

**PROBLEMS AND PROSPECTS OF PRIMARY HEALTH  
CARE SERVICES IN DISTRICT MARDAN (KHYBER  
PAKHTUNKHWA)**



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*IN THE NAME OF ALLAH WHO IS THE MOST  
BENEVOLENT AND MOST MERCIFUL*



In the Name of Allah the Beneficent, the Merciful  
Read! Your Lord is the Most Bountiful One,  
Who Taught by the Pen, Taught  
Man what he did not know.

(Sura Al-Alaq 30:3-5) Al-Quran

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## ABSTRACT

Health is the top most priority in every individual's life. Good health accelerates human efficiency and the development procedure, and as a fundamental human right it should be accessible and reachable to all. According to World Health Organization's definition, "Health of an individual or community is not only concerned with physical or mental state but also an individual's economic and social wellbeing." The research in hand focused on the Primary Health Care Services provided by the Basic Health Units in Mardan District of Khyber Pakhtunkhwa Province, Pakistan. The objectives of the study were:

- to assess the health care services provided by the BHUs and
- to find out the hurdles in the way of service delivery for the management of the BHUs.

The universe of the study was District Mardan of Khyber Pakhtunkhwa Province of Pakistan. The sample of the study was selected by multi-stage cluster sampling techniques. The findings highlighted that most of the young people especially women goes to these BHUs for mostly cough and flu or gynecological problems, while mostly men of the area prefer to go to private clinics. The older women cannot go to the BHUs because they have difficulty in reaching these BHUs which are located far away from their houses and the transport is not available for them in the area. Most of the beneficiaries of the BHUs complained of low quality medicine, no waiting area for the patients and attendants, and lack of LHVs or LHWs home visits in the periphery. While the staff of BHUs who were mostly doctors complained of low salary, lack of facilities provided by government and security threat in performing their duties especially for polio vaccine.

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## **Chapter – 1**

### **Introduction**

“Nothing in this world is more transnational than disease”. Disease has no opinionated or physical borders. Disease in every part of the globe is an invariable menace to other parts. Health is not primarily a concern of doctors, communal services and hospitals. It is a matter of social impartiality (Baker, 1996).

Health holds the key to prosperity, reduction of poverty and contribution to national economic growth. It is critical to move towards a health system that addresses the health related challenges in order to prevent households from falling into the poverty trap (Ali, 2000). According to the Annual Plan of 2012 of Planning Commission Government of Pakistan efforts to improve health condition of the poor as well as the whole of society, can be fruitful only if supported with other necessary measures that address structural conditions that contribute to poverty.

Health is a general subject matter in nearly all cultures. Actually all societies have their own notions of health, as part of their culture. At the international level, health was forgotten, when the convenient of the League of Nations was drafted after the First World War. The matter of health had to be introduced on basis at the United Nations Conference at San Francisco in 1945 (UNICEF, 1992).

Though, during the past few decades there has been a resurgence that health is a primary human right, and should be a worldwide social aspiration that is to be accomplished by all nations. In 1977, the 30<sup>th</sup> World Health Assembly decided that the main social aim of

Government and WHO in the coming years should be, the accomplishment by all nations of the world by the year 2000 of a level of health that will allow them to direct a publicly and reasonably prolific life, that can briefly be called as “Health for All”. The health status of the population of a country is a major indicator of its development (UNICEF, 2009).

Pakistan being a developing and resource constrained country, is fighting at various fronts for the provision of better health care facilities. The huge out of pocket expenditures with catastrophic expenses on healthcare have pushed the people at risk of living below the poverty line. Share of public expenditure in health, which at present stands at less than 0.3 % of the GDP (2012-13), needs to be enhanced considerably (Siddiqi, Haq, Ghaffar, Akhtar, & Mahaini, 2004). According to National Programme for Family Planning and Primary Health Care of Pakistan, the country had made some progress in achieving MDG targets but the progress towards reducing Maternal Mortality Ratio (MMR), Infant and Child Mortality Rate (IMR & CMR) is slow and below the average of South Asian countries (Shaikh, 2010).

As in many other countries secondary and tertiary health care services seems to be given priority over primary health care services, and to exacerbate this, Pakistan’s Central Government health expenditure was decreased from 1.5% in 1980 to 1.0% in 1991 and has remained at this level. Healthcare in Pakistan is governed primarily in the private sector which deals with roughly 80% of all outpatient appointments (Pakistan Demographic and Health Survey, 2006–2007). The public division was until lately was working under the Ministry of Health, but the Ministry was closed down in June 2011 and all health related tasks and responsibilities (mostly scheduling, planning and fund distribution) were delegated to provincial Health Departments which had until currently been the main implementers of public sector health programmes (Nishtar, 2006). Similar to other South Asian countries, health and sanitation infrastructure is sufficient and

satisfactory in urban areas but by and large meager in rural areas. About 19% of the inhabitants of the country and 30% of children under age of five are malnourished (Nishtar, & Amjad, 2009).

The Constitution of Pakistan 1973's Article-38 emphasized on the stipulation of health care to the common people of the country. Government has accordingly concentrated on the social sectors, particularly on health (National Nutrition Survey, 2001–2002). According to Human Development Report 2012, combined public and private expenditure of health is around 4% of GNP and the Government accounts for 1% GNP (UNDP, 2012).

In Pakistan, the health condition persists to be low down when judged against with countries of parallel income level. Alongside the low budgetary allocation to health sector, the maternal mortality rate of 340 per 100,000, infant mortality of 95 per 1000 live births and abysmally low immunization cover inhibit any semblance of development that we attempt to attain (Nishtar, & Amjad, 2009).

Health is a fundamental human right and ought to be existing through accessible and affordable framework to all citizens. To this end, an incorporated move towards the public health in the country should include preventive, curative and also rehabilitation of the patients back in the society at all levels (Ministry of Health, Pakistan & WHO, 1997).

## 1.1 PROBLEMS IN HEALTH SECTOR

Although some improvements have been recorded in overall public health in Pakistan in the past few years, health conditions especially in rural areas are far from satisfactory. In this

regard the following can be termed as the major problems being faced by Health Sector (Qureshi, & Shepard, 1998, p. 91).

- 1) Inadequate Primary Health Care (PHC)
- 2) High rate of population growth.
- 3) Managerial deficiencies and absenteeism.
- 4) Inadequate funding & Supplies.
- 5) Human Resource Development.
- 6) Prevalence of communicable diseases
- 7) Lack of mass-awareness in health.

As a result in public health Pakistan remained one of the backward countries in the world. Even as far back as 1950, UK had one hospital bed for every 100 person. And one doctor for every 700 persons: Pakistan as of 2002 had one bed for 1626 persons and one doctor for 4862 persons (Ministry of Health, Pakistan & WHO, 1997).

Though the government of Pakistan has given much attention to secondary and tertiary care, but very little to primary health care of the masses, particularly in the rural areas.

## 1.2 HEALTH PROGRAMME IN PAKISTAN

The health system in Pakistan has three tiers: i) federal (ii) provincial, and (iii) district. However, Health Service delivery is largely a provincial matter but the federal ministry also funds

several vertical public health programs e.g. EPI, TB, Lady Health Workers (Karim, & Mahmood, 1999).

The Basic Health Unit (BHU) and Rural Health Centers are the institutional mechanisms for the deliverance of Primary Health Care in rural Pakistan. Basic Health Unit is intended for primary health-care, which involves the subsequent tasks: a) treatment & medication of rural population; b) Health education; c) administration of vaccination programs; d) stipulation of basic health & antenatal care for women and children; and e) execution of national programs related to diseases like polio etc. Presently however, they fall short in providing large scale primary health care. The main problem in primary healthcare system is the deficient of capability in district health offices in requisites of human and financial resources that holds back their ability to offer primary and secondary health services to local populace. Shortage of equipment and staff at Basic Health Units and Rural Health Centers, above all lady doctors, nurses, lady health workers, laboratory equipment, and medicines maintain to influence the health system poorly (Economic Survey of Pakistan, 2007).

In 1978, Pakistan became one of the signatories to the Alma Atta charter, under which Pakistan is committed to deliver HFA (Health for All by the Year 2000). The basic components of the PHC include:

1. Equally accessible health facilities
2. Active participation by the community.
3. Preventive rather than curative emphasis.
4. Appropriate technology and
5. Nutrition water and education to be included in the whole approach.

The basis for the provision of primary health care (PHC) in Pakistan was laid in the early seventies. The government has since then been spending on average 1.9 percent of their GDP for health. An extensive public health care system has been developed, consisting of Rural Health Centers, Basic Health Units and affiliated outreach workers (Vaccinators, Sanitation Workers, Lady Health Workers, and Traditional Birth Attendants etc.) (Khan, & Heuvel, 2005).

The Basic Health Units and the Rural Health Centers were setup to provide basic health care or first level curative and preventive services through doctors and paramedics in the rural areas to serve as key points of referral under which serious cases could be sent to district hospitals (Ali, 2000).

The BHU's were from the beginning mismanaged and their functions were inadequate and insufficient. Surveys indicate a high rate of doctor absenteeism in the BHUs. Many do not have any female staff. Furthermore, these institutions are poorly equipped. The system of referral from the first care facilities to Tehsil and District Headquarters hospitals is not well organized (Ali, Luby, & Rahbar, 1999). Because of these factors people have no choice but to bypass the Primary Health Centers, ending up at the secondary care facilities which include Tehsil and DHQ hospitals. Most of these hospitals are however, overburdened and the patients are, thus forced to rely on the private sector (Ali, Luby, & Rahbar, 1999).

It has been found that public health care services have shown some success in providing health care. Improved immunization coverage of children and hygiene education has helped to reduce infant mortality and incidence of diarrhea. It is done through the LHVs programme. However, programmes are to continue in women's reproductive health programmes, immunization, and health communication programmes for the control of communicable diseases such as tuberculosis etc (Ali, 2000).

### 1.3 Objective of the Study:

The focus of the study is to explore the problems in the provision of primary health care at basic health units to the community people.

Hence the specific objectives of the study are:

- 1) To assess the health care services provided by the BHUs in Khyber Pakhtunkhwa.
- 2) To find out the level of satisfaction among the beneficiaries of the targeted community
- 3) To find out the hurdles in the way of service delivery to the Management of the BHUs.
- 4) To suggest measures for the improvement of the delivery system of services by BHUs.

### 1.4 ORGANIZATION OF THE STUDY REPORT

This study is about the perception of the people about the services rendered by Basic Health Units (BHUs) in the rural areas. The researcher wanted to probe the genuine perception of the community including beneficiaries and non-beneficiaries, local representatives and the Health Care Service delivering staff like doctors and technicians about efficiency of the BHUs established by government for delivering basic health services to the rural people.

This thesis is divided into ten chapters. **Chapter One** is Introduction that explains the definition of health, dimensions and condition of health in Pakistan. It also contains objectives of the study and organization of the thesis. **Chapter Two** is about the primary health care system: its history and development. This chapter briefly introduces the approaches towards understanding health. It also explains the history of public health system in the world. **Chapter Three** is on The History and Development of Primary Health Care System in Pakistan and in Khyber Pakhtunkhwa. This chapter describes the post independence development in the field of health sector specially focusing on primary health care (PHC) including the status of PHC in Pakistan,

efforts for the PHC in Pakistan and current status of PHC in Pakistan. This chapter also contains the area profile, their culture, history etc., where the research is conducted.

**Chapter Four** is the methodology of the research. It gives description about research design such as topic of thesis, purpose, objectives, research questions, universe, sample size, & sample technique. The analysis of data collected from respondents has been analyzed in three chapters. The data collected from the beneficiaries of BHUs has been analyzed in **Chapter Five**. The views of non-beneficiaries have been explained in **Chapter Six** whereas **Chapter Seven** describes the views of the BHUs staff.

The research findings of this research have been explained in **Chapter Eight** and their analysis and discussion on the data have been done in **Chapter Nine**. Based on the analysis of the data, the conclusion of the research has been drawn which is followed by suggestions and recommendations in **Chapter Ten**.

The **Annexure** of the thesis contains bibliography, some important statistics on BHUs following by a sample of the interview schedule used in this research.

## Chapter – 2

### **Primary Health Care System: Its History and Development**

Health is a common word which is used in everyday discussion by all individuals without actually knowing what it really means. The term health and health care are mostly used interchangeably by individuals however both have different implications. Whereas we can say that health is a condition or a state of being of an individual or a community and this state of health can be influenced by a number of factors including and not limited to health care, food intake, poverty, employment, education, access to clean drinking water, sanitation and housing conditions and also personal practices such as smoking and sexual behavior (Green, 1999, p. 127).

Commonly the health is regarded as appropriate functioning of all organs of one's body and unhealthy is taken as some of the organs like kidney or lungs are malfunctioning and thus considered as functioning of a body as a whole (Boomberg, 1994). But according to World Health Organization (WHO) health is a state of mental, physical, and social well-being and not only the absence of any disease or frailty, which shows that defies the organic functionality based definitions of health discussed above. As according to World Health Organization's definition it makes it clear that the health of an individual or community is not only concerned with physical or mental state but also an individual's economic and social wellbeing (Donaldson, 2005).

Thus, if health is considered only as physical functioning then health services will involve only restoring the functioning of a unhealthy body and if a broader concept of individual and social relationship is considered as health then health services will include intervention like prevention of diseases by empowering community to promote health (Donaldson, 2005).

The new philosophy concerning health is that health is a fundamental right of an individual, it is multi-sectoral, it is essential for spending a quality life, it is integral for development of a country, health is a responsibility of an individual, state and international bodies, health involves a major social investment and it is a global social goal (Park, 2005).

Health care is a term which is mainly meant for being concerned for other human beings. The health care can be defined as a large number of services delivered or provided to fellow individuals, families or communities by the representatives of the health care service or professionals, to promote, maintain, monitor and to restore health. These health care services might be financed in any way but they are primarily concerned with serving people either in the form of diagnosis, help, cure, education and rehabilitation by health practitioners. In most of the countries of the world health care is basically a governmental or state function (Nishtar, 2010).

The health services that are extended towards fellow human beings at the time of need generally comprised of three tiers or levels where each level can refer the patient to a higher level if the need be. The first tier or level is known as primary health care which is mostly the first level of contact between the individual and the health system where only important and necessary primary health care is offered to the patients. Then there is secondary health care level where more difficult problems are dealt with. At this level mostly the curative services are provided to the patients. This level functions at district or tehsil/town hospitals. This is the first referral step in the health care system. The third level is tertiary health care which provides specialist care. This mostly functions at regional/central level hospitals and private clinics. The institutions not only provide special care but also training, planning and teaching skills to the health practitioners (Garner, & Thaver, 1993).

## **2.1 Historical Development of Public Health Care**

The four different phases in the history of health are as follows:

**2.1.1 Disease control phase (1880-1920):** During 19th century the emphasis of health was on sanitation e.g. making the physical environment of an individual clean by caring for sewage disposal and water supply. Thus this strategy helped in diseases and death control in a community (Park, 2005).

**2.1.2 Health promotional phase (1920-1960):** The 20th century saw the emergence of a new concept in health and that was of health promotion. The responsibility of the state for the health of an individual was realized thus health promotion of an individual including not only disease control but also health promotion was added to the functions of health. The services like mother and child health care services, school health services, industrial health services mental health and rehabilitation services were initiated under this umbrella. Another sector of public health nursing began to establish (Frenk, 1998). A new definition of health was presented by a renowned scholar Winslow in 1920 which states that public health is a science and art of preventing disease, prolonging life and promoting health and efficiency through organized community efforts. This definition truly recapitulates the viewpoint of public health which is commonly used till this age (Kulkarni, Baride & Prasad, 2002).

**2.1.3 Social Engineering Phase (1960-1980):** As the health sector paid emphasis on preventive medicines and public health practice, most of the models of disease also changed in developing countries as most of the acute diseases were taken care off. However some new chronic diseases emerged in developed societies like diabetes, cancer, heart diseases, drug addiction and alcoholism etc which cannot be dealt with immunization, isolation and

disinfections and cannot even explained by the popular germ theory of that time. So a new concept of health emerged which was risk factor as determinants of diseases (Frenk, 1998).

**2.1.4 Health for All (HFA) Phase (1980-2000):** As the centuries stretched, the obtrusive gaps in the health sector in the developed and under developed countries came into focus. As in developed countries people enjoy all the determinants of good health like adequate income, education, nutrition, sanitation, safe drinking water and a complete health care system while in under developed countries the ratio of people enjoying these services was low. John Bryant in his book “Health and the Developing World” presented a detailed and dismal picture of inequalities in health by saying: “Large numbers of the world’s people, perhaps more than half, have no access to health care at all, and for many of the rest the care they receive does not answer the problems they have” (Green, 1999, p. 207). This paved the way for the emergence of realization that there is a health gap between rich and the poor societies and countries and this should be taken care of. As poor have also a right to health care, to protection from the killer diseases of childhood, to primary health care for mothers and children, to treatment for those ills that mankind has long ago learnt to control, if not to cure. Thus in 1977, the members of the WHO pledged themselves to an ambitious target to provide Health for All by the year 2000, that is “attainment of a level of health that will permit all people to lead a socially and economically productive life” (Hardiman, & Midgley, 1992).

During 1978, an Alma Atta international conference was held on Primary Health Care which also endorsed Health for All (HFA) as the foremost social goal of governments and stressed the best way to achieve the goal of HFA is by making available primary health care to especially to the rural people and urban poor. It was also predicted in the same conference that

by the year 2000 at least essential health care should be easily available in an affordable and acceptable means to all individuals and families by ensuring their full participation (Ilyas, 1986).

This conference emphasized all participating governments to make national policies, strategies and plans of action to initiate and protract primary health care as part of a national health system keeping in view of its own unique cultural norms and circumstances (Ilyas, 1986).

The main points of this Alma-Atta declaration were promotion of food supply and proper nutrition; spreading the education concerning prevailing health problems and the methods of prevention and control; adequate supply of safe water and basic sanitation; immunization against the major infectious diseases; maternal and child health care, including family planning, prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs (Ilyas, Burney, & Taqi, 1997).

The concepts related to primary health care (PHC) includes that every citizen regardless of social and economic status is eligible to access quality health care, the services of PHC should be designed in such a way that the community can be actively involved and can participate in the process, the health care services should primarily concerned with preventive and curative measures (Illiya, Burney, & Taqi, 1997).

According to the Alma Ata Declaration of 1978, the PHC should primarily focus on the elements like educating masses about prevailing health problems and how to prevent from these problems, promotion of proper nutrition, adequate supply of safe drinking water and basic sanitation, maternal and child health care including family planning, immunization against the major infectious disease in the community, prevention, control and treatment of common local diseases and injuries, promotion of mental health and provision of important drugs (Ilyas, 1986).

## **2.2 Current Health Care Systems of Developed Countries**

**2.2.1 Australia:** The Australian National Government provides for funding and administration of all the health care services e.g. funding for public hospitals, primary care, national and private health insurances, Medicare, and pharmaceuticals, and other medical services. The states regulate community based health services while local government is only engaged in environmental health and public health sector but not the clinical services. The national public health insurance scheme and Medicare make available complete health coverage to all its citizens and permanent residents. Some people also take voluntary private health insurance which permits them the right to get treatment in private hospitals and covering of some additional health care services (Healy, 2011).

The Government of Australian and the states also toil together to bridge the health gaps between the indigenous communities by ensuring their health care through different programs and providing funding for their health care. The government also provides for extra financial assistance for health care services, trainings of health practitioners, and some outreach services are also designed for people in rural areas and for low income population a safety net service is also available (Healy, Sharman & Lokuge, 2006).

The governments of states are responsible for preventive campaigns, occupational health and safety, environmental health, and control of communicable diseases. All preventive services like free screenings are also a function of state government programs. But the inspection functions for environmental and food safety is the responsibility of local government (Healy, 2011).

**2.2.2 United States of America (USA):** The role of Government in health care services in USA is vague. Generally people adhere to health insurance by various private and public

agencies which have different gaps in the rates of coverage for different segments of the society. The most common Federal health care services are known as Medicare (meant for people aged 65 or above, disabled and have some acute illness), Medicaid and Children Health Insurance Program (meant for low income population). People also go for private insurances which are regulated by states not federal or central government but people getting these private insurances have to be careful designing the benefit package (Davis, Guterman, Collins, Stremikis, Rustgi & Nuzum, 2010).

Most of the US citizens get primary health care coverage through the private voluntary health insurance (VHI), some get insurance by their employers and a small number get direct coverage. Benefit packages of private health insurance scheme mostly provide for hospital care and doctor or consultant services. Some also include preventive services, mental health care, physical therapy, and prescription of medicines or drug coverage (Keehan, Kuckler, Sisko & et al, 2012).

Safety nets are also present for low income, uninsured and vulnerable patients in USA which include local health departments, public hospitals, free clinics, Medicaid, and the Children's Health Insurance Program. Hospitals that provide care to such low income populations get a share from federal government for their services. The federal government also provides funds to community health centers which are engaged in providing primary care to low income population and there are also charities which are privately providing health care to uninsured population (Davis, Guterman, Collins, Stremikis, Rustgi & Nuzum, 2010).

The U.S. Public Health Service Commissioned Corps provides expertise on public health related issues on national level. Moreover the Centers for Disease Control and Prevention provide for conducting researches and programmes for public health and safety. At the state or local community levels, health agencies responsibilities generally include preventive medicine,

epidemiology, vaccinations, and environmental health (National Healthcare Quality Report & National Healthcare Disparities Report, 2012).

**2.2.3 Germany:** Health insurance was made compulsory for all permanent citizens of Germany in the year 2009 as prior to that people have choice to have health insurance or not. The health insurance is provided in the country by not-for-profit, nongovernmental health insurance funds also called as sickness funds which are generally statutory health insurance scheme (SHI) or voluntary substitutive private health insurance (PHI). The different States regulate most of the university hospitals, while towns or municipal departments provide public health activities and have possession of half of hospital beds (Federal Association of Sickness Funds, 2013). The different levels of government practically have no responsibility in the delivery of health care as most of the regulatory responsibilities are given to the autonomous bodies of the sickness funds and the provider organizations. The Federal Joint Committee is the most known such body that was established in 2004 in Germany. All legal residents are eligible for the health care facilities available in the country. All citizens enjoy health services under SHI but those who can afford get PHI to enjoy more range of services with high quality. The professionals like policemen and soldiers are provided with some special health care programs while the illegal immigrants are provided with social security in case of severe illness, pregnancy and child birth (Busse, Blümel & Ognyanova, 2013).

SHI covers preventive services, hospital care, health practitioners like doctor's services, mental health care, dental care, optometry, physical therapy, prescription of medicines and drugs, medical aids, rehabilitation, and sick leave compensation. SHI preventive services include regular dental checkups, child checkups, basic immunizations, checkups for chronic diseases, and cancer screening at certain ages. The health inequality issues are dealt in with public health

services while a Federal Center for Health Education started a network of 53 health institutions like sickness funds and other allied associations in 2001 to cater for the needs of socially deprived segment of the society (Federal Ministry of Health, 2012).

The Robert Koch Institute also known as Federal Institute for Infectious and Non-Communicable While the tasks of the public health services include connecting the state's supreme rights and the care provided to the selected groups. More generally it includes working for the prevention of communicable diseases; reporting about health issues; taking care of proper hygiene care in hospitals especially among hospital staff, office-based physicians and non physician health professionals; management of activities involving food, pharmaceuticals, and medicines; taking care of environmental hygiene; caring for school children; persons with specific diseases like HIV or tuberculosis; mental health services for communities; health education and coordination with other public health organizations. Germany has about 350 public health offices to cater all these functions in the country (Federal Ministry of Health, 2012).

**2.2.4 Canada:** The provincial and territorial governments are solely responsible for regulating and delivering of all health services like education, accreditation, and authorizing health care providers to practice. Most of these provinces and territories have made regional or local health establishments that arrange and carry out the health services in local communities that are mostly publicly funded. These regional or local health authorities are mainly accountable for the provisions of funds and delivery of health services like hospital, mental and public health services (Stabile, Thomson, Allin, & et al. 2013). Almost all the health care providers are private. The federal government of Canada also partially finances provincial or territorial health insurance programs which is conditioned to provinces and territories holding to the provisions

and criteria of the Canadian Health Act, which sets some standards for physician services, hospital and diagnostic care. This federal government is also responsible for providing funds for health research, usefulness of medical appliances, pharmaceuticals, and natural health products and also manages most of the public health services. The Canadian provinces and territories manage their own widespread health insurance programs that cover residents of all provinces and territories (Marchildon, 2013).

The health policy of Canada does not provide for the health inequalities in the country as some demographic groups like poor people, homeless people and Canadian aboriginals endure from a higher troubles of being ill than other well off residents. There difficulties include poor housing conditions, fewer educational institutions, few employment opportunities, and considerably higher chances of being ill as compared to the general population. In Canada there is no federal or central body to work on these inequalities but some of the provinces and territories have recently made up some departments and agencies which are meant to work on these problems (Stabile, Thomson, Allin, & et al. 2013).

The responsibility of Population health is mainly of different levels of government present in Canada. Like at the federal level, the Public Health Agency of Canada that was established in 2004 is mainly responsible for public health, infectious and chronic disease control and prevention; emergency preparedness and response. Health Canada also at federal level is responsible for promoting health, supervision and control of different diseases, safety of food and drugs and to assess medical devices and technology. While provincial governments and regional health departments are engaged in prioritizing local needs and for caring of health of a population living in a certain geographic area (Marchildon, 2013).

**2.2.5 United Kingdom (UK)/England:** The Parliament of England, the Secretary of State for Health and the Department of Health are mainly responsible for making the laws and policies on health for the entire country. The provision of health care including physician services, hospitals and prescribing drugs to all residents of England is the main responsibility of the National Health Service (NHS). The Department of Health and Secretary of State of Health have handed over the responsibility of running the NHS under the rules and regulations of the NHS Health and Social Care Act 2012, to a new governmental organization named the NHS Commissioning Board which was later renamed as NHS England (Department of Health, 2013).

The NHS England looks after the NHS budget, regulating Clinical Commissioning Groups (CCGs), and make certain that the objectives of the Secretary of State for Health are accomplished by the NHS which includes also efficiency of health system and meeting health goals. The CCGs have substituted the Primary Care Trusts. The Department of Health has handed over the budgets for public health to local government authorities, as the 2012 Act necessitates local governments to set up Health and Wellbeing Boards to advance management of local services particularly reducing health disparities. The health care services cover all residents which is almost free to use under the NHS. Some people also take private voluntary health insurance to get speedy and easy access to health care (NHS Information Centre, 2012).

The NHS generally provides for preventive services like testing, inoculation and vaccination programs; hospital care; doctors or medical practitioners services; provision of medicines or drugs; dental care; eye care; mental health care e.g. for people with learning disabilities; sedative care; long-term care like rehabilitation, physiotherapy, after-stroke care; and home visits by community-based nurses. But the main task and duty for population health remains with Clinical Commissioning Groups (CCGs) as they are answerable to NHS England

for improving the health of the populations. The local authorities are responsible for planning, housing, transport, improving the environment to enhance the health of the people living in the area and the NHS is only responsible for immunization and vaccination of all residents. A new organization named Public Health England has been established to support the local authorities to reduce the health inequalities but the finances are directly allocated to local authorities to run public health programs in the communities (NHS Information Centre, 2012).

## **Chapter – 3**

### **The History and Development of Primary Health Care System in Pakistan and in Khyber Pakhtunkhwa**

#### **3.1 Evolution of Health Care System in Indian subcontinent**

The initial public health services were started in Indian sub continent during 1802 when small pox vaccination started in the area and first superintendent general of vaccination was appointed who gave directions to his subordinate health service men to vaccinate children. The next step was in 1827 in Bombay when four European superintendents of vaccination along with one Indian vaccinator were appointed. During 1875, a superintendent general of vaccination was appointed in the Punjab region and in 1880 an Act was made by the Government of India which made it compulsory to immunize every individual of the country to prohibit smallpox inoculation (Bardhan, 2008).

The early efforts of health care were mostly directed to the alleviation of suffering and to the rehabilitation of the sick. The idea of prevention came later, when it was observed that diseases were often communicated from the patient to those in close association with him. Thus the concept of segregation of the sick arose (Bardhan, 2008).

**3.1.1. Royal Commission (1859):** During 1859 when the East India Company took hold of Indian sub-continent, high mortality was reported in some of the European troops which caught the attention of parliament in England. A Royal Commission was sent to enquire the reasons as the mortality rate of the English army was almost 69 per thousand and in jails the death rate was between 84 to 120 persons (Jeffery, 1999).

**3.1.2 Plague Commission (1904):** Plague broke out in Indian sub continent in 1896 and most of the people and government suffered because of it. It was realized that the much of the sickness was preventable and that the sanitation degradation, wastefulness and preventive death can be a cause of economic burden on health. The government realized that instead of wasting life, money and effort it should spent on prevention and being prepared in future. Thus, the report of Plague commission in 1904, stressed on public health services, research and development of vaccines for different diseases (Jeffery, 1999).

The Government of India Act of 1919 decentralized all branches of health department with exception to research departments. All related departments like public health, medical education, sanitation etc were transferred to provinces. These provinces appointed a minister of health whose main responsibility was to train public health staff for rural and urban areas (Jeffery, 1999).

The Government of India Act of 1935 gave more powers to provinces as they became unregulated to make a health policy and also for its implementation (Hazarika, Narain, Biswas, Kalita & Mahanta, 2004).

**3.1.3 Health Survey and Bhore Development Committee (1946):** The committee commonly known as Bhore committee was appointed by the Government of India before independence of Pakistan to conduct a broad survey of the present position in regard to health conditions and health organizations in British India, and to recommend suggestions for further development (Hazarika, Narain, Biswas, Kalita & Mahanta, 2004).

### **3.2 Health Situation of Pakistan after Partition (1947)**

The health standards of the people of the Indo-Pakistan sub-continent in pre-partition days were low. Inadequate nutrition, low sanitary conditions, insufficient medical facilities and meager parental care, all contributed to the prevalence of ill health, epidemics and high rate of infant mortality (Mangi, 2006). Traditionally, health and disease were attributed to destiny. Even the educated people shared the same belief, because of lack of medical facilities. The resources of the country were scarce. The administration principally was concerned with law and order. Death rate was about double and infant mortality rate was about five times that of developed countries. The total resources that could be devoted to health were negligible (Mangi, 2006).

After the independence, Pakistan inherited this low state of public health of pre-partition India, and had to face immense difficulties to procure trained personnel as well as material and had virtually to start from a scratch (Mangi, 2006).

It must be noted here that all the public health institutions were established in those provinces that formed India, with the result that Pakistan could not get any on the eve of independence. More over the medical and other technical staff in various provinces, which now constitute Pakistan, was mostly composed of Hindus and Sikhs with whose departure in 1947 our medical institutions were rendered ill-equipped and ill-staffed to meet health emergencies (Mahmood, 2000).

Out of the five major medical stores and depots at Lahore, Bombay, Madras, Calcutta and Rajpur, Bombay and Madras Depots were manufacturing depots. In emergency, these depots could render assistance to one another. After independence, Pakistan inherited non-

manufacturing Lahore Medical Depot. The stocks in this depot were scarce to meet the requirement of the whole country. This further worsened the position (Mahmood, 2000).

While the strength of the public Health Department in the country was at its low ebb, suddenly there came the most appalling situation caused by the influx of millions of Muslim refugees from India and Kashmir. This mass migration brought with it many health problems, not the least of which was immediate control of epidemic diseases like cholera, small pox, dysentery and diarrhea. This paints a dismal picture of the health conditions of Pakistanis at that time (Mangi, 2006).

It was inconceivable to talk of improving the economic conditions without first undertaking the amelioration of the people's social conditions of life. Pakistan did not lose its heart. It mustered up courage and called the first All Pakistan Health conference in November 1947 at Lahore at which representatives from all the provinces were invited. In the conference all the problems covering the entire range of medical and health administration were discussed. Its recommendations were implemented by the Ministry of Health. Another conference was held in 1951 at Dacca. The conference came out with the six years health development plan, which envisaged the setting up of new medical college, conversion of medical schools into colleges, establishment of hospitals, dispensaries, drug testing laboratories and a factory for manufacturing Penicillin, in addition to the improvement of T.B. hospitals (Siddiqui, 1998).

Meanwhile a two years priority social uplift programme was also started in 1951. Important schemes outlined in six years plan, development programme approved by second All-Pakistan conference were taken up under priority programme. In August 1959, the 3<sup>rd</sup> All Pakistan Health conference was held at Karachi. In the conference a number of recommendations

were made on important questions, relating to public health administration in the country (Siddiqui, 1998).

### **3.3 Five Years Plans of Health in Pakistan (1955 – 2003)**

Pakistan after partition inherited all the systems, structures and laws including health systems from the former ruler of Indian subcontinent i.e. Britain. Thus most of its health policies made even after partition were influenced by the British systems. The health system and policies were not exception and resembled mostly to the recommendations presented in 1943 by British Health Survey and Development Committee also known as “Bhore Committee” which was based on 1942’s Beveridge Report of UK. The main component of the recommendations of this Bhore committee were that every citizen should be provided with adequate and affordable health care services and state should emphasize on preventive medicine to avoid the illness and control disease rather than on curative health services which means investing more finances. Thus after partition Pakistan also take up the charge of preventive health care services by adhering to the recommendations of Bhore Committee (Khan & Heuvel, 2005).

**3.3.1 The First Five Year Plan (1955—60):** This contained a very modest program for the health sector, but the implementation of this program was quite unsatisfactory. Only about 50 per cent of the total Plan allocation of Rs287 million was utilized. The utilization of funds allocated for preventive services was even lower, i.e., about 25 per cent. The main reasons for this serious shortfall were lack of qualified and trained personnel for implementation and delays in the commitment of funds (Ghaffar, Kazi, & Salman, 2002).

**3.3.2 The Second Five Year Plan (1960 – 65):** This witnessed a vastly improved performance in the field of health and the pace of implementation increased substantially. Three

new medical colleges, a program for the eradication of malaria, vaccination against small pox, and increase in the number of hospital beds and improvement in training facilities for medical and paramedical personnel were the successes of the period. But lack of proper environmental sanitation, low nutrition standards, wide spread Malaria and Tuberculosis, child and maternal mortality, paucity of trained personnel and the rapid rate of population growth swallowed up the progress in living standards achieved through development plans (Ghaffar, Kazi, & Salman, 2002).

**3.3.3 The Third Five Year Plan (1965 – 70):** This emphasized on family planning program, malaria eradication program, tuberculosis control, rural health centers and medical education and training. The most disappointing features was the failure in implementation of the rural health program and only 230 centers could be established out of the total planned of 230 such centers and 2400 sub centers, in the whole country (Khattak, 1996).

**3.3.4 The Fourth Five Year Plan (1970-78):** Many program could be not materialized due to political reasons and the separation of East from West Pakistan and the creation of Bangladesh. Only yearly plans were prepared till 1978. This period could be divided into two phases; one from 1971-72 when developmental expenditure fell and many health program came to a virtual standstill, and the second phase, that is from 1977-78 where investment in health rose and substantial progress was made in the expansion of health facilities like community health workers were recruited, ten new medical universities were established, enforcement of drug manufacturing licenses were the main features (Khattak, 1996).

**3.3.5 The Fifth Five Year Plan (1978-83):** The significant aspects of this plan were the establishing of total 206 Rural Health Centers (RHCs) and 1617 Basic Health Units (BHUs) out of a total of 625 RHCs and 4596 BHUs planned during 1978-83 (Khattak, 1996).

**3.3.6 The Sixth Five Year Plan (1983-88):** This plan see the provision of BHUs and RHCs in 85 per cent of the Union Councils and some had more than one facility, all the children up to five years were fully immunized, the training of dais (Traditional Birth Attendants), and treatment of diarrhea by oral re hydration salts made satisfactory progress. However, the Sixth Plan made slow progress in combating third degree malnutrition and providing for the care of the disabled. Other neglected areas include creation of a cadre of health managers, introduction of user charges, patronage to traditional medicine and expansion of private sector due to lack of proper incentives (Ghaffar, Kazi, & Salman, 2002).

**3.3.7 The Seventh Five Year Plan (1998-93):** To control goiter, cretinism, still births and abortions, an iodized oil program was started in 1989 in the remote hilly areas of the country which was complemented by salt iodization program from July 1988. The private sector made satisfactory progress by establishing new medical colleges, other training institutions and hospitals. This provided employment and services but mainly in urban areas (Khattak, 1996).

**3.3.8 The Eighth Five Year Plan (1993-98)/Planning Commission 1992:** This plan introduced the decentralization of primary and secondary health care and providing services at the community level with the help of LHWs and Village based Family Planning Workers. User charges were introduced and private sector was encouraged to provide services in rural and semi urban areas. No upgrading to health facilities took place resulting in non provision of basic emergency care at RHCs (Planning Cell Health Department, 1994).

**3.3.9 The Ninth Five Year Plan (1998-2003)/Planning Commission 1997:** Government did not approve this plan and the country came under military regime in 1999 who prepared a three year plan (2001-04) for health services. This plan tried to create a balance between

promotive, preventive and curative care and providing outreach services to villages and provision of MCH services (Progress on Agenda for Health Sector Reforms, 2004).

