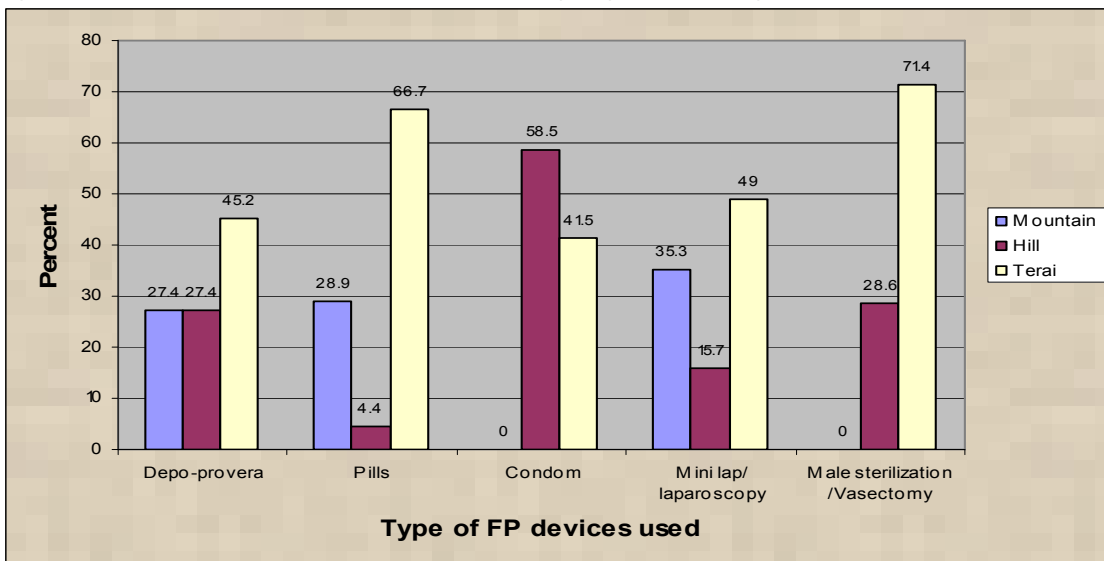


Of the total FP users, majority had used depo-provera (53.8%) followed by condom (22.1%) and mini lap (11.9%). In mountain region, none of the male devices were used. In terai districts, all female devices are highly used than in other regions. On the other hand, condom use is highest in the hill districts (58.5%).

Table 14: Type of FP devices currently used by geographical regions

Type of FP devices used	Geographical regions						Total (Column %)
	Mountain		Hill		Terai		
	N	%	N	%	N	%	
Depo-provera	63	27.4	63	27.4	104	45.2	230(53.8)
Pills	13	28.9	2	4.4	30	66.7	45(10.5)
Condom	0	0	55	58.5	39	41.5	94(22.1)
Mini lap/ laparoscopy	18	35.3	8	15.7	25	49.0	51(11.9)
Male sterilization/Vasectomy	0	0	2	28.6	5	71.4	7(1.6)
Total	94	22.0	130	30.4	203	47.5	427(100.0)

Figure 6: Type of FP devices currently used by geographical regions



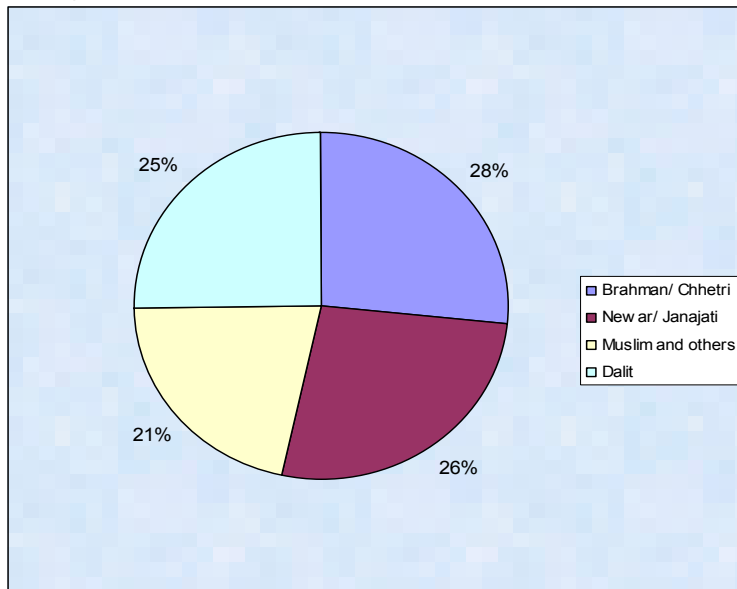
Of those who did not use FP devices, nearly two third (64.6%) did not realize the need for them. About one fifth of them (20%) flatly said having no knowledge of the contraceptives. However 8.7% and 2.1% of the mothers cited lack of access and side effects respectively.

Table 15: Reasons of not using FP devices by ethnicity (Multiple responses)

Reasons of not using FP devices	Ethnicity								Total
	Brahman/ Chhetri		Newar/ Janajati		Muslim and others		Dalit		
	N	%	N	%	N	%	N	%	
No need to use FP devices	82	32.5	101	40.1	14	5.6	55	21.8	252(64.6)
Side effects	2	25.0	4	50.0	0	0	2	25.0	8(2.1)
Don't know about the use of FP devices	34	43.6	27	34.6	1	1.3	16	20.5	78(20.0)
Not available at easy access	13	38.2	12	35.3	0	0	9	26.5	34(8.7)
Others	6	33.3	6	33.3	1	5.5	5	27.8	18(4.6)
Total	137	35.1	150	38.5	16	4.1	87	22.3	390(100.0)

By ethnicity, it was Newar and Janajati who reported highest use of FP devices (38.5%).The Muslims had the least use (4.1%).A little more than one fifth of Dalits (22.3%) and one third of the Brahmin Chhetri (35.1%) had reported use of FP devices.

Figure 7: Current use of FP devices by ethnicity (yes %)



Sources of FP devices

Table 16 presents sources of FP devices by ethnicity in the study districts.

Table 16: Sources of FP devices by ethnicity

Sources of FP devices	Brahman/ Chhetri		Ethnicity Newar/ Janajati		Muslim and others		Dalit		Total (N %)
	N	%	N	%	N	%	N	%	
Hospital	108	41.5	82	31.5	12	4.6	58	22.3	260(62.6)
Health post	42	33.6	55	44	0	0	28	22.4	125(30.1)
MCHW/ VHW/ FCHV	1	50	1	50	0	0	0	0	2(0.5)
Pharmacy/ drug store	4	14.3	23	82.1	0	0	1	3.6	28(6.7)
Total	155	37.3	161	38.8	12	2.9	87	21.0	415(100.0)

On overall, for nearly two third of the women hospital was the main source of FP devices. The reason for this may be due to availability of permanent sterilization methods in hospitals only. Health post was the second source of FP devices for them (30.1%).

3.1.3 Out patient and in-patient care

The NHSP-IP has clearly identified strengthening of outpatient care as one of the priority areas of health sector strategy. In this study, a total of 811 mothers having under five years of children and 104 clients during their exits at the health facilities were interviewed. In addition, a total of 43,616 client record was reviewed from 50 health facilities in ten sample districts. The findings of the study are discussed in the following paragraphs.

Out of the 811 women, 389 women (48%) self-reported that at least a person got sickness within a year prior to the study. The type of sickness has been shown in the Table below:

Table 17: Types of self-reported morbidity by the respondents

Morbidity type	No.	Percent
Fever	198	50.9
Diarrhea	155	39.8
Common cold	91	23.4
Weight loss/weakness	38	9.8
Injuries	36	9.3
Malaria	34	8.7
Tuberculosis	33	8.5
Others	42	10.8

Fever (50.9%), diarrhea (39.8%) and common cold (23.4%) appear as the main health problems in the study districts. However, there are regional variations in morbidity patterns.

Of those women having a sick family member within the last one year's period in home, 340(87.4%) had sought treatment for the sickness. This was slightly higher compared to the proportion of women ever been to health facility (678 out of 811 i.e. 83.6%).

The percentages of women who visited one time, two times, three times and four times were 29.5%, 20.9%, 25.4% and 23.2 % respectively.

Figure 8: Types of self-reported morbidity by the respondents

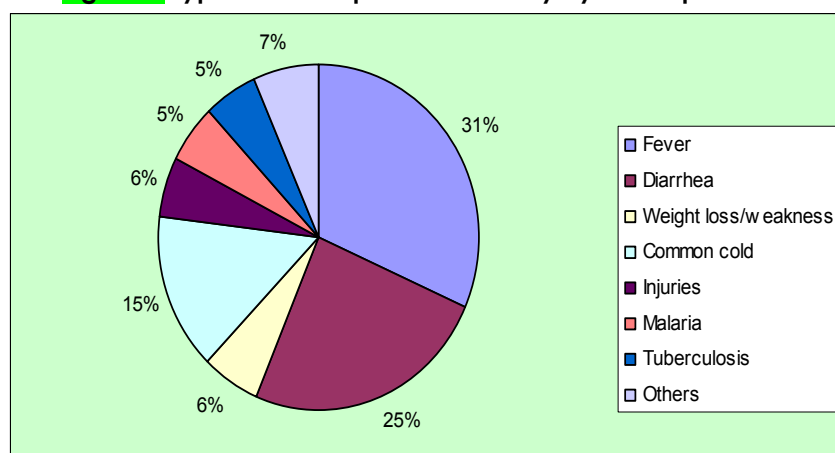


Table 18: Number of visits to the health post/ hospital made by the mothers

Number of visits	No.	Percent
1	200	29.5
2	142	20.9
3	172	25.4
4	157	23.2
5	7	1.0
Total	678	100

The families that did not contact health facilities cited lack of money (8.9%), lack of time (8.9%) and no awareness on treatment services as the main reasons for not seeking treatment.

Table 19: Most common reasons of mothers visit to health post/ hospital (Mother interviews)

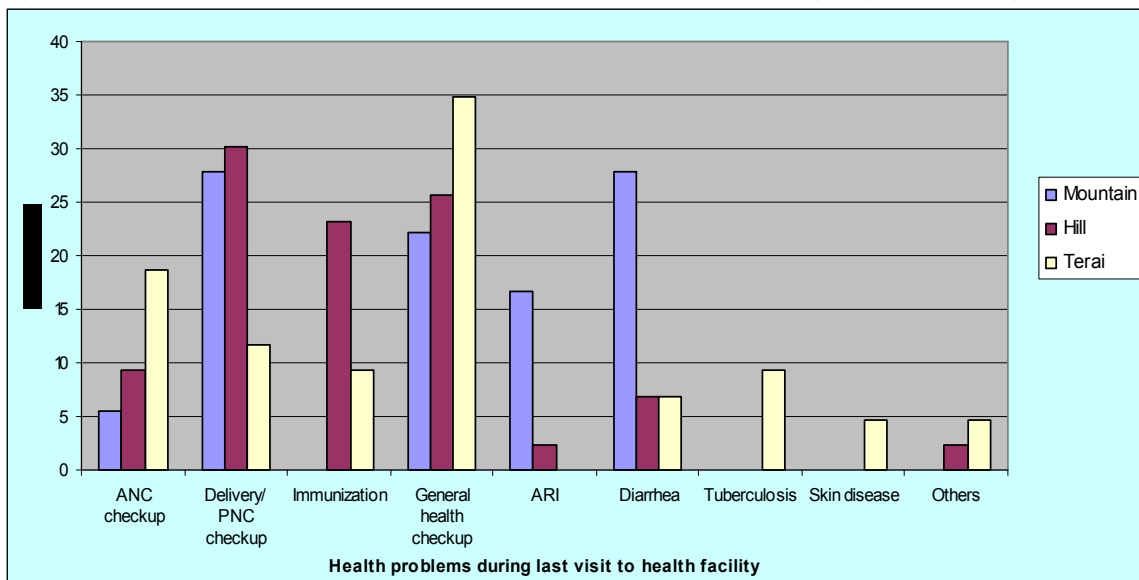
Reason for the visit	No.	Percent
ANC checkup	77	11.4
TT vaccination	131	19.3
Delivery care	317	46.8
Post natal checkup	3	0.4
General checkup	97	14.3
Others	53	7.8
Total	678	100

In this evaluation study, a total of 104 clients during their exit from the health facilities, were asked to mention the most common health problems which led them visit the health facility. Their responses are captured in **Table 20** given below:

Table 20: Health problem services for which clients visited health facility by geographical regions

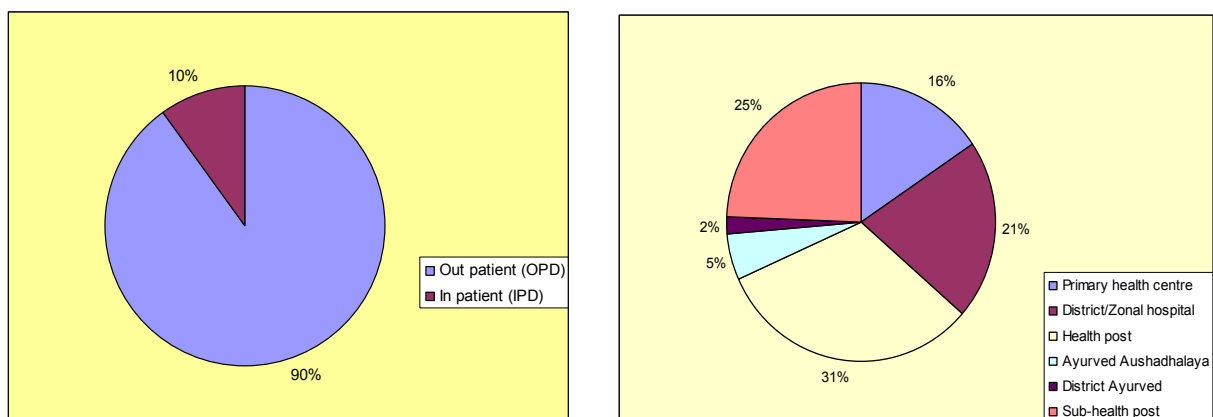
Health problems during last visit to health facility	Geographical regions						Total
	Mountain		Hill		Terai		
	N	%	N	%	N	%	
General health checkup	4	22.2	11	25.6	15	34.8	30(28.8)
Delivery and PNC checkup	5	27.8	13	30.2	5	11.6	23(22.1)
ANC checkup	1	5.5	4	9.3	8	18.6	13(12.5)
Immunization	0	0.0	10	23.2	4	9.3	14(13.4)
ARI	3	16.7	1	2.3	0	0.0	4(3.8)
Diarrhea	5	27.8	3	6.9	3	6.9	11(10.6)
Tuberculosis	0	0.0	0	0.0	4	9.3	4(3.8)
Skin disease	0	0.0	0	0.0	2	4.6	2(1.9)
Others	0	0.0	1	2.3	2	4.6	3(2.9)
Total	18	100.0	43	100.0	43	100.0	104(100.0)

Figure 9: Health problems for which clients visited health facility by geographical regions



The main reasons for visiting the health facilities by the clients were general health checks (28.8%), delivery and PNC checks (22.1%), immunization (13.4%), and ANC services (12.5%). One in ten clients (10.6%) sought treatment of diarrhea. These findings are compatible to the service utilization data over the period 2001/2002-2005/2006 in the study districts, as shown in **Figure 10** and also consistent with the major health problems identified in the study districts.

Figure 10: Type of health services clients received (Based on Health Facility Records 2001/2002-2005/2006)



As shown in **Figure 10** above, of the total patients, nine out of ten patients were out patients while only one in ten was an in-patient.

By health facility, the highest proportion of the clients served by the sample health facilities was covered by the health posts (31.9%) followed by Sub-health posts (24.5%), District and zonal hospital (20.9%) and primary health center (15.9%). With in the study period, 7% of the clients who visited the health facility was covered by the Ayurvedic health facilities.

In regards to the satisfaction of the clients in terms of the health services they received at their last visit, 94 out of 104 clients (i.e. 86.5%) expressed their satisfaction over the services. (Please refer to **Section 3.5** Quality of Care for detail description)

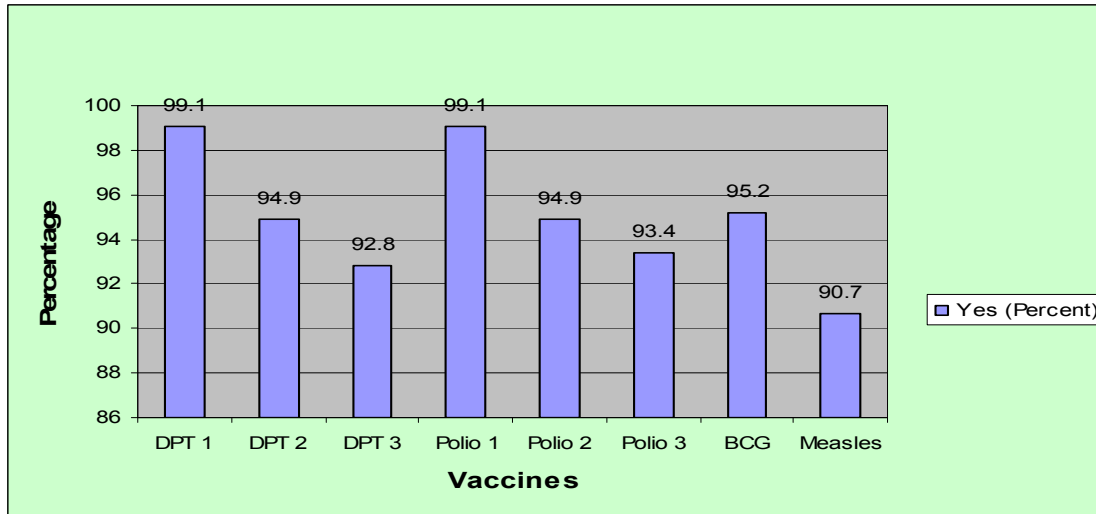
Table 21: Likes about the health services by ethnicity of the clients

Likes about the health facility	Ethnicity								Total
	Brahmin/Chhetri/Newar		Janajati		Muslim and others		Dalit		
	N	%	N	%	N	%	N	%	
Health workers/Doctors' behavior	25	49.1	16	64.0	9	90.0	13	72.3	63 (60.5)
Health post/ hospital building	0	0.0	2	8.0	0	0.0	1	5.5	3 (2.8)
Disease cured	14	27.5	2	8.0	1	10.0	1	5.5	18 (17.3)
Medicine is available	10	19.6	5	20.0	0	0.0	2	11.2	17 (16.3)
Others	2	3.9	0	0.0	0	0.0	1	5.5	3 (2.8)

3.1.4 Child health

Child Health is the next pertinent program under the health sector. Expanded program on immunization (EPI), control of diarrheal diseases and ARI, maternal and neonatal tetanus (MNT) and nutrition are the key components of the child health program. This section deals with the immunization status of children and women and their health seeking behaviors.

Figure 11: Immunization status of children



It is encouraging to note that vaccination coverage seems universal. Nine out of ten children have received all principal vaccines. Coverage of childhood vaccines by geographical regions has been shown in figure 13 below.

Figure 12: Childhood vaccinations (2000/2001-2006)

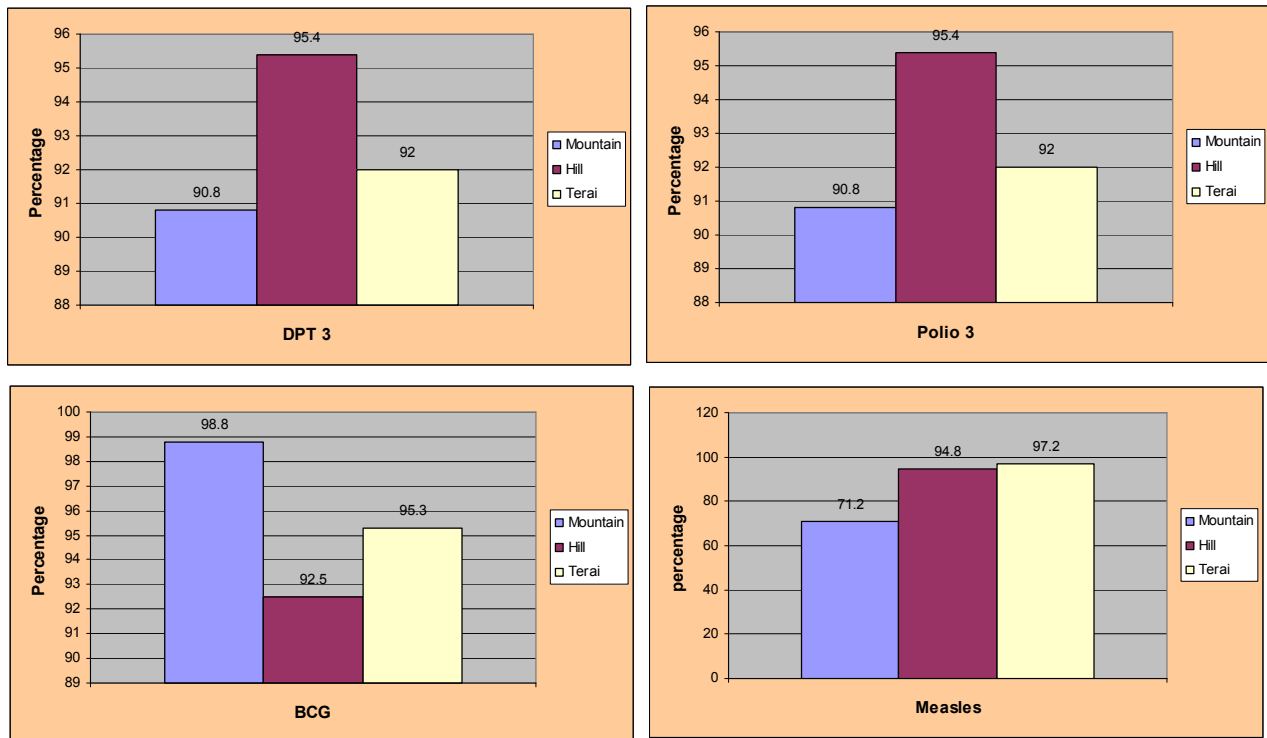


Table 22 shows children's access to health services. As captured in the table, eight out of 10 children have ever been taken to the health facility. Out of those taken to the health facility, more than one third (34.2%) were taken for three times.

