UNIVERSITAS INDONESIA

FACTORS ASSOCIATED WITH MEDICAL DOCTORS' SATISFACTION OF JOB WORKING IN HEALTH FACILITIES ADHERED TO BASIC PACKAGE OF HEALTH SERVICES IN AFGHANISTAN

THESIS

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FACULTY OF PUBLICH HEALTH

MASTER OF PUBLIC HEALTH SCIENCE PROGRAM

DEPOK, JANUARY 2011

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Proposed as one of the requirements for obtaining a degree of Master of Public Health

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STATEMENT OF ORIGINALITY PAGE

This thesis is the result of my own work,
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ABSTRACT

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Title: *Factors Associated With Medical Doctors' Satisfaction of Job Working in Health Facilities Adhered to Basic Package of Health Services in Afghanistan.*

The aim of the study was to determine the factors influencing job satisfaction among medical doctors working at the framework of Basic Package of Health Services in Afghanistan. This study utilized data derived from National Health Services Performance Assessment was conducted on 2008 in Afghanistan. Health workers interview instrument was used to know the perspective of health workers from health services. This study sample size was 548 participants. The results revealed almost 54% of participants were not satisfied with their job. Variables such as low salary/lack of salary, lack of equipment, lack of supplies and drugs, lack of motivation and security of health facility area were found to be significantly associated with medical doctors' satisfaction of job.

Keywords:

Medical doctor, Job satisfaction, Basic Package of Health Services

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LIST OF ABREVIATIONS

ANDS	Afghan National Developmental Strategy
BHC	Basic Health Center
BPHS	Basic Package of Health Services
BSC	Balance Score Card
CHC	Comprehensive Health Center
CHW	Community Health Worker
CSO	Central Statistical Organization
DH	District Hospital
DMPH	Depot medroxy progesterone
DOTS	Direct Observation Therapy
EPHS	Essential Package of Hospital Services
HMIS	Health Management Information System
HP	Health Post
HSC	Health Sub Center
HSC	Health Sub Center
IIHMR	Indian Institute of Health and Management Research
JHBUPH	Johns Hopkins Blumberg University of Public Health
MD	Medical Doctor
MDGs	Millennium Development Goals

MHC	Mobile Health Center
MHT	Mobile Health Team
MoPH	Ministry of Public Health
MoPH-SM	Ministry of Public Health Strengthening Mechanism
NHSPA	National Health Services Performance Assessment
SM	Strengthen Mechanism

LIST OF APENDECIES

CHAPTER 1
INTRODUCTION

1.1 Background

The health workers' satisfaction of job in most countries is well documented and has assumed a central concern to health care managers and human resource policy makers. It is found that job satisfaction has multidimensional association with provision of health care services as; a consequence of low satisfaction with job environment is low quality of health care services. While, the healthcare industry requires a more adhered and skilled workforce today as a result of advancement in medical technology and the demand for more sophisticated patient care.

Job satisfaction is defined to be, a worker's sense of achievement and success, is generally perceived to be directly linked to productivity as well as to personal wellbeing. Job satisfaction implies doing a job one enjoys, doing it well, and being suitably rewarded for one's efforts. Job satisfaction further implies enthusiasm and happiness with one's work.

Job satisfaction among medical doctor is increasingly being recognized as a measure that should be included in quality improvement programmes. Low job satisfaction can result in increased staff turnover and absenteeism, which affects the efficiency of health services. The search for enhanced productivity has been a major concern for all organizations in more developed societies. The subject of job satisfaction is particularly relevant and of interest to public health practitioners due to the fact that organizational and employees' health and well-being rest a great deal on job satisfaction (Adams et al, 2000).

The search for enhanced productivity has been a major concern for all organizations in more developed societies. In developing countries the need to optimize productivity is also a consideration. Job satisfaction of employees has

been found to be an important factor affecting productivity and has received considerable interest. Poor performance of service providers leads to inaccessibility of care and inappropriate care, which thus contribute to reduce health outcomes as people are not using services or are mistreated due to harmful practices (Alexander, 1995).

Ministry of Public Health of Afghanistan, relying on a strategy of partnering with contracted non-governmental organizations to implement the Basic Package of Health Services (BPHS), has made substantial progress in the development of health services in recent years after many decades of conflict. Perceptions of service quality assume additional importance in Afghanistan. Where, the perceived legitimacy of the government may depend partially on its ability to convince the population that, it can deliver qualified essential services.

The Ministry of Public Health (MoPH) of implements an innovative monitoring system of Basic Package of Health Services to track health workers satisfaction on a routine basis as part of a Balanced Scorecard approach. Balanced Scorecard 2008 report in its domain B which, addresses the perspectives of health workers on health system and outlines satisfaction of job, has showed that there is no main difference in health workers' satisfaction of job and it remained in moderate level with comparing to previous rounds reports since 2004 (JHUBSPH and IIHMR, 2008).

The study of patient perception of health services quality in Afghanistan states that result of poor performance of service providers on patient perception of care will include poor compliance with treatment and advice, failure to pursue follow-up care and dissuading others from seeking care (Peter Hansen et al, 2005).

1.2 Health Status in Afghanistan

Due to years of conflict in Afghanistan the general health situation of the Afghan people remains overwhelmingly poor and is exacerbated by the dismally deficient determinants of health. Accordance to Afghanistan Health Survey, (JHUBSPH, IIHMR, 2006) there are 25% reduction in the under 5 years mortality rate (U5MR) over 2001 levels (from 257 to 191 deaths of children per 1000 live births) and in under one child mortality (from 165 to 129 deaths of children per 1000 live births).

Not ready access to health facilities is related with women being repeatedly exposed to the risk of disease, disability and health during pregnancy, labor, delivery and post natal recovery. The high maternal mortality ratio (1600/100000 live births) is among the worst in the world. The major causes of maternal mortality are found to be hemorrhage, obstructed labor, pregnancy-induced, hypertension, and sepsis (WHO, 2006). The percentage of preventable maternal deaths is 74%. Home delivery is still the norm with more than 80% of deliveries taking place at home. Communicable diseases remain high. Tuberculosis (TB), at annual incidence of 46 000 cases, remains a serious health problem with unusual higher prevalence among women.

Elevated levels of malnutrition throughout the population, inequitable distribution of quality health services, low capacity to implement effective and efficient health services at all levels of the health system, lack of basic infrastructure, donor dependency and inadequate financing for many of the key programs and security problem are challenges to strengthening health systems.

Although after implementation of BPHS since May 2003 there are considerable changes in health status indicators like; childhood vaccination coverage has improved, especially for the most dangerous of vaccine-preventable diseases like measles. Impressive increases have also been documented for reproductive health, with more women receiving pre-natal care, more deliveries

being assisted by professional health care providers, and more families using modern contraceptive methods to determine the size of their families.

However, despite the progress that has been made many problems and challenges still remained and much more work is required to address the many public/population health issues of the country.

1.3 Rational and Justification

Although, improving medical doctor's job satisfaction has become a central concern to health managers and human resource policy makers and researchers in recent years but, yet little is known about the key determinants of medical doctor's satisfaction of job in Afghanistan.

Balanced Scorecard 2008 report in its domain B which, addresses the perspectives of health workers within the health system and outlines health workers satisfaction of job, has showed that in spite of considerable progress in other indicators there is no main progress in health workers satisfaction indicator since 2004 and it remained in moderate level or decreased with comparing to previous rounds reports.

Also, later investigation on BSC report on patient perception of quality resulted that, the strongest determinants of client-perceived quality identified are health worker thoroughness in taking patient histories, conducting physical examinations and communicating with patients so, based findings, it could be the consequence of lack of concern or disinterestedness of medical doctors to job that after resulted poor performance.

Medical doctor is the key person among health worker in health facility that their behavior could affect patients adherent to seek health care services as patients are more confident on quality of services if be treated with a medical doctor. Since, the findings of Balanced Score Card revealed the satisfaction of job for all type of health workers altogether so, with considering the all above issues

there is a need for more investigation on medical doctor's satisfaction of job and its associated factors.

Knowing whether some components related to health system or individual related characteristics influence medical doctors satisfaction of job can thus, provide valuable information for health system managers and human resource policy makers to revise key policy issues as; to deal with those determinants as a need for interventions at both organizational and policy level more as a comprehensive approach to increasing medical doctor's satisfaction. We intentionally include all 548 medical doctors in this study that were interviewed among all 2233 health workers during a National Health Services Performance Assessment survey in Afghanistan on 2008.

1.4 Research Question

What are the factors associated with Medical Doctor's satisfaction of job at basic health facilities working in the framework of Basic Package of Health Services?

1.5 Research Objectives

1.5.1 General objective

The objective of this study is to identify the factors associated with medical doctor's satisfaction of job at basic health facilities working in the framework of Basic Package of Health Services in Afghanistan.

1.5.2 Specific objective

1. To determine whether gender is associated with medical doctor's satisfaction of job.
2. To determine whether knowledge of medical doctor is associated with medical doctor's satisfaction of job.
3. To determine whether transport is associated with medical doctor's satisfaction of job.

4. To determine whether working environment is associated with medical doctor's satisfaction of job.
5. To determine whether salary is associated with medical doctor's satisfaction of job.
6. To determine whether security of health facility area is associated with medical doctor's satisfaction of job.
7. To determine whether health facility type is associated with medical doctor's satisfaction of job.
8. To determine whether feedback by authorities is associated with medical doctor's satisfaction of job.
9. To determine whether time of bringing children to health facility is associated with medical doctors 'satisfaction of job.
10. To determine whether availability of time is associated with medical doctor's satisfaction of job.
11. To determine whether motivation of medical doctors is associated with medical doctors' satisfaction of job.
12. To determine whether availability of staff is associated with medical doctors' satisfaction of job.
13. To determine whether availability of supplies is associated with medical doctors' satisfaction of job.
14. To determine whether availability of equipment is associated with medical doctors' satisfaction of job.
15. To determine whether supervision from health facility is associated with medical doctors' satisfaction of job.

1.6 Benefit of Study

Medical doctor's dissatisfaction with job as a result of job conditions is one of the concerned that may deteriorate job performance. Thus, understanding the determinants of job dissatisfaction of medical doctors is important not only from individual aspects but, also from health system perspective. Relevant aspect of this study includes, to determine the factors are associated with medical

doctors' satisfaction of job and in further, hopefully could help the health managers and policy makers to deal with those determinants as a need for comprehensive approach to improve medical doctors' satisfaction of job through interventions at both organizational and policy level.

Additionally aims to ensure provision of appropriate and qualified health services through fulfillment medical doctors' needs such as, incentives, including enough salaries, required training, accessibility to secure living and also will facilitate to fulfill the requirement of health facilities including drugs, supplies and internal management of health facility that, may associated with medical doctors' satisfaction of job. Further more the result of this study may serve as a base for future studies in a deeper manner and on a larger scale.

1.7 Scope of Study

This study utilizes the data previously collected through a national survey, called National Health Services Performance Assessment on 2008 in Afghanistan. The survey was an assessment of Basic Package of Health Services in 29 provinces of Afghanistan and include 618 health facilities, 5970 patient observations, 5950 patients exit interview and 2233 Health Workers interview to determine their satisfaction of job.

Since, the National Health Services Performance Assessment survey revealed the satisfaction of job for all type of health workers altogether so, there is a need for more investigation on medical doctor's satisfaction of job and its associated factors.

This study aims to determine the association between medical doctor's job satisfaction and its determinants. We are interested to know whether, gender, knowledge, transport, working environment, salary, security, health facility type, feedback, time to bring children to health facility, time, motivation, staff, drugs and supplies, equipment and supervision are the determinants of medical doctor's job satisfaction.

CHAPTER 2
LITERATURE REVIEW

2.1 Health System of Afghanistan

After three decades of conflict, the Afghanistan health system was among the worst in world. Infrastructure was destroyed and trained personnel were scarce. In rural areas the situation was even more severe. With the help of the international community the Ministry of Public Health (MoPH) was able to start rebuilding the health system. The MoPH has focused its attention on the delivery of a Basic Package of Health Services (BPHS) and an Essential Package of Hospital Services (EPHS) to which the MoPH and its partners are committed.

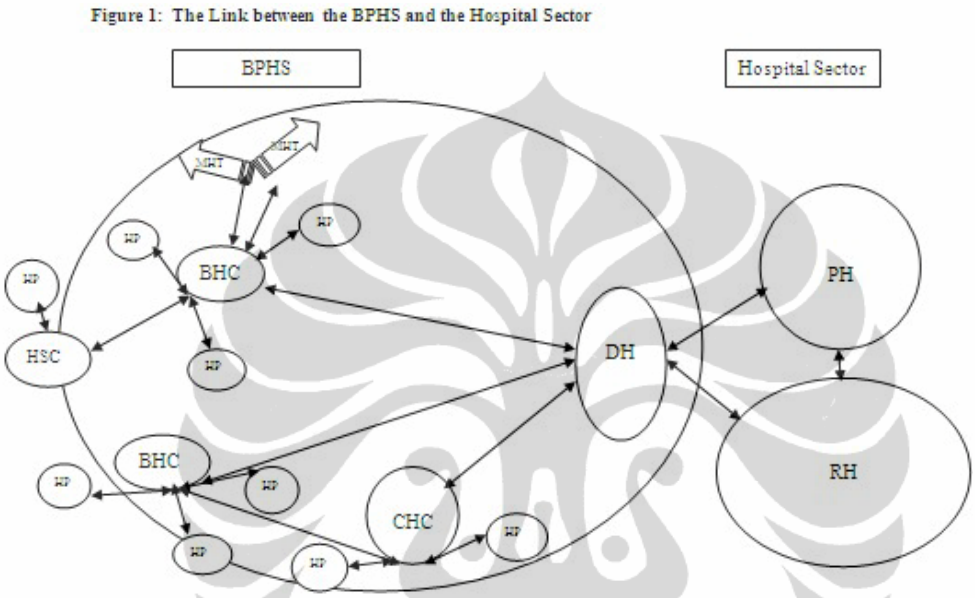
In March 2002, the Ministry of Public Health began a process to determine its major priorities for rebuilding the national health system and to identify the health services so important to addressing the greatest health problems that they should be available to all Afghans, even those living in remote and underserved areas. These crucial services were called the Basic Package of Health Service (BPHS, 2005).

The goal in developing the BPHS was to provide a standardized package of basic services that would form the core of service delivery in all primary health care facilities. There are two service delivery mechanisms for the BPHS, contracting out to nongovernmental organizations and direct provision by the Ministry of Public Health called Strengthening Mechanism (SM).

Financing and delivery of secondary-level health care is still the main responsibility of the government. In order to have a standard package for hospital services in the country, the Ministry of Public Health developed a hospital policy and finalized the Essential Package of Hospital Services (EPHS). Although donors and the Ministry of Finance have shown less interest in supporting

hospitals on 2005 year, the Ministry of Public Health has secured a commitment of US$ 10.4 million for implementing this package during 2005–2006 (WHO, 2006).

Figure 2.1: Network of Facilities at BPHS and Referral to EPHS



Source: Basic Package of Health Services of Afghanistan 2009.

2.1.1 The success of the BPHS

According to revised Basic Package of Health Services (BPHS, 2009) years of BPHS implementation have witnessed enormous progress in the health sector. The BPHS was not only successful in achieving its direct objectives regarding the availability, coverage and quality of health care, but in addition the package has had tremendous influence on the organizational and managerial attributes of health care in Afghanistan. Bringing coherence and unified priorities to the Afghan health system, the BPHS provided the health sector with uniform standards found in the core package of preventive and curative health services. In addition to being a vehicle to provide widely available basic health care to the

Afghan population, it also provided the MoPH with tools to effectively assume its stewardship role to coordinate and monitor the implementation of health care activities.

Table 2.1: Key Indicators of the Afghanistan Health System.

No	INDICATOR	Value	Year	Value	Year
1	Outpatient visits per capita per year	0.6	2003	1.04	2008
2	DPT3 immunization coverage	29.9%	2003	82.9%	2007
3	Skilled birth attendance at deliveries	6.0%[3]	2003	18.9%	2006
4	Infant mortality rate (per 1,000 live births)	165	2000	129	2006
5	Under 5 mortality rate (per 1,000 live births)	257	2000	191	2006
6	Number of health facilities	1241	2003	1688	2009
7	Skilled Antenatal Care (at least 1 visit, excluding TT) (%)	4.6%	2003	32.3 %	2006

Source: Basic Package of Health Services of Afghanistan 2009.

2.1.2 Future challenges to the BPHS Strategy

While the achievements of the MoPH under the BPHS framework have been significant, the future holds a number of challenges:

First, further expansion of the BPHS, as measured by the percentage of the population with access to BPHS services, will become increasingly difficult. Insecurity is still another challenge which reduces population access to health care services. It also limits monitoring visits from the provinces where BPHS is being implemented. This may result in a compromise of the quality and possibly a lack of transparency in terms of quality service provision.

Location of the construction of health facilities in the provinces on the basis of political influence brings the risk of mal-distribution of the health facilities. An additional challenge is to align the BPHS with the EPHS to develop a single, unified, and community-based health system with appropriate linkages for referrals throughout the system. Finally, retaining the commitment to the BPHS will be a challenge (BPHS, 2009).

Table 2.2: The Seven Elements of BPHS and their Components.

1. Maternal and Newborn Care	**1. Antenatal care** **2. Delivery care** **3. Postpartum care** **4. Family planning** **5. Care of the newborn**
2.Child Health and Immunization	**1. Expanded Program on Immunization (EPI)** **2.Integrated Management of Childhood Illness**
3. Public Nutrition	**1. Prevention of malnutrition** **2. Assessment of malnutrition**
4. Communicable Disease Treatment and Control	**1. Control of tuberculosis** **2. Control of malaria** **3. Prevention of HIV and AIDS**
5. Mental Health	**1. Mental health education and awareness** **2. Case identification and treatment**
6. Disability and Physical Rehabilitation Services	**1. Disability awareness, prevention, and education** **2. Provision of physical rehabilitation services** **3. Case identification, referral and follow-up**
7.Regular Supply of Essential Drugs	**1. Listing of all essential drugs needed**

Source: Basic Package of Health Services of Afghanistan 2009.

2.1.3 Types of health facilities used by the BPHS

The BPHS will be offered at six standard types of health facilities, ranging from community outreach provided by Community Health Workers (CHWs) at health posts, through outpatient care at health sub centers and basic health centers and provided by mobile health teams, to inpatient services at comprehensive health centers and district hospitals. The section below summarizes the services available at each type of facility.

2.1.3.1 Health Posts

At the community level, basic health services are delivered by CHWs from their own homes, which function as community health posts. A health post, ideally staffed by one female and one male CHW, cover a catchments area of 1,000– 1,500 people, which is equivalent to 100–150 families. CHWs offer

limited curative care, including diagnosis and treatment of malaria, diarrhea, and acute respiratory infections such as pneumonia; distribution of condoms, oral contraceptives, and depot medroxy progesterone acetate (DMPA) injections; community DOTS.

2.1.3.2 Health Sub Centers

The Health Sub-Center (HSC) is an intermediate health delivery facility to bridge the services gap between Health Posts and other BPHS levels of service delivery. The MOPH has agreed to establish a number of HSCs with financial support by its donors. A HSC is intended to cover a population of about 3,000-7,000. HSCs are initially being established in private houses. This is a precondition before construction of a permanent facility and requires commitment from the surrounding community.

The HSC will provide most of the BPHS services that are available in BHCs including health education, immunization, antenatal care, family planning, TB case detection and referral, and follow up of TB cases in coordination with community DOTS. The HSC will be staffed by two technical staff (a male nurse and a community midwife), as well as a cleaner/guard.

2.1.3.3 Mobile Health Teams

Another way to ensure access to basic health services in remote areas is the provision of health care services through mobile health teams. Given all the challenges coupled with the scarcity of trained health workers (particularly females), it may not be feasible to establish staffed fixed centers in some remote areas, where the population is scattered and live in small communities. .Mobile health services are an extension of BHC services; therefore, the services they provide are in most cases those recommended for a BHC. The MHT ideally has the following staff, male health provider (doctor or nurse), female health provider (community midwife or nurse), vaccinator and driver.

