## Barriers to Effective Policy Implementation and Management of Human Resources for Health in Nepal

# Training, Recruitment, Placement and Retention of Health Professionals

With an emphasis on Public Private Partnership (PPP)



A Report of Operational Research

**§2012** 







#### Disclaimer

This publication is part of an Operational Research entitled "Barriers to Effective Policy Implementation and Management of Human Resources for Health in Nepal" under the project *Support to Health Workforce Through Civil Society Engagement* funded by the European Union and the Ladham Trust. The contents of this publication are the sole responsibility of SOLID Nepal and can in no way be taken to reflect the views of the funding organisations.

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#### Preface

Ministry of Health and Population has committed, through its second Nepal Health Sector Programme Implementation Plan (2010-2015), to improve the health and nutritional status of the people by providing them equal opportunity to receive quality health care services free of charge or at affordable cost thereby contributing to poverty alleviation. The ministry promotes access to and utilisation of essential health care and other health services, emphasising services to women, children, and poor and excluded. The plan and programmes are focused to changing risky life styles and behaviours of most at-risk populations through behaviour change and communication interventions.

The health sector requires competent and motivated health workforce to achieve the stipulated goals and targets of the health plan and the programmes. Nepal health sector is facing critical human resources for health (HRH) crisis for service delivery. Deployment and retention, production of skill mix human resources and their equitable distribution, availability, productivity, performance and accountability of the human resources for health are some of the major issues to be addressed by the health system. On the other hand, non-communicable diseases, accident and injuries and other new emerging diseases will require more epidemiologists and public health experts. A scientific and robust strategic plan for managing HRH both in public and private sectors, maintaining equilibrium in supply and demand, delivering efficient services to people so as to achieve MDGs, is now a prime concern for the Ministry.

The Ministry of Health and Population has prepared a HRH Strategic Plan (2011-2015) aiming to ensure the equitable distribution of appropriately skilled human resources for health to support the achievement of health outcomes in Nepal and in particular the implementation of Nepal Health Sector Progamme-2 (NHSP-2). The HRH Strategic Plan has given main focus to achieve the appropriate supply of the heath workers, equitable distribution of them, improved health workers performance, effective and coordinated HR planning, management and development across the health sectors.

Both the NHSP-2 and HRH Strategic Plan has highlighted the need of operational researches to find out the bottlenecks of health system in terms of policy implementation and HRH management there by to recommend the appropriate actions to strengthen the health system.

This operational research carried out by Society for local Integrated Development Nepal (SOLID Nepal) and Merlin with financial support from the European Commission and Ladham Trust helps to generate empirical evidence highlighting the key gaps and existing challenges in six key areas: a) Distribution and skill mix of HRH, b) Training, recruitment, placement and retention, c) performance and accountability, d) HRH management, e) working conditions and f) Civil Society Organisation's engagement. This will definitely support MoHP for further human resources planning and its effective implementation.

The MoHP would like to thank SOLID Nepal, Merlin, the European Union and Ladham Trust for carrying out this research. There is great appreciation to all research and logistics teams for their efficient work and to the research participants, for their valuable contribution to the research study.

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#### **Foreword**

It is my great pleasure to introduce this report on the *Barriers to Effective Policy Implementation and Management of Human Resources for Health in Nepal.* This report was the result of a comprehensive piece of nationally representative operational research, conducted by Society for Local Integrated Development (SOLID) Nepal in partnership with Merlin Nepal, which encompassed all Nepal's development regions and ecological belts. That research and, subsequently, this report were made possible with the financial assistance of the European Union and the Ladham Trust.

Every man, woman, youth and child has the right to enjoy the highest attainable standard of physical and mental health. The practical realisation of this right, however, has one significant precondition: To enjoy the highest attainable standard of health, every individual must first have access to suitably qualified and motivated health workers. While fundamental, this requirement remains a major challenge in many countries, particularly those which have significant geographical, economic and/or human resource constraints.

The Nepal Health Sector Programme – Implementation Plan II (NHSP-IP II, 2010-2015) mentions that Nepal has experienced a 35% growth in population since 1991, however the public workforce only increased by 3% during the same period, and approximately 25% of the total health workforce are unskilled. While having an adequate number of qualified health workers physically in place is obviously vital to ensuring access to quality healthcare, so too is the distribution and mix of those health workers, the quality and appropriateness of their training, their workplace performance and accountability, the effectiveness of their management structures and their working conditions. All of these contributing factors were assessed and analysed as part of this operational research.

SOLID and Merlin also recognise the proactive role civil society organisations (CSOs) can play in regard to human resources for health. As such, the current and potential roles of CSOs were considered throughout this research.

It is our hope that this publication will not only provide a holistic picture of the current health worker situation in Nepal, but also present all stakeholders engaged in Nepal's health sector with tangible recommendations which will, in turn, facilitate every Nepali accessing their right to the highest attainable standard of health.

More information on the importance of health workers and the challenges they face can be found on Merlin's Hands Up for Health Workers campaign site: <a href="https://www.handsupforhealthworkers.org">www.handsupforhealthworkers.org</a>.

Catherine Whybrow Country Director Merlin Nepal

## स्थानीय एकीकृत विकास समाज नेपाल

#### Society for Local Integrated Development Nepal

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A Ladis of The Transfer of the State of the It is our immense pleasure to bring forth the series of reports of operational research entitled "Barrier to Effective Policy Implementation and Management of Human Resources for Health in Nepal" under the project "Support to Health Workforce through Civil Society Engagement". This operational research highlighted six crucial thematic areas of Human Resources for Health (HRH) in Nepal: 1) Distribution and skill mix of health workforce; 2) Recruitment, training, placement and retention of health professionals with an emphasis on public-private partnership; 3) Health workforce performance and accountability; 4) HRH management from central to district level; 5) Working conditions of health workforce; and 6) Role of civil society in HRH.

> We would like to express our heartfelt thanks to the secretary of Ministry of Health and Population, Dr. Prabin Mishra for his steady and constructive support from the very beginning of the project. We highly acknowledge the senior officials from the ministry namely Dr. Baburam Marasini, Senior Public Health Administrator; Ram Chandra Khanal, Senior Public Health Administrator and Kabiraj Khanal, Undersecretary for their support in each and every step of the operational research especially for thorough review of the research findings and providing substantial inputs. Our sincere thanks also go to other officials in the ministry and its departments for their valuable supports.

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### ACRONYMS

**AAHW** Ayurvedic Auxiliary Health Worker

AHW Auxiliary Health Worker
ANM Auxiliary Nurse Midwife
BDS Bachelor of Dental Surgery

**CBOs** Community Based Organisations

CDR Central Development Region

**CDs** Communicable Diseases

CMA Community Medical Assistant
CSO Civil Society Organisation

CTEVT Council for Technical Education and Vocational Training

DDC District Development Committee
 DHO District Health Office/Officer
 DoHS Department of Health Services
 DPHO District Public Heath Office/Officer
 EDPs External Development Partners

EDR Eastern Development Region

EPI Expanded Programme on Immunization
FCHV Female Community Health Volunteer

**FGD** Focus Group Discussion

**FPAN** Family Planning Association of Nepal **FWDR** Far-Western Development Region

GIZ Gesellschaft für Internationale Zusammenarbeit

**GoN** Government of Nepal

GTZ Gesellschaft für Technische Zusammenarbeit

HA Health Assistant

**HFOMC** Health Facility Operation and Management Committee,

HIV/AIDS Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome

**HP** Health Post

HRH Human Resources for Health

**HuRDIS** Human Resource Development Information System

HuRIC Human Resource Information CentreHuRIS Human Resource Information System

**HW** Health Worker

I/NGO International Non-Governmental Organisation

**IOM** Institute of Medicine

KII Key Informant InterviewKU Kathmandu University

MBBS Bachelor of Medicine, Bachelor of Surgery

MCH Maternal and Child Health

MCHW Maternal and Child Health Worker
MDGs Millennium Development Goals

MMR Maternal Mortality Ratio
MoE Ministry of Education

MoGA Ministry of General AdministrationMoHP Ministry of Health and PopulationMWDR Mid-Western Development Region

NCDs Non-Communicable Diseases
NGO Non-governmental Organisation

NHP National Health Policy

NHRC Nepal Health Research Council

NHSP IP Nepal Health Sector Programme Implementation Plan

NHSP Nepal Health Sector ProgrammeNHTC National Health Training CentreNHTS National Health Training Strategy

NSI Nick Simons Institute
OPD Out Patient Department
PCL Proficiency Certificate Level
PHC Primary Healthcare Center

PHC/ORCs Primary Health Care/Out Reach Clinics

**PhD** Doctor of Philosophy

PPP Public Private Partnership
PSC Public Service Commission
SBA Skilled Birth Attendant

SHP Sub-Health Post

**TSLC** Technical School Leaving Certificate

TU Tribhuvan University

VDC Village Development Committee

VHW Village Health Worker

WDR Western Development Region
WHO World Health Organization

### GLOSSARY

**Ecological Belts** Nepal is made up of three ecological belts running laterally across the

country: the Mountain belt in the northern highlands, Hill in the central

belt, and Tarai lowland plains in the southern belt.

Basic-level HWs Basic-level HWs have received Technical School Level Certificates

(TSLC). They are trained for 12-18 months, primarily through affiliated institutions of CTEVT and are able to provide basic services in their

trained areas.

**Birthing Centre** A health facility with the equipment and skilled birth attendants to assist

women to give birth safely.

**Deputation** Deputation is the secondment of personnel, irrespective of the numbers

of sanctioned posts, for a given period of time.

**Development Regions** For administrative purposes, Nepal is divided up into five Development

Regions: Eastern Development Region (EDR), Central Development Region (CDR), Western Development Region (WDR), Midwest Development Region (MDR), and Far Western Development Region

(FWDR).

**Facilities** For the purpose of this report, facilities can mean either those provided to

health workers i.e. housing, or those in the health centre i.e. x-ray

machines.

High-level HWs High-level health workers have obtained either a Bachelor or Post-

Graduate degree in Health Sciences. These high-level health workers provide more advanced services and are produced by different universities and autonomous academic institutes, and their affiliated

institutions.

HRH Human Resources for Health (HRH) include those 'engaged in actions

whose primary intent is to enhance health' (1).

Ilaka A segment within a district that comprises several, largely homogeneous

VDCs. There is one Health Post in each Ilaka.

Mid-level HWs Mid-level health workers have attended a three-year training course

(Proficiency Certificate-Level or Diploma-Level courses). They perform a curative, preventative, and diagnostic function, and are responsible for supervising the basic-level HWs. They are produced primarily by affiliated institutions of CTEVT, and by Tribhuvan University (TU), Kathmandu University (KU) and B.P. Koirala Institute of Health Sciences

(BPKIHS).

**Paramedical** Paramedical staff are a section of the health workforce representing basic

and mid-level technical categories, including Health Assistants, Auxiliary Health Workers, Laboratory Technicians, Laboratory Assistants, Radiographers, Anaesthetic Assistants, Ophthalmic

Assistants, Physiotherapy Assistant.

Sanctioned posts Sanctioned posts are posts that have been centrally approved by the

MoHP within health institutions.

Safe Abortion Legal abortion performed by certified medical staff in registered health

facilities.

**Skill mix** The 'combination of different health workers that produce a given level

of healthcare' (2).

Wards These refer to clusters within the VDC, of which there are 9 in each VDC.

#### DESCRIPTIONS OF NEPALI HEALTH STAFF ACRONYMS

**AHW** 

Auxiliary Health Worker: AHWs are trained for one year after secondary school. They are the Sub-Health Post in-charge and also service providers in the HP, PHC and Hospitals. Their main role is to provide promotive and preventive care in the community and refer to primary healthcare facilities.