### **3.4 Health Policies of Pakistan**

So far three National Health Policies in the years 1990, 1997 and 2001 were developed and implemented in Pakistan. The first National Health Policy (NHP) of 1990 stressed that people had paid a heavy price of being ill from different diseases which could be prevented thus improvements are needed in the form of providing safe drinking water, housing, sanitation and family planning. Keeping in view of the Health for All initiative it included the points of effective and efficient provision of health services to all, emphasizing on prevention and promotion of health and curative services, all citizens should be provided with easy access to health services, community participation to make people self reliant and health should be considered integral for national development (National Health Policy, 1990).

To attain these objectives, NHP 1990 predominantly aimed at providing primary health care (PHC) to all to combat child and maternal mortality by mounting the treatment for inoculation of most of the childhood diseases like tetanus, measles, diphtheria, whooping cough, and tuberculosis by establishing public health services. It also stressed on combating anemia among women of childbearing age by providing ample antenatal care and improved maternity practices, and to guarantee a sufficient point of nutrition for children and women of childbearing age. Moreover, it advocated for training of health care professionals in the area of pregnancy, childbearing, and childcare. Medicines for treatment of common diseases would also be provided in the rural areas. National budget will include an increase in health sector and new sources of

revenues would be identified to materialize this policy includes the draft of the NHP 1990 (National Health Policy, 1990).

On an executive level, the NHP 1990 intended to decentralize the health system and to make available Primary Health Care (PHC) services through basic health units (BHUs) and rural health centers (RHCs) in rural areas. In urban areas, primary health care services would be enhanced by training more medical doctor and other health practitioners. To decrease child mortality and child diseases services would be improved in the field of nutrition, vaccination against childhood diseases and maternal and child health care. Along with this, public education and awareness programs have to be launched in the area of maternal and child health care and family planning (National Health Policy, 1990).

The second National Health Policy (NHP) of 1997 recognized that stocking up and development of health policy in accord with existing health standards was one of its crucial endeavors and that the earlier health policy had not successfully covered all areas of PHC and the Health for All (HFA) approach. This policy documented various growing health issues like cancer, HIV/AIDS, diabetes, road accidents, mental health, violence and crime and tuberculosis and to overcome these health issues it stressed on preventive medicine and health promotion according to modern health standards. For the planning component this policy proposed to increase training prospects, advance health administration, grow a health information system, incorporating precedence health programs, spreading out and decentralization of the health system and building up the PHC system (National Health Policy, 1997).

The third health policy of 2001 recognized the obligation for a comprehensive health policy to deal with promising health problems and advance life conditions. This policy aims to develop the health sector to prevent disease, sustain health, and increase basically health status of

the populace in line with the values of HFA. The NHP 2001 established to lessen the persistent occurrence of infectious and contagious diseases such as Tuberculosis, malaria, hepatitis B and HIV/AIDS by increasing the treatment and accessibility of vaccination. However the NHP 2001 has also disregarded the series of diverse and multifaceted causes of these health issues and problems and had in due course stayed behind as ineffective to make up a comprehensive, appropriate and practical policy contributions to prevent disease and sustain health in accord with HFA (National Health Policy, 2001).

### **3.5 Rural Health Programmes and Basic Health Units**

The Rural Health Centers Programmes originated in 1960s in Pakistan when the first ten pilot Rural health Centers were planned with each three sub-centers. These ten pilot Rural Health Centers were built during 1960-62. In 1962, Government sanctioned a scheme for establishment of 150 Rural health Centers in West Pakistan in a period of five years, by June 1975, 131 Rural Health Centers had been established in different provisions including 10 pilot centers (Social Action Program, 1994).

The project aim was to provide one Rural Health Center with three sub-centres to look after a population of 50,000. As per original plan the facilities in Rural Health Centers were comprehensive and included operation theater, indoor treatment facilities and laboratories, Residential accommodation was provided for doctors and most of the staff at the Rural health Centre only (Mahmud, & Bashir, 1990).

The land for Rural Health Centers was donated by the community while the building for the sub centers were either donated by the community or built by the local government. There was no provision for accommodation for the staff at the sub-center. The sub-center's main work

was preventive and health education. The rural health center was to be provided by two doctors, medical auxiliaries and ancillary staff while the sub-center was to be given one each auxiliary and ancillary worker (Mahmud, & Bashir, 1990).

The essential feature of the strategy was to provide as far as possible the entire range of health services to rural areas on an integrated basis through the Rural health Centers. The project envisaged vertical integration, linking facilities through a tier of institutions (sub-centers, rural health centers, tehsil/taluka hospitals) to be district hospitals. Horizontal integration of all health services was also envisaged. The Rural Health Center was responsible for curative and preventive work, maternity child welfare, family planning, and sanitation and health education. The rural health center was expected to supervise the work of sub centers. Transport was the key element of the supervision (Razzak, Khan, & Azam, 2011).

Some of the weaknesses of the project studied in 1975 indicated that some of the sub-centers were located too far away from the main center which weakens the supervisory role of the main centers. The distance of 8-16 kilometer was planned initially between sub-centers. The buildings of the sub – centers were not properly maintained and houses for the staff at the sub-centers were not provided. Due to this a large number of positions of paramedics at sub-centers were laying vacant (Khan, Bhutta, Munim, & Bhutta, 2009). Space utilization at Rural Health Centers was not proper as most of the Rural health Centers were provided 7500 sq. ft. area with an average of 10 beds and 18-27 rooms. The buildings of the Rural health centers were over built considering their functions. Transport which was the main component for supervision and referral was absent in a number of places. Doctor's positions were lying vacant as most of the doctors either found employment abroad or in urban areas as they were in short supply. Indoor facilities were underutilized due to the absence of doctors and some of the important categories

of staff members. Due to this, operation theaters and laboratories were also underutilized. Preventive work, maternity child welfare and family planning functions were not made to use rural Health centers as an instrument of integration as separate vertical programmes continued to operate in areas where Rural Health Center was functioning (Garner, & Thaver, 1993).

In light of the above mentioned evaluation of the project for establishment of 150 Rural health Centers in Pakistan, the strategy was modified as following:

- i) Sub-Centers to be upgraded as Basic Health Units which were to be built by public funds and should have an average buildup area of about 1000 square feet. These basic Health Units were to be manned by 2-3 health auxiliaries with proportionate ancillary staff for which residences were built as part of the project.
- ii) Instead of 3 Sub-Centers being provided in the catchment areas of a Rural Health Center, 4-5 basic Health Units were planned to be built to improve supervision and referral.
- iii) The over provision of space of Rural Health Center was reduced so that facilities are not over built and space could be economically utilized while more facilities could be added in the same amount to serve a large number of people.
- iv) Emphasis was made to integrate various facilities with the rural Health Centers being the focal point.

For the first set of Basic Health Units allocations were made in 1976. Concurrently with this, steps were taken in 1977 to train mid-level health workers called health technicians male and female. Their training was competency based training while the duration of training was 18 months. As the new approach of popular with the provinces, larger allocations were made to the

rural Health Programme primarily by intra-sectoral adjustment upto 1991, approximately 5000 Basic health Units and Rural Health Centres had been built with an average of about 300 such facilities being added every year (Garner, & Thaver, 1993).

### **3.6 Current Health Care System of Pakistan**

All the public departments were working under Federal Government till June 2011 after 18<sup>th</sup> Constitutional Amendments but after that, the Federal Ministries were abolished and the health responsibilities of planning and fund allocation came under Provincial Health Departments making them more autonomous. Thus the Central Licensing Board, Drug Regulatory Board and the Drug Appellate Board still exist at the federal level whilst Quality Control Boards exists at the provincial level (Cheema, & Rondinelli. 2005).

The Provinces regulate and manage most of the public health delivery system at district level in Pakistan. Thus the health care is provided through a three tiered delivery system in districts. The first tier or the core of primary health care structure is comprised of Basic Health Units (BHUs), Mother and Child Health Care (MCHC) Centers and Rural Health Centers (RHCs). The second is the Tehsil Head Quarter Hospitals which provides inpatient care, ambulance services and referral facilities (Mahmood, 2000). Then there are District Headquarter Hospitals (DHQs) which are also maintained by Teaching hospitals. The Mother and Child Health Care (MCHC) Centers, Basic Health Units (BHUs) and Rural Health Care (RHCs) Centers are meant to provide basic health care services through community participation with the help and support of Lady Health Workers (LHWs), Lady Health Visitors (LHVs), and community midwives (Islam, & Aman, 2001).

The private health care system in Pakistan includes pharmacists, doctors, nurses, even traditional healers, drug vendors, as well as shopkeepers, laboratory technicians and unqualified

practitioners. Most of the doctors also practice in evenings at their private clinics after serving in public hospitals in the morning, there is always a debate in the country that this should be banned as these doctors take heavy fees at their private clinics and discourage and do not pay attention to patients at public hospitals (Hakim, Sultan, & Ahmed, 2001). As the private sector is mostly followed by market trends to get more financial benefits thus the concentration of private health practitioners like qualified doctors and hospitals is high in big cities and unqualified medical practitioners has grown high in rural areas (Shaikh, Naeem. Nafees, Zahidie, Fatmi, & Kazi, 2012).

Government of Pakistan embarked on primary health care service prior to the 1978 Alma Ata Declaration of Health for All by the year 2000. A total of 492 Rural Health Centers and 3496 Basic Health Units (Primary Health Care Units) were built during the Fifth and Sixth Five year Plan, out of a total of 625 RHCs and 4596 planned during 1978-83 (Giusti, 1993).

National wide health care, for which primary health care (PHC) has been provided, ensures a systematic link between the village community and the whole health system. Depending upon the density and scatter of the population, a Basic Health Unit Services are meant for a population of 5000 to 10000 persons. Services provided at BHUs include MCH services, child care, immunization, diarrheal disease control, malaria control, child spacing, mental health and school health services within its area (Bhutta, 2004). Outreach services are provided primarily for MCH through training birth attendants, 510 Basic Health Units are linked to a Rural Health Centre. Each Rural Health Centre has about 25 beds, a Laboratory, X-ray, and provision for minor surgery. The RHC is linked through Tehsil/Taluka Hospital which in turn, is linked to District Headquarters Hospital, which will have all medical facilities including other existing facilities such as dispensaries and MCH Centre. The whole system of BHUs, RHCs,

Tehsil Hospital and Finally District Headquarter Hospital, is designated as “Integrated Rural health Complex” (Cheema, & Rondinelli. 2005).

All the BHUs are staffed by Medical Officer, a male and female Health Technician, and support personnel. RHC plays a pivotal role and acts as a focal point in the health system and it is also provided with a dentist, a laboratory incharge and a sanitary inspector. This type of approach is meant to remove disparity in urban and rural areas (Cheema, & Rondinelli. 2005).

### **3.7 UNDP Human Development Indicators especially of Health (2013)**

The Human Development Indicators according to United Nations Development Program (UNDP)’s Human Development Report titled “The Rise of the South: Human Progress in a Diverse World” of 2013 are as follows:

**3.7.1 Developed Countries (Australia, USA, Germany, Canada, UK):** The Human Development index rank of Australia is 2 and the value is 0.955, while the rank of USA is 3 and its value is 0.937, the rank of Germany is 5 and its value is 0.920, the rank of Canada is 11 and its value is 0.911 and the rank of UK is 26 and its value is 0.875 (UNDP, 2013).

The gender inequality index shows that Australia is on rank 17 with value as 0.115, while the rank of USA is 42 and its value is 0.256, the rank of Germany in gender inequality index is 6 while its value is 0.075, while the rank of Canada is 18 and its value is 0.119 and the rank of UK is 34 and its value is 0.205 (UNDP, 2013).

The maternal mortality ratio (deaths per 100,000 live births) of Australia is 7, of USA is 21, of Germany is 7, of Canada is 12 and of UK is 12. The adolescent fertility rate (births per 1000 women ages 15-19) of Australia is 12.5, of USA is 27.4, of Germany is 6.8, of Canada is 11.3 and of UK is 29.7 (UNDP, 2013).

The immunization coverage (% of one year old) of Australia for DTP is 97 and of measles is 94, of USA for DTP is 99 and of measles is 92, of Germany for DTP is 97 and of measles is 96, of Canada for DTP is 92 and of measles is 93 and of UK for DTP is 98 and of measles is 93 (UNDP, 2013).

The HIV prevalence (youth) among females (% ages 15-24) for Australia is 0.1, for USA is 0.2, for Germany is 0.1, for Canada is 0.1, for UK is 0.1. While among males (% ages 15-24) for Australia is 0.1, for USA is 0.3, for Germany is 0.1, for Canada is 0.1 and for UK is 0.2. The HIV prevalence among infants (deaths per 1000 live births), for Australia is 4, for USA is 7, for Germany is 3, for Canada is 5 and for UK is 5. While HIV prevalence among children under five (deaths per 1000 live births) for Australia is 5, for USA is 8, for Germany is 4, for Canada is 6 and for UK is 5 (UNDP, 2013).

The mortality rate for adult female (per 1000 adults), for Australia is 45, for USA is 78, for Germany is 53, for Canada is 53 and for UK is 58. While the mortality rate for adult male (per 1000 adults), for Australia is 79, for USA is 134, for Germany is 99, for Canada is 87, for UK is 95. The mortality rate due to malaria (per 100,000 people per year) for Australia, USA, Germany, Canada and UK is 0.0 and the mortality rate due to cholera for Australia, USA, Germany, Canada and UK is 0. The mortality rate due to cardio vascular diseases and diabetes (per 1000 people) for Australia is 112, for USA is 156, for Germany is 170, for Canada is 121 and for UK is 133 (UNDP, 2013).

**3.7.2 Under Developed Countries (Pakistan, India and Bangladesh):** Pakistan ranks at 146 position under the category of low human development along with Bangladesh at the same 146 position while India stands at 136 position and falls under the category of the countries which have medium human development. Moreover according to the same source, Pakistan's

adult literacy rate (% 15 and above) is 54.9, while that of Bangladesh is 56.8 and of India is 62.8. The population with at least secondary education (% ages 25 and older) in Pakistan among females is 18.3 and among males is 43.1, while in Bangladesh among females is 30.8 and of males is 39.3 and of India among females is 45.7 and among males is 61.9 (UNDP, 2013).

Under the gender inequality index, Pakistan stands at the rank of 123 with value as 0.567, while Bangladesh is at rank 111 with value as 0.518 and India ranks at 132 with value as 0.610. The maternal mortality rate (deaths per 100,000 live births) of Pakistan is 260, while that of Bangladesh is 240 and of India is 200. While adolescent fertility rate (birth per 1000 women ages 15-19) of Pakistan is 28.1, of Bangladesh is 68.2 and of India is 74.7 (UNDP, 2013).

The immunization coverage (% of one year old) of Pakistan for DTP is 90 and of measles is 86, while of Bangladesh for DTP is 90 and of measles is 94 and of India for DTP is 83 and of measles is 74. The mortality rate of adults for Pakistan among females is 189 and among males is 225, while for Bangladesh it is 222 among females and 246 among males and for India it is 169 among females and 250 among males. The mortality rate among adults due to malaria (per 100,000 people per year) of Pakistan is 0.6 while of Bangladesh it is 1.8 and for India it is 1.9. The mortality rate of adults due to cholera (number) for Pakistan is zero, of Bangladesh is not available and of India is 6. The Adult mortality rate due to cardio vascular diseases and diabetes in Pakistan is 422, while of Bangladesh is 418 and of India is 336 (UNDP, 2013).

According to the same source, the statistics about health care quality shows that in Pakistan the physician's quality per 1000 people is 0.8 while in Bangladesh it is 0.3 and in India it is 0.6. the satisfaction with health care quality (% satisfied) for Pakistan is 41, while of Bangladesh it is 69 and of India it is 67. The HIV prevalence (% ages 15 – 24) for Pakistan, Bangladesh and India among females and males is the same as 0.1 but the infants deaths (per

1000 live births) due to HIV for Pakistan is 70, while of Bangladesh is 38 and of India is 48 (UNDP, 2013).

### **3.8 Health Profile of Khyber Pakhtunkhwa (KP) Province**

According to the Bureau of Statistics, Khyber Pakhtunkhwa, Government of Pakistan, in 2010 the population of Pakistan was 132352 while that of Khyber Pakhtunkhwa was 89316. The urban population of Pakistan was 43036 and urban population of Khyber Pakhtunkhwa was 2994. The rural population of Pakistan in 2010 was 89316 while that of Khyber Pakhtunkhwa was 14742. The male population of Pakistan in 2010 was 68874 and of Khyber Pakhtunkhwa was 9085 while female population of Pakistan was 63478 while of the KP was 8651 (Bureau of Statistics, Khyber Pakhtunkhwa, Government of Pakistan, 2010).

The annual growth rate of Pakistan according to the same source for 2010 was 2.69 and of KP were 2.81. The density (persons per square kilometer) for Pakistan was 166 while of KP was 238. The geographical area (square kilometer) of Pakistan is 796 while of KP its 74.5.

The same source revealed that total Districts in KP are 25, total Tehsils (sub division of district) are 64, sub-tehsils (provincial) are 22, total villages called also *mauzas* according to 1998 census of Pakistan are 7337, total district administrations are 25, total Tehsils/Town municipal administrations are 55, total union councils are 987, total police stations in the province are 251 and total provincial constituencies are 99 (Bureau of Statistics, Khyber Pakhtunkhwa, Government of Pakistan, 2010).

The health statistics according to the Bureau of Statistics, Khyber Pakhtunkhwa, Government of Pakistan in 2010 shows that the total hospitals in the province are 172, dispensaries are 421, Rural Health Centers (RHCs) are 86, total Basic Health Units (BHUs) are

783, Sub Health Centers are 26, total beds in hospitals/dispensaries or RHCs are 16866 and total population per bed (persons) is 1461.

The data about health practitioners according to the same source shows that in 2010, there were total 3230 doctors in KP, while the population per Doctor was 7631, the total nurses were 2712 and total Lady Health Visitors (LHVs) were 981. The private medical practitioners, male were 1414, females were 95 making the total to 1509 (Bureau of Statistics, Khyber Pakhtunkhwa, Government of Pakistan, 2010).

### 3.9 Area Profile of District Mardan

#### 3.9.1 History

The region comprised of Mardan district is a component of the Peshawar valley, which first emerged in the olden times as division of the Gandhara Empire. Subsequent to incursion of Alexander the Great, the smog of gloominess started to settle. The militia of Alexander arrived at the Indus Valley by two detached directions, one straight all the way through the Khyber Pass and the other directly by Alexander himself through Kunar, Bajaur, Swat and Buner in 326 BC. After Alexander's exit, the valley came under the decree of Chandragupta who ruled the valley from 297 to 321 BC. During the control of the Buddhist emperor Asoka, the grand-son of Chandragupta, Buddhism was the faith and belief of most of the people of Peshawar Valley. The valley saw the resurgence of Brahmanism following the Greeks who took over the valley in the time of king Mehandra. The Seythians and Indians trailed by and maintained the control of the valley till the 7<sup>th</sup> century AD (Khyber Pakhtunkhwa, Official Gateway to Government).

Ranjit Singh captured Attock in 1814 and Peshawar in 1818. He made Hari Singh Nalwa as commandant and departed to Lahore. This valley stayed under the powers of the Sikhs up to 1849. They were conquered by the British in the Second Sikh War and Major Lawrence was chosen as the first Deputy Commissioner of Peshawar. From that time Peshawar turned into an executive district under the rule of Punjab Government. At that moment the current Mardan district was a division of Peshawar district. In 1909 Frontier Province was made up and in 1937 Peshawar district was divided into Peshawar and Mardan districts (Khyber Pakhtunkhwa, Official Gateway to Government).

### 3.9.2 Ethnicity and Tribes

Mardan district is mostly occupied by the Yusufzai Pathans but the Lundkhwar valley has also considerable Khattak population. The starting point of the Pathans is mapped out back to two brothers Khakai and Ghori who granted their names to the two groups of the clans inhabited close to Qandhar. The Khakai were later debarred by the Ghoris and they advanced near Kabul about the hub of the 13<sup>th</sup> century. Whilst they amplified in quantity and obtained prosperity they divided into three tribes, the Yusufzais, Giygyanis and Turklays. At the slam of the 15<sup>th</sup> century, the Yusufzais and Giygyanis shifted to the lands of Peshawar and finally threw out the Dalazaks and stretched into Buner district. They ultimately shifted into Mardan district and the region appeared to be recognized as “Yousafzai Plain” (Khyber Pakhtunkhwa, Official Gateway to Government).

The further major clan of Mardan is Khattak. The Khattaks drew their civilization from Lukman, surnamed Khattak, son of Burhan and grandson of Karran. The Khattaks and Yusufzais were in a status of continuous hostilities with each other earlier than the control of Emperor Aurangzeb. In the era of Aurangzeb, Khushal Khan Khattak the big Pushto lyricist and

fighter cut down with Aurangzeb and made serenity with the Yousafzai. Following the manufacturing of Upper and Lower Swat canals from the Swat River, the Mohmand people started piercing in the district. They started as trivial occupants of proprietors of the district and steadily by their hard work they reinstated a lot of of their landlords. The Mohmands are largely institute in southern Kamalzai and northern Kamalzai area of Mardan tehsil but are also established in diminutive numeral all over the district (Khyber Pakhtunkhwa, Official Gateway to Government).

In addition to these major tribes, some Sayyeds and Gujars are also found in the district. The Gujars are more in number and some historian said that they are the novel populace of the area.

### 3.9.3 Food

The majority of the people's general food is bread which is prepared of wheat or maize flour. The inhabitants of the region like mostly meat particularly different types of beef cooked in the form of *chapli kabab*, *seekh tikkas* and a hot drink called *qahwa* (green tea) which is very much admired and is appreciated by nearly everyone of the area (Khyber Pakhtunkhwa, Official Gateway to Government).

### 3.9.4 Occupations

Mainly the rural people's profession is cultivation. They are betrothed in farming whichever unswervingly or not directly. Industrial labour has augmented following the institutionalization of factories in different areas of the district. A few people are betrothed in trade and industry and some are also working with public offices (Khyber Pakhtunkhwa, Official Gateway to Government).

### 3.9.5 Culture, Customs and Traditions

Religion has an immense influence on the culture of natives. The majority of the populace is Muslim, though, there are a few Hindus, Buddhist and Parsis also residing in the area. The Sayyeds, Mians and Sahibzadas benefit from unusual reverence between the Pathans on the version of their descent. The visit to holy places or Ziaraat is also universal particularly amongst the women folk (Khyber Pakhtunkhwa, Official Gateway to Government) (Khyber Pakhtunkhwa, Official Gateway to Government).

The Yousafzai Pathans are vigorous, courageous and cordial people. They are very polite with each other. A trivial offense to it is deeply disliked and every so often upshots bloodshed. It is considered allowed to take vengeance yet from the son or grandson for the incorrect acts of the father or grandfather. This prototype of life has resulted in acute uncertainty and absolute disrespect of human life.

There are numerous types of compliments and welcoming gestures. Most commonly the Pathans hug each other when they meet up with other Pathan. This is pursued by a string of exploration like are you all right, are you happy, as well as some other related words of kindness (Census Report, 1998).

### 3.9.6 Executive, Judiciary and Revenue System

The administrative setup in this district is just like other districts in the country. The district divided into two sub-divisions Mardan and Takht Bhai with headquarters at Mardan.

The Deputy Commissioner supervises all the departments in the district and stationed at headquarter. His major concern is to maintain law and order situation in the district as District magistrate and look after the revenue records as District Collector. He is in-charge of the

treasury. He is assisted by the Assistant Commissioners in each sub-division. The Assistant Commissioners decide revenue cases as well as criminal case in the sub-divisions and also look after the law and order situation. The sub-divisions have a revenue setup of Tehsildar, Naib Tehsildar who have a number of Girdawar under them. The Girdawar stay in the Girdawar halqas and maintain an update record of the halqa with the help of Patwaris (Census Report, 1998).

### 3.9.7 Police Department

The police department headed by Superintendent of Police who supervises and controls the police force in maintaining the law and order situation in the district. He also control and supervise the investigation in the criminal cases. He is assisted by the Sub-Divisional Police Officers on sub-division level. This department has an efficient wireless communication system which extended to all the police stations and police vehicles (Census Report, 1998).

### 3.9.8 Health

This district has two Civil Hospital, five Rural Health Centers, five Basic Health Centers, two Sub-Health Centers, thirteen Dispensaries, two MCH Centers and one Leprosy Clinic in the district. Along with this there are a lot of private hospitals and clinics (Census Report, 1998).

### 3.9.9 Education

The District Education Officer is in charge of the schools in the district, who is assisted by Sub-divisional Education Officers in both tehsils and sub-divisions. Current positions of educational institutions are as under:

Serial #	Educational Institution	Nos.
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1.	Post Graduate College	1
2.	Degree College	6
3.	Intermediate	-
4.	Commerce College	1
5.	Vocational	1
6.	Higher Secondary School	10
7.	High School	87
8.	Middle School	112
9.	Primary School	1141
10.	Community Model School	10
11.	JICA* – Model School	3
12.	Abdul Wali Khan University	1
13.	Bacha Khan Medical College	1
14.	University of Engineering & Technology	1

**Source: Mardan (1997-98) District Education Officer (Primary), Education Department, KP**

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*\*JICA schools are those schools which are operated with the help of Japan International Cooperation Agency.*

### 3.10 significant HISTORICAL PLACES of Mardan District

#### 3.10.1 Shahbaz Garhi

Shahbaz Garhi is located on Mardan Swabi road at an expanse of 12 kilometer from Mardan. The royal leader Babar in his book Tuzk-e-Babri has mentioned about this monastery. It has also been acknowledged that this rural community has been named with the name of a renowned pious person (Khyber Pakhtunkhwa, Official Gateway to Government).

### 3.10.2 Kashmir Ghar

Kashmir Ghar is located east of Katlang near the rural community of Babozai. Close to the ramparts of this monastery little wrecked monuments are accessible. It means that Hindu Pandit once worshipped here. There is also a swimming pool which appears to be used for religious bathings called *ashnon* in Hindi (Khyber Pakhtunkhwa, Official Gateway to Government).

### 3.10.3 Sawal Dher

This site is positioned at a distance of 4/5 kilometer in the South West of Jamal Garhi. Most of the statues of this monastery are conserved in the Lahore Museum. It is the primeval town where a rural community of Sawal Dher is now located (Khyber Pakhtunkhwa, Official Gateway to Government).

### 3.10.4 Jamal Garhi

Jamal Garhi is located at 13 kilometer from Mardan city and is linked by a metal path. It is located in the heart of Takht Bhai and Shahbaz Garhi at equivalent distance of 12 kilometers from both sides (Khyber Pakhtunkhwa, Official Gateway to Government).

### 3.10.5 Takht Bhai

Takht Bhai is positioned on Mardan Malakand road at a distance of 15 kilometers from Mardan. The primeval Buddhist monastery is located at the altitude of 5500 feet from the neighboring territory. In 1908-9 Sandapora Kharoshti writings and coins were revealed. This monastery has a great number of buildings inside it (Khyber Pakhtunkhwa, Official Gateway to Government).

### 3.10.6 Sari Behlol

This monastery is located at Mardan Malakand road at a distance of about 10 kilometers from Mardan. It is located at a rise. As per the proclamation of Dr. Spooner & Dr. Arl Strain, it is a great asset of Gandahara Art. The two third statues of Peshawar Museum have been taken from Sari Behlol location. In the views of Archaeologists owing to unexpected blazing at Sari Behlol the sculptures did not stay put together. Some valuable coins were also discovered from this place (Khyber Pakhtunkhwa, Official Gateway to Government).

## 3.11 geography

### 3.11.1 Name, Location, Boundary and area

In the start, the name Mardan was specified to a diminutive vicinity following the name of Pir Mardan Shah, a famous spiritual personality. Steadily, a hefty adjacent region came to be identified as Mardan. The area comprising Mardan district was a part of Peshawar valley, which first emerged in history as a component of Gandhara Kingdom. Until 1937, Mardan district was a component of Peshawar district. In 1937, Mardan was put up as an autonomous district following the name of its headquarters settlement (Khyber Pakhtunkhwa, Official Gateway to Government).

The district lies from 34° 50 to 34° 32 north latitudes and 71° 48 to 72° 25 east longitudes. It is bordered on the north by Buner district and Malakand secluded area, on the east by Swabi and Buner districts, on the south by Nowshera district and on the west by Charsadda district and Malakand secluded area. The whole region of the district is of 1632 square kilometers (Khyber Pakhtunkhwa, Official Gateway to Government).

### 3.11.2 Physical Features/Topography

Mardan district may generally be divided into two divisions, north eastern hilly area and south western plain. The whole northern side of the district is surrounded by the hills. In the district, the utmost points in these hills are *Pajja* or *Sakra* which is 2056 meters high and *Garo* or *Pato* which is 1816 meters high. The south western half of the district is generally composed of luxuriant plains with stumpy hills spotted across it. It is commonly established that this plain formerly formed the bed of a lake which was slowly but surely crammed up by the load of the river flowing into from the adjacent hills. From the base of the hills the plain runs down at first with a sharp undulation which carried the rain water to the lower levels and eventually to the Kabul river (Khyber Pakhtunkhwa, Official Gateway to Government).

### 3.11.3 Weather

The summer time is awfully hot. A sudden increase of hotness is witnessed from May to June, even July, August and September testify pretty high temperatures. The weather is extreme cold from October to March (Khyber Pakhtunkhwa, Official Gateway to Government).

### 3.11.4 Flowers and Vegetation

The current flowers, plants and vegetation of the irrigated areas are striking. The general trees are mes-quite, ber, different variety of acacia and jand. The most frequent vegetations are tarmariax articulata, spands, *akk*, small red poppy, spera, pueghambrigul, drab grass, spera, eamelthorl and pohli chaulai etc (Khyber Pakhtunkhwa, Official Gateway to Government).

### 3.11.5 Animals

The district has a range of animals consisting of the following:

1. Leopard
2. Leopard Cat.
3. Black Bear.
4. Brown Monkey.
5. Jackal.
6. Wild Goat.
7. Pheasant.

#### 3.11.6 Farming and Cultivation

Mardan is acknowledged as the finest farming region in the country. Its soil is very appropriate for crop growing like sugar cane and tobacco and is thus truly called the territory of sugar cane and tobacco (Khyber Pakhtunkhwa, Official Gateway to Government).

#### 3.11.7 Irrigation

The foremost resource of irrigation is the canals. The upper Swat canal waters generally Mardan district and the lower Swat canal irrigates south western part of the district. In addition to this, irrigation is done by tube-wells and lift irrigation (Khyber Pakhtunkhwa, Official Gateway to Government).

## **Chapter - 4**

### **Research Methodology**

#### 4.1 Scope of the study

Health is the topmost priority in every individual's life. It is important evident in old saying "health is wealth". Health is not only important to lead a happy life for an individual, but also necessary for all productive activities in the society. The whole development cycle of a person depends upon his intellectual caliber, curiosity and constructive thinking, but all these qualities depend upon his good health. Parks refers to disease as an international issue which has no political or geographical boundaries, but is a constant threat to human life.

Phisek Ponrattana Wararom, in his article, "health is development", slightly said, "Good health is a must to human efficiency and the development procedure". It is crucial to fiscal and technical growth. A strong and healthy community is the infrastructure upon which a nation can build an economically sufficient society. The development of a society significantly depends on the quality of health of its citizens. Being unhealthy people can barely make any compelling input towards development programmes. Health is man's supreme possession, for it lays an unyielding foundation for his bliss.

Health is an expression, widely used in every day discussion, with slight visible uncertainty. Nevertheless, closer assessment discloses a variety of diverse explanations; each with different inferences for the responsibility of the state. It is significant to distinguish the dissimilarity among "health" and "health care", terms which are commonly and incorrectly are used interchangeably. The term "health" refers to a state of an individual or of community. This state of health may be subjective by a number of issues together with health care. Though, other factors affecting health range from poverty, education levels, food intake, employment, access to clean water, and sanitations and housing conditions and personal practices such as sexual behavior or smoking.

Pakistan is the sixth most densely inhabited country in the world, with its present population estimated at 156.26 million. Even though the *Population Growth Rate* has turned down from over 3% in the 1960s and 1970s to the present level of 1.9% per annum, it still remains an inappropriately soaring rate of growth judged against the other developing countries, and particularly 2.9 million people are added to the country's populace every year. In total number almost 113 million persons have been added to the population during the last 45 years (1961-2006). This is composited by the mounting movement of the population to urban areas as in 1951 six million people lived in the urban areas of Pakistan while now one third of the population lives in cities.

The foremost means of health financing in Pakistan is public sector and 0.5 percent of its GNP is depleted on health. The government is aware of the need to increase provisions in this area and mainstreaming substitute approaches to health financing. Public sector's economic allocation was amplified from Rs.60 billion in 2007-08 to Rs. 74 billion in 2008-09. Of which Rs. 33.00 billion was development expenditure on health as a fraction of the GNP stood at 0.55 percent which in term of GNP means a 23 percent rise over last year.

In Pakistan, the health condition persists to be low when compared to countries with parallel income level. Beside the low budgetary provision to health sector, the maternal mortality rate of 340 per 100.000, infant mortality of 95 per 1000 live births and extremely badly low immunization cover restrain any semblance of development that we try to accomplish.

Health is a fundamental human right and should be accessible and reachable in an inexpensive structure to all. To this end, an integrated approach to public health in the districts should combine preventive and curative health at all levels i.e. primary, secondary and tertiary levels.

Government of Pakistan started primary health care service earlier to the 1978 Alma Atta Declaration of Health for all by the year 2000. During 1978-83, the fifth And sixth five years plans included construction of 625 RHCs and 4596 BHUs but a total of 492 Rural Health Centers and 3496 Basic Health Units (Primary Health Care Units) were built. The accomplishments would have been improved if financial provision were also sufficient.

Primary health care (PHC) makes certain an efficient connection among the village community and the whole health system depending upon the compactness and spread of the inhabitants. A Basic Health Unit Services cater to 5000 to 10000 of population and the services provided at these BHUs includes MCH (Maternal Child Health) services, child care, immunization, diarrhea disease control, malaria control, child spacing, mental health and school health services within the area. Outreach services are provided primary for MCH (Maternal Child Health) through training birth attendants. A total of 510 Basic Health Units are linked to a RHC (Rural Health Centre), each Rural Health has about 25 beds, a Laboratory, X-ray, and provision for minor surgery. The RHC (Rural Health Centre) is linked through Tehsil/Taluka Hospital which in turn is linked to District Headquarters Hospital, having all medical facilities, other existing facilities such as dispensaries and MCH (Maternal Child Health) center that is then upgraded into Basic District Headquarter Hospital, is designed as “Integrated Rural Health Complex”.

All the BHUs have the medical staff having one Medical Officer, one male and a female Health Technician, and support personnel. RHC plays a pivotal role and act as a focal point in the health system, it is also provided with dentist, a microscopic, and a sanitary inspector. This type of approach helps to remove disparity in urban and rural areas in times to come.

The present Expanded Programme of Immunization, diarrhea disease control and the training of Traditional Birth Attendants, malaria and Tuberculosis control programmes will become an essential component of the health system. The posting of a Medical Officer in each BHU is to improve the quality of the care of over all working of the BHUs and minimize referrals to other health units and hardship to the community.

On the other hand, Pakistan is devoted to the aim of making its population healthier, as is apparent by the abiding strong support for the Social Action Program (SAP) and by the innovative revelation for health and population delineated in the government's National Health Policy Guidelines till 2010. An example of an upholding current scheme is the Lady Health Workers (LHWs) community based program, which is providing health information, some basic health care and family planning services to the local inhabitants of the country at their doorsteps. Presently 96000 women are working as LHWs in their home villages in Pakistan.

Primary health care should include indispensable health care based on realistic, systematically sound and socially established systems and expertise, making it commonly reachable to individuals and families in their communities and through their complete involvement and at a price that the community, the people and the country can pay for to uphold at each phase of their development in the fortitude of freewill.

Although primary health care is a basic issue of discussion worldwide, but not work related to this topic has been done in Asia and particularly in South Asia. In Pakistan, however few surveys have partially explored the issues and the problems in primary health care delivery or services and no study has tried to dig out the root causes of primary health care problems and its causes.

Primary health care is a phrase that is frequently used by the policy makers in today's world. Though, appraising and improving the quality of health care was, until lately a little precedence both for policy makers in developing countries and for technical agencies. When we discuss primary health care it actually means as also the Alma-Ata declaration endorsed primary health care as the means of attaining the World Health Organization goal of Health for All.

The present research will focus on the two issues which are:

- The significance of impartiality as an element of health.
- The requirement for the people involvement in decision-making related to health.

The focal point to study the above mentioned issues was the Primary Health Care Services provided by the Basic Health Units whereas it is discussed earlier that one BHU covers almost the 10,000 population of its surrounding areas and the main functions of the BHU are as follows:

1. Diagnosis and treatment of:

- i) Common ailments
- ii) Emergency cases
- iii) Care of special groups

2. Prevention of communicable Diseases:

- i) Immunization and surveillance
- ii) Passive case detection of TB DOS programme
- iii) Training of LHWs
- iv) Family planning
- v) Maternal and child health

3. Health education:

- i) Personal hygiene
- ii) School health

- iii) Nutrition and food
- 4. Collection of data:
  - i) Collection of LHWs data
  - ii) Individuals cards
  - iii) Medical case history
- 5. Basic laboratory services:
- 6. Liaison with other tiers and other programmes

## **4.2 Research Questions**

The study focuses the following questions:

1. What are the views of the community people i.e. the beneficiaries about the existing primary health care delivery services system?
2. Are the people satisfied with the services rendered by Basic Health Units?
3. What are the reasons of gaps in the existing services delivery system?
4. What do the local people suggest for the improvement of the existing service delivery system?