2.1.3.4 Basic Health Center

The BHC is a small facility offering primary outpatient care, immunizations and Maternal and Newborn care. Services offered include antenatal, delivery, and postpartum care; newborn Care ,no permanent contraceptive methods; routine immunizations; integrated management of childhood illnesses; treatment of malaria and tuberculosis, referral, and follow-up care for mental health patients and persons with disabilities including. The services of the BHC cover a population of about 15,000–30,000, depending on the local geographic conditions and the population density.

The minimal staffing requirements for a BHC are a nurse, a community midwife, and two vaccinators. Depending upon the scope of services provided and the workload of the BHC, up to two additional health care workers may need to be added to perform well-defined tasks (e.g., supervision of community health workers and outreach activities). A male/female ratio of 1/1 is recommended, and at least one female health worker should be part of the BHC staff. Hospital physiotherapist should visit BHCs on an outreach basis from the district level.

2.1.3.5 Comprehensive Health Centers

The CHC covers a catchment area of about 30,000–60,000 people and offer a wider range of services than does the BHC. In addition to assisting normal deliveries, the CHC can handle certain complications, grave cases of childhood illness, treatment of complicated cases of malaria, and outpatient care for mental health patients. Persons with disabilities and persons requiring physiotherapy services will be screened, given advice and referred to appropriate services in the area. The facility usually has limited space for inpatient care, but has a laboratory. The staff of a CHC is larger than that of a BHC; it includes both male and female doctors, male and female nurses, midwives, one (male or female) psychosocial counselor and laboratory and pharmacy technicians. Physiotherapists will visit CHCs on an outreach basis from the district hospital.

2.1.3.6 District Hospitals

At the district level, the district hospital handles all services in the BPHS, including the most complicated patients. Patients referred to the district hospital level include those requiring major surgery under general anesthesia, X-rays, comprehensive emergency obstetric care, and male and female sterilizations. It offers comprehensive outpatient and inpatient care for mental health patients and rehabilitation for persons requiring physiotherapy with referral for specialized treatment when needed.

The district hospital also provides a wider range of essential drugs, treatment of severe malnutrition renewable supplies and laboratory services than do the health centers. The district hospital is staffed with a number of doctors, including female obstetricians/gynecologists; a surgeon, an anesthetist, a pediatrician, a doctor who serves as a focal point for mental health. Psychosocial counselors/supervisors, midwives, laboratory and X-ray technicians, a pharmacist, a dentist and dental technician and two physiotherapists (male and female).

Table 2. 3: Number of Medical Doctor by Type of Health Facility.

Type of Health Workers and Professionals	Number of Medical Doctors in the Health Facility					
	Health Post	Health Sub-Center	BHC	MHT	CHC	District Hospital
Health Providers						
Physician MD general (male)	--	--	--	**1**	**1**	**2**
Physician MD general (female)	--	--	**1**	-	**1**	**2**
Surgeon Male			--	-		**1**
Surgeon Female	--	--	-	-	-	--
Pediatrician	--	--	--	--	--	**1**

Source: Basic Package of Health Services of Afghanistan 2009.

2.2 National Health Services Performance Assessment

With existed system of Health Management Information System (HMIS) in place, the Ministry of Public Health contracted directly with a team of researchers from Johns Hopkins University of Bloomberg School (JHUBSPH) and the Indian Institute of Health Management Research (IIHMR) to provide independent technical assistance in building a new monitoring and evaluation system from the ground up (JHUPS and IIHMR, 2008).

Therefore, since 2004, the Ministry of Public Health (MoPH) of Afghanistan, with technical assistance from Johns Hopkins University and the Indian Institute for Health Management Research, has adopted the Balanced Scorecard (BSC) as a performance measurement and management tool for the Basic Package of Health Services in Afghanistan (BPHS).

Table 2.4: the number of BPHS facilities based on the latest facility census conducted by Health Management Information System (HMIS), MoPH- 2009.

BPHS Facilities	DH	CHC	BHC	HP	SC	MHT
Number	**59**	**395**	**778**	**1000**	**260**	**34**

2.2.1 Afghanistan Health Sector Balanced Scorecard

Balanced Scorecard (BSC) is a performance measurement and management tool for the Basic Package of Health Services in Afghanistan (BPHS). The data for the BSC are taken from a National Health Services Performance Assessment (NSHPA) across six domains (**Appendix 4**), patients and community; staff; capacity for service provision; service provision; financial systems; and the overall MoPH vision (JHUBSPH and IIHMR , 2008), which is using a stratified random sample of all health facilities providing the BPHS from the provinces of Afghanistan, systematic random samples of patients and stratified random sample of health workers. The purpose of the Afghanistan Health Sector Balanced Scorecard is to summarize the performance of Afghanistan's provinces in the delivery of the BPHS, and to provide policymakers, health managers and

other decision makers with evidence for areas of strength and weakness. The Balanced Scorecard (BSC) provides a frame-work to efficiently look at multiple areas of the health sector called domains, which each contain an array of indicators. This allows the Ministry of Public Health (MoPH) and other stakeholders in the health sector to visualize the performance of various provinces as well as how the country is providing health services. Every year, a sample of more than 600 facilities, providing health services are surveyed nationwide to produce 29 indicators that are measured across the six BSC domains.

Table 2.5: The BSC sample size of facilities, patient observation, exit interview and number of provinces was assessed during four round 2004-08.

UNIT	20004	2005	2006	2007	2008
Number of provinces	**33**	**30**	**30**	**30**	**29**
Number of facilities	**617**	**629**	**630**	**636**	**618**
Number of patient observations	**5719**	**5856**	**5964**	**6089**	**5970**
Number of exit interview	**5597**	**5862**	**5964**	**6087**	**5950**
Number of health workers interviewed	**1553**	**1452**	**1723**	**1940**	**2233**

Source: Balanced Scorecard Report 2008.

The 2008 BSC can be compared to the previous rounds 2004, 2005, 2006 and 2007 BSC reports. The benchmarks used in the 2005, 2006, 2007, and 2008 BSCs are based on the performance of provinces documented in the 2004 BSC.

It allowing for an assessment of the progress made over the first years of BPHS implementation in Afghanistan. To make the Scorecard easy to interpret, it is color-coded. Green=top quintile; yellow=middle; red=bottom quintile showed in **Appendix 5**. This makes comparisons easier across provinces and allows staff at all levels to quickly see where extra effort is needed or where government support is lacking relative to other provinces. Red zone has been described areas that need special attention. The BSC is not only a measurement tool; it is used by the MoPH to clarify its vision and strategies, and to manage change. Considerable

progress has been achieved across all domains in the years of the BSC. According to the BSC 2008 report (JHUPS and IIHMR, 2008) the average performance of indicators in the overall vision domain has improved by 1.5 percentage points.

2.2.2 BSC and health workers satisfaction of job

Domain B of BSC addresses the perspectives of health workers with the health system. This domain includes:

1. Health Workers Satisfaction Index
2. Salary Payments Current Indicator

The staff domain has increased by 5.8 percentage points over the past years, from 70.1% to 75.9%. However, performance in this domain decreased in the 2008 year from a high of 79.9 in 2007, due to a drop in the on-time salary payments indicator. In addition, health worker satisfaction has remained unchanged at 69.0% from 2007 to 2008.

2.2.3 Health worker Satisfaction Index

2.2.3.1 Description

This indicator measures the satisfaction of the health workers under the 19 items are showed in Table 8. Each of them is measured using the 4-point naan scale.

According to BSC 2008 report, the score for health worker satisfaction is comprised of 19 individual items whose score determine the overall score for health worker satisfaction. At National Level Health Worker Satisfaction has been approximately the same since 2006 to 2008 but, the individual item has shown a fluctuation in their scores over time. However, the percentage of provinces meeting the upper benchmark for this indicator has improved by 6 percentage points between 2007 and 2008. Similarly, there has been an increase in the percentage of the provinces meeting the lower benchmark. Daykundi province continues to be below the lower benchmark for the second year in a row. On the

other hand the health worker satisfaction in Paktika province improved from 2007 to achieve the lower benchmark in 2008.

Table 2.6: medical doctor's satisfaction of job index items. Source BSC 2008.

No	Statements for Medical Doctors to rate their satisfaction of job.	1 Naan, Very unsatisfied	2 Naan, Unsatisfied	3 Naan, Satisfied	4 Naan, Very satisfied
1	**Working relationships with other facility staff**	**1**	**2**	**3**	**4**
2	**Working relationships with Provincial MoPH staff**	**1**	**2**	**3**	**4**
3	**Management of the health facility - by MoPH or an NGO**	**1**	**2**	**3**	**4**
4	**Relationships with local traditional leaders**	**1**	**2**	**3**	**4**
5	**Availability of medicine in the health facility**	**1**	**2**	**3**	**4**
6	**Availability of equipment in the health facility**	**1**	**2**	**3**	**4**
7	**The physical condition of the health facility building**	**1**	**2**	**3**	**4**
8	**Your ability to provide high quality of care**	**1**	**2**	**3**	**4**
9	**Your respect in the community**	**1**	**2**	**3**	**4**
10	**Your training opportunities to upgrade your skills and knowledge**	**1**	**2**	**3**	**4**
11	**Your ability to meet the needs of the community**	**1**	**2**	**3**	**4**
12	**Your salary**	**1**	**2**	**3**	**4**
13	**Employment benefits (travel allowance, bonus, etc)**	**1**	**2**	**3**	**4**
14	**Safety and security to live and practice in the community**	**1**	**2**	**3**	**4**
15	**Living accommodations for your family**	**1**	**2**	**3**	**4**
16	**Education for your children If no children, write "NA" here: _____**	**1**	**2**	**3**	**4**
17	**Your boss' recognition of your good work**	**1**	**2**	**3**	**4**
18	**Your opportunities for promotion**	**1**	**2**	**3**	**4**
19	**Your overall satisfaction**	**1**	**2**	**3**	**4**

Source: health workers interview form, BSC Report 2008.

In 2008 the health workers reported high level of satisfaction with their relationships with health facility staff and the local leadership. These items also showed highest improvements among all individual items in terms of the absolute value of improvement. Several items in this index which had shown improvement in 2007 have shown high to modest decline in 2008. There is a high level of decline in the satisfaction of health workers with the security in providing health services, physical condition of the health facility, opportunities for promotion and timeliness of their salaries as compared to 2007. The satisfaction of the health worker for the availability of medicines continues to drop since 2006 (JHUBSPH and IIHMR , 2008).

Table 2.7: National Median Scores and Achievements of Benchmarks for Health Workers Index, 2004- 2008. Source: BSC 2008 Report.

Domain B	National median					Provinces meeting lower benchmarks					Province meeting upper benchmarks				
Years	**2004**	**2005**	**2006**	**2007**	**2008**	**2004**	**2005**	**2006**	**2007**	**2008**	**2004**	**2005**	**2006**	**2007**	**2008**
Health workers satisfaction index	**63.5**	**64.1**	**68.1**	**69.0**	**69.1**	**81.8**	**86.7**	**93.3**	**93.3**	**96.6**	**18.2**	**33.3**	**53.3**	**56.7**	**62.1**

***Upper and lower bench marks are showed by percentage.**

2.3 MDs' satisfaction of job in result of other studies

Since, what job satisfaction really and substantively means often tends to vary according to the type of work. That is, what constitute a set of positive or negative feelings may depend on the nature of the work in question. Similarly in health systems it is one of the concerned that deteriorating health workers job conditions which consequently, resulting decline in job satisfaction would influence health worker performance. Thus, understanding the determinants of job dissatisfaction of health workers is important not only from individual characteristics aspects but also from health system perspective. Knowing whether some components related to health system or individual related characteristics

impress health workers satisfaction of job can thus, provide valuable information for health system managers and policy makers to revise key policy issues.

2.3.1 Determinants of MDs' satisfaction of job

While determinants for medical doctors' job satisfaction might be similar across countries, socio cultural and economic issues will influence priorities in those factors. Also, it is found that there are various factors influencing medical doctors' job satisfaction such as, personal and lifestyle-related factors, work-related factors and health-system related factors. These factors could be financial considerations, working conditions, management capacity and styles, professional advancement and safety at work and many others.

According to Bonnie Sibbald, physical working conditions, relationships with fellow workers and managers, pay, promotion, job security, responsibility, recognition from managers and hours of work influencing performance of job. It is said that, the job satisfaction is an important determinant of physician retention and turnover and may also affect performance. It is therefore worthwhile monitoring changes in workforce satisfaction with a view to identifying adverse trends and their possible causes (Bonnie Sibbald, et al, 2000).

2.3.2 Impact of dissatisfaction with job

The problem of inadequate health-worker performance in low and middle income countries is particularly urgent. Millions of children and adults die prematurely each year even though many interventions exist that can prevent such deaths, and medical doctors are essential for delivering these life-saving interventions (Alexander, 1995).

The important point is the impact of condition of public services and movement of medical doctors between the public and the private health sector. Health professionals resign to look for better opportunities. They tend to leave for

better salaries outside the public sector and they look forward to go private where will earn more. There is a wide range of reasons why health workers leave their jobs, and financial reasons are often not the only reasons. Factors are also likely to be interrelated and their influence on health providers depends on the political, socioeconomic and cultural environment.

2.3.2.1 Medical doctors' performance

World Health Organization (WHO) in a report of Improving Health Workers Performance (Marjolein Dieleman and Jan Willem Harnmeijer, 2006) states that, poor performance is a result of health staff not being sufficient in numbers, or not providing care according to standards, and not being responsive to the needs of community and patients.

Ministry of Public Health of Afghanistan government allocate many resources on providing primary health care and to provider of the services, such investments could produce greater benefits to society than they currently do. Evidence showed that poor health-worker practices contribute to low use of health services (especially it is more critical when users are vulnerable populations) and improved performance might increase use of health services.

2.3.2.2 Medical doctors and clients interaction

Although Ministry of Public Health of Afghanistan is committed for provision of high-quality health care, ready access to health care services, equally distribution and provision of free health care services but, yet low sufficient patients perception is one of the concerns of health care system managers.

Result of a study by Peter Hansen on Client Perception and Quality in Afghanistan states that, most of the variation in patients perception of quality relates specifically to the patient's interaction with the health worker and not to other health facility characteristics, such as cleanliness, infrastructure, service capacity and the presence of equipment or drugs. The strongest determinants of client-perceived quality identified are health worker thoroughness in taking

patient histories, conducting physical examinations and communicating with patients (Peter Hansen et al, 2008)

2.3.2.3 Medical doctors retention and turnover

Qualified and motivated human resources are essential for adequate health service provision, but human resources shortages have now reached critical levels in many resource-poor settings, especially in rural areas (Marjolein Dieleman and Jan Willem Harnmeijer, 2006). Achieving equity in this area needs a concerted effort from all sectors involved.

In many countries medical doctors mobility remains a concern for those in human resources planning. The finding of a study among health professionals in Namibia (Scholastika N Iipinge et al, 2006), describing that financial, human resource management, occupational and macro-management issues are perceived as both push and retention factors for various health professionals at different levels of care in public health sector.

As causes for retention are likely to be rooted in both personal and work-related factors, strategies must address these multiple causes simultaneously. Interventions can take place at the macro or health-system level, such as human resource policy and planning, rural recruitment and training and bonding (Marjolein Dieleman and Jan Willem Harnmeijer, 2006). They can also take place at micro or, aimed at improving job satisfaction by addressing working conditions, providing incentives and offering professional development. Interventions can also aim to improve the living conditions of individual workers, or address the needs of specific groups.

2.3.2.4 Health services quality

Certainly, poor satisfaction with job, result inappropriate adherence to job and defined standards performance. It leads to inaccessibility of care and

inappropriate care, which thus contribute to reduced health outcomes as people are not using services or are mistreated due to harmful practices.

Health workers' number, quality and type of professionalism determine health care output and productivity. Because of the interactive nature of health workers, local organizational and broader sector policies have the potential to affect their satisfaction, either positively or negatively, and as such to influence health system performance (HRH Working Group, 2004).

Physician satisfaction is important because it contributes to the quality of health care. Greater physician satisfaction is associated with appropriate prescribing practices, patient adherence, and greater patient satisfaction. Physician satisfaction also results in fewer turnovers, which contributes to patients' continuity of care, patient satisfaction and retention, and lower administrative costs of recruiting and replacing physicians (David Grembowski et al, 2003).

CHAPTER 3
THEORETICAL FRAMEWORK AND COCEPTUAL FRAMEWORK

3.1 Theoretical Framework

Hierarchies of Needs Framework Figure 3.1 explores that the behavior of an individual at a particular moment is usually determined by his or her strongest need. It would seem significant, therefore, for managers to have some understanding about the needs that are commonly most important to employees.

An interesting and useable theory that uses to explain the strength of certain needs that contribute to influence people satisfaction was developed by Abraham Maslow in 1970. Using this model would help us to discuss a causal sequence, whereby hierarchies of needs are hypothesized to influence medical doctor's job satisfaction. According to Maslow, there seems to be a hierarchy into which human needs arrange themselves.

Physiological Needs: the physiological needs are at the top of the hierarchy because they tend to have the highest strength until they are somewhat satisfied. These are the basic human needs to sustain life such as, food, clothing, and shelter and therefore income of medical doctors is the significant factor by which could be provided the physiologic needs. Until these basic needs are satisfied to the degree needed for the sufficient operation of the body, the majority of other activities will probably be at this level, and the others will provide little motivation.

When these basic needs begin to be fulfilled doctors will be satisfied with job and motivated. Rather than physiological needs, other levels of needs become important, and these motivate and dominate the behavior of the medical doctor. Since, when these needs are somewhat satiated, other needs emerge, and so on down the hierarchy.

Safety or Security Needs: once physiological needs become gratified, the safety, or security, needs become predominant. These needs are essentially the need to be free of the fear of physical danger and deprivation of the basic physiological needs. In other words, this is a need for self-preservation. In addition to the here and now, there is a concern for the future. Will doctors be able to maintain their property and/or job so they can provide food and shelter tomorrow and the next day? If a doctor's safety or security is in danger, other things seem unimportant.

Social or Affiliation Needs: once physiological and safety needs are fairly well satisfied, social or affiliation will emerge as dominant in the need structure. Whereas, medical doctors like others are social beings, they have a need to belong and to be accepted by various groups. When social needs become dominant, a doctor will strive for meaningful relations with others. Some factors could affect this hierarchy like; gender, the province where he /she works, belonging, working poor environment, socialized and working relationship with boss and other organization staff.

Esteem Needs: after medical doctors begin to satisfy their need to belong, they generally want to be more than just a member of their group. They then feel the need for esteem- both self-esteem and recognition from others.

Most of them have a need for a high evaluation of themselves that is firmly based in reality- recognition and respect from others. Satisfaction of this esteem needs produces feelings of self-confidence, prestige, power, and control. Medical doctors begin to feel that they are useful and have some effect on their environment. There are other occasions, though, when doctors are unable to satisfy their need for esteem through constructive behavior like; general job role, feedback, motivation and supervision.