ANM

Auxiliary Nurse Midwife: ANMs are based at Health Posts to conduct maternal and child health care services. They are trained for 18 months and like the MCHW, the ANM's main job is to conduct antenatal clinics, provide TT immunization, nutrition education, conduct normal deliveries, recognize danger signs and refer women to for more specialized care. ANMs provide Safe Motherhood services, Basic Emergency Obstetric Care and Family Planning services.

**FCHV** 

Female Community Health Volunteers: FCHVs are grassroots level health volunteers based in their respective Wards, who are selected by the Mothers' Groups and trained for 18 days on basic healthcare. They are responsible for conducting Mother's group meetings and delivering health messages to the Mothers and distributing pills, condoms, polio drops, oral rehydration salts and Vitamin A. The government provides training and refresher training to them.

HA

Health Assistant: HAs are based in Health Posts as the Health Post In-charge, holding a Proficiency Certificate in Medical Science (General Medicine). They perform promotive, curative and preventative roles and are responsible for supervising the Health Post staff and Sub-Health Posts in their area. HAs report to the District Public Health Office (DPHO)/DHO at district level.

**MCHW** 

Maternal and Child Health Worker: MCHWs are selected mainly from the local VDC. MCHWs are based in Sub-Health Posts to provide maternal and child health services, after receiving six months' training. MCHWs conduct antenatal clinics, provide TT immunization, post natal clinic nutrition education, and conduct normal deliveries. They also provide counseling to couples on family planning and provide Family Planning services. They are also responsible for conducting EPI clinics and PHC/ORCs.

**SBA** 

Skilled Birth Attendant: "An accredited health professional, such as a midwife, doctor or nurse, who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period and in the identification, management and referral of complications in women and newborns" (3).

**VHW** 

Village Health Worker: VHWs are the community level government employee with six months' initial training. Together with MCHWs, they conduct outreach clinics in their villages, and are involved in immunization of children under the age of one year. In addition, they distribute contraceptive pills, condoms and refer clients for other methods of family planning. They supervise FCHVs and attend Mother's group meetings. They also provide health education in the village.

### EXECUTIVE SUMMARY

**Introduction:** There is increasing global consensus for the need to consider the health system in its entirety, taking into consideration the limitations of public health budgets and the use of the private sector as a support in the struggle to provide higher quality services to a greater number of people. Public Private Partnership (PPP) is seen as a way to optimise the use of available resources. This report analyses the current situation of HRH training, recruitment, placement and retention in the health system of Nepal with an emphasis on role of public private partnership (PPP) to address the HRH related gaps with suitable policy interventions.

**Methodology:** A cross-sectional descriptive study was conducted using mixed method with observation checklist. Fifteen districts representing eco-developmental regions of Nepal were selected using multi-stage cluster sampling method. Out of 404 sample, 747 health workforce from 375 health institutions were interviewed (<10% non-response rate) using the Probability Proportionate to Size method as per WHO guideline. Observation was carried out in 256 health facilities. Further, secondary review was carried out for triangulation of findings.

**Key Findings:** There is a distinct geographical inequities in terms of access to pre-service education in the country. Majority of the academic institutions for HRH production are privately owned and urban located. These are some of the contributing factors to the critical shortage of health workers in rural areas. In total, 89.9 per cent of academic institutions are privately owned, 96 per cent of academic institutions are in urban areas, and 58 per cent are located in the Central Development Region (CDR). By contrast, only 2.4 per cent are located in the Mountain belt and 2.9 per cent are in the Far-Western Development Region (FWDR).

There are a particularly low number of participants of in-service training courses from private institutions (14.6%) and Ayurvedic Centres (8.6%), and less than half of doctors (42.8%) are trained in maternal and child health. A common theme among respondents was the need for training to be updated on a continual basis taking into consideration policy changes, disease patterns and new technologies.

The recruitment process for permanent positions is time-consuming, inflexible, and impractical, and is flawed in that staff are often upgraded based on the length of time they have been in service, rather than based on their knowledge and skills. Health workers are often not provided with the job description for a new role, which is often a barrier for further promotion within the health system.

There is a significant gender disparity in types of work placement, in that female respondents were less likely than male respondents to work in permanent contracts (49.5% females, 76% males), and were subsequently more likely to work on a temporary contract or daily wage basis (42.4% females, 22.3% males). This raises concerns around the recruitment process at central level. The nature of transfers is haphazard, and hampers performance within the health system, de-motivating health workers.

Issues with retention among health workers, particularly doctors in rural areas, are a significant challenge in Nepal. Some PPP initiatives in Nepal are in place to address these challenges, such as the selection of students from rural areas to take part in a bond scheme which ensures that they work in the public sector for some years after graduation. The upgrade of the NHTC to an academy will ensure improved coordination and monitoring among the public and private sectors.

Conclusions and Recommendations: There are inequities in access to medical education, and inadequate regulatory mechanisms for recruitment, placement and promotion, resulting in poor retention and shortages. PPP has the potential to improve access to and delivery of quality health care through improved training, recruitment and placement of health staff. This can be successful not only through the utilisation of private resources and expertise to complement the public sector endeavours, but also depends on the monitoring the quality of services and training of staff in the private sector. Policy-makers should recognise the role of government in training, regulation, capacity building and monitoring, as well as the understanding that PPP does not necessarily mean privatisation or disengagement by the state.

## TABLE OF CONTENTS

Acronyms	Ι
Glossary	III
Descriptions of Nepali Health Staff Acronyms	IV
Executive Summary	V
List of Tables and Figure	VII
Chapter I: Introduction1	
1.1: Background	1
1.2: Aims and Objectives	2
Chapter II: Methodology	3
2.1: Primary Data Collection and Analysis	3
2.1.1: Quantitative Methods	3
2.1.1.1: Sample Design	3
2.1.1.2: Research Participants	4
2.1.1.3: Data Collection Tools and Processes	4
2.1.1.4: Data Analysis	4
2.1.2: Qualitative Methods	4
2.1.2.1: Research Participants	4
2.1.2.2: Data Collection Tools and Processes	4
2.1.2.3: Data Analysis	5
2.2: Secondary Data Collection and Analysis	5
2.3: Validity and Reliability	5
2.4: Ethical Issues	5
Chapter III: HRH Education and Training	6
3.1: Pre-Service Education and Training	6
3.2: In-service Education and Training	7
3.3: Training to Reflect Changing Needs in Nepal	11

## TABLE OF CONTENTS

Chapter IV: Recruitment and Placement	13
4.1: Recruitment of Health Workers	13
4.2: Type of Placements of Health Workers	14
4.3: Transfers within the Health System	16
Chapter V: Retention	17
5.1: Rural vs. Urban	17
5.2: In-country vs. Overseas	19
5.3: Periphery of District vs. District Headquarters	20
5.4: Public vs. Private	20
Chapter VI: Public Private Partner Initiatives	
in Training, Recruitment and Placement	21
6.1: PPP Initiatives in Pre-Service Training	21
6.2: PPP Initiatives in In-Service Training	23
6.3: PPP Initiatives in Recruitment and Placement	25
Chapter VII: Conclusions and Recommendations	26
7.1: HRH Pre-service and In-service Training	26
7.2: Recruitment and Placement of Health Workers	27
7.3: Retention	28
References	29
Appendices	32

## LIST OF TABLES AND FIGURE

#### **TABLES**

Table 1	: Selected Districts for Research Study, Nepal 2011	3
Table 2	: Distribution of Health Workers According to Their Educational or Training Attainment	8
Table 3	: Percentage Distribution of HRH According to Trainings or Orientation Immediate After Recruitment	9
Table 4	: Percentage Distribution of Training of 4 Weeks or Longer Duration and less than 4 Weeks Duration Taken by the Health Workforce	10
Table 5	: Trend in Disease Patterns (CDs/NCDs) in Percentage	11
Table 6	: Process of Recruitment in Nepal	13
Table 7	: Percentage of the Health Workers According to Types of Placement	15
Table 8	: Number of Medical Students Graduate from Different Institutions Through Scholarship Schemes	22
Table 9	: Budget Allocation and Expenditure for In-service Training from FY 2007 to 2010	23

#### **FIGURE**

Figure 1: Dimensions of Retention 17

## CHAPTER INTRODUCTION

#### 1.1 Background

There is increasing global consensus on the need to consider the health system in its entirety, taking into consideration the limitations of public health budgets and the use of the private sector as an 'ally in the struggle to provide higher quality services to a greater number of people' (4). The role of Public Private Partnership (PPP) can therefore be used as a way to optimise the use of available resources and address the challenges facing the public health sector. In Nepal, where there is a considerably higher number of health staff produced by the private sector, yet the quality and capacity of those institutions and health workers is questionable, the nature of PPP in the country raises some serious concerns. On the other hand, it also provides opportunities for both sectors to address their weaknesses and improve capacity through strengthened partnership. This report examines the challenges faced by the public sector in training, recruitment, placement and retention of health workers, and explores ways in which the public and private sectors can work together to improve health outcomes in the country.

A trained and skilled health workforce at the right place with adequate motivation and support are crucial to achieving the MDG targets by 2015. Despite a concerted effort in Nepal to provide a national system approach for the recruitment and placement of such a health workforce, the system is found to be fragmented, politicised and subject to exploitation. Furthermore, attraction and retention of qualified and skilled health workers, especially in rural and remote areas remains a challenging issue for the Nepal health system. There have been disparities observed in the placement of candidates when they reach the respective ministry, and political influence has been observed in the placement of a new cadre in urban areas or suburbs. In the Nepal public sector, health care workers are especially dissatisfied and demoralised with the irregular nature of transfers that do not appear to follow any specified human resource policies (5). Moreover, the poor security situation in rural areas was given as a cause of widespread staff absenteeism.

The current government strategy and priority promotes and supports private sector engagement and direct involvement in health professionals' education, training, recruitment, placement and retention as part of a Public Private Partnership initiative. Public Private Partnership (PPP) in the health sector is characterised by 'the sharing (between public and private partners) of common objectives, as well as risks and rewards, as might be defined in a contract or manifested through a different arrangement, so as to effectively deliver a service or facility to the public' (6). PPP is simply an agreement between the government and nongovernment sectors that seeks to improve access to and delivery of quality health care by utilising the private resources and expertise to complement and supplement the public sector endeavours. It complements the reform in the public sector for becoming efficient, results-

oriented and effective in service delivery (7). The importance of the private sector for the improvement of human resources management has been recognised since the concept of public private partnership (PPP) was introduced in the Seventh Five-year Plan (1985-90). The role of private organisations in health was again recognised in Second Long Term Health Plan (1997-2017). Many I/NGOs are supporting training programmes at district levels and below. While in some countries, the economy is separated into three sectors (private, public and non-profit), in Nepal two main sectors recognised: the public sector and the non-state/private sector, which includes individual practitioners, I/NGOs, Cooperatives, community organisations, civil society networks, private companies, private hospitals and private research institutions (8-9).

Although the MoHP has designated that non-state sector should be involved in training and capacity building areas, their regulations are not observed in practice. Complete data on the production of health workers from private sector has not been found with MoHP or Ministry of Education (MoE). The HRH strategy paper (2003-2017) has highlighted the need for HRH management training but has provided limited direction on in-service training needed for the clinical staff. Focusing on the possibility of surplus medical graduates, the strategy paper has indicated a change in policy to address this problem. However no suggestion on the procedure has been implicated.