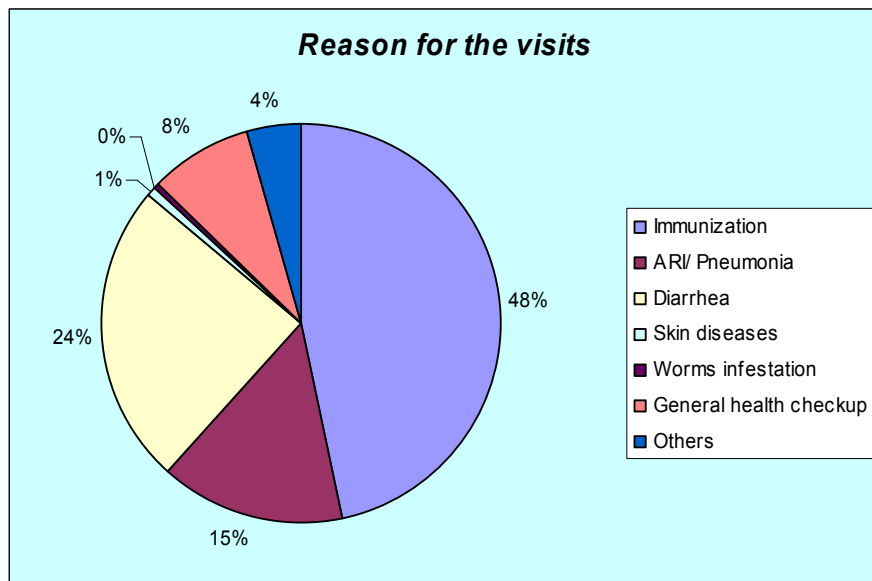
Table 22: Children ever taken to the health facility

Ever been to health facility	No.	Percent
Yes	650	80.1
No	161	19.9
Total	811	100.0

Number of visits to the health post/ hospital made by the children	No.	Percent
One visit	255	39.2
Two visit	173	26.6
Three visits	222	34.2
Total	650	100.0

The most common reasons for taking the child to the health facility were reported as for immunization (46.5%), treatment of diarrhea (24.5%), ARI/Pneumonia (15.2%) and general health check up (8.2%).

Figure 13: Most common reasons for children's visits to health facility



3.2 Progress and Achievements Made on EHCDS

As mentioned elsewhere in the report, this study has attempted to analyze the trend in achieving the targets set at the D/PHO and facility levels over the years 2000/2001 to 2004/2005. However, in the absence of data for many indicators, temporal achievement on immunization, childhood morbidity, safe motherhood, family planning and OPD services have been discussed in this section. Moreover, it supplements some qualitative information on target setting process and its awareness at various levels.

3.2.1 Target setting process

A strategic plan for a defined time frame along with realistic target is an indicator of an efficient health system. Moreover, participation of stakeholders in target setting process and their awareness of the indicators are vital for the successful implementation of EHCS. Interviews and FGDs done with the district and below district level stakeholders revealed that though the targets are set by the D/PHO at first and submitted to NPC through DDC as five year's plan, the targets for each district are set by the DoHS at the central level and passed down to the district levels. As reported by the D/PHO and health facility in-charges from the study districts many of the targets given to them do not represent the real situation. As for example, the number of expected pregnancy, number of under one and under five children to be covered do not match with the district and VDCwise demographic situations. It was highly evident to the districts and VDCs having high mobility of people due to conflict and migration. It was frequently reported from rural VDCs in hill and mountain districts and from bordering VDCs of the southern part of the terai districts. The trend of adding 10 percent figures to the district health profile so as to meet the national indicators in Mustang district is an example of compatibility in planning. Thus, overall, the district and below level stakeholders express a perception that the periodic health plans and targets are set at the central level. As a result, their ownership to the plan and programs seem less promising. Even in the districts having participatory district planning process, the five year plans do not seem compatible to the D/PHO's plan and programs approved by the DoHS. Moreover, review of the health sector plan and programs outlined in the district plan in terms of D/PHO's five year plan is lacking. Another weakness found among the district and below level cadre of health workers was their almost no or very poor level of understanding regarding the objectives and indicators of the five year plan, PRSP, MDG, NHSP particularly priority health services. It was reported due to the lack of localization of these plan and programs through orientation and sharing programs.

However the regional review meetings that is being held semi-annually on the auspicious of DoHS, MOHP, has been well appreciated by the D/PHOs as it has provided a practical forum to review and readjust district wise targets and indicators. They emphasized continuation of such review meetings followed by district and ilaka wise review within each district.

3.2.2 Achievements made on key indicators

The succeeding paragraphs describe the trend of progress made by the sample districts on key indicators during the period 2000/2001 to 2004/2005.

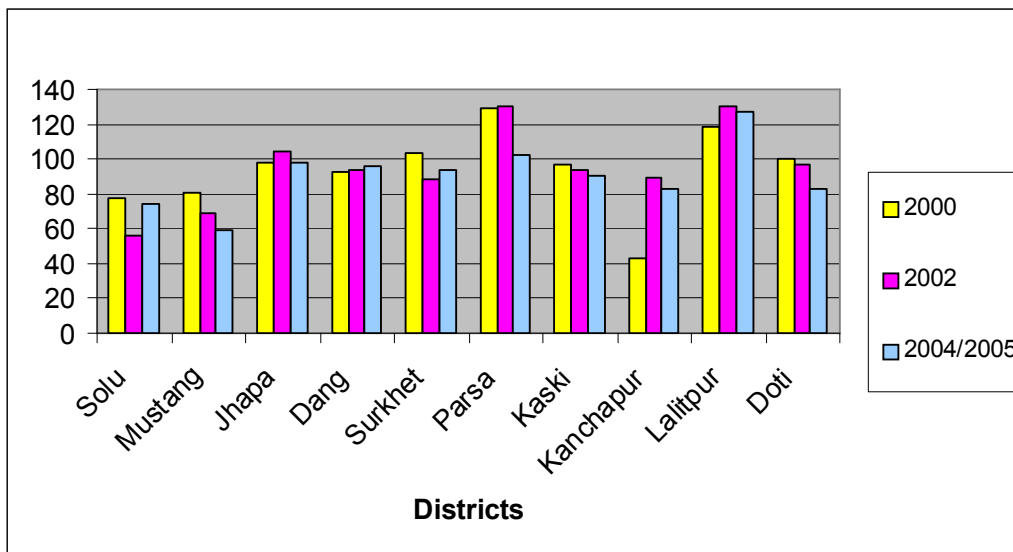
Child health

In order to assess the progress made over the past five year's period, indicators such as targets achieved in percentages on childhood vaccinations, growth monitoring and childhood morbidities have been analyzed.

Immunization

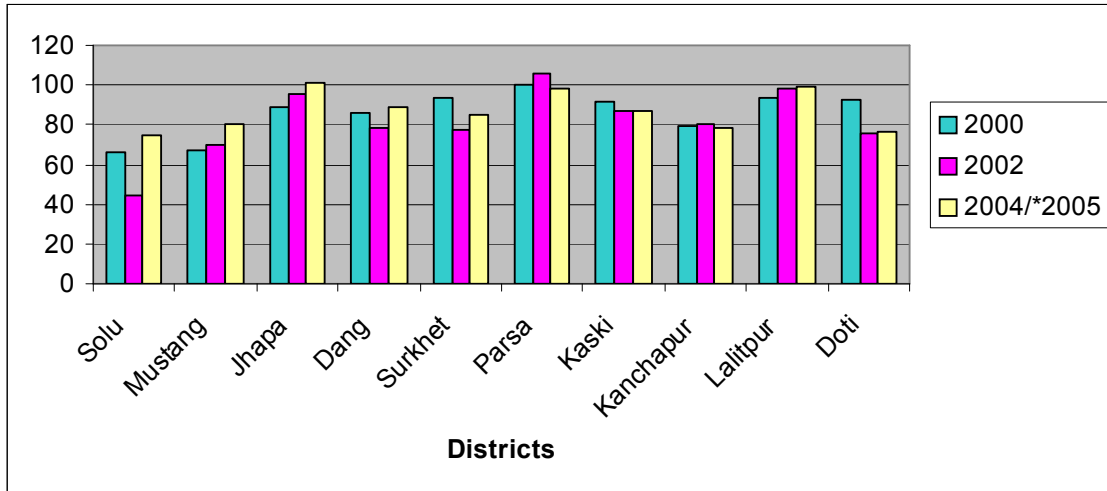
Achievements made on BCG vaccination over the period 2000-2005 show that of the 10 study districts, four districts namely Mustang, Parsa, Kaski and Doti have declining trend in BCG vaccination achievement. Dang district has increasing trend of achievement regarding BCG. Lalitpur, Surkhet, Jhapa and Solukhumbu show mixed achievements. On the whole, Parsa and Lalitpur districts have more than one hundred percent achievement on BCG.

Figure 14: BCG Target Achieved in Percentage (2000-2005)



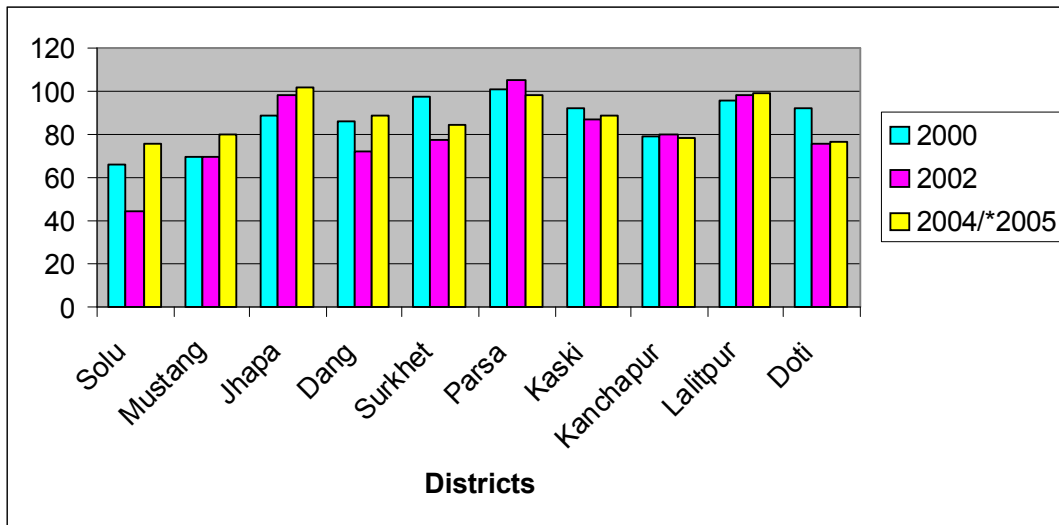
Similarly Mustang, Jhapa and Lalitpur districts have increased achievement on DPT III vaccine by leaps and bounds while the rest other districts have un even achievements. Except in 2000 by Parsa district, none of the districts have achieved more than one hundred percent progress.

Figure 15: DPT III Target Achieved in Percentage (2000-2005)



In regards to Polio III vaccination, Mustang, Jhapa and Lalitpur districts have set a upward trend in their progress on Polio III coverage while Doti district has a reverse trend. Jhapa, Parsa and Lalitpur districts have nearly one hundred percent progress on Polio III.

Figure 16: Polio III Target Achieved in Percentages by districts (2000-2005)



Districtwise progress on measles vaccine reveal that Jhapa, Dang and Lalitpur districts have set an marginally increasing trend and Doti and Parsa districts have declining trend. The other districts have faced ups and downs in terms of measles vaccine.

Figure 17 : Measles Target Achieved in Percentage(2000-2005)

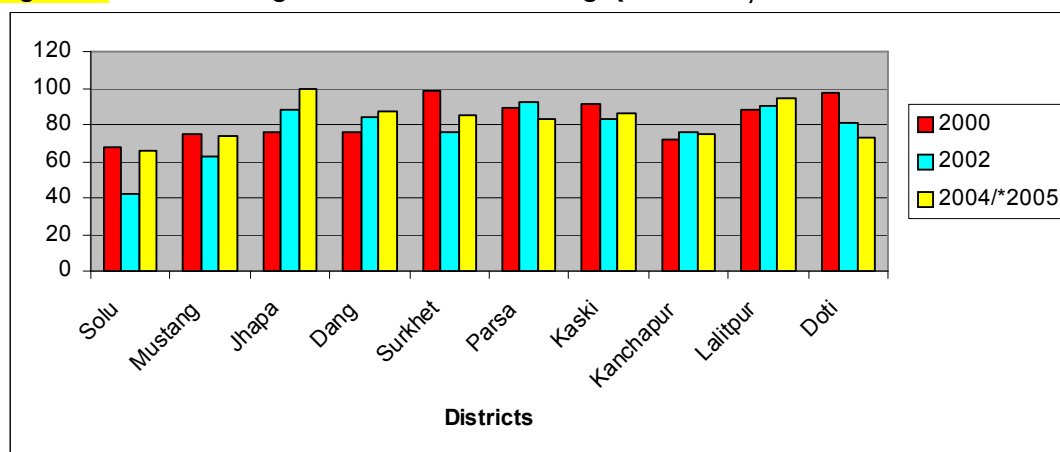


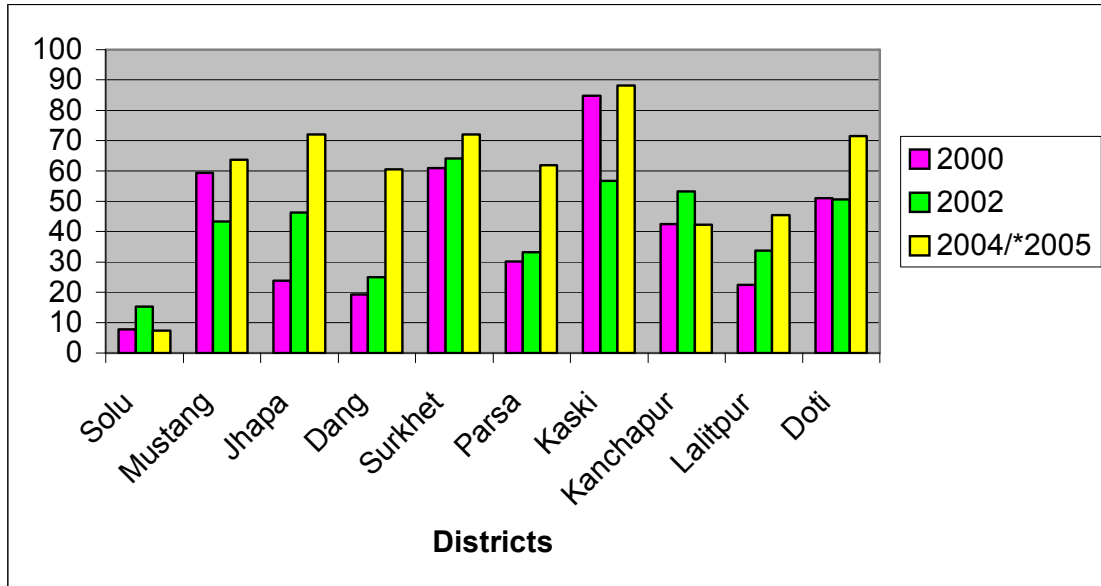
Table 23: Summary of progress on childhood Immunization (2000/2001-2004/2005)

District	Vaccines (2000 - 2005)			
	Polio 3	DPT 3	BCG	Measles
Solukhumbu	Increased with fluctuations	Increased with fluctuations	Decrease with fluctuations	More or lest similar
Mustang	Increased	Increased	Decrease	More or lest similar
Jhapa	Increased	Increased	Decrease with fluctuations	Increased
Dang	Increased with fluctuations	Increased with fluctuations	Increased with fluctuations	Increased with fluctuations
Surkhet	Decrease	Decrease with fluctuations	Decrease with fluctuations	Decrease with fluctuations
Parsa	Decrease with fluctuations	Decrease with fluctuations	Decrease	Decrease with fluctuations
Kaski	Decrease with fluctuations	Decrease with fluctuations	Decrease	Decrease with fluctuations
Kanchapur	Decreased more or lest similar	More or lest	Increase with fluctuation	Increase with fluctuations
Lalitpur	Increased	Increased	Increase with fluctuation	Increase with fluctuation
Doti	Decreased	Decreased	Decreased	Decreased

Growth monitoring and childhood nutrition

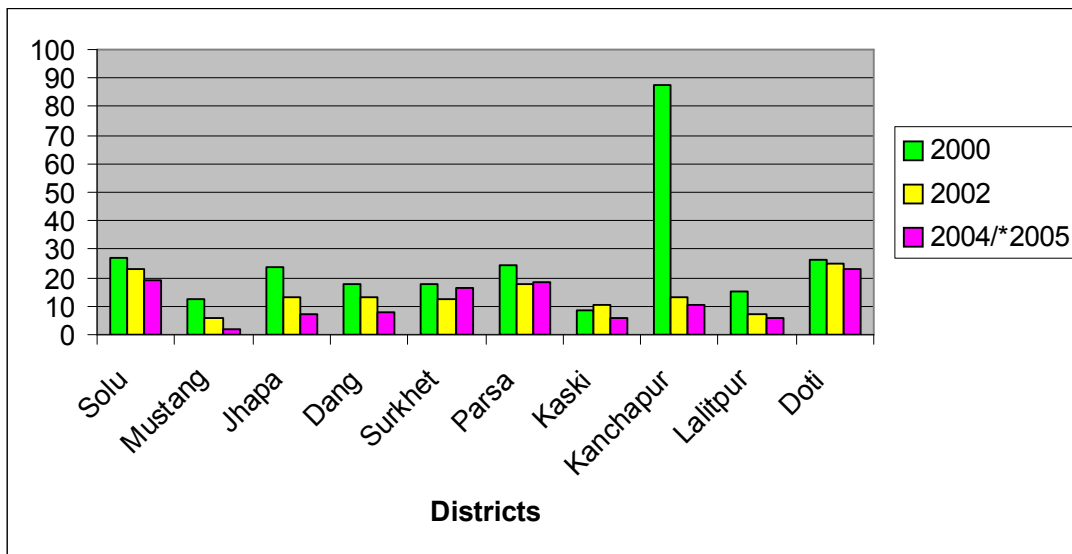
In recent years, Jhapa, Surkhet, Doti and Kaski appear as the districts having more than 70 percent progress in growth monitoring of under three year children. Solukhumbu district has below 15 percent progress on child growth monitoring.

Figure 18: Growth monitoring coverage as % of <3 children new visit



The proportion of severely malnourished children is below 20 percent, except in Doti district. Almost all districts have declining trend of malnutrition among children. But the increment is dismal.

Figure 19: Proportion of malnourished children (Wt/age new visit)



Childhood morbidity

In almost all districts there seems an increased trend of ARI cases. It could be interpreted in two ways; increased awareness and treatment seeking against ARI among people and increased incidence of ARI in the districts due to poor child care and health education.

Figure 20: Incidence of ARI/1000 (<5 Children new visit)

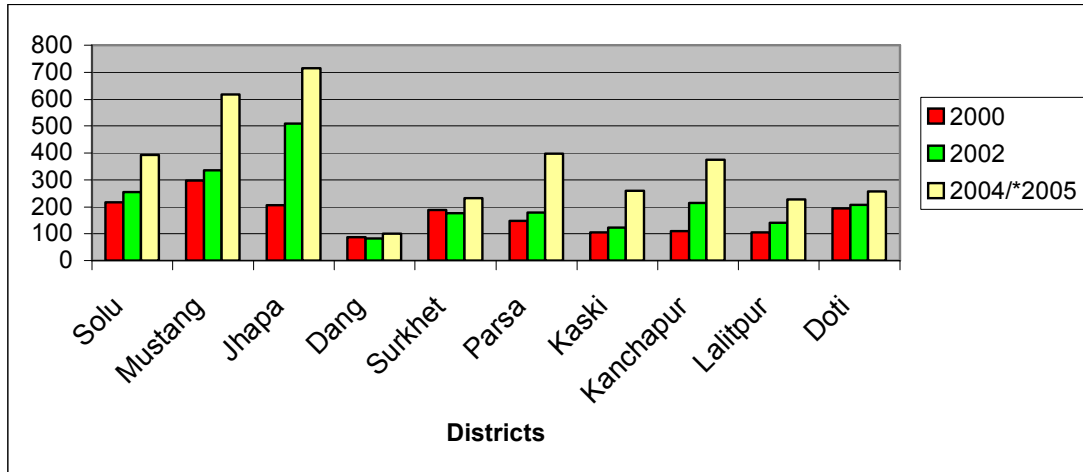
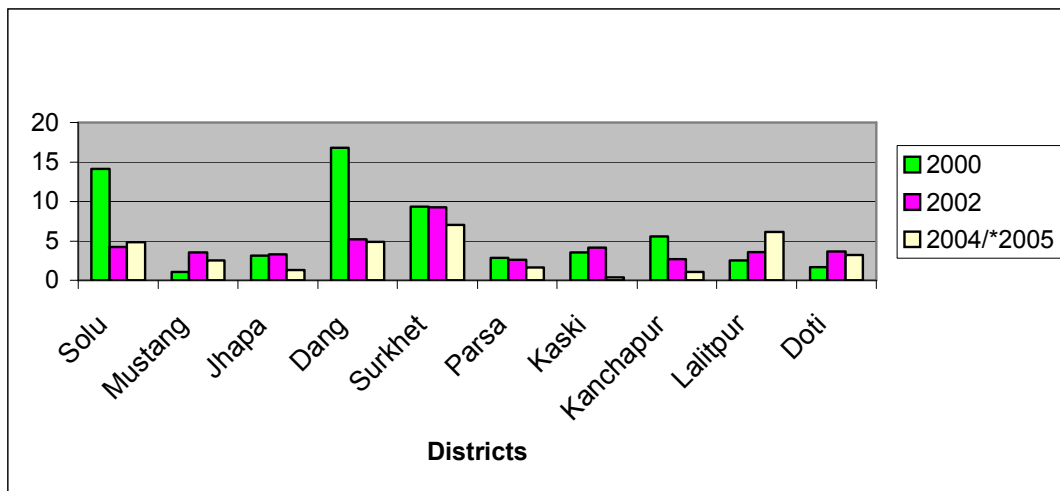


Figure 21: Incidence of diarrhea/1000 (<5 children new cases)



The incidence of diarrhea among under five children shows a declining trend except in Lalitpur district. It is comparatively higher in Surkhet district.