When this need is dominant a medical doctor may resort to disruptive or immature behavior; they may engage in work restriction or arguments with their coworkers or organization authorities. Thus, recognition is not always obtained through mature or adaptive behavior. It is sometimes garnered by disruptive and

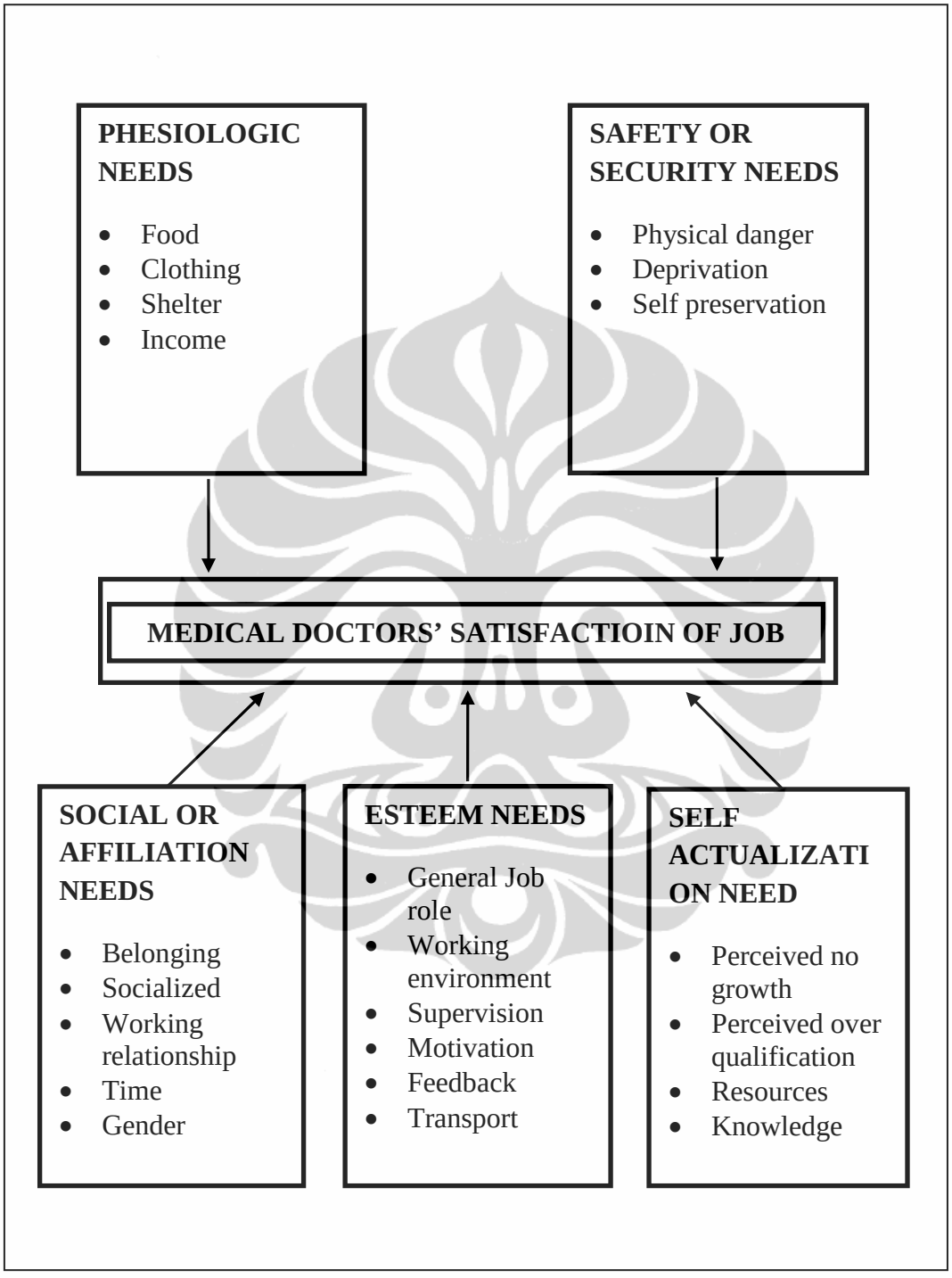
irresponsible actions. In fact, some of the social problems we have today may have their roots in the frustration of esteem needs.

Self-Actualization Needs: once esteem needs begin to be adequately satisfied, the self-actualization needs become more pre potent. Self actualization is the need to maximize one's potential, whatever it may be. A musician must play music, a poet must write, a general must win battles, a professor must teach and a medical doctor must diagnose and treat.

As Maslow expressed it, "What a man can be, he must be." Thus, self-actualization is the desire to become what one is capable of becoming. Individuals satisfy this need in different ways. The way self-actualization is expressed can change over the life cycle. For example, a self-actualized medical doctor may eventually look for maximize potential as his or her knowledge attributes change over time or as his or her horizons broaden also, access to resources to achieve this need.

In addition, the hierarchy does not necessarily follow the pattern described by Maslow. It was not his intent to say that this hierarchy applies universally. Maslow felt this was a typical pattern that operates most of the time. He realized, however, that there were numerous exceptions to this general tendency.

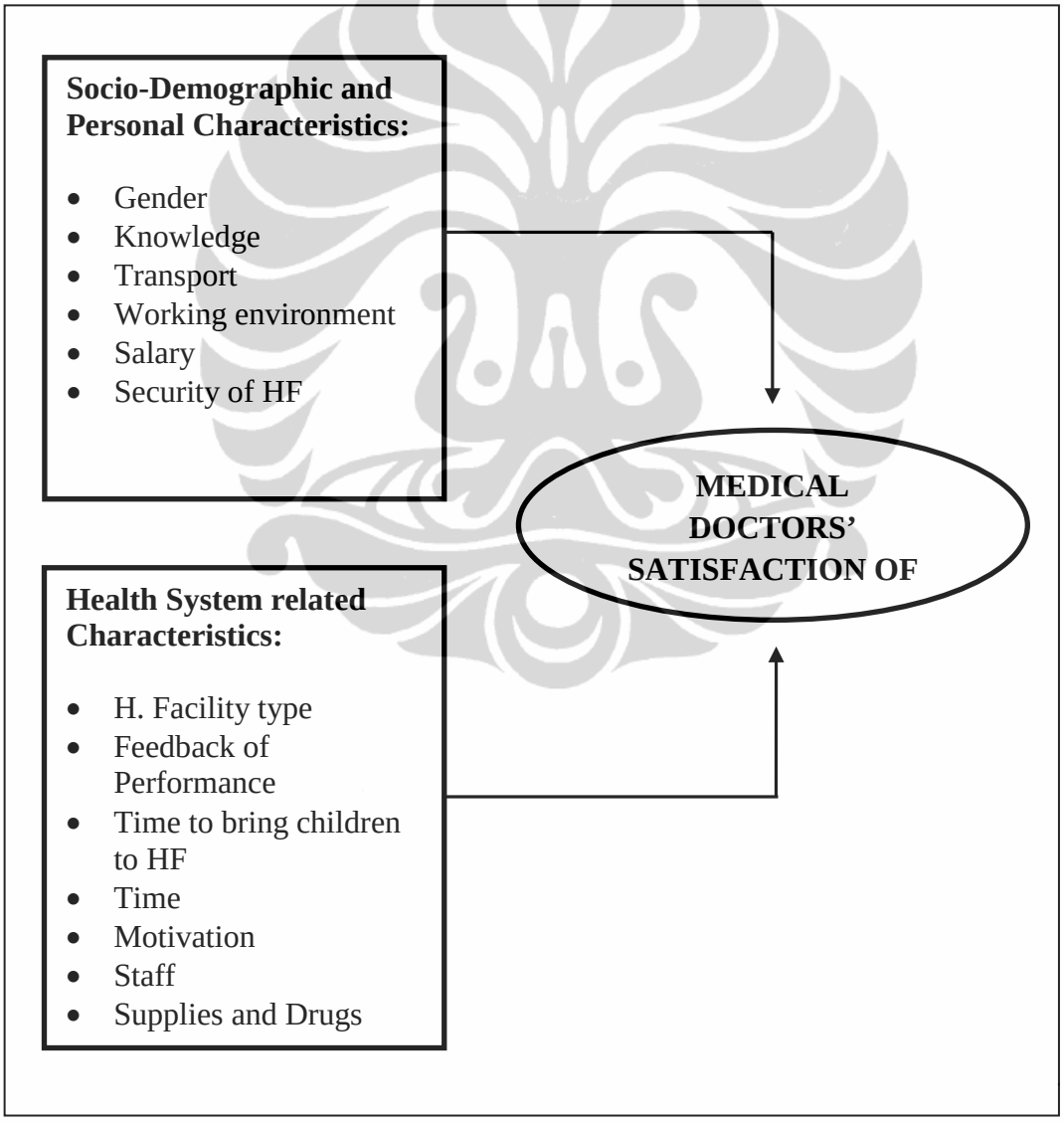
Figure 3.1: The Model of Hierarchies of Needs shows the Hierarchies of Needs and their influence on Medical Doctor's Satisfaction of Job. (Maslow's Theory of Needs)



3.2 Conceptual Framework

The variables included in conceptual framework has shown in **Figure 3.2** are driven form health workers interview using structured questionnaire, were working in facilities adherent to Basic Package of Health Services in Afghanistan. The idea of including those variables was given form theoretical framework of this study.

Figure 3.2: Conceptual framework indicates factors that may determine medical doctor's satisfaction of job.



3.2.1 Medical doctors satisfaction index

A scale of health worker satisfaction will be developed from eighteen items that measure medical doctor's satisfaction of job. These items are derived from structured questionnaire, was used to monitor health workers satisfaction of job through the Afghanistan Health Sector Balanced Scorecard. The eighteen items are statements were answered by each respondent health workers interview. Each respondent was asked to rate his or her level of agreement with each statement, according to four-point Likert-type scale (Narli, 2010). Each point on the scale was represented by a number of Afghan-style pieces of bread, naan. One naan represented 'strongly disagree', two naan 'disagree', three naan 'agree' and four naan 'strongly agree'.

The scores of 18 items will be added together to give a score ranging from 18 - 72. Score for each medical doctor will be reduced by 18 points such that a medical doctor with one (very unsatisfied) for all eighteen questions could be considered as 0 and a medical doctor with four (very satisfied) on every question could be considered as 54. The effective range is reduced to 0-54.

A simple index will be calculated for each medical doctor by dividing each individual score by 54. The four possible scores for each will be 0, 0.33, 0.66 and 1 corresponding to four possible responses, which are, 1, 2, 3 and 4 respectively. Considering, the normality if, the distribution be normal distribution, we will select the mean the distribution as cut off point to categorize the individuals in to two categories, if less than the mean will be categorized as, not satisfied and if equal or greater than the mean will be categorized as satisfied. **Table 3.1** indicates the eighteen items of medical doctor's satisfaction of job index. It is mentionable that the nineteenth (overall satisfaction) item is not included in this index because can't reflect the real situation.

Table 3.1: Medical doctor's satisfaction index items that are driven from questions 174-192 of health workers interview questionnaire.

No.	How would you rate the following aspects of your work? *Read from the list below and ask which category applies (1-4 naan; very unsatisfied-very satisfied)*	1 Naan Very unsatisfied	2 Naan Unsatisfied	3 Naan Satisfied	4 Naan Very satisfied
1	Working relationships with other facility staff	1	2	3	4
2	Working relationships with Provincial MoPH staff	1	2	3	4
3	Management of the health facility - by MoPH or an NGO	1	2	3	4
4	Relationships with local traditional leaders	1	2	3	4
5	Availability of medicine in the health facility	1	2	3	4
6	Availability of equipment in the health facility	1	2	3	4
7	The physical condition of the health facility building	1	2	3	4
8	Your ability to provide high quality of care	1	2	3	4
9	Your respect in the community	1	2	3	4
10	Your training opportunities to upgrade your skills and knowledge	1	2	3	4
11	Your ability to meet the needs of the community	1	2	3	4
12	Your salary	1	2	3	4
13	Employment benefits (travel allowance, bonus, etc)	1	2	3	4
14	Safety and security to live and practice in the community	1	2	3	4
15	Living accommodations for your family	1	2	3	4
16	Education for your children *If no children, write "NA" here:* _____	1	2	3	4
17	Your boss' recognition of your good work	1	2	3	4
18	Your opportunities for promotion	1	2	3	4

3.2.2 Independent variables

3.2.2.1 Gender

In many studies it is found that socio-demographic characteristics are significantly associated with outcome variable so, we include these variables to see if there is association between sex of MDs and satisfaction of job.

3.2.2.2 Knowledge of medical doctor

Some literatures revealed that knowledge of medical doctors is strongly associated with their ability to practice accordingly, so, in order to determine whether knowledge of medical doctors does influence their satisfaction of job or not we include this variable as independent variable in this study.

3.2.2.3 Inadequate transport

One of the main problems that majority of Afghan doctors who are working in the framework of Basic Package of Health Services in Afghanistan are faced with, is the availability of transport form their home to health facility and then return to home. This is especially in remote areas has considerable importance that lead to staff shortage in those facilities. In order to know its influence in medical doctor's satisfaction of job we include this variable to know its association with outcome variable.

3.2.2.4 Poor working environment

Poor environment of is one of concern of many medical doctors so, we include poor working environment to determine whether medical doctors satisfaction of job varies by doctors feeling of ease of work within the health facility.

3.2.2.5 Low salary/lack of salary

According to findings level of income is perceived as both push and retention factors for various health professionals at different levels of care in

public health sector, medical doctors tend to leave for better salaries outside the public sector and they look forward to go private sector where they will earn more. We include this variable as a main concern of many health workers to determine its association with medical doctor's job satisfaction.

3.2.2.6 Security of health facility area

Afghanistan lost many health professionals during the 30 years of conflict. Maintaining security is essential to provide sustainable health services. The deteriorating of security situation in all provinces challenges the provision of qualified health services. Insurgency related activities and violent crime have reportedly increased to threat health workers live. We want to know how does this important factor is related with medical doctor job satisfaction.

Question 197 states that, how the medical doctor rates his level of agreement or disagreement with level of security of health facility area as a difficulty to provides high quality health services. We will categorize the first and second option (strongly disagree and somewhat disagree) equal to two or not agree and the third and fourth options (somewhat agree and strongly agree) equal to one or agree.

3.2.2.7 Health facility type

There are two policies of Ministry of Public Health of Afghanistan for providing health services which are, Basic Package of Health Services provides basic health services through three levels of health facilities, Basic Health Centre (BHC), Comprehensive Health Centre (CHC) and District Hospital (DH). Essential Package of Hospital Services provides hospital services. Each has supplied, staffed and equipped accordingly. The BHC and CHC are mainly located around the cities (remote areas) and are less equipped, supplied and has a limit number of staff according to the policy. While, the District Hospital assumed as the bridge between two systems and form other hand, the district hospital located in the center of cities which supplied, equipped and staffed as a hospital

level. Considering the issues mentioned above, we will categorize the BHC and CHC as the first type facilities and District Hospital as the second type facility to see whether there is association between these two health facilities type and medical doctors' satisfaction of job.

3.2.2.8 Lack of feedback by authorities

Literatures found that lack of feedback and health workers satisfaction of job are associated as they want to be evaluated and their working importance be revealed. This variable is included to determine whether there is association between medical doctors satisfaction of job.

3.2.2.9 Caretakers delaying to bring children to health facility

This variable is included to determine how medical doctors rate their level of satisfaction with caretaker of children in delaying to bring children to health facility and know whether it is associated with doctors' satisfaction of job.

3.2.2.10 Lack of time

Studies showed that medical doctor perceived of time is considerable and should be taking in to account. It would reflect many aspects of work like; load of work, shortage of staff and some their some other concerns that, could influence their performance and consequently, quality of health care. So, considering the importance of this factor we include this variable and want to see if, it is associated with medical doctor's satisfaction of job.

3.2.2.11 Motivation

Developing the capacity of health personnel to manage and better deliver qualified health services is the commitment of the Ministry of Public Health. Their motivation through provision trainings and give them opportunities to growth their knowledge as response to burden of disease has important role in

their satisfaction of job. This variable is included to determine how medical doctors rate their level of satisfaction with motivation by authorities.

3.2.2.12 Staff shortage

Staff shortage within the health facility is strongly associated with medical doctors satisfaction of job found by studies on factors that influencing doctors perceived of work and it is challenging their ability to provide qualified services. We want to know is lack of staff is one of the determinants of satisfaction of job or not.

3.2.2.13 Lack of supplies and drugs

Government of Afghanistan is committed to provide qualified and free health care for all the people with considering the equity especially vulnerable groups. Ministry of Public Health of Afghanistan provides the primary health services through contracted out Non Government Organizations (NGO) and MoPH-SM or supportive mechanism. The list of supplies and essential drugs are specified in BPHS. The shortage of drugs and supplies is another concern of medical doctors.

3.2.2.14 Lack of equipments

We add this variable in the list of independent variables to know whether shortage of equipment is associated with medical doctors' satisfaction of job. Because, well equipped facilities will increase medical doctor's ability to diagnose patient's diseases accordingly and consequently, increase their satisfaction in term of capacity in providing health services accordingly.

3.2.2.15 Lack of supervision

Health workers are interested that their superior recognize their hard working and help them, specify weakness and strengthen points during the work which is only possible through on time supervision. It will also help them to be up to date with new information.

3.3 Research Hypothesis

1. There is a relationship between factors related to personal characteristic and medical doctors' satisfaction of job.
2. There is a relationship between factors related to health system characteristics and medical doctors' job satisfaction.

3.4 Variables Operational Definitions

Independent variables' operational definition, method and tool of measurement and scale and result of measurement are summarized in **Table 3.2**. These variables are driven from health workers interview instrument that, was measured the health workers perspective of Basic Package of Health Services in Afghanistan.

Table 3.2: Independent variables operational definition, method of measurement and scale of measurement.

No	Variable	Operational Definition	Method and Tool of Measurement	Scale of Measurement
1	Gender	Question 105 states whether the doctor is male or female	Medical Doctor were interviewed with structured questionnaire	Binary: 1=Male 2=Female
2	Knowledge	Question 112a states if lack of knowledge is a big difficulty for medical doctor in doing the job	Medical Doctor were interviewed with structured questionnaire	Binary: 1= Yes 2= No
3	Transport	Question 112d states if inadequate transport is a big difficulty in doing the job	Medical Doctor were interviewed with structured questionnaire	Binary: 1= Yes 2= No
4	Working environment	Question 112h states, if poor working environment is a big difficulty in doing the job	Medical Doctor were interviewed with structured questionnaire	Binary: 1= Yes 2= No
5	Salary	Question 112l states, if low salary/ lack of salary is a big difficulty in doing the job	Medical Doctor were interviewed with structured questionnaire	Binary: 1= Yes 2= No

Table 3.2: Independent variables operational definition, method of measurement and scale of measurement.

No	Variable	Operational Definition	Method and Tool of Measurement	Scale of Measurement
6	Security	Question 197 states, if security of health facility area makes difficulty to provide high quality services	Medical Doctor were interviewed with structured questionnaire	Binary: 1= Agree 2=Disagree
7	Facility type	Question 104 states health facility type	Asking in charge of health facility by using structured questionnaire	Binary: 1=BHC/ CHC 2= DH
8	Feedback of performance	Question 112b states, if lack of feedback of performance is a big difficulty in doing the job	Medical Doctor were interviewed with structured questionnaire	Binary: 1= Yes 2= No
9	Children bringing time to health facility	Question 112c states, if delaying in bringing children to health facility is a big difficulty in doing the job	Medical Doctor were interviewed with structured questionnaire	Binary: 1= Yes 2= No
10	Time	Question 112e states, if lack of time is a big difficulty in doing the job	Medical Doctor were interviewed with structured questionnaire	Binary: 1= Yes 2= No
11	Motivation	Question 112f states, if lack of motivation is a big difficulty in doing the job	Medical Doctor were interviewed with structured questionnaire	Binary: 1= Yes 2= No
12	Staff	Question 112g states, if staff shortage is a big difficulty in doing the job	Medical Doctor were interviewed with structured questionnaire	Binary: 1= Yes 2= No
13	Supplies	Question 112i states, if lack of supplies and drugs is a big difficulty in doing the job	Medical Doctor were interviewed with structured questionnaire	Binary: 1= Yes 2= No
14	Equipment	Question 112j states, if lack of equipment is a big difficulty in doing the job	Medical Doctor were interviewed with structured questionnaire	Binary: 1= Yes 2= No
15	Supervision	Question 112k states, if lack of supervision is a big difficulty in doing the job	Medical Doctor were interviewed with structured questionnaire	Binary: 1= Yes 2= No
16	Medical doctors' satisfaction of job index	MDs' index (q174-q192) is made of 18 items state satisfaction of job	Medical Doctor were interviewed with structured questionnaire	Binary: 0= Not satisfied 1=Satisfied

CHAPTER 4
METHODOLOGY

4.1 Study Design

Since cross sectional study can be conducted quickly and cheap and from other hand, there is no follow up, fewer resources are required to run the study, so we preferred conduct cross sectional study that, utilizes data derived from a national survey called National Health Services Performance Assessment was conducted to assess Basic Package of Health Services in Afghanistan on 2008.