#### 1.2 Aims and Objectives

This report is part of an operational research project which aims to facilitate the improved delivery of healthcare in Nepal through strengthened human resources for health (HRH) policy development and implementation by enhancing civil society engagement. The main objective of the study is to analyse the existing situation in training, recruitment, placement and retention of health professionals with an emphasis on public private partnership (PPP). It will also describe the gaps and how to address them. The research will also identify policy and the issues of strategic plans; and discuss innovative ways and/or health production options for ensuring adequate and sustainable resources for health.

The specific objectives of this particular research paper are as follows:

- To analyse the existing situation in training, recruitment, placement and retention of health professionals with an emphasis on public private partnership (PPP).
- To describe the gaps in training, recruitment, placement and retention of health professionals.
- To identify recommendations for improvements to HRH policy and strategic plans in regards to training, recruitment, placement and retention of Health Workers.



A cross-sectional descriptive study, using both qualitative and quantitative research methods, was conducted in 15 districts of Nepal to obtain comprehensive information on the Human Resources for Health (HRH) situation in the country.

#### 2.1 Primary Data Collection and Analysis

#### 2.1.1 Quantitative methods

#### 2.1.1.1 Sample Design

A multi-stage cluster sampling method was used to select a representative sampling frame for this study (see Appendix 1, Table 1). Of the 75 districts in Nepal, 15 districts were selected, one from each of the three ecological belts (Mountain, Hills and Tarai) and each of the five development regions (Far-Western, Mid-Western, Western, Central and Eastern) using a random sampling method.

Development Region Ecological Belt	Far-western	Mid-western	Western	Central	Eastern
Mountain	Darchula	Mugu	Manang	Rasuwa	Sankhuwasabha
Hills	Doti	Pyuthan	Palpa	Lalitpur	Panchthar
Tarai	Kailali	Bardiya	Kapilvastu	Dhanusha	Jhapa

Table 1: Selected Districts for Research Study, Nepal 2011

The sampling frame consisted of 5146 health institutions in the selected 15 districts, including Government Hospitals (Regional, Zonal or District), Primary Healthcare Centres, Health Posts, Sub-health Posts, Ayurvedic Centres, Non-governmental and Private health outlets. A total of 404 health institutions were then selected using the Probability Proportionate to Size (PPS) method, based on the size of health institution by available HRH, as per WHO guidelines (10) (see Appendix 2). Out of the selected health institutions, data was collected from 375 health facilities (see Appendix 3). A total of 29 health facilities were not included in the study due to the unavailability of staff, demonstrating a response rate of 93 per cent.

#### 2.1.1.2 Research participants

Research participants were service providers including Doctors, Specialists, Nurses, Midwives, Public Health Workers, Health Assistants, Auxiliary Health Workers, Laboratory Technicians, Radiographers and Pharmacists.

#### 2.1.1.3 Data collection tools and processes

An interviewer-administered questionnaire was carried out by Public Health graduates trained as enumerators with 747 health workers from the 375 selected health institutions in 15 districts, selected on the basis of WHO guidelines (10). An observation checklist was also carried out by research supervisors in 256 health facilities, in keeping with WHO standards of observing at least one third of health facilities from the sampling frame (10).

#### 2.1.1.4 Data analysis

Quantitative data was entered into a computer software system (EpiData 3.1) by trained data entry personnel. In order to validate the data, 10 per cent was randomly cross-checked. After editing and cleaning, the data was transferred onto a statistical software package (SPSS 17.0) for analysis.

#### 2.1.2 Qualitative Methods

#### 2.1.2.1 Research Participants

Based on availability, a total of 645 participants were selected for the qualitative study, which aimed to support quantitative research findings (see Appendix 4). Participants were selected from the following groups: service providers, as in section 2.1.1.2, and also inclusive of Female Community Health Volunteers (FCHVs), Maternal and Child Health Workers (MCHW); service users, such as exit-patients of health service outlets; and lastly the facilitator group which included members of Government Health Institutions including District Public Health Office, District Health Office, District Development Committee, and Village Development Committee; Professional Associations; Civil Society organisations and people working in Trade Unions and the field of advocacy, civil rights, media and social campaigns; local leaders, social workers and school teachers.

#### 2.1.2.2 Data Collection Tools and Processes

Key data collection tools included Focus Group Discussions (FGDs) and Key Information Interviews (KIIs), conducted by Public Health graduates. A series of 74 FGDs were held, with at least one group of service providers, service users and Facilitators in each district. Purposive sampling was used to select 29 informants to take part in semi-structured KIIs. A consultation workshop was also held with MoHP and other key stakeholders to discuss findings and recommendations.

#### 2.1.2.3 Data Analysis

Qualitative data was transcribed and translated into English, and was then analysed according to different thematic areas based on the relevant research objectives. The data was then triangulated with quantitative and secondary data findings.

#### 2.2 Secondary Data Collection and Analysis

A review of the literature on national and international research papers on HRH was carried out. The review also included key national MoHP health Policies, Plans and Acts (9, 11-19). Key findings from secondary data were triangulated with both qualitative and quantitative data.

#### 2.3 Validity and Reliability

- A standard statistical tool was used to determine the sample size and sampling strategy to reduce systematic error in the design phase of the study, based on WHO Standards.
- 2. Internal consistency reliability was ensured in quantitative data analysis by obtaining Cronbach's Alpha on key variables (>0.85).
- 3. To avoid questionnaire information bias, questionnaires were pre-tested in three districts, and feedback from the pre-test was incorporated into the final questionnaire design to improve validity and reliability.
- 4. To avoid interviewer information bias, interviewers, who were Public Health graduates, were trained for two days on data collection tools and methods according to WHO standard protocols.
- 5. Regular supervision visits were carried out, with appropriate feedback ensured from the central level during the collection of data.
- 6. Triangulation of primary and secondary data ensured consistency of the research data.

#### 2.4 Ethical Issues

Ethical approval for this study was obtained from the Nepal Health Research Council (NHRC), and researchers adhered to national NHRC standard operating procedures and ethical guidelines for health research. Informed consent was obtained from each respondent, and confidentiality in terms of information disclosed and identity of respondents was ensured.



The health workforce requires good quality education and continual training not only to maintain, upgrade and update their skills for efficient performance of specific jobs but also to contribute to the universal coverage of high quality comprehensive health services that are essential to advance opportunity for health equity. This chapter therefore examines the provision of pre-service education and in-service training in Nepal, exploring some of the key challenges and gaps particularly in relation to Private Public Partnerships.

#### 3.1 Pre-Service Education and Training

Data from 206 academic institutions included in this study shows a higher percentage of private academic institutions and inequities in access to pre-service education in the country, and can be seen as a contributing factor to the critical shortage of health workers in rural areas. In total, 89.9 per cent of academic institutions were privately owned, 96 per cent of academic institutions were in urban areas, and 58 per cent were located in the Central Development Region (CDR). By contrast, only 2.4 per cent were located in the Mountain belt and 2.9 per cent were in the Far-Western Development Region (FWDR) (see Appendix 5).

On the other hand, service users and key stakeholders have raised serious questions on the quality of HRH production from the private sectors. They explained that the private sector did not follow standard guidelines and specified criteria, as set out by the professional councils which was creating a poorly skilled workforce. This was further clarified by one of the senior MoHP officials, "The private institutions do not follow the standards set by the professional councils and also there is no proper supervision and monitoring, which has resulted in low skilled human resources production."

The HRH produced in private academic institutions are unwilling and do not feel motivated enough to go to rural areas, which contributes to the mal-distribution of the health workforce, affecting the health status of populations in rural settings. One of the common reasons for not going to work in the rural areas is due to the need to pay back the high financial costs of their education. A rights activist from Lalitpur argued that:

"Private institutions are established for profit-making motives. Parents are sending their children to study at private institutions, aiming for lucrative and comfortable lives afterwards. Therefore, human resources produced from the private institutions are investing a big sum and might not be motivated enough to go to rural areas as there will be less earnings which are not enough to payback the investment."

In a focus group discussion with health workers from the private sector in Jhapa, they commented on the high number of unqualified, unskilled or untrained staff in the health service. This has created a poor public opinion of the various cadres of health workers, and those from the community often do not feel confident to be seen by such health workers. Therefore, priority has to be given to produce quality health workers rather than just producing higher numbers. The health institutions should strictly follow the standards set by each respective Council for specific categories of health workers, but without an effective monitoring system in place, there is no accountability to produce quality health staff. The authorised professional councils should be empowered to conduct effective monitoring and supervision during and after trainings.

The Principal from Madan Bhandari Memorial College in Morang argued that the college was the best in the region to produce ANMS and AHWs; however he accepted that vigilant monitoring and supervision from the concerned authorities was necessary to ensure the quality of health workers.

The Nepal Health Sector Programme Implementation Plan II (NHSP IP II) 2010-2015 has outlined the challenges with quality assurance and coordination, in that 'non-state efforts are currently not well documented or monitored. There is a lack of routine monitoring by the regulatory institutions with transparent enforcement of agreed standards of care' (20). A regulatory framework was drafted in 2002, however it was not implemented. Issues to consider are the resource implications of regulation and the consistency of the approach to quality assurance in a situation where lack of enforcement in government health facilities also exists (20).

#### 3.2 In-service Education and Training

The Ministry of Health and Population (MoHP) has put in-service training high on the agenda, to enhance the capacity of the service providers for improvements in health care service delivery. The National Health Training Centre (NHTC), as per the National Health Policy 1991, is now working as an apex body for in-service human resource development, to achieve the objectives set out in NHSP-IP II (output number seven), and to contribute to the Millennium Development Goals (MDGs) 4, 5, and 6 for the MoHP (21). In-service trainings are for the enhancement of capacity of existing health workforce within the health system, that guides health workforce to provide health services as per the need of people and to achieve the set goals of the health sector. In other words, about half of the health workforce is working without any updated knowledge and skills. The health sector requires specially and/or public health trained human resources to tackle the current changing health problems and demands. Therefore, the health sector should be able to find out the country specific training needs of the health workforce; and accordingly, in service trainings of the health workforce should be organized at different levels as part of learning by doing at a greater value for money and sustainability.

Respondents were questioned about their relevant higher educational or training attainments. Out of 747 respondents, a total of 495 (66.3%) respondents had only received one and a half years of training after their School Leaving Certificate (Matriculation) (Table 2).

Table 2: Distribution of Health Workers According to Their Educational or Training Attainment

Characteristics			HW ining		CHW ining	A A Lab Eye	MA/ NM/ HW/ Assist/ Worker/ AHW	HA/ La Opl	ff Nurse/ Sr.AHW/ b tech/ nthalmic assist/ I Assistant	Deg He rel	nelor's ree in ealth ated ojects		ster's gree	PhD	)/DM
		N	%	N	%	N	%	N	%	N	%	N	%	N	%
Partector	Mountain	0	0	0	0	92	76.7	15	12.5	10	8.3	1	0.8	0	0
Ecological Belts	Hill	6	2.2	4	1.5	175	64.1	51	18.7	28	10.3	6	2.2	0	0
	Tarai	5	1.4	6	1.7	228	64.4	72	20.3	33	9.3	5	1.4	1	0.3
	EDR	4	2	4	2	136	69	25	12.7	24	12.2	3	1.5	0	0
	CDR	3	1.6	1	0.5	106	55.2	54	28.1	22	11.5	5	2.6	0	0
Development Regions	WDR	2	1.7	0	0	85	73.3	19	16.4	7	6	1	0.9	0	0
Regions	MWDR	0	0	2	2	63	62.4	22	21.8	8	7.9	1	1	0	0
	FWDR	2	1.4	3	2.1	105	74.5	18	12.8	10	7.1	2	1.4	1	0.7
Rural/Urban	Rural	11	2.1	10	1.9	414	77.5	67	12.5	23	4.3	3	0.6	0	0
Localities	Urban	0	0	0	0	81	38	71	33.3	48	22.5	9	4.2	1	0.5
Sex of	Female	0	0	10	3.4	212	71.4	51	17.2	20	6.7	3	1	0	0
Respondents	Male	11	2.4	0	0	283	62.9	87	19.3	51	11.3	9	2	1	0.2

As a fundamental process, newly recruited staff should receive orientation or induction training prior to commencement of duty. This is usually followed by the professional trainings that would enhance their capacity to perform their allocated job effectively. The Government of Nepal (GoN) has a provision for induction trainings for newly recruited staff, but sometimes this is not properly carried out. The findings revealed that only 46 per cent of the respondents received induction training.