Safe Motherhood

The trend of first ANC visit as percentage of expected pregnancies seems on the rise in Dang, Surkhet, Parsa, Kaski, Kanchapur, Lalitpur and Doti districts. However, it is fluctuating in Solukhumbu, Mustang and Jhapa districts. In 2004/2005, Dang, Surkhet, Parsa and Kaski districts it is above 80 percent.

Figure 22: First ANC visit as % of expected pregnancies

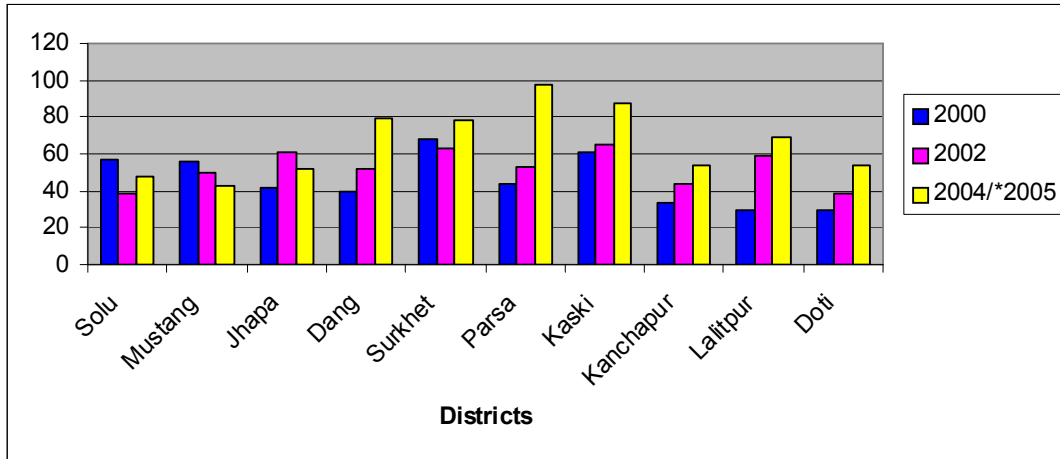
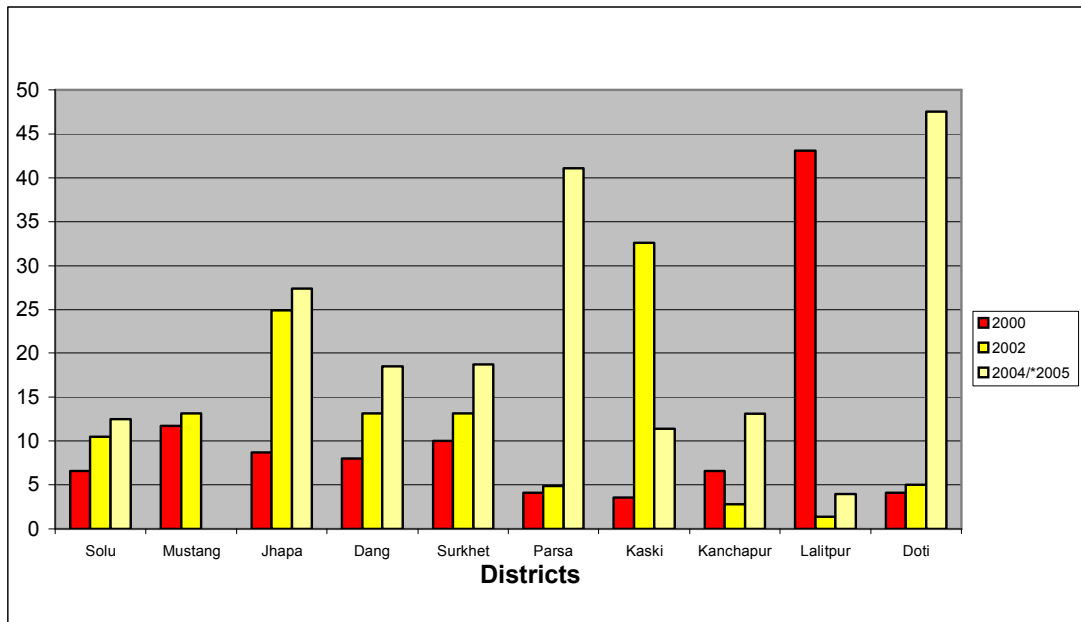


Figure 23: Delivery conducted by trained health workers as % expected pregnancies

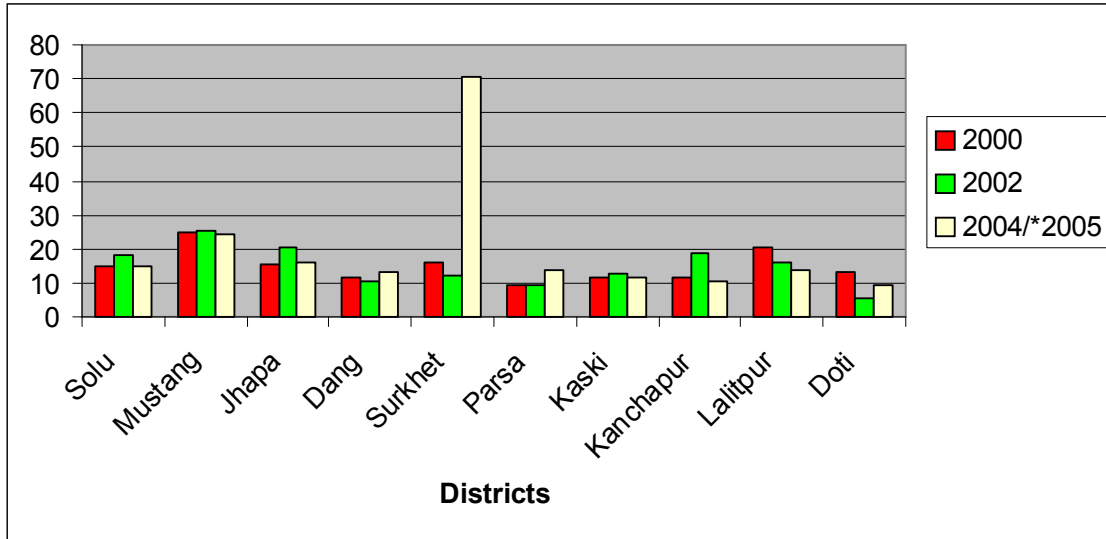


In the year 2004/2005, in most of the districts delivery attendance by the skilled health workers stood between 10 to 20 percent, except in Parsa (41%) and Doti district (43%).

Family Planning

The trend of family planning acceptors as percentage of married women of reproductive age is below 20 percent in most districts. It is a little more in Mustang district (above 20% but stagnant) and exceptionally higher in Surkhet District in the year 2004/2005.

Figure 24: New acceptors of FP devices as % of MWRA



The CYP as percentage of MWRA in Solukhumbu, Jhapa, Surkhet, and Parsa seems increasing while in Kaski, Kanchapur, Lalitpur and Doti districts it has declining trend in recent years.

Figure 25: CYP as % MWRA

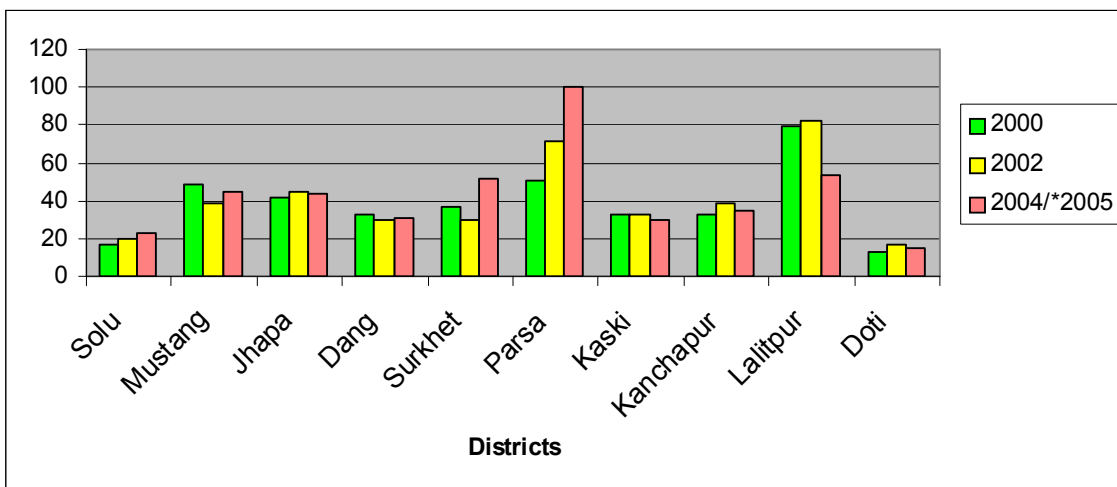
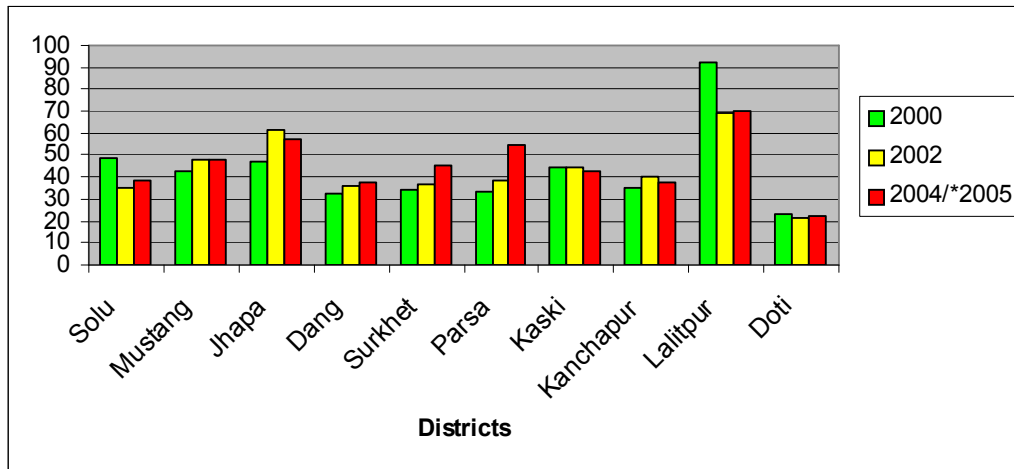


Figure 26: CPR current users as % of MWRA

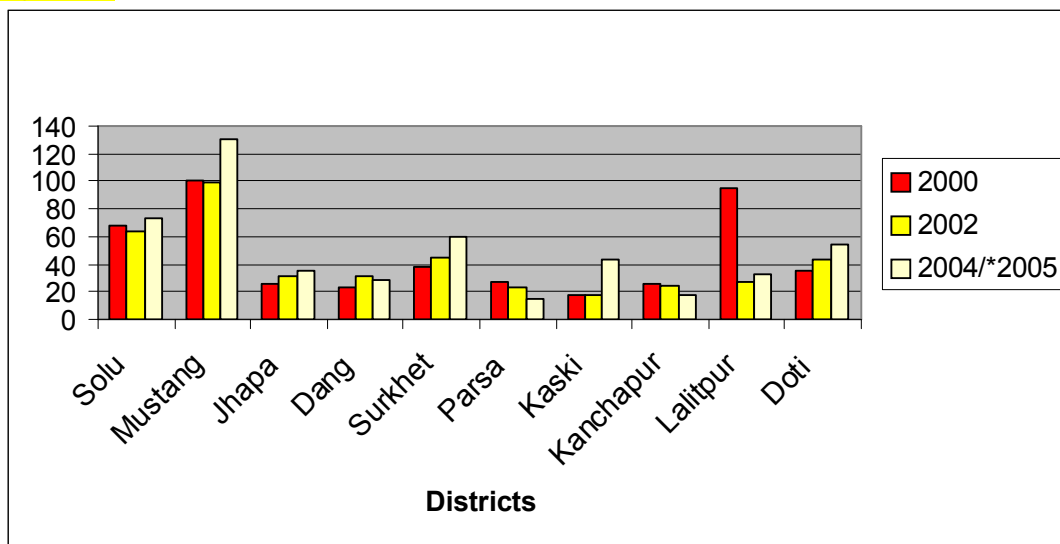


As per the NDHS 2001 survey, CPR in Nepal was 38.9%. This study reveals In Doti, Kanchapur, Dang & Solukhumbu districts CPR seems below 40% (under achieved). The other six districts have made progress overtime. In the same way, CPR current users seems increasing in Mustang, Dang, Surkhet and Parsa districts where as it is on reverse side in Solukhumbu, Kanhanpur, Dang and Doti districts. On the whole, CPR is highest in Lalitpur district followed by Jhapa district.

OPD new visits

OPD new visits as percentage of total population have been regarded as one important priority area in the new health sector program. The status of total OPD new visits in the study districts has been depicted in Figure 27 given below:

Figure 27: Total OPD new visits as % of total population



In six out of 10 districts (Solukhumbu, Mustang, Jhapa, Surkhet, Kaski, and Doti districts) the OPD new visits has been on increasing trend. In Dang, Parsa, Lalitpur and Kanchanpur districts, it shows a negative trend. The progress seems relatively higher in the mountain districts, Solukhumbu and Mustang districts.

3.3 Effectiveness and Sustainability of EHCDS

This section deals with the appropriateness and adequacy of health services against the health problems in the study districts. It will be followed by service utilization patterns and sustainability of the EHCDS.

3.3.1 Major health problems and appropriateness and adequacy of services delivery approaches

The overall disease pattern and health problems seem universal in Nepal. Skin diseases and gastro-intestinal diseases continue to be the main diseases across the districts. In terai districts vector-borne diseases like malaria, Kalazar and Japanese Encephalities appear as the principal diseases. In Terai districts particularly in Jhapa, Dang and Kanchanpur communicable diseases like diarrhea, typhoid, dysentery, skin diseases and vector borne diseases such as malaria are prevalent. Moreover, snakebites are also common in Terai districts. Kalazar is more prevalent in eastern part of Nepal like Jhapa while Japanese Encephalitis has its toll in Kanchanpur district. Diseases that have direct association with the life style and culture of the community people are also reported. For example in mountain communities from Mustang and Solukhumbu, tapeworm is highly prevalent as people consume meat of yak without cooking it properly. The case of diarrhea is also linked with the unhygienic eating practices. In Solukhumbu district, many people are found suffering from tuberculosis and in Mustang dental problems seem common. It is equally noteworthy that morbidity due to non-communicable diseases is also higher across the districts. Gastritis, cancer and diabetes are highly prevalent in almost all districts.

FGDs, key informant interviews, mother interviews and client surveys done in this study reveal common pattern of health problems among women in Nepal. The women, across different geographical regions, are found suffered from UTIs, STIs and uterine prolapses. Health problems related to women of reproductive age group particularly in Jhapa, Kanchapur, Dang, Surkhet, Kaski, and Lalitpur districts include lower abdominal pain, bleeding, anaemia, PID, uterine prolapse, vaginal discharges and irregular menstruation. What is interesting in mountain regions is absence of uterine prolapse in women. The

reason for this was reported as women receive support from the males in household chores during pregnancy and after child birth among the Janajati populations living in there. This trend is also seen in the terai and hill districts. Women from Doti, Kanchanpur, Surkhet and Dang were reported to be vulnerable to the STIs and HIV as most of the males from these districts migrate to other countries, particularly to India, are supposedly engaged with sex workers and transmit HIV to their sex partners returning home in Nepal. In mountain districts also, Solukhumbu and Mustang people migrate for work especially in cold winter season and are reportedly prone to STIs and HIV transmission. The health workers and social leaders from Mustang reported that an overwhelming number of people out migrate from the district and in the same way influx of labourers from the neighbouring districts come and work in the construction works in the district. These are considered as needy people who not only require general health services but also prevention education on many aspects. However, the district health plan and programs does not seem responsive in this regard.

The children's' common health problems as reported in the FGDs, mother interviews, key informants and service provider interviews are ARI, diarrhea and skin diseases.

Service utilization data over the period 2001/2002-2005/2006 in the study districts shown in Table 25 depicts the morbidity associated with different health problems in the study districts.

Table 24: Most common health problems for health facility visit (Based on Health Facility Record, 2001-2005)

Health problems	No.	Percent
ANC checkup	1040	2.4
Delivery/ PNC checkup	446	1.0
Immunization	652	1.5
General health checkup	17385	40.4
Measles treatment	643	1.5
ARI/ Pneumonia	1884	4.4
Diarrhea	1511	3.5
Skin disease	4004	9.3
TB	1594	3.7
Animal bite	229	0.5
Headache/ Fever	3374	7.8
Injuries	917	2.1
Acute Peptic Disease	2141	5.0
FP related	853	2.0
Others	6308	14.7
Total	42981	100

Similar to the findings from the mother interviews and exit client interviews, health facility records show skin disease and headache and fever as the most pressing health problems (9.3% and 7.8% respectively) for which clients visit the health facilities. ARI (4.4%), tuberculosis (3.7%) and diarrhea (3.5%) followed them. It is noteworthy that four out of ten clients visit health facility for general health checks only.

3.3.2 Emergency preparedness

Almost all health facilities, district and central level respondents claimed their capability and preparedness to address the likely emergency situations. Most of them thought of stock of drugs that was necessary for emergencies. Very few of them only hinted on service providers, infrastructures and supplies needed during emergencies.

Few service providers from Kanchanpur district reported that due to lengthy procedures to be adopted in the central level for bidding drugs and vaccines (e.g. JE vaccine), there used to be a tremendous delay in getting drugs and supplies during outbreaks of diseases. When this issue was raised with the central level key informants, they accepted the fact that the bidding process could be lengthy and complicated due to legal and procedural management. It had many a times hampered the prompt supply of drugs to the districts.

3.3.3 Most effective service components

The question, "What are the most effective components of health services being delivered through your health facility/organization?" was asked to services providers, district and central level decision makers and policy makers. After hearing the question, the facility level service providers were not in a comfortable position to spell particular health services as most effective services. After probing and encouraging to mention few more successful components, they rated immunization, particularly childhood immunization, community drug program (CDP), Integrated Management of Diseases (IMCI) program, and DOTS as the most effective service components.

Increased coverage of major childhood vaccinations, easy access of essential drugs at affordable prices, increased utilization of health services during childhood illnesses such as diarrhea and ARI, and increased coverage of DOTS were cited as the indicators of the effectiveness of these services.

The central level key informants also identified IMCI, CDP and DOTS as the most effective service components. Though the community insurance scheme is just started on pilot basis, it was also informed as one of the potential approach to address the needs of the disadvantaged communities.

3.3.4 Service Utilization

Utilization of services by the target clients is an important indicator to measure the effectiveness of health services delivery system. In this study, in addition to the interviews with the mothers, exit clients, the trend of health service utilization by gender, ecological regions, seasonality and facility was reviewed on the basis of health facility records over the years 2000/2001 - 2005/2006. The key findings of the interviews have been discussed in the relevant sections. The findings that emerged from the review of the facility records are captured in the succeeding paragraphs.

On the whole, the health facility records reveal that of the total clients who visited the health facilities over the study period, 55% was female and the rest 45% were males. Health facilities in mountain and hill are more utilized by the females while in terai it is the males who used the services at the most. By caste/ethnicity, nearly half of the service users are Brahmin/Chhetris (47.6%) followed by Janajatis (24.1%), dalits (17%) and Muslims (3.6%). However, 7.8% of the clients' caste/ethnic status was not specified in the health records.