The assessment included a random sample of up to 25 health facilities were implementing BPHS in each province, stratified by health facility type: Basic Health Centers (BHC), Comprehensive Health Centers (CHC) and District Hospitals (DH). Each has different staffing levels and provides different sets of services. Health workers interview instrument was conducted to know the perspective of health workers from health services. We are going to study the Medical Doctors' Satisfaction of job in relate to HWs perspective on health services.

4.2 Study Population

The original study was targeted all those health workers were adherence to the Basic Package of Health services facilities in Afghanistan included, medical doctors, nurses, midwives, auxiliary midwives, doctor assistant, vaccinator and Community Health Worker supervisor. A number of 2232 health workers were stratified in the survey sample size but, we include only 548 medical doctors in the current study were interviewed in the original survey.

4.3 Study sample size

National Level Health Worker Satisfaction has been approximately the same since 2006 to 2008. To calculate the sample size for this study we can use **Formula 1** by referring to the result of same survey of the previous round (2007) which showed the satisfaction level 69%. Since the sample size of medical doctors should be included in sample is equal to almost 444 therefore we include all 548 medical doctors that were interviewed in National Health Services Performance Assessment round of 2008.

Formula 4.1: sample size calculation for difference in proportion for cross-sectional study. The level of satisfaction is 69% which is derived from National Health Services Performance Assessment.

$$n = \frac{\left(Z_{\alpha/2} + z_{\beta}\right)^2 (\bar{p})(1-\bar{p})(r+1)}{(d^*)^2(r)}$$

$$P_1 = p_0 RR$$

$$\bar{p} = \frac{p_1 + (r\,p_0)}{1+r}$$

$$n = \frac{(1.96 + 0.84)^2(0.61)(1-0.61)(0.72+1)}{(0.1)^2(0.72)} = 444.336$$

Table 4.1: sample size calculation formula items are defined below

Symbols	Definitions
n	Number of samples in exposed group
α	Level of significance
1-β	Power
p_1	Proportion of exposed who developed the condition
p_0	Proportion of unexposed who developed the condition
d^*	Magnitude of difference ($p_1 - p_0$) one wishes to detect
r	Ratio between number of unexposed individuals to number of exposed individuals (RR= preventable ratio)

Source: methods in observational epidemiology, second edition Jennifer L. Kelsey, Oxford

4.4 Data Collection Method

4.4.1 Instrument

Health worker interview was done using structured questionnaire (**Appendix 2**) to monitor health workers perspective of health services.

4.4.2 Study Teams

Study teams were including staff from the MoPH, from the central and provincial administrations, locally recruited data collectors, and members of JHBSPH and IIHMR. Teams were trained and tested to be data collectors, supervisors, monitors and master trainers, or regional coordinators. Others were trained to edit forms and enter data. Field data collector team included a supervisor, field editor and two surveyors.

4.4.3 Field Test

To insure the ability of data collection team, before the original study a field test was conducted in Kabul's health facilities. The teams tested their ability how to collect data. The data were just used to find and avoid discrepancies during the study and to improve the knowledge of data collection team.

4.5 Sampling

4.5.1 Sampling health facilities

The original survey included a random sample of up to 25 health facilities were implementing Basic Package of Health Services in each province, stratified by health facility type, Basic Health Centres, Comprehensive Health Centres and District Hospitals. Each has different staffing levels and provides different sets of services. A sampling frame of facilities was created for each province by first compiling the MoPH list of facilities from Kabul, and updating them with the

Provincial Health Directors and key informants from NGOs in each province to remove non-existent facilities, add new ones, and find their correct names and locations. Facilities deemed unsafe for travel were removed from the sampling frame.

The following steps are taken to sample the health facilities in each of 5 provinces.

1. Facilities were surveyed include:
    a. 3 DHs
    b. 7 CHCs
    c. 15 BHCs
2. A simple random sampling was applied to select targeted number of specific health facility type, if fewer than above in any province, all the facilities were included.
3. Two additional health facilities were selected as backup to replace facilities that could not be surveyed due to security or any other reasons.

4.5.2 Health workers sampling

Simple random sampling were applied to include Medical Doctors within the sample considering, the ethical issues. Consent was obtained. The study included interview of two facility based medical doctors in each of the selected Basic Health Centers, Comprehensive Health Centers and Districts Hospitals. If there were fewer doctors in a health facility, then the exits doctor was interviewed.

4.6 Ethical Considerations

Permission was obtained from the MoPH to conduct the study. Personal consent (**Appendix 1**) was obtained from the individuals to participate in the study after the purpose and significance of the study was explained to the participants. Participations could withdraw from interviews at any time if they wished.

4.7 Data Processing and Analysis

The data will be analyzed using stata10 statistical software. It will be done in to tow stapes. Firstly descriptive analysis will be done to see how the variables are varies in their distribution and will be revealed in frequency and percentage. In the second step we will apply fishers' exact test for bivariate analysis and logistic regression for multivariate analysis to see the association between independent variables and outcome variable (MDs' satisfaction of job).

4.7.1 Descriptive statistics

For this study the description of data include medical doctor satisfaction of job index (dependent variable) and factors associated with medical doctors satisfaction of job; socio-demographic and personal characteristics of medical doctors and health system related characteristics. Mean and standard deviation will be calculated for dependent variable and frequency and percentage will be calculated for all categorical independent variables.

4.7.2 Analytic statistics

By using fisher's exact test we will analyze each independent variable with dependent variable and see the association and their confidence level. Logistic regressions will be used to find the effect of independent variables all together. We will incorporate variables based on having a p value ≤ 0.25 as a result of biivariate analysis. We plan to have a substantial model for further analysis.

CHAPTER 5
RESULT

This study was a cross sectional study that used secondary data from a national survey called, National Health Services Performance Assessment (NHSPA) which was conducted on 2008 to assess the Basic Package of Health Services (BPHS) in Afghanistan. The sample size of current study included of 548 medical doctors who were adherent to health facilities working in the framework of BPHS in Afghanistan. These respondents were asked to give information about their socio-demographic and personal characteristics, health system related characteristics and job satisfaction using health workers questionnaire.

5.1Descriptive Analysis

Descriptive analysis of this study is presented into three parts. Firstly, we presented the descriptive analysis of medical doctor's satisfaction of job index or outcome variable. In the second part we presented the descriptive analysis of socio-demographic and personal characteristics of MDs satisfaction of job and after that the health system related characteristics of medical doctor's satisfaction of job respectively.

5.1.1 Medical doctor's satisfaction of job index

A scale of medical doctor satisfaction of job developed from eighteen items included question number 174 – 192 that measure medical doctor's satisfaction of job. The eighteen items (**Appendix 4**) are statements were answered by each respondent medical doctor. Their 18 scores were added together to give a score ranging from 18 - 72. Score for each medical doctor was reduced by 18 points such that a medical doctor with one (very unsatisfied) for all eighteen questions could be considered as 0 and a medical doctor with four (very satisfied)

on every question could be considered as 54. The effective range was reduced to 0-54.

A simple index was calculated for each medical doctor by dividing each individual score by 54. The four possible scores for each were 0, 0.33, 0.66 and 1 corresponding to four possible responses, which were, 1, 2, 3 and 4 respectively. Since, the distribution of medical doctors (**Appendix 4**) showed almost a normal distribution and we selected the mean (0.689) of the this distribution as cut off point to categorize the individuals in to two categories, if less than the mean were categorized as the not satisfied and if equal or greater than the mean were categorized as satisfied. **Table 5.1** summarizes the medical doctor's satisfaction of job index.

Table 5.1: Summary of medical doctor satisfaction of job index

Medical Doctors Satisfaction of job summary					
Variable	**Obs.**	**Mean**	**SD**	**Min**	**Max**
Medical Doctors Satisfaction of job Index	**548**	**0.6890376**	**0.135**	**0.315**	**1**

After categorizing the medical doctor satisfaction index showed in **Table 5.2,** we see that from a total of 548 individuals, who showed not satisfaction with their job are 295 (53.8%) and 253 (46.17%) showed satisfaction with their job.

Table 5.2: Shows the distribution and percentages of medical doctor satisfaction of job index categories

Medical Doctors Satisfaction Index distribution and percentage		
Categories	**Freq.**	**Percent**
Not Satisfied	**295**	**53.83**
Satisfied	**253**	**46.17**
Total	**548**	**100**

5.1.2 The socio-demographic and personal characteristics

Respondents were asked to provide their socio-demographic and personal characteristic information that were composed of gender, lack of knowledge, inadequate transport, low salary/lack of salary and lack of security. Table 5.3 gives the descriptive analysis of socio-demographic and personal characteristics of MDs. These items were generally measured on a categorical scale.

Out of 548 MDs were included in the study 461(85.12%) were males and 76 (13.87%) were females. Twenty eight (13.87) MDs stated lack of knowledge as a biggest difficulty in doing the job and 519 (94.71%) others did not assume it as a big difficulty in doing the job. In term of inadequate transport 201 (36.68%) answered it as a difficulty in doing the job while 346 (63.14) were not agree. Two hundred ninety seven (54.2%) said that low/ lack of salary can be considered a big difficulty in doing the job while the rest 250 (45.62) did not considered as a big difficulty in doing the job. Out of all those selected participants 166 (30.29%) answered the security of health facility area as a biggest difficulty in doing the job and the rest 381 (69.53%) did not considered it as a difficulty.

Table 5.3: Number and percentage distribution of socio-demographic characteristics of MD's job satisfaction.

Variable	Number	Percent
Sex of the medical doctor		
Male	**461**	**84.12**
Female	**76**	**13.87**
Lack of knowledge		
Yes	**28**	**5.11**
No	**519**	**94.71**
Inadequate transport		
Yes	**201**	**36.68**
No	**346**	**63.14**
Low salary/lack of salary		
Yes	**297**	**54.2**
No	**250**	**45.62**
Security of health facility area		
Agree	**166**	**30.29**
Disagree	**381**	**69.53**

The percentage may not add up to 100% due to missing values.

5.1.3 Health system related characteristics

The characteristics related to health system were composed of facility type, lack of feedback, care taker delaying for bringing the children to health facility, lack of motivation, staff shortage, lack of supplies and drugs, lack of equipment and lack of supervision. The 548 medical doctors were asked for this aspect. **Table 5.4** explains descriptive statistics of health system related characteristics of MD's satisfaction of job.

Of the 548 health facilities were included in the study 477 (87.04%) were BHCs/ CHCs and 71 (12.96%) were DHs. Twenty nine (5.29%) answered for the statement of; if lack of feedback of performance is a difficulty in doing the job and 518 (94.53) did not. Out of all respondents 27 (4.93%) were agreed with caretaker delaying to bring the children too late to health facility and 520 (94.89%) did not consider this issue as a difficulty. Of the 548 MDs 28 (5.11%) stated that lack of time is one of the biggest difficulty in doing the job that can influence their job while, 519 (94.89%) did not stated that lack of time influencing their job. Analysis showed that 108 (19.71 %) study participants were agreed with lack of motivation and 439 (80.11%) others were not agreed to consider it as difficulty in doing the job.

One hundred eighty five (33.76%) was complained from staff shortage as a problem within health facility while, 362 (66.06%) did not. In order to explore if the poor working environment of health facility can be a big difficulty in doing the job, 69 (12.59%) participants replied yes to this question and four hundred and seventy eight (87.23%) did answered no to this question. Of the all study subjects, 218 (39.78%) said that lack of supplies and drugs is influencing their work as a big difficulty in doing the job and 329 (60.04%) others were not agree with yes to this question. Also, 75 (13.69%) said that lack of equipment is affecting their work as big difficulty and 472 (86.13%) others were not agree to state lack of equipment as big difficulty. Twenty (4.56%) assumed that lack of supervision to be one of the biggest difficulty in doing the job for them and 522 (95.26%) did not assume it as a big difficulty.

Table 5.4: Number and percentage distribution of health system related characteristics of MD's satisfaction of job.

Variable	Number	Percent
Health facility type		
BPHS	**477**	**87.04**
EPHS	**71**	**12.96**
Lack of feedback of performance		
Yes	**29**	**5.29**
No	**518**	**94.53**
Caretakers bring children to clinic too late		
Yes	**27**	**4.93**
No	**520**	**94.89**
Lack of time		
Yes	**28**	**5.11**
No	**519**	**94.71**
Lack of motivation		
Yes	**108**	**19.71**
No	**439**	**80.11**
Staff shortages		
Yes	**185**	**33.76**
No	**362**	**66.06**
Poor working environment		
Yes	**69**	**12.59**
No	**478**	**87.23**
Lack of supplies and drugs		
Yes	**218**	**39.78**
No	**329**	**60.04**
Lack of equipment		
Yes	**75**	**13.69**
No	**472**	**86.13**
Lack of supervision		
Yes	**25**	**4.56**
No	**522**	**95.26**

The percentage may not add up to 100% due to missing values.

5.2 Analytic Statistics

Analytic statistics were done in two phases; firstly the individual association of each independent variable was analyzed with outcome variable (MD's satisfaction of job) by using of fisher's exact test and in the second phase the effect of all independent variables together with outcome variable was analyzed by using logistic regression model.

5.2.1 Bivariate analysis

We presented the bivariate analysis result in to tow steps; firstly we would like to present the result of bivariate analysis of socio-demographic and personal characteristics and MDs satisfaction of job and later the bivariate analysis of health system related characteristic and MDs' satisfaction of job.

5.2.1.1 Socio-demographic and personal characteristics

The results of the bivariate analysis using fisher's exact test for assessment of association of each of independent variable of socio-demographic and personal characteristics with outcome variable (satisfaction of job) are shown in table 5.5.

In particular, 53.2% of male doctors and 55.3% of female doctors showed dissatisfaction with job. Since, the difference between proportions of these two categories did not show statistically significant (p value=0.438) association. So, there is no association between medical doctor gender and dissatisfaction with job. May due to small number of female doctors in the sample size, the association was not found.

Lack of knowledge was known as a biggest difficulty in doing the job by 64.29% of doctors that were not satisfied with job while, 53.18% who did not state the lack of knowledge as a biggest difficulty in doing the job also, showed dissatisfaction with job. Difference between tow proportions did not show statistically significant (p value=0.331) association. It means that, there is no association between lack of knowledge and dissatisfaction with job.

The result showed that there is no association between inadequate transport and not being satisfied with job. Medical doctors who were stated the inadequate transport as one of the biggest difficulty in doing the job and were not satisfied with the job were 58.71%, and doctors who did not assumed inadequate transportation as a biggest difficulty and showed dissatisfaction with job were 50.87%. The difference between these two proportions did not show statistically

significant (p value =0.091) association. Therefore, there is no association between inadequate transport and dissatisfaction with job.

Medical doctors that stated poor working environment within the health facility as one of the biggest difficulties and were not satisfied with job constituted 63.77% while, 52.3% others did not state it as a biggest difficulty and were not satisfied with job. The difference between two proportions did not show statistically significant (p value =0.093) association. So, we can claim that there is no association between poor working environment and not being satisfied with job.

Doctors that assumed low salary/ lack of salary as biggest difficulty in doing the job and showed un satisfaction with job were 63.6% and others who did not assume it as biggest difficulty in doing the job and showed un satisfaction with job were 42%. The difference between two proportions shows that there is statistically significant (p value =0.001) association. So, we can claim that there is strongly association between low salary/ lack of salary and not being satisfied with job.

Doctors with stating unsecure situation within health facility area and not being satisfied with job were constituted 65.7% of all sample size; other doctors who did not state security of health facility area as a biggest difficulty in doing the job but were not satisfied with job were constituted 48.8%. Difference between two proportions shows that there is statistically significant (p value=0.001) association. It can prove to claim that there is association between unsecure situation within the health facility area and dissatisfaction with job.

5.2.1.2 Health system related characteristics

Bivariate analysis of health system related characteristics with outcome variable (MDs satisfaction of job) are shown in **table 5.5.**

In term of health facility type from all doctors worked in the Basic Health Centre and Comprehensive Health Centers (BHC/CHC) 52.2% were not satisfied with their jobs while, doctors that worked in the District Hospitals (DH) 64.8% were not satisfied with their job. Difference between these two proportion showed statistically significant (p value =0.031) association. The result has shown that there is association between working within difference type of health facilities (BHC/CHC and DH) and not being satisfied with job.

In regard to lack of feedback of performance by authorities, medical doctors that stated it as one of the biggest difficulty in doing the job and were not satisfied with job were 72.4% while, 52.27% were others that, did not state it as a biggest difficulty in doing the job and were not satisfied with job. The difference between two proportions shows statistically significant (p value=0.054) association, therefore we can claim that there is association between lack of feedback of performance and not being satisfied with job.

Caretakers of children bring children too late to health facility were stated by 44.44% of MDs who also were not satisfied with job and there were 54.23% others while, did not state that caretakers of children bring children too late to health facility but also showed that were not satisfied with their job. The difference between two proportions showed that there is no statistically significant (0.376) association. So, we can say there is no association between not being satisfied with job and delaying of caretakers to bring their children too late to health facility.

In particular 60.71% of doctors stated lack of time, as a biggest difficulty in doing the job and were not satisfied with job while, 53.37% who did not states lack of time as a biggest difficulty in doing the job but showed dissatisfaction with job. Difference between tow proportions did showed statistically significant (p value=0.56) association. Therefore, we could not claim existence of association between lack of time and dissatisfaction with job.

We could find that, there is association between lack of motivation of MDs by authorities and job dissatisfaction. Medical doctors who stated the lack of motivation as one of the biggest difficulty in doing the job and were not satisfied with the job were 70.37%, and doctors who did not assume lack of motivation as a biggest difficulty in doing the job and showed dissatisfaction with job were 49.66%. According to difference between proportions we can see that there is statistically significant (p value=0.001) association.

There are 50.81% of doctors that assumed staff shortage as a biggest difficulty in doing the job and showed dissatisfaction with job and 55.25% that did not state it as biggest difficulty in doing the job but showed dissatisfaction with job. Difference between two proportions could not prove statistically significant (p value=0.388) association. It means that, there is no association between staff shortage within the health facility and doctor's dissatisfaction with job.

Medical doctors that stated lack of supplies and drugs within the health facility as one of the biggest difficulty in doing the job and were not satisfied with job were 66.51% while, 45.29% of others did not state it as a biggest difficulty in doing the job but also were not satisfied with job. The difference between two proportions showed statistically significant (p value=0.001) association, so there is association between lack of supplies and drugs and not being satisfied with job.

There were 72% of doctors that stated lack of equipment, as a biggest difficulty in doing the job and were not satisfied with job while, 50.85% who did not state lack of equipment as a biggest difficulty in doing the job but, showed dissatisfaction with job. Difference between tow proportions proved statistically significant (p value=0.001) association, therefore there is association between lack of equipment and dissatisfaction with job.

Lack of supervision was known as a biggest difficulty in doing the job by 72% of MDs that was not showed satisfaction with job and 52.68% did not stated

it as big difficulty in doing the job but showed dissatisfaction with job too. Difference between tow proportions has shown that there is statistically significant (p value=0.031) association. So, there is association between lack of supervision and dissatisfaction with job.