Geographically, more than half of the health workers working in the Hill belt received both induction (51 %) and in-service (56.2 %) trainings compared to those in the mountain areas where only 38 per cent of them received induction training and 41.6 per cent in-service trainings. Regionally, Western Development Region (WDR) offered the least induction trainings (35.6 %) and a similar coverage for in service training. Whereas 51 per cent of the respondents in urban areas received induction training, only 44 per cent of respondents in rural areas had received training. Comparison among service institutions showed that only one in five health workers in the Ayurvedic institutions received induction training, and this was highest among the respondents from I/NGO clinics. Among the categories of HRH, 54 per cent nurses; 46.5 per cent, doctors; 42.6 per cent, paramedics and 38 per cent of technicians received induction trainings. On the other hand, only one in five of those in the private sector received in-service training compared to other categories (I/NGO hospitals and government facilities), where one in two received the in-service trainings. This was highest among nurses (56.9 %) and lowest among doctors (43.7 %). The findings showed that both in-service trainings and induction opportunities were not significantly different when disaggregated by gender, geographic distribution, areas of origin, cadre of health workers or by type of health facilities where the respondents worked (Table 3). However, the study revealed that only half of the health workers received some kind of in-service trainings.

Table 3: Percentage Distribution of HRH According to Trainings or Orientation Immediate After Recruitment

Character	istics	Induction Training	General Orientation	Only Introduction to People and Place	In-Service Training	Intern/ Apprentice	Others
	Mountain	38.2	65.2	62.9	41.6	24.7	2.2
Ecological	Hill	51.0	67.1	81.5	56.2	27.7	2.0
Belts	Tarai	44.8	62.5	73.6	49.5	23.4	4.3
	EDR	47.6	68.5	78.6	43.5	14.9	1.8
D. I.	CDR	53.3	75.3	85.7	53.3	28.6	3.8
Development Regions	WDR	35.6	54.8	76.0	51.9	23.1	3.8
0	MWDR	39.7	50.0	60.3	55.1	26.9	5.1
	FWDR	47.6	61.0	61.9	55.2	37.1	1.9
Rural/Urban	Rural	44.3	63.1	72.9	52.1	22.1	2.5
Localities	Urban	51.1	68.4	80.5	48.4	32.6	4.7
	Hospital	44.1	62.4	73.1	60.2	36.6	2.2
	РНС	41.3	76.1	65.2	50.0	26.1	8.7
	Health Post	44.3	61.3	75.5	58.5	27.4	3.8
Types of Institutions	Sub-Health Post	46.9	62.8	76.1	50.4	18.6	0.9
	Ayurvedic Centers	23.1	38.5	69.2	50.0	23.1	0.0
	Private Clinic/Hospita	ıl 44.9	69.4	85.7	20.4	24.5	2.0
	I/NGO Clinic/Hospita	1 59.3	74.7	75.8	51.6	28.6	7.7
	Doctors	46.5	71.8	81.7	43.7	32.4	4.2
Categories	HA/AHWs	42.6	62.4	73.7	49.8	22.9	2.5
of HRH	Technicians	38.0	44.0	74.0	46.0	28.0	4.0
	Nurses/ANMs	54.3	71.1	75.6	56.9	25.9	3.6
Sex	Female	50.0	69.8	74.6	54.4	25.8	3.2
Jex	Male	44.0	61.4	75.6	48.8	24.9	3.1

The respondents were also asked about the specific trainings of short duration (less than 4 weeks) and of longer duration (more than 4 weeks). It has been considered that trainings of four weeks or more generally include the core competencies of skills, while short-term trainings are more knowledge based and superficial. In total, 64 per cent of respondents had participated in either long or short duration training courses on Maternal and Child Health. Further analysis showed a particularly low number of participants were from private institutions (14.6 %) and Ayurvedic Centres (8.6 %), and less than half of doctors (42.8 %) had been oriented in MCH (Table 4). This emphasises the need for a complete overhaul and improved monitoring system of the training system within the MoHP, to take into consideration the lack of training in private institutions.

Table 4: Percentage Distribution of Training of 4 Weeks or Longer Duration and less than 4 Weeks Duration Taken by the Health Workforce (N=747)

Characteristics		now.		Infectious	Diseases	HIV and AIDS		Disaster	Management	NCDs		0.11	Ciliers
		>4	<4	>4	<4	>4	<4	>4	<4	>4	<4	>4	<4
		wks			wks	wks		wks	wks	wks	wks		
Ecological	Mountain	15	52	2.5	43	1.7	33	0.8	11	2.5	14	13	78
Belts	Hill	19	51	6.2	53	6.2	40	1.8	14	1.5	19	8.1	89
	Tarai	9.9	48	8.8	51	4.8	38	2.3	14	1.7	14	5.6	88
	EDR	15	44	9.6	46	4.6	35	1.5	9.1	1.5	16	6.6	88
Development	CDR	16	50	5.2	54	4.7	39	2.6	18	1	16	7.3	89
Regions	WDR	10	55	3.4	59	0.9	43	0	20	0.9	16	13	88
	MWDR	19	47	8.9	51	5	35	2	16	3	21	3	85
	FWDR	11	55	6.4	43	8.5	38	2.8	7.8	2.8	11	8.5	82
	Hospital	15	42	8.5	48	7.5	40	3.8	14	3.8	10	13	87
	PHC	27	64	9.6	81	0	48	0	17	0	15	7.7	79
Types of	Health Post	24	59	9.1	63	5.8	45	3.3	22	1.7	22	11	83
Institutions	Sub-Health Post	13	67	7.6	63	4.7	44	1.1	13	1.4	23	7.2	91
	Ayurvedic Centers	0	8.6	0	8.6	2.9	5.7	0	2.9	2.9	5.7	5.7	80
	Private Clinic/Hospital	3.6	11	3.6	15	1.8	13	1.8	1.8	0	7.3	0	91
	I/NGO Clinic/Hospital	7.8	28	2.9	22	5.9	30	2	15	2	3.9	3.9	83
Rural/Urban	Rural	16	58	7.7	58	4.3	40	1.5	15	1.5	19	7.5	88
Localities	Urban	8.5	27	4.7	30	6.1	31	2.8	11	2.3	7	8	84
	Doctors	8.8	34	3.8	34	5	31	1.3	11	2.5	13	8.8	83
Service Catagories	HA/AHWs	8	55	7.4	61	5.3	45	1.6	15	2.1	21	5.1	88
Categories of HRH	Technicians	1.8	13	11	32	1.8	18	1.8	3.6	1.8	3.6	3.6	91
	Nurses/ANMs	29	55	6	43	4.7	33	2.6	15	0.9	11	12	85
Sex of	Female	26	50	6.7	42	4	31	2.4	13	0.7	11	9.8	87
Respondents	Male	6.4	50	6.9	55	5.3	42	1.6	14	2.4	19	6.2	86
Total		14.1	49.5	6.8	50.2	4.8	37.6	1.9	13.4	1.7	15.7	7.6	13.4

On a global scale, it has been recognised that accreditation and learning systems are weak and unevenly put into practice (22) and that in order to strengthen health systems, education should not just be informative through provision of knowledge and skills to produce experts. Rather, it should also be 'formative (socialising students around values – produces professionals) and transformative (develops leadership quality – enlightened change agents)' (22). The transformative learning approach involves not only analysing and synthesising information for decision-making through professional credentials and adoption of education models, but also transforms global resources to address local priorities (22). It can be argued in the Nepalese context that in-service training curricula for doctors and nurses in both the public and private sectors, should be revised to take into account formative and transformative approaches, in order to enhance learning on values and leadership, which can have positive effects on working with the community (22).

#### 3.3 Training to Reflect Changing Needs in Nepal

According to participants of the research study, the contents, methods and scope of training in the health sector in Nepal require immediate revision, in order to meet the changing needs in the population and health sector. A common theme among service providers, service users, DHOs and CSOs was the need for training to be updated on a continual basis to take into consideration changes in policy, disease patterns and new technologies.

Approximately 12.5 per cent of maternal deaths are due to unsafe abortion in the country (23). Experts have attributed the dramatic reduction in the Maternal Mortality Ratio (MMR) from 539 per 100,000 live births in 1996 to 281 in 2006 (24) to the legalisation of abortion in Nepal in 2002 (25). A three-month survey conducted in 2008 by the International Reproductive Health organisation (Ipas) in five development regions at 30 clinics run by Marie Stopes International (MSI), Sunaulo Parivar Nepal (SPN), the government, Family Planning Association and the private sector showed that although abortion is safe in urban and suburban areas, reaching out to the community at the grassroots level with equipped and skilled health workers to provide abortion care for women remain as a significant challenge (25).

This issue was raised among service users in Chapagoan, Lalitpur, who requested that health workers should receive comprehensive trainings, particularly in relation to carrying out abortions: "There is a birthing centre in the Primary Health Clinic, but for abortions the cases are referred to the hospital. There is no trained health worker available for that." Due to the fact that private clinics are run on a sustainable basis, it is crucial that the government develops the infrastructure to equip its clinics with appropriately skilled health workers, in order to reduce the MMR to 134 by 2015. If the government is committed to reaching out to communities with accessible, acceptable, affordable and quality abortion care, then many deaths in rural areas as a result of unsafe abortions could be averted.

In terms of shifting disease patterns, non-communicable diseases (NCDs) are recognised as the leading cause of mortality worldwide, yet they have not been adequately addressed by health systems, particularly in low-resource countries (26). In Nepal, the prevalence of non-communicable diseases is rising, accounting for more than 80 per cent of out-patient and in-patient visits (82 % and 89 % respectively) (21).

Table 5: Trend in Disease Patterns (CDs/NCDs) in Percentage

Trend of Disease (CDs/NCDs) in per cent		2007/8	2008/9	2009/10	2010/11
OPD Patients	CDs	19.51	19.68	18.2	18.0
OPD Patients	NCDs	80.49	80.32	81.8	82.0
	CDs	12.13	14.28	12.0	11.0
In-Patients	NCDs	87.87	85.72	88.0	89.0

Source: DoHS, Nepal Reports, MoHP Nepal

The NHSP IP II has planned for the implementation of training on the prevention and control of NCDs, but an official training course has not yet been developed by the NHTC and training is therefore occurring on an ad-hoc basis. For this reason, only 17.4 per cent of health workers have taken part in training on NCDs, which was found to be particularly low in hospitals (13.8 %) and among doctors (15.5 %), nurses (11.9 %) and technicians (5.4 %) (see Table 4). A senior official at MoHP argued that the emphasis given to communicable diseases does not match to the existing diseases burden and health needs: "Everywhere, there are diabetic patients regardless of urban rural locality, poor or rich, higher or lower caste, but the health workers have no idea how to manage those cases." Furthermore, an employee of a Non-governmental Organisation (NGO) in Pyuthan expressed the irony in the lack of awareness and training on NCDs among health workers, who themselves suffer with diseases such as hypertension, diabetes and chronic lung disease related to their lifestyle.