## **4.3 Methodology**

Methodology of the present study was descriptive, and analytical. The secondary data regarding the issue will be reviewed for the description part. Primary data collected during field interviews and focus group discussion would be analyzed in the form of qualitative and quantitative information.

## **4.4 Universe of the Study**

The general universe / population of the present study were all BHUs and its catchments population in District Mardan. District Mardan consists of two Tehsils namely Tehsil Mardan and Tehsil Takht Bhai. There are overall 51 union councils and 50 BHUs in District Mardan.

#### **4.5 Sampling Methodology**

The sample of the study was selected by multi-stage cluster sampling techniques. In the first stage, district Mardan was divided into two clusters i.e. Tehsil Takht Bhai and Tehsil Mardan. There are 37 BHUs in Tehsil Mardan whereas Takht Bhai has 13 BHUs. In second stage, one third of all BHUs were selected which account for 13 BHUs from Tehsil Mardan and 4 BHUs from Tehsil Takht Bhai through lottery method. The total selected BHUs were 17 in number. In the final stage, a sample of 768 respondents (for both beneficiaries and non beneficiaries of these BHUs) and 51 staff of BHUs were selected for study purposes by using the statistical formula explain below;

$$N_i = N_i/N * n$$

$N_i$  = Total Catchments Population of Selected 17 BHUs

$N$  = Total Catchments Population of all 50 BHUs of District Mardan

$n$  = Total sample size of all 50 BHUs

$N_i$  = Obtained sample size of i(th) BHU (means a particular BHU)

The sample size for each individual BHU is given in the following table.

**List of BHUs selected BHU and Sample Size for Each Selected BHU**

S #	BHUs Name	Tehsil	Catchment Population	Household Size	Sample Size	
					Beneficiaries	Non-Beneficiaries
<b>Tehsil Mardan</b>						
1.	BHU ALO	Mardan	10580	1322.5	46	46
2.	BHU BABOZAI	Mardan	9804	1225.5	42	42
3.	BHU BAKHSHALI	Mardan	12705	1588.125	55	55
4.	BHU CHECK MARDAN	Mardan	8765	1095.625	38	38
5.	BHU GARHI ISMAIL ZAI	Mardan	11567	1445.875	50	50
6.	BHU KATA KHAT	Mardan	8623	1077.875	37	37
7.	BHU KODINAKA	Mardan	9978	1247.25	43	43
8.	BHU MACHAI	Mardan	8750	1093.75	38	38
9.	BHU MIAN ISA	Mardan	11778	1472.25	51	51
10.	BHU MOHABAT ABAD	Mardan	8903	1112.875	47	47
11.	BHU RUSTAM	Mardan	11203	1400.375	48	48
12.	BHU SHEIKH YOUSAF	Mardan	10005	1250.625	43	43
13.	BHU SWALDHER	Mardan	12060	1507.5	52	52
<b>Tehsil Takht Bhai</b>						
1.	BHU JALALA	Takht Bhai	13450	1681.25	58	58
2.	BHU JAMRA	Takht Bhai	9915	1239.375	43	43
3.	BHU KOT JUNGARA	Takht Bhai	9130	1141.25	39	39
4.	BHU PARKHO DHERI	Takht Bhai	8872	1109	38	38
	Total		178005	22251	768	768

**Source: 1. Health Sector Reforms Unit. Govt. Khyber Pakhtunkhwa and Pakistan**

**2. District Health Information System, Executive Health Officer, Mardan.**

#### **4.6 Tools of Data Collection**

For this study, we will use the following data collection tools:

Tool 1: Primary data was collected with the help of interview schedules. Interview schedules for the beneficiaries, non-beneficiaries and staff.

Tool 2: Secondary data was collected from library studies of existing literature on primary health care. It is important to note that information collected will be highly confidential and will only be used for the study purposes.

#### **4.7 Data Analysis**

After collecting the data, the statistical analysis of the data was done keeping in view the objectives and hypothesis of the study. The data was then classified and tabulated with the help of SPSS. Conclusions were drawn by using the different statistical tools in which the research hypothesis was tested.

## Chapter – 5

### Presentation of Data (Beneficiaries of BHUs)

**Table – 5.1: Distribution of respondents according to the Gender and Age**

Gender	Frequency	%	Age of the respondents in years				
			10-20	20.1-30	30.1-40	40.1-50	50.1-60
Male	61	7.9	0.0%	0.0%	41(5.3%)	10(1.3%)	10(1.3%)
Female	707	92.1	20(2.6%)	342(44.5%)	261(34.0%)	63(8.2%)	21(2.7%)
Total	768	100	20(2.6%)	342(44.5%)	302(39.3%)	73(9.5%)	31(4.0%)

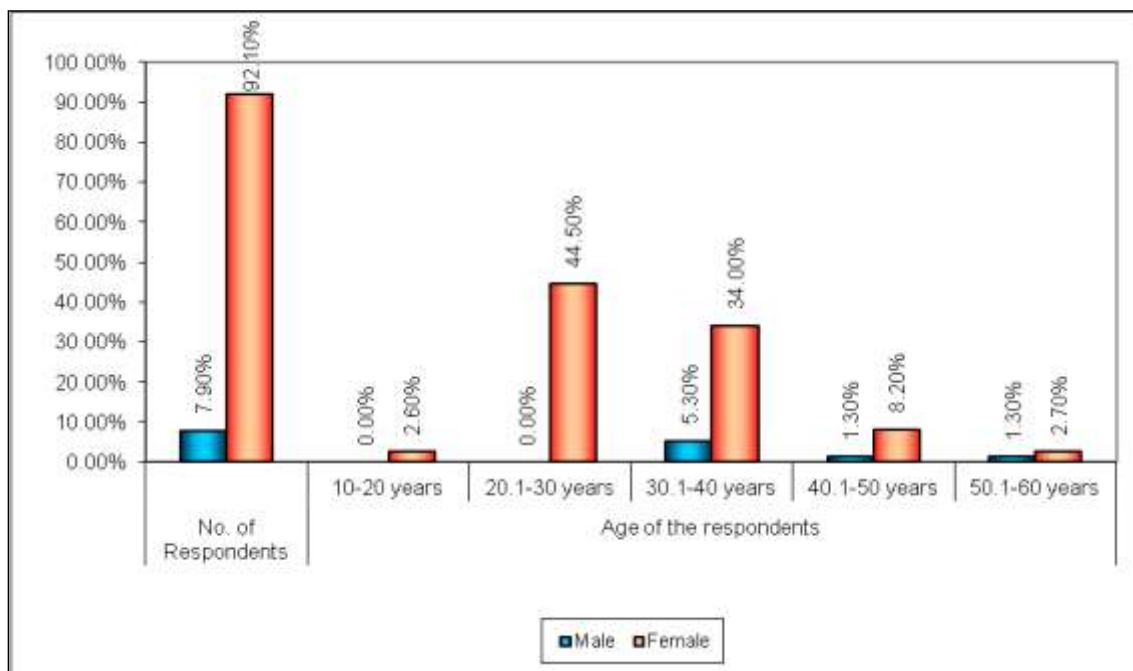
In this study the data is collected from both males and females beneficiaries of Basic Health Units (BHUs) District Mardan. Referring the age of the respondents, five groups were made with equal intervals in the range of 10 years to 60 years. Total number of 768 respondents including 61 men and 707 women were interviewed. Among the male respondents most of them were of 5.3% (41/61) young males between the age 30.1-40 years followed by a group of 1.3% (10/61) respondents between the age of 40.1-50 years and of the same numbers were 10/61 in the age group of 50.1-60 years.

Looking at the female respondent's age group, most of the females numbering 44.5% (342/707) young females were between the age 20.1-30 years, followed by a second group of 34.0% (261/707) respondents between the age of 30.1-40 years and third group with 8.2% (63/707) between the age of 40.1-50 years, then fourth group with 2.7% (31/707) between the

age of 50.1-60 years and the fifth group with the minimum numbers were 2.6% (20/707) female respondents in the age group of 10-20 years.

### Major Findings:

Most of the male respondents were of 5.3% (41/61) young males between the age 30.1-40 years and most of the females numbering 44.5% (342/707) young females were between the age 20.1-30 years.



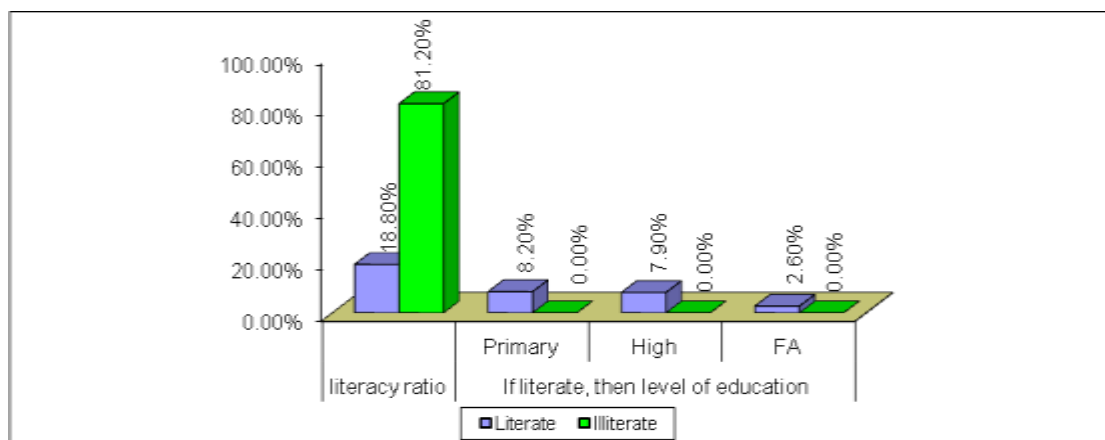
**Table – 5.2: Education & level of education**

Educational Qualification	Frequency	%	If literate, then level of education		
			Primary	High	FA
Literate	144	18.8%	63 (8.2%)	61 (7.9%)	20 (2.6%)
Illiterate	624	81.2%	0 (.0%)	0 (.0%)	0 (.0%)
Total	768	100%	63 (8.2%)	61 (7.9%)	20 (2.6%)

The beneficiaries of BHUs were interviewed for their educational status and the level of education acquired. Among the total 768 respondents, 18.8% (144) were literate and 81.2% (624) were illiterate. From the total literate respondents, 8.2% (63) were educated up to primary level, followed by 7.9% (61) who had acquired education till high level and then the minimum number 2.6% (20) were educated up to intermediate level.

### Major Findings:

Among the total 768 respondents, 18.8% (144) were literate and 81.2% (624) were illiterate.



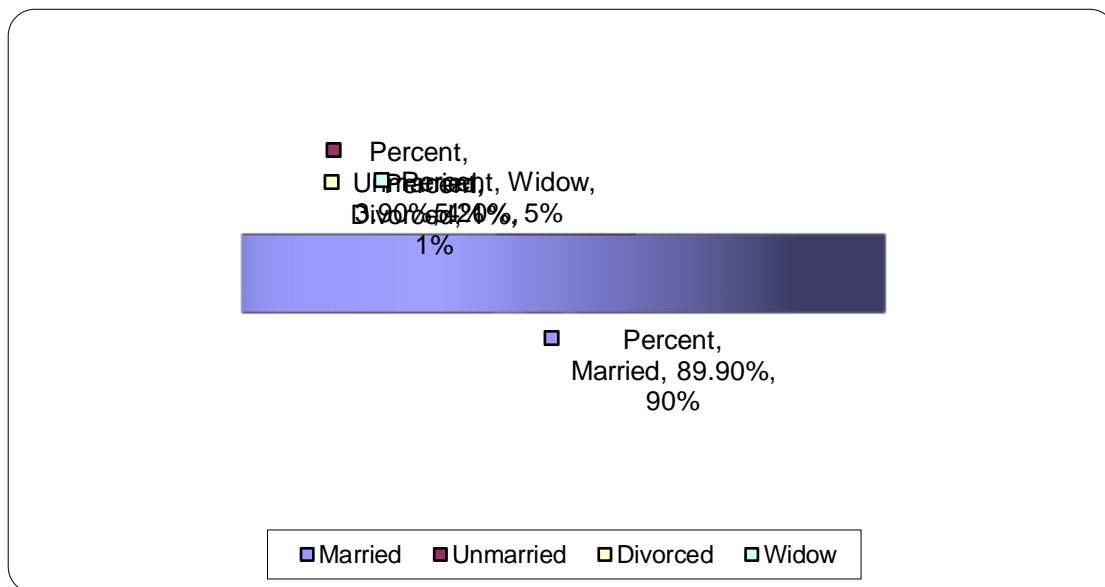
**Table – 5.3: Marital status of the respondents**

Marital Status	Frequency	Percent
Married	691	89.9
Unmarried	30	3.9
Divorced	07	01
Widow	40	5.2
Total	768	100.0

Referring to the marital status of the respondents, majority of them 89.9% (691) were married, followed by 5.2% (40) were widowed and 3.9% (30) were unmarried and then minimum numbers was 01% (07) who were divorced.

#### Major Findings:

Majority of the respondents 89.9% (691) were married.



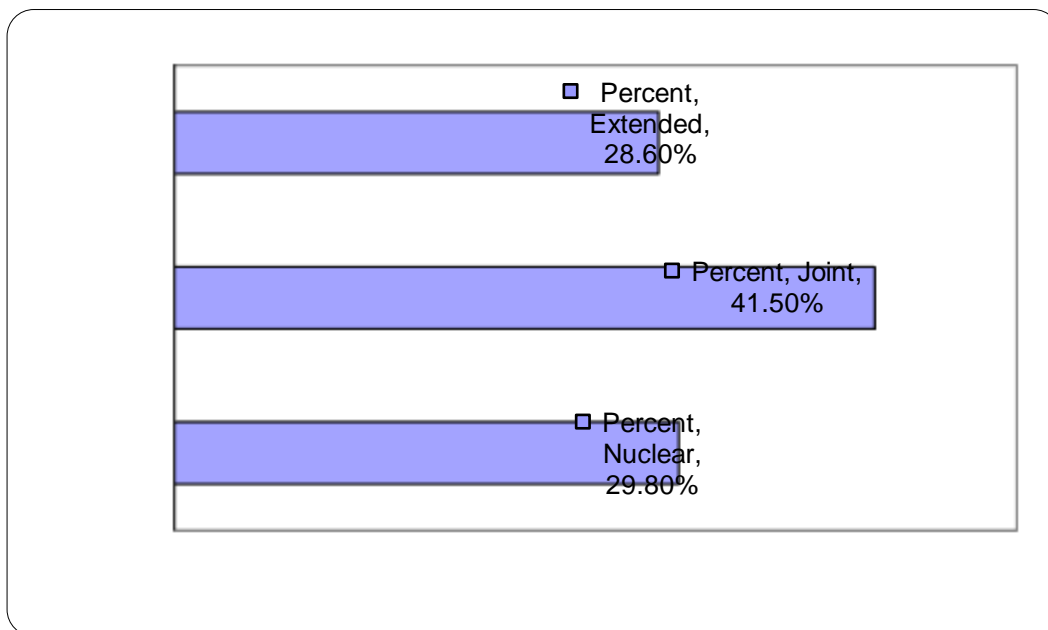
**Table – 5.4: Type of Family of the respondents**

Type of Family	Frequency	Percent
Nuclear	229	29.8
Joint	319	41.5
Extended	220	28.6
Total	768	100.0

About the types of family the respondents have, most of the respondents 41.5% (319) had joint family system, followed by 29.8% (229) respondents who had nuclear type of family and then the minimum number was 28.6% (220) who had extended family type.

#### Major Findings:

Most of the respondents 41.5% (319) were living in joint family system.



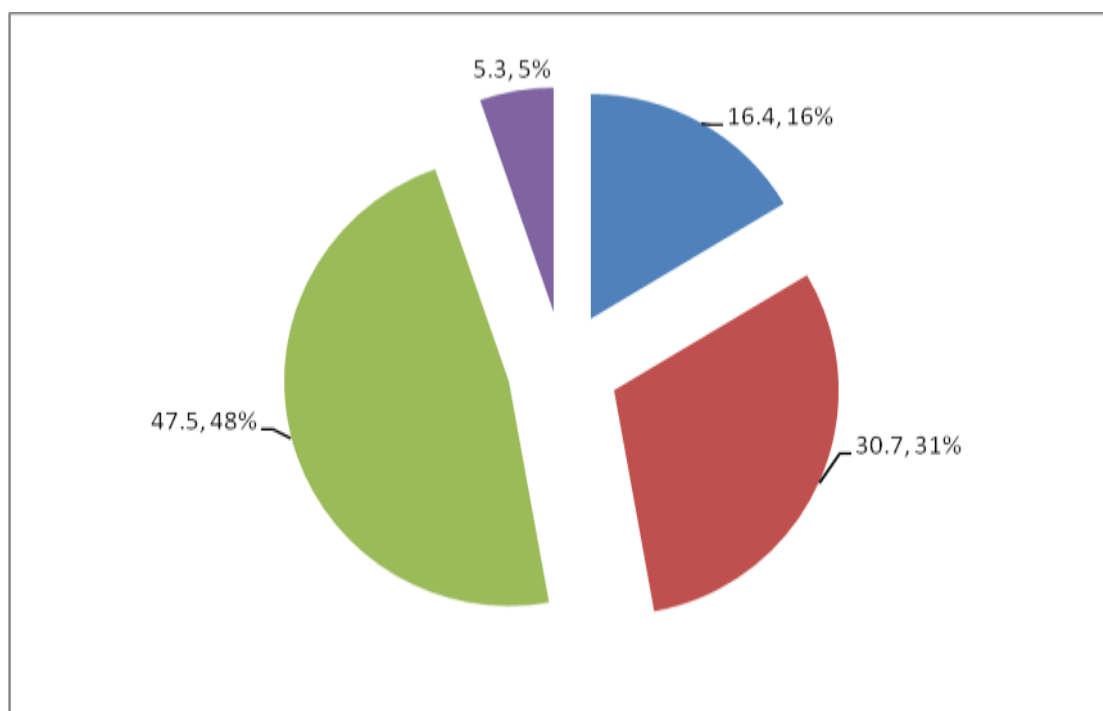
**Table – 5.5: Number of Family members**

<b>Group</b>	<b>Frequency</b>	<b>Percent</b>
1-5	126	16.4
6-10	236	30.7
11-15	365	47.5
16-20	41	5.3
Total	768	100.0

Looking at the respondents family size, most of the respondents 47.5% (365) had 11-15 family members, followed by a second group of respondents 30.7% (236) who had 6-10 family members and 16.4% (126) had 1-5 members in their family then the least number was of the respondents 5.3% (41) who had 16-20 family members.

#### **Major Findings:**

Most of the respondents 47.5% (365) had 11-15 family members.



**Table – 5.6: Employment status of the respondents**

<b>Employment status</b>	<b>Frequency</b>	<b>Percentage</b>
Self-employed	20	2.6
Govt. employee	10	1.3
Daily wager/labor	10	1.3
Farmer	30	3.9
House wife	698	90.9
Total	768	100.0

Referring to the employment status of the respondents, as majority of the beneficiaries of BHUs were females so most of the respondents 90.9% (698) were house wives. Among the other respondents, 3.9% (30) were farmers, 2.6% (20) were self employed workers, and about the same number 1.3% (10) each were government employees and daily wagers or labourers respectively.

#### **Major Findings:**

As majority of the beneficiaries of BHUs were females so most of the respondents 90.9% (698) were house wives.

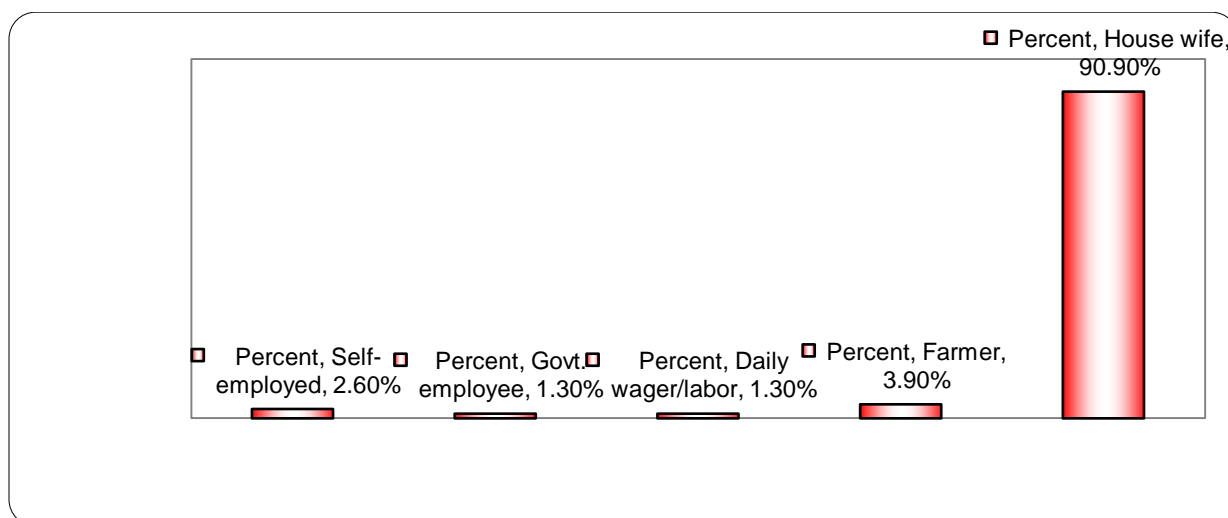


Table – 5.7: Employment &amp; monthly income

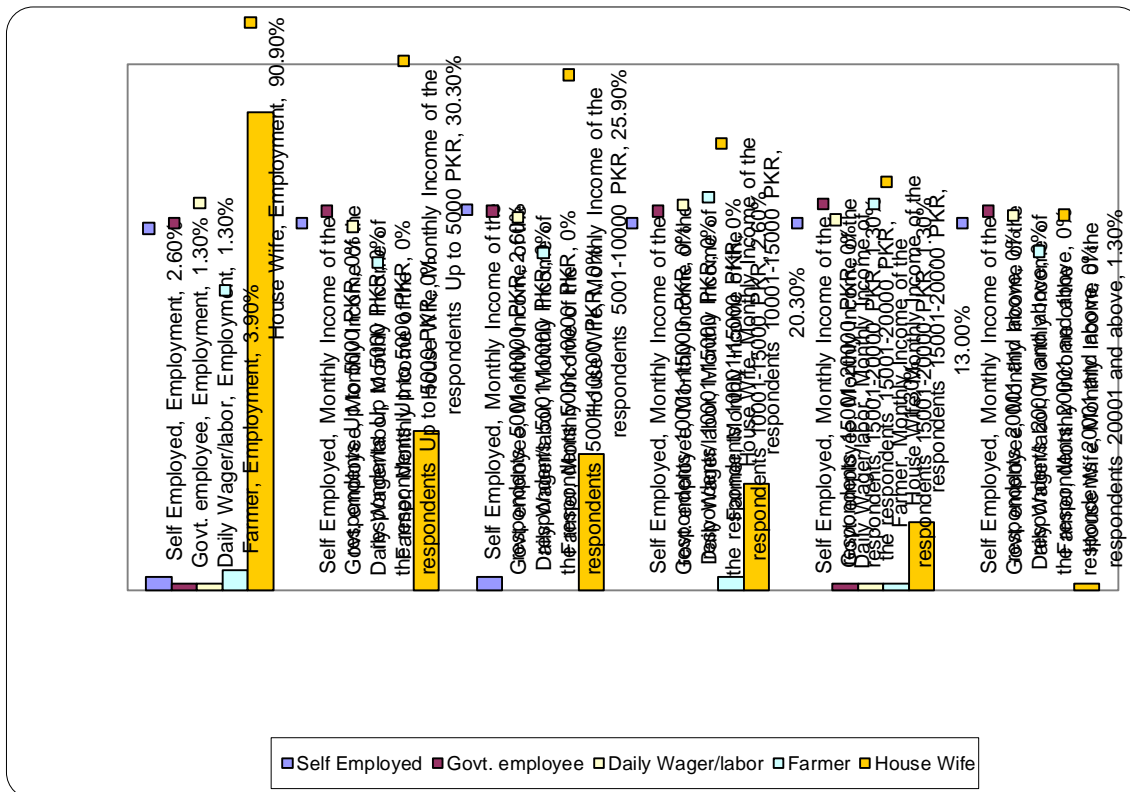
Employment Status	F	%	Monthly Income of the respondents in PKR									
			Up to 5000	%	5001-10000	%	10001-15000	%	15001-20000	%	20001 and above	%
Self Employed	20	2.6	--	--	20	2.6	-	-	-	-	-	-
Govt. employee	10	1.3	-	-	-	-	-	-	10	1.3	-	-
Daily Wager/labor	10	1.3	-	-	-	-	-	-	10	1.3	-	-
Farmer	30	3.9	-	-	-	-	20	2.6	10	1.3	-	-
House Wife	698	90.9	233	30.3	199	25.9	156	20.3	100	13.0	10	1.3
Total	768	100	10	1.3	120	15.6	219	28.5	186	24.2	233	30.3

Looking at the monthly income of the respondents, majority of the female beneficiaries of BHUs 90.9% (698) were house wives among whom 30.3% (233) had monthly income up to 5000 PKR, followed by 25.9% (199) who had monthly income up to 5001-10000 and 20.3% (156) who had 10001-15000, 13.0% (100) had 15001-20000 monthly income and the minimum being 1.3% (10) respondents who had up to 20000 PKR and above monthly income. Among the other respondents who were farmers 2.6% (20) had 10001-15000 PKR monthly income, followed by 1.3% (10) respondents who had 15001-20000 PKR monthly income and then 2.6% (20) was of self employed workers, who had monthly income up to 50001-10000 PKR. And the

minimum number was of the daily wagers or labourers and government employees 1.3% (10) who had monthly income up to 15001-20000 PKR.

**Major Findings:**

Majority of the female beneficiaries of BHUs 90.9% (698) were house wives among whom 30.3% (233) had monthly income up to 5000.



**Table – 5.8: Age and Disease**

Age	F	%	Disease							
			Headache	Fever	Malaria	Cough & flu	Vomiting	Diarrhea	Heat stroke	pregnancy test
10-20 years	20	2.6	0 .0%	10 1.3%	10 1.3%	0 .0%	0 .0%	0 .0%	0 .0%	0 .0%
20.1-30 years	342	44.5	31 4.0%	32 4.2%	64 8.3%	52 6.8%	42 5.5%	60 7.8%	11 1.4%	50 6.5%
30.1-40 years	302	39.9	41 5.3%	10 1.3%	51 6.6%	54 7.0%	31 4.0%	84 10.9%	0 .0%	31 4.0%
40.1-50 years	73	9.5	0 .0%	0 .0%	0 .0%	52 6.8%	21 2.7%	0 .0%	0 .0%	0 .0%
50.1-60 years	31	4.0	0 .0%	0 .0%	0 .0%	21 2.7%	10 1.3%	0 .0%	0 .0%	0 .0%
Total	768	100	72 9.4%	52 6.8%	125 16.3%	179 23.3%	104 13.5%	144 18.8%	11 1.4%	81 10.5%

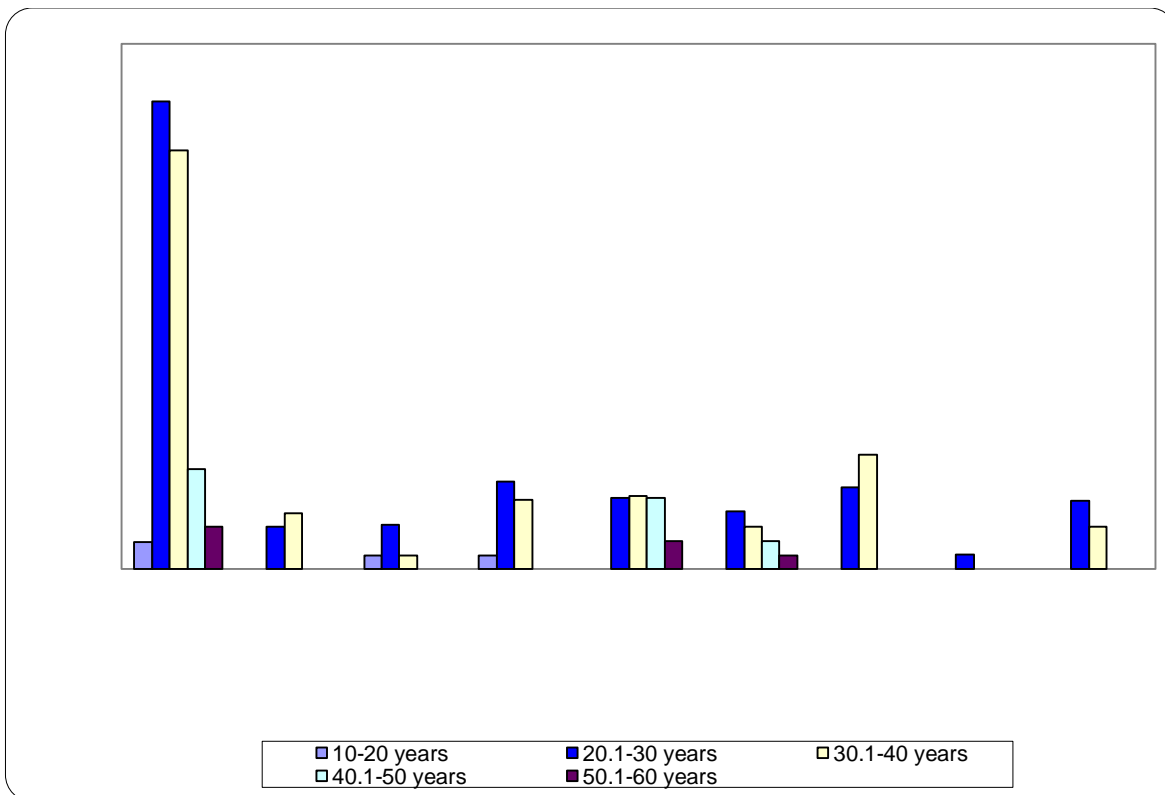
Referring to the age and disease relationship, among most of the respondents 44.5% (342) belonging to age group 20.1-30 years, 8.3% (64) had malaria, 7.8% (60) had diarrhea, 6.8% (52) had cough and flu, 6.5% (50) had come for pregnancy test, 5.5% (42) had vomiting problem, 4.2% (32) had fever, 4.0% (31) had headache, 1.4% (11) had heat stroke.

Among the respondents 39.9% (302) who belonged to age group 30.1-40 years, mostly had 10.9% (84) diarrhea, then 7.0% (54) had cough and flu, 6.6% (51) had malaria, 5.3% (41) had headache, 4.0% (31) had vomiting, 4.0% (31) came for pregnancy test, and 1.3% (10) had fever.

Among the group of respondents 9.5% (73) who were in the age group 40.1-50 years, mostly 6.8% (52) had cough and flu, and 2.7% (21) had vomiting complaint. From the respondents 4.0% (31) who belonged to 50.1-60 years, 2.7% (21) had cough and flu, and 1.3% (10) had vomiting complaints. The last group with minimum number 2.6% (20) belonging to 10-20 years of age, 1.3% (10) had fever and the same number 1.3% (10) had malaria.

### Major Findings:

Most of the respondents 44.5% (342) belonging to age group 20.1-30 years, 8.3% (64) had malaria, 7.8% (60) had diarrhea, 6.8% (52) had cough and flu, 6.5% (50) had come for pregnancy test, 5.5% (42) had vomiting problem, 4.2% (32) had fever, 4.0% (31) had headache, 1.4% (11) had heat stroke.



**Table – 5.9: Gender and Disease**

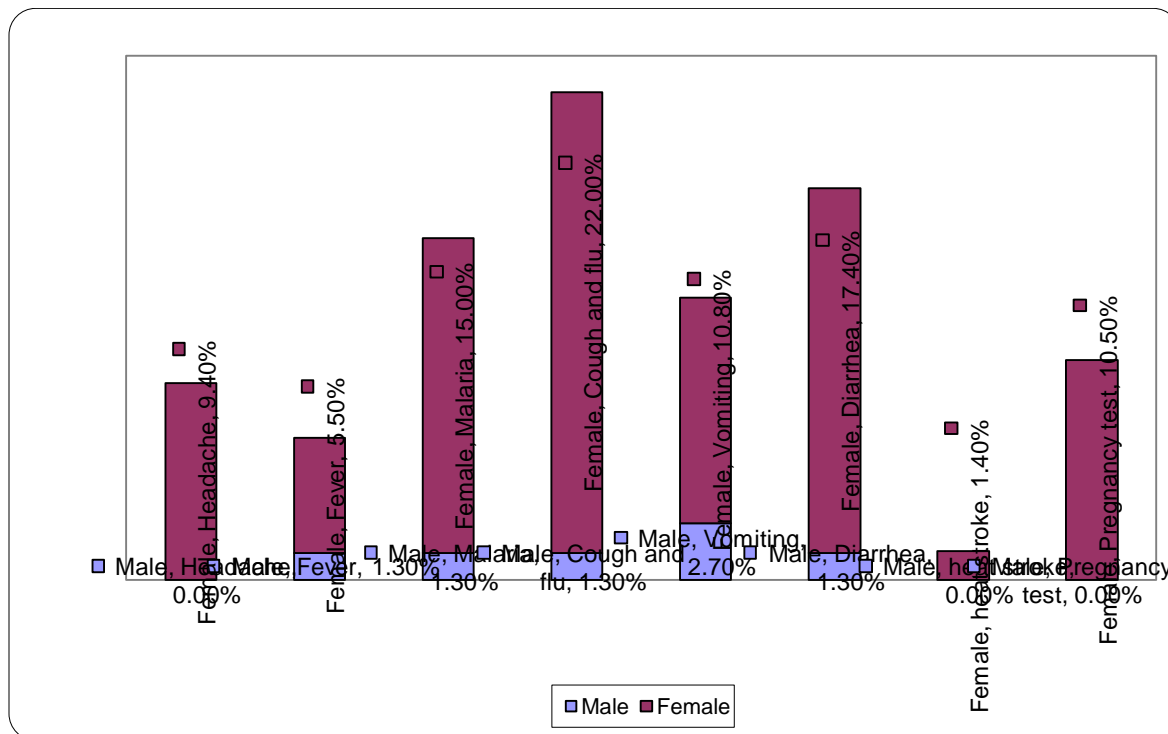
Gender	F	%	Disease							
			Headache	Fever	Malaria	Cough and flu	Vomiting	Diarrhea	heat stroke	pregnancy test
Male	61	7.9	0 .0%	10 1.3%	10 1.3%	10 1.3%	21 2.7%	10 1.3%	0 .0%	0 .0%
Female	707	92.1	72 9.4%	42 5.5%	115 15.0%	169 22.0%	83 10.8%	134 17.4%	11 1.4%	81 10.5%
Total	768	100	72 9.4%	52 6.8%	125 16.3%	179 23.3%	104 13.5%	144 18.8%	11 1.4%	81 10.5%

Looking at the gender and disease relationship, most of the males 2.7% (21) had come to BHUs for the problem of having vomiting, followed by 1.3% (10) each for the diseases of fever, malaria, cough and flu and diarrhea. Among the female respondents, most of them 22.0% (169) had come to BHU for cough and flu disease, followed by a group of female respondents 17.4% (134) who had diarrhea and 15.0% (115) women who had malaria problem, then were 10.8% (83) respondents who had vomiting, then were 10.5% (81) female respondents who came for pregnancy test, another group of female respondents 9.4% (72) who had headache and the minimum number of group was of 1.4% (11) being the heat stroke problem.

If we accumulatively look at the findings of both male and female respondents diseases, most of the respondents 23.3% (179) had cough and flu problem, followed by 18.8% (144) who had diarrhea, 16.3% (125) had malaria, 13.5% (104) had vomiting, 10.5% female came for pregnancy test, 9.4% (72) had headache, 6.8% (52) had fever and 1.4% (11) had heat stroke.

## Major Findings:

Most of the males 2.7% (21) had come to BHUs for the problem of having vomiting. Among the female respondents, most of them 22.0% (169) had come to BHU for cough and flu disease.