Figure 28: General characteristics of the clients who received health services

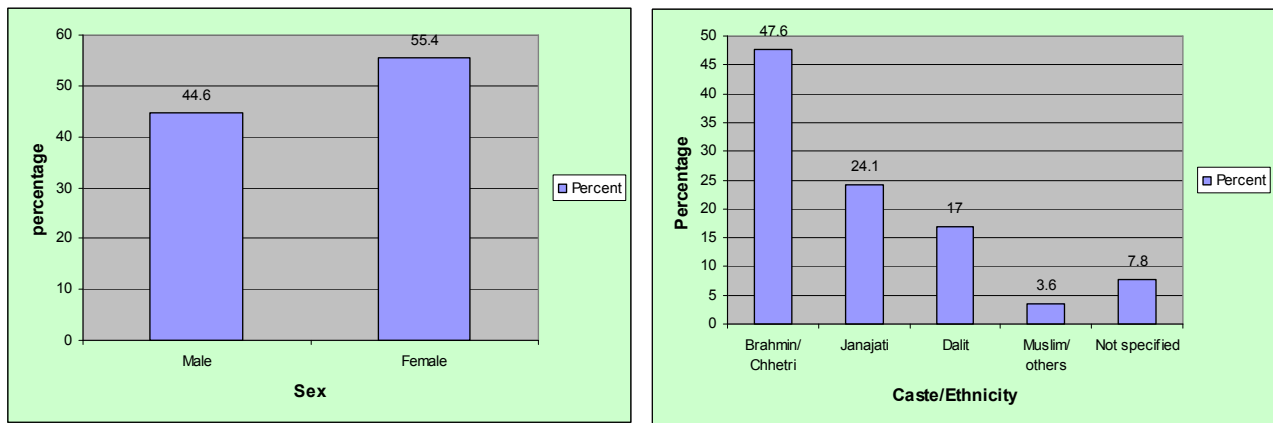


Figure 29: Health service utilization by sex and ecological regions (2001-2005)

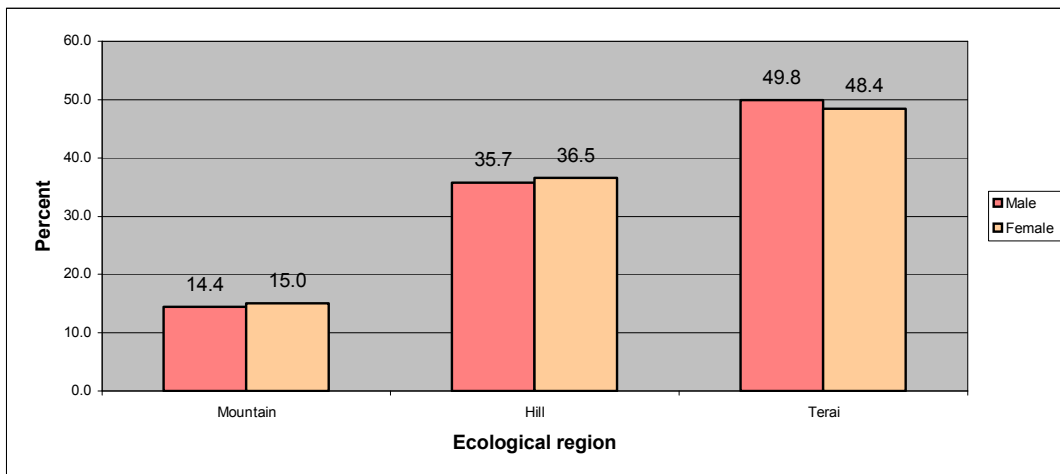
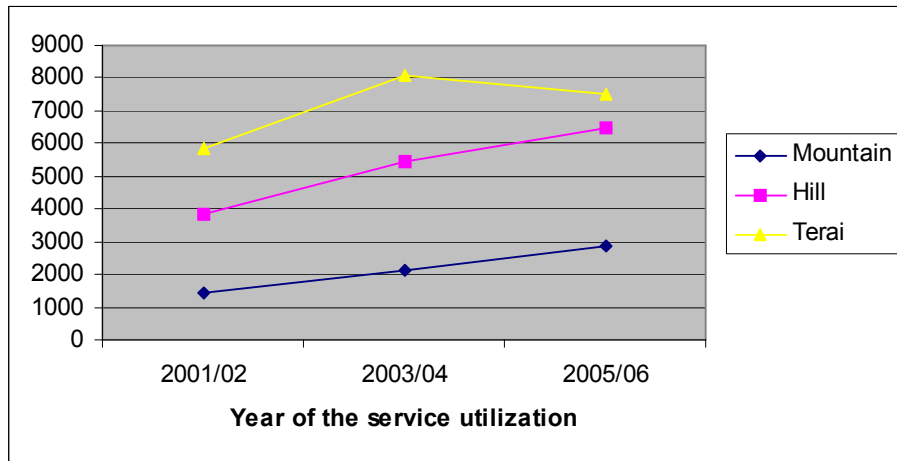


Figure 30: Trend of Health service utilization by ecological region and year (2001-2006)



The facility records show increase in the trend of clients in the health facilities. However in terai region, there seems a decrease in the number of clients in 2005/2006 compared to 2003/2004. The reason for this decrease is not clear. However, the decline is partly due to the absence of utilization records in a couple of health facilities from Terai region.

Figure 31: Trend of health service utilization by seasons in different regions (2001-2006)

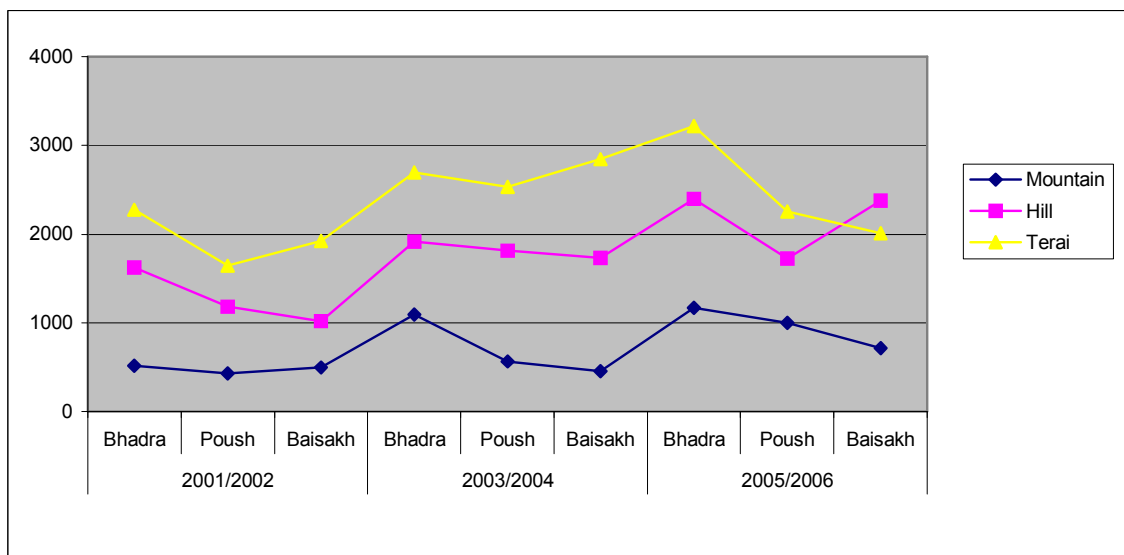


Figure 31 above displays seasonal variations in health services utilization in each region over the period 2001/2002-2005/2006. It is clearly seen from the figure that there has been a perceptible increase in the year 2003/2004, particularly in the month of Bhadra (Mid August to mid September). In other years also, Bhadra seems as the peak month for the clients in visiting health facilities for seeking health services.

Figure 32: Service utilization in different seasons in different years by age group

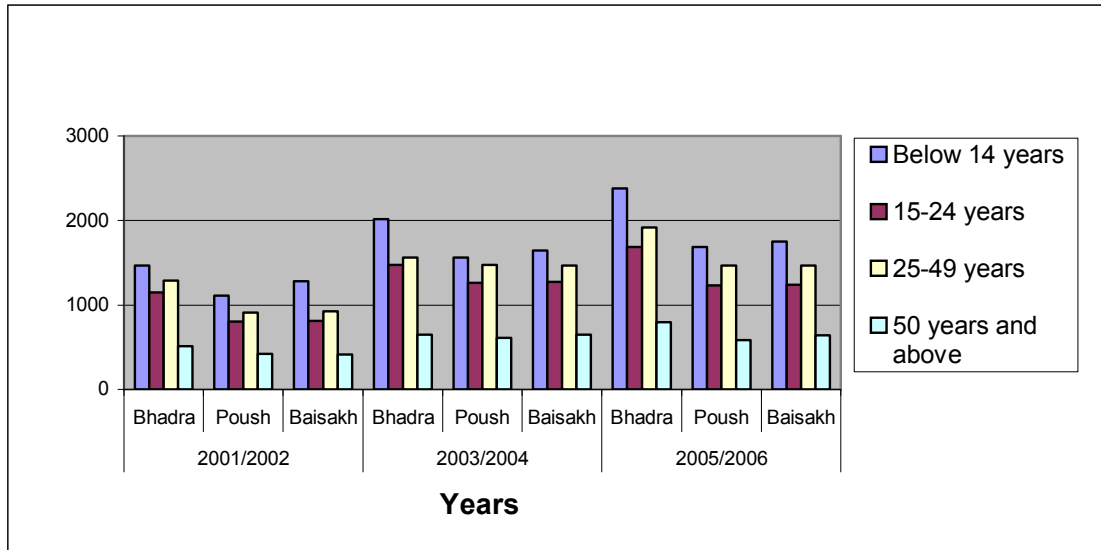
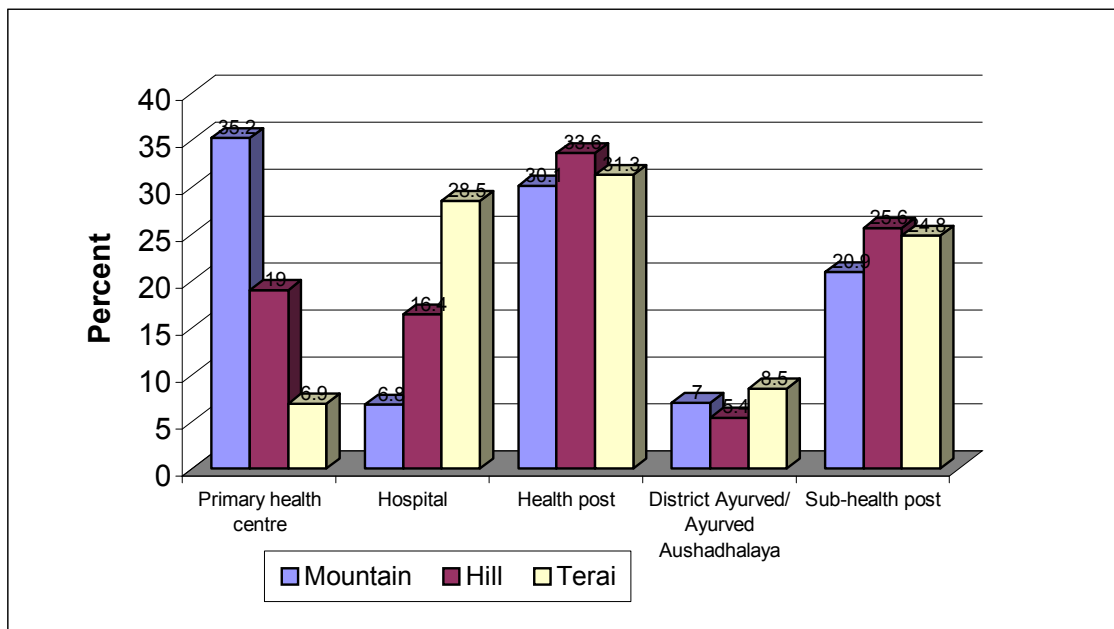


Figure 32 given above describes distribution of clients by age group spread over different months of the study period (2001/2002-2005/2006). As can be seen from the graph, children below the age bracket 14 years, have exceeded the other groups in utilizing the health services rendered by the health facilities in the study districts. It is followed by the clients aged 25-49 years. The young population (15-25 years) falls on the third group seeking the services at the most.

Figure 33: Health service utilization in different health facilities by ecological region



As shown in **Figure 33** above, client flow is highest in the health posts in hills (33.6%) and Terai (31.3%) compared to other health facilities while it is highest in PHCC in mountain region (35.2%). Client flow in Ayurved centres and sub-health posts seem more or less similar in all regions.

3.3.5 Program modality in present changing context

MoHP's policy has put an emphasis for the inclusion and participation of disadvantaged groups, increased program coverage to more remote and pro-poor areas, support to establishing humanitarian emergency funds and community drug schemes. These are the key modalities adopted in regards to the open conflict situation.

Discussions with service providers, district level decision makers, key informants and local communities reveal both positive and negative impacts of the conflict to the health sector. Negative impacts include restrictions in field staff mobility by insurgents, and pressure from both the security forces and insurgents to conduct awareness raising activities that require public gathering of many people. Isolated cases of kidnapping and killing of health workers by both parties was reported in a couple of districts such as in Surkhet, Dang and Kanchanpur. Similarly, the CDP has been objected to by the insurgents, who believe that health services and drugs should be provided free by the government, and therefore charging even minimal fees is unjustified. As a result, most health facilities are facing opposition by the insurgents.

The open conflict has also demotivated some mother's groups and community organizations from implementing project activities smoothly, and is attributed as the main reason behind the non-functionality of various VDC-level partners.

On a positive note, insurgents are pressuring health facilities to obtain drugs and supplies consistently and adequately. In many VDCs, health workers are also much more regular in their attendance.

Overall, and as compared to other sectors, health sector seems less susceptible to the ongoing conflict. However, the health sector needs to be cautious for not be too ambitious with expectations, but to keep activities focused and realistic. Likewise, adopting more inclusive measures based on local health needs is a must. Linking health services delivery with viable poverty reduction strategies as safety net will help ensure increased acceptance and utilization of the health services delivered by the health facilities.

3.3.6 Sustainability of the EHCDs

Organizational sustainability

The overall organizational structure and health programs in the public sector are reported as effective in terms of geographical coverage and access. It is

noteworthy that from the organizational view point, there has been a sustained and adequate coverage of health facilities to cater health services up to the VDC levels in the sample districts. There has been a well defined and visible organizational set up or structures such as central, regional, zonal, district, constituency llaka and VDC level public health facilities that provide different levels of care to the people. It seems as one fundamental strength for the delivery of EHCS in Nepal. Moreover, community support systems such as HFMCs, mother groups, and FCHVs have supported for the mobilization of local communities and established linkages between the health services delivery system and the community people at the grass root level. However in the absence of minimum resources, incentives and follow up local level volunteers, mother groups and HFMCs seem at the brink of frustration. Local FCHVs, for example, are so highly involved in local level health activities that in the absence of reasonable incentives they seem overwhelmed.

In six out of ten sample districts, namely Kaski, Kanchanpur, Jhapa, Surkhet, Dang and Lalitpur districts, health facilities particularly the SHPs, are handed over to the local bodies but no reports of significant improvements in services delivery and quality of services were found from the service providers, HFMC and community people. In each district, HFMCs are given the responsibility of looking after and running the health facility smoothly. Their roles are pertinent in districts where the health facilities have been handed down to the local communities. But most of the HFMCs, from the handed over and non-handed over health facilities alike, reported that they have almost no opportunity to participate in any orientation programs regarding their roles and local resources mobilization. In most of the health institutions of the ten sample districts studied, the HFMCs seem less active. It means they have no regular meetings with required quorum. Even the HFMCs across the districts, are not fulfilled due to absence of elected representatives in the local bodies. Individual interviews and FGDs done with the HFMCs and service providers and clients reveal that most HFMCs lack resources and there is a perception that the quality of the services has not been improved. Lack of skilled human resources at health facilities and lack of supportive supervision and monitoring from higher levels was also raised frequently by the study participants during the study.

However it is noteworthy that despite such lacunae, the governance structure of the public health services seems well defined to the service providers and community people that it has potential for effective functioning and improved services delivery, provided the GON makes a serious commitment for the same. Though the handing over of the health facilities seems in infancy stage and there have been many shortcomings, the stakeholders from many health facilities have appreciated the motive. Given the proper input from the government, it could work to increase ownership on the part of the community and to provide improved care to the populace.

Financial sustainability and local resource mobilization

In terms of financial sustainability, there is every evidence that the public health facilities, by and large, have survived on public financing. The health facilities above the PHCC and District Hospital seem relaxed to charge user fees in its major services such as laboratory tests, X-ray, plastering in fractures, delivery, abortion (in selective health facilities), police cases, post mortem etc. But the health posts and sub-health posts seem highly dependent on public funding as they provide basic level services which has to be provided free of charge at the most. Though the health posts and sub-health posts have charged some user fees particularly through buying outpatient tickets for the check up, the amount seems quite dismal to make them financially strong. However, from almost all health facilities it was reported that this provision has helped reduce misuse of drugs due to the little contribution made by the clients. Moreover, this amount has been nevertheless important in improving the services in there.

Many health facilities reported that local VDC and municipalities have provided them some financial support to develop infrastructures, equipment and human resources. After handing over some of the facilities like lab facilities have been added. In Kanchapur district, for instance, local bodies have been supportive in planning, implementation, monitoring and supervision of health services. Meeting of HFMC is regular and regularly decision is made but not all decisions are effectively implemented.

Various NGOs/INGOs like Care Nepal /GTZ at western part e.g. Kanchapur and Doti have been supporting health service delivery particularly, infrastructure strengthening, supply of equipment and instrument as per the demands of district health system and providing training and supporting in health facility handover process. Similarly in Eastern district Jhapa, Save the Children, Nepal family Health Program (NFHP), Amda and Britain Nepal Medical Trust (BNMT), among others, have supported for health system strengthening and CDP.

where the public health services delivery strategy should focus on was identified as identified as partnership between the private and public sectors Though it has been initiated in a few hospitals as public private mix strategy, it is yet to be strengthened and expanded to the other health facilities down the line. It is also equally crucial to give recognition of the privately donated health facilities and equipments and to have a clear policy on such support, maintenance and monitoring and follow up mechanisms.

Transparency

Notice boards, citizen charters (*wadapatra*), posters and pamphlets are generally kept in health facilities regarding various programs and schedules. However, in the absence of pictorial messages, many illiterate populations have not been able to understand the citizen charters and schedules. Information in the community regarding public health programs has been disseminated through FCHVs, mothers groups, VHWs and MCHWs during home visits and out reach clinics.

In the health post and sub-health post levels, the financial matters seem more transparent. It is evidenced with public placement of summary of audit report on the office walls in many health facilities. But financial transactions in the district level health facilities, including D/PHO are not communicated to the public. However, it is found that every public health facilities, including D/PHO have mandatorily audited their financial transactions from the auditor general of Nepal.

Though, many health posts and sub-health posts handed over to the community have introduced community auditing, it is yet to be implemented by the other health facilities.

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Coordination and linkages

Coordination within public health system and between public health and Ayurvedic system is seen as one area requiring more attention in future. It is reported that there is less coordination between district health offices and Ayurvedic hospitals and Ayurvedic Aushadhaya. Reporting and monitoring of Ayurvedic Aushadhayalas to the DHO/DPHO seems almost lacking. So is the case with the services provided by the private sectors such as private hospitals, nursing homes and clinics. In many districts, services provided by this sector have not been incorporated into the district health information system. As a result, it has compromised consolidated information about effectiveness of health services, in one hand, and ignored the role of private sector there by to improve people's health on the other.

Key sustainability initiatives

Among others, Community Drug Program and Emergency Fund have been presented as key initiatives launched for sustainability of the health services delivery in Nepal.

Community Drug Program (CDP)

Community Drug Program (CDP) has appeared as a most viable strategy for sustainability of the health services delivery in the districts. It has been implemented in Mustang, Doti, Surkhet, Dang, Kanchanpur, Solukhumbu, Kaski and Dang districts. In these districts medicines are given at low rates. It is reported that community drug program has helped community people to purchase and utilize drugs at their own need and at affordable costs. In Kanchanpur, for example, it is distributed at 10% discount while at Solukhumbu drugs are available at 25% discount rate. In Kaski at some facilities like Nirmal Pokari health post, 16% of the cost is waived. CDP, despite being a dependable source of resources for the local health facilities to provide year round supply of drugs at affordable costs, the ongoing conflict has jeopardized its implementation as the rebels have opposed the idea at all. They have a continued resistance in levying on the drugs provided by the government to the health facilities to distribute them free of cost.

Emergency/Poor funds

In most of the districts there is no any special fund or *kosh* for needy and poor people. In some VDCs from Doti, Sarsawatinar, there is separate fund created by mother's group by themselves. They lend money to needy people as per their need. As per the service provider's perspective and other key informants, in most of the districts poor and marginalized groups are given free services at subsidized rates as per their economic status. In most districts (e.g. Kaski, Dang, Doti) poor and marginalized people have provision to purchase drugs at minimum price with discount rates. In Surkhet, health posts identify poor people and over 70 years old people and give free services. In Kanchanpur poor are reportedly subsidized on bed charge, medicines and x-ray, as per the recommendation made by HFMC and the local VDC. In Sanagaun health post, Dipayal, poor and marginalized people with disability and widows are given free health services and medicines as per the joint decision of VDC and HFMC. Similarly in Hansipur SHP, Dang, poor are treated free. Similarly, MCHWs from Dang district opined medicines are given free of cost during the time of delivery. However, it seems against the government policy that they have to put on charges on medicines so as to replenish them for future use.

Thus, in most of the districts emergency and or poor funds have not been established. Even in districts and health facilities where it has been established, there seems a lack of transparent criteria to define on who is poor and marginalized client. Till now, in majority cases, it rests with the discretion of the facility in-charge. Need for identifying poor clients and their verification is highly important for the proper use of emergency fund by the poor and needy people.