Based result, we could find that, low/ lack of salary (p value=0.001), security of health facility area (p value=0.001), in term of working in the BHC/CHC or DH (p value=0.031), lack of feedback of performance by authorities (p value=0.054), lack of motivation (p value=0.001), lack of supplies and drugs (p value=0.001), lack of equipment (p value=0.001), lack of supervision (p value=0.031) are factors that are shown statistically significantly association with medical doctors satisfaction of job and are candidate for multivariate analysis.

From other hand seven other variables include gender of medical doctor (p value=0.438), lack of knowledge (p value=0.331), inadequate transport (p value 0.091), poor working environment within the health facility area (p value =0.0931), caretaker of children delaying to bring children to health facility (p value=0.0376), lack of time (p value=0.56) and staff shortage (p value=0.388) are factors that did not showed significant association with medical doctors satisfaction of job.

We incorporated variables for further analysis based on having a p value ≤ 0.25 as a result of bivariate analysis. In this case two variables; include inadequate transportation with a p value=0.091 and poor working environment within the health facility area with a p value=0.0931 were candidates for multivariate analysis.

Table 5.5: Bivariate analysis of independent variables and MDs satisfaction

Variables	Medical Doctor's Job Satisfaction				P-value
	Not satisfied		Satisfied		
	N	%	N	%	
Sex of the medical doctor					0.438
Male	245	53.2	216	46.85	
Female	42	55.3	34	44.74	
Lack of knowledge					0.331
Yes	18	64.29	10	35.71	
No	276	53.18	243	46.82	
Inadequate transport					0.091
Yes	118	58.71	83	41.29	
No	176	50.87	170	49.13	
Poor working environment					0.093
Yes	44	63.77	25	36.23	
No	250	52.3	228	47.7	
Low salary/lack of salary					0.001
Yes	189	63.6	108	36.4	
No	105	42.0	145	58.0	
Security of health facility area					0.001
Agree	109	65.7	57	34.3	
Disagree	186	48.8	195	51.2	
Health facility type					0.031
BHC/CHC	249	52.2	228	47.8	
DH	46	64.8	25	35.2	
Lack of feedback of performance					0.054
Yes	21	72.4	8	27.6	
No	273	52.27	245	47.3	
Caretakers bring children too late to HF.					0.376
Yes	12	44.44	15	55.56	
No	282	54.23	238	45.77	
Lack of time					0.56
Yes	17	60.71	11	39.29	
No	277	53.37	242	46.43	
Lack of motivation					0.001
Yes	76	70.37	32	29.63	
No	218	49.66	221	50.34	
Staff shortages					0.388
Yes	94	50.81	91	49.19	
No	200	55.25	162	44.75	
Lack of supplies and drugs					0.001
Yes	145	66.51	73	33.49	
No	149	45.29	180	54.71	
Lack of equipment					0.001
Yes	54	72	21	28	
No	240	50.85	232	49.15	
Lack of supervision					0.031
Yes	19	76	6	24	
No	275	52.68	247	47.32	

The percentage may not add up to 100% due to missing values.

5.2.2 Multivariate analysis

Logistic regression model was fitted to assess the association between doctor's satisfaction of job and independent variable all together. Based finding from bivariate analysis we include all significant variables and those variables that their significance level were ≤ 0.25. Table 5.6 gives the result of the first logistic regression model. The log likelihood for this model was = -343_14908

Table 5.6: Multivariate analysis of factors associated with MD's dissatisfaction of job. **Model 1**

Variable	OR	CI (95%)		p value
		Lower	Upper	
Health facilities type				
• **BHC/CHC**	**0.68**	**0.389**	**1.195**	**0.18**
• **DH**	**1.0**			
Lack of feedback				
• **Yes**	**1.70**	**0.696**	**4.152**	**0.24**
• **No**	**1.0**			
Inadequate transportation				
• **Yes**	**1.03**	**0.697**	**1.524**	**0.88**
• **No**	**1.0**			
Lack of motivation				
• **Yes**	**1.63**	**0.996**	**2.670**	**0.05**
• **No**	**1.0**			
Health facility poor environment				
• **Yes**	**1.40**	**0.792**	**2.478**	**0.25**
• **No**	**1.0**			
Lack of supplies and drugs				
• **Yes**	**1.92**	**1.312**	**2.804**	**0.00**
• **No**	**1.0**			
Lack of equipment				
• **Yes**	**1.91**	**1.075**	**3.398**	**0.03**
• **No**	**1.0**			
Lack of supervision				
• **Yes**	**1.43**	**0.527**	**3.889**	**0.48**
• **No**	**1.0**			
Low salary/ lack of salary				
• **Yes**	**1.93**	**1.329**	**2.815**	**0.00**
• **No**	**1.0**			
Security of health facility area				
• **Agree**	**1.54**	**1.032**	**2.295**	**0.03**
• **Disagree**	**1.0**			

We excluded variables; inadequate transport, lack of supervision, poor work environment, health facility type and lack of feedback based on their greater level of not being significant in each of the second, third, fourth and fifth models respectively. After running the fifth model we could find that there are five statistically significant variables which are summarized in Table 5.7. The log likelihood for this model was = -344_2755.

Table 5.7: Multivariate analysis of risk factors associated with medical doctors dissatisfaction of job (n=548). **Model 6**

Variable	OR	CI (95%)		P value
		Lower	Upper	
Lack of motivation				
• **Yes**	**1.72**	**1.063**	**2.787**	**0.027**
• **No**	**1.0**			
Lack of supplies and drugs				
• **Yes**	**1.93**	**1.328**	**2.814**	**0.001**
• **No**	**1.0**			
Lack of equipment				
• **Yes**	**2.00**	**1.133**	**3.524**	**0.017**
• **No**	**1.0**			
Low salary/ lack of salary				
• **Yes**	**2.00**	**1.362**	**2.833**	**0.001**
• **No**	**1.0**			
Security of H. Facility area				
• **Yes**	**1.60**	**1.078**	**2.367**	**0.020**
• **No**	**1.0**			

The finding from fifth logistic regression model is summarized in the following:

After controlling all other variables, doctors that assumed lack of motivation by authorities as a big difficulty in doing the job, were 1.72 (adjusted OR= 1.72, 95% CI: 1– 2.8) times more likely to be unsatisfied with their job compared to doctors who did not assumed lack of motivation as a big difficulty.

After controlling all other variables MDs that assumed lack of supplies and drugs within the health facility as a big difficulty in doing the job, were 1.93

(adjusted OR= 1.93, 95% CI: 1.3– 2.8) times more likely to be not satisfied with their job compared to doctors who did not assume it as a difficulty in doing the job.

MDs that stated lack of equipment within the health facility as one of the biggest difficulty in doing the job, were 2 (adjusted OR= 2, 95% CI: 1.1– 3.5) times more likely to be unsatisfied with their job compared to other doctors that were not assumed lack of equipment as a big difficulty in doing the job.

MDs that stated low salary/ lack of salary as one of the biggest difficulty in doing the job, were 2 (adjusted OR= 2, 95% CI: 1.3– 2.8) times more likely to be unsatisfied with their job compared to doctors who were not assumed low salary/ lack of salary as a big difficulty in doing the job.

After controlling all other variables MDs that stated unsecure situation within health facility area as one of the biggest difficulty in doing the job were 1.6 (adjusted OR= 1.6, 95% CI: 1–2.4) times more likely to be unsatisfied with their job compared to doctors who did not stated unsecure situation within the health facility area as one of the biggest difficulty in doing the job.

CHAPTER 6
DISCUSSION

We conducted this study in order to measure the level of job dissatisfaction among medical doctors working in framework of BPHS in Afghanistan. Moreover, this study was intended to determine the association between socio-demographic and personal characteristics and health system related characteristics with medical doctors' job satisfaction, further to detect mainly influential factors with medical doctors job satisfaction.

Based findings from 548 medical doctors were interviewed 53.83% were not satisfied with job. It shows a high level of dissatisfaction with job. However numerous studies in different parts of the world have been done to assess MD's job satisfaction. In the current study, variables such as the low salary/ lack of salary, lack of equipment, lack of supplies and drugs, lack of motivation and unsecure situation within health facility area were seen to have a significant influence on job dissatisfaction.

6.1Medical Doctors Satisfaction of Job Index

The study showed that almost half of participants were dissatisfied with their job. Job dissatisfaction among medical doctors working in the framework of BPHS is a reason for concern, given that job satisfaction has implications for the efficiency, effectiveness and sustainability of the Afghanistan health system. The results suggest that working conditions at Basic Package of Health Services do not meet the values and aspirations of medical doctors properly.

Health workers' number, quality and type of professionalism determine health care output and productivity. Because of the interactive nature of health workers, local organizational and broader sector policies have the potential to affect their satisfaction, either positively or negatively, and as such to influence health system performance (HRH Working Group, 2004).

According to David Grembowski et al, 2003, physician satisfaction is important because it contributes to the quality of health care. Greater physician satisfaction is associated with appropriate prescribing practices, patient adherence, and greater patient satisfaction. Physician satisfaction also results in fewer turnovers, which contributes to patient's continuity of care, patient satisfaction and retention, and lower administrative costs of recruiting and replacing physicians.

Certainly, poor satisfaction with job, results inappropriate adherence to job and defined standards performance. It leads to inaccessibility of care and inappropriate care, which thus contribute to reduced health outcomes as people are not using services or are mistreated due to harmful practices.

A study in Pakistan (Ali khan Khwaja, et al) states that, delivery of high-quality medical care contributes to improve health outcomes. Doctor's job satisfaction affects quality of medical services that he/she provides patient's satisfaction with the doctor, patient's adherence to treatment and decreases doctor's turnover. Job dissatisfaction leads to poor performance at work and negatively affects the health of an individual. Stress is inherent in medical career, and leads to poor quality of care, affects career longevity, and causes personal distress. Evidence showed that, dissatisfied physicians were much more likely to report difficulties in caring for patients, continuing good doctor-patient relationship, spending adequate time with patients, and providing quality care.

Findings of study by Ayers (K. M. S. Ayers et al, 2010) suggests that the work environment should motivate employees to perform at their best and show commitment to the organization, enhancing work conditions to support the organization's mission and thus impacting on job satisfaction. The conditions under which jobs are performed can have as much impact on people's effectiveness, comfort and safety as the intrinsic details of the task itself.

In this study variables such as income, lack of motivation and lack of supplies are variables that known to be associated with MDs job satisfaction.

Similar findings were observed in the job satisfaction study among Serbian healthcare workers. According to the authors, a possible explanation of these findings is that political, social and cultural transition in Serbia combined with the impact of conflict resulted in a deterioration of all aspects of life.

Evidence showed that poor health-worker practices contribute to low use of health facilities by vulnerable populations, and improved performance might increase use of health services. According to findings (Alexander, 1995) the problem of inadequate health-worker performance in low and middle income countries is particularly urgent. Millions of children and adults die prematurely each year even though many interventions exist that can prevent such deaths, and health workers are essential for delivering these life-saving interventions.

6.2 Factors Associated with MDs Job Satisfaction

We discuss the association of independent variables with MDs' satisfaction of job in to tow steps; firstly we would like to discuss the socio-demographic and personal characteristics and MDs satisfaction of job and later the health system related characteristic and MDs' satisfaction of job.

6.2.1 Socio-demographic characteristics

In particular, 53.2% of male doctors and 55.3% of female doctors showed dissatisfaction with job. Since, the difference between proportions of these two categories did not show statistically significant (p value=0.438) association. So, we could say there is no association between gender of medical doctor and dissatisfaction with job. May due to small number of female doctors in the sample size, the association was not found.

Our finding in this study is consisting with findings of study of Job Satisfaction of Primary Health Care Physicians in Kuwait showed that; there was no significant difference in overall job satisfaction for gender. Study was consisting of 55% male and 45%female.

Also, study of health assessment for human resource, (2009) in Pakistan stated that, there were no significant differences seen in the responses for work environment across age or gender subcategories among medical doctors in Pakistan.

This study, didn't find statistically significant association between lack of knowledge and dissatisfaction with job. The reason might be avoidance of medical doctors to say, lack of knowledge is a big problem during medical practice.

Lack of transport and dissatisfaction with job was another variable that we did not fine its association with medical doctor's dissatisfaction of job. Lack of transport is of one the challenges in remote areas. Where, arduousness and impracticable ways challenged our health system that, lead to not accessibility of patients and also result shortage of medical doctors in the remote area.

Poor working environment is, said to be of concern in many literatures and studies in related to medical doctor's job dissatisfaction. In this study poor working environment was not associated with medical doctor's job dissatisfaction. Study of Low Job Satisfaction among physicians in Egypt (Amira Gamal Abdel Rahman, et al,) found that, only 42.9% of the physicians' reported job satisfaction. Relationship with colleagues was the most important component of satisfaction.

Our finding showed that, doctors were strongly dissatisfied with their income (low salary/ lack of salary) and known it as one of the biggest difficulties in doing the job. Individuals that were not satisfied with their income showed that are 2 times more likely to be unsatisfied with their job compared to doctors who were not assumed low salary/ lack of salary as a big problem.

Our findings is supportive of a study (Alai Khwaja et al, 2004) in Pakistan found the factors were associated with satisfaction of job among doctors were

working at three teaching hospitals in Karachi. Findings showed that, the levels of satisfaction for workplace characteristics and job stress among doctors was very low. Majority (68%) of the doctors was not satisfied with their jobs. Lowest scores were found for pay and benefits (OR=2.12, SE 0.8).

Our findings is similar with findings in study of Correlates of Job Satisfaction of Medical Officers (Chaudary et al, 2004) in India explained that, the major finding of the study was that there is a rather low level of job satisfaction among defense medical officers. Inadequate pay and allowances was mentioned by 48.7% subjects as a factor contributing towards job dissatisfaction.

Of the many aspects of job satisfaction investigated in recent years, satisfaction with pay appears to be the most deserving of special attention. Studies have reported that income is a major component determining job satisfaction.

The important point is the impact of condition of public services and movement of health workers between the public and the private health sector. Health professionals resign to look for better opportunities. Health workers tend to leave for better salaries outside the public sector and they look forward to go private where they will earn more. There is a wide range of reasons why health workers leave their jobs, and financial reasons are often not the only reasons.

There is a strong connection between feeling secure and saying one is satisfied with a job. Physicians who stated that their job is secure have a much larger probability of reporting themselves happy with their work. The findings from this study indicate that 30.29% of respondents were stated unsecure situation within health facility area as one of the biggest difficulties in doing the job and were 1.6 (adjusted OR= 1.6, 95% CI: 1–2.4) times more likely to be unsatisfied with their job compared to doctors who did not. Finding from study among doctors of three teaching hospitals in Karachi (AKU 2002) is said that, Job dissatisfaction and stress among doctors affect the quality of health care. We assessed the levels of satisfaction for workplace characteristics and job stress

among doctors. Majority (68%) of the doctors was not satisfied with their jobs. Lowest scores were found for safety and security (2.15, SE 0.8).

Many studies have shown that level of security significantly reduces job satisfaction and turnover of medical doctors. According to the Maslow's theory, once physiological needs become gratified, the safety, or security, needs become predominant. These needs are essentially the need to be free of the fear of physical danger and deprivation of the basic physiological needs. In other words, this is a need for self-preservation. In addition to the here and now, there is a concern for the future. Will doctors be able to maintain their property and/or job so they can provide food and shelter tomorrow and the next day? If a doctor's safety or security is in danger, other things seem unimportant.

6.2.2 Health system related characteristics

In term of health facility type there was no significant difference between medical doctors' satisfaction who were working in Basic Health Centres (BHC) and Comprehensive Health Centres (CHC) in compare to doctors who were working in Distract Hospitals. A similar finding (Stefanie Mache et al, 2009) was revealed that, several aspects of physicians' perceived working conditions differ significantly depending on hospital ownership. However, results also indicated that physicians' job satisfaction does not vary between different types of hospital.

Lack of feedback was not found to be a significant variable in our study in multivariate analysis. There was significant association between lack of feedback and medical doctor's dissatisfaction of job in bivariate analysis.

Caretakers of children bring children too late to health facility were stated by 44.44% of MDs who also were not satisfied with jobs and there were 54.23% others while, did not state that caretakers of children bring children too late to health facility but showed that were not satisfied with their job. The difference between two proportions showed that there is no statistically significant (0.376) association. So, we can say there is no association between not being satisfied

with job and delaying of caretakers to bring their children too late to health facility.

In result of fisher's exact test it was found that particular 60.71% of doctors stated lack of time, as a biggest difficulty in doing the job and were not satisfied with job while, 53.37% who did not states lack of time as a biggest difficulty in doing the job but showed dissatisfaction with job. Difference between tow proportions did not showed statistically significant (p value=0.56) association. Therefore, we could not find existence of association between lack of time and dissatisfaction with job.

But it is in contrary with study of factors influencing job satisfaction among health workers in South Africa which revealed that, not having sufficient time with patients made medical doctors dissatisfied with job. Dissatisfaction with the amount of time spent with patients expressed by healthcare professionals may indicate concerns about autonomy. Literature shows that perceived time pressure is associated with low job satisfaction among healthcare professionals.

In the current study the level of dissatisfaction with job was increased with the lack of motivation by authorities. We found that doctors who assumed lack of motivation by authorities as a big difficulty in doing the job, were 1.72 (adjusted OR= 1.72, 95% CI: 1– 2.8) times more likely to be unsatisfied with their job compared to doctors who did not assumed lack of motivation as a big difficulty.

This result is consistent with other studies assessed this association. The study of Motivation and job satisfaction among medical and nursing staff in a Cyprus Public General Hospital (Persefoni Lambrou et al, 2010) revealed that achievements were ranked first among the four main motivators, followed by remuneration, co-workers and job attributes. The factor remuneration revealed statistically significant differences according to gender, and hospital sector, with female doctors and nurses and accident and emergency outpatient doctors reporting greater mean scores ($p < 0.005$). The medical staff showed statistically significantly lower job satisfaction compared to the nursing staff.

In the study of physicians of three academic medical centers in Germany and the United States, two countries whose differing health care systems experience similar problems in maintaining their physician workforce. The study revealed that German physician respondents were less satisfied overall than their U.S. counterparts. In countries, job security, motivation, access to specialized technology, financial incentives, interaction with colleagues were important predictors of overall job satisfaction.

We couldn't find association between staff shortage within the health facility and doctor's dissatisfaction with job which is not similar with findings of a study (ULLA SAXE´N et al,) in Fenland. They determined how a shortage of physicians at Finnish health centers has affected the job satisfaction of the entire staff. Staffs at health centers with the most severe shortage of physicians were less satisfied with the management of the organization. Employees at health centers with a minor shortage of physicians were more satisfied with the quality of services in their operational unit.

The shortage of physicians had no impact on staff satisfaction regarding the operation of their work unit, the strain of dealing with issues within their work environment, feelings of stress, the strain of working under pressure that they experienced, or interest in finding a new job. It also added that, the shortage of physicians has only a slightly negative impact on their satisfaction. Literatures revealed that, the shortage of physicians are related to a lower level of satisfaction. It seems that, faced with severe physician shortages, health centres are forced to use resources to ensure the quantitative adequacy of services at the expense of quality.

It has been reported in different studies that the lack of supplies revealed higher degree of dissatisfaction with job. In this study lack of supplies as health system related, factor was significantly associated (OR=1.93, CI: 1.3-2.8) with medical doctor's dissatisfaction with job. Comparative studies were done to determine the factors were associated with medical doctor's job satisfaction, showed the same result for shortage of supplies and being dissatisfied with job.

Similar Findings in another study (Koji Wada et al, 2009) showed that Job satisfaction among physicians was associated with income fairness for both men (OR=1.31) and women (OR= 1.35) also, for men job satisfaction was associated with good hospital resources (OR=1.45)

The findings from this study indicate that, lack of equipment within the health facility was another strong significant variable (OR=2, CI: 1.1-1.5) which was leaded the medical doctors to be unsatisfied with their job, Similarly to the findings another study on job satisfaction among physicians worked in primary health care in Bangladesh (BRAC 2007) found that, lack of equipment and resources, were significantly affected doctor's satisfaction and were resulted absence of doctors and poor performance.