**Table – 5.10: Gender and from where you got the Treatment**

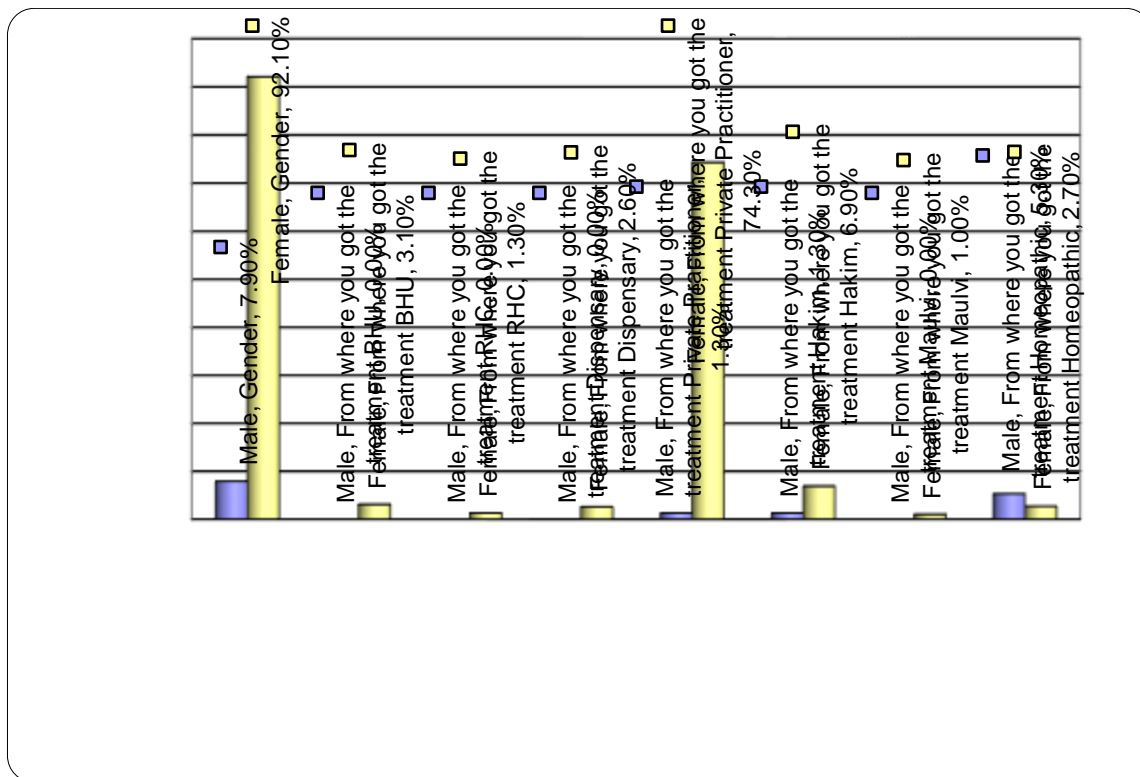
Gender	F	%	From where you got the treatment						
			BHU	RHC	Dispensary	Private Practitioner	Hakim	Maulvi	Homeopathic
Male	61	7.9	0 .0%	0 .0%	0 .0%	10 1.3%	10 1.3%	0 .0%	41 5.3%
Female	707	92.1	24 3.1%	10 1.3%	20 2.6%	571 74.3%	53 6.9%	8 1.0%	21 2.7%
Total	768	100	24 3.1%	10 1.3%	20 2.6%	581 75.7%	63 8.2%	8 1.0%	62 8.1%

Referring to the Gender and the means of getting treatment for diseases, most of the male respondents 5.3% (41) goes to a homeopathic doctor for treatment of their diseases, followed by group of respondents numbering 1.3% (10) who goes to private practitioners and then the same number 1.3% (10) who goes to hakim for treatment. Among the female respondents, 74.3% (571) goes to private practitioners for treatment of their diseases, followed by 6.9% (53) who goes to hakims, another group of female respondents 3.1% (24) who goes to BHU for treatment, then 2.7% (21) who goes to homeopathic for treatment, then 1.3% (10) who goes to RHCs and the minimum being 1.0% (8) who goes to a maulvi (religious scholar) for treatment.

If we look at the total, we can confer that most of the respondents 75.7% (581) goes to private practitioner for the treatment of disease, followed by 8.2% (63) and 8.1% (62) respondents who goes to hakim and homeopathic respectively, and only 3.1% (24) goes to a BHU for treatment of their diseases, and 2.6% (20) who goes to dispensary for getting medicine, and the least was 1.3% (10) and 1.0% (8) who goes to RHC and a maulvi respectively.

## Major Findings:

Most of the male respondents 5.3% (41) goes to a homeopathic doctors for treatment of their diseases and among the female respondents, 74.3% (571) goes to private practitioners for treatment of their diseases.



**Table - 5.11: Distance of the BHU and means of commuting**

Distance	Freq.	%	Means of commuting to BHU			
			On foot	By Tonga	By Bus	Own Conveyance
1-3km	512	66.7	355 46.2%	84 10.9%	73 9.5%	0 .0%
3.1-6km	236	30.7	175 22.8%	41 5.3%	0 .0%	20 2.6%
6.1 and above	20	2.6	10 1.3%	10 1.3%	0 .0%	0 .0%
Total	768	100	540 70.3%	135 17.6%	73 9.5%	20 2.6%

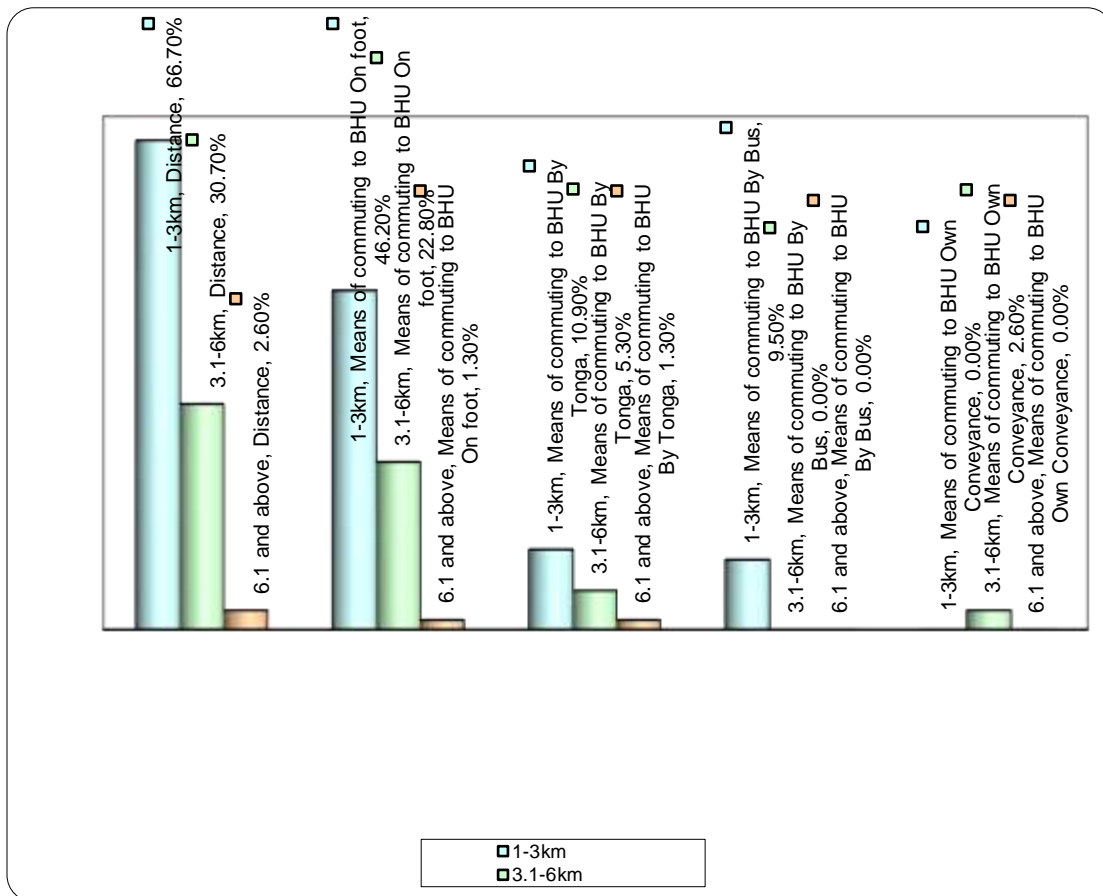
Referring to the distance respondents cover to reach the BHU, majority of the respondents 66.7% (512) covered 1-3km to reach BHU for treatment and among these respondents 46.2% (355) went to BHU on foot, followed by another group of respondents numbering 10.9% (84) who went by Tonga, then 9.5% (73) who went to BHU by bus.

Another group of respondents numbering 30.7% (236) who covered 3.1-6km to reach BHU for treatment, among these respondents 22.8% (175) went to BHU on foot, 5.3% (41) went by Tonga and 2.6% (20) went by own conveyance.

Looking at the minimum number group of respondents 2.6% (20) who covered 6.1 and above distance to reach BHU for treatment, among them 1.3% (10) goes on foot and 1.3% (10) goes to BHU by Tonga.

**Major Findings:**

Majority of the respondents 66.7% (512) covered 1-3km to reach BHU for treatment and among these respondents 46.2% (355) went to BHU on foot.



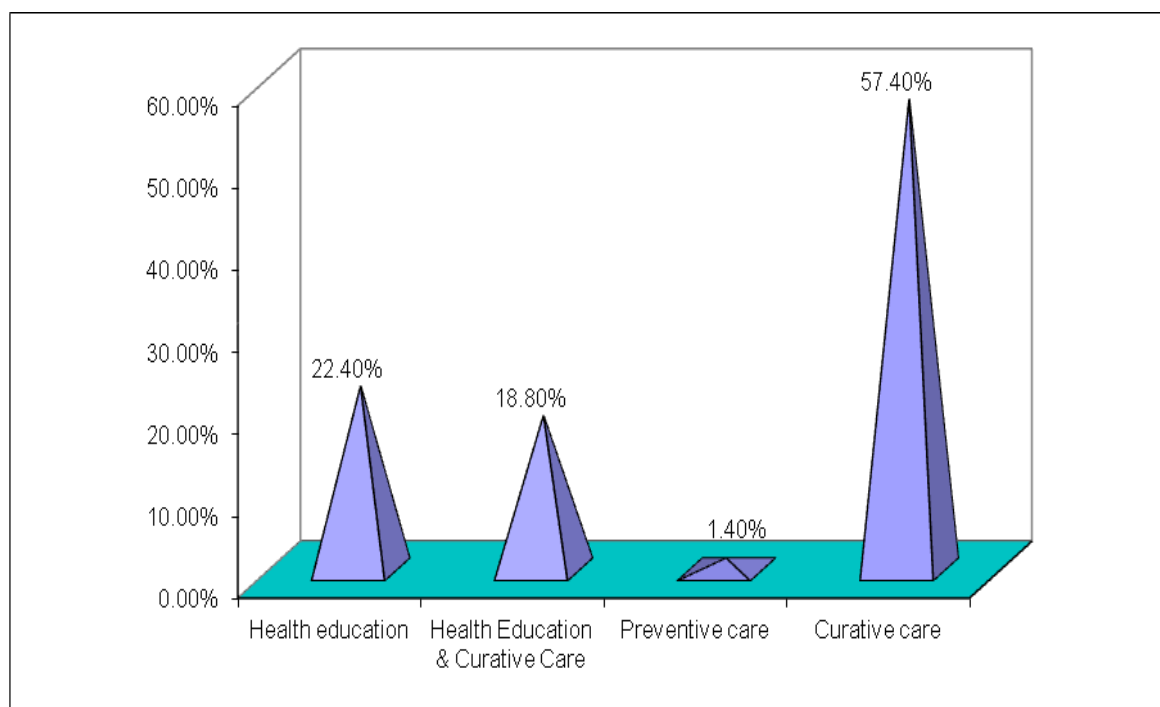
**Table – 5.12: Services rendered by BHUs**

Services	Frequency	%
Health education	172	22.4
Health Education & Curative Care	144	18.8
Preventive care	11	1.4
Curative care	441	57.4
Total	768	100.0

Referring to the services rendered by the BHUs, majority of them 57.4% (441) rendered curative care services, followed by the group 22.4% (172) that rendered health education and then 18.8% (144) rendered both health education and curative care services, and only 1.4% (11) rendered preventive care services.

#### Major Findings:

Majority of the BHUs numbering 57.4% (441) rendered curative care services.



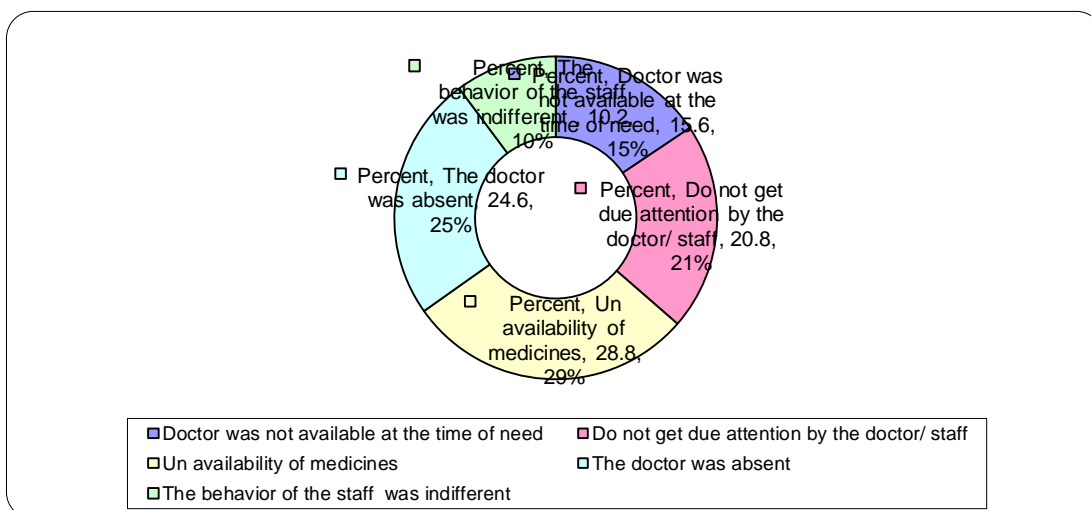
**Table – 5.13: Problems faced by the beneficiaries at BHU**

Problems	Frequency	%
Doctor was not available at the time of need	120	15.6
Do not get due attention by the doctor/ staff	160	20.8
Un availability of medicines	221	28.8
The doctor was absent	189	24.6
The behavior of the staff was indifferent	78	10.2
Total	768	100.0

Looking at the findings regarding the problems faced by the beneficiaries at BHU, most of the respondents 28.8% (221) faced un availability of medicines, followed by 24.6% (189) who said that the doctor was absent when they visited BHU, another group of respondents 20.8% (160) who said that they did not get due attention by the doctor or staff of BHU, followed by another group of respondents 15.6% (120) who said that the doctor of BHU was not available at the time of need, then with the minimum number of group of respondents 10.2% (78) who said that the behavior of the BHU staff was indifferent to them.

### Major Findings:

Most of the respondents numbering 28.8% (221) faced un-availability of medicines at BHU.



**Table – 5.14: Visit to BHU and level of satisfaction with the BHU services**

Visit to BHU	Frequency	%	Level of satisfaction		
			Satisfied	Not satisfied	No reply
One time	63	8.2	34 (4.4%)	29 (3.8%)	0 (.0%)
Two times	249	32.4	85 (11.1%)	154 (20.1%)	10 (1.3%)
Several times	456	59.4	165 (21.5%)	281 (36.6%)	10 (1.3%)
Total	768	100	400 (52.1%)	348 (45.3%)	20 (2.6%)

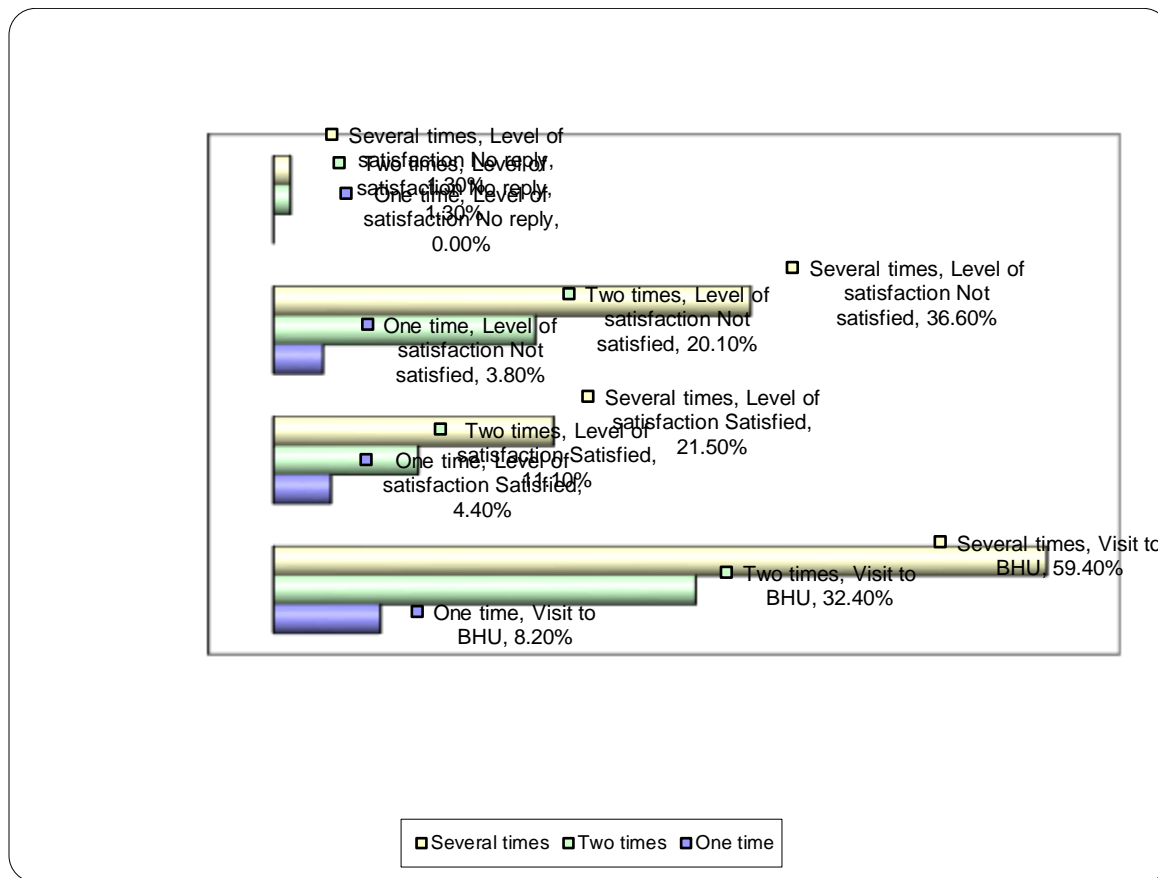
Referring to the number of visits the respondents pay to BHU and their satisfaction regarding the services of BHU, the majority of the respondents 59.4% (456) said that they visited BHU several times, among them 36.6% (281) respondents said that they were not satisfied with the services of BHU offered to them, followed by another group of respondents numbering 21.5% (165) who said that were satisfied with BHU's services and then with minimum number of group of respondents 1.3% (10) who gave no reply on this question.

Another group of respondents 32.4% (249) who paid visit to BHU for two times, among them were a group of respondents 20.1% (154) who were not satisfied with the services of BHU, followed by another group of respondents 11.1% (85) who were satisfied with its services, and 1.3% (10) gave no reply to this question.

Looking at the last group of respondents with minimum number 8.2% (63) who visited once to BHU, among them were a group of respondents 4.4% (34) who were satisfied with the services of BHU, followed by 3.8% (29) who were not satisfied with its services.

## Major Findings:

The majority of the respondents 59.4% (456) said that they visited BHU several times, among them 36.6% (281) respondents said that they were not satisfied with the services of BHU offered to them.



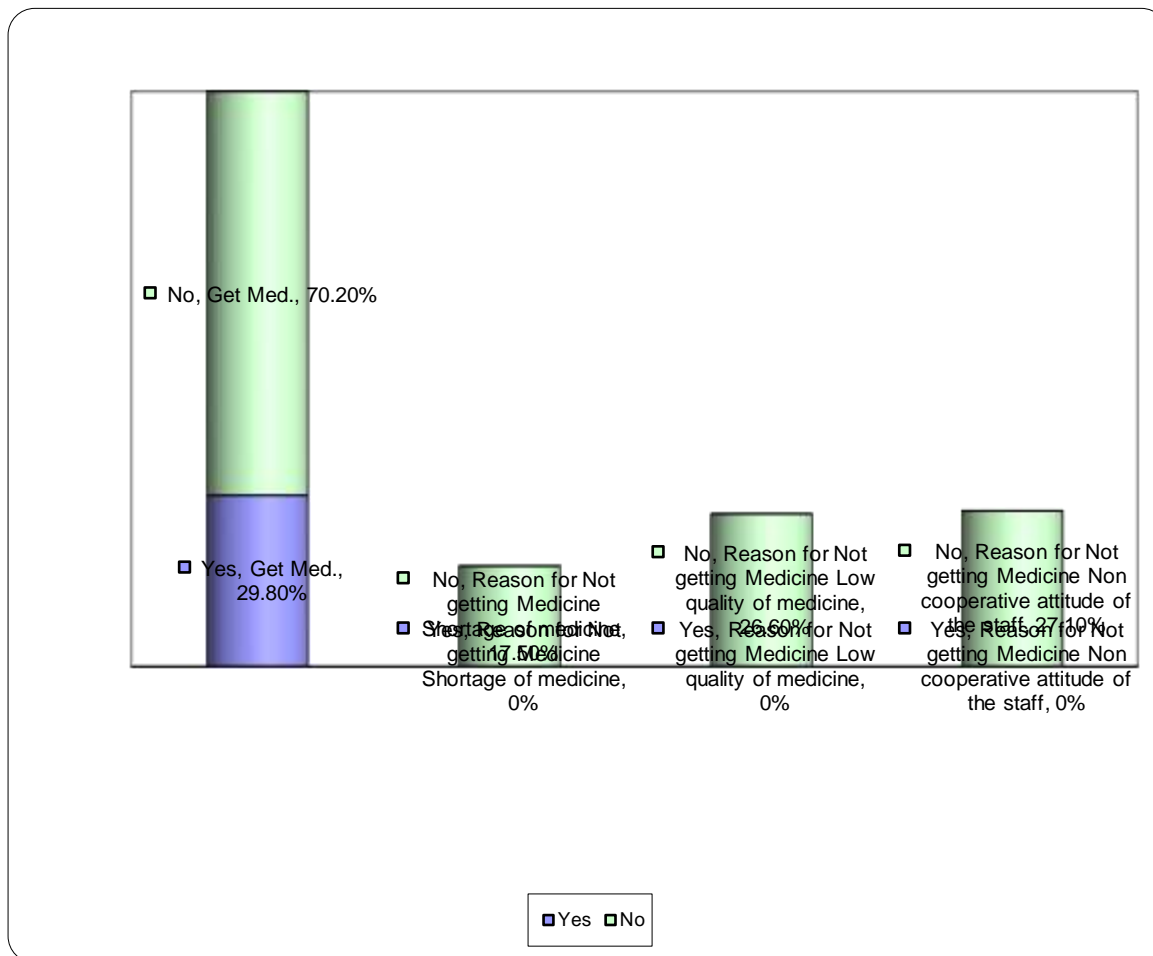
**Table – 5.15: Did you get medicine, if no then what were the reasons**

<b>Did you get medicine</b>	<b>Freq.</b>	<b>%</b>	<b>If no, what were the reasons</b>		
			<b>Shortage of medicine</b>	<b>Low quality of medicine</b>	<b>Due to the non cooperative attitude of the staff</b>
Yes	229	29.8	-	-	-
No	539	70.2	134 17.5%	197 26.6%	208 27.1%
Total	768	100	134 17.5%	197 26.6%	208 27.1%

Referring to the information regarding getting medicine from BHU, majority of the respondents 70.2% (539) said that they did not get medicine from the BHU. On asking for the reasons for not getting medicine, a group of respondents 27.1% (208) said that due to the non cooperative attitude of the staff of BHU they did not get medicine, followed by another group of respondents 26.6% (197) who said they did not take medicine because it was of low quality, then the group of respondents with minimum number 17.5% (134) who said that medicine was in shortage at BHU. Only a small group of respondents 29.8% (229) who said that they get medicine from the BHU.

### Major Findings:

Majority of the respondents 70.2% (539) said that they did not get medicine from the BHU. On asking for the reasons for not getting medicine, a group of respondents 27.1% (208) said that due to the non cooperative attitude of the staff of BHU they did not get medicine.



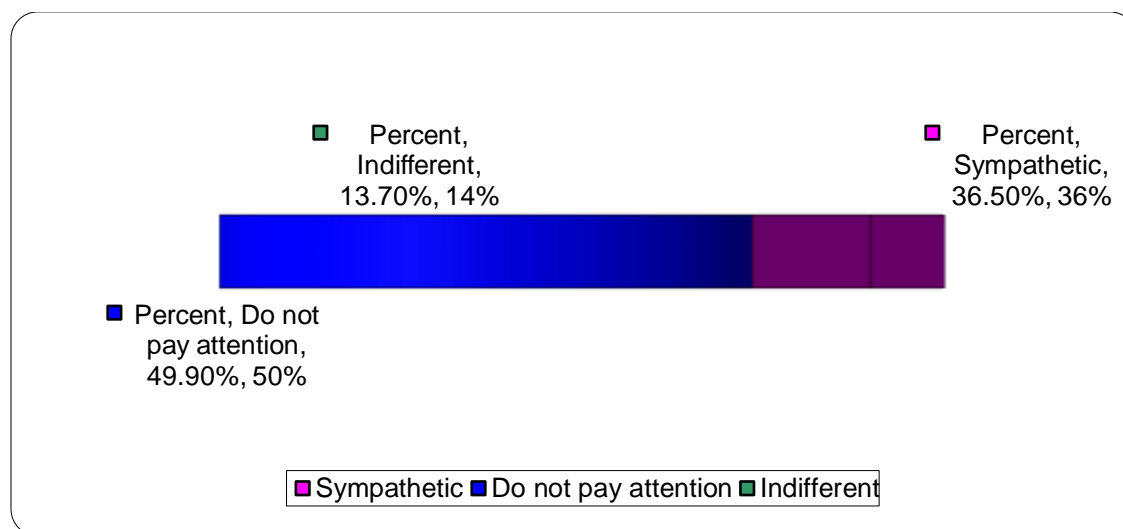
**Table – 5.16: Attitude of the health care providers**

Attitude	Frequency	Percent
Sympathetic	280	36.5
Do not pay attention	383	49.9
Indifferent	105	13.7
Total	768	100.0

Referring to the information regarding the attitude of health care providers, most of the respondents 49.9% (383) said that the health care providers at BHU do not pay attention, followed by another group of respondents 36.5% (280) who said that the health care providers were sympathetic and then the minimum number of respondents 13.7% (105) who said that the health care providers were indifferent to them.

#### Major Findings:

Most of the respondents 49.9% (383) said that the health care providers at BHU do not pay attention to the patients.



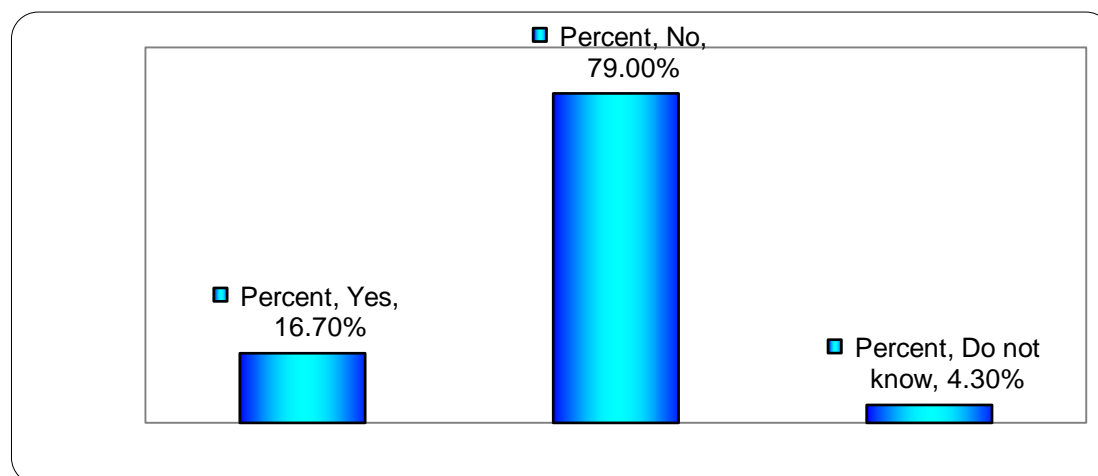
**Table – 5.17: Does the health care providers give priority to the extremely sick, elderly and newborns**

<b>Give priority</b>	<b>Frequency</b>	<b>Percent</b>
Yes	128	16.7
No	607	79.0
Do not know	33	4.3
Total	768	100.0

Looking at the information regarding the priority or care given by health care providers to the extremely sick, elderly and newborns, majority of the respondents 79.0% (607) said that the health care providers do not give priority to the extremely sick, elderly and newborns, followed by another group of respondents 16.7% (128) who said that the health care providers at BHU give priority to extremely sick, elderly and newborns and then a group of respondents with minimum number 4.3% (33) who chose to not give any reply by saying they do not know.

#### **Major Findings:**

Majority of the respondents 79.0% (607) said that the health care providers do not give priority to the extremely sick, elderly and newborns.



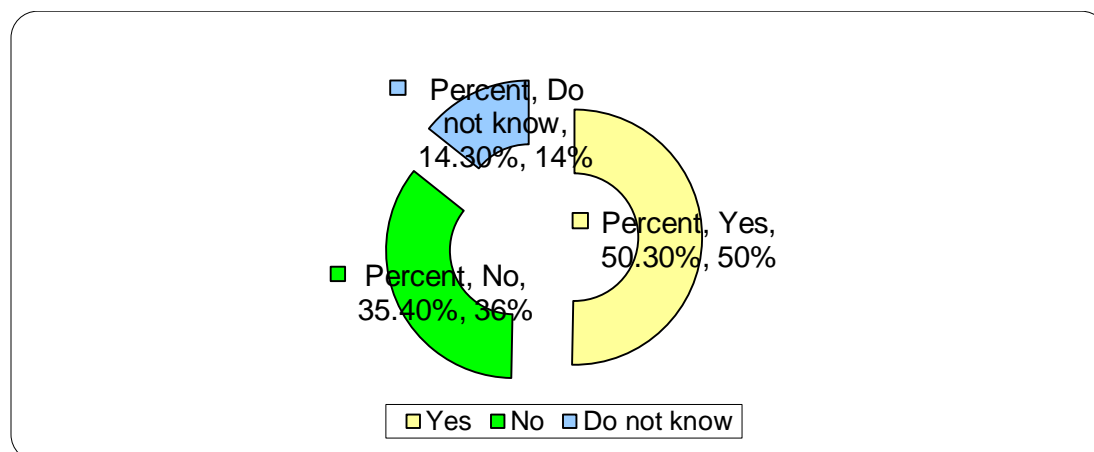
**Table – 5.18: Do the health care providers explain diagnosis, care management and follow up to you?**

Explain	Frequency	Percent
Yes	386	50.3
No	272	35.4
Do not know	110	14.3
Total	768	100.0

Regarding the information about do the health care providers explain diagnosis, care management and follow up to the patients/beneficiaries, majority of the respondents 50.3% (386) said that the health care providers do explain diagnosis, care management and follow up to them, followed by another group of respondents 35.4% (272) who said that the health care providers do not explain the diagnosis, care management and follow up to them and then with minimum number 14.3% (110) who said that they do not know.

#### Major Findings:

Majority of the respondents 50.3% (386) said that the health care providers do explain diagnosis, care management and follow up to them.



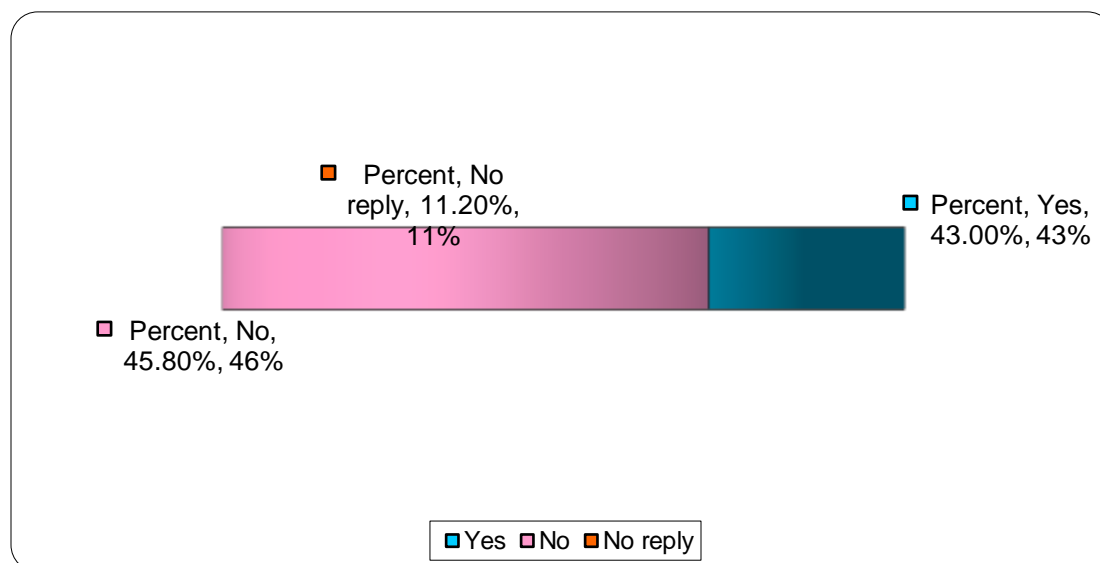
**Table – 5.19: Do the health care providers take feedback form you?**

Feedback	Frequency	Percent
Yes	330	43.0
No	352	45.8
No reply	86	11.2
Total	768	100.0

Referring to the information regarding do the health care providers at BHU take feedback from the patients, most of the respondents 45.8% (352) said that health care providers do not take feedback from them, followed by another group of respondents 43.0% (330) who said that health care providers take feedback and then the minimum number of respondents 11.2% (86) who gave no reply.

#### Major Findings:

Most of the respondents 45.8% (352) said that health care providers do not take feedback from them.



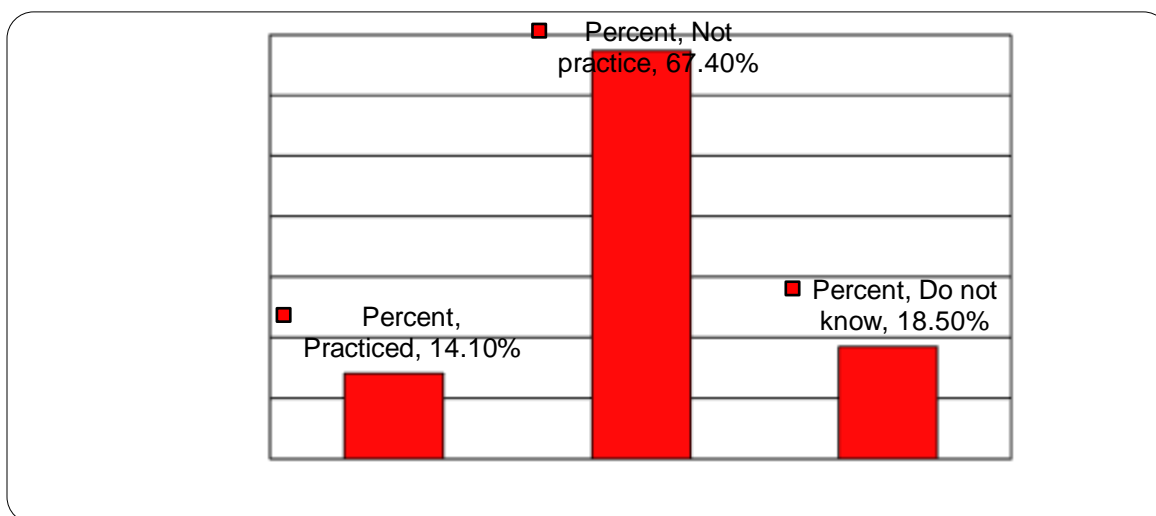
**Table – 5.20: Does the referral procedure practicing in the BHU?**

<b>Referral Practiced</b>	<b>Frequency</b>	<b>Percent</b>
Practiced	108	14.1
Not practice	518	67.4
Do not know	142	18.5
Total	768	100.0

Looking at the table regarding does the referral procedure practicing in the BHU, majority of the respondents 67.4% (518) said that the referral procedure is not practiced in the BHU, followed by 18.5% (142) respondents who said that they do not about it, and then with minimum number of respondents 14.1% (108) who said that referral procedure is practiced in the BHUs.

#### **Major Findings:**

Majority of the respondents 67.4% (518) said that the referral procedure is not practiced in the BHU.



**Table – 5.21: Stay at BHU and reason of stay**

Time	Frequency	%	Reasons of stay		
			Wait for Doctor/Staff	Wait for medicine	Wait for test
15Minutes	110	14.4	72 (9.5%)	22 (2.8%)	16 (2.1%)
30Minutes	233	30.3	80 (10.4%)	117 (15.3%)	36 (4.6%)
45Minutes	318	41.4	197 (25.6%)	89 (11.6%)	32 (4.2%)
60Minutes	107	13.9	45 (5.8%)	22 (2.8%)	40 (5.3%)
Total	768	100.0	394 (51.3%)	250 (32.5%)	124 (16.2%)

Referring to the stay at BHU and reason of stay, most of the respondents 41.4% (318) said that they have to stay 45 minutes at BHU, the reason for stay among them for 25.6% (197) was that because they had to wait for the doctor/staff, followed by another group of respondents 11.6% (89) who said they stayed in wait of getting the medicines, and the minimum number of respondents among this group 4.2% (32) who said they stayed in wait of the medical test.