3.4 Equity and Efficiency in Delivering EHCDS

This section deals with the factors that influence on access and subsequently equity and inclusion while utilizing the health services. Since access is determined by constellation of factors such as soci-political, cultural, economic, geographical and institutional factors, the forgoing discussions focus on physical and geographical access, financial access and access to information.

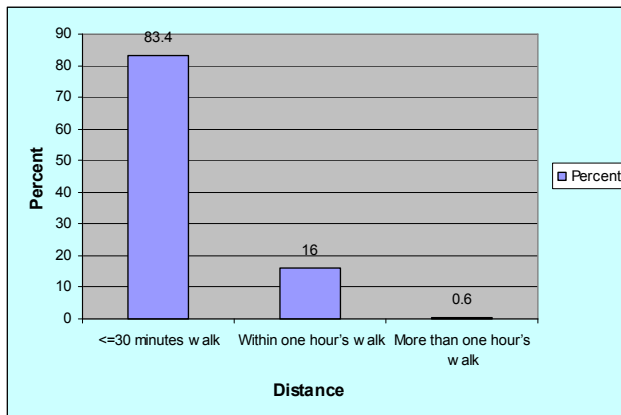
3.4.1 Access

In order to determine the equity of the EHCDS, access, particularly physical access, access to health services, economic access and access to information have been taken into account.

Physical Access

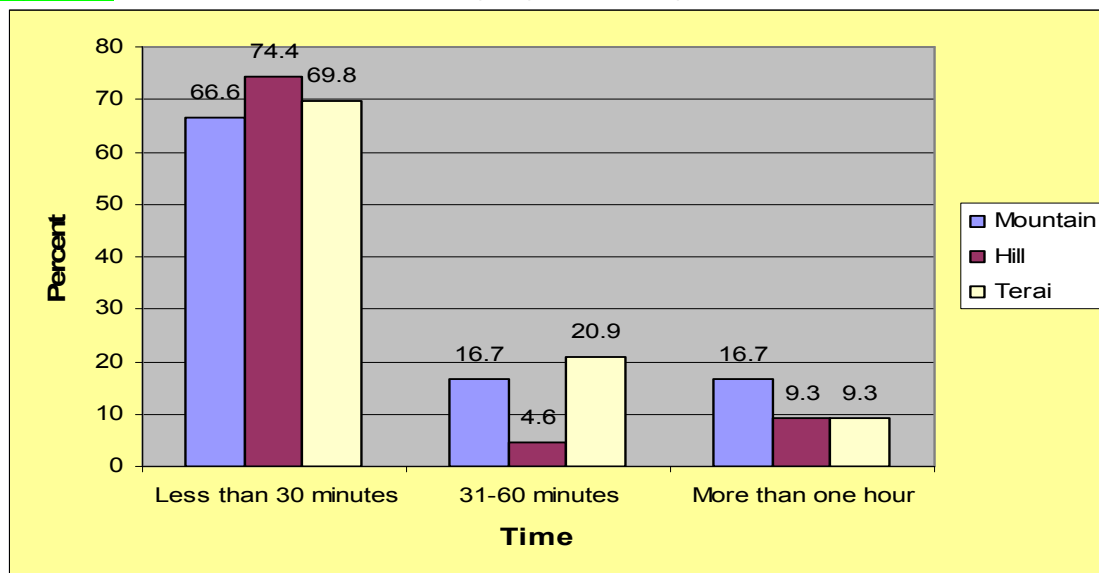
Interviews conducted with 811 mothers across ten study districts reveal that 83 percent women have reach of health facilities within 30 minutes on foot. Only 0.6% women had to walk for more than one hour. It shows universal availability of health facility for the people including in the rural areas.

Figure 34: Distance to the nearest health facility from the house (Mother interviews)



Similarly interviews done with 104 clients also indicate that health facilities are proximal. For 71% clients, it was within the reach of 30 minutes on foot. However, relatively less proportion of clients has such access in mountain region (66.6% in mountain against 74.5 in hill and 69.8% in terai).

Figure 35: Distance to health facility by geographical regions (Exit interviews)



Out of 353 mothers who answered about the means of transportation to the health facility, 79% had road access and the remaining 10.5% had to walk on foot. During emergencies, 4.5% reported that they need to be carried by using bamboo basket and stretchers.

Table 25: Means of transportation to reach to health facility by geographical regions

Means of transportation	Geographical regions						Total
	Mountain		Hill		Terai		
	N	%	N	%	N	%	
By bus/ car	9	23.1	124	93.2	146	80.7	279(79.0)
Walking	8	20.5	6	4.5	23	12.7	37(10.5)
Carry by bamboo basket/ Stretcher	11	28.2	2	1.5	3	1.6	16(4.5)
Others	11	28.2	1	0.8	9	9.0	21(5.9)
Total	39	100.0	133	100.0	181	100.0	353

Similarly, more than of the clients in terai (51.4%), and less than half of the clients in hills (44.6%) had road access. Only four percent of them were linked to road heads in the mountain districts.

Table 26: Availability of road by geographical regions

Geographical regions	Availability of road				Total N
	Yes		No		
	N	%	N	%	
Mountain	3	4.1	15	50	18
Hill	33	44.6	10	33.3	43
Terai	38	51.4	5	16.7	43
Total	74	100	30	100	104

Physical Access to Health services

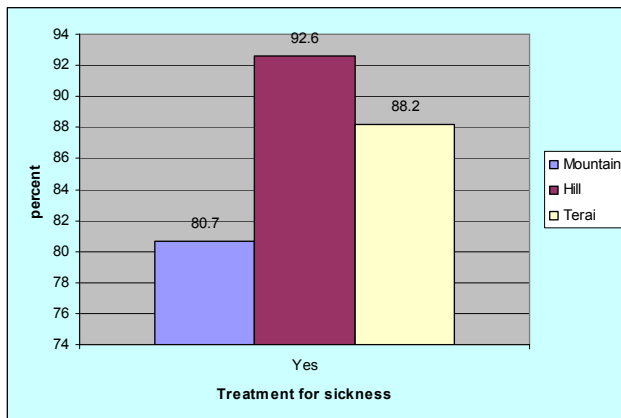
Table 27 shows morbidity pattern of the women's families. As shown in the table, the women who had a sick member in their family in the past six months from the mountain, hill and terai regions were 32.1%, 58.2% and 51.3 % respectively.

Table 27: Status of family having ill member by geographical regions

Geographical regions	Having illness in family member				Total
	Yes		No		
	N	%	N	%	
Mountain	51	32.1	108	67.9	159
Hill	138	58.2	99	41.8	237
Terai	200	51.3	190	48.7	390
Total	389	49.5	397	50.5	786

Out of the 356 sick persons, 88.8% had sought treatment from the health facilities. The tendency of care seeking was reported higher from the hills (92.6%) followed by terai (88.2%) and mountain (80.7%).

Figure 36: Treatment sought during sickness by geographical regions



When asked about women's access to PHC ORC, three fourth (74%) of the women replied that they had visited PHC ORC during their last delivery. The trend seems similar among the main four caste/ethnic groups. However, more Muslim mothers (85.7%) had visited PHC ORC.

Figure 37: Women ever been to PHC ORC and Immunization clinic by ethnicity

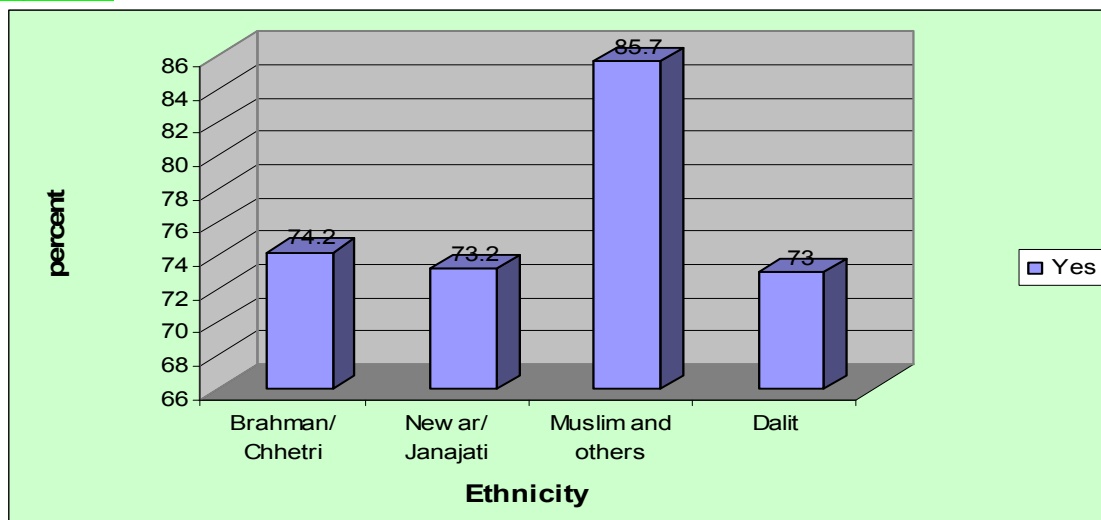


Table 28: The reason behind never been to PHC ORC and Immunization clinic by ethnicity (Multiple responses)

The reason never been to PHC ORC/ immunization clinic	Ethnicity								Total
	Bramhin/Chhetri		Newar/Janajati		Muslim and others		Dalit		
	N	%	N	%	N	%	N	%	
Don't know about the clinics	68	35.1	77	39.7	4	2.1	45	23.2	194 (88.5)
No time to go for clinics	5	45.5	3	27.3	1	9.1	2	18.2	11(5.0)
Side effect of the services	2	66.7	1	33.3	0	0	0	0	3(1.5)
Others	3	27.3	6	54.5	0	0	2	18.2	11(5.0)
Total	78	35.6	87	39.7	5	2.3	49	22.4	219

Of those who did not attend PHC ORC and immunization clinic run in their community, 88.5% reported they had no knowledge about these clinics. One in twenty women had no time to attending the clinics.

In order to assess people's access to health services, a total of 811 women were inquired on whether any health service providers had visited them with in the past six months.

Their responses reveal that more than two third women (68.3%) had encountered with the FCHVs followed by MCHWs (15.5%), community health promoters (3.8%) and other health care providers (5.3%).

Table 29: Mothers who were ever visited by the Health workers

Health worker visited	No.	Percent
FCHV	554	68.3
MCHW	126	15.5
Community health promoter (CHP)	31	3.8
Other health care providers (AHW etc.)	43	5.3

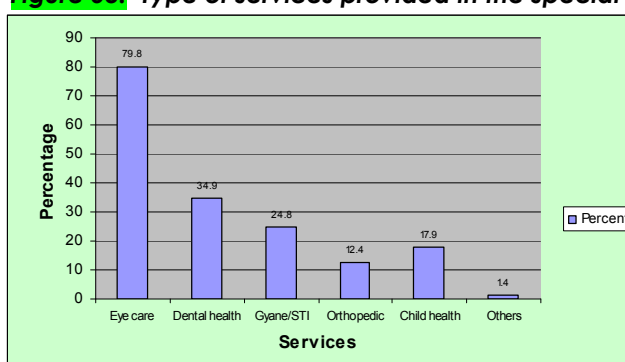
More than one third of the women had heard of the health camps conducted in their community.

Table 30: Distribution of mothers who have ever heard of special health camps

Heard about special health camps in locality	No.	Percent
Yes	218	26.9
No	593	73.1
Total	811	100

Of the 218 women ever heard of health camps, 79.8% had heard of eye camps. A little more than one third had knowledge of the dental camp and the next one quarter (24.8%) were pre-informed about the gyane/STI camps. The other camps noted by the women were child health (17.9%) and orthopedic camps (12.4%).

Figure 38: Type of services provided in the special health camps



In order to increase women's access to health services, support of the family, particularly that of the husband, mother-in-law and father-in-law is crucial. In this study, mothers were asked to indicate who accompanied them during their last visit to the health facility.

Table 31: Person who accompanied women to reach health facility in the last visit

Attendants	Geographical regions						Total (N=483 %)
	Mountain		Hill		Terai		
	N	%	N	%	N	%	
Husband	31	9.6	147	45.4	146	45.1	324(67.1)
Other family members	11	13.1	15	17.9	58	69.0	84(17.4)
Neighbor/ friends	3	6.7	11	24.4	31	68.9	45(9.3)
FCHV	1	6.7	2	13.3	12	80	15(3.1)
MCHW	0	0	1	33.3	2	66.7	3(0.6)
Others	0	0	5	41.7	7	58.3	12(2.5)

It was encouraging to note that more than two third of the women (67.1%) were taken to the HF by their husbands. Family members and neighbors/friends were cited by 17.4% and 9% women.

Economic Access

Studies done elsewhere have shown that people's, particularly that of women's access to health services, is determined by their capacity to pay for the desired services. The finding of the present study regarding the cost involved in the last delivery of women has been shown in [Table 32](#) below:

Table 32: Financial management for last delivery by geographical regions

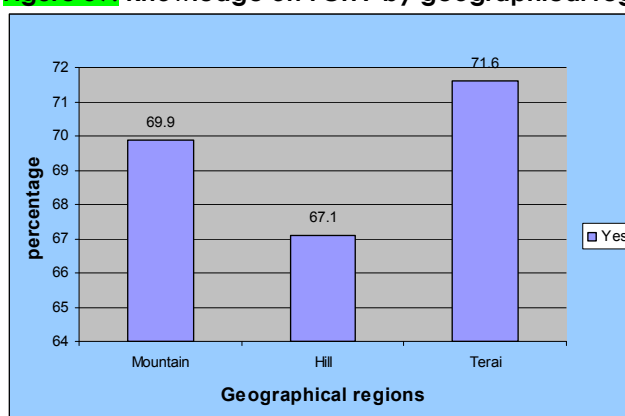
Financial management for last delivery	Geographical regions						Total
	Mountain		Hill		Terai		
	N	%	N	%	N	%	
Loan from others	3	5.6	16	29.6	35	64.8	54(12.2)
FCHV fund	0	0	0	0	3	100	3(0.7)
Borrowed from Mothers group	0	0	5	29.4	12	70.6	17(4.1)
From home	36	9.8	159	43.3	172	46.9	367(89.1)
Others	0	0	1	100	0	0	1(0.2)
Total	39	8.8	181	41.0	222	50.2	442(100.0)

About nine out of ten women (89.1%) maintained that they had managed the cost for delivery from their home. The rest of the women had to compensate the delivery cost from out of pocket money. It included borrowing loans on individual levels (12.2%), FCHV/Emergency fund (0.7%) and mothers group (4.15%).

Access to Information

Access and utilization of health services is primarily determined by the awareness of the users about the services availed to them. It is of highly important especially in case of rural populace. In this study, women were asked on whether or not they knew the local FCHV who was the primary contact for them.

Figure 39: Knowledge on FCHV by geographical regions



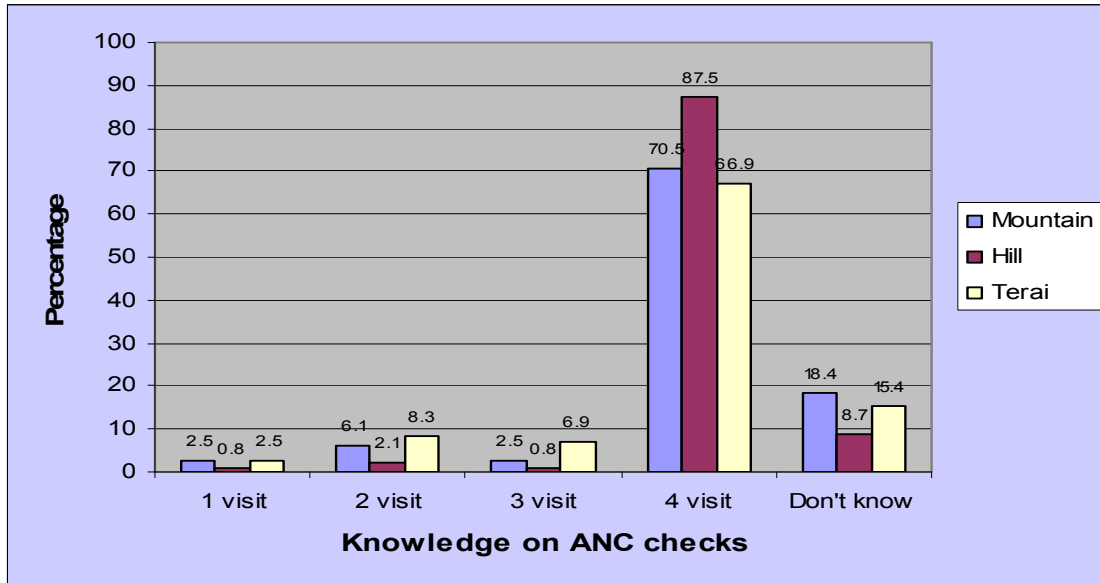
Of the 811 women interviewed, 71.5 % were found knowledgeable about the local FCHVs. The women who knew the name of a local FCHV and services provided by her were 69.9%, 67.1% and 71.7% in the mountain, hill and terai regions respectively.

Table 33: Information learnt from FCHV by geographical regions (Multiple responses)

Information learnt from FCHV	Geographical regions						Total (N=580%)
	Mountain		Hill		Terai		
	N	%	N	%	N	%	
Immunization	12	10.5	12	7.5	17	5.8	41(7.1)
ANC/ PNC	6	5.2	5	3.1	10	3.4	21(3.6)
Vaccination	0	0	2	1.2	4	1.4	6(1.1)
Health education	96	84.2	135	83.9	202	69.1	433(74.7)
Family planning	0	0	26	16.1	14	4.8	59(10.1)
Others	0	0	0	0	30	10.3	30(5.3)
Total	114	100.0	161	100.0	292	100.0	567(100.0)

Three quarters of the women (74.7%) reported the FCHVs had instructed them on various health messages such as personal hygiene, health of mothers and the baby etc. The mothers had reportedly received information on family planning (10.1%), immunization (7.1%) and ANC/PNC (3.6%).

Figure 40: Knowledge on ANC checks to be done during pregnancy by geographical regions



It is encouraging to note that nearly three quarters of the women (73.7%) had known that at least four visits had to be made by the women during pregnancy. This knowledge appeared highest among the hill women (87.5%) followed by mountain (70.5%) and terai women (66.9%).

3.4.2 Efficiency in Delivery of EHCS

While assessing the efficiency of essential health services delivery, allocation and absorption efficiency, ratio of program and administrative cost, mobilization of local organizations and resources, supervision, monitoring, documentation and reporting mechanisms, referral system, and strengths and opportunities along with the barriers in delivering EHCS were reviewed. Many of these issues have been presented under § 3.3.6 Sustainability of EHCDS. This section deals with the allocation and absorption efficiency, ratio of program and administrative cost, and referral mechanisms.

Allocation and absorption efficiency

It is disheartening to note that despite the official letter to the D/PHOs from the NHRC and briefing of the purpose and user of the research findings, most of the D/PHOs were reluctant to provide their financial records. Of the ten D/PHOs from the sample districts, only three had consented to furnish their allocated budget, actual expenses and administrative and program costs over the period 2000/2001 to 2004/2005. In Kanchanpur, only three year's financial records, 200/2003 to 2004/2005 were available. In other D/PHOs,

either the records were destroyed due to poor storage or they were not shown due to fear of the exposure of the account records. Therefore, one district each from the mountain, hill and terai has been included so as to analyze the absorption and allocation efficiency and the ratio of the program and management cost.

Table 34: Allocation and absorption efficiency

Particulars	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005
Solukhumbu District (Mountain)					
Absorption capacity	78.3	77.8	84.9	89.8	92.2
Admin cost against program cost	16.7	15.2	14.6	14.1	14.3
Doti District (Hill)					
Absorption capacity	N.A	N.A	96.3	94.6	96.6
Admin cost against program cost	N.A	N.A	11.6	12.1	14.7
Parsa District (Terai)					
Absorption capacity	97.1	N.A	97.0	98.0	94.6
Admin cost against program cost	14.9	N.A	10.7	15.1	13.2

From the above table absorption capacity of the district health system stands well above 95% in the year 2004/2005. However, in Solukhumbu district, it was below 90% in the previous four years. But the trend was increasing over these years. The administrative cost also seems below 15% in all three districts. The hill and mountain districts have marginally higher administrative cost (14.3% and 14.75% respectively) while Parsa, a terai district, has comparatively lower administrative cost against the total program cost (13.2%). However, the difference is dismal.

Efficiency in Supervision, monitoring, documentation and reporting

Lack of timely and supportive supervision was frequently raised by the service providers, mostly from below the district levels. Supervision is reportedly limited to road heads and its peripheral areas. From remote districts, supervision works are reported as very limited. In some religious places like Muktinath, Mustang district the district and even central level authorities visit to the health facilities en route to Muktinath. Till date, supervision has been limited to inspection, most of the service providers opined that there was no opportunity to share learning during supervision. It was also reported that the trend of supervision is declining due to conflict, reduction in supervision budget and lack of follow up mechanism. Similarly in more than half of the districts, there is computer facility in the D/PHO for documentation and reporting of the health records. However, the system is not fully functional.

3.5 Quality of EHCDS

The quality of care has different interpretations to different people and it may include a range of factors. In this study only few key aspects of quality such

as interpersonal communication made between the client and provider, client satisfaction, availability and quality of drugs and medicines, availability of providers while the people need them, and client's perception on their skills and behaviors have been assessed. In so doing two sources, i.e. mother's interviews and exit client interviews have been utilized.