Likewise, the global debate on NCDs has emphasised the particular vulnerability of women as well as the effect of NCDs on the health and life chances of their children (27), and research has suggested the importance of integrating the prevention and control of NCDs into maternal and child health programmes (26). Training on MCH should therefore raise awareness among all levels of health workers of key interrelated problems, such as hypertension and diabetes in pregnant women, as well as expose the barriers that cause women to be particularly vulnerable to these diseases. Through training courses, FCHVs and MCHWs will be empowered to share prevention messages in the community, and ANMs and nurses will have increased knowledge to prevent, treat or refer NCD-related cases within health institutions. The Public Private Partnership (PPP) is crucial to the success of preventing the rise in NCDs at the national level, and training should be a requirement in all private institutions.

Furthermore, one of the senior officials of MoHP expressed that the in-service trainings are only focused on vertical programmes. There is no any system of updating basic academic knowledge and skills. He also emphasized the need of continued medical education (CME) for all cadres of health care service delivery rather than just providing programmatic trainings. The CME should be incorporated in MoHP policy as a part of in-service training. It is essential that trainings reflect changes in new technologies, as suggested by the Senior Branch Manager of the Family Planning Association of Nepal (FPAN) in Kailali: "The trainings for the health workers should be a continuous process, as every year there are new technologies that require new skills to operate them." FGDs conducted among service users in Jhapa, Doti, Bardiya and Kailali agreed that there should be a mandatory provision for health workers on new medicines and technologies, for which there is Policy in Nepal.



This chapter examines the challenges in recruitment and placement of health workers in Nepal in both the public and private sectors.

#### 4.1 Recruitment of Health Workers

The Health Service Act of 1997 states that vacant positions can be filled through open competition, promotion based on performance evaluations or through internal competitive examinations (13) (Table 6). The third amendment to the Act has also included that a post may be filled on a temporary basis, if a health worker is on leave for an extended period of time.

**By Promotion** By open By evaluation of By internal Level competition competencies (appraisal) competitive examination Fourth 100% Fifth 50% 50% Sixth 50% 50% Seventh 100% Eighth 100% Ninth 10% 60% 30% Eleventh 10% 60% 30% Twelfth 100%

Table 6: Process of Recruitment in Nepal

Source: Health Service Act 1997 (5th Amendment 2010)

If any post in the health service becomes vacant, the concerned body should notify the Public Service Commission (PSC) within one week of the post being vacant, or they are liable to departmental action. The process by which the PSC announces the vacancies is on an annual basis and takes at least six months. This process is time-consuming, inflexible, and impractical, and does not consider the urgency of HRH recruitment in life-saving service delivery (28).

Furthermore, the recruitment system was weakened by the lack of inclusion criteria, benefits and access to promotion in the recruitment of health staff, which caused health workers to go on strike during the People's Movement in 2006. They demanded a more transparent recruitment system and in response, the MoHP upgraded health workers to new positions,

regardless of their qualifications. As a result, the current system is such that health workers are upgraded based on the length of time they have been in service, rather than based on their knowledge and skills required for tackling new challenges in health service delivery.

"If such a situation remains for a long time, the health system might be seriously injured and it will be very difficult to save the achievement which we have made so far." Senior DPHO

Another consequence of the unstandardised recruitment and upgrade system is that health workers are upgraded to a new position, however they are not given the responsibilities of the new role. For example, the MoHP has recently rolled out training to upgrade specific posts: MCHW to ANM, ANM to Sr ANM, VHW to AHW and AHW to Sr AHW. Despite the fact that training has been carried out, health workers are still working in their previous roles, as the job descriptions have not yet been revised. In other cases, the process of upgrading has failed when health workers who were upgraded for financial reasons were not provided with updated job descriptions and subsequently, were then not permitted to participate in the recruitment process to gain an official job in the same level, despite their eligibility. This ultimately creates a barrier for further promotion within the health system. One DPHO emphasised the difficulties involved in the recruitment process, and described it as a hurdle to potential employees.

Regarding private sector organisations, recruitment is based on demand and is principally publicised through the media, to ensure open competition, as set out by the existing rules and regulations. Evidence has shown however that many private organisations do not follow these regulations and recruit people who are either relatives or those who agree to receive low salaries.

#### 4.2 Type of Placements of Health Workers

In the public service, no temporary appointment can be made without a requisition to the Public Service Commission to fill the post permanently. According to the Health Service Act, for temporary positions, the Public Service Commission publishes a separate list of candidates who have attended an examination but have not been recommended for permanent appointment. This is a time consuming process, and does not consider the motivations of receiving a permanent job as opposed to a temporary position.

The local government can only provide health workers with temporary or daily wage positions. The DHO from Panchthar expressed that the MoHP did not place health workers where there were vacancies, and thus the DDC and VDC are required to fill these posts locally. The DHO from Darchula expressed that there was very good support from the local government, with two laboratory assistants and fifteen ANMs appointed by VDCs. Similarly, a FGD conducted at Kapilvastu with health facility operation and management committee (HFOMC) expressed that one ANM and one Laboratory Assistant had been appointed by VDCs. They said that VDC could support more staff, provided that there were sanctioned posts.

Table 7: Percentage of the Health Workers According to Types of Placement

Characteristics		Permanent Position	Temporary Position	Daily Wage Positions	Not Stated	Total
	Mountain	67.5	10.0	21.7	0.8	120
Ecological Belts	Hill	63.4	13.2	16.8	6.6	273
Dens	Tarai	66.4	14.7	15.3	3.7	354
	EDR	57.4	16.8	20.8	5.1	197
Davidonmant	CDR	67.7	16.1	10.9	5.2	192
Development - Regions	WDR	83.6	3.4	12.9	0.0	116
	MWDR	66.3	10.9	17.8	5.0	101
	FWDR	58.2	14.9	22.0	5.0	141
Service	Doctors	45.0	25.0	23.8	6.3	80
Categories of HRH	HA/AHW	81.4	7.7	8.0	2.9	376
01 ПКП	Technicians	37.5	25.0	30.4	7.1	56
	Nurses/ANMs	53.6	15.7	25.5	5.1	235
Sex of Respondents	Female	49.5	17.5	24.9	8.1	297
Respondents	Male	76.0	10.7	11.6	1.8	450

Analysis of the types of health worker placements showed that the majority (65.5 %) were permanently placed, 13.4 per cent were temporary positions, and 16.9 per cent were daily wage positions. There is a significant gender disparity in types of work placement, in that female respondents were less likely than male respondents to work in permanent contracts (49.5 % females, 76 % males), and were subsequently more likely to work on a temporary contract or daily wage basis (42.4 % females, 22.3 % males). Further analysis into the remoteness of the working location showed that the percentage of female respondents doing temporary work increased in the most remote locations (39.8 %) in comparison to males (0.8%). This raises concerns around the recruitment process at central level. Furthermore, the number of nurses and ANMs has increased without an increased provision of sanctioned posts, meaning that females working in these professions are more likely to be recruited locally on temporary and wage-based contracts, as based on the need. Furthermore, studies on the relationship between job insecurity and psychological well-being have shown a positive association between the poor mental health status of females working in non-manual jobs on non-fixed term temporary contracts (29). Motivation is also low, due to their ineligibility for training, insurance benefits and other non-financial incentives, which also impacts on the quality of their work. Thus, there is need to revise the current provisions under contract positions.

A political leader from Mugu argued that if the district health system were improved and authorised to manage all human resources from the district, it would be easier to place, transfer and manage the skill mix as per the local needs. However, some respondents argued that staff who are contracted by local sources were not capable of providing quality health

services. If this is the case, it is only due to the fact that structural barriers are preventing health workers, particularly women, from obtaining permanent jobs, which in turn reduces the quality of the services as a result of lack of training and motivation. If recruitment and placement is to take into consideration the local needs, then more positions should be filled on a permanent basis as per the local need and where this is not possible, adequate provisions for temporary staff are required.

#### 4.3 Transfers within the Health System

According to the Nepal Health Services Act 1997, "the employees shall be transferred to the most remote, remote and non remote areas in order to provide them with experience of different geographical regions of the country. The division and sub-division of the most remote, remote and non-remote areas shall be made as prescribed. No employee shall generally be transferred until the employee completes at least one year (at least two hundred thirty three days) in the most remote area or at least two years in the remote area." The nature of transfers should therefore serve as a means to provide health workers with experience in different parts of the country.

However, it has been suggested that in practice, the nature of transfers is haphazard, often occurring on a frequent basis which hampers performance within the health system. Health workers were found to be especially dissatisfied and demoralised by the irregular nature of transfers that did not appear to follow any specified human resource policies (5). Former president of Bardiya DDC said that for the transfer or upgrading of staff, established rules, policies and procedures should be followed up by the regional and national health authorities. He said that the government has failed to do so, which has led to the inappropriate distribution of health workers. Similarly, the DPHO from Lalitpur said that there should be a fair decision, free from politics and pressure so that health workers would be motivated. Transfers often occur without official justification immediately after the change in government, which emphasises the political nature of transfers. Staffs are therefore demotivated due to the fear of being transferred from one place to another, despite their honesty and hard work. One of the NHSSP senior staff said that due to political fragility in the country, political interference and trade union activities which restrain law and order, people are not held accountable to the system, and this has created problems in placement and retention, especially in rural remote areas.



Retention of health workers (HWs) is defined as any health worker retained at a defined place for a definite period of time. Once health workers are trained, recruited and placed in the workforce, the challenge is to ensure HWs remain in their jobs and achieve the same or greater level of commitment and dedication as when they were recruited. In Nepal, a retention strategy has not yet been developed for trained health personnel within the public sector or within the country (28). This chapter explores some of the challenges to retention of the workforce in the country, looking specifically at urban vs. rural, in country vs. overseas, public vs. private, and district periphery to district headquarters (Figure 1).

Rural
vs.
Urban

Public
vs.
District
HQ

In Country
vs.
Overseas

Figure 1: Dimensions of Retention

Source: Author's model based on research

#### 5.1 Rural Vs. Urban

Experience has shown that although doctors are important for super specialized health care, they resist rural postings, and many of those who graduate will immediately join the private sector in urban areas or migrate to developed countries for better opportunities, without contributing to the public health system.

One of the senior Public Health Administrators at MoHP mentioned that medical doctors working in rural areas are the new graduates supplied by the private sector scholarship scheme, which is a visible contribution of the private sector. However, a major weakness of this system is that it does not account for the migration of doctors to urban areas or overseas for better opportunities immediately after their one or two years placement.

Fresh graduates posted to rural areas continue to complain that there is no clear mechanism for creating an enabling environment, including technical supervision for them to provide quality health services. These graduate doctors are forced to serve wherever the MoHP deploys them for two years, and there is no clear policy with respect to their future careers, or specific rurally relevant training. Working at different institutions under this scheme is not counted towards a regular recruitment process nor does it count towards an application for post-graduate education. Furthermore, they are delayed for at least one year compared to their counterparts who graduated in the same year to pursue post-graduate studies. This has created ambivalence, resulting in demotivation to work in public health outlets. A study carried in 2008 by the Health Sector Reform Support Programme in Nepal stated that for the retention of a medical graduate, the expectations of them were academic support for post graduate training, financial incentives, career advancement support, allowances, better diagnostic facilities and security (30). According to an expert from NHSSP, the Government of Nepal has failed to show a clear career pathway for health workers who enter in to the health services, and thus, this needs to be more clear-cut.

Government could provide the legal bonding scholarship, which should strictly be implemented to improve retention of health workers in rural remote areas. A study in Mali found that relevant training on rural areas strengthened doctors' competences and self-confidence, improved job satisfaction, and consequently contributed to retention in remote locations (31).