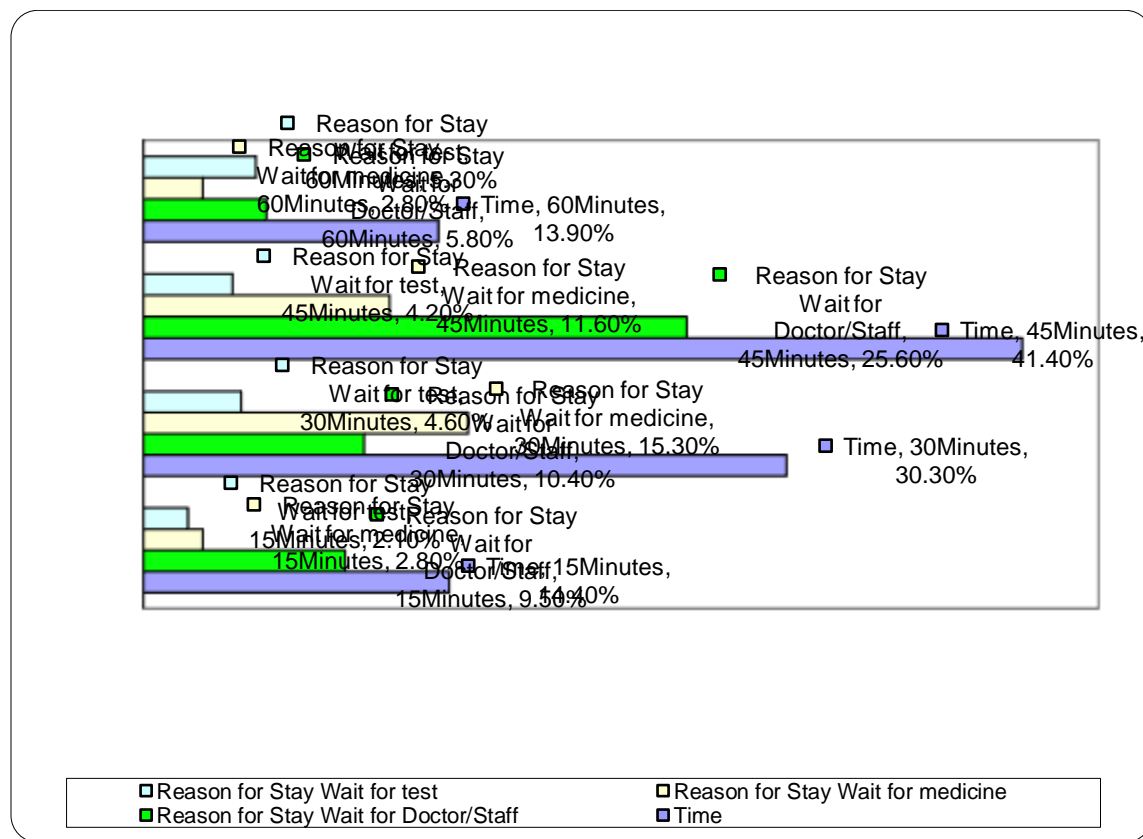
The second group of respondents 30.3% (233) who said that they had to stay for 30 minutes at BHU, and the reason for stay among them for 15.3% (117) was they stayed to get medicine, followed by another group of respondents 10.4% (80) who stayed in wait of doctor/staff, and then with minimum number among this group was of 4.6% (36) who said they stayed in wait of medical test.

The other group of respondents 14.4% who waited for 15 minutes, and among them 9.5% (72) stayed in wait of doctor/staff, followed by another group in this category with 2.8% (22) who stayed in wait of medicine and then with minimum number of respondents with 2.1% (16) who stayed in wait of medical test.

The minimum number category of respondents 13.9% (107) who stayed for 60 minutes in the BHU and about the reasons for stay most of the respondents among them 5.8% (45) said they stayed in wait for doctor/staff, followed by 5.3% (40) who stayed in wait of medical test and then with the minimum number 2.8% (22) who stayed in wait of getting medicines.

**Major Findings:**

Most of the respondents 41.4% (318) said that they have to stay 45 minutes at BHUs, the reason for stay among them for 25.6% (197) was that because they had to wait for the doctor/staff.



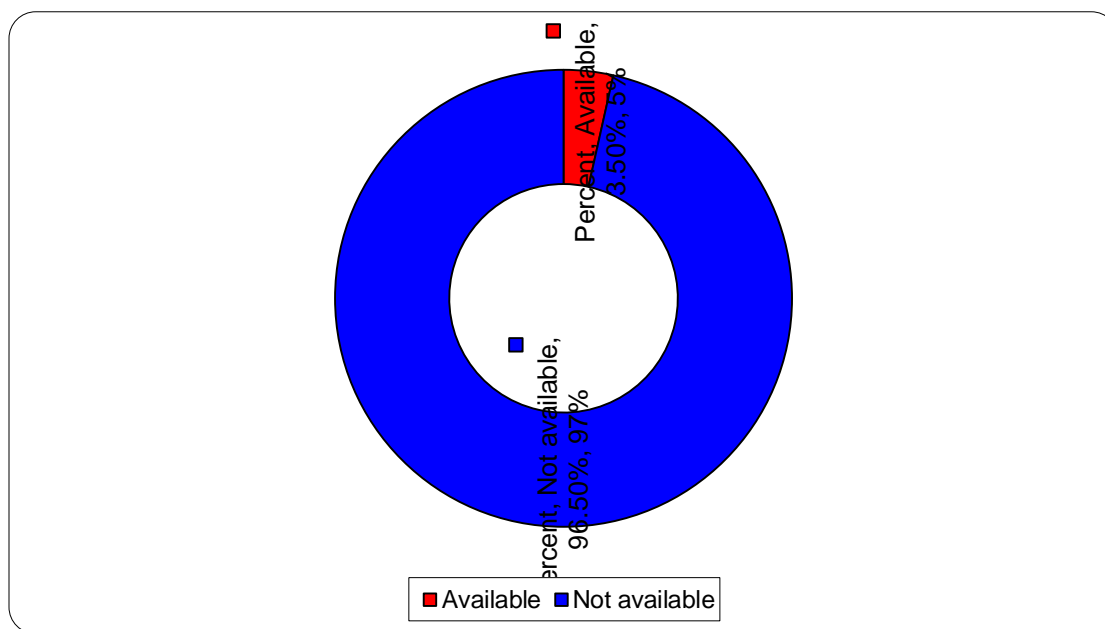
**Table – 5.22: Waiting area available for the patients**

Waiting area available	Frequency	Percent
Available	27	3.5
Not available	741	96.5
Total	768	100.0

In response to the question that if the waiting area is available for patients at BHU, majority of the respondents 96.5% (741) said that there is no waiting area available for patients at BHU and only the minimum number of respondents 3.5% (27) said that waiting area is available for patients in BHUs.

#### Major Findings:

Majority of the respondents 96.5% (741) said that there is no waiting area available for patients at BHU.



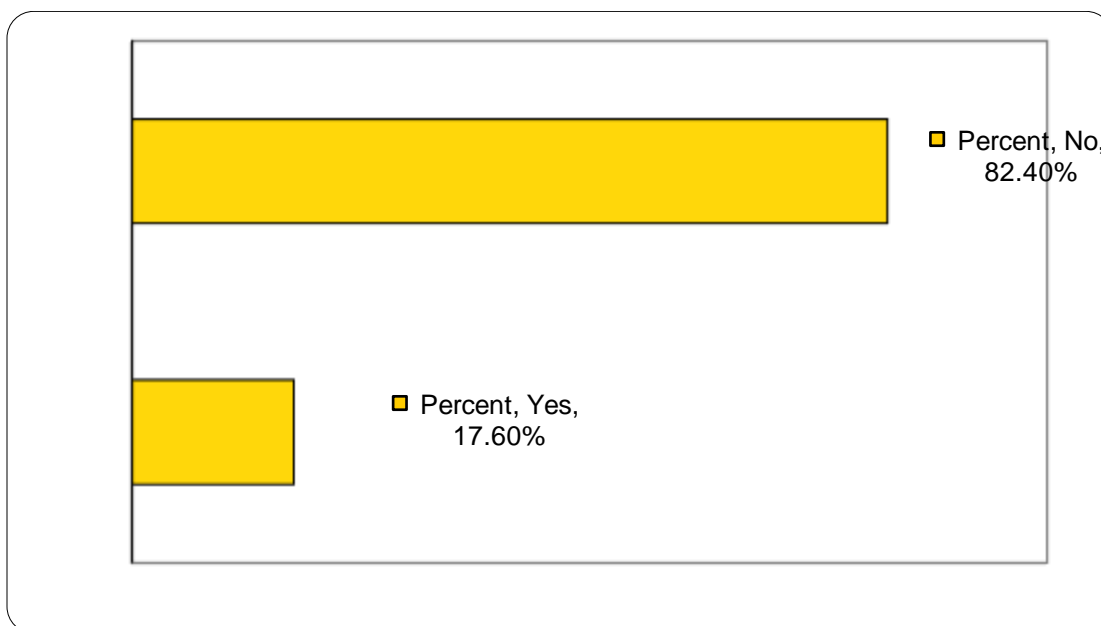
**Table – 5.23: Ensuring privacy of the patient at the time of consultation?**

Privacy ensured?	Frequency	Percent
Yes	135	17.6
No	633	82.4
Total	768	100.0

Looking at the table regarding ensuring privacy of the patients at the time of consultation, majority of the respondents 82.4% (633) said that privacy is not ensured of the patient at the time of consultation and only a minimum number of respondents 17.6% (135) said that privacy is ensured of patients at the time of consultation.

#### Major Findings:

Majority of the respondents 82.4% (633) said that privacy is not ensured of the patient at the time of consultation.



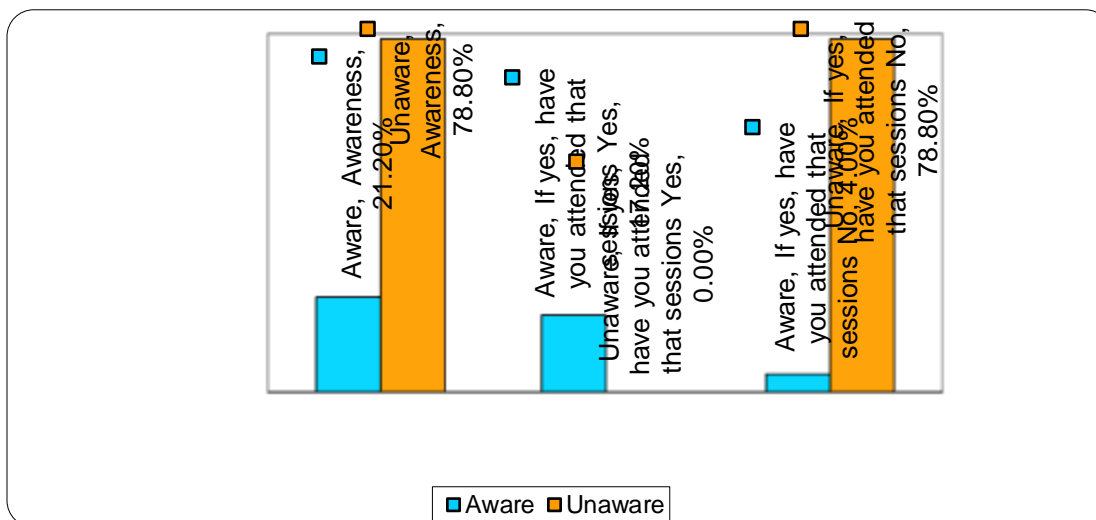
**Table – 5.24: Awareness regarding the health session in the BHU.**

Are you aware of health education sessions	Frequency	%	If yes, have you attended that sessions	
			Yes	No
Aware	163	21.2	132, 17.2%	31, 4.0%
Unaware	605	78.8	0, .0%	605, 78.8%
Total	768	100	132, 17.2%	636, 82.8%

Referring to the awareness regarding the health session in the BHU, majority of the respondents 78.8% (605) said that they are unaware about the health session in BHU while only 21.2% (163) said that they are aware of the health session at the BHU, and among this category of respondents who are aware of health sessions, only 17.2% (132) had attended that health session at the BHU and 4.0% (31) have not attended the health sessions at the BHU.

### Major Findings:

Majority of the respondents 78.8% (605) said that they are unaware about the health session in the BHU.



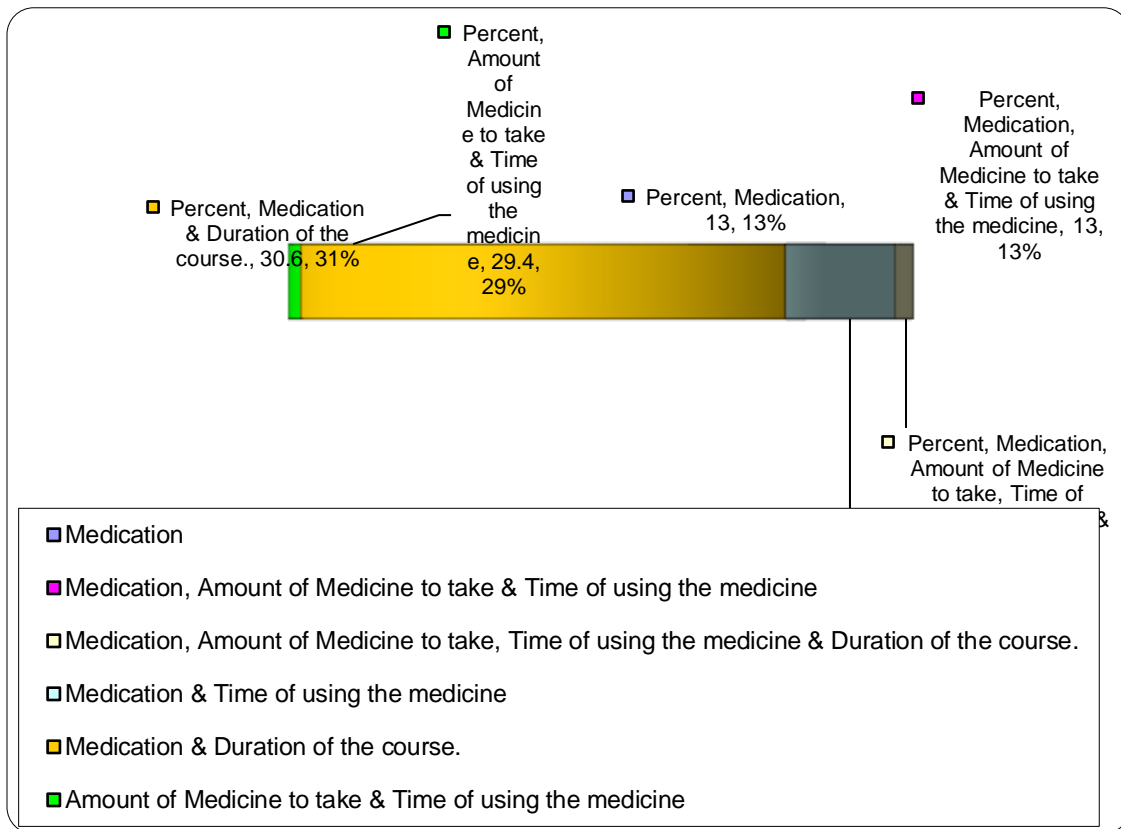
**Table – 5.25: Health care providers instruct patients about the medication, amount of medicine to be taken, time and duration of the medicine.**

<b>Instruction</b>	<b>Frequency</b>	<b>Percent</b>
Medication	100	13.0
Medication, Amount of Medicine to take & Time of using the medicine	100	13.0
Medication, Amount of Medicine to take, Time of using the medicine & Duration of the course.	35	4.6
Medication & Time of using the medicine	72	9.4
Medication & Duration of the course.	235	30.6
Amount of Medicine to take & Time of using the medicine	226	29.4
Total	768	100.0

Referring to the instruction the health care providers give to the patients about the medication, amount of medicine to be taken and time and duration of the medicines, most of the respondents 30.6% (235) said that the health care providers instruct the patients about medication and duration of the course of medicines only, followed by another group of respondents 29.4% (226) who said that the health care providers instruct the patients about the amount of medicine to take and the time of using the medicines, then another group of respondents 13.0% (100) who said that the health care providers instruct about medication and the similar number of respondents 13.0% (100) who said that the health care provider instruct the patients about medication, amount of medicine to take and the time of using the medicine, followed by another group of respondents 9.4% who said that the health care providers instruct about medication and the time of using the medicines and the minimum number of respondents 4.6% (35) who said that the health care providers instruct about medication, amount of medicine to take, time of using the medicine and duration of the course of medicine.

**Major Findings:**

Most of the respondents 30.6% (235) said that the health care providers instruct the patients about medication and duration of the course of medicines only.



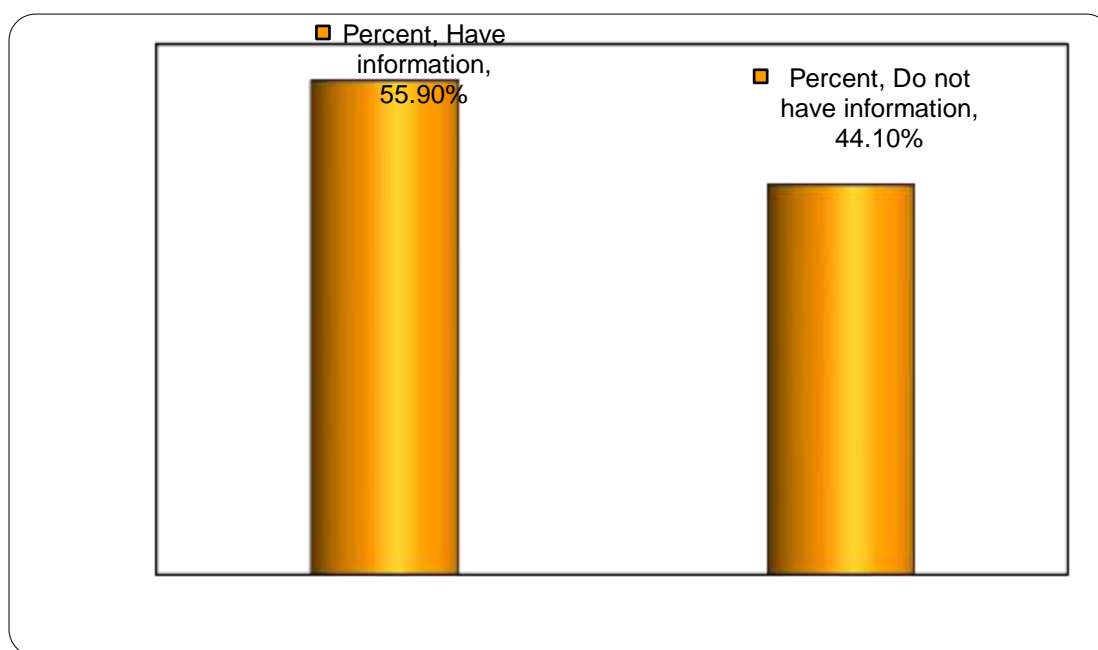
**Table – 5.26: Awareness about the presence of LHVs/LHWs at the BHU**

Information about LHV/LHWs	Frequency	Percent
Have information	429	55.9
Do not have information	339	44.1
Total	768	100.0

Referring to the awareness about the presence of LHVs/LHWs at the BHU, majority of the respondents 55.9% (429) said that they are aware about the presence of LHVs/LHWs at the BHU and only 44.1% (339) said that they are unaware about the presence of LHVs/LHWs at the BHU.

#### Major Findings:

Majority of the respondents 55.9% (429) said that they are aware about the presence of LHVs/LHWs at the BHU.



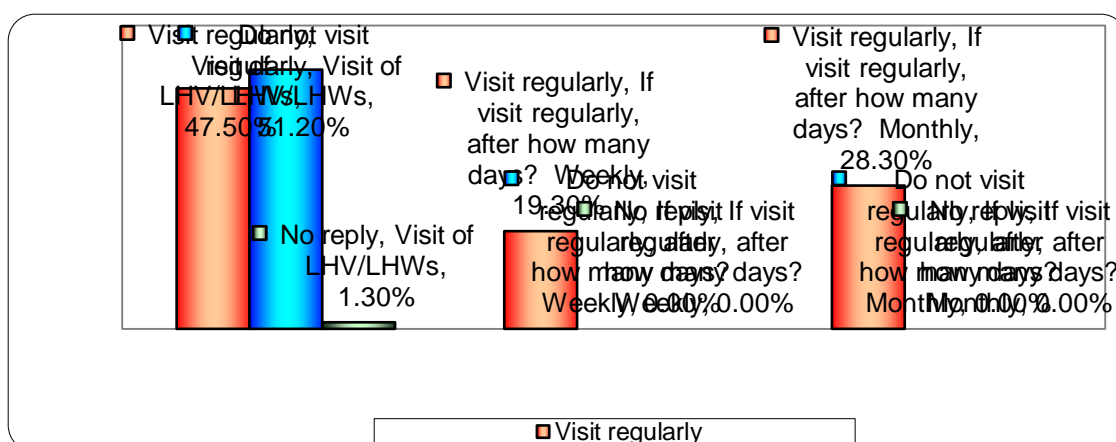
**Table – 5.27: Beneficiaries opinion regarding LHV/LHWs home visits.**

Does the LHV/LHWs visits your home regularly	Freq.	%	If visit regularly, after how many days?	
			Weekly	Monthly
Visit regularly	365	47.5	148 (19.3%)	217 (28.3%)
Do not visit regularly	393	51.2	0 (0%)	0 (0%)
No reply	10	1.3	0 (0%)	0 (0%)
Total	768	100	148 (19.3%)	217 (28.3%)

Looking at the table regarding beneficiaries' opinion about LHV/LHWs home visits and the frequency of these visits, majority of the respondents said that the LHV/LHWs do not visit the homes regularly. A close number of respondents 47.5% (365) who said that LHV/LHWs visit homes regularly, and about the frequency of these visits 28.3% (217) said that they visit homes on monthly basis and 19.3% (148) said they visit homes weekly, then there were a minimum number of respondents 1.3% (10) who gave no reply to this question.

### Major Findings:

Majority of the respondents said that the LHV/LHWs do not visit the homes regularly.



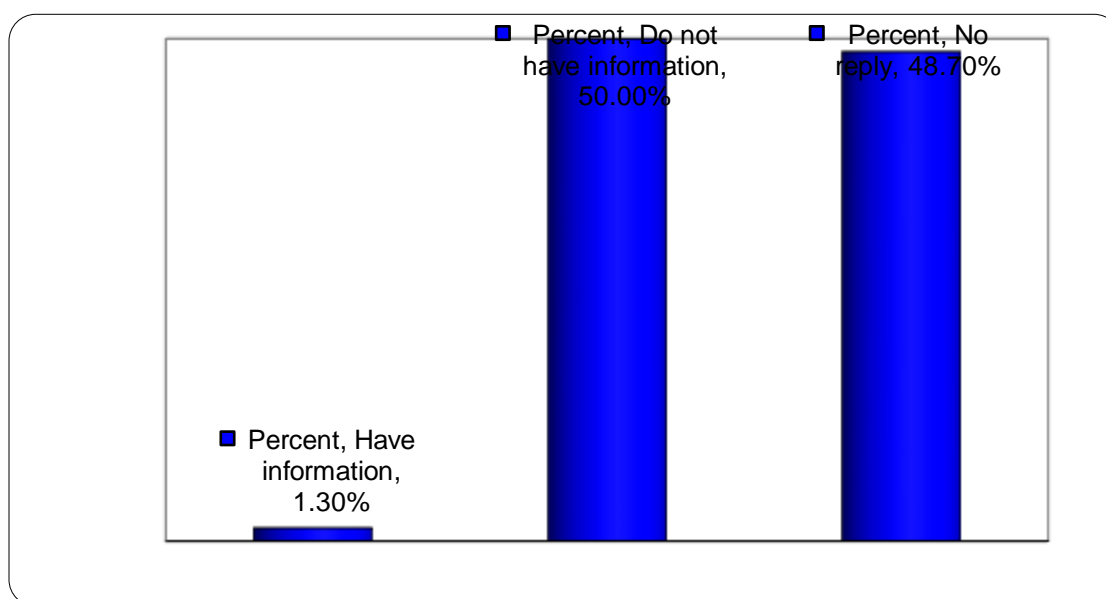
**Table – 5.28: Information about Health Committee/Supporting Group**

Information about Health Committee	Frequency	Percentage
Have Information	10	1.3
Do Not Have Information	384	50.0
No Reply	374	48.7
Total	768	100.0

Referring to the information about the health committee/supporting group, majority of the respondents 50.0% (384) said that they do not have information about the health committee/supporting group at BHU, while a close number of respondents 48.7% (374) gave no reply to this question, and the minimum number of respondents 1.3% (10) said they have information about the health committee/supporting group at BHU.

#### Major Findings:

Majority of the respondents 50.0% (384) said that they do not have information about the health committee/supporting group at BHU.



**Table – 5.29: Suggestions for the improvement of the BHUs**

<b>Suggestions</b>	<b>Frequency</b>	<b>Percent</b>
The staff should be made punctual	31	4.0
There should be monitoring of the BHU staff	51	6.6
Quality medicine should be provided at BHUs	223	29.2
The basic equipments like Ultra sound , X-ray etc should be provided	54	7.0
Health education sessions should be arranged on monthly basis	80	10.4
Ambulance service should be provided	60	7.8
Labor room should be maintained in every BHU	88	11.5
Female doctor should be appointed along with male doctor	40	5.2
There should be counseling sessions for the pregnant women	48	6.2
The visit of the LHWs shall be monitored properly	44	5.7
Health and hygiene session should be arranged regularly	29	3.8
Proper waiting area and clean drinking water should be provided in each BHU	20	2.6
<b>Total</b>	<b>768</b>	<b>100.0</b>

Referring to the suggestions for the improvement of BHUs, most of the respondents 29.2% (223) said that the quality medicines should be provided to the patients at the BHUs, followed by another group of respondents 11.5% (88) who said that a labour room should be maintained at every BHU, almost near is the group of respondents 10.4% (80) who said that

health education sessions should be arranged on monthly basis, followed by the group of respondents 7.8% (60) who said that ambulance service should be provided at BHU, and a close number of respondents 7.0% (54) said that basic equipments like Ultra sound , X-ray etc should be provided at BHUs, then another group of respondents 6.6% (51) who said that there should be monitoring of the staff of BHUs, and then a close group of respondents 6.2% (48) who said that there should be counseling sessions for the pregnant women at BHUs, another group of respondents 5.7% (44) who said that the visits of LHV/LHWs should be monitored properly, and a close number of respondents 5.2% (40) suggests that a female doctor should also be appointed at BHUs along with male doctors, another group of respondents 4.0% (31) said that the staff of BHUs should be made punctual, and some respondents 3.8% (29) also suggested that health and hygiene sessions should be arranged regularly and the minimum number of respondents 2.6% (20) suggested that proper waiting area and clean drinking water should be provided in each BHU.

## Chapter – 6

### Presentation of Data (Non-Beneficiaries of BHUs)

**Table – 6.1: Distribution of the respondents regarding Gender and Age**

Gender	Frequency	%	Age of the respondent in years					
			10-20	20.1-30	30.1-40	40.1-50	50.1 -60	60.1 & above
Male	592	77.1	88 11.5%	198, 25.8%	88 11.5%	109 14.2%	109 14.2%	0 .0%
Female	176	22.9	0 .0%	0 .0%	22 2.9%	44 5.7%	67 8.7%	43 5.6%
Total	768	100	88 11.5%	198 25.8%	110 14.3%	153 19.9%	176 22.9%	43 5.6%

Referring to the gender and age of non beneficiaries respondents, six groups were made with equal intervals in the range of 10 years to 60 years and above. Total number of 768 non beneficiary respondents including 592 men and 176 women were interviewed. Among the male respondents, most were of 25.8% (198) young males between the age 20.1-30 years, followed by a group of 14.2% (109) respondents each between the age of 40.1-50 years and 50.1-60 years, minimum numbers were 11.5% (88) respondents each in the age groups of 10-20 years and 30.1-40 years.

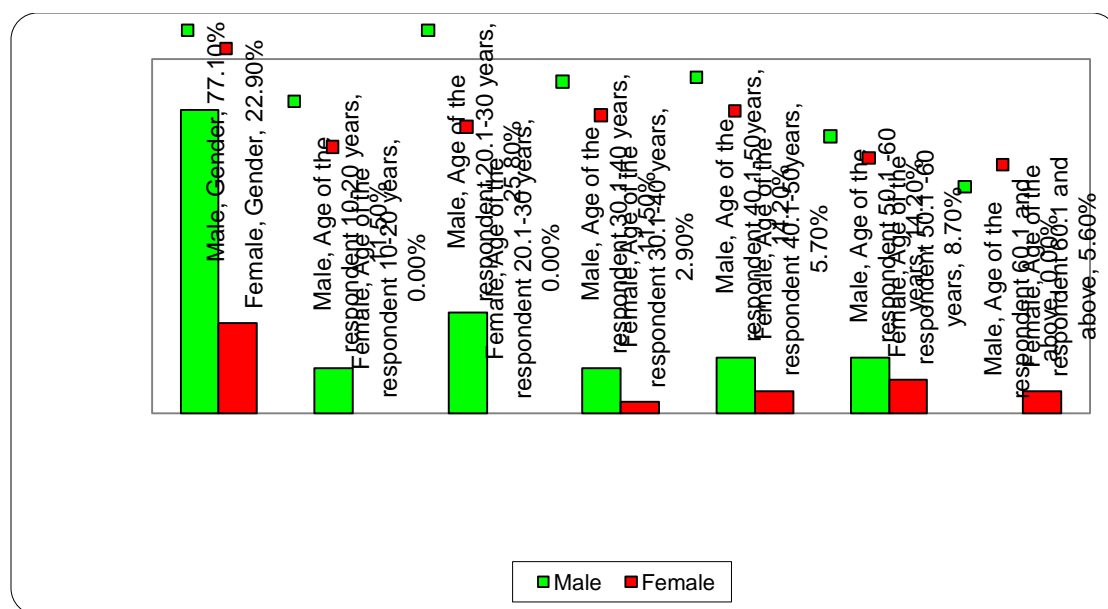
Looking at the female respondents' age group, most of the females numbering 8.7% (67) were between the age 50.1-60 years, followed by second group of respondents 5.7% (44) between the age of 40.1-50 years, followed by another group of 5.6% (43) between the age of

60.1 and above and then with the minimum numbers were 2.9% (22) between 30.1-40 years of age.

If we look at the table accumulatively, then most of the respondents were 25.8% (198) between 20.1-30 years, followed by another group of 22.9% (176) between 50.1-60 years, and another group of 19.9% (153) between 40.1-50 years, and then another group of 14.3% (110) between 30.1-40 years, followed by a group of 11.5% (88) between 10-20 years, and then with minimum numbers were 5.6% (43) between 60.1 and above.

**Major Findings:**

Among the male respondents, most were of 25.8% (198) young males between the age 20.1-30 years and looking at the female respondents' age group, most of the females numbering 8.7% (67) were between the age 50.1-60 years. If we see the total, most of the respondents were 25.8% (198) between 20.1-30 years, followed by another group of 22.9% (176) between 50.1-60 years, and another group of 19.9% (153) between 40.1-50 years, and then another group of 14.3% (110) between 30.1-40 years, followed by a group of 11.5% (88) between 10-20 years, and then with minimum numbers were 5.6% (43) between 60.1 and above.



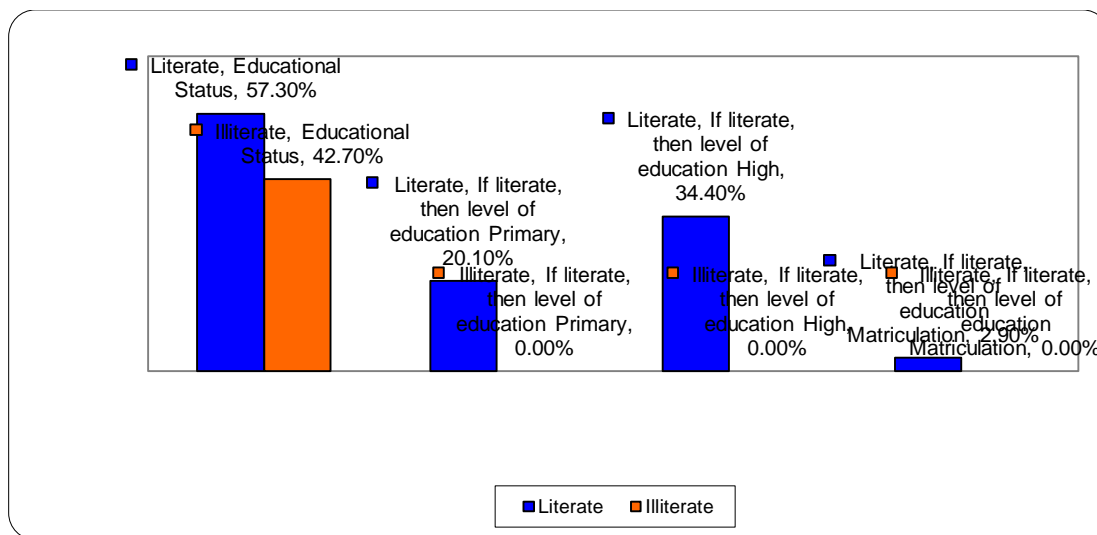
**Table – 6.2: Education and level of education**

Educational Status	Frequency	%	If literate, then level of education		
			Primary	High	Matriculation
Literate	440	57.3	154 (20.1%)	264 (34.4%)	22 (2.9%)
Illiterate	328	42.7	0 (.0%)	0 (.0%)	0 (.0%)
Total	768	100	154 (20.1%)	264 (34.4%)	22 (2.9%)

Referring to the education and level of education of the respondents, majority of them 57.3% (440) were literate, followed by 42.7% (328) who were illiterate. Of the literate respondents, most were 34.4% (264) educated up to high level, followed by another group 20.1% (154) who were educated up to primary and then with minimum numbers 2.95 (22) who were educated till matriculation.

### Major Findings:

Majority of the respondents 57.3% (440) were literate, followed by 42.7% (328) who were illiterate.



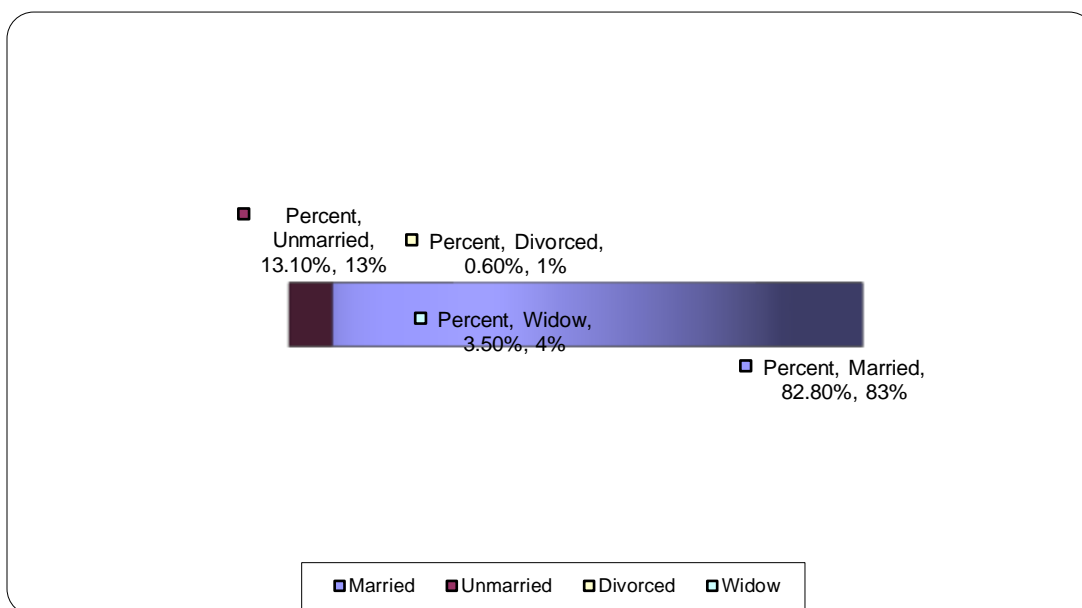
**Table – 6.3: Marital status of the respondents**

Marital Status	Frequency	Percent
Married	636	82.8
Unmarried	100	13.1
Divorced	05	0.6
Widow	27	3.5
Total	768	100.0

Referring to the marital status of the respondents, majority of them 82.8% (636) were married, followed by another group of 13.1% (100) who were un-married, and then another group of 3.5% (27) who were widow and with minimum numbers 0.6% (05) who were divorced.

#### Major Findings:

Majority of the respondents 82.8% (636) were married.