In another study among health workers of Muhimbli hospital in Tanzania (Kolstad, 2010) reported that, almost half of both doctors and nurses were not satisfied with their jobs. This dissatisfaction was multi-factorial in origin. Amongst the contributing factors reported were low salary levels, the frequent unavailability of necessary equipment, inadequate performance evaluation and feedback. The study of physicians of three academic medical centres in Germany and the United States revealed that inside of other factors were significantly associated with job satisfaction the access to specialized technology also was important predictors of overall job satisfaction.

Lack of supervision from health facility was another variable that was not associated with dissatisfaction of job among doctors were participated in this study. But it in some other literatures it is known as one of the predictor variable for job satisfaction. The study of health workers satisfaction of job in by Melkidezek T. Leshabari et al, was revealed that, almost half of both doctors and nurses were not satisfied with their jobs. This dissatisfaction was multi-factorial in origin. Amongst the contributing factors reported were inadequate performance, evaluation and feedback.

6.3Limitation of the Study

The main limitation of study is analysis of data which is not collected for the purpose of this study. Therefore the nature of secondary data as originally was designed for evaluation of performance of health system may affect the generalizabilty of results. Direct contact and in dept interviews with stakeholders were not possible due to lack of financial support to updated data could have been used.

Since, there was not suitable aggregation of expected factors that are known to be the main determinants of medical doctors' satisfaction of job, the feasibility of evaluating a wide range of factors was not possible. The data was collected on 2008 which can be assumed out of date for 2011 for which the result will be published. Time constraint and being far from the main setting was another challenge. Therefore, limitation to generalize this study might become dominant which we could not control over on

CHAPTER 7
CONCLUSION AND RECOMMENDATIONS

7.1 Conclusion

Medical doctor works in a profession that is extremely demanding and sometimes unpredictable thus, can be susceptible to feelings of uncertainty and reduced job satisfaction. Job satisfaction of medical doctors is also an essential part of ensuring high quality care. Dissatisfied medical doctors not only give poor quality, less efficient care there is also evidence that affect patient satisfaction. Given the pivotal role that healthcare professionals play in determining the effectiveness, efficiency and sustainability of health care systems, it is imperative to understand what motivates them and the extent to which, contextual variables in order, to make them satisfy with job.

The aim of this study was to determine the factors were associated with medical doctors' job satisfaction were working in the frame work of Basic Package of Health Services (BPHS) in Afghanistan. Almost 54% were not satisfied with their job. Factors are known as the biggest difficulties in doing the job and were significantly associated with medical doctors' job satisfaction were, low salary/lack of salary, lack of equipment with in the health facility, lack of supplies and drugs within the health facility, lack of motivation of medical doctors and security of health facility area.

The followings are the main findings from this study:

1- Low salary/lack of salary is the most important factor which is known to be a big difficulty in doing the job. It is revealed that from all doctors who assumed low salary/ lack of salary, one of the biggest difficulties in doing the job were two times more unsatisfied with the job compared to doctors who did not stated low salary/lack of salary as a big difficulty.

2- Lack of equipment was known to be another big difficulty in doing the job as, doctors who were assumed lack of equipment as a big difficulty in doing the job were two times more unsatisfied with the job compared to who did not assume it a big difficulty.

3- Lack of supplies and drugs was another factor influenced medical doctor's satisfaction of job. Medical doctors assumed it as one of the biggest difficulties in doing the job were almost two times more unsatisfied with job in compared to doctors did not stated as a big difficulty.

4- Lack of motivation was another important difficulty for medical doctors in doing the job. Medical doctors were assumed lack of motivation as one of the biggest difficulties in doing the job were 1.72 times more not satisfied with their job compared to doctors who did not assumed lack of motivation as a big difficulty in doing the job.

5- Also, security of health facility area was known to be a big difficulty in doing the job. Whereas, doctors assumed that security of health facility area is a big problem in doing the job were 1.6 times more not satisfied with job in compare to others who did not assume it as a big difficulty.

No association was found between job satisfaction and gender of medical doctor, lack of knowledge, inadequate transport, caretakers delaying in bringing children to health facility, lack of time and staff shortage. Although these factors were not known to be influencing factors with medical doctors satisfaction of job but, we need to investigate them through further studies in a deeper assessment.

7.2 Recommendations

We would like to make recommendations based on the findings and hopefully have policy and management implications.

1. Ministry of Public Health should advocate for increasing the salary and some sort of allowances for health worker in forums with Parliament, Ministry of Finance and external donors.

2. BPHS policy already forecasted the required supplies and equipment for all level of health facilities. So, regular and uninterrupted supply of equipment should be ensured.

3. Ongoing and systematic monitoring and supervision will help to satisfy MDs to work in health facilities.

4. To maintain the security of health workers inter-sectoral collaboration and cooperation is needed. Involvement of the community and the village leaders where the health facility located could be the great strategy in ensuring security of health workers.

5. To remedy lack of motivation as a management technique the leadership of MoPH at central and provincial levels including NGOs are strongly encouraged to pay attention to this issue. They should evaluate and find the factors which motivate the health factors including regular supervision, workplace climate, opportunities for capacity building and focus on these issues by proper planning and implementation.

6. Continuous service evaluations and monitoring of job satisfaction can be useful to determine aspects of the services and individuals that need to be improved.

7. Involving medical doctors in cooperative team approach will allow for consideration of ways to improve aspects relating to job satisfaction.

8. Our study may serve as a base for future studies in a deeper manner and on a larger scale. In addition by further analysis numbers of issues can be explored further

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APPENDIX 1
Health Worker Interview

Verbal Consent Form for Health Workers

Instructions for the Interviewer:
The following is to be read exactly to the health worker prior to the interview. If the subject then agrees to participate, you must sign on the line marked "Witness to Consent Procedures" at the end of this form. Also mark the date on the appropriate line.

Purpose of the Study
The Ministry of Public Health is conducting a survey about health services. The Johns Hopkins University and the Indian Institute of Health Management Research will help the Ministry with this study. We will ask you some questions about the services you provide. This information will help the Government of Afghanistan and its partner organizations to provide better health care. However, there is no immediate or direct benefit to you for participating.

Procedures
To obtain the necessary information, you have been chosen at random to participate. If you consent, you will be asked a series of questions about the services provided through this facility.

Risks /Discomforts
The questions asked of you will take less than 30 minutes to answer. If there are any questions you do not want to answer you may refuse to answer them without consequence. None of the information obtained will be identified with you in any way.

Confidentiality
During the question period I will write down the information you tell me. The record of this information will not have any information that can be used to identify you.

Voluntary Consent
It is your decision whether or not to be in this study. You can stop participating in the study at any time without consequence. If you do not want to be in this study, it will not have any consequence for your job.

Whom to Contact
If you have any questions now I will answer them, and if you have questions later you can contact the Provincial Health Director, or the Monitoring and Evaluation Unit at the Ministry of Health, Great Masood Road, Kabul.

Do you agree to participate in this survey?

Witness to Consent Procedures (to be signed by interviewer after subject has verbally consented).

Date

APPENDIX 2
Health Worker Interview

Questionnaire language: (1. Dari) 2. Pashtu

	Yes	No
Consent obtained:	1	2

GENERAL HEALTH WORKER INFORMATION						SKIP
100	Health Worker Tracking No.	|___|				
101	A. Interviewer code |___|___|___|___|	B. Date (Persian/Shamsi calendar): - - 1387				
102	A. Facility name:_____	B. Facility ID code: |___|___|___|___|				
103	Location	A. Province_____ B. District _____ C. Village/town _____				
104	Type of health facility	BHC .....1 CHC .....2 District Hospital OPD 3				
105	Sex of the health worker	Male .....1 Female.....2				
106a	How many year(s) and month(s) have you worked after formal completion of your highest training?	Years |___|___| Months |___|___|				
106b	How many year(s) and month(s) have you worked as a health worker at this facility?	Years |___|___| Months |___|___|				
107	Position of the health worker as designated by MoPH	Doctor .....1 Nurse .....2 Midwife.....3 Auxiliary midwife .....4 Assistant doctor .....5 CHW Supervisor……6 Vaccinator .....7 Other.....8 *Specify*_____				
				YES	NO	
108	Which of the following services have you provided within the past 3 months? *Read each service and circle those that the respondent has provided at least once within the past three months. If more than one answer is given, circle all that apply.* *If the health worker has worked at the current health facility for less than 3 months, ask about the services provided within the duration at this health facility.*	A	Supervise CHW	1	2	
		B	Supervise TBA	1	2	
		C	Consultation for children	1	2	
		D	Consultation for adults	1	2	
		E	Family planning	1	2	
		F	ANC	1	2	
		G	PNC	1	2	
		H	Deliveries in facility	1	2	
		I	Home deliveries	1	2	
		J	TB treatment/diagnosis	1	2	
		K	Vaccinations	1	2	
		L	Malaria treatment	1	2	
		M	Nutrition	1	2	
		N	CHW training	1	2	
		O	TBA training	1	2	
		P	Treatment of disability	1	2	
		Q	Other (*Specify*_____)	1	2	

109	When was the most recent time that a supervisor interacted with you? *Do not read choices, but circle the appropriate number for the response given.*	Within the past 30 days ..... ……1 Within the past 31-90 days ..... ……2 Within the past 3-6 months..... ……3 More than 6 months..... ……4 Never ..... ……5	*If Never ➔112*
110	What did the supervisor do when he/she came? *Do not read choices; circle the answer(s) given, or write in if "other". If more than one answer is given, circle all that apply.*	Brought supplies……a Checked records……b Checked finances……c Observed consultation……d Asked knowledge questions……e Provided health instruction……f Provided administrative instruction……g Provided instruction in filling HMIS forms…..h Other ……i *Specify*_____	
111	Which of the following health areas did the supervisor address during his/her most recent visit to the health facility: *Read all the options*		

		YES	NO
A	Using IMCI for child care?	1	2
B	ARI?	1	2
C	Diarrhea?	1	2
D	Malaria?	1	2
E	Growth monitoring?	1	2
F	Nutrition?	1	2
G	Breastfeeding?	1	2
H	STI?	1	2
I	DOTS?	1	2
J	Family Planning?	1	2
K	ANC?	1	2
L	Delivery Care?	1	2
M	PNC?	1	2
N	Infection prevention?	1	2
O	Communicating with patients?	1	2
P	Mental health?	1	2
Q	Disability?	1	2
R	Other? (*Specify*_____)	1	2

112	What are the biggest difficulties that you face in doing your job? *Do not read choices; circle the answer(s) given, or write in if "other". If more than one answer is given, circle all that apply.*	Lack of knowledge ……a Lack of feedback of performance……b Caretakers bring children to clinic too late….c Inadequate transport……d Lack of time……e Lack of motivation……f Staff shortages……g Poor working environment……h Lack of supplies and drugs……i Lack of equipment……j Lack of supervision……k Low salary/lack of salary…… l Other .....m *Specify* _____	
113	What are the small difficulties faced by you? *(Please ensure that the response for this question is different from the options selected in Q112. If none, write "none")*	1. _____ 2. _____ 3. _____	

		YES	NO	
114	Have you discussed these with your supervisor within the last year?	1	2	If *No* ➔*116*
115	After these discussions, did you notice any improvements?	1	2	
116	Is the payment of your salary up to date?	1	2	If *Yes* ➔*120*
117	If not up to date, how many months behind is it? *Ask about completed months only.*	|___|___| months		

Staff Training					
*READ: "*For each subject I mention, I would like to know if you have ever received training on this subject and, if so, the most recent time you were trained.*"*		(a) In-Service Training			(b) Number of days of most recent training *Don't know =999* *No training = 000*
		Less than 1 year	1-3 years ago	Greater than 3 years or never	
CHILD HEALTH					
120	IMCI	1	2	3	|___|___|___|
121	ARI (separate from IMCI)	1	2	3	|___|___|___|
122	Diarrheal disease (separate from IMCI)	1	2	3	|___|___|___|
123	Malaria (separate from IMCI)	1	2	3	|___|___|___|
124	Growth monitoring programs (separate from IMCI)	1	2	3	|___|___|___|
125	Monitoring nutrition/identifying malnutrition (separate from IMCI)	1	2	3	|___|___|___|
126	Causes and prevention of malnutrition	1	2	3	|___|___|___|
127	Causes, clinical symptoms, and treatment of micronutrient deficiency diseases	1	2	3	|___|___|___|
128	Management and treatment of severe malnutrition	1	2	3	|___|___|___|
129	Exclusive breast feeding	1	2	3	|___|___|___|
130	General nutrition for child	1	2	3	|___|___|___|
INFECTIOUS DESEASES					
131	Management of STI	1	2	3	|___|___|___|
132	TB diagnosis	1	2	3	|___|___|___|
133	DOTS approach for TB	1	2	3	|___|___|___|
134	Malaria (adult)	1	2	3	|___|___|___|
FAMIILY PLANNING (FP)					
135	General counseling	1	2	3	|___|___|___|
136	FP methods	1	2	3	|___|___|___|
137	Other training in FP	1	2	3	|___|___|___|
MATERNITY					
138	Providing ANC/PNC examinations	1	2	3	|___|___|___|
139	Counseling during pregnancy	1	2	3	|___|___|___|
140	Nutrition during pregnancy	1	2	3	|___|___|___|
141	Safe delivery practices	1	2	3	|___|___|___|
142	Managing complications of labor, delivery, and immediate postpartum	1	2	3	|___|___|___|
143	Normal postnatal care	1	2	3	|___|___|___|
144	Managing postpartum infection	1	2	3	|___|___|___|
145	Normal newborn care	1	2	3	|___|___|___|
146	Emergency obstetrical care	1	2	3	|___|___|___|

Staff Training					
READ: "For each subject I mention, I would like to know if you have ever received training on this subject and, if so, the most recent time you were trained."		(a) In-Service Training			(b) Number of days of most recent training
		Less than 1 year	1-3 years ago	Greater than 3 years or never	*Don't know =999* *No training = 000*
147	Use of vacuum extractor	1	2	3	|___|___|___|
148	Use of manual vacuum aspirator	1	2	3	|___|___|___|
GENERAL TRAINING					
149	Preventing infection	1	2	3	|___|___|___|
150	Managing or supervising	1	2	3	|___|___|___|
151	Managing community relations	1	2	3	|___|___|___|
152	Completing HMIS reports	1	2	3	|___|___|___|
COMMUNITY HEALTH					
153	Health education	1	2	3	|___|___|___|
154	Sanitation & hygiene	1	2	3	|___|___|___|
MENTAL HEALTH					
155	Identifying mental health problems	1	2	3	|___|___|___|
156	Treatment of mental health problems	1	2	3	|___|___|___|
157	Referral of mental health problems	1	2	3	|___|___|___|
EPI					
158	Communication for EPI	1	2	3	|___|___|___|
159	EPI outreach planning	1	2	3	|___|___|___|
160	Cold chain management	1	2	3	|___|___|___|
161	Vaccine management	1	2	3	|___|___|___|
162	Immunization safety	1	2	3	|___|___|___|
163	Notifiable Vaccine Preventable Disease reporting	1	2	3	|___|___|___|
164	EPI monitoring and data management	1	2	3	|___|___|___|
DISABILITY					
165	Rights of disabled	1	2	3	|___|___|___|
166	Common disabilities and impairments that lead to disability	1	2	3	|___|___|___|
167	Prevention of further disability	1	2	3	|___|___|___|
168	Treatment of disability	1	2	3	|___|___|___|
169	Referral for disability	1	2	3	|___|___|___|

		Yes	No	
170	Have you received any other training that I did not mention? *If yes, please describe below:*	1	2	If "2" →173
171	a) _____	Number of days |___|___|___|		
172	b) _____	Number of days |___|___|___|		
173	Are there other training needs you personally feel you need for your present job? *If yes, please describe:* a) _____ b) _____	1	2	

HEALTH WORKER SATISFACTION

In this part of the questionnaire we would like to ask you some questions regarding your satisfaction with your current job. All answers are confidential and any identifying information will be removed.

I'm now going to read you a series of statements about your **level of satisfaction** with various aspects of your current job. If you are **completely satisfied** with that aspect of your job, then out of 4 naan, give it 4 naan. If you are **completely unsatisfied** with it, then out of 4 naan, give 1 naan. You can also give 3 naan or 2 naan, **depending on your level of satisfaction or dissatisfaction with the factor reflected in the statement.**

4 naan = "very satisfied"
3 naan = "satisfied"
2 naan = "unsatisfied"
1 naan = "very unsatisfied".
Show the sheet with the different quantities of naan, and ask the respondent to point to the amount that represents their answer.

No.	How would you rate the following aspects of your work? *Read from the list below and ask which category applies (1-4 naan; very unsatisfied-very satisfied)*	1 Naan Very unsatisfied	2 Naan Unsatisfied	3 Naan Satisfied	4 Naan Very satisfied
174	Working relationships with other facility staff	1	2	3	4
175	Working relationships with Provincial MoPH staff	1	2	3	4
176	Management of the health facility - by MoPH or an NGO	1	2	3	4
177	Relationships with local traditional leaders	1	2	3	4
178	Availability of medicine in the health facility	1	2	3	4
179	Availability of equipment in the health facility	1	2	3	4
180	The physical condition of the health facility building	1	2	3	4
181	Your ability to provide high quality of care	1	2	3	4
182	Your respect in the community	1	2	3	4
183	Your training opportunities to upgrade your skills and knowledge	1	2	3	4
184	Your ability to meet the needs of the community	1	2	3	4
185	What community needs would you like to meet but cannot? *(Put serial number if more than one response)*	*Specify* _____			
186	Your salary	1	2	3	4
187	Employment benefits (travel allowance, bonus, etc)	1	2	3	4
188	Safety and security to live and practice in the community	1	2	3	4
189	Living accommodations for your family	1	2	3	4
190	Education for your children *If no children, write "NA" here:* _____	1	2	3	4
191	Your boss' recognition of your good work	1	2	3	4
192	Your opportunities for promotion	1	2	3	4
193	Overall, your satisfaction with your job	1	2	3	4

194	In the past 1 year, do you think security in this area has gotten better, is about the same, or has gotten worse?	Has gotten better……..1 Is about the same……..2 Has gotten worse……..3 Don't know……..99	
195	What are some examples of security problems in this area? *Do not read choices. Prompt by saying "anything else?"*	More thieves and robbers on road to facility……a Local fighting……b Presence of ISAF/Coalition force soldiers……c Intimidation (night letters)……d Bombs……e Killings……f Kidnapping……g Other……h *Specify* _____ None……i Don't know……j	

196	How would you rate your level of agreement or disagreement with the following statement: *"The level of security in this area makes it difficult for people in the community to use available health services."*	Strongly disagree……1 Somewhat disagree……2 Somewhat agree ……3 Strongly agree……4	
197	How would you rate your level of agreement or disagreement with the following statement: *"The level of security in this area makes it difficult for service providers to deliver high quality health services."*	Strongly disagree……1 Somewhat disagree……2 Somewhat agree ……3 Strongly agree……4	If "1" or "2" →199
198	In your opinion, which security problems have affected health workers' ability to provide health services? *Do not read choices. Prompt by saying "anything else?"*	More thieves and robbers on road to facility……a Local fighting……b Presence of ISAF/Coalition force soldiers……c Intimidation (night letters)……d Bombs……e Killings……f Kidnapping……g Other……h *Specify* _____ None……i Don't know……j	

HEALTH WORKER KNOWLEDGE ASSESSMENT

It is very important that the health worker DOES NOT see the survey form where you are recording his/her answers. Many of the options should not be read aloud and therefore it is important that he/she cannot see them. When specified, the health worker may look at the laminated case scenario cards. DO NOT let the health worker see the case scenario card and then leave to take care of a patient. Let the health worker leave, if need be, after asking all of the questions pertaining to a case scenario. Do not let the health worker leave with a case scenario and then return to answer questions about that case scenario; ask those corresponding questions before he/she leaves.