Interpersonal communication

Based on the interviews done with mothers (n=678) regarding their last visit to the providers, interpersonal communications in terms of how and when to take medicines and when to come for follow up seems well happening (i.e. by 87.1% and 60.7% respectively).

Table 35: Interpersonal communication between the provider and client by geographical regions (Multiple responses)

Information flow	Geographical regions						
	Mountain		Hill		Terai		Total
	N	%	N	%	N	%	
How and when to take medicine	119	20.1	189	32.0	283	47.9	591 (87.1)
When to come back next time	108	26.2	114	27.7	190	46.1	412 (60.7)
What measures to be done incase of side effects	21	15.9	33	25	78	59.1	132 (19.4)

Only one fifth of the mothers reported that the providers had informed them side effects of the regimen given to them.

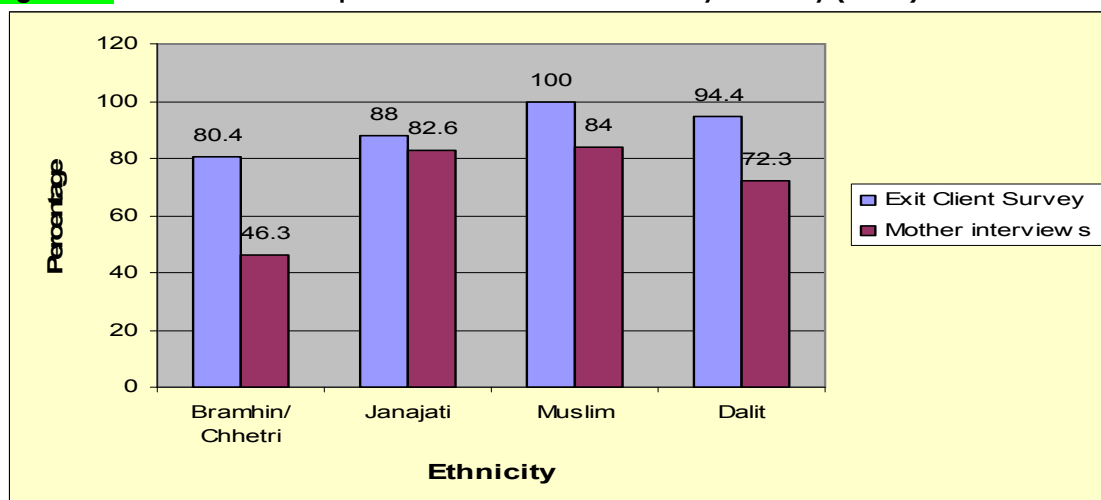
Respect on privacy and client right

Lack of privacy in the health facilities was also frequently raised by the respondents from all districts surveyed. As for instance, deliveries are mostly conducted at home as mothers complain that there is no separate bed and room for counseling of pregnant women and there is lack of separate bed and room for delivery at HP, SHP and PHCC.

Client Satisfaction

Figure 41 shows satisfaction of clients belonging to different caste and ethnicity on the services provided by the health facilities.

Figure 41: Satisfaction of respondents on health services by ethnicity (Yes%)



As shown in the Table above, 86.5% clients and 71.9% mothers expressed their satisfaction over the service they received during their last visit to the health facility. Of the total clients who were interviewed, less than half of the so called upper castes (Brahmin and Chhetri) (80.4%) were found satisfied, While 88% Janajati and 94.4% Dalit appreciated the services they had received. In contrast to this, satisfaction of Brahmin Chhetri mothers was found relatively lower (46.3%) as compared to Muslim (84%), Janajati (82.6%) and dalit mothers (72.3%).

Table 36: Satisfaction of respondents on health services by Geographical Regions (Yes %)

Geographical regions	Exit Client Survey (N=104%)	Mother interviews (N=713 %)
Mountain	17 (94.4)	141 (91.6)
Hill	37(86.0)	141(63.2)
Terai	36(87.7)	231(68.8)
Total	90(86.5)	513(71.9)

When analyzing the client satisfaction by geographical regions, client satisfaction seems relatively higher among the mothers (91.6%) and exit clients (94.4%). It was lowest in hills, both for the exit clients (86%) and mothers (63.2%).

Table 37: Reasons for Liking the healthcare services

Reasons	Exit client Survey	Mother interviews (Multiple responses)
Health worker/doctor's behavior	63(70.0)	513(100.0)
Treatment efficacy	3(3.3)	14(0.3)
Close location of HF	18(20.0)	49(9.5)
Good infrastructure	17(18.8)	-
Availability of medicine	3(3.3)	354(52.2)
Others	-	4(0.8)
Total	90	513

It was interesting to note that more than half of the mothers (52.2%) informed medicines were available to them in the health facility, while it was available to only 3.3% exit clients. By geographical regions, of the total respondent mothers stating availability of medicine (N=354) 123(34.7%) were from mountain, 11 (28.3%) were from hill and hill and 131 (37.0%) were from terai.

Table 38: Likes about the health facility by geographical regions (Multiple responses)

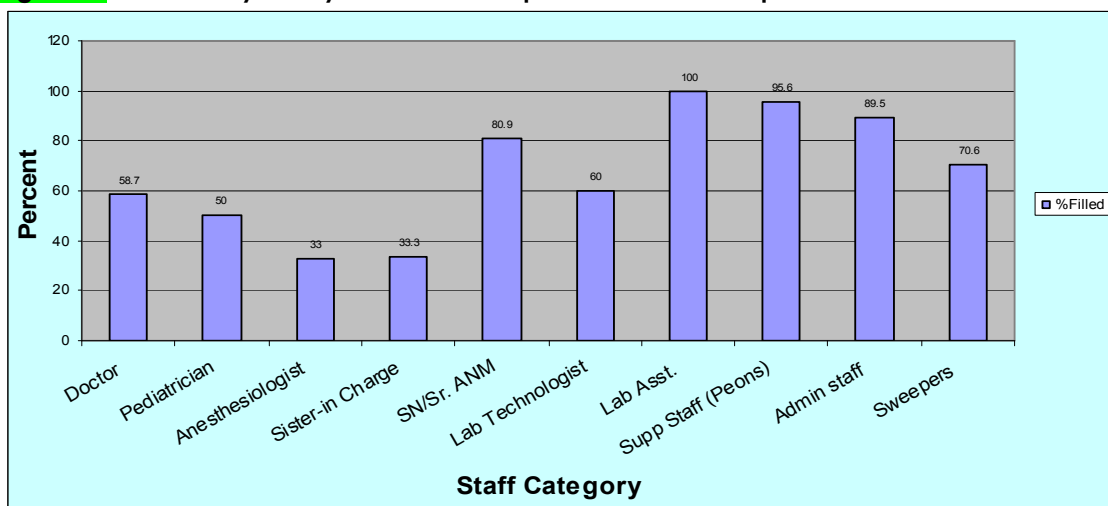
Likes about the health facility	Geographical regions						Total
	Mountain		Hill		Terai		
	N	%	N	%	N	%	
Health workers' / doctors' behavior	11	64.7	22	59.5	30	83.3	63
Health post/ hospital building	0	0	2	5.4	1	2.7	3
Disease cured	3	17.6	8	21.6	7	19.4	18
Sufficient Medicine	4	23.5	9	24.3	4	11.1	17
Others	0	0	2	5.4	1	2.7	3

Of the 90 clients who were found satisfied with the services they received, clients from terai were more impressed with the provider's behavior (83.3%), treatment of disease (19.4%) while clients from hill liked availability of health workers' behavior (59.5%), sufficiency of medicines (24.3%) and treatment of disease (21.6%). From the mountain districts also, health worker behavior (64.7%) and sufficiency of medicines (23.5%) were appreciated by the clients.

Availability of Human Resources

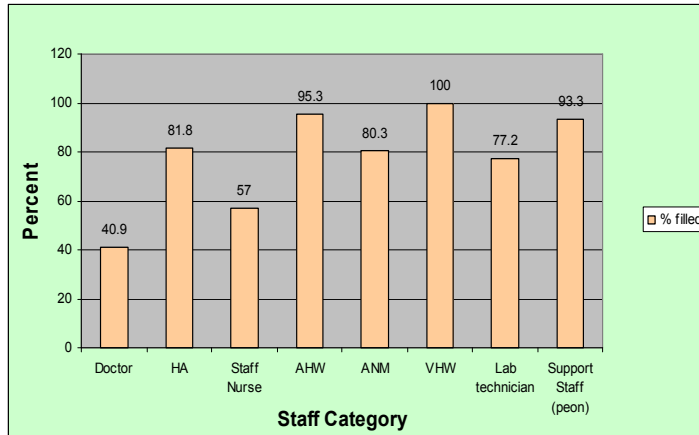
Availability of health service providers in the health facility and in need is regarded as one important element of quality of health services by the community. In this study, efforts were made to collect information on the health facility staff positioned and or manned in there. The finding of the study has been categorically discussed in the following paragraphs:

Figure 42: Availability of key health service providers in the Hospitals



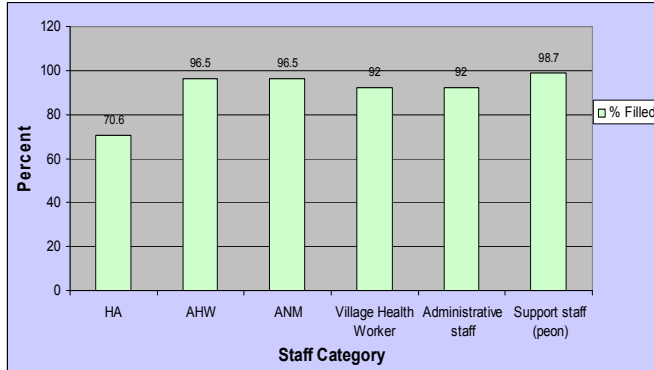
The findings shown in the above table incorporates data from eight districts namely Mustang, Doti, Dang, Surkhet, Parsa, Kanchanpur, Solukhumbu and Jhapa districts. It shows nearly two third of the doctors (62.7%) are manned followed by 50% pediatrician. Only one third (33.3%) Sister-in-Charge positions are filled in. The records reveal that eight out of ten Staff Nurse positions are claimed to be filled in. On the whole, 77.6% of the staff positions in the hospitals are reportedly filled in.

Figure 43: Availability of service providers in the sample PHCCs



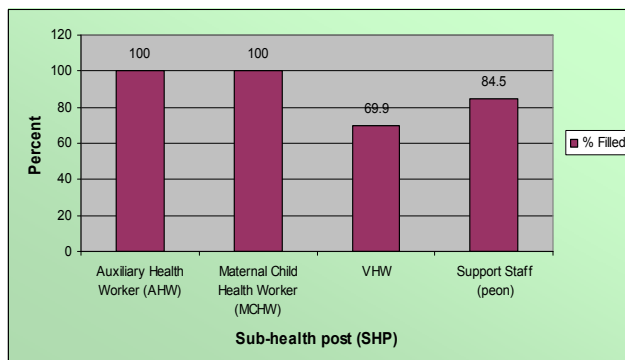
Records from PHCCs show critical absence of medical doctors as only 40.9% positions are staffed. Similarly the PHCCs are poorly staffed with the positions of staff nurse (57%) and Lab technician (77.25). Overall, three quarters (75%) of the staff in the sampled PHCCs are found fulfilled.

Figure 44: Availability of service providers in the sample Health Posts



In case of health posts, 96.3 % staff positions are fulfilled. Seven out of ten HA positions seem fulfilled. The ANMs, who are the grassroots obstetric service provider, is reportedly staffed (96.5%). Compared to the technical positions, administrative and support staff is found fulfilled.

Figure 45: Manning of service providers in the sample Sub-health posts



It is an encouraging point to note that almost all AHW and MCHW positions in the SHPs are filled in. However, only 69.9% VHWs are manned in there. On the whole, nine out of ten staff (89.9%) from the SHPs is fulfilled.

Interviews with the service providers and other social leaders reveal acute shortage of medical/professional staff in many district health facilities. It is reported that many of **the staff positions** sanctioned in health facilities are not fulfilled especially for medical officers at district hospitals and PHCCs, consultant physicians, anesthesiologist and surgeon at regional hospital (eg Mechi Regional Hospital) and PHCCs and health assistants and ANMs at HPs. It was more evidenced from Mustang, Dang, Kanchanpur, Doti and Solukhumbu districts. For example, post of anesthesiologist in district hospital, Mustang is vacant for four years and post of surgeon is vacant for two years. Similarly posts of staff nurses are vacant in district Hospital of Silugadi, Doti for long. There is unavailability of gynecologists and pediatricians in district hospital in Doti. Also there is unavailability of surgeons in the same hospital. According to medical officer of Dang, only 80% post of staffs in Mahendara Hospital, Dang, is fulfilled while 20% posts remain always unfilled. In community level PHCC and HPs, services are mostly given by AHWs. In Aurvedic hospital and centers also, all post of health staffs are not fulfilled. Bageshwari Ayurvedic Aushadhalya, Mustang, could be an example where in the post of a Vaidya is vacant for more than three years.



Availability and quality of drugs and equipment

Though the health facilities are scattered over a wider geographical areas unavailability of laboratory services particularly blood grouping and shortage of instruments and equipment has been frequently reported from many health facilities below PHCCs. Similarly timely supply of drugs especially in remote parts is still to be improved. As for instance, in many SHPs and HPs in Mustang district, it takes 10 months for drugs to arrive from center to the health facilities. As a result, most of the medicines expire while they reach to the health facilities. Drugs are sufficient for hardly about four months in a year. Rest of the drugs has to be purchased by the district and below levels.

As per opinion of VHW from Shreepur VDC of Kanchanpur district, there is lack of rabies vaccine in the HPs. Many instruments provided by the donor agencies are remained unused due to lack of proper knowledge and skills on how to handle them and due to instructions given in other languages (Japanese or French).

3.6 Inclusion of Marginal and Disadvantaged Populations in Utilization of EHCDS

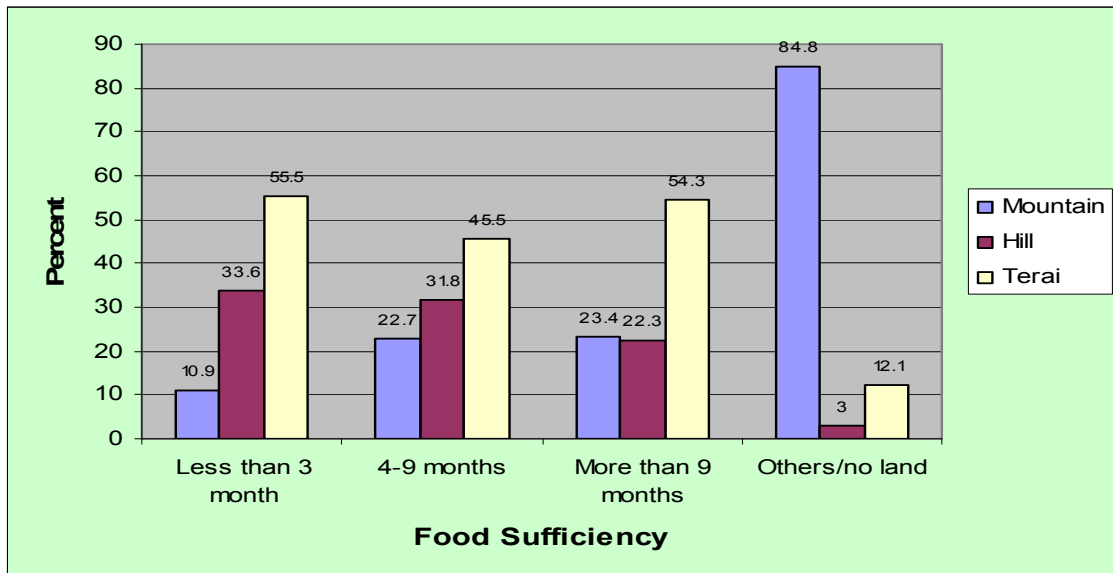
Social inclusion is defined as 'the removal of institutional barriers and the enhancement of incentives to increase the access of diverse individuals and groups to development opportunities,' and social exclusion as 'inadequate or unequal representation, participation and involvement in decision-making in social life or a place in society. It is the presence of social and institutional barriers that restrict access to essential services and development opportunities for some members of society. It is possible to be socially excluded but not poor, and to be poor but not socially excluded.' Similarly, equity, in the broadest sense, is used to address the issue of social exclusion and incorporates elements of positive discrimination².

Though the definition of disadvantaged groups and measurement of poverty is not clear in Nepal, men, and privileged castes of Brahmin, Chhetri and Thakuri, are grouped as 'non-discriminated groups', while women, Dalits, and Janajatis and ethnic minorities, have been categorized under 'discriminated groups'.

The findings discussed in this section are based on individual interviews with mothers and HFMCs.

By food sufficiency levels, seven out of ten households had food available for less than nine months. In total, one third of the households have no foods even for three months.

Figure 46: Food sufficiency by geographical regions (N=692)



² Borrowed from CARE Nepal's Strategic Plan, 2006, and the Gender and Social Exclusion Assessment (GSEA), World Bank, 2005.

Table shows household durables by ethnicity and geographical locations of the study districts. On the whole electricity, Radio, gas stove, television, telephone and bicycles are available to 71%, 63.8%, 15.9%, 23.6%, 13.4% and 36.5% households respectively.

By castes more dalits, compared to other caste and ethnicity, have no access to the essential durables while higher proportion of Brahmin Chhetri has used these facilities.

Table 39: Availability of commodities by ethnicity, (Yes %)

Variables	Electricity	Radio	Gas stove	Television	Telephone	Bicycle
1. Ethnicity						
Brahmin/ Chhetri	217(73.6)	236(80.0)	54(18.3)	155(52.5)	55(18.6)	118(40.0)
Newar/ Janajati	225(71.7)	252(80.3)	54(17.2)	122(38.9)	41(13.1)	101(32.2)
Muslim/ others	23(82.1)	23(82.1)	2(7.1)	11(39.3)	1(3.6)	18(64.3)
Dalit	111(63.8)	182(32.2)	19(10.9)	59(33.9)	12(6.9)	59(33.9)
Total	576(71.0)	111(63.8)	129(15.9)	192(23.6)	109(13.4)	296(36.5)
2. Geographical regions						
Mountain	134(23.3)	134(21.5)	40(11.5)	8(7.3)	13(10.1)	2(0.7)
Hill	184(31.9)	206(33.1)	139(40.1)	56(51.4)	52(40.3)	69(23.3)
Terai	258(44.8)	282(45.3)	168(48.4)	45(41.3)	64(49.6)	225(76.0)
Total	576(71.0)	111(63.8)	129(15.9)	192(23.6)	109(13.4)	296(36.5)

According to the geographical locations, almost all of the durables are available to the people from terai, except television, which is more used in Hills (51.4 % in hill and 41.3% in terai)

Figure 47 below shows the inclusion of women in community groups, including mother's groups. More than one third of the mothers interviewed (36%) were members of a mother's group, the highest membership from the sample. The highest proportion of women's participation in groups was in terai (52%) followed by the hill (29.8%). Aside from mother's groups, women were involved in Community Forest User Groups (6%) and farmers' group (6%). However, nearly one fifth of the mothers (18.2%) were not a member of such groups.