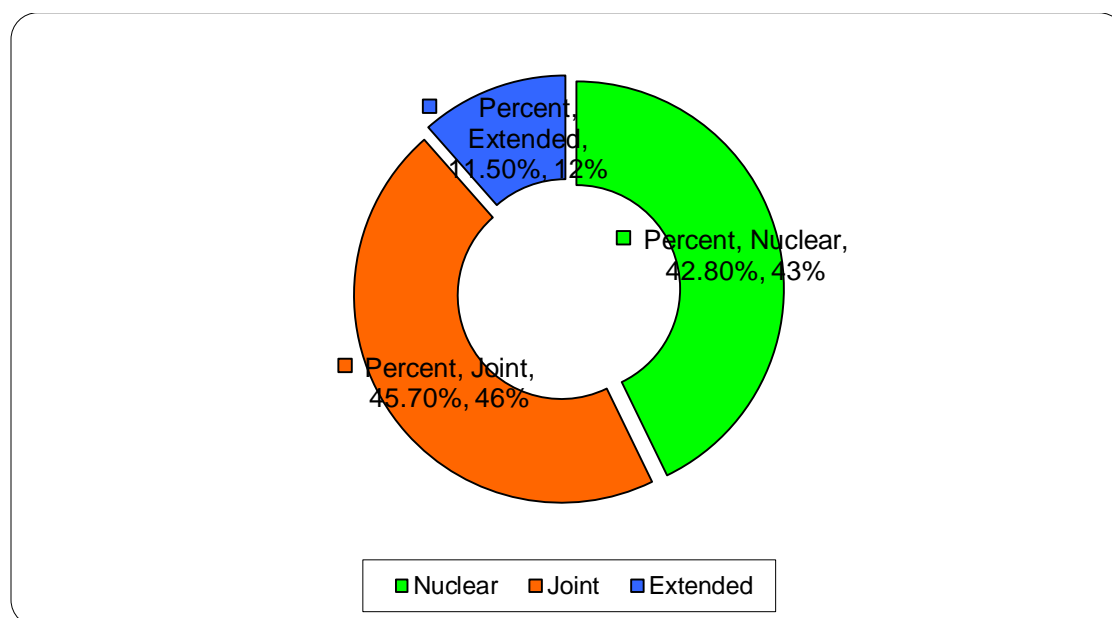
**Table – 6.4: Type of the family of the respondents**

Type of Family	Frequency	Percent
Nuclear	329	42.8
Joint	351	45.7
Extended	88	11.5
Total	768	100.0

Referring to the type of family the respondents had, most of them 45.7% (351) had joint families, followed by another group of 42.8% (329) who had nuclear family system and with minimum numbers 11.5% (88) who had extended families.

#### Major Findings:

Most of the respondents 45.7% (351) had joint family system.



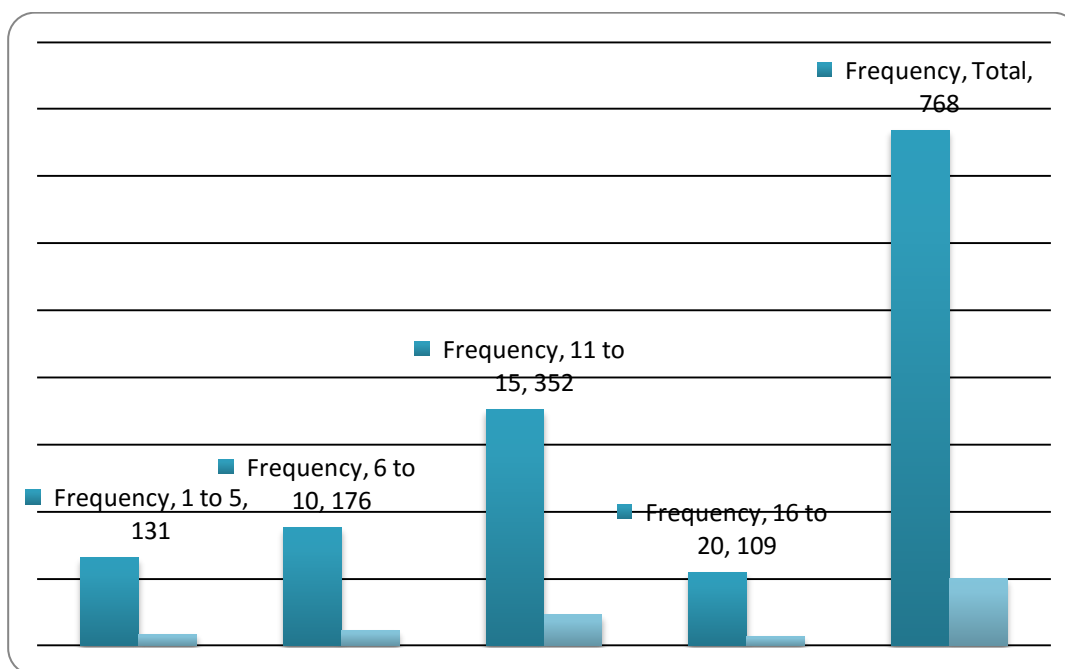
**Table – 6.5: Number of family members**

Group	Frequency	Percent
1-5	131	17.1
6-10	176	22.9
11-15	352	45.8
16-20	109	14.1
Total	768	100

Looking at the number of family members of the respondents, most of the respondents 45.8% (352) had 11-15 family members, followed by another group of 22.9% (176) respondents who had 6-10 family members, then another group of respondents 17.1% (131) who had 1-5 family members and then with minimum numbers 14.1% (109) who had 16-20 family members.

### Major Findings:

Most of the respondents 45.8% (352) had 11-15 family members.



**Table – 6.6: Employment Status and Monthly income**

Employment Status	Freq.	%	Monthly income of the respondents				
			Up to 5000 PKR	5001-10000 PKR	10001-15000 PKR	15001-20000 PKR	20000 PKR & above
Self-employed	29	3.8	-	-	19 (2.4%)	10 (1.4%)	-
Govt. Employee	80	10.4	-	-	22 (2.8%)	45 (5.9%)	13 (1.7%)
Daily wager/labor	187	24.4	5 (0.7%)	112 (14.6%)	47 (6.2%)	23 (3.1%)	-
Farmer	296	38.5	13 (1.7%)	66 (8.6%)	29 (3.7%)	143 (18.6%)	45 (5.9%)
House Wife	176	22.9	88 (11.4%)	80 (10.4%)	8 (1.1%)	-	-
Total	768	100	26 (3.5%)	266 (34.6%)	197 (25.5%)	221 (29%)	58 (7.6%)

Looking at the employment status and monthly income of the non beneficiaries of BHUs, most of the respondents 38.5% (296) were farmers and among them 18.6% (143) had monthly income from 15001-20000, 8.6% (66) had 5001-10000, 5.9% (45) had 20000 and above, 3.7% (29) had 10001-15000, and 1.7% (13) had up to 5000 monthly income.

The second group was of 24.4% (187) who were daily wagers or labourers. Among them 14.6% (112) had monthly income up to 50001-10000, 6.2% (47) had 10001-15000, 3.1% (23) had 15001-20000, and 0.7% (5) had up to 5000.

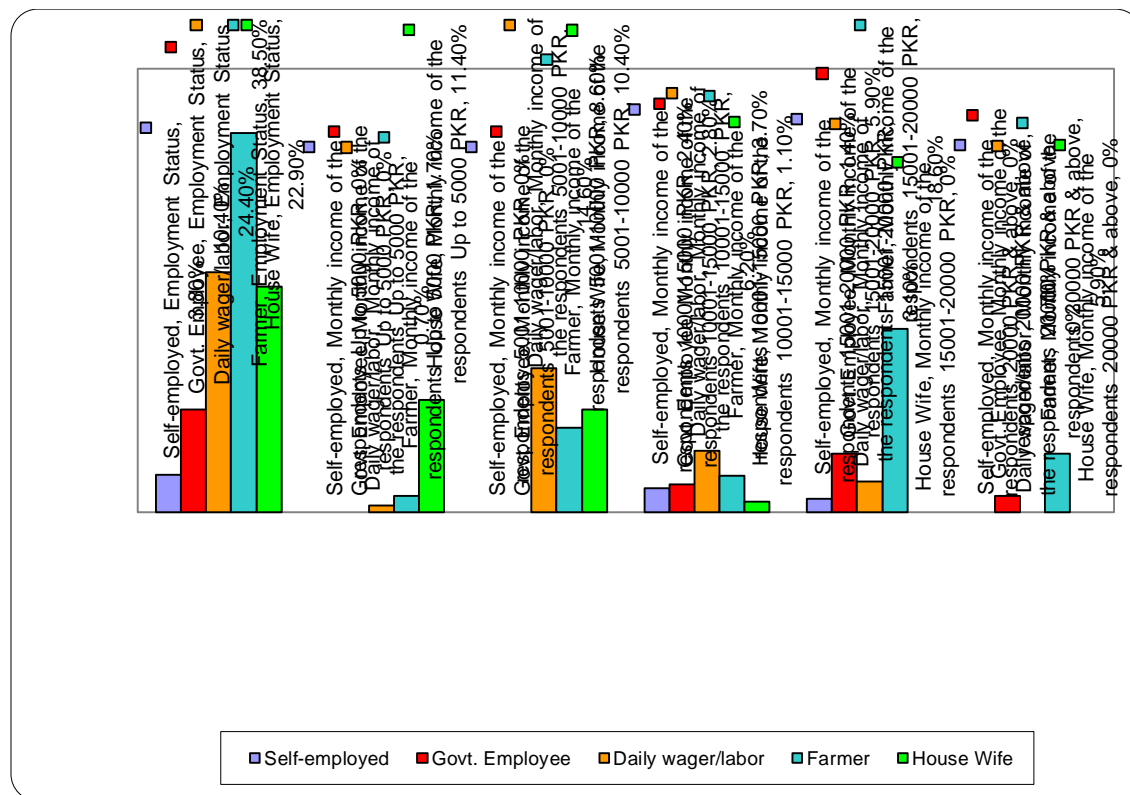
The third group was of 22.9% (176) who were house wives and among them 11.4% (88) had monthly income up to 5000, 10.4% (80) had 10001-15000, and 1.1% (8) had up to 10000-15000 PKR monthly income.

The next group of respondents 10.4% (80) were government servants and among them 5.9% (45) had 15001-20000, 2.8% (22) had 10001-15000, and 1.7% (13) had up to 20000 and above.

The last with minimum number 3.8% (29) were self employed respondents, and among them 2.4% (19) had monthly income 10001-15000 and 1.4% (10) had monthly income up to 15001-20000.

**Major Findings:**

Most of the respondents 38.5% (296) were farmers and among them 18.6% (143) had monthly income from 15001-20000.



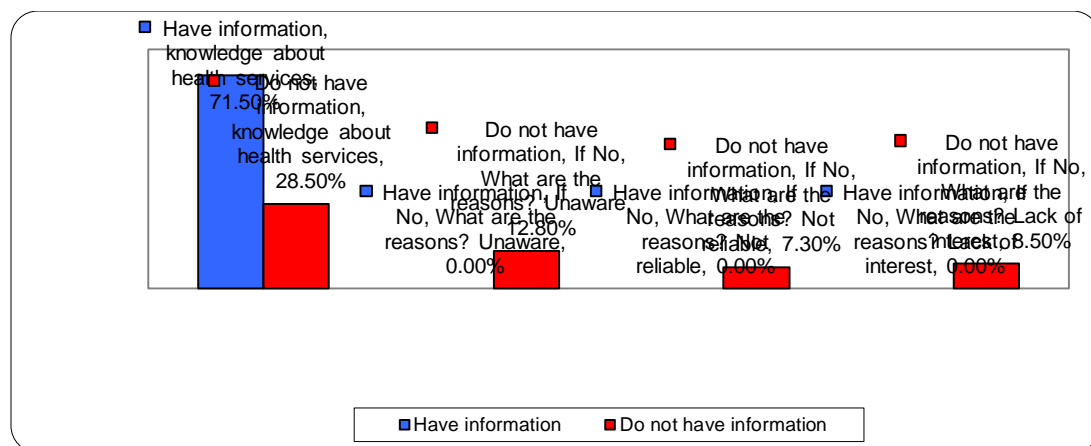
**Table – 6.7: Information about the health services in the catchment area of the respondents**

Do you know about the health services available in your area?	Freq.	%	If No, What are the reasons?		
			Unaware	Not reliable	Lack of interest
Have information	549	71.5	0 (0%)	0 (0%)	0 (0%)
Do not have information	219	28.5	98 (12.8%)	56 (7.3%)	65 (8.5%)
Total	768	100	98 (12.8%)	56 (7.3%)	65 (8.5%)

Referring to the information about the presence of health services in the catchment area of the respondents, majority of the respondents 71.5% (549) had information regarding the presence of health services in their catchment area while a small number 28.5% (219) did not have information regarding the health services in their catchment area, among these who do not have the information the reasons being, most of 12.8% (98) were unaware, followed by another group of respondents 8.5% (65) who had lack of interest and then 7.3% (56) who said these services are not reliable.

### Major Findings:

Majority of the respondents 71.5% (549) had information regarding the presence of health services in their catchment area.



**Table – 6.8: Gender and information about health services**

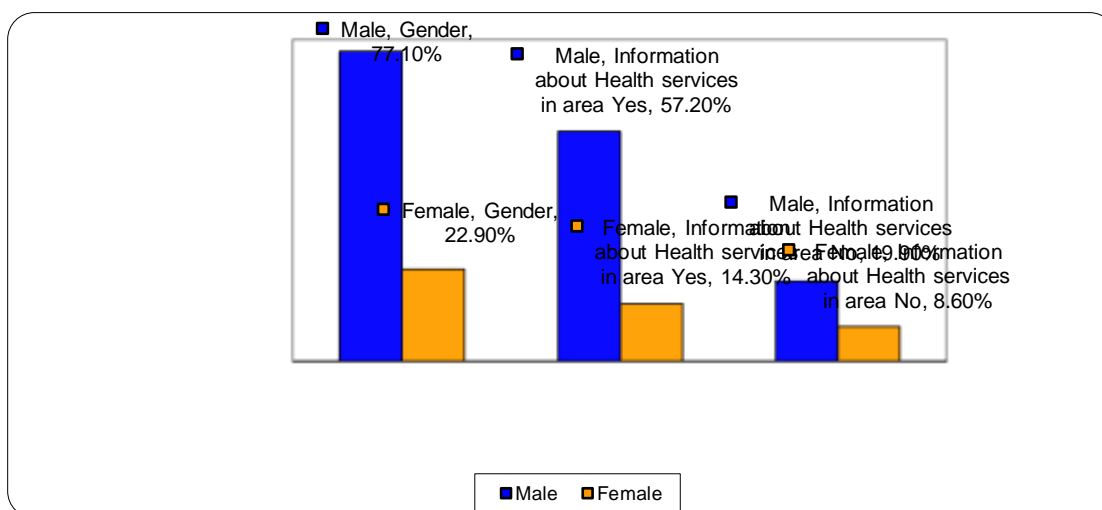
Gender of the respondent	Frequency	%	Information about the health services available in your area?	
			Yes	No
Male	592	77.1	439 (57.2%)	153 (19.9%)
Female	176	22.9	110 (14.3%)	66 (8.6%)
Total	768	100	549 (71.5%)	219 (28.5%)

Referring to the gender and information about health services availability in their area, majority of the males 57.2% (439) had information about health services presence in their area while only 19.9% (153) did not have such information.

Looking at the female respondents, only 14.3% (110) had information regarding health services presence in their area while 8.6% (66) did not had such information.

### Major Findings:

Majority of the males 57.2% (439) had information about health services presence in their area while only 14.3% (110) females had information regarding health services presence in their area.



**Table – 6.9: Suffering from disease and from where you get medicine?**

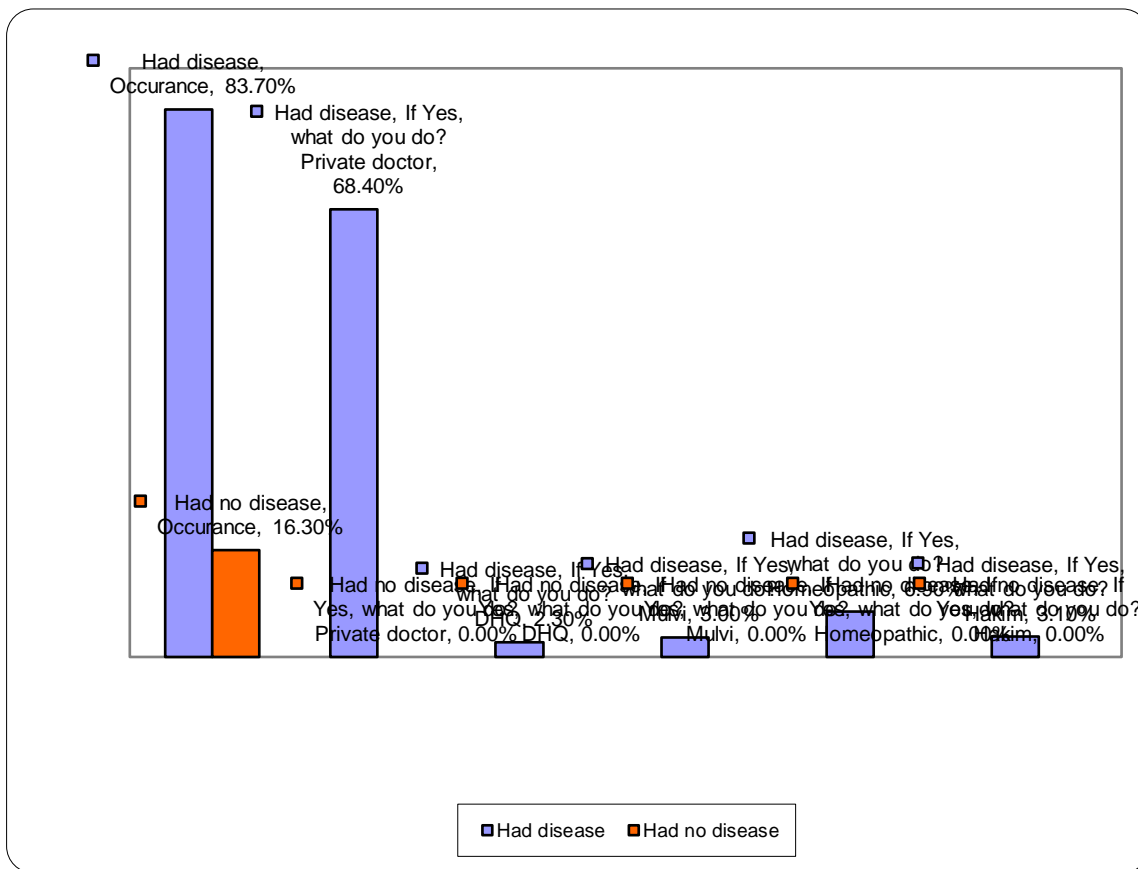
Occurrences	F	%	If Yes, what do you do?				
			private doctor	DHQ	Maulvi	Homeopathic	Hakim
Had disease	643	83.7	525, 68.4%	18 2.3%	23 3.0%	53 6.9%	24 3.1%
Had no disease	125	16.3	0 0%	0 0%	0 .0%	0 .0%	0 .0%
Total	768	100	525 68.4%	18 2.3%	23 3.0%	53 6.9%	24 3.1%

Looking at the table of suffering from a disease and from where the respondents get medicines, majority of the respondents 83.7% (643) said they had disease and only 16.3% (125) said they had no disease.

Among the respondents who said they had disease, majority 68.4% (525) said they get medicines from a private doctor, followed by another group of respondents 6.9% (53) who said they get medicines from a homeopathic doctor, then another group of respondents 3.1% (24) who said they get medicine from hakim, then 3.0% (23) who said they get medicine from a maulvi, and then with minimum numbers 2.3% (18) who said they get medicine from District Head Quarter Hospital.

**Major Findings:**

Majority of the respondents 83.7% (643) said they had disease and only 16.3% (125) said they had no disease. Among the respondents who said they had disease, majority 68.4% (525) said they get medicines from a private doctor.



**Table – 6.10: Gender and suffering from disease.**

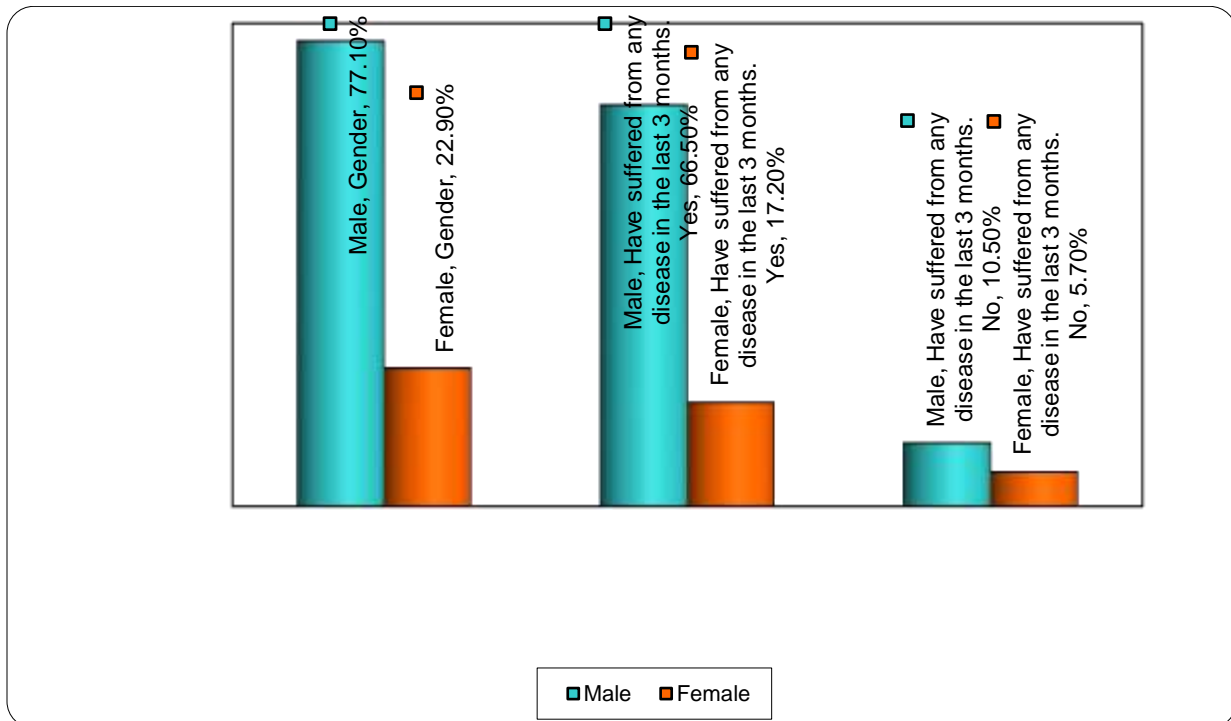
Gender of the respondent	Frequency	%	Have suffered from any disease in the last 3 months.	
			Yes	No
Male	592	77.1	511 (66.5%)	81 (10.5%)
Female	176	22.9	132 (17.2%)	44 (5.7%)
Total	768	100	643 (83.7%)	125 (16.3%)

Referring to the gender and suffered from any disease in the last 3 months, among the male 77.1% (592) respondents, majority 66.5% (511) said they had suffered from a disease in the last 3 months, followed by 10.5% (81) male respondents who said they had not suffered from any disease in the last 3 months.

Looking at female 22.9% (176) respondents, most 17.2% (132) said they had suffered from a disease in the last 3 months and only 5.7% (44) said that they had not suffered from any disease in the last 3 months.

### Major Findings:

Among the male 77.1% (592) respondents, majority 66.5% (511) said they had suffered from a disease in the last 3 months and among the female 22.9% (176) respondents, most 17.2% (132) said they had suffered from a disease in the last 3 months.



**Table – 6.11: Age wise distribution with the suffering from disease**

Age of the respondent	Frequency	%	Have suffered from any disease in the last 3 months.	
			Yes	No
10-20 years	88	11.5	44 (5.7%)	44 (5.7%)
20.1-30 years	198	25.8	182 (23.7%)	16 (2.1%)
30.1-40 years	110	14.3	88 (11.5%)	22 (2.9%)
40.1-50	153	19.9	153 (19.9%)	0 (.0%)
50.1 -60 years	176	22.9	142 (18.5%)	34 (4.4%)
60.1 and above	43	5.6	34 (4.4%)	9 (1.2%)
Total	768	100	643 (83.7%)	125 (16.3%)

Referring to the age wise distribution and suffering from any disease in the last 3 months, among most of the respondents who were 25.8% (198) between 20.1-30 years of age, 23.7% (182) said that they suffered from a disease in the last 3 months and 2.1% (16) said that they did not suffer from any disease in the last 3 months.

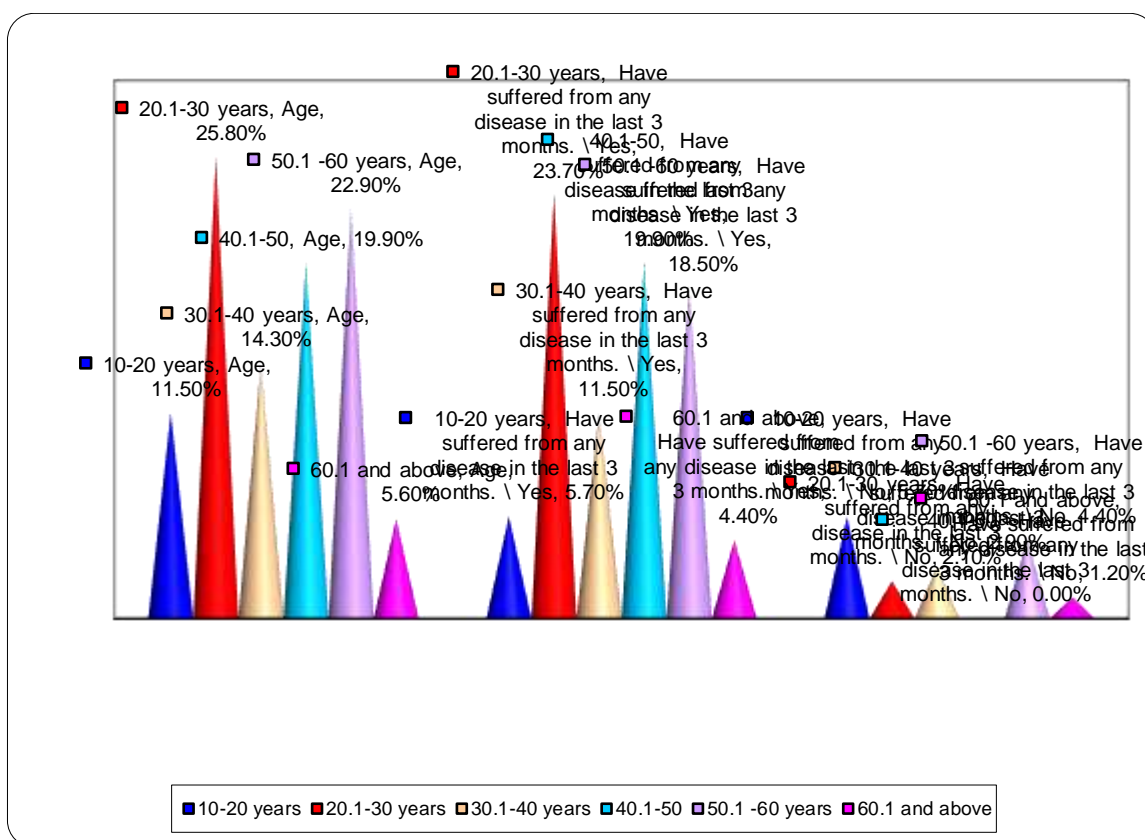
Another group of respondents 22.9% (176) who were between 50.1-60 years, 18.5% (142) said that they suffered from a disease in the last 3 months and 4.4% (34) said that they did not suffer from any disease.

Another group of respondents 19.9% (153) who were between 40.1-50 years, all said that they had suffered from a disease in the last 3 months.

The other group of respondents 14.3% (110) who were between 30.1-40 years, almost 11.5% (88) said that they have suffered from a disease in the last 3 months while 2.9% (22) said that they had not suffered.

Then the next group of respondents 11.5% (88) who were between 10-20 years, half 5.7% (44) said that they had suffered from a disease in last 3 months and other half 5.7% (44) said that they had not suffered from any disease in the last 3 months.

Then with minimum numbers were 5.6% (43) respondents who were between 60.1 and above and among them 4.4% (34) said that they had suffered from a disease in the last 3 months and 1.2% (9) said that they did not suffer from any disease in the last 3 months.



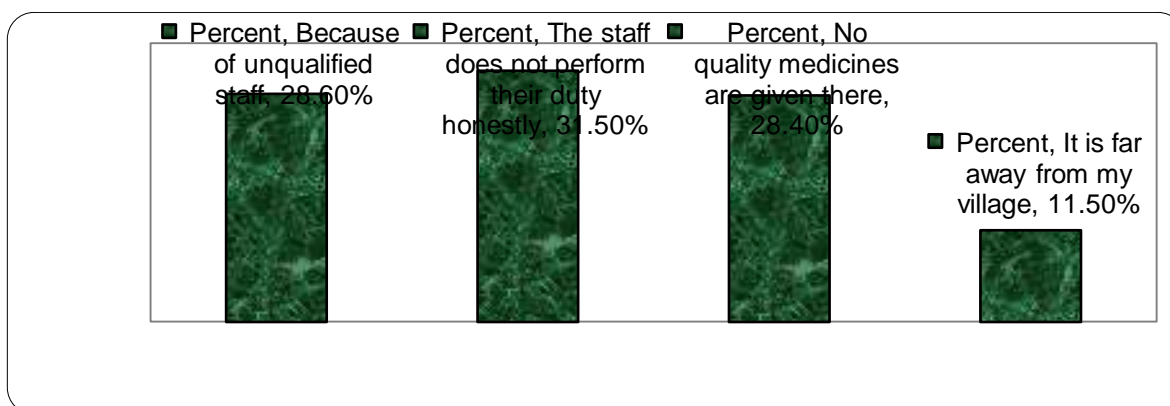
**Table – 6.12: Reasons for not going to BHU for treatment**

Reasons	Frequency	Percent
Because of unqualified staff	220	28.6
The staff does not perform their duty honestly	242	31.5
No quality medicines are given there	218	28.4
It is far away from my village	88	11.5
Total	768	100.0

Referring to the reasons for not going to BHU for treatment, most of the respondents 31.5% (242) said that they did not go to BHU for treatment because the staff of BHU does not perform their duty honestly, followed by another group 28.6% (220) respondents who said that because of unqualified staff at BHU, then another group of 28.4% (218) respondents who said they do not go to BHU for treatment because quality medicines are not given at BHUs, and with minimum numbers 11.5% (88) who said because BHU is far away from their village.

#### Major Findings:

Most of the respondents 31.5% (242) said that they did not go to BHU for treatment because the staff of BHU does not perform their duty honestly.



**Table – 6.13: Suggestions for improvement of BHUs**

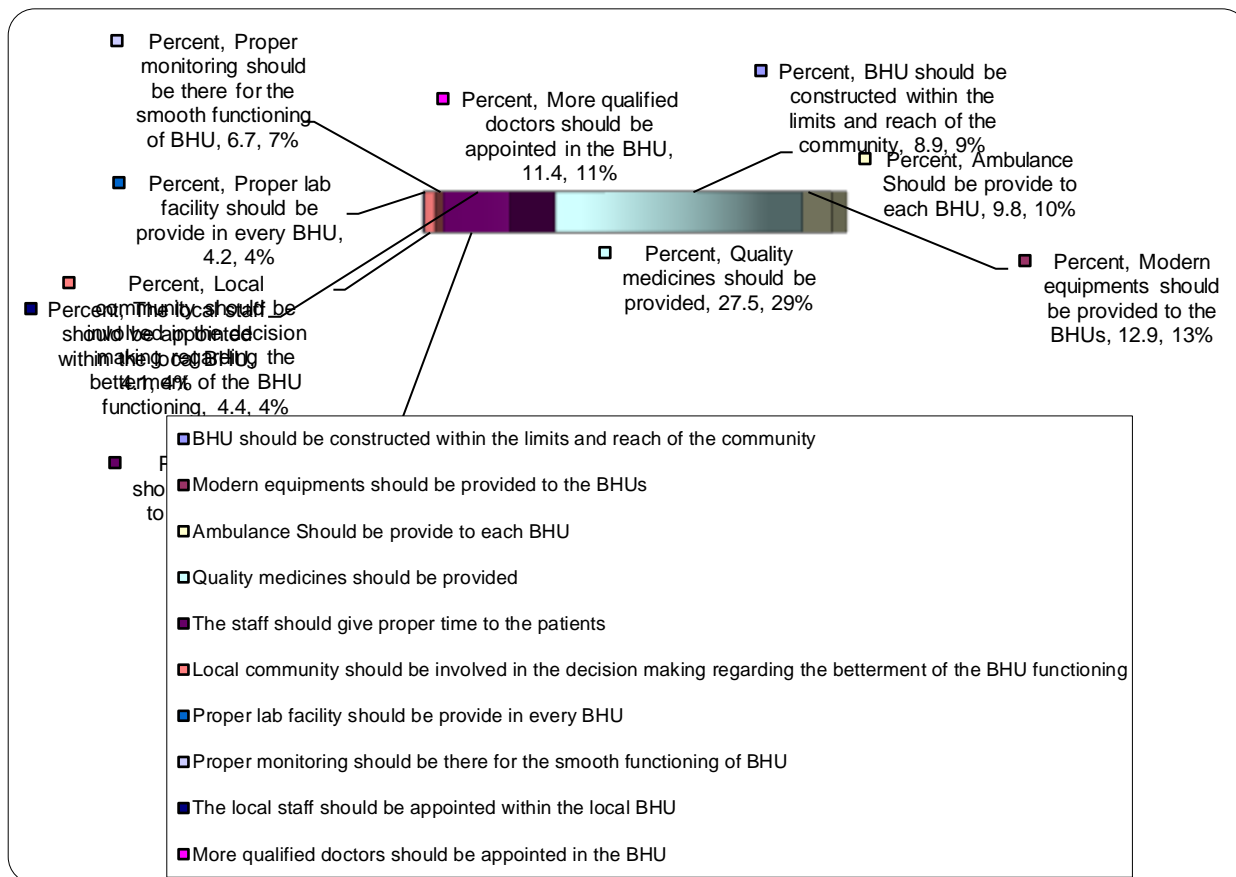
<b>Suggestions</b>	<b>Frequency</b>	<b>Percent</b>
BHU should be constructed within the limits and reach of the community	68	8.9
Modern equipments should be provided to the BHUs	99	12.9
Ambulance Should be provide to each BHU	75	9.8
Quality medicines should be provided	211	27.5
The staff should give proper time to the patients	77	10.1
Local community should be involved in the decision making regarding the betterment of the BHU functioning	34	4.4
Proper lab facility should be provide in every BHU	33	4.2
Proper monitoring should be there for the smooth functioning of BHU	51	6.7
The local staff should be appointed within the local BHU	32	4.1
More qualified doctors should be appointed in the BHU	88	11.4

Looking at the suggestions the non beneficiaries of BHUs gave for the improvement of health services at BHUs, most of the respondents 27.5% (211) said that quality medicines should be provided at BHU, followed by another group of respondents 12.9% (99) who said that modern equipments should be provided to the BHUs, then another group of respondents 11.4% (88) who said that more qualified doctors should be appointed in the BHU, then 10.1% (77) respondents said that the staff should give proper time to the patients, 9.8% (75) respondents said that ambulance should be provide to each BHU, 8.9% (68) respondents said that BHU should be constructed within the limits and reach of the community, 6.7% (51) respondents said that proper monitoring should be there for the smooth functioning of BHU, 4.4% (34) respondents said that local community should be involved in the decision making regarding the betterment of the BHU

functioning, 4.2% (33) respondents said that proper lab facility should be provide in every BHU, 4.1% (32) respondents said that the local staff should be appointed within the local BHU.

**Major Findings:**

Most of the respondents 27.5% (211) said that quality medicines should be provided at BHU.



## Chapter – 7

### Presentation of Data (Staff of BHUs)

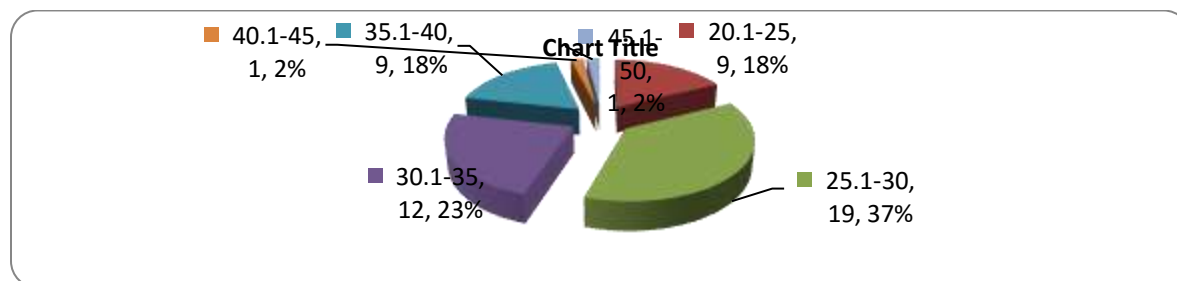
**Table – 7.1: Age of the respondents**

Age Group	Frequency	Percent
20.1-25	9	17.6
25.1-30	19	37.3
30.1-35	12	23.5
35.1-40	9	17.6
40.1-45	1	2.0
45.1-50	1	2.0
Total	51	100.0

Referring the age of the respondents, six groups were made with equal intervals. Most of the respondents 37.3% (19) belonged to age group 25.1-30 years, followed by another group of respondents 23.5% (12) who belonged to 30.1-35 years, then two groups each with 17.6% (9) for 35.1-40 years and 20.1-25 years respectively, then with the minimum numbers by again two groups 2.0% (1) each for 40.1-45 years and 45.1-50 years respectively.

#### Major Findings:

Most of the respondents 37.3% (19) belonged to age group 25.1-30 years.