Start by reading the following statement to the health worker:
The following is an assessment of your knowledge of basic disease protocols. This does not affect your employment at this facility, nor does it affect your standing as a practitioner in this area. This is a tool simply to help the Ministry of Public Health obtain information on possible areas of improving training of facility staff in the future. The following questions correspond to clinical case scenarios that you would observe in the clinic. Please answer the following questions to the best of your knowledge.

QUESTIONS 199 AND 199A ARE FOR VACCINATORS, DOCTORS, DOCTOR'S ASSISTANTS, NURSES, MIDWIVES AND AUXILLARY MIDWIVES

	Questions	Answers	Weeks
199	At what age should you give: Please read the name of the vaccines. Write"99" if don't know.	a. BCG?	___
		b. OPV0?	___
		c. OPV1?	___
		d. OPV2?	___
		e. OPV3?	___
		f. OPV4?	___
		g. DPT-HepB1?	___
		h. DPT-HepB2?	___
		i. DPT-HepB3?	___
		j. Measles1 vaccine?	___
		k. Measles2 vaccine?	___

199a	A mother brings in her 9 month old child for routine immunization update, but on examination the child has a fever. What do you do about the immunization? Please DO NOT read the choices and circle the answer(s) given. Multiple answers allowed.	Do not give the child the scheduled vaccinations and schedule the child for another visit……a Give the vaccinations as scheduled despite the fever……b Refer the child to another facility……c None of the above……d	

The following questions correspond to a clinical case scenario that the health worker could expect to observe in the clinic. Read the case scenarios and questions exactly as they are written. For each case scenario there are laminated card(s) that should be given to the health worker as a reference when responding to the questions. Do not read the options of answers. For certain questions, multiple answers are possible; in this case, circle all answers given by the health worker. After the health worker has finished answering the question, ask "Anything else?" If additional answers are given at that time, make due record of them on the survey form. Be careful to follow the skips as they are marked.

QUESTIONS 200 TO 220 ARE FOR DOCTORS, DOCTOR'S ASSISTANTS AND NURSES

200	Is the health worker a doctor, assistant doctor, or nurse?	YES 1	NO 2	If NO →221

Case Scenario 1

Case Scenario 1. A little girl aged 25 months and weighing 10.5 kg is brought to the facility (BHC) because she has been asleep since the morning and is very difficult to wake up. She hasn't eaten or drunk fluids since yesterday. When asked, the mother said that her daughter did not vomit and did not have any convulsions, but has had diarrhea for about six days. She also had fever for three days and a runny nose. The health worker assessed the child and confirmed that the child was lethargic. The health worker also performed a skin pinch and the skin came back very slowly. No other abnormal clinical signs were found. The family lives in a low malaria risk area, and has not traveled recently. There is no cholera in the area now. It is four hours to the nearest hospital with in-patient care, however your facility can give intravenous fluids and you are trained to use a naso-gastric tube.

201	What do you think the main clinical problem is with this child? *Please give the respondent Card 1 with Case Scenario 1.* *DO NOT read options aloud. If response is not one of the three listed, mark "OTHER" and write in space provided.*	Malaria……1 Infection or sepsis……2 Diarrhea with dehydration……3 Other……4 *Specify* _____ Don't Know……5	If "1"→202 If "2"→203 If "3"→204 If "4"→205 If "5"→206
202	Main problem is malaria. How would you treat? *Record all answers given; DO NOT prompt.* *Note:* *PO=by mouth* *IM=intramuscular* *IV=intravenous*	Refer to hospital immediately……a Give Ringer's lactate or saline IV……b Give ORS at for home treatment……c Give IM/IV antibiotic-1 dose……d Give PO antibiotic-5 days……e Inject one dose of quinine……f Give one dose PO antimalarial drug……g Give PO antimalarial drug for 3 days……h Give one dose of paracetamol……i Give paracetamol home treatment……j Continue breastfeeding……k Treat to prevent low blood sugar……l Advise mother to keep child warm……m Other item(s) not listed……n *Specify* _____ Don't Know……o	GO TO 206
203	Main problem is sepsis or infection. How would you treat? *Record all answers given; DO NOT prompt.* *Note:* *PO=by mouth*	Refer to hospital immediately……a Give Ringer's lactate or saline IV……b Give ORS at for home treatment……c Give IM/IV antibiotic-1 dose……d Give a second IM/IV antibiotic-1 dose……e Give IM/IV antibiotic-5 days……f Give PO antibiotic-5 days……g	GO TO 206

	IM= intramuscular *IV=intravenous*	Inject one dose of quinine.....h Give one dose of paracetamol.....i Give paracetamol home treatment.....j Continue breastfeeding.....k Treat to prevent low blood sugar .....l Advise to keep child warm .....m Give one does vitamin A.....n Other item(s) not listed.....o *Specify* _____ Don't Know.....p	
204	Main problem is diarrhea with dehydration. How would you treat? *Record all answers given; DO NOT prompt.* *Note:* *PO=by mouth* *IM= intramuscular* *IV=intravenous*	Refer to hospital immediately.....a Give Ringer's lactate or saline IV.....b Give Ringer's lactate or saline IV and start on ORS when can drink.....c Give fluids via naso-gastric tube.....d Send home now with ORS .....e Give ORS at facility before referring to the hospital and on way to hospital .....f Give IM/IV antibiotic-1 dose.....g Give a second IM/IV antibiotic-I dose .....h Give IM/IV antibiotic-5 days .....i Give PO antibiotic-5 days .....j Continue breastfeeding.....k Treat to prevent low blood sugar .....l Advise mother to keep child warm.....m Give one does vitamin A if needed .....n Other item(s) not listed.....o *Specify* _____ Don't Know.....p	GO TO 206
205	Main problem is something else. How would you treat? *Record all answers given; DO NOT prompt.* *Note:* *PO=by mouth* *IM= intramuscular* *IV=intravenous*	Refer to hospital immediately.....a Give Ringer's lactate or saline IV.....b Give fluids via naso-gastric tube.....c Give ORS at for home treatment .....d Give ORS at facility before referring to the hospital and on way to hospital .....e Give IM/IV antibiotic-1 dose.....f Give a second IM/IV antibiotic-I dose .....g Give IM/IV antibiotic-5 days.....h Give PO antibiotic-5 days .....i Inject one dose of quinine.....j Give one dose PO antimalarial drug.....k Give antimalarial drug for 3 days .....l Give one dose of paracetamol.....m Give paracetamol home treatment.....n Continue breastfeeding.....o Treat to prevent low blood sugar .....p Give one does vitamin A.....q Advise mother to keep child warm.....r Other item(s) not listed .....s *Specify* _____ Don't Know.....t	
Case Scenario 2			
Case Scenario 2. A father brought his 29 month old son to your BHC because he has had a fever for more than three days and has an ear discharge since last week. The child does not have other symptoms and lives in an area with little malaria. The health worker found that the child had a temperature of 38.2C and saw an ear discharge on the right side. The health worker found the child's neck to be stiff and an area of tenderness behind the right ear. The child has a normal weight and received all vaccinations for his age. There are no other abnormal clinical findings. It is four hours to the nearest hospital with inpatient beds.			
206	What do you think the main clinical problem is with this child?	Malaria.....1 Infection……..…… 2 Diarrhea with dehydration……3	If "1"→207 If "2"→208 If "3"→209

	Please give the respondent Card 2 with Case Scenario 2. *DO NOT read options aloud. If response is not one of the three listed, mark "OTHER" and write in space provided.*	Other……4 *Specify* _____ Don't Know.....5	If "4"→210 If "5"→211
207	Main problem is malaria. How would you treat? *Record all answers given; DO NOT prompt.* *Note:* *PO=by mouth* *IM=intramuscular* *IV=intravenous*	Refer to hospital immediately.....a Give Ringer's lactate or saline IV.....b Give ORS at for home treatment .....c Give IM/IV antibiotic-1 dose.....d Give PO antibiotic-5 days .....e Inject one dose of quinine.....f Give one dose PO antimalarial drug.....g Give PO antimalarial drug for 3 days.....h Give one dose of paracetamol.....i Give paracetamol home treatment.....j Continue breastfeeding.....k Treat to prevent low blood sugar .....l Advise mother to keep child warm.....m Other item(s) not listed.....n *Specify* _____ Don't Know.....o	GO TO 211
208	Main problem is infection. How would you treat? *Record all answers given; DO NOT prompt.* *Note:* *PO=by mouth* *IM=intramuscular* *IV=intravenous*	Refer to hospital immediately.....a Give Ringer's lactate or saline IV.....b Give ORS at for home treatment .....c Give IM/IV antibiotic-1 dose.....d Give a second IM/IV antibiotic-1 dose .....e Give IM/IV antibiotic-5 days.....f Give PO antibiotic-5 days .....g Inject one dose of quinine.....h Give one dose of paracetamol.....i Give paracetamol home treatment.....j Continue breastfeeding.....k Treat to prevent low blood sugar .....l Advise to keep child warm .....m Give one does vitamin A.....n Other item(s) not listed.....o *Specify* _____ Don't Know.....p	GO TO 211

209	Main problem is diarrhea with dehydration. How would you treat? *Record all answers given; DO NOT prompt.* *Note:* *PO=by mouth* *IM=intramuscular* *IV=intravenous*	Refer to hospital immediately.....a Give Ringer's lactate or saline IV.....b Give fluids via naso-gastric tube.....c Give ORS at for home treatment .....d Give ORS at facility before referring to the hospital and on way to hospital .....e Give IM/IV antibiotic-1 dose.....f Give a second IM/IV antibiotic-I dose .....g Give IM/IV antibiotic-5 days .....h Give PO antibiotic-5 days .....i Give one dose of paracetamol.....j Give paracetamol home treatment.....k Continue breastfeeding.....l Treat to prevent low blood sugar .....m Advise mother to keep child warm.....n Give one does vitamin A.....o Other item(s) not listed.....p *Specify* _____ Don't Know.....q	GO TO 211
210	Main problem is something else. How would you treat? *Record all answers given; DO NOT prompt.* *Note:* *PO=by mouth* *IM=intramuscular* *IV=intravenous*	Refer to hospital immediately.....a Give Ringer's lactate or saline IV.....b Give fluids via naso-gastric tube.....c Give ORS at for home treatment .....d Give ORS at facility before referring to the hospital and on way to hospital .....e Give IM/IV antibiotic-1 dose.....f Give a second IM/IV antibiotic-I dose .....g Give IM/IV antibiotic-5 days .....h Give PO antibiotic-5 days .....i Inject one dose of quinine.....j Give one dose PO antimalarial drug.....k Give antimalarial drug for 3 days .....l Give one dose of paracetamol.....m Give paracetamol home treatment.....n Continue breastfeeding.....o Treat to prevent low blood sugar .....p Give one does vitamin A.....q Advise mother to keep child warm.....r Other item(s) not listed.....s *Specify* _____ Don't Know.....t	
Case Scenario 3			
Case Scenario 3. A teenager came to your BHC with her small sister aged 13 months. She said that her sister was coughing for five days and has had a fever since last night. She remembers that her sister had a generalized rash about a month ago and that the neighbors in the village said that she had measles. Her mother continues to breastfeed her sister. There is no malaria in the place where they live. The health workers weighed the child (8.5kg) and checked the temperature (38.8C) the health worker counted 48 breaths per minute and noted chest indrawing. No other abnormal clinical findings were noted. The immunization card shows the child fully immunized and four months ago she received vitamin A. It is four hours to the nearest hospital with inpatient beds.		
211	What do you think the main clinical problem is with this child? *Please give the respondent Card 3 with Case Scenario 3.* *DO NOT read options aloud. If response is not one of the three listed, mark "OTHER" and write in space provided.*	Malaria.....1 Infection……..……..2 Diarrhea with dehydration……3 Other……4 *Specify* _____ Don't Know.....5	If "1"→212 If "2"→213 If "3"→214 If "4"→215 If "5"→216

212	Main problem is malaria. How would you treat? *Record all answers given; DO NOT prompt.* *Note:* *PO=by mouth* *IM=intramuscular* *IV=intravenous*	Refer to hospital immediately.....a Give Ringer's lactate or saline IV.....b Give ORS at for home treatment .....c Give IM/IV antibiotic-1 dose.....d Give PO antibiotic-5 days .....e Inject one dose of quinine.....f Give one dose PO antimalarial drug.....g Give PO antimalarial drug for 3 days.....h Give one dose of paracetamol.....i Give paracetamol home treatment.....j Continue breastfeeding.....k Treat to prevent low blood sugar .....l Advise mother to keep child warm.....m Other item(s) not listed.....n *Specify* _____ Don't Know.....o	GO TO 216
213	Main problem is infection. How would you treat? *Record all answers given; DO NOT prompt.* *Note:* *PO=by mouth* *IM=intramuscular* *IV=intravenous*	Refer to hospital immediately.....a Give Ringer's lactate or saline IV.....b Give ORS at for home treatment .....c Give IM/IV antibiotic-1 dose.....d Give a second IM/IV antibiotic-1 dose .....e Give IM/IV antibiotic-5 days.....f Give PO antibiotic-5 days .....g Inject one dose of quinine.....h Give one dose of paracetamol.....i Give paracetamol home treatment.....j Continue breastfeeding.....k Treat to prevent low blood sugar .....l Advise to keep child warm .....m Give one does vitamin A.....n Other item(s) not listed.....o *Specify* _____ Don't Know.....p	GO TO 216
214	Main problem is dehydration. How would you treat? *Record all answers given; DO NOT prompt.* *Note:* *PO=by mouth* *IM=intramuscular* *IV=intravenous*	Refer to hospital immediately.....a Give Ringer's lactate or saline IV.....b Give fluids via naso-gastric tube.....c Give ORS at for home treatment .....d Give ORS at facility before referring to the hospital and on way to hospital .....e Give IM/IV antibiotic-1 dose.....f Give a second IM/IV antibiotic-I dose .....g Give IM/IV antibiotic-5 days.....h Give PO antibiotic-5 days .....i Give one dose of paracetamol.....j Give paracetamol home treatment.....k Continue breastfeeding.....l Treat to prevent low blood sugar .....m Advise mother to keep child warm.....n Give one does vitamin A.....o Other item(s) not listed.....p *Specify* _____ Don't Know.....q	GO TO 216

215	Main problem is something else. How would you treat? *Record all answers given; DO NOT prompt.* *Note:* *PO=by mouth* *IM=intramuscular* *IV=intravenous*	Refer to hospital immediately.....a Give Ringer's lactate or saline IV.....b Give fluids via naso-gastric tube.....c Give ORS at for home treatment .....d Give ORS at facility before referring to the hospital and on way to hospital .....e Give IM/IV antibiotic-1 dose.....f Give a second IM/IV antibiotic-I dose .....g Give IM/IV antibiotic-5 days .....h Give PO antibiotic-5 days .....i Inject one dose of quinine.....j Give one dose PO antimalarial drug.....k Give antimalarial drug for 3 days .....l Give one dose of paracetamol.....m Give paracetamol home treatment.....n Continue breastfeeding.....o Treat to prevent low blood sugar .....p Give one does vitamin A.....q Advise mother to keep child warm.....r Other item(s) not listed.....s *Specify* _____ Don't Know.....t	
Case Scenario 4			
Case Scenario 4. A 2-year-old child is brought to the clinic by its grandmother who says the child has had intermittent fevers for the past 5 days. The child has been fussy and not eating well with an occasional loose stool. When you examine the child there is no rash, no runny nose, and no cough. The neck is not stiff. The temperature is 38.6C. A review of the child's health record shows that it is fully immunized. This is an area where malaria does occur at certain seasons. It is four hours to the nearest hospital with inpatient beds.			
216	What do you think the main clinical problem is with this child? *Please give the respondent Card 4 with Case Scenario 4.* *DO NOT read options aloud. If response is not one of the three listed, mark "OTHER" and write in space provided.*	Malaria.....1 Infection.....2 Diarrhea with dehydration.....3 Other.....4 *Specify* _____ Don't Know.....5	If "1"→217 If "2"→218 If "3"→219 If "4"→220 If "5"→221
217	Main problem is malaria. How would you treat? *Record all answers given; DO NOT prompt.* *Note:* *PO=by mouth* *IM=intramuscular* *IV=intravenous*	Refer to hospital immediately.....a Give Ringer's lactate or saline IV.....b Give ORS at for home treatment .....c Give IM/IV antibiotic-1 dose.....d Give PO antibiotic-5 days .....e Inject one dose of quinine.....f Give one dose PO antimalarial drug.....g Give PO antimalarial drug for 3 days.....h Give one dose of paracetamol.....i Give paracetamol home treatment.....j Advise when to return .....k Treat to prevent low blood sugar .....l Child should come back in 2 days if fever persists .m Refer child to hospital if fever persists for 7 days or more.....n Other item(s) not listed.....o *Specify* _____ Don't KNonw.....p	GO TO 221

218	Main problem is infection. How would you treat? *Record all answers given; DO NOT prompt.* *Note:* *PO=by mouth* *IM=intramuscular* *IV=intravenous*	Refer to hospital immediately.....a Give Ringer's lactate or saline IV.....b Give ORS at for home treatment .....c Give IM/IV antibiotic-1 dose.....d Give a second IM/IV antibiotic-1 dose .....e Give IM/IV antibiotic-5 days .....f Give PO antibiotic-5 days .....g Inject one dose of quinine.....h Give one dose of paracetamol.....i Give paracetamol home treatment.....j Continue breastfeeding.....k Treat to prevent low blood sugar .....l Advise to keep child warm .....m Give one does vitamin A.....n Other item(s) not listed.....o *Specify* _____ Don't Know.....p	GO TO 221
219	Main problem is diarrhea with dehydration. How would you treat? *Record all answers given; DO NOT prompt.* *Note:* *PO=by mouth* *IM=intramuscular* *IV=intravenous*	Refer to hospital immediately.....a Give Ringer's lactate or saline IV.....b Give fluids via naso-gastric tube.....c Give ORS at for home treatment .....d Give ORS at facility before referring to the hospital and on way to hospital .....e Give IM/IV antibiotic-1 dose.....f Give a second IM/IV antibiotic-I dose .....g Give IM/IV antibiotic-5 days .....h Give PO antibiotic-5 days .....i Give one dose of paracetamol.....j Give paracetamol home treatment.....k Continue breastfeeding.....l Treat to prevent low blood sugar .....m Advise mother to keep child warm.....n Give one does vitamin A.....o Other item(s) not listed.....p *Specify* _____ Don't Know.....q	GO TO 221
220	Main problem is something else. How would you treat? *Record all answers given; DO NOT prompt.* *Note:* *PO=by mouth* *IM=intramuscular* *IV=intravenous*	Refer to hospital immediately.....a Give Ringer's lactate or saline IV.....b Give fluids via naso-gastric tube.....c Give ORS at for home treatment .....d Give ORS at facility before referring to the hospital and on way to hospital .....e Give IM/IV antibiotic-1 dose.....f Give a second IM/IV antibiotic-I dose .....g Give IM/IV antibiotic-5 days .....h Give PO antibiotic-5 days .....i Inject one dose of quinine.....j Give one dose PO antimalarial drug.....k Give antimalarial drug for 3 days .....l Give one dose of paracetamol.....m Give paracetamol home treatment.....n Continue breastfeeding.....o Treat to prevent low blood sugar .....p Give one does vitamin A.....q Advise mother to keep child warm.....r Other item(s) not listed.....s *Specify* _____ Don't Know.....t	