Figure 47: Self-Reported Inclusion of Women in Community Groups (Multiple responses)

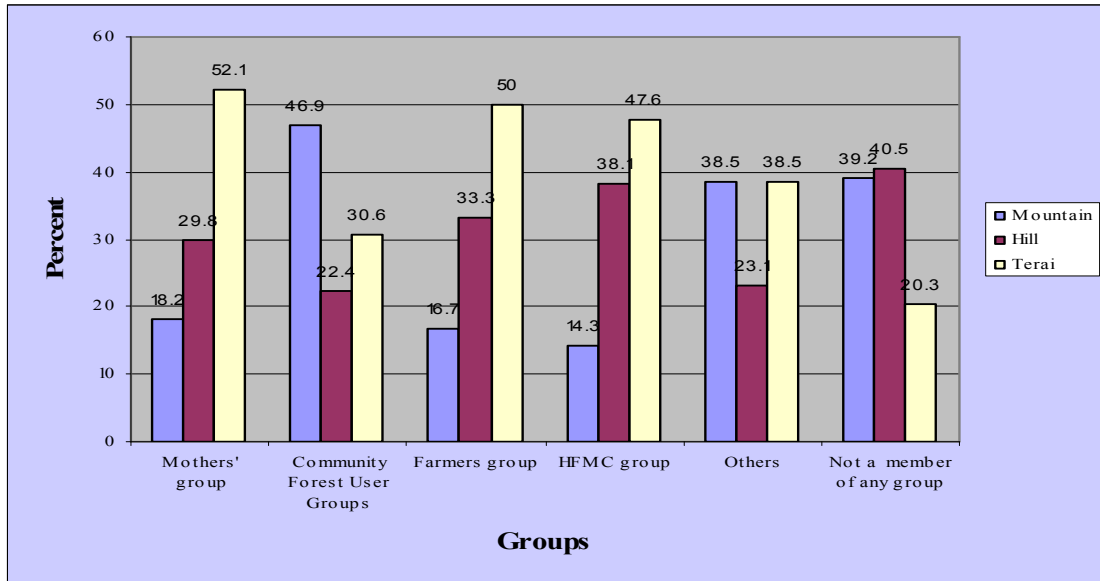
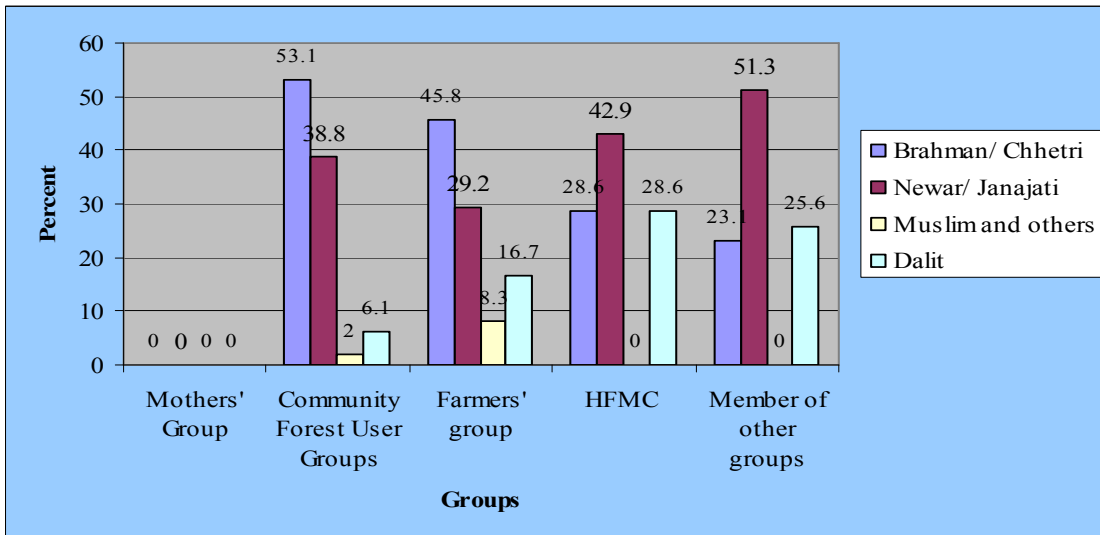


Figure 48: Membership in community groups by ethnicity



As reported by the mother interviews it is the Brahmin Chhetris who are mostly covered (53.1%) by the women groups. It is followed by Newar/Janajati (38.8%).The inclusion of Newar/janajati in the HFMC is highest (42.9%) compared to the other castes.

Table 40: Reasons of not being a member of any groups by geographical location

Reasons	Geographical region of the district						Total
	Mountain		Hill		Terai		
	No.	%	No.	%	No.	%	
None group formed	18	24.0	16	21.3	41	54.7	75
Mother in law is a member	1	7.1	2	14.3	11	78.6	14
No time to involve	2	2.9	40	58.0	26	39.1	68
Husband didn't allow	0	0.0	0	0.0	1	100.0	1
Total	58		60		30		148

The reasons for not being a member of the community groups were cited as non-formation of such groups in their community (20.7%), time constraint (19%) and mother-in-law's involvement in the groups (3.8%) which did not allow them time to participate in group activities..

Table 41: Reasons of not having member of any group by ethnicity

Reasons	Ethnicity								Total
	Brahmin/ Chhetri		Newar/ Janajati		Muslim and others		Dalit		
	N	%	N	%	N	%	N	%	
None group formed	22	29.3	35	46.7	0	0	18	24	75 (20.7)
Mother in law is member	4	28.6	5	35.7	0	0	5	35.7	14 (3.8)
No time to involve	35	52.2	20	29.0	2	2.9	11	15.9	68 (19.0)
Husband didn't allow	0	0	0	0	0	0	1	100	1 (0.3)
Total	123	33.9	155	42.7	6	1.7	79	21.8	181 (100.0)

The interviews and FGDs, on the whole, indicate that all groups of people, marginalized, poor and dalits have utilized health services provided by HP, SHP, PHCC and district hospitals in the districts. It is found from various sources, like social leaders perspective, opinion from representatives of CBOs and NGOs, and service providers themselves that there has not been any sort of discrimination and biases on the part of the providers on the basis of ethnicity, sex or locality of patients. Service utilization from the health facilities is rather higher among females and children in comparison to males. It clearly indicates the vulnerability of women and children in the districts. Ayurvedic services are mostly utilized by adult and elderly populations particularly females according to service providers from Shishawa Aurvedic Hospital, Kaski and Bageshwari Auurvedic Hospital, Mustang. In Mustang, the Ayurvedic dispensary has become one key service provider for the pilgrimage en route to Muktinath.

Poor and marginalized people generally prefer to seek government health facilities like district hospitals, PHCC, HP and SHP because of the low cost of

services and easy access to them. It was frequently reported that rich and educated people do not have faith on HP, SHP, and PHCC and competency of health staffs in there. They visit private health facilities such as medical hall, and nursing homes and even go to big cities in India and Nepal.

Almost all service providers from the district and below level health facilities reported that poor and disadvantaged populations are provided services at low cost (15% to 50% exemption) or no cost (free). The exemption is mostly done by utilizing the resources from the CDP programs. A couple of health facilities have emergency funds to support the poor and disadvantaged groups. However, in the absence of a clear and transparent definition of poor and disadvantaged groups, it is still a matter of personal judgments to be made by the service providers, particularly the facility in-charges.

In Mustang, *Dhikuti* run by women in different villages have become instrumental in supporting the poor women during illnesses as they provide money while in need.

Chapter 4

DISCUSSION ON FINDINGS AND RECOMMENDATIONS

This section presents a brief discussion on key findings regarding the EHDCS delivered by the public health facilities, progress and achievement made on EHCDS, effectiveness, sustainability, equity and efficiency in delivery of EHCS, quality of care and inclusion of marginal and disadvantaged populations in utilization of EHCDS. The discussion is followed by key recommendations.

4.1 Discussion on Findings

4.1.1 EHCS delivered by the Public Health System

The District and below district level health system has been delivering a range of preventive, promotive and curative services in twenty EHCS components. However, at present the NHSP-IP has focused on safe motherhood, family planning and neonatal health, control of communicable diseases, child health and out patient care as priority service components. In the absence of dissemination of health sector plan, programs and priorities to the district and below levels, the district and community level service providers and managers are yet to be familiar and sensitized with these priorities.

Nepal's public health system has a sustained network of health facilities to provide health services throughout the country. The key actions taken to reduce health burden include on safe motherhood, family planning, outpatient care and child health indicate that these services have been regularly and routinely implemented in the district and below levels. However, health problems such as oral health, mental trauma, orthopedic problems, pathology and radiography, treatment of non-communicable diseases such as diabetes and cancer and gynecological problems like uterine prolapse are yet to be covered due to reasons such as lack of human resources, drugs and equipments and proper monitoring and follow up.

Safe motherhood

The coverage of TT vaccines (80.7%) seem higher compared to the NDHS Survey 2001 (45%). The present survey finding has shown higher coverage of TT vaccine in mountain (58.9%), hill (87.5%) and Terai (85.5%) regions in comparison to DoHS records 2003/2004 i.e. 20.3%, 28.3% and 58.8% progress respectively. Similarly 68.2% mothers have received ANC checkups, which is highest in hills (85%) followed by terai (64.5%) and mountain districts (52.8%). By ethnicity, the fourth ANC visit is higher in Muslim women (92.9%) followed by Brahmin/Chhetri (76.6%), and Newar and Janajati women (64.3%). It is reported, least among Dalit mothers (56.9%). Similarly, the NDHS 2004/2005, shows 9% deliveries occurred at home. This survey shows higher proportion of institutional deliveries, 40.3% at hospital and health center and 2.6% at private clinics and nursing homes. However, home delivering is substantially higher yet in all three ecological regions, 76.1% in mountain 55.6% in Terai and 42.9%

in hill. Ethnicitywise, it is again Dalits who have least institutional deliveries (33.3%) against other castes and ethnicities, 37.3% among Newar and Janajati and 45% among Brahmin/Chhetri. However, still one third of the deliveries (33.3%) are assisted by mothers-in-law highest in Terai (39.3%) than in hill (27%) and mountain (28%).

Though MCHWs are regarded as a grassroots level trained birth attendants, they conduct fewer deliveries (2.6%) than FCHVs (7.4%). However, these are self-reported figures and need further verifications. Prolonged labor (87.3%), Post partum hemorrhage (PPH) (10.8%), retained placenta (4.6%) and eclampsia (4.6%) are reported as the main birth complications. Against such context, 82.6% women insisted on the need of birthing center in their communities.

Family Planning

By ecological regions current FP use rate is mountain, hill and terai are 57.6%, 54.1% and 49.7% higher than DoHS 2003/2004 statistics, which are 26.8%, 36.4% and 45.3% respectively. Majority of FP users have used depo-provera (53.8%) followed by condom (22.1%) and minilap (11.9%). Condom use is apparently higher in hill (58.5%). As compared to the males, females have shown higher acceptance to FP contraceptives. The FP use seems least in Dalits (21%) and it is 25 to 28% in other castes/ethnicities. Still Hospitals (62.6%) and health post seem as the principal outlets for the FP devices. Of those who did not adopt FP devices cited no need of FP (64.6%), lack of knowledge on methods of use (20%), non-availability at the spur of moment (8.7%) and side effects (2.1%) as the reasons behind the non-use.

Outpatient Care

Women interviews in home setting (N = 811) and exit client survey (N = 104) and review of health records from 50 health facilities reveal higher morbidities among people in the districts. Mothers reported fever (50.9%), diarrhea in children (39.8%) and common cold (23.4%) and weight less 99.8%) as the main health problems. The exit clients reported general health checks (28.8%), delivery/PNC related services (22.1%), ANC checks (12.5%) and diarrhea (10.6%) as the reasons for visiting health facilities. In the household levels, treatment seeking was reportedly higher (87.4%). These findings are compatible to the HF utilization data over the period 2000/2001 – 2004/2005 in the study districts. On the whole, nine out of ten patients visiting the health facilities are reported as outpatient. The health posts have highest proportion of clients coverage (31.9%) followed by SHP (24.5%), District and Zonal hospital (20.9%) and PHCC (15.9%). It is noteworthy that 86.5% clients maintained that they were satisfied with the services they received from the health facilities.

Child health

EPI, control of diarrheal diseases and ARI, MNT and nutrition appear as the major child health services offered to the district and below levels. The coverage of DPT, Polio, BCG and measles seem universal. The coverage of DPT 3, Polio 3, BCG and measles are 92.8%, 93.4%, 95.2% and 90.7% respectively. The DPT 3 and Polio 3 coverage are highest in hills (95.4% for each) while BCG coverage is found highest in mountain district (98.8%) Terai districts top on measles coverage (97.2%). Eight out of ten children have ever visited His seeking health services. The reasons for the visits are Immunization treatment of ARI/pneumonia, diarrhea, Skin diseases, worms infestation and general checkups.

4.1.2 Progress and Achievements Made on EHCDS

Lack of systematic hard data or records was starkly evident during this study. Let alone the consistency and quality of data maintained in the HFs. Despite the absence of data for many indicators, temporal achievement on immunization, childhood morbidity, safe motherhood, FP and OPD records have been analyzed in this study, where possible.

There is not doubt, stakeholders' participation in periodic planning including target setting and their awareness in program targets are vital for the effective delivery of EHCS. The study revealed that a top down approach has been in practice where in the targets are handed down to the district and below levels from the DoHS. Due to such practices, targets do not match with the realities at the facility level. The number of expected pregnancy, number of under one and under five children do be served to not match in VDCs having high mobility of people. As a result, some districts inflate 10% values to meet their targets. Moreover, indicators of the districts having five year plans seem incompatible to the DoHS's targets. Lack of knowledge or very poor understanding of five year plan, PRSP, MDG, and NHSP indicators has also been reported frequently across the districts. Hence localization of health sector plan and programs through increased sharing of learning is necessary. Moreover, semi-annual reviews being conducted in regional levels be continued and reviewed and within districts be expanded.

Child health

The achievements on priority components of EHCDS, DoHS records as well as D/PHO records from the 10 sample districts for the period 2000/200–2004/2005 show mixed achievements. Achievements made on child health sector show a downward trend in BCG coverage in seven districts namely Solukhumbu, Mustang, Jhapa, Parsa, Kaski, Surkhet and Doti districts while it has upward trend in the rest three study districts; Dang, Kanchapur and Lalitpur districts. In the same way, in half of the district, progress on DPT 3 appears increasing (Solukhumbu, Mustang, Jhapa, Dang and Lalitpur) and in

one district (i.e. Kanchanpur) it is stagnant. The other four districts (Surkhet, Parsa, Kaski and Doti) follow the similar pattern. There is declining trend in DPT 3 vaccination. Achievement on the Polio 3 and measles vaccination also follows same trend.

In the same way, four out of ten districts (Jhapa, Kaski, Surkhet and Doti) have achieved more than 70% progress in growth monitoring of under three year children. Solukhumbu district has below 15% progress on it. The proportion of severely malnourished children is below 20% and in almost all districts the rates of childhood malnutrition is decreasing. However the progress is dismal. It is disheartening to note that ARI among under five children is on the rise. It is exceptionally higher in two mountain districts (400/1000 in Solukhumbu and 600/1000 in Mustang) and two Terai districts (700/1000 in Jhapa and 400/1000 in Parsa district). Kanchanpur district, which is also a terai district in the Far Western Region, has nearly 400/1000 ARI cases in 2004/2005. Likewise, the diarrhea control program seems successful in containing diarrhea well below 15% over the year (2000 – 2005), which was 22.8% in 2001 (NDHS 2001). In the same period, however, one district (Lalitpur) out of 10 districts studied has increased trend of diarrhea but it is only 6% in 2004/2005. However, Solukhumbu, Dang and Surkhet still have higher incidences of diarrhea.

The trend of first ANC visit as percentage of expected pregnancies seems on the rise in seven districts (Dang, Surkhet, Parsa, Kaski, Kanchanpur, Lalitpur and Doti districts) and it is fluctuating in the other three districts (i.e. Solukhumbu, Mustang and Jhapa). Delivery attendance by skilled health workers is also on track in half of the districts but the progress is with very low pace (10 – 20%). However in two districts, Parsa and Doti skilled birth attendance rates 41% and 43% respectively.

The trend of FP acceptors is below 20% in most districts but exceptionally higher in Surkhet district in the year 2004/2005. Similarly success in CYP increment seems mixed, only half of the districts have increasing rates. The CPR rate, as per NDHS 2001 in Nepal, is 38.9%. It has been exceeded in six districts. However, it is on down side in four districts (Solukhumbu, Kanchanpur, Dang and Doti).

Outpatient Care

Health facility records from the 50 health facilities show ten nine out of ten patients visits the HFs out patients. In six out of 10 districts (Solukhumbu, Mustang, Jhapa, Surkhet, Kaski and Doti) the OPD new visits seem increasing. In Dang, Parsa, Lalitpur and Doti districts, the trend is reverse. The pace of patient how seems relatively higher in the mountain districts, Solukhumbu and Mustang districts.

The study has concluded that the quality of records keeping in the health facilities is poor and in many times, data consistency was found lacking. It is

also evident that health facility statistics are yet to be utilized in reviewing the services provided by the respective health facility and in planning EHCDS in the facility, district and national levels.

4.1.3 Effectiveness and Sustainability of EHCDS

The overall disease pattern and health problems seem universal in Nepal. Skin diseases and gastro-intestinal problems continue to be the main health problems in the districts. Some diseases are specific to ecological regions. For example, terai districts are prone with vector borne diseases and snakebites. Diseases associated with life style are also highly reported, particularly in mountain districts. Tuberculosis, dental problems, and tapeworms are attributed to eating habits and life styles. Women from most of the districts except Janajati women from mountain and hills, have suffered from uterine prolapse, vaginal discharges and PPH. Married women whose husbands migrate for work have been reportedly suffered from STI work and HIV.

Internal migration due to open conflict in the country has led to high mobility of labors within the country as well. Similarly, ARI, diarrhea and skin diseases are reported as the common health problems among children. The health service utilization data (2001/2002 – 2005/2006) depicts general health cheeks (40.4%), skin diseases (9.3%), headache/fever (7.8%), APD (5%), ARI (4.4%), tuberculosis (3.7%) and diarrhea as the main reasons behind visiting the health facilities by the patients. Thus, the need of health care delivery involves preventive as well as curative services. However, stakeholders across the districts reported that the health sector plan and programs are less responsive to the specific health problems of the districts from different ecological reasons.

Respondents from the study districts opined that there is adequate stock of medicines for normal emergency situations. However, for unavoidable disasters and emergencies, the stock could not meet the demand. Lengthy procedural and legal process in bidding of drugs, vaccines and equipments, delay in supply due to constraints in transportation, and absenteeism of service providers seem as the impediments in emergency preparedness. In regards to the most effective program components participants after probing, mentioned immunization, CDP, IMCI and DOTs as the most effective service components. Though the community insurance scheme is under piloting, it is informed as one potential approach to address the needs of the disadvantaged groups.

From the service utilization perspective, disparities in terms of gender, ecological regions, season of the year and health facility were revealed. Of the total clients who visited health facilities over the period 2001–2005, 55% were females. Health services utilization by females seems higher in mountain and hills while in terai more males than females have turned to seek health care. By caste/ethnicity, it was the so called higher costs (Brahmin/Chhetri)

that utilized the services at the most (47.6%). It is followed by Janajati (24.1%), dalits (17%) and Muslims (3.6%). However, rest 7.8% client's cast/ethnic status was not known due to poor recording. The trend over time (2001 – 2005) also shows an upward trend in all three regions. However in terai districts client flow appears decreasing in 2005/2006 compared to 2003/2004.

By month, Bhadra (mid August – Mid Sept.) appears as the peak month for client's visit to the health facility while Baisakh (Mid April – Mid May) witnesses least number of clients. In the same way, by age group, children below 14 years have exceeded the other age groups followed by 25 – 29 years age group.

According to type of health facility, health posts in hills have the highest client flow (31.3%). Among the PHCCs, mountain districts have highest service users as the PHCC have served as an alternative to hospitals. However, in Ayurved centers and SHPs, client flow seems similar in all regions.

Building on the lessons from the protected open conflict, Nepal's public health system has adopted a number of approaches and program modalities in health sector. Policy to include disadvantaged groups including dalits, women, disabled and elderly people, increased coverage of the health programs to more remote and pro-poor areas, support to establishing emergency funds and community drugs schemes are the key approach taken in this regard. Though the conflict has a say in delivery of EHCS, its negative impact is reportedly lesser in comparison to other sectors. However, health sector needs to be focused to adopt more inclusive measures based on local needs, to link health service delivery with poverty reduction schemes for safely nets.

Sustainability is also regarded as an indicator for measuring effectiveness of any program. It should be seen from the view points of organizational sustainability, program sustainability and financial sustainability. The study has confirmed presence of a sustained and adequate coverage of health service facilities from central to the VDC levels. Such a visible and well defined organizational set up with different levels of human and other resources ensure organizational viability and longevity. Moreover, there is a functional community support system like HFMCs, MGs, FCHVs and TBAs for the mobilization of local communities. However, motivation and performance of these groups has been questioned due to many reasons.

With the view of increasing ownership of health service facilities through decentralizing health facilities, handing over of health facilities to the local level, implementation of CDP and community insurance and emergency funds, among others, have been done. In this study, in six out of ten districts (Kaski, Kanchapur, Jhapa, Surkhet, Dang and Lalitpur) SHPs are handed over to the local level. However, anecdotes reveal that despite the positive starting up, there is a perception that quality of health services delivered by

the so called decentralized health facilities has not been improved. Lack of support, monitoring and follow up were cited as the reasons behind it.

From the financial sustainability point of view, the public health facilities in Nepal, by and large, depend on public financing. It is notable that PHCCs and hospitals are more relaxed to charge users fees to their services while the HPs and SHPs provide basic services to the grass root people, mostly free of charge. The HFMCs, however, could put on user fees in their services as well. Many health facilities which have introduced some user fees have reportedly help reduce misuse of drugs.

As evidenced from across the districts, from mountain to the terai districts, various I/NGOs have contributed for increasing coverage effectiveness of EHCS. However, in the absence of clear policy, they are yet to be accessible to the remote areas. Support from the local VDCs and municipalities for the development of infrastructure, human resource and equipment seem nevertheless important. However, it is highly necessary to enter partnership between the private and public sectors. It is equally important to explore and discuss on the areas for the public-private partnership. It is also high time that due recognition be given to the health services provided from the private sectors and the donations made by them in the health sector.

In order to maintain financial transparency, notice boards and citizen charters (*Nagarik badapatra*) have been posted in health facilities. However, these are not known, particularly to the illiterate clients. Moreover, there seems lack of a more transparent financial system from the district to the local level and community auditing measures are yet to be introduced.

Enhancing coordination between the different levels of health care and between the public health and Ayurvedic system has been demanded by the respondents. Supportive supervision, monitoring and a system to incorporate the services provided by I/NGO and private sectors to the HMIS need to be strengthened.

4.1.4 Equity and Efficiency in Delivery of EHCDS.

A constellation of factors such as socio-political, cultural, economic, geographical and institutional determine equity while the efficiency is the access product of budget allocation and absorption efficiency, ratio of program and administrative costs, mobilization of local resources, supportive supervision and functional referral system, documentation and reporting mechanisms, among others.

Physically, 83% women and 71% exit clients reported that they have access to a health facility within 30 minute's walk and the rest 16% women and 14% exit clients could have reached with in one hour on foot. Access to health facility with in 30 minute's walk in mountain, hill and terai are 66.6%, 74.4% and 69.8% respectively.