Moreover, the poor security situation in rural Nepal causes widespread absenteeism of the health workforce. While doing a human resource assessment of Rolpa district, there was only one doctor in the district who arrived in early 2005 after a gap of  $1\frac{1}{2}$  years after his posting (32). Staff retention in rural areas is a chronic problem as staffs remain on the payroll but do not attend for work claiming sickness or training commitments as they are reported to be scared to go into more remote and rural areas dominated by the Maoists. Furthermore, there are (even in per capita terms) (33) more private practice opportunities in urban settings, as well as more social, educational, recreational, employment and cultural opportunities for physicians and their families in urban settings.

One of the major causes of shortage of the health service providers in rural areas is the inability of the concerned stakeholders including government to attract and retain health workers. Ultimately, health workers migrate to their convenient places i.e. urban areas or home town. The migration of health workers, in some cases, is for better working conditions. In other words, they leave rural areas for urban ones. This results in the inequitable distribution of health care, within and between countries (34). WHO stated that to improve retention of the health workforce, one key element is to establish a supportive working and living environment and opportunities for professional growth so that health workers are less likely to migrate.

Some of the push factors leading to poor retention of healthcare workers in rural areas include poor infrastructure, lack of opportunities (e.g. further training, career mobility, good schools for children and jobs for spouses) for themselves and their family, low salary and lack of support, lower social recognition compared to urban areas, and lack of security (32). DPHO from Lalitpur expressed that the health workers did not want to stay for a longer duration at the periphery of the district because of lack of transportation and other facilities. Additional to

the DPHO, a community leader from Thuladurlung, Lalitpur said that even simple health services are not available here as there is no service provider. Local service users expressed that one ANM who is placed in the HP always complains about the facilities and extra allowances, and is frequently absent. Similarly, FGDs conducted among service users at Jhapa and Panchthar expressed that senior health workers do not stay for a long duration as there are no facilities in the village, including good schools for their children to study. They further expressed that internet and a telephone facility should be available. Service users from Panchthar, added that motivation at government level is very low, and that doctors went to rural areas in order to receive a promotion, and would leave directly after their two-year placement.

The health system expert from GIZ said that doctors, nurses and other health workers should have good living quarters with all amenities such as school for kids, playground, electricity, telephone, internet and the supportive communities, to increase retention. FGDs conducted among service providers at Palpa said that there were quarters for the doctor and nurses. The quarters for the doctor were in good condition; the water and electricity supply was proper, but the nursing quarters were not well managed and properly constructed so it was difficult for nurses to live there. The room was also not sufficient for the nurses, despite the fact that they spent a longer duration in the facilities. In general, infrastructure could play a vital role for staff retention.

A civil society representative from Kapilvastu district said in response to shortage of doctors in district hospital that "It is 22 km far from the highway but this municipality possess no more facilities than a VDC, due to this reason the doctors do not want to stay here."

Other factors relating to the retention of staff in rural areas include motivation. Lack of staff motivation is clearly related to staff turnover (35). The concept of turnover of the health workforce in the public sector is not confined to simply quitting the job. In Nepal, a biannual transfer system is in place under the MoHP. However, HRH Workshop Report on June 2011 highlighted the issue of irregular and inappropriate transfer system, resulting in both demotivation and distortion in the distribution of health workers. In addition, even if doctors are willing to work in remote areas, they are often unable to use their operative skills because of lack of facilities and support staff. Low government salaries also lead to frustration.

#### 5.2 In-country Vs. Overseas

One of the health system experts working with GIZ/GTZ expressed during a KII that the migration of health workers is due to the lack of proper support mechanisms (such as referral, technical support and supervision). As a result, the newly qualified professionals concentrate more in preparing for licensing examinations for migration rather than serving the local population.

A study done by NSI and IOM in Nepal observed the migration pattern of first 22 batches of MBBS. The study revealed that out of 710 doctors, 256 (36%) were working abroad, 261 (36.8%) were working in Kathmandu and only 193 (27.2%) were working at other places of Nepal. This is a contributing factor to the scarcity of doctors in rural communities. Migration of health professionals abroad undermines the government investment in health whereas the recipient countries are getting qualified HRH without any investment or compensation (36).

#### 5.3 Periphery of District Vs. District Headquarters

A political leader from Mugu district, said that most of the health institutions in the villages have no health workers. Most of the health workers want to stay at centre or district headquarters. Additional facilities should be given and priority should be given to locals.

"Service providers staying in rural areas should be given more incentives/facilities than that of urban areas. If available, locals should be given priority so that they stay longer at the same place providing services." - President CPN UML Mugu

The DHO from Manang exclaimed: "The benefits provided by the government for working in rural districts are not enough. Instead it even doesn't help to manage 10 per cent of the expenses in the remote districts like Manang."

#### 5.4 Public Vs. Private

In contrast to the view expressed by local people for retention issues, a member of the sub-health post management committee from Jhapa said that local staff have their own clinics and give more attention to the clinic rather than the institution. He expressed that those who have their homes nearby the health institution should not be placed in the SHP. The health workers are retained there but the actual services from the institutions are not delivered. However, a FGD among service providers in a private hospital in Eastern Tarai claimed that they suffered from poor conditions in the private sector, and would be keen to join the public sector:

"We are exploited in the private hospital. There is very low salary, bonus, holidays, and facilities after retirement as compared to the government services. If there is good placement policy of the government, we are ready to work in any kind of remote place if we get service under government."

In Nepal, public sector health care workers are especially dissatisfied and demoralised with the irregular nature of transfers that do not appear to follow any specified human resource policies (5). Moreover, the poor security situation in rural areas was given as a cause of widespread staff absenteeism.

In rural areas, doctors are the least likely to be employed locally and the least likely to have a permanent home in the area of the hospital. This is, in part, due to the transitory nature of government doctors, for example, junior doctors are posted for limited periods then are allowed to leave their post for post-graduate training (37). Up until now, there have been limited efforts to recruit local people to serve as doctors, particularly in rural areas. As mentioned earlier, an attempt was made by the MoHP to recruit some specialists for District level positions on a contract basis in Mid West Region, but the vacancies were not filled.

A study carried out by NSI found that only 11 per cent of all staff who were present in hospitals were employed by a local committee. This figure comes down to 5 per cent if the data on community hospitals is excluded. Similarly, 60 per cent of the surveyed hospitals had no local employees and apart from community hospitals, and no doctors were local employees (37). Both the Health Ministry's Health Sector Reform Strategy (2002) (38) and Nepal Health Sector Programme Implementation Plan II (2010-2015) (9) emphasise the need to work towards "decentralised management" of government health care institutions.

## CHAPTER PUBLIC PRIVATE PARTNER INITIATIVES IN TRAINING, RECRUITMENT AND PLACEMENT

Public Private Partnership (PPP) is characterised by 'the sharing (between public and private partners) of common objectives, as well as risks and rewards, as might be defined in a contract or manifested through a different arrangement, so as to effectively deliver a service or facility to the public' (6). The private sector partner may be responsible for all or some project operations, and financing can come from either the public or private sector partner or both (6). PPP is simply an agreement between the government and non-government sectors that seeks to improve access to and delivery of quality health care by utilising the private resources and expertise to complement and supplement the public sector endeavours. It complements the reform in the public sector for becoming efficient, results-oriented and effective in service delivery (7). It must be noted that in Nepal, the strategy for establishing a Public Private Partnership (PPP) model includes a partnership with non-state providers (NGOs, private sector, community groups etc.) (9). In Nepal, PPP is in place across many parts of the health system; however, there is a need to understand past experiences of PPP and its implementation in Nepal (20). The success of PPP, according to lessons from existing global experiences, depends on political commitment and an understanding that partnerships do not mean privatization or disengagement by the state (4).

This chapter examines PPP Initiatives related to pre-service and in-service training, and recruitment and placement of health staff in Nepal.

#### 6.1 PPP Initiatives in Pre-Service Training

Pre-service education strategies have attempted to address the critical shortage of health workers in rural areas through PPP initiatives in Nepal, which have included the provision of scholarships to medical students each year. The Ministry of Education is responsible for conducting entrance examinations and eligible candidates are nominated to undertake the pre-requisite degrees and courses in the private medical colleges. These scholarships include a bond that requires students to spend at least one or two years in rural areas, depending on the remoteness of the location (19). It is mandatory for those who have obtained government scholarships (MBBS or BDS studies) to serve under the Ministry of Health and Population for at least two years. In 2009, there were 12 training institutions for medical doctors and the annual intake for MBBS programme was 1,240, of whom approximately 241 received a government scholarship (see Table 8) (19). It shows that every year, medical doctors graduate from private sector institutions to join the public sector under the scholarship scheme (39).

Table 8: Number of Medical Students Graduate from Different Institutions Through Scholarship Schemes

Name of the Institution	Annual Intake	Scholarship
Institute of Medicine	60	42
BP Koirala Institute of Health Science	100	29
Manipal College of Medical Science	150	30
Nepalgunj Medical College	150	15
Nepal Medical College	150	15
Universal College of Medical Sciences	125	50
Kathmandu Medical College	75	8
Kathmandu University Medical School	45	3
National Medical College	150	15
Janaki Medical College	75	8
Nobel Medical College	60	6
Bharatpur Medical College	100	20
Total	1,240	241

Source: MoHP 2009, Human Resources for Health Strategic Plan 2011-15

However as this study has shown, retention of doctors in rural areas is a challenge, due to the fact that they tend to migrate to urban areas or overseas after their rural placements. Therefore, the benefit of the scholarship scheme offered to competent candidates as a strategy of solving the HRH crisis in rural areas is questionable.

A more recent scholarship strategy that seeks to address this issue is a training scheme that targets students from rural areas. At the Patan Academy of Health Sciences (PAHS), which is an autonomous body governed by the public sector, 45 per cent of its total scholarship seats are offered to those who meet the criteria of a specific quota, which includes those from remote districts in the Hill and Mountain regions. This scheme ensures that medical students spend at least four years after graduation in remote locations, and appears to be an effective model, as it selects candidates from local rural communities, and posts them to rural areas for a longer period of time.

Furthermore, the scholarship scheme for nurses and paramedical students provided by CTEVT could also be expanded to include this bonding mechanism, as well as a certain quota of students from rural areas in private and public academic institutions. This bonding strategy has been extremely effective in improving health outcomes and retention in middle and low-income countries (40), such as Sri Lanka, where it contributed to reductions in maternal and child mortality.

The scheme provided bonds for midwives in rural areas in exchange for higher degrees, a career path and monetary incentives (41). The success of this programme was to a certain extent due to continuous professional development opportunities and training once they were in their posts. In Nepal, the private for-profit and non-profit sectors can support in the training and financing of these positions.

There is also scope to harness the expertise of approximately 1,255 doctors that graduate each year through a six-month rural practicum implemented for trainee doctors in their final year. This would ensure that approximately 627 rural posts are filled each year, regardless of where the

doctors choose to work after they graduate. This strategy has been used successfully in several countries around the world, such as Australia and the Philippines, and has resulted in positive changes to the intentions of health workers to stay in rural areas (42). The success of this strategy will depend heavily on technical support provided to the trainees, as well as the systems used to monitor the quality of private institutions and the exact numbers of graduates each year. The Human Resource Information System (HuRIS) is an option for capturing this information, if capacity of the system is improved.