QUESTIONS 221 TO 253 ARE FOR MIDWIVES AND AUXILLARY MIDWIVES

221	Is the health worker a midwife or auxiliary midwife?	YES 1	NO 2	If NO →254
Case Scenario 5				
222	Mrs. Salima is 16 years old. She is 30 weeks pregnant and has attended the antenatal clinic three times. All findings were within normal limits until her last antenatal visit 1 week ago. At that visit it was found that her blood pressure was 130/90 mm Hg. Her urine was negative for protein. The fetal heart sounds were normal, the fetus was active and uterine size was consistent with dates. She has come to the clinic today, as requested, for follow-up. The main findings include: • Proteinuria 1+; • Blood pressure is 130/90 mm Hg; • No headache, visual disturbance, upper abdominal pain, convulsions, or loss of consciousness; • Fetus is active and fetal heart sounds are normal; and • Uterine size is consistent with dates of pregnancy. Based on these findings, what is Mrs. Salima's diagnosis? *Please give the respondent Card 5 with the description of Mrs. Salima's condition. DO NOT read the answer options. Only one answer choice is allowed.*	Pre-eclampsia .....1 Eclampsia .....2 Delayed postpartum hemorrhage .....3 Anemia .....4 Shock……5 Other……6 *Specify* _____ Don't Know.....7		
223	Given your diagnosis, what type of care should be provided to the patient? Anything else? *More than one answer is possible. DO NOT read the answer options. Circle all that the respondent says spontaneously.*	Counseled on danger signs of severe pre-eclampsia, eclampsia and seeking appropriate care immediately .....a Take additional rest .....b Take normal diet .....c Return to clinic twice weekly to have her blood pressure, urine, fetal condition monitored .....d Continued basic antenatal care .....e Advised to have childbirth in hospital .....f Other ……g *Specify* _____ Don't Know.....h		
Case Scenario 6				
224	Mrs. Farida had a prolonged second stage of labor. Baby A developed fetal distress and was delivered by vacuum extraction. He is limp and does not breathe spontaneously at birth. What will you do? Anything else? *Please give the respondent Card 6 with the condition of Mrs. Farida and Baby A. DO NOT read the answer options. Circle all answers the respondent gives spontaneously.*	Quickly dry the baby……..a Quickly tell the mother what is happening and ask an assistant to stay with her…….....b Place the baby on her/his back on a clean, warm surface and cover her/him, leaving the head, face and upper chest exposed ……c Position the baby's head so that it is slightly extended……..d Clear the baby's airway by first suctioning the mouth and then the nose…….....e Other…… ……..f *Specify* _____ Don't know……..g		

225	You have started to ventilate Baby A and find that his chest is not rising. What will you do now? *DO NOT read the answer options. Circle all answers the respondent gives spontaneously.*	Check the position of the head and reposition if necessary……a Check the seal of the mask and reseal if necessary……b Check that the airways are clear……c Increase pressure of ventilation by squeezing the bag with whole hand……d Observe if chest is rising……e Other……f *Specify* _____ Don't know……g	
226	What would you have done if Baby A was still not breathing after 10 minutes of resuscitation? *DO NOT read the answer options. Only one answer choice is allowed.*	Continue to ventilate at a rate of about 40 breaths per minute……1 Other……2 *Specify* _____ Don't know……3	
227	What would you have done if Baby A was still not breathing after 20 minutes of ventilation? *DO NOT read the answer options. Circle all answers the respondent gives spontaneously.*	Stop resuscitation measures……a Explain to the mother what has happened……b Provide comfort to the mother and offer her the opportunity to hold her baby……c Other……d *Specify* _____ Don't know……e	
228	What was Baby A's problem? *DO NOT read the answer options. Only one answer choice is allowed.*	Birth asphyxia ……1 Other……2 *Specify* _____ Don't Know……3	
Case Scenario 7			
229	Mrs. Zahra is 24 years old and has just given birth to a healthy baby girl after 7 hours of labor. Active management of the third stage was performed, and the placenta and membranes were complete. The midwife who attended the birth left the hospital at the end of her shift. Approximately 30 minutes later, a nurse rushes to tell you that Mrs. Zahra is bleeding profusely. What will you do? Anything else? *Please give the respondent Card 7A with the initial condition of Mrs. Zahra. DO NOT read the answer options. Circle all answers the respondent gives spontaneously.*	Shout to mobilize all available personnel. ……a Take temperature……b Measure pulse……c Take blood pressure……d Measure respiration rate……e Assess level of consciousness……f Check color and temperature of her skin……g Other……h *Specify* _____ Don't know……i	
230	On examination, you find that Mrs. Zahra's blood pressure is 86/60 mm Hg and pulse 120 beats/minute and weak. Her skin is cold and clammy. What is Mrs. Zahra's problem? *Please give respondent Card 7B with the findings of the examination. DO NOT read the answer options. Only one answer choice is allowed.*	Pre-eclampsia……1 Eclampsia……2 Postpartum hemorrhage……3 Anemia……4 Postpartum shock……5 Other……6 *Specify* _____ Don't Know ……7	

231	What will you do now? Anything else? *DO NOT read the answer options. Circle all that the respondent says spontaneously.*	Palpate the uterus for firmness……a Start an IV infusion……b Collect blood for appropriate tests……c Other……d *Specify* _____ Don't know……e	
232	If IV solution is required, what would you give Mrs. Farida? *DO NOT read the answer options. Only one answer choice is allowed.*	IV solution not required……a Normal saline or Ringer's lactate……b Normal saline or Ringer's lactate with 10 units of oxytocin……c Other……d *Specify* _____ Don't know……e	
233	What blood tests will you do? If "a" or "f" is chosen, NO other answer choices are allowed. *DO NOT read the answer options. Circle all that the respondent says spontaneously.*	No blood tests……a Hemoglobin……b Blood typing and cross-matching……c Bedside clotting test for coagulopathy……d Other……e *Specify* _____ Don't know……f	
234	How do you know when a woman is in shock? *DO NOT read the answer options. Circle all that the respondent says spontaneously.*	Pulse greater than 110 beats/minute……a Systolic blood pressure less than 90 mm Hg……b Cold, clammy skin; pallor……c Respiration rate greater than 30 breaths/ minute……d Anxious and confused or unconscious……e Other……f *Specify* _____ Don't Know……g	

	Questions	Answers		
RH Practice questions				
Please ask the following questions to midwives on their practices. Read the question exactly as it is written.		Normally	Once in a while	Never
Antenatal care				
235	Do you normally, once in a while or never take a pregnant woman's pulse and blood pressure?	1	2	3
236	Do you normally, once in a while or never give antibiotics during pregnancy?	1	2	3
237	Do you normally, once in a while or never perform a vaginal examination during pregnancy?	1	2	3
238	Do you normally, once in a while or never give advice on nutrition to a pregnant mother?	1	2	3
239	Do you normally, once in a while or never tell a pregnant mother to take folic acid tablets and iron tablets or syrup?	1	2	3
240	Do you normally, once in a while or never ask a pregnant mother about her TT schedule?	1	2	3
Delivery				
241	Do you normally, once in a while or never give a mother injection to speed delivery?	1	2	3
242	Do you normally, once in a while or never push on the stomach during labor?	1	2	3
243	Do you normally, once in a while or never put powder or ointment on the umbilical cord?	1	2	3
Postpartum				
244	Do you normally, once in a while or never clean and dry the baby after birth?	1	2	3
245	Do you normally, once in a while or never keep the baby	1	2	3

	Questions	Answers		
RH Practice questions				
Please ask the following questions to midwives on their practices. Read the question exactly as it is written.		Normally	Once in a while	Never
	warm after birth?			
246	Do you normally, once in a while or never tell a mother to immediately breastfeed?	1	2	3
247	Do you normally, once in a while or never tell a mother to give the "liquid" that comes from the mother's breast in the first 3 days ("colostrum") to the infant?	1	2	3
248	Do you normally, once in a while or never check on the woman in the 40 days after birth?	1	2	3
249	Do you normally, once in a while or never tell a mother to give the baby water, tea, maska or other liquids in the 1st week after birth?	1	2	3
250	Do you normally, once in a while or never check on the baby in the 40 days after birth?	1	2	3
251	Do you normally, once in a while or never explain to a mother to immunize her child?	1	2	3
252	Do you normally, once in a while or never explain to a mother she should exclusively breastfeed her child for the first 6 months?	1	2	3

	Questions	Answers	
253	Where did you complete your midwifery pre-service training? *DO NOT read the answer options. Only one answer choice is allowed.*	No formal training……..1 Institute of Health Sciences……..2 Community Midwifery Education……3 Other……..4 *Specify* _____	

254	*Comments by interviewer:*

"Thank you for taking the time to complete this questionnaire"

Islamic Republic of Afghanistan
Ministry of Public Health
General Directorate of Policy & Planning

Date:
No:

To: Faculty of Public Health, University of Indonesia

Subject; Permission letter for using survey data owned by Ministry of Public Health

Dear Sir,

Ministry of Public Health of Afghanistan appreciates efforts of Dr. Khwaja Mir Ahad Saeed as student of Master of Public Health in faculty of Public Health at University of Indonesia. Furthermore, it is given him the permission of using data of National Health Services Performance Assessment survey which, was conducted on 2008 to assess the Basic Package of Health Services in Afghanistan. Data should be used as secondary data in purpose of conducting the study entitled "*Factors Associated With Medial Doctors' Satisfaction of Job Working in Facilities Adhered to Basic Packaged of Health Services in Afghanistan*" for the thesis writing as a requirement of degree of Master of Public Health.

With best Regards,

Dr. Ahmad Jan "Naeem"
General Director of Policy & Planning
Ministry of Public Health

APPENDIX 4
FREQUENCY DISTRIBUTION AND PERCENTAGE OF MEDICAL DOCTOR'S SATISFACTION OF JOB INDEX ITEMS

Q 174 Relationships with other facility staff	Freq.	Percent	Cum.
1 Naan Very unsatisfied	1	0.18	0.18
2 Naan unsatisfied	6	1.09	1.28
3 Naan satisfied	80	14.6	15.88
4 Naan very satisfied	461	84.12	100
Total	548	100	

Q 175 Relationships with provincial MoPH staff	Freq.	Percent	Cum.
1 Naan	7	1.28	1.28
2 Naan	20	3.65	4.93
3 Naan	163	29.74	34.67
4 Naan	358	65.33	100
Total	548	100	

Q 176 Management of the health facility	Freq.	Percent	Cum.
1 Naan	13	2.37	2.37
2 Naan	43	7.85	10.22
3 Naan	192	35.04	45.26
4 Naan	300	54.74	100
Total	548	100	

Q 177 Relation with local traditional leaders	Freq.	Percent	Cum.
1 Naan	3	0.55	0.55
2 Naan	20	3.65	4.2
3 Naan	117	21.35	25.55
4 Naan	408	74.45	100
Total	548	100	

Q 178 Availabilty of Medicine in HF	Freq.	Percent	Cum.
1 Naan	41	7.48	7.48
2 Naan	142	25.91	33.39
3 Naan	199	36.31	69.71
4 Naan	166	30.29	100
Total	548	100	

Q179 Availability of equipment in HF	Freq.	Percent	Cum.
1 Naan	11	2.01	2.01
2 Naan	57	10.4	12.41
3 Naan	248	45.26	57.66
4 Naan	232	42.34	100
Total	548	100	

Q 180 Physical condition of HF	Freq.	Percent	Cum.
1 Naan	95	17.34	17.34
2 Naan	130	23.72	41.06
3 Naan	180	32.85	73.91
4 Naan	142	25.91	99.82
No Response / Blank	1	0.18	100
Total	548	100	

Q 181 Ability to provide high quality care	Freq.	Percent	Cum.
2 Naan	11	2.01	2.01
3 Naan	261	47.63	49.64
4 Naan	275	50.18	99.82
No Response / Blank	1	0.18	100
Total	548	100	

Q 182 Respect in the community	Freq.	Percent	Cum.
1 Naan	1	0.18	0.18
2 Naan	4	0.73	0.91
3 Naan	93	16.97	17.88
4 Naan	447	81.57	99.45
No Response / Blank	3	0.55	100
Total	548	100	

Q 183 Training opportunities	Freq.	Percent	Cum.
1 Naan	41	7.48	7.48
2 Naan	120	21.9	29.38
3 Naan	230	41.97	71.35
4 Naan	154	28.1	99.45
No Response / Blank	3	0.55	100
Total	548	100	

Q 184 Ability to meet the needs	Freq.	Percent	Cum.
1 Naan	2	0.36	0.36
2 Naan	39	7.12	7.48
3 Naan	277	50.55	58.03
4 Naan	228	41.61	99.64
No Response / Blank	2	0.36	100
Total	548	100	

Q186 Your salary	Freq.	Percent	Cum.
1 Naan	77	14.05	14.05
2 Naan	226	41.24	55.29
3 Naan	180	32.85	88.14
4 Naan	65	11.86	100
Total	548	100	

Q 187 Employment benefits	Freq.	Percent	Cum.
1 Naan	225	41.06	41.06
2 Naan	181	33.03	74.09
3 Naan	85	15.51	89.6
4 Naan	55	10.04	99.64
No Response / Blank	2	0.36	100
Total	548	100	

Q 188 Safety and security	Freq.	Percent	Cum.
1 Naan	34	6.2	6.2
2 Naan	104	18.98	25.18
3 Naan	214	39.05	64.23
4 Naan	194	35.4	99.64
No Response / Blank	2	0.36	100
Total	548	100	

Q 189 living Accommodations	Freq.	Percent	Cum.
1 Naan	57	10.4	10.4
2 Naan	86	15.69	26.09
3 Naan	228	41.61	67.7
4 Naan	175	31.93	99.64
No Response / Blank	2	0.36	100
Total	548	100	

Q 190 Education for your children	Freq.	Percent	Cum.
1 Naan	38	6.93	6.93
2 Naan	81	14.78	21.72
3 Naan	186	33.94	55.66
4 Naan	114	20.8	76.46
No Response / Blank	13	2.37	78.83
Don't Know	116	21.17	100
Total	548	100	

Q 191 Boss recognition good work	Freq.	Percent	Cum.
1 Naan	40	7.3	7.3
2 Naan	76	13.87	21.17
3 Naan	216	39.42	60.58
4 Naan	216	39.42	100
Total	548	100	

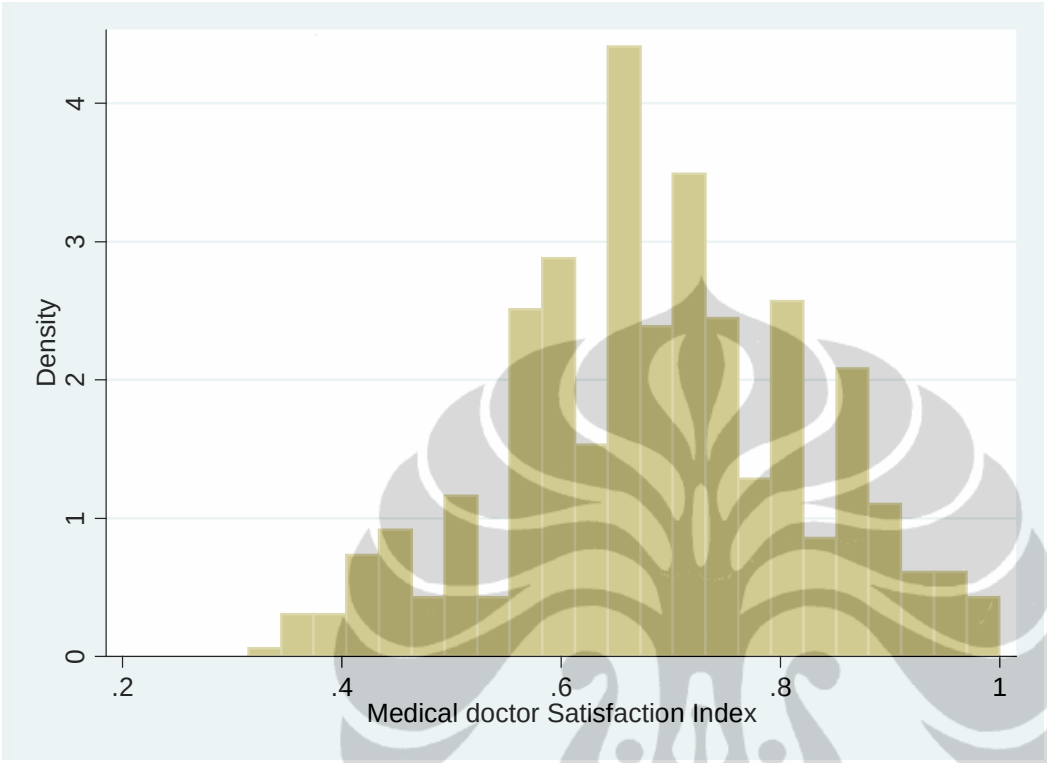
Q 192 Opportunities for promotions	Freq.	Percent	Cum.
1 Naan	67	12.23	12.23
2 Naan	146	26.64	38.87
3 Naan	230	41.97	80.84
4 Naan	105	19.16	100
Total	548	100	

Q 193 Over All Satisfaction With Job	Freq.	Percent	Cum.
1 Naan	8	1.46	1.46
2 Naan	58	10.58	12.04
3 Naan	238	43.43	55.47
4 Naan	244	44.53	100
Total	548	100	

MEDICAL DOCTORS' SATISFACTION OF JOB INDEX DISTRIBUTION

Satisfaction index distribution	Frequency	Percent	Cumulative
0.3148148	1	0.18	0.18
0.3518519	2	0.36	0.55
0.3703704	3	0.55	1.09
0.3888889	5	0.91	2.01
0.4074074	4	0.73	2.74
0.4259259	8	1.46	4.2
0.4444444	3	0.55	4.74
0.462963	12	2.19	6.93
0.4814815	7	1.28	8.21
0.5	9	1.64	9.85
0.5185185	10	1.82	11.68
0.537037	7	1.28	12.96
0.5555556	14	2.55	15.51
0.5740741	27	4.93	20.44
0.5925926	19	3.47	23.91
0.6111111	28	5.11	29.01
0.6296296	25	4.56	33.58
0.6481481	50	9.12	42.7
0.6666667	22	4.01	46.72
0.6851852	39	7.12	53.83
0.7037037	29	5.29	59.12
0.7222222	28	5.11	64.23
0.7407407	18	3.28	67.52
0.7592593	22	4.01	71.53
0.7777778	21	3.83	75.36
0.7962963	26	4.74	80.11
0.8148148	16	2.92	83.03
0.8333333	14	2.55	85.58
0.8518519	17	3.1	88.69
0.8703704	17	3.1	91.79
0.8888889	10	1.82	93.61
0.9074074	8	1.46	95.07
0.9259259	10	1.82	96.9
0.9444444	4	0.73	97.63
0.962963	6	1.09	98.72
0.9814815	3	0.55	99.27
1	4	0.73	
Total	548	100	100

HISTOGRAM OF FREQUENCY DISTRIBUTION OF MEDICAL DOCTORS' SATISFACTION OF JOB INDEX



NUMBER HEALTH FACILITIES IN EACH PROVINCE WERE INCLUDED IN THE SURVEY

Provinces were served			
Province	**Frequency**	**Percent**	**Cumulative**
Kabul	26	4.74	4.74
Kapisa	20	3.65	8.39
Parwan	18	3.28	11.68
Wardak	20	3.65	15.33
Logar	16	2.92	18.25
Ghazni	11	2.01	20.26
Paktya	20	3.65	23.91
Nangrahar	30	5.47	29.38
Laghman	26	4.74	34.12
Kunar	20	3.65	37.77
Badakshan	25	4.56	42.34
Takhar	20	3.65	45.99
Baghlan	27	4.93	50.91
Kunduz	26	4.74	55.66
Samangan	16	2.92	58.58
Balkh	27	4.93	63.5
Jawzjan	27	4.93	68.43
Faryab	28	5.11	73.54
Badghis	11	2.01	75.55
Herat	32	5.84	81.39
Nimroz	6	1.09	82.48
Ghor	22	4.01	86.5
Bamyan	14	2.55	89.05
Paktika	10	1.82	90.88
Nuristan	8	1.46	92.34
Saripul	18	3.28	95.62
Khost	13	2.37	97.99
Panjsher	6	1.09	99.09
Daykundi	5	0.91	100
Total	548	100