Similarly, 79% Clients' access of road in mountain is least (4.1%) followed by hill (44.6%) and terai (51.4%).

Nearly half (49.5%) of the women interviewed reported that at least one member in their family got sick within a year prior to the study. The morbidity reported by the respondent women is least in mountain district (32.1%). It is 51.3% terai and 58.2% in hill. Of those who got sickness, overwhelming (88.8%) sought treatment from the health facilities. This tendency was highest (92.6%) in hills followed by terai (88.2%) and mountain (80.7%) districts.

Women's access to PHC ORC and immunization clinic seems reportedly higher among Muslim in terai (85.7%), Brahmin/Chhetri (74.2%) and Newar/Janajati (73.2%) and Dalits (73%) have similar access to such outreach services. Two third of these women (66.7%) who did not attend PHC ORC opined that they did not go to the clinic due to the fear of side effects. Other reasons cover lack of time (45.5%) and no knowledge of clinic dates and place (35.1%). In the same way women's access to health workers in six month's period proceeding the study seems higher as more than two third of the women (68.3%) were found visited by the FCHVs, nearly one-fifth (15.5%) by MCHWs, 3.8% by community health promoters and 5.3% by other health care providers. However, only a quarter (26.9%) of woman had ever heard of special health camps conducted in their area.

Eye camps (79.8%), dental camp (34.9%), gyane/STI camp (24.8%), pediatric camp (17.9%) and orthopedic camp (12.4%) were heard frequently by the women. While attending to health facilities women were reported accompanied mostly by their husbands (67.1%) followed by other family members (17.4%) and neighbors/friends (9.3%). In regards to the financial access and women's capacity to pay for the desired health services, (in their last delivery), nine out of ten women reported the cost was managed from their family. The rest others borrowed loans (12.2%) from others, from emergency fund (0.7%) and mother groups (4.15%).

Access to information of health services is also detrimental in maintaining equity while delivering EHCS. It was assessed from women's knowledge of the local FCHVs. Of the 811 women interviewed, 71.5% were knowledgeable on it, 69.9% in mountain, 67.1% in hill and 71.7% in terai could tell name of a local FCHV. They reported that they had received health education (74.7%), information on family planning (10.1%), immunization (7.1%), ANC/PNC (3.6%) and others (5.3%). It is notable that nearly three quarters of women (73.7%) could tell at least four ANC visits were necessary during pregnancy. This knowledge appeared highest in hill women (87.5%) followed by mountain (70.5%) and terai women (66.9%). In course of analyzing financial efficiency the study team found reluctance of D/PHO to provide financial records to such studies due to many reasons. Only four districts furnished their financial records from 2000/2001 to 2004/2005. In other six districts the records were either destroyed due to poor storage or the authorities were not comfortable

to expose their account records. From the analyses of financial records from a mountain (Solukhumbu), hill (Doti) and terai district (Parsa), it becomes clear that absorption capacity of the district health system is almost over 95%. The administrative costs are below 15%, on the whole. The trend of administrative cost seems declining. Further studies on cost-effectiveness and quality of record keeping are necessary to ascertain the reasons of such decrease and their impact on the health system.

Lack of timely and supportive supervision was frequently raised by the service providers, mostly from below the district levels. Supervision is mostly limited to road heads and its peripheral areas. From remote districts, supervision works were reported as very limited. In some religious places like Muktinath, Mustang, district and even central level authorities visit to the health facilities en route to pilgrimage to Muktinath. Till date supervision has been limited to inspection. Most of the service providers opined that there was no opportunity to share learning during supervision. It was also reported that the trend of supervision is declining due to conflict, reduction in budget and lack of follow up mechanism. Similarly in more than half of the districts, there is computer facility for documentation and reporting of the health records. However, the system is not fully functional.

4.1.5 Quality of Care

Quality of care has different interpretations to different people, and it includes a range of factors. Inter personal communication between the client and providers, client satisfaction, availability and quality of drugs and services, availability of service providers and client's perception on skills of the providers are the general issues that are looked at in assessing quality of care. This was done through two sources, mothers' interviews and exit client interviews.

Interpersonal communication on how and when to take medicines and return to follow ups seemed well happening (i.e. by 87.1% and 60.7% respectively). However, side effects were communicated at low extent (19.4%). Lack of privacy in health facilities especially during health checks was frequently questioned by the clients. This has been reported as a reason behind reluctance of women to the health facilities. Women reported preference of home delivery compared to health facility due to lack of privacy poor facilities.

On the whole, 86.5% exit clients and 71.9% mothers expressed their satisfaction over the serviced received from the health facilities. By ethnicity, client satisfaction appeared highest amongst Muslims as 100% exit clients and 84% mothers reported their satisfaction towards the services they received from the health service providers. Level of satisfaction was lowest among the Brahmin/Chhetri as 80.4% clients and 46.3% mothers were satisfied from the health services they received. Client satisfaction was found highest in

mountain districts (94.4%) followed by terai (87.7%) and hill districts (86%). Almost all women and 70% exit clients liked the service providers' behavior. Close location of health facility (20%), good physical facilities and infrastructure (18.8%) and treatment efficacy (3.3%) were the other reasons behind satisfaction.

Availability of service providers is the next important aspect of quality of care. On the whole, 77.6% staffs in the hospital are fulfilled. Data from eight districts show only tow-third of the doctors (62.7%) are fulfilled where as only half of the pediatrician, and one third (33.3%) of the sister-in-charge positions are fulfilled. It is disheartening to note that eight out of ten staff positions are filled in. However, they are physically present in very limited hospitals only. There is a critical absence of medical doctors in PHCCs (40.9%). The PHCCs are also poorly staffed with staff nurses (57%) and lab technicians. Overall three quarter of staff in the sampled PHCCs is fulfilled. Compared to hospitals and PHCCs, staffs in HPs and SHPs are fulfilled more (96.3% in HPs and 89.9%.In SHPs) Seven out of ten (30%) HAs in HPs and seven out of ten VHWs in sampled SHPs are found fulfilled. Anecdotal from across the districts particularly from Mustang, Solukhumbu, Dang, Surkhet, Kanchapur and Doti revealed critical absence of medical personal in the district hospitals and PHCCs. In Aurvedic facilities also, many posts are found unfulfilled. Thus in most of the districts, health staff positions seem unfulfilled, while on the other hand, number of health workforce has not been reviewed for the past many years. It was reported by the district as well as central level respondents. The need for review of staff quotas was pertinently raised from terai districts.

Delayed supply of drugs particularly to remote districts was also frequently reported in hilly and terai districts. As a result, many life saving drugs reached to the health facility near or after expiry date. Moreover, the drugs are hardly sufficient for four months. For the rest of the time, there is scarcity of drugs. Many instrument donated by the donor agencies and governments are found non-operational due to lack of maintenance and proper knowledge and skills on how to handle them. In some districts, even the instructions to use are written in other languages (Japanese and French languages), which could not be understood for use by them.

4.1.6 Inclusion of marginal and disadvantaged population in EHCDS

Social inclusion involves removal of institutional barriers and enhancement of incentives to increase the access of diverse individuals and groups to development opportunities similarly equity is used to address the issue of social exclusion and incorporates elements of positive discrimination.

Though who is disadvantaged and how to measure poverty is not clear in Nepal, dalits, women, ethnic minorities and people with disabilities are considered as discriminated groups. In this study, an effort was made to assess status of the households by food sufficiency, essential household commodities, In addition women's involvement into groups and service

seeking by the disadvantaged groups have also been studied. The study findings reveal that one-third of the households have no foods even for three months and seven out of ten households had food available for less than nine months.

The household durables such as electricity, Radio, gas stove, television, telephone and bicycles were available to 71%, 63.8%, 15.9%, 23.6%, 13.4% and 36.5% households respectively. By caste and ethnicity, more dalits (33%) compared to other castes and ethnicities have no access to such durables. In the same way, access to these commodities, except television seem higher in terai districts followed by hill and mountain districts. The use of television is apparently higher in hilly districts (51.4%).

More than one third of the women interviewed were found covered by the mother groups formed in the local community. The participation in MGs was highest in terai (52%) followed by hills (29.8%). Besides MG, women were also the members of CFUGs (6%), and farmer's groups (6%). From the perspective of caste and ethnicity, it was the Brahmin/Chhetri who were mostly covered (53.1%). It was followed by Newar and Janajati (38.8%). In HFMCs, more Newar and Janajatis were included (42.9%).

Among the service providers and respondents, there was a perception that poor, marginalized and dalits have been focused in order to increase their access to public health services. They opined that there was no any discrimination and biases on the part of providers on the basis of ethnicity, sex or regionality of the clients. Health records show higher utilization among females and children. It again indicated vulnerability of these groups. It was confirmed that public health services were mostly used by the poor and women and dalits due to low cost of the services and easy access to them. It was frequently reported that rich and educated ones prefer high services provided by the private sector. It was reported from the health facilities that disadvantaged groups are exempted service cost from 15 to 50% and also get services free of cost. However, very few hospitals have emergency and poor fund to support the disadvantaged groups. Even in health facilities having this provision, the definition of poor and disadvantaged groups is unclear. A system with provision for issuing identity card to poor and disadvantaged groups was also lacking. As a result, exemption of fees for the services received from a facility rests on the discretionary decision of the in-charge.

In mountain districts, there is round the year availability of money in *Dhikutis* run by women in many communities. This fund has potential to be supportive to help the poor and disadvantaged people in need. However, linkages between such *dhikutis*, mother groups and local women and disadvantaged groups including dalits need to be established.

4.2 Recommendations

1. The NHSP-IP has prioritized safe motherhood, neonatal health and family planning, communicable disease control, child health and out patient care as the priority EHCS for the health sector. The district and below level health system has been delivering these services as usual through different tiers of health facilities. However, the system is yet to be responsive to the ecological and district specific health problems and to provide specialized services such as mental health, laboratory and radiography, treatment of non-communicable diseases and gynecological problems.

Local stakeholders understanding on the NHSP-IP and other sectoral plans and programs seem low. In order to deliver these services up to the district level localization of NHSP-IP and other health sector related plan and programs such as PRSP, MDG, health policies and plans so as to enhance stake holder's understanding is of utmost importance. For this, dissemination of health sector strategies at various levels through review meetings and workshops is suggested. Similarly, there is a need to incorporate district specific health problems into the district health plan through a participatory bottom-up approach and give due emphasis to local health problems while developing district health plan and policies. It could also prevent inflating of district level achievements by the D/PHO and further strengthen ownership in the health sector plan and programs.

2. It is encouraging to note that achievement on TT vaccination, ANC checks, FP use rate and childhood vaccinations show increasing trend over time. However, the progress is mixed across the districts. In seven out of ten districts, progress on BCG coverage has a downward trend, while on DPT 3 and Polio 3 coverage, it has shown an increased trend in half of the districts. ARI among under five children is on the rise, though small proportion of severely malnourished children is declining in all districts. It is exceptionally high in mountain districts. Similarly, diarrhea control program seems successful in containing diarrhea well below 15% over the period (2000-2003) Delivery attendance by skilled health workers is on track but in half of the districts only. In 60% districts, OPD new visits have been increased. However, the overall pace of increment is slow and it is lowest among dalits and in mountain regions. Utilization of health service by dalits and mountain regions seems least. Hence, women and dalits need to be specially focused while planning health programs so as to include them within the mainstream of health services.

As nine out of ten patients are out patients and the SHPs and HPs have covered highest proportion of population in need of basic health services, it is equally necessary to ensure sustained delivery of priority

health services through them. Improving the quality of services in the PHCCs and hospitals is nevertheless important.

3. Though the district health system has sensitized the need for emergency preparedness, much seems to be done to timely procurement and delivery of drugs, supplies and equipment to the districts.
4. Childhood immunization including IMCI, CDP and DOTS has been reported as the most effective service components. Since the drugs distributed by the D/PHO are hardly sufficient for three months, CDP has become crucial. There seems a seasonal variation in client flow in the health facilities. It is highest in the month of Bhadra and least in the month of Baishakh. PHCCs in Hills and mountain districts have served as hospitals to the people but they seem properly equipped. Such disparities should be taken into account while delivering drugs and other supplies to the health facilities.
5. In the context of protracted open conflict, Nepal's public health system has witnessed relatively less negative impact compared to other sectors. Policy to increasing coverage of services to more remote and pro-poor areas, establishment of emergency funds, implementation of CDP and delivery incentives have positive indications in this regard. However, the health sector services has still to be made more inclusive in light of the local needs and it be linked with doable safety nets.
6. The public health system of Nepal has a well defined and visible organizational set up along with functional community support system up to the VDC level. Furthermore, the GON along with functional community support system has initiated handing over of the health facilities to the local communities for the decentralized health services. However, in the absence of clear policies, guidelines and support and follow up mechanisms, these health facilities have yet to improve the quality of EHCDs. Similarly, the hospitals and PHCCs seem more relaxed to charge user fees than by the S/HPs. The S/HPs have risk of confronting with the public to put on user fee to the basic services with poor quality. This again invites more input and support to the S/HPs.

Moreover, the health sector has received tremendous support from the local VDCs, DDCs and I/NGOs for the development of infrastructure, human resources and equipment but such supports are not regular and accessible in all areas. The role of private sector seems to be focused in future. It is, therefore, necessary to enter partnership between public and private sector for the health promotion activities. For this, areas of potential partnership should be identified. Equally important is to give due recognition to the privately made donations in the health sector.

Despite the posting of citizen charters, it is yet to introduce more transparent financial system in the district level. Inter and intra-sectoral coordination for health is also highly important for the sustainability of EHCDS. Supportive supervision with a functional monitoring and documentation and development of an HMIS that incorporates services provided by I/NGOs and private sector is urgently needed.

As reported by the overwhelming proportion of respondent women and exit clients, they have access to a health facility within 30 minute's walk. Treatment seeking during illness, women's access to PHC ORC and FCHVs also seem higher. However, still one third of the women do not attend health facilities due to lack of knowledge of place and time of PHC ORCs. Similarly two-third of them had never heard of any special health camps that were conducted in their communities. More than a quarter women have no knowledge on local FCHVs and knowledge on number of ANC checks to be done during pregnancy seemed low. Hence, raising awareness about the health services availed by the health facilities is highly necessary.

7. As revealed from the analysis of a district, each from mountain, hill and Terai regions, and absorption capacity of the district health system seems above 95%. The administrative cost is below 15%, with a declining trend. However, further studies are necessary so as to ascertain cost effectiveness of the EHCS.
8. Quality of care from the point of view of client satisfaction and interpersonal communication between client and provider was reportedly higher. However, acute shortage of service providers, particularly medical personnel in the hospital and PHCCs was confirmed from the health facility records and anecdotal. The main reason for the absence of health workforce was reported as lack of proper supervision by the subordinates, absence of periodic and timely review of positions by ecological regions and population density. Therefore, a functional supervision, decentralized to the local bodies where possible, and timely review of health workforce is suggested.
9. In many health facilities, in the absence of staff with proper knowledge on handling of equipments and maintenance of equipments, important equipments seem non- functioning. A special attention is to be given to train staff on handling of equipment and proper storage mechanisms are in place.
10. Despite the formulation of general policies for the inclusion of disadvantaged groups such as dalits, women, ethnic minorities and people with disabilities and poor populations, this is yet to be realized into practice in the absence of clear identification of these groups right at the service out lets. One out of ten women had to borrow loan to

pay the cost of delivery. On the other hand, most of the hospitals and PHCCs still do not have emergency or poor fund. Access to emergency and poor fund is highly limited. It invites expansion of community managed emergency funds especially to increase access of health services by the poor and disadvantaged groups.

It has resulted difficulty in exempting the poor from the health facilities. In the same way, safety nets for these groups have not been provided. Community groups, particularly mother groups, are found dominated by the so-called higher castes. Therefore, in order to increase poor as well as women's access to resources, linkages between the disadvantaged groups and resources available at community and other organizations and groups should be established.

Appendices

Annex 1

General Characteristic of Mothers

Name of the district	Frequency	Percent
Solukhumbu	81	10.0
Jhapa	80	9.9
Parsa	80	9.9
Lalitpur	80	9.9
Kaski	80	9.9
Mustang	82	10.1
Dang	84	10.4
Surkhet	84	10.4
Doti	80	9.9
Kanchanpur	80	9.9
Total	811	100

Geographical region of the district	Frequency	Percent
Mountain	163	20.1
Hill	240	29.6
Terai	408	50.3

Ethnicity of the respondents	Frequency	Percent
Brahmin/Chhetri/Newar	339	41.8
Muslim/ others	28	3.5
Janajati	270	33.3
Dalit	174	21.4
Total	811	100.0

Educational status of the respondents	Frequency	Percent
Literate (NFE graduate)	84	10.4
Primary	256	31.6
Secondary	124	15.3
Higher education (above SLC)	31	3.8
Illiterate	250	30.8
No response	66	8.1

Marital status of the respondents	Frequency	Percent
Married	808	99.6
Divorced	1	0.1
Widow	2	0.2

Total number of child	Frequency	Percent
1	492	60.7
2	175	21.6
3	126	15.5
4	11	1.4
5	4	0.5
6	3	0.4
Total	811	100

Age distribution of the mothers	Frequency	Percent
<=15 years	1	0.1
16-20 years	175	21.6
21-25 years	332	40.9
26-30 years	180	22.2
31-35 years	67	8.3
36-40 years	17	2.1
>40 years	9	1.1
No response	30	3.7
Total	811	100

Median age of Mothers: 24 years		
Max age: 44 years		

Primary occupation of the husband		
Occupation	Frequency	Percent
Agriculture	320	39.5
Trade	139	17.1
Service	251	30.9
Student	5	0.6
Other	96	11.8
Total	811	100

Annex-2

General Characteristics of the Clients

Table general characteristics of the clients by Different Variables		
Geographical location	No.	Percent
Mountain	18	17.3
Hill	43	41.3
Terai	43	41.3
Total	104	100
Sex		
Male	47	45.2
Female	57	54.8
Total	104	100
Ethnicity		
Brahmin/ Chhetri/ Newar	51	49.0
Janajati	25	24.0
Muslim	3	2.9
Dalit	18	17.3
Others	7	6.8
Total	104	100.0
Status of having children		
	No.	Percent
Yes	84	80.8
No	20	19.2
Total	104	100.0
Age of the clients		
	No.	Percent
Less than 14 years	6	5.8
15-25 years	28	26.9
26-35 years	31	29.8
36-50 years	24	23.1
51-60 years	11	10.6
More than 60 years	4	3.8
Total	104	100.0

Age of the clients by geographical location							
Age of the clients	Geographical location						Total
	Mountain		Hill		Terai		
	N	%	N	%	N	%	
Less than 14 years	2	33.3	2	33.3	2	33.3	6
15-25 years	7	25	12	42.9	9	32.1	28
26-35 years	5	16.1	15	48.4	11	35.5	31
36-50 years	3	12.5	7	29.2	14	58.3	24
51-60 years	1	9.1	4	36.4	6	54.5	11
More than 60 years	0	0	3	75	1	25	4

Appendix-3

List of HFs covered by the study

District	Name of HF
1. Jhapa	1. District Hospital, Bhadrapur, Jhapa 2. Dhulabari PHCC, Dhulabari 3. Rajgadh Health post, Rajgadh 4. Ayurvedic Aushadhalaya, Arjundhara
2. Solukhumbu	1. District Hospital, Salleri, Solukhumbu 2. Salleri PHCC, Salleri 3. Garma HP, Garma 4. Tamakhani Sub-health post 5. Ayurvedic Aushadhalaya
3. Kaski	1. Gandaki Zonal Hospital, Pokhara, Kaski 2. Lekhnath PHCC, lekhnath Municipality 3. Kristi Health post, Kristi 4. Armala Sub-health post 5. Ayurvedic Aushadhalaya
4. Mustang	1. Mustang Hospital, Zomsom, Mustang 2. Lete PHCC, Lete 3. Thini HP, Thini 4. Kobang SHP, Kobang 5. Jharkot Health post, Jharkot, Muktinath 6. Ayurvedic Dispensary, Kagbeni
5. Surkhet	1. Birendra Hospital, Birendranagar, Surkhet, Muni 2. Mehelkuna PHCC, Surkhet 3. Lekha gaon Health post, Surkhet
6. Dang	1. Mahendra Hospital, Tribhuvan Municipality 2. Tulsipur PHCC, Tulsipur, Dang 3. Godahwa Health post 4. Hasipur Sub-health post, Hasipur, Dang 5. Regional Ayurvedic Hospital, Bigauri, Dang
7. Kanchapur	1. Mahakali Zonal Hospital, Kanchapur 2. Shrepur PHCC, Shreepur, Belauri 3. Suda Sub-health post 4. Daizi Health-post 5. Ayurvedic Dispensary, Jhalari, Kanchapur
8. Doti	1. District Hospital, Doti 2. Saraswotinagar PHCC, Doti 3. Khirsain Sub-health post, Doti 4. Sanagaon Health post 5. District Ayurvedic health center, Dipayel, Doti
9. Lalitpur	1. Patan Hospital, Lalitpur 2. Lele PHCC, Lale, Lalitpur 3. Bungmati Health post, Bungmati, Lalitpur 4. Chhampi Sub-health post, Chhampi, Lalitpur 5. District Ayurvedic Health center
10. Parsa	1. Narayani Sub-regional Hospital, Birgunj 2. Pokhariya PHCC, Pokhariya 3. Pipra Health post, Pipra 4. Ramgudawa SHP, Ramgadawa