### 6.2 PPP Initiatives in In-Service Training

The revised National Health Training Strategy (NHTS) 2004 has focused on delivering standardised and quality health trainings through shared responsibility with I/NGO and private sectors (43). The NHSP IP II has recommended a "National Health Training Coordination Committee" to oversee training activities, and has emphasised the decentralisation of training to district level, and the new role within the National Health Training Centre (NHTC) to provide training in integrated collaboration with other sectors and to coordinate state and non-state sectors for enhancing the capacity of health workers (9). Various External Development partners (EDPs), I/NGOs, the private sector, and medical colleges have provided collaborative support to NHTC in the planning and execution of training programmes, and have made significant contributions to the provision of in-service trainings in the country. According to annual reports produced by Department of Health Services between 2007 and 2010, almost 88 per cent of the total budget allocated for training activities under NHTC has been committed by non-state partners (Table 9).

**Annual Budget** Per cent of expenditure Per cent share of the Average per cent of total budget Percentage of share by public (NRS in '000) total budget **Sources** 2009-10 2007-08 2008-09 average 2007-08 2009-10 2009-10 2007-08 2008-09 5008-09 GoN 16796 13917 15000 71.9 42.6 67.5 60.7 19.0 8.9 8.3 12.1 12.1 Pool fund 42834 14130 16500 60.0 69.7 90.2 73.3 48.4 9.0 9.2 22.2 **GAVI** NA 54154 78164 NA 64.4 63.1 63.7 0.0 34.6 43.5 26.0 **UNFPA** 1666 16542 11250 39.4 27.7 53.0 40.1 1.9 10.6 6.3 6.2 DfID 21539 54468 56675 71.8 35.8 67.5 58.3 24.3 34.8 31.5 30.2 87.9 **USAID** 703 990 2300 46.8 67.2 15.2 43.1 0.8 0.6 1.3 0.9 WHO 2450 2300 0 0.0 0.0 NA 0.0 2.8 1.5 0.0 1.4 KfW 2500 0 0 0.0 NA NA 2.8 0.0 0.0 0.9 0.0 **Total** 88488 156501 179889 61.3 48.2 66.1 58.5 100.0 100.0 100.0

Table 9: Budget Allocation and Expenditure for In-service Training From FY 2007 to 2010

GoN= Government of Nepal, GAVI = Global Alliance for Vaccines and Immunization, UNFPA= United Nation's Population Fund, DfID= Department of International Development, USAID= US Agency for International Development, WHO=World health Organization, KfW = the KreditanstaltfürWiederaufbau (German Bank) NA= Not Available

Source: Annual Reports 2064/65, 2065/66, 2066/67, Department of Health Services, MoHP

There have been several challenges faced by the NHTC, including the inability to complete all planned training activities or utilise all the funds given by EDPs and the Government of Nepal in fiscal year 2066/67 (2009/10), spending only 66 per cent of the total allocated budget. Furthermore, there were insufficient training plans and only six clinical trainings were conducted during a one year period, with most of them at central level (44). It was also not possible to analyse if the training objectives were met, as there were no records on output results or reporting on the achievements against the budget commitment and utilisation, and annual reports did not provide information on the number of health workers trained in a particular area. According to a senior public health officer at NHTC, trainings are often conducted in collaboration with the district health offices, which may not have been recorded and reported properly. The capacity for accommodating quality trainings at the NHTC is therefore questionable (45). The NHTC director acknowledged that a training needs assessment had not been conducted within the setting up of the NHTC in the past decade, and despite the fact the Department of Health Services recently conducted a training needs assessment, this focused more on the training methods rather than the content of the training. He suggested the need for a thorough and urgent revision of the current strategies, programmes and training needs:

"Now, there are rampant and vertical approaches in the delivery of trainings. Both government and non-government sectors are conducting various trainings and we do not know about their standard and accreditation. And also most of them are under-reported" Director NHTC

To overcome these challenges, the NHSP IP II is planning to involve the private-for-profit sector by upgrading the NHTC to an academy. He is optimistic that both public and private sectors and global experts could be a part of this academy, where in-service as well as pre-service trainings would be better managed. They will also develop a national health training information system, to ensure that cumulative data can be available to avoid duplication, maintain records and track the quality of the trainings. The role of Civil Society would be key to ensuring quality and equality in the provision of trainings (46).

An avenue for PPP in training that requires further attention is Tele-medicine, which is the use of communications and information technologies for the delivery of clinical care (47). In Nepal, the government formally started Tele-medicine in 25 remote districts in January 2011. However, only five districts have been actively using the service, two are rarely using it while many others have not yet started their operation, and the reasons for poor uptake have included the transfer of trained manpower, which has affected the functioning of the Tele-medicine service in Nepal (48). A similar model of Tele-medicine has been successfully implemented by a private hospital, the Kathmandu Model Hospital (KMH), in partnership with Gaurishanker Community Hospital in Dolakha, providing specialised consultative services from KMH as well as distant learning projects and the exchange of medical education (49). This technique could be applied to improve maternal and child health through the establishment of such networks in between the central health facility (with highly skilled senior ANMs/midwives) and peripheral (with less skilled ANMs/midwives) by providing them appropriate technological trainings.

The Nick Simons Institute (NSI), a charitable company in Nepal, whose mission is to train and support skilled rural health care workers, has contributed to building the evidence base for public and private sector audiences on the training needs of HWs, particularly in rural areas of the country. A study conducted by NSI in 2007 'Measuring the Quality of Rural-based Government

Mid-Level Health Care Workers' outlined a three-month rurally relevant training programme, to increase the clinical competency of mid-level health workers (50). The NSI was tasked by the government to implement the training programme, whereby students were mentored by a rural based doctor. This emphasises the positive relationship between government and the private sector.

### 6.3 PPP Initiatives in Recruitment and Placement

In Nepal, the PSC functions as the supreme body for recruiting all categories of government workforce. However, due to the slow recruitment process for permanent positions, local authorities often recruit for positions based on the local need. The non-for-profit sector is involved in this process, in allocating funds for the recruitment of staff for government health institutions in Nepal. Examples are numerous, including CARE Nepal who has recruited and trained ANMs, posted in rural areas. This demonstrates the partnership between public and the non-profit sector.

The private sector is heavily involved in the recruitment and placement of Health Workers. For example, the private sector accounts for 83 per cent of the recruitment of total doctors in Nepal (21), though this is prone to underreporting due to dual practice. The challenge is to bring the public and private sectors together to deliver effective Health Care in Nepal, through effective quality assurance mechanisms and training opportunities.

# CHAPTER T T CONCLUSIONS AND RECOMMENDATIONS

There are inequities in access to medical education, and inadequate regulatory mechanisms for recruitment, placement and promotion, resulting in poor retention and shortages of HWs. This study has shown that PPP has the potential to improve access to and delivery of quality health care through improved training, recruitment and placement of health staff. This can be successful not only through the utilisation of private resources and expertise to complement the public sector endeavours, but also monitoring the quality of services and training of staff in the private sector. On the basis of descriptive qualitative and quantitative findings discussed in chapter three, the summary of major findings is presented below.

### 7.1 HRH Pre-service and In-service Training

### Conclusions

- The findings of Institutional Survey show that there are a higher percentage of private academic institutions, as well as inequities in access to pre-service education in the country, which is a contributing factor to the critical shortage of health workers in rural areas.
- The private sector does not always follow standard guidelines and specified criteria, as set out by the professional councils, which is contributing to a poorly skilled workforce.
- There are considerable gaps in training, particularly in the private sector where cost-effectiveness was valued over the quality of staff. There were a particularly low number of participants in in-service training courses from private institutions (14.6 %) and Ayurvedic Centres (8.6 %), and less than half of doctors (42.8 %) are oriented in MCH.
- A common theme among respondents was the need for training to be updated on a continual basis to take into consideration changes in policy, disease patterns and new technologies.
- There is the need to produce a national standardised curriculum that takes into account the changing needs of the population, as well as the need to introduce and strengthen innovative training methods to improve staff capacity.
- There are few academic institutions offering quotas for people from vulnerable backgrounds and rural areas in the recruitment process.

### Recommendations

- The MoHP should monitor how many students are graduating from public and private training facilities and match this output with the needs of the health system. This monitoring mechanism should be directly related to information stored within HuRIS.
- The NHTC should produce a national curriculum for in-service training for both public and private academic institutions. This should take into consideration changes in policy, epidemiology, geography and technology and should be updated on an annual basis.
- The MoHP and MoE should jointly revise the targeted admission policies in public and

private academic institutions. This should be done in collaboration with the private sector to expand the number of institutions with targeted admission policies, enrolling students from remote areas into education programmes for various health disciplines, in order to increase the likelihood of graduates choosing to practice in rural areas. There are few academic institutions offering quota for people from vulnerable backgrounds and rural areas in the recruitment process. This should be scaled up to all private institutions through public private partnership (PPP), to challenge the rural to urban migration and increase retention of health workers in rural areas.

The NHTC should consider the incorporation of rurally relevant training into the in-service
national curriculum. For example, "Continued Medical Education" for use during in-service
training and should be incorporated in the policy document as a part of in-service training.
Further, it would be better, if the NHTC could improve access to training materials for health
staff through online learning tools (eLearning) including tele-medicine

## 7.2 Recruitment and Placement of Health Workers

### Conclusions

- The recruitment process for permanent positions is time-consuming, inflexible, and impractical, and is flawed in that staff are often upgraded based on the length of time they have been in service, rather than based on their knowledge and skills and performance.
- Health workers are often not provided with the job description for a new role. This creates a barrier for further promotion within the health system.
- There is a significant gender disparity in types of work placement, in that female respondents
  were less likely than male respondents to work in permanent contracts (49.5% females, 76%
  males), and were subsequently more likely to work on a temporary contract or daily wage
  basis (42.4% females, 22.3% males). This raises concerns around the recruitment process at
  central level, lack of motivation and quality of services due to their ineligibility for training
  and non-financial incentives.

### Recommendations

- The MoHP should revise the Health Service Act to incorporate inclusive criteria for recruitment of HWs, as per the Civil Service Act, to ease the recruitment process at national level. The Government of Nepal should form a separate HRH section under the PSC, which help to regulate HRH recruitment effectively and mitigate the prevailing 'system created' HRH vacancies.
- The MoHP should review and strengthen contracting systems and practices, prior to the
  recruitment drive for additional health workers on a contract or temporary basis. Staff on
  temporary contracts should be given the opportunity to become permanent members of staff
  after one year of service, which should be included in the Civil Service Act. This should be
  based on performance assessments at the local level, and the District Health Officer and
  Regional Health Director should provide the recommendation for sign off at the central level.
- The Councils (Medical, Nursing, Health Professional, Pharmacy and Ayurvedic) should liaise with private and public institutions to implement practicums for student doctors in the final year of their medical degree for six months in rural areas with continued monitoring and support.

• The MoHP should develop a clear-cut career path for every health worker who joins the government health services so that the health workers are informed of their future professional development opportunities. A transfer calendar should also be developed by the MoHP and maintained at all levels within HuRIS, providing health workers with information on their next working stations.

### 7.3 Retention

#### Conclusions

- Issues with retention among health workers, particularly doctors in rural areas, are a significant challenge in Nepal. Some PPP initiatives are in place to address these challenges, such as the selection of students from rural areas to take part in a bond scheme which ensures that they work in the public sector for four years after graduating.
- The upgrade of the NHTC to an academy should ensure improved coordination and monitoring among the public and private sectors. Policy-makers of PPP should recognise the role of government in training, regulation, capacity building and monitoring, as well as understanding that PPP does not necessarily mean privatisation or disengagement by the state.