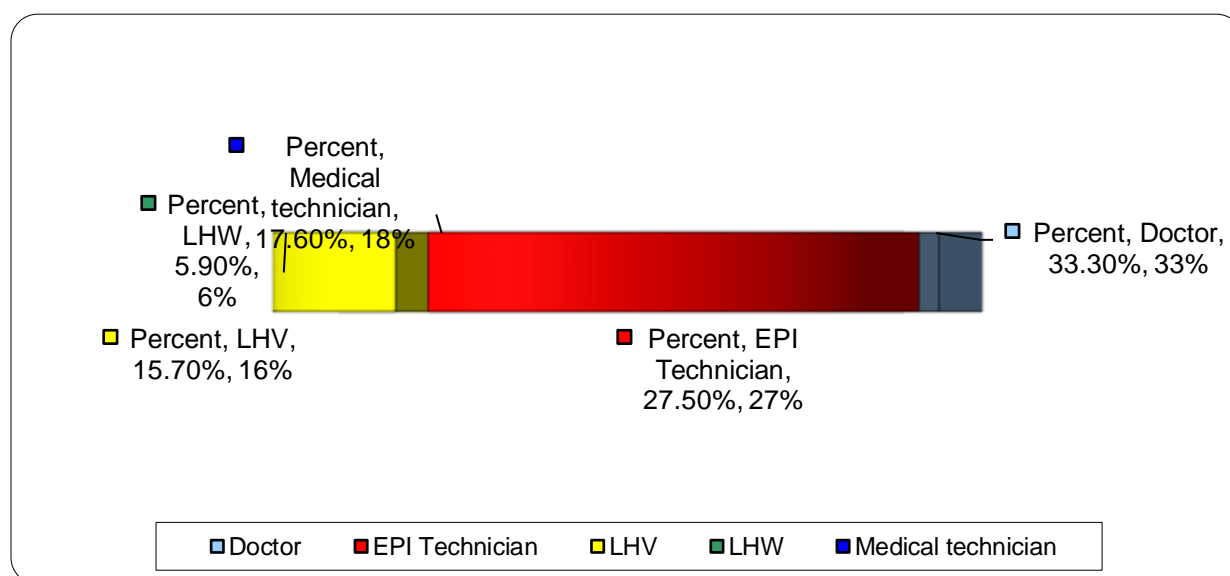
**Table – 7.2: Designation of the respondents**

Designation	Frequency	Percent
Doctor	17	33.3
EPI Technician	14	27.5
LHV	8	15.7
LHW	3	5.9
Medical technician	9	17.6
Total	51	100.0

Referring to the designation of the respondents, most of the respondents 33.3% (17) were doctors, followed by another group of respondents 27.5% (14) who were EPI Technicians, then another group with 17.6% (9) who were medical technicians, then 15.7% (8) who were LHVs and then with minimum numbers 5.9% (3) who were LHWs.

### Major Findings:

Most of the respondents 33.3% (17) were doctors.



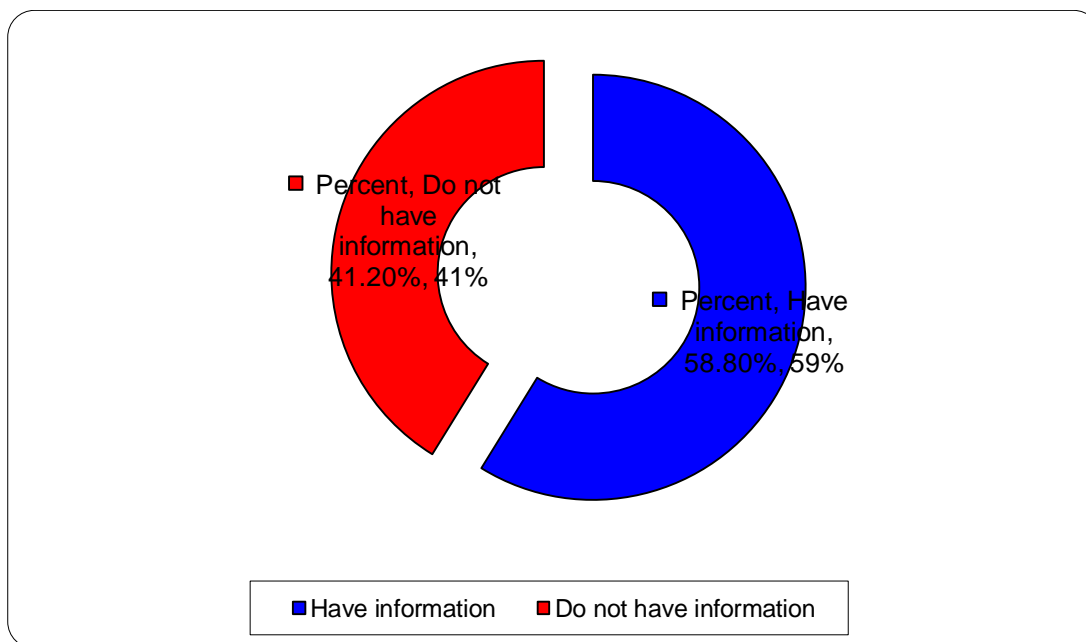
**Table – 7.3: Information about the functions of the BHUs**

Information	Frequency	Percent
Have information	30	58.8
Do not have information	21	41.2
Total	51	100.0

Looking at the table of information about the functions of BHUs, majority of the respondents 58.8% (30) said that they have information regarding the functions of BHUs and 41.2% (21) said that they do not have information about the functions of BHUs.

#### Major Findings:

Majority of the respondents 58.8% (30) said that they have information regarding the functions of BHUs.



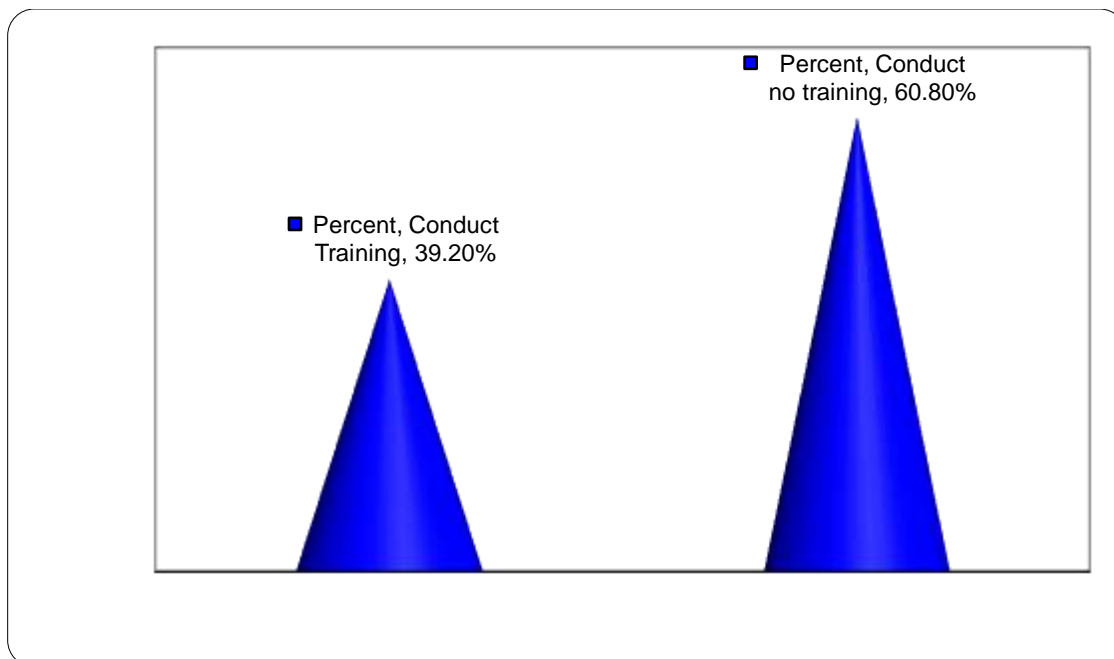
**Table – 7.4: Do you conduct any training on primary health care?**

<b>Training Status</b>	<b>Frequency</b>	<b>Percent</b>
Conduct Training	20	39.2
Conduct no training	31	60.8
Total	51	100.0

Referring to the table regarding the conduct of primary health care training, majority of the respondents 60.8% (31) said that they had not conducted any training on primary health care and 39.2% (20) said that they had conducted primary health care training.

#### **Major Findings:**

Majority of the respondents 60.8% (31) said that they had not conducted any training on primary health care.



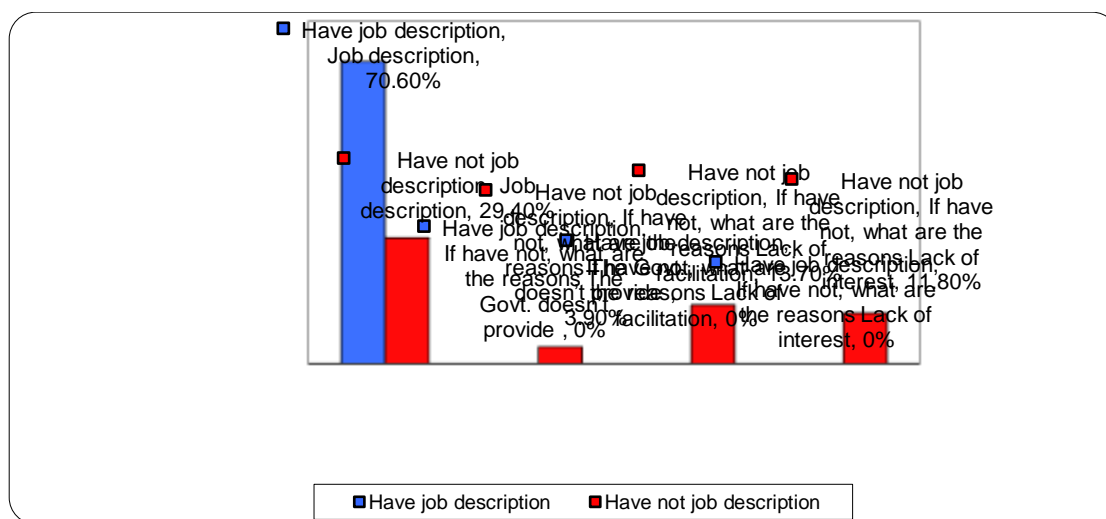
**Table – 7.5: Availability and information regarding job description and if do not have then what are the reasons?**

Job description	F	%	If have not, what are the reasons		
			The Govt. doesn't provide	Lack of facilitation	Lack of interest
Have job description	36	70.6	-	-	-
Have not job description	15	29.4	2 (3.9%)	7 (13.7%)	6 (11.8%)
Total	51	100	2 (3.9%)	7 (13.7%)	6 (11.8%)

Referring to the availability and information regarding job description and the reasons for not having job description, majority of the respondents 70.6% (36) said that they had job description and 29.4% (15) said that they did not have job description. Further about the reasons for not having job description, most of them 13.7% (7) said that because there is lack of facilitation, followed by 11.8% (6) respondents who said because of lack of interest, and with minimum numbers 3.9% (2) who said because government have not provided them with job description.

### Major Findings:

Majority of the respondents 70.6% (36) said that they had job description.



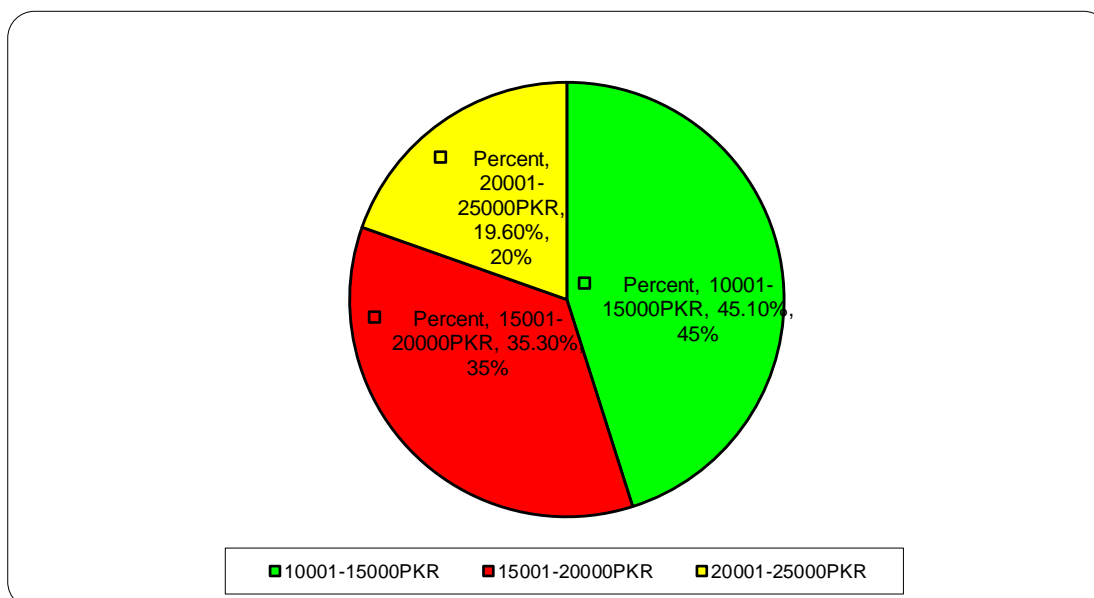
**Table – 7.6: Monthly salaries of the respondents**

Monthly salary	Frequency	Percent
10001-15000PKR	23	45.1
15001-20000PKR	18	35.3
20001-25000PKR	10	19.6
Total	51	100.0

Referring to the monthly salary of the staff of BHU, most of the respondents 45.1% (23) had monthly salary up to 10001-15000 PKR, followed by 35.3% (18) who had monthly salary up to 15001-20000 PKR, while with minimum numbers 19.6% (10) who had monthly salary up to 20001-25000 PKR.

#### Major Findings:

Most of the respondents 45.1% (23) had monthly salary up to 10001-15000 PKR.



**Table – 7.7: Private practice and total monthly income from all resources**

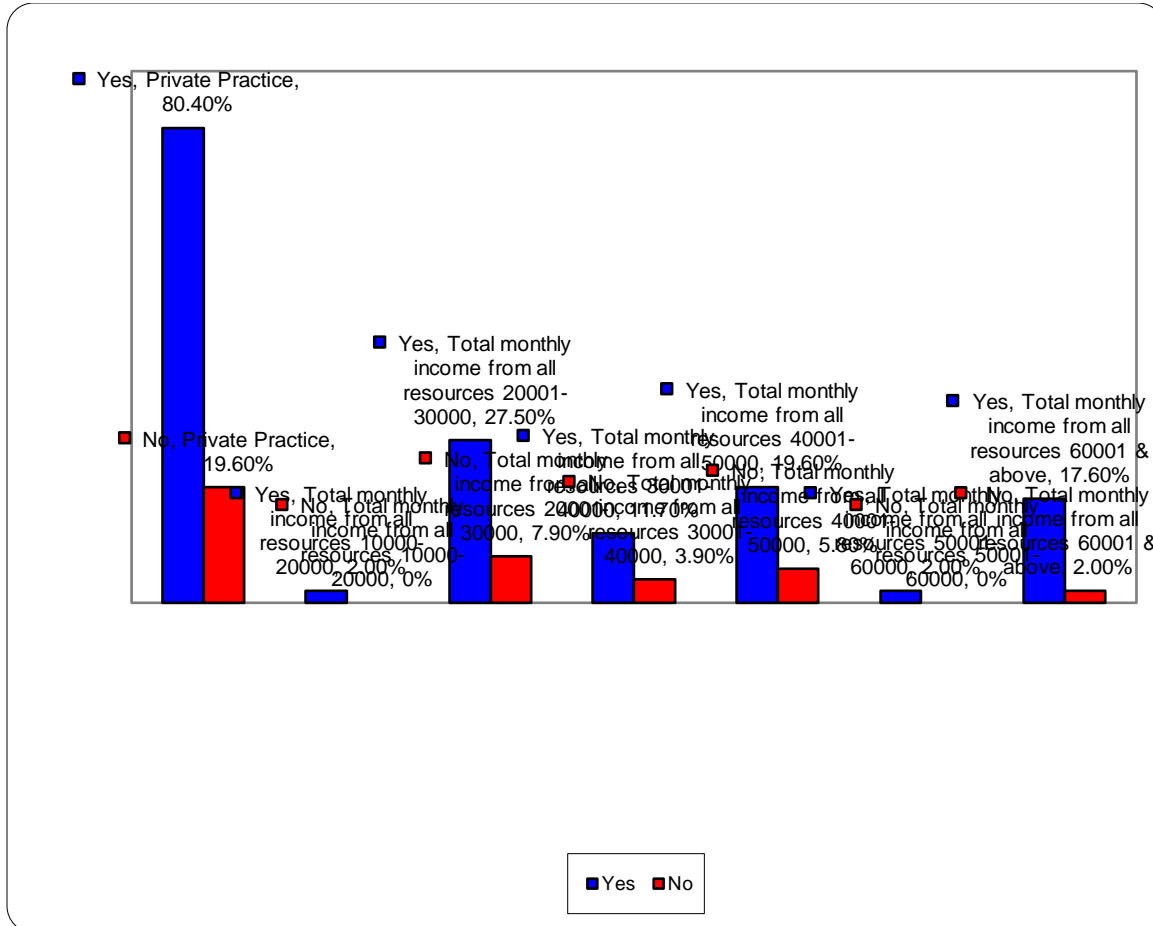
Doing private practice	F	%	Total monthly income from all resources					
			10000-20000	20001-30000	30001-40000	40001-50000	50001-60000	60001 & above
Yes	41	80.4	1 2.0%	14 27.5%	6 11.7%	10 19.6%	1 2.0%	9 17.6%
No	10	19.6	-	4 7.9%	2 3.9%	3 5.8%	-	1 2.0%
Total	51	100	1 2.0%	18 35.4%	8 15.6%	13 25.4%	1 2.0%	10 19.6%

Referring to the private practice and total monthly income from all sources, majority of the respondents 80.4% (41) said that they do private practice also. Among them most of the respondents 27.5% (14) had monthly income up to 20001-30000 PKR, while 19.6% (10) had monthly income up to 40001-50000 PKR, then another group of respondents with 17.6% (9) who had monthly income up to 60001 and above, then with minimum numbers 2.0% (1) each for both 50001-60000 PKR and 10000-20000 PKR respectively.

Looking at the next group of respondents 19.6% 10) who do not do any private practice, among them mostly 7.9% (4) had monthly income up to 20001-30000 PKR, while 5.8% (3) had monthly income up to 40001-50000 PKR, followed by another group of respondents 3.9% (2) who had monthly income up to 30001-40000 PKR and with minimum numbers 2.0% (1) who had monthly income up to 60001 and above.

**Major Findings:**

Majority of the respondents 80.4% (41) said that they do private practice also.



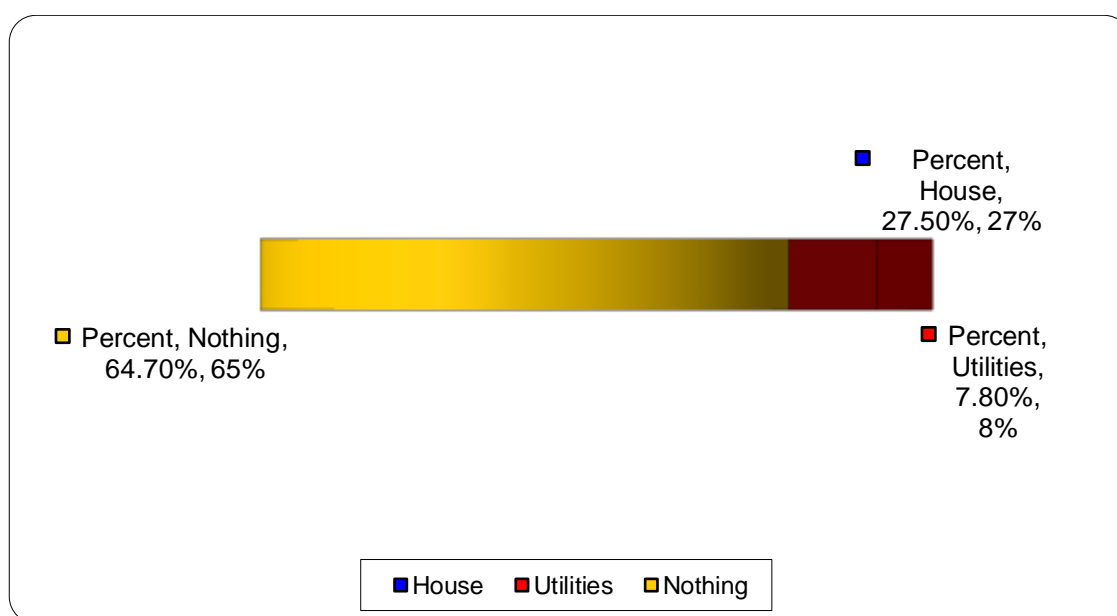
**Table – 7.8: Provision of facilities by the Govt. in your area**

Nature of facility	Frequency	Percent
House	14	27.5
Utilities	04	7.8
Nothing	33	64.7
Total	51	100

Referring to the provisions of facilities by the government to the staff of BHU in their area, majority of the respondents 64.7% (33) said that no facility is provided by government to them in their areas, followed by 27.5% (14) respondents who said that house is provided by government to the staff of BHU in their areas, while 7.8% (4) said that only utilities are provided by government to the staff of BHU in their areas.

#### Major findings:

Majority of the respondents 64.7% (33) said that no facility is provided by government to them in their areas.



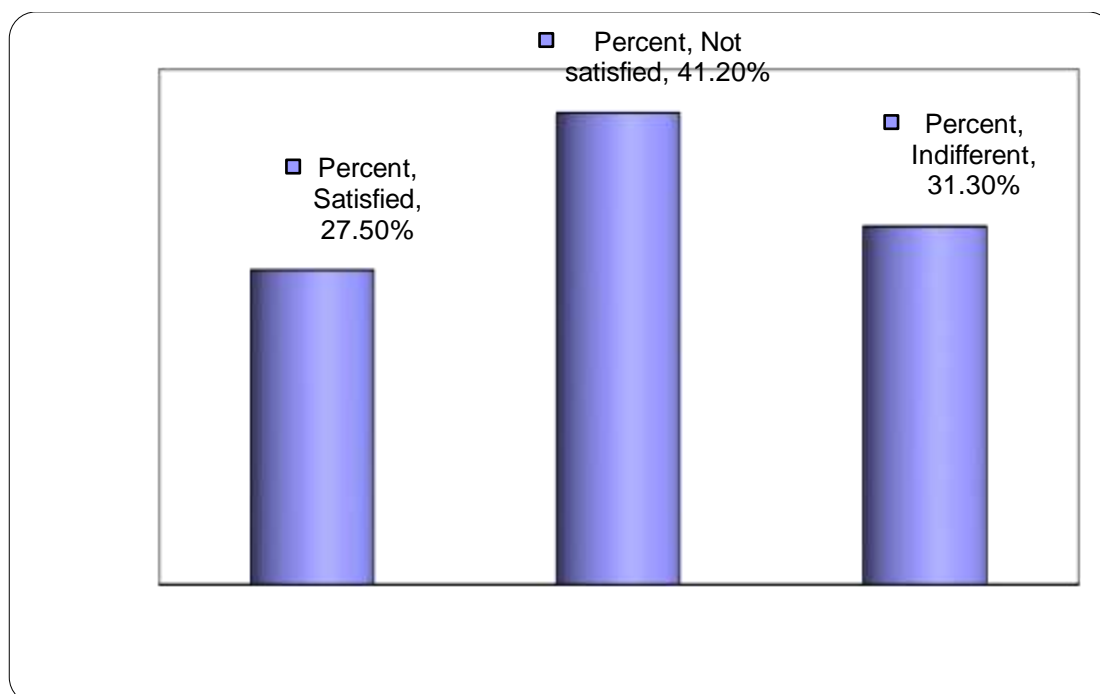
**Table – 7.9: Level of Satisfaction with the Salary, Job and Facilities**

<b>Level of Satisfaction</b>	<b>Frequency</b>	<b>Percent</b>
Satisfied	14	27.5
Not Satisfied	21	41.2
Indifferent	16	31.3
Total	51	100

Referring to the level of satisfaction of BHU staff with their salary, job and facilities, most of the respondents 41.2% (21) said that they are not satisfied with their salary, job and facilities, followed by 31.3% (16) respondents were indifferent to this question, while 27.5% (14) respondents who said that they are satisfied with their salary, job and facilities.

#### **Major Findings:**

Most of the respondents 41.2% (21) said that they are not satisfied with their salary.



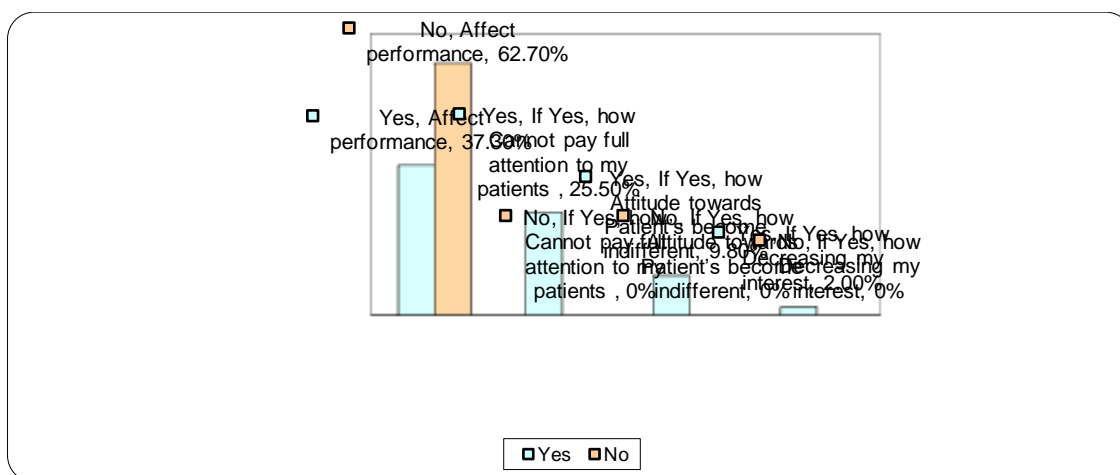
**Table – 7.10: Does your low income and lack of facilities affect your performance**

Affect your performance	F	%	If yes, how		
			Cannot pay full attention to my patients	Attitude towards Patient's become indifferent	Decreasing my interest
Yes	19	37.3	13 (25.5%)	5 (9.8%)	1 (2.0%)
No	32	62.7	-	-	-
Total	51	100	13 (25.5%)	5 (9.8%)	1 (2.0%)

Looking at the effect of low income and lack of facilities on job performance, majority of the respondents said that low income and lack of facilities does not affect their performance while 37.3% (19) said that it affect their performance, among these 25.5% (13) said that cannot pay full attention to their patients because of low income and lack of facilities, while 9.8% (5) said that their attitude towards their patients become indifferent, and 2.0% (1) said it low income and lack of facilities is decreasing their interests.

### Major Findings:

Majority of the respondents said that low income and lack of facilities does not affect their performance.



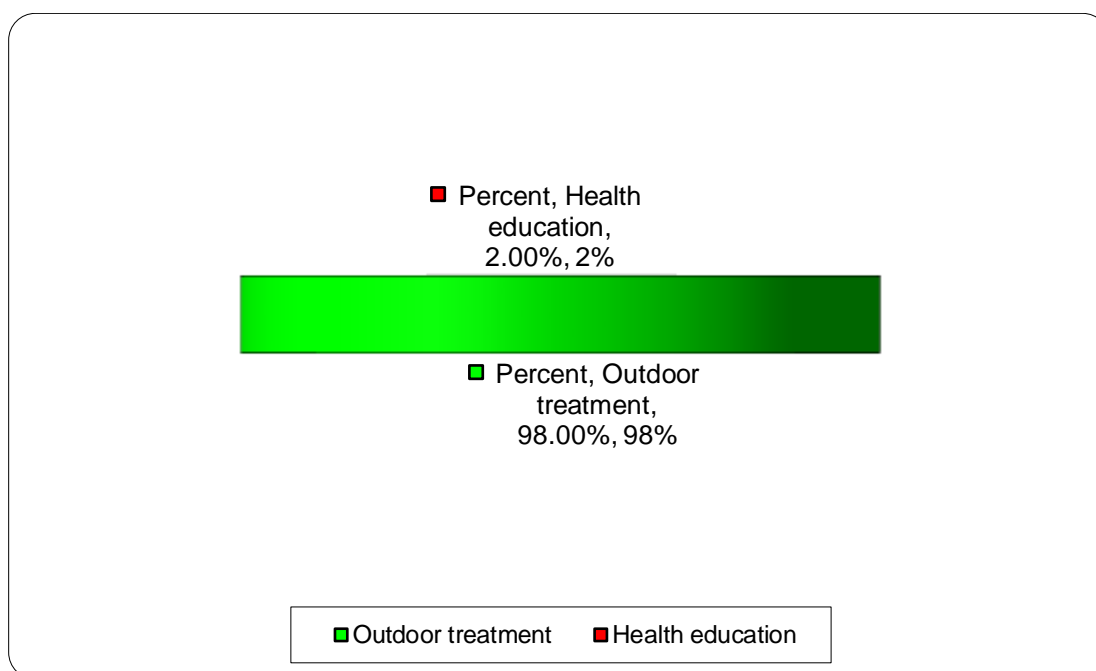
**Table – 7.11: Availability of treatment facilities in your BHU**

<b>Facilities</b>	<b>Frequency</b>	<b>Percent</b>
Outdoor treatment	50	98.0
Health education	01	2.0
Total	51	100

Looking at the availability of treatment facilities in the BHU, majority of the respondents 98.0% (50) said that only outdoor treatment facilities are available in the BHU and only 2.0% (01) said that health education facility is present in the BHU.

#### **Major Findings:**

Majority of the respondents 98.0% (50) said that only outdoor treatment facilities are available in the BHU.



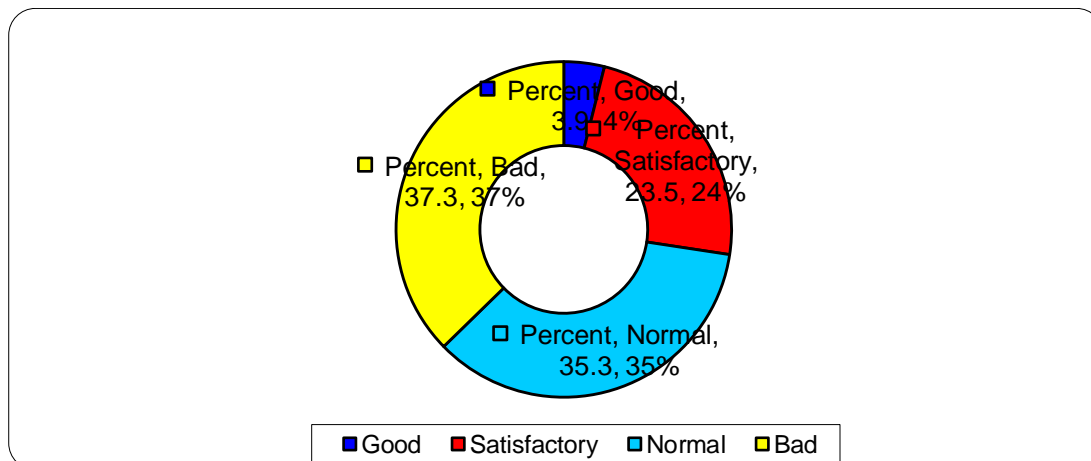
**Table – 7.12: Comparison of treatment facilities in rural areas as with urban areas**

Outcome	Frequency	Percent
Good	02	3.9
Satisfactory	12	23.5
Normal	18	35.3
Bad	19	37.3
Total	51	100

Referring to the comparison of treatment facilities in rural areas as with urban areas, most of the respondents 37.3% (19) said that treatment facilities in rural areas are bad in conditions as compared with treatment facilities in urban areas, followed by another group of respondents 35.3% (18) who said that treatment facilities are normal in rural areas as compared to the facilities in urban areas, then another group of respondents with 23.5% (12) who said that treatment facilities in rural areas are satisfactory as compared to facilities in urban areas, then with minimum numbers 3.9% (02) who said that treatment facilities in rural areas are good as compared to facilities in urban areas.

### Major Findings:

Most of the respondents 37.3% (19) said that treatment facilities in rural areas are bad in conditions as compared with treatment facilities in urban areas.



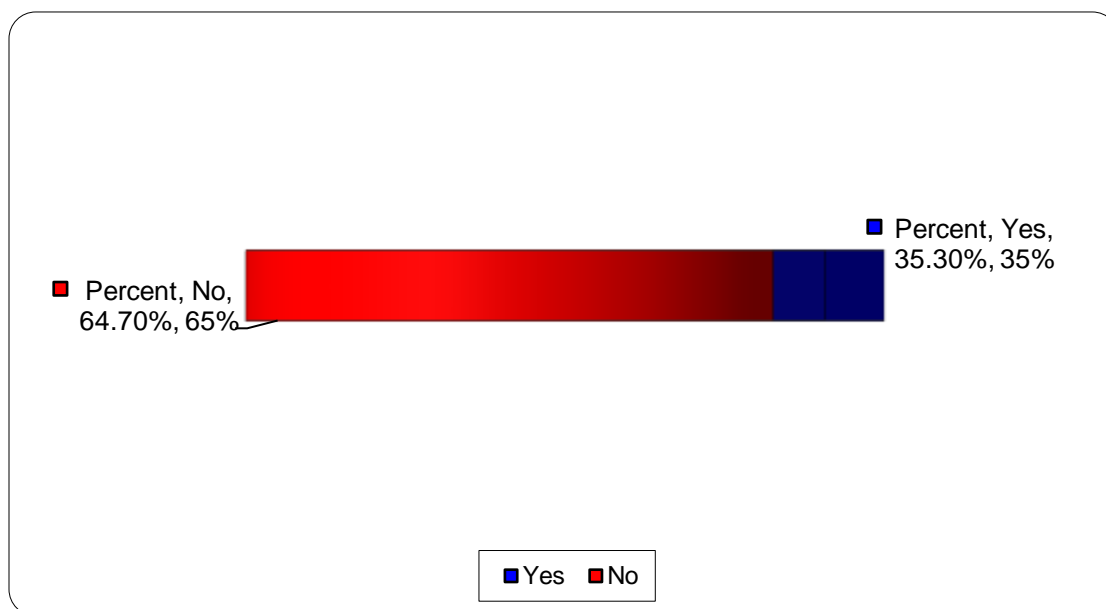
**Table – 7.13: Primary health committee exist in your BHU**

<b>Committee Exist?</b>	<b>Frequency</b>	<b>Percent</b>
Yes	18	35.3
No	33	64.7
Total	51	100

Referring to the primary health committee exist in the BHU where the respondents work, majority of the respondents 64.7% (33) said that primary health committee does not exist in the BHU where they work and 35.3% (18) said that primary health committee exists in the BHU where they work.

#### **Major Findings:**

Majority of the respondents 64.7% (33) said that primary health committee does not exist in the BHU where they work.



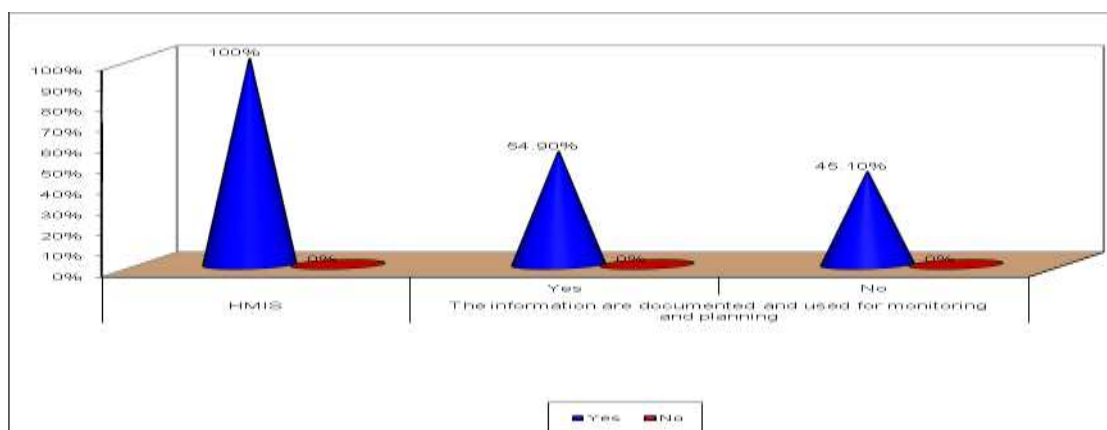
**Table – 7.14: Submission of HMIS to EDO and the patients information are documented and used for the monitoring and planning**

HMIS submission	F	%	The information are documented and used for monitoring and planning	
			Yes	No
Yes	51	100	28 (54.9%)	23 (45.1%)
No	-	-		
Total	51	100		

Referring to the submission of HMIS to EDO and whether patients information is documented and used for monitoring and planning, all respondents 100% (51) said that HMIS is submitted to the EDO. Further on the question about patients information is documented and used for monitoring and planning, majority of the respondents 54.9% (28) said that patients information is documented and used for monitoring and planning, followed by close number of respondents 45.1% (23) who said that patients information is not documented and used for monitoring and planning.