### Recommendations

- The MoHP should liaise with EDPs to review existing retention schemes across sectors and develop a comprehensive a retention strategy. The MoHP should prepare and support staff better for working and living in remote areas through a review of policy and practice related to improved security, access to schools, improved housing, communications, transport, through consultation at the local level.
- Local Government Authorities should provide an enabling working environment, including
  appropriate equipment and supplies, supportive supervision and mentoring, in order to
  make these posts professionally attractive and thereby increase the recruitment and retention
  of health workers in remote and rural areas.
- Professional bodies, such as Nursing and Medical Associations, should support the
  development of professional networks, rural health professional associations, rural health
  journals, etc., in order to improve the morale and status of rural providers and reduce
  feelings of professional isolation.

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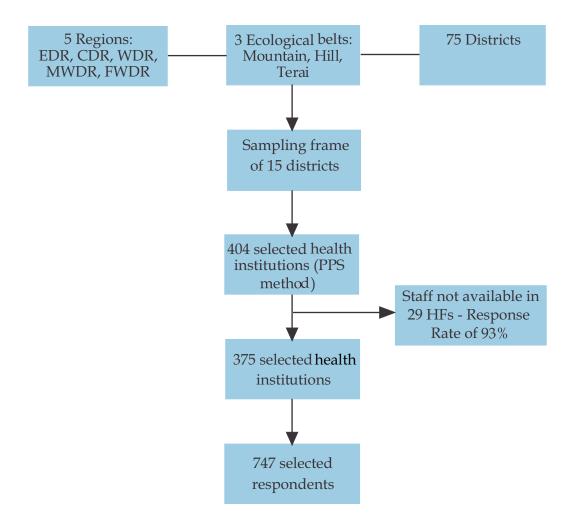
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# APPENDICES

# **Appendix 1: Sampling Method**



## **Appendix 2: Derivation of Sample Size**

Major features of sample determination:

- 1. Total Institutions = 5146
- 2. Total Hospitals, PHC/HC and HP=1000
- 3. Proportion of Targeted Health Facilities = 1000/5146=0.194
- 4. The formulae for calculating the sample size

$$n=Z^{2}_{1-\alpha/2}*p*(1-p)*deff*(1+nr)/d^{2}$$

Where:

 $Z^{2}_{1-\alpha/2}$ =5% level of significance=1.96

p = proportion of the targeted coverage of health institutions

Note: Since all categories of health workforce are found in District Hospital, Primary Health Care Centres/ Health centres and Health Posts, the total number of these institutions (1000) is divided by the total health institutions (5146) in the country to calculate the proportion.

deff = Design effect, which is set as to minimize sampling variability caused by cluster sampling

The design effect set for this sample determination is 1.5

nr = Non response rate, which is an estimated rate for the non-response of respondents and it is set as 10 percent (0.1) in this sample selection.

d = Allowable error, which is usually considered as 0.05 that indicates its range from 14.4 to 24.4 percent.

The equation for deriving the sample size is given as below.

$$n=Z^{2}_{1-\alpha/2}*p*(1-p)*deff*(1+nr)/d^{2}$$
or n=(1.96)<sup>2</sup>\*0.194\*1.5\*(1+0.1)/0.05<sup>2</sup>
or n=(3.84\*0.16\*1.5\*1.1)/0.025
or n=1.01/0.025
or n=404

Appendix 3: Total Number of Institutions by Districts, Ecological Belts and Development Region

				Selected Number of Institutions									
SN	N Development Ecological Region Belt		District	District Hospital	РНСС/НС	Health post	Sub-Health Post	I/NGO - Clinic	Private Institution	Ayurvedic	Total Institution		
1	Far-Western	Mountain	Darchula	1	1	5	10	0	0	1	18		
2	Far-Western	Hills	Doti	1	1	4	16	1	0	3	26		
3	Far-Western	Tarai	Kailali	1	2	3	13	2	1	2	24		
4	Mid-western	Mountain	Mugu	1	1	1	4	2	0	0	9		
5	Mid-western	Hills	Pyuthan	1	1	5	14	0	1	1	23		
6	Mid-western	Tarai	Bardiya	1	1	3	9	6	0	1	21		
7	Western	Mountain	Manang	1	0	2	1	0	0	1	5		
8	Western	Hills	Palpa	1	1	4	23	1	0	3	33		
9	Western	Tarai	Kapilbastu	1	1	3	27	1	0	1	34		
10	Central	Mountain	Rasuwa	1	1	3	2	2	1	1	11		
11	Central	Hills	Lalitpur	2	1	4	12	17	5	1	42		
12	Central	Tarai	Dhanusa	1	2	4	37	2	0	3	49		
13	Eastern	Mountain	Sankhuwasaba	1	1	4	10	1	1	2	20		
14	Eastern	Hills	Panchthar	1	1	4	12	1	0	0	19		
15	Eastern	Tarai	Jhapa	1	2	3	18	9	6	2	41		
	Selected numb	er of institutio	ons by ecological l	oelts									
1	Mountain			5	4	15	27	5	2	5	63		
2	Hills			6	5	21	77	20	6	8	143		
3	Tarai			5	8	16	104	20	7	9	169		
	Selected numb	er of institutio	ons by developme	nt reg	ion								
1	Far-Western De	evelopment Re	3	4	12	39	3	1	6	68			
2	Mid-Western D	Development R	3	3	9	27	8	1	2	53			
3	Western Devel	3	2	9	51	2	0	5	72				
4	Central Develo	4	4	11	51	21	6	5	102				
5	Eastern Develo	pment Region	3	4	11	40	11	7	4	80			
	Total			16	17	52	208	45	15	22	375		

Source: HRH Field Survey 2011

# Appendix 4: Qualitative Data Collection

	Focus Group Discussions (FGD)							Key I					
	Management		Service		Service								
District	# of Participants		# of FGD # of Participants		# of FGD	# of Participants	Total # of FGD	Management Group	Service Provider	Service User	Total # of KII	Grand Total of Participants	
Sankhuwasabha	1	9	1	10	1	12	-	-	-	-	-	-	
	1	6	-	-	-	-	-	-	-	-	-	-	
T ( 1	1	12	-	10	-	- 10	-	-	-	-	-	-	
Total Panchthar	3	27	1	10 8	1	12 10	5	0	1	0	1	50	
Turcitui	_	_	1	13	1	6	_	-	-	-	_	_	
	-	-	-	-	1	9	-	-	-	-	-	-	
	-	-	-	-	1	7	-	-	-	-	-	-	
Total	0	0	2	21	4	32	6	0	1	0	1	54	
Jhapa	1 -	7	1	6 10	1	8	-	-	-	-	-		
	-		1	6				-	-	-	-		
Total	-	7	3	22	1	8	5	1	1	0	2	39	
Dhanusha	1	7	1	12	1	8	-	-	-	-	-	-	
	-		-	-	1	10	-	-	-	-	-	-	
Total	1	7	1	12	2	18	4	1	1	0	2	39	
Lalitpur	-	-	1	4	1	9	-	-	-	-	-		
Total	0	0	1	4	2	16	3	1	1	1	3	23	
Rasuwa	1	7	1	7	1	7	-	-	-	-	-	-	
Total	1	7	1	7	1	7	3	0	1	0	1	22	
Palpa	1	8	1	8	1	8	-	-	-	-	-	-	
	1		1	7	1	9	-	-	-	-	-	-	
Total	2	8	2	15	3	26	7	1	1	0	2	51	
Manang	-	-	1	7	1	10	-	-	-	-	-	-	
Total	0	0	1	7	1	10	2	1			1	18	
Kapilvastu	1	8	1	7	1	7	-	-	-	-	-	-	
T-4-1	1	6	1	7	1	6	-	-	- 1	-	- 1	25	
Total Mugu	2	14 14	1	7	2	13	5	0	1 -	0	1	35	
Total	1	14	0	0	1	8	2	0	0	0	0	22	
Pyuthan	1	6	1	7	1	9	-	-	-	-	-	-	
	1	7	-	-	1	11	-	-	-	-	-	-	
	-	-	_	-	1	9	-	-	-	-	-	-	
Total Bardiya	2	13	1	7 8	3	29 8	6	0	3	0	3	52	
Dartiya	-	-	1	8	1	9							
	-	-	1	7	-	-	-	-	-	-	-	-	
Total	1	6	3	23	2	17	6	1	2	1	4	50	
Doti	1	8	1	9	1	11	-	-	-	-	-	-	
Total	1 2	8	1 2	6 15	1 2	8 19	6	0	1	1	2	52	
Darchula	1	16	1	7	1	17	-	-	-	-	-	-	
	1	8	-	-	1	15	-	-	-	-	-	-	
Total	2	24	1	7	2	32	5	0	4	0	4	67	
Kailali	1	9	1	6	1	6	-	-	-	-	-	-	
	1	6	1	6	1	6	-	-	-	-	-		
					1 1	9		<u>-</u>	-	-			
	-				1	12		-	-	-			
Total	2	15	2	12	5	42	9	0	1	1	2	71	
Grand Total	20	158	22	169	32	289	74	6	19	4	29	645	

Appendix 5: Percentage Distribution of HRH Producing Academic Institutions

	Eco Belt			Development Regions							Ownership		Locality	
Types of HRH	Total*	Tarai	Hills	Mountain	Eastern	Central	Western	Mid-Western	Far- Western	Public	Private	Urban	Rural	
CMA	60	56.7	40.0	3.3	26.7	35.0	20.0	13.3	5.0	8.3	91.7	93.3	6.7	
HA	32	59.4	40.6	0.0	25.0	56.3	9.4	6.3	3.1	12.5	87.5	100.0	0.0	
Lab Tech	43	51.2	48.8	0.0	23.3	51.2	18.6	7.0	0.0	11.6	88.4	100.0	0.0	
Pharmacy	26	30.8	69.2	0.0	15.4	69.2	11.5	0.0	3.8	7.7	92.3	100.0	0.0	
Radiographer	9	44.4	55.6	0.0	11.1	55.6	11.1	22.2	0.0	11.1	88.9	100.0	0.0	
ANM	42	54.8	38.1	7.1	38.1	33.3	16.7	4.8	7.1	14.3	85.7	88.1	11.9	
Staff Nurse	59	37.3	61.0	1.7	11.9	69.5	13.6	5.1	0.0	11.9	88.1	100.0	0.0	
BN/BSc Nursing	19	5.3	94.7	0.0	5.3	94.7	0.0	0.0	0.0	21.1	78.9	100.0	0.0	
MBBS	22	36.4	63.6	0.0	9.1	59.1	27.3	4.5	0.0	18.2	81.8	100.0	0.0	
MN	1	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	
ВРН	10	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	20.0	80.0	100.0	0.0	
MPH	2	50.0	50.0	0.0	50.0	50.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	
Dental Hygiene (TSLC)	10	50.0	50.0	0.0	20.0	50.0	10.0	10.0	10.0	10.0	90.0	100.0	0.0	
LAB ASST (TSLC)	4	75.0	25.0	0.0	25.0	50.0	0.0	25.0	0.0	0.0	100.0	100.0	0.0	
AAHW	2	50.0	50.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	
Dental Hygienist (Diploma)	1	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	
BAMS	3	66.7	33.3	0.0	0.0	100.0	0.0	0.0	0.0	33.3	66.7	100.0	0.0	
BDS	4	50.0	50.0	0.0	25.0	75.0	0.0	0.0	0.0	50.0	50.0	100.0	0.0	
<b>Total Institutions</b>	206	42.2	55.3	2.4	16.5	58.3	15.0	7.3	2.9	10.2	89.8	96.1	3.9	

<sup>\*</sup> Multiple response. There are more than the actual institutions in number as some of the institutions are counted two or more than two times as they have multiple programmes.

Source: Records and Reports provided by Different Universities and CTEVT, 2011

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