### Major Findings:

All respondents 100% (51) said that HMIS is submitted to the EDO and majority of the respondents 54.9% (28) said that patients' information is documented and used for monitoring and planning.



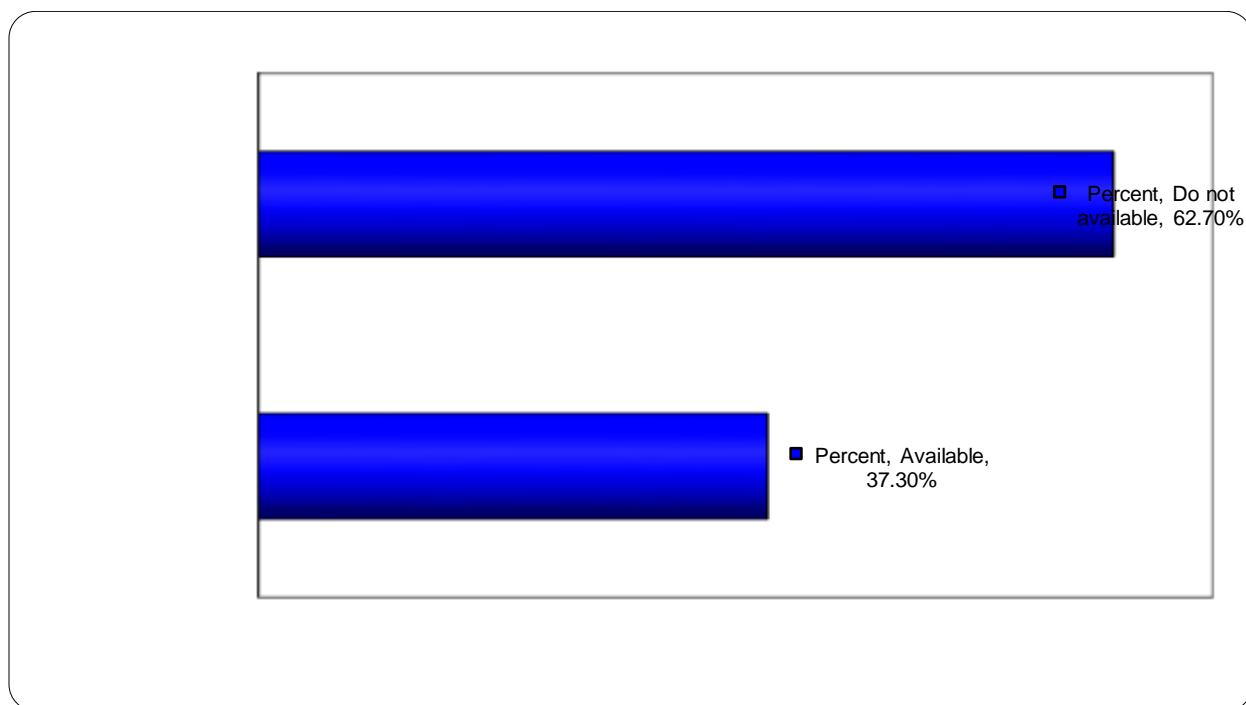
**Table – 7.15: Availability of waiting area for the patients**

<b>Availability</b>	<b>Frequency</b>	<b>Percent</b>
Available	19	37.3
Do not available	32	62.7
Total	51	100

Looking at the availability of waiting area at BHUs for the patients, majority of the respondents 62.7% (32) said that waiting area for patients is not available at BHU while 37.3% (19) said that waiting area is available for patients at BHU.

**Major Findings:**

Majority of the respondents 62.7% (32) said that waiting area for patients is not available at BHU.



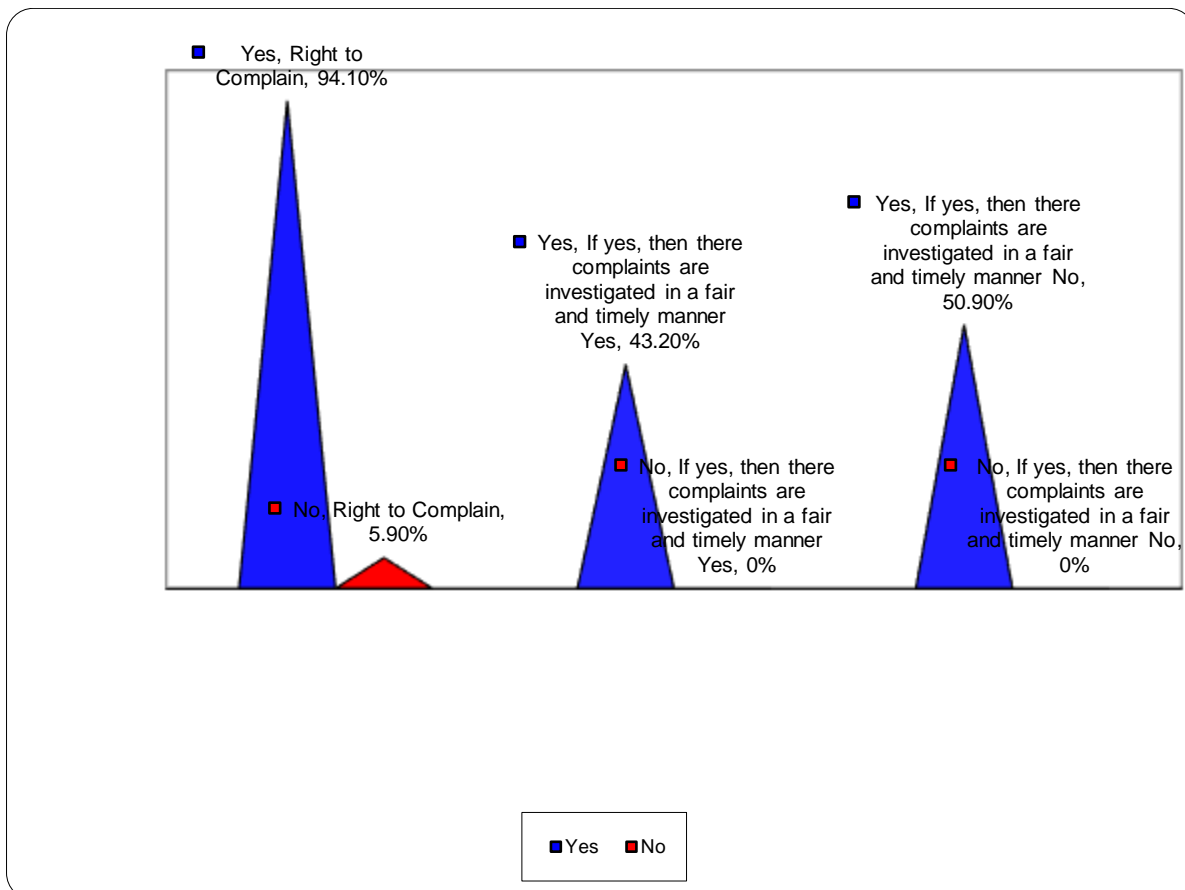
**Table – 7.16: Do the patients have the right to complain about the services and treatment and whether those complaints are investigated in a fairly and timely manner?**

Right to complain	F	%	If yes, then there complaints are investigated in a fair and timely manner	
			Yes	No
Yes	48	94.1	22 (43.2%)	26 (50.9%)
No	03	5.9	--	--
Total	51	100	22 (43.2%)	26 (50.9%)

Referring to the right of the patients to complain about services and treatment and whether those complaints are investigated in a fairly and timely manner, majority of the respondents 94.1% (48) said that patients have right to complain about the services and treatment. Among those who said that patients have right, majority of them 50.9% (26) said that those complaints are not investigated in a fair and timely manner and a close number of respondents 43.2% (22) said that those complaints are investigated in a fair and timely manner. Only a small number of respondents 5.9% (03) said that patients do not have right to complain about services and treatment at BHU.

### Major Findings:

Majority of the respondents 94.1% (48) said that patients have right to complain about the services and treatment. Among those who said that patients have right, majority of them 50.9% (26) said that those complaints are not investigated in a fair and timely manner.



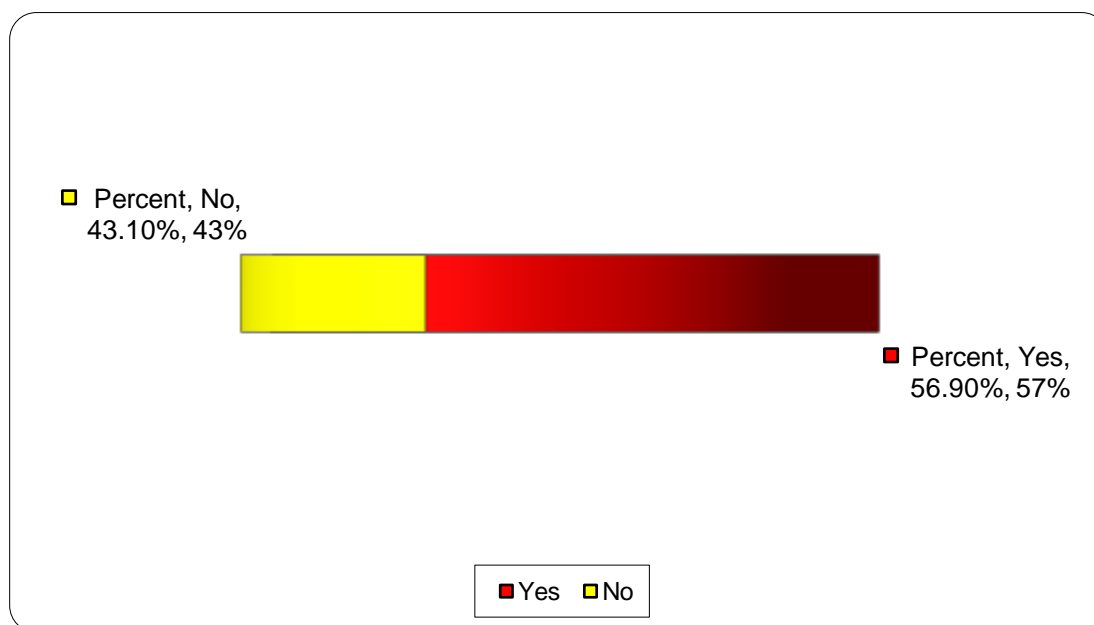
**Table – 7.17: Collection of patient’s feedback for the improvement of the services**

<b>Feedback</b>	<b>Frequency</b>	<b>Percent</b>
Yes	29	56.9
No	22	43.1
Total	51	100

Looking at the patient’s feedback for the improvement of services at BHU, majority of the respondents 56.9% (29) said that patients’ feedback is collected for the improvement of services at BHU and a close number of respondents 43.1% (22) said that feedback is not collected from the patients for the improvement of the services of BHU.

#### **Major findings:**

Majority of the respondents 56.9% (29) said that patients’ feedback is collected for the improvement of services at BHU.



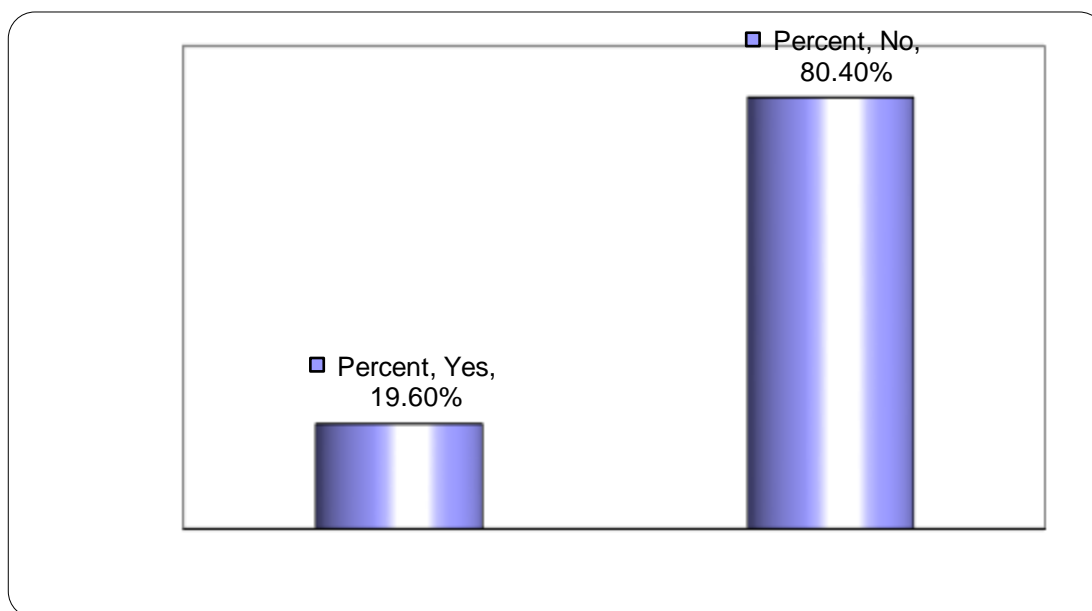
**Table – 7.18: Are the patients informed about the complaints and their outcome**

<b>Patients are informed</b>	<b>Frequency</b>	<b>Percent</b>
Yes	10	19.6
No	41	80.4
Total	51	100

Referring to the table regarding are the patients informed about the complaints and their outcome, majority of the respondents 80.4% (41) said that patients are not informed about the complaints and their outcomes, while only 19.6% (10) said that patients are informed about the complaints and their outcome.

#### **Major Findings:**

Majority of the respondents 80.4% (41) said that patients are not informed about the complaints and their outcomes.



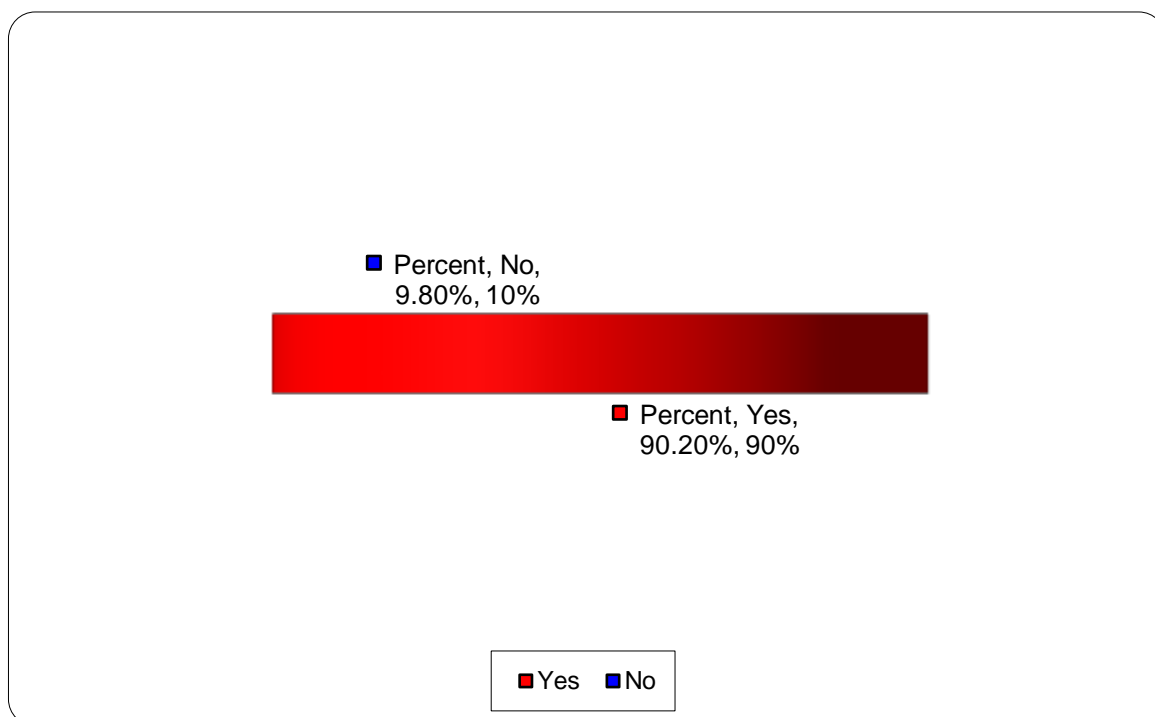
**Table – 7.19: Privacy of the patient is ensured during consultation and examination**

Assurance of privacy	Frequency	Percent
Yes	46	90.2
No	05	9.8
Total	51	100

Looking at the table of whether privacy of the patient is ensured during consultation and examination, majority of respondents 90.2% (46) said that privacy of the patient is ensured during consultation and examination while only 9.8% (05) said that privacy of the patient is not ensured during consultation and examination.

#### Major Findings:

Majority of respondents 90.2% (46) said that privacy of the patient is ensured during consultation and examination.



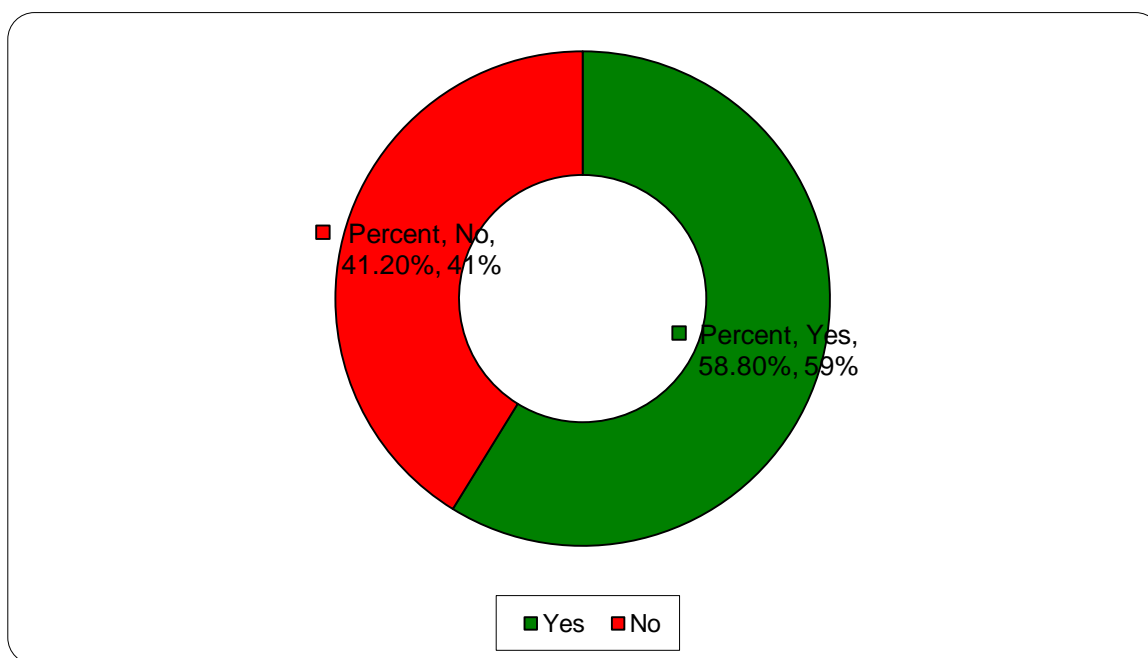
**Table – 7.20: Results of previous care are used in follow up visits?**

Remarks	Frequency	Percent
Yes	30	58.8
No	21	41.2
Total	51	100

Referring to the results of previous care are used in follow up visits, majority of the respondents 58.8% (30) said that results of previous care are used in follow up visits while a close number of respondents 41.2% (21) said that results of previous care are not used in follow up visits.

**Major Findings:**

Majority of the respondents 58.8% (30) said that results of previous care are used in follow up visits.



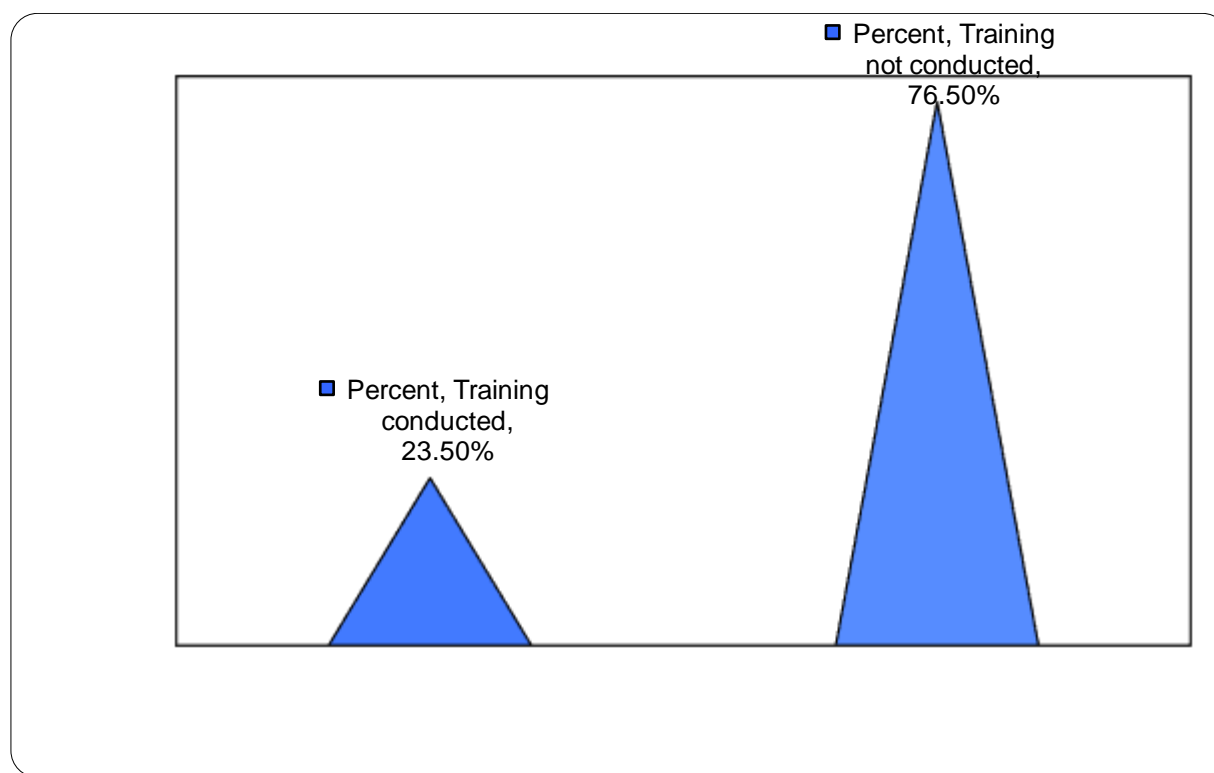
**Table – 7.21: Conduct of education sessions**

Sessions at least 4 times in a month	Frequency	Percent
Training conducted	12	23.5
Training not conducted	39	76.5
Total	51	100

Referring to the conduct of education sessions training, majority of the respondents 76.5% (39) said that education sessions or training was not conducted at BHU, while only a small number of respondents 23.5% (12) said that education sessions or training was conducted.

#### Major Findings:

Majority of the respondents 76.5% (39) said that education sessions or training was not conducted at BHU.



**Table – 7.22: Drug supply and whether it is sufficient for the requirement of BHU, if not how the patients arrange?**

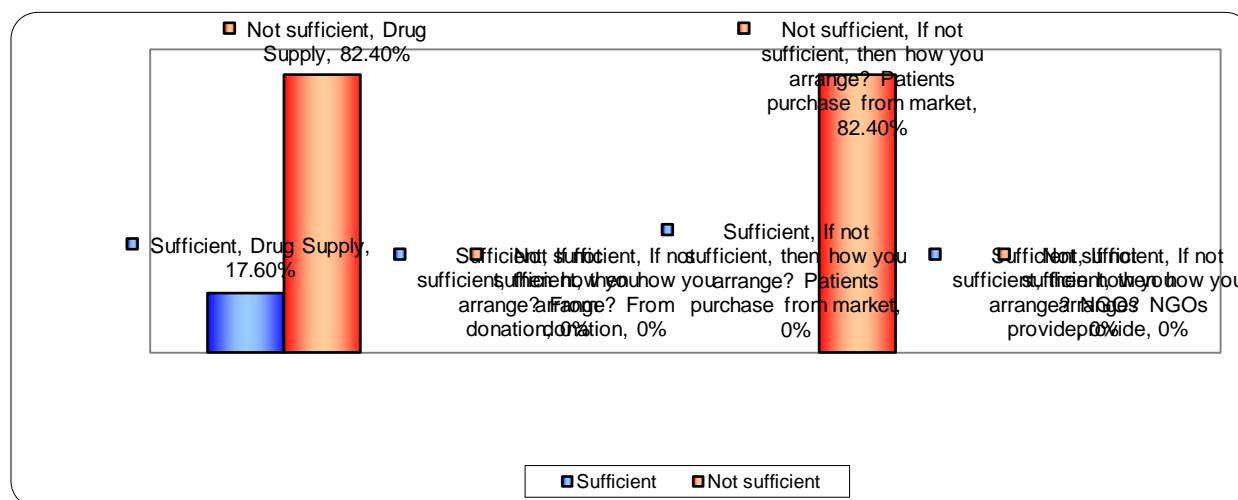
Drug Supply	F	%	If not sufficient, then how you arrange?		
			From donation	Patients purchase from market	NGOs provide
Sufficient	09	17.6	--	--	--
Not sufficient	42	82.4	--	42 (82.4%)	--
Total	51	100			

Looking at the drug supply and whether it is sufficient for the requirements of BHU and if not how the patients arrange the drugs/medicines, majority of the respondents 82.4% (42) said that drug/medicine supply is not sufficient at BHU and further on how the patients arrange if supply is insufficient, all these respondents 82.4% (42) said that patients arrange/purchase these drugs/medicines from the market.

Only a small number of respondents 17.6% (09) said that drug/medicines are in sufficient supply at BHU.

### Major Findings:

Majority of the respondents 82.4% (42) said that drug/medicine supply is not sufficient at BHU.



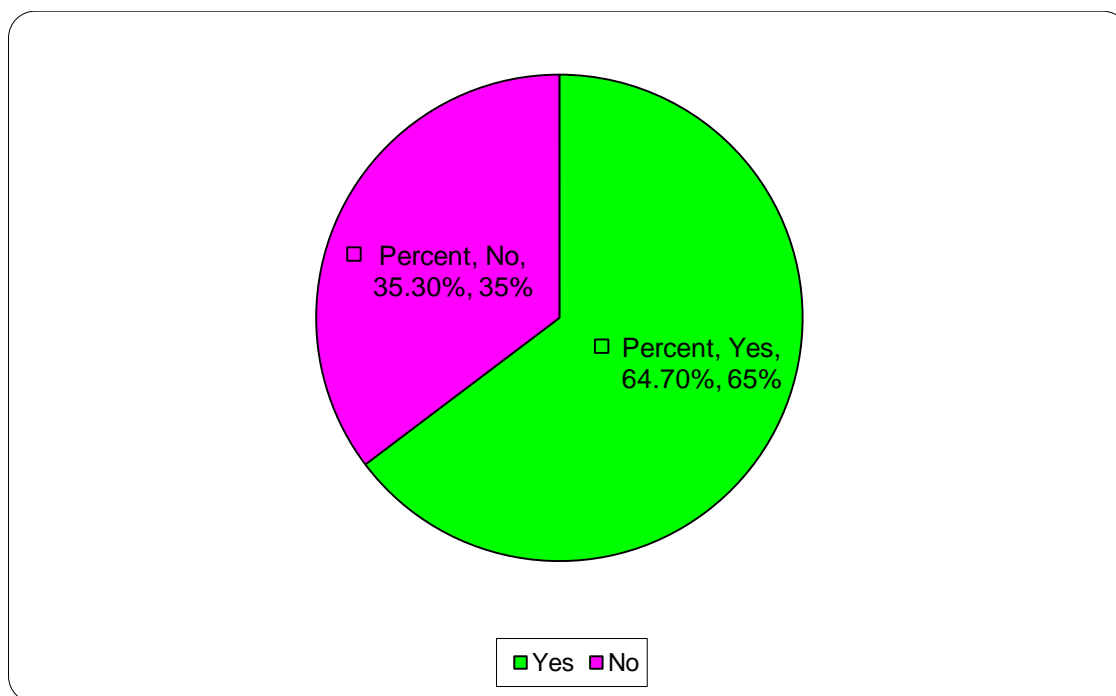
**Table – 7.23: Do the patients' listen your advice and cooperate with you**

Remarks	Frequency	Percent
Yes	33	64.7
No	18	35.3
Total	51	100

On asking whether the patients listen to the advice of the staff of BHU and cooperate with them, majority of the respondents 64.7% (33) said that patients do listen to staff's advice and cooperate with them, followed by another group of respondents 35.3% (18) who said that patients do not listen to the advice and do not cooperate with the staff of BHU.

#### Major Findings:

Majority of the respondents 64.7% (33) said that patients do listen to staff's advice and cooperate with them.



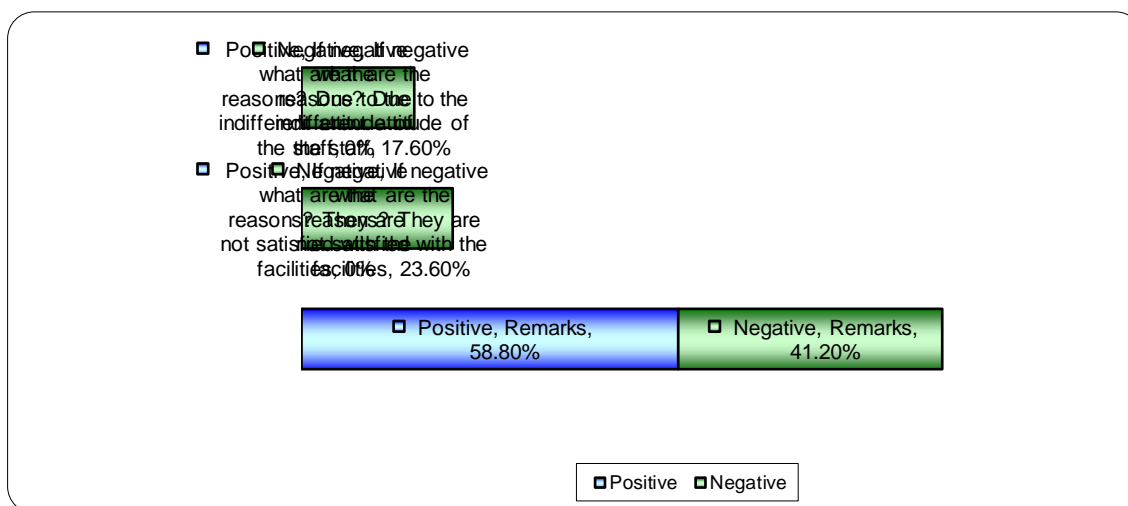
**Table – 7.24: Attitude of the patients towards the staff of BHU**

Remarks	F	%	If negative what are the reasons?	
			They are not satisfied with the facilities	Due to the indifferent attitude of the staff
Positive	30	58.8	--	--
Negative	21	41.2	12 (23.6%)	09 (17.6%)
Total	51	100		

Referring to the attitude of the patients towards the staff of BHU, majority of the respondents 58.8% (30) said that attitude of the patients towards the staff of BHU is positive; while 41.2% (21) respondents said that the attitude of the respondents towards the staff of BHU is negative. Looking at the reasons for negative attitude of patients towards the staff of BHU, most of the respondents 23.6% (12) said because the patients are not satisfied with the facilities at BHU and only 17.6% (09) said that due to indifferent attitude of the staff of BHU the patients attitude towards them is negative.

### Major Findings:

Majority of the respondents 58.8% (30) said that attitude of the patients towards the staff of BHU is positive.



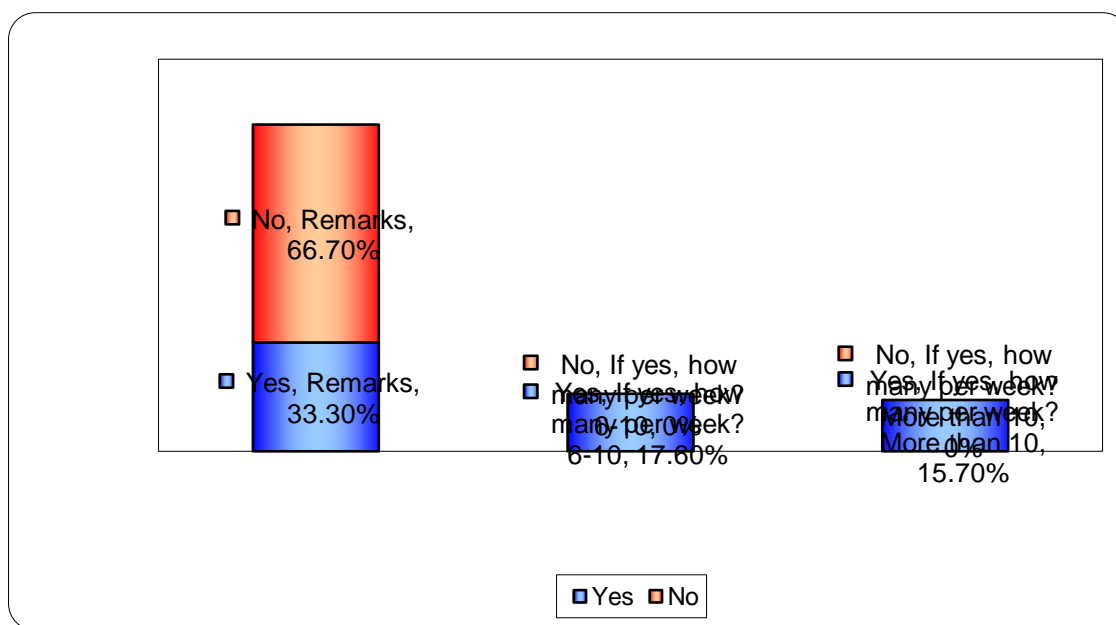
**Table – 7.25: Referrals to RHC/DHQ**

Remarks	F	%	If yes, how many per week?	
			6-10	More than 10
Yes	17	33.3	09 (17.6%)	08 (15.7%)
No	34	66.7	--	--
Total	51	100		

Looking at the referrals to RHC/DHQ, majority of the respondents 66.7% (34) said that they do not refer patients to RHC/DHQ, while only 33.3% (17) said that they do refer patients to RHC/DHQ. On further asking to those who referred to RHC/DHQ, most of the respondents 17.6% (09) said they refer 6-10 patients per week to RHC/DHQ, followed by another group of respondents 15.7% (08) who said that they refer more than ten (10) patients in a week to RHC/DHQ.

### Major Findings:

Majority of the respondents 66.7% (34) said that they do not refer patients to RHC/DHQ.



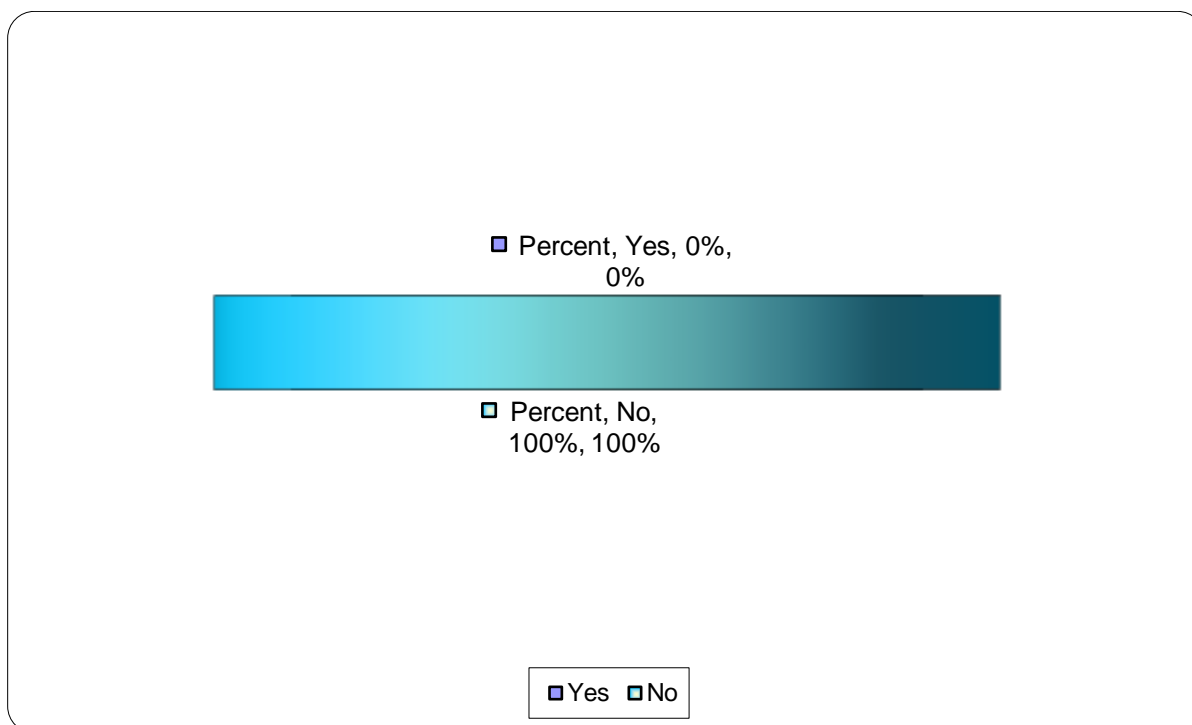
**Table – 7.26: Do you have transport facility for the referral patients?**

Remarks	Frequency	Percent
Yes	--	--
No	51	100
Total	51	100

Referring to the transport facility for the referral patients, all of the respondents 100% (51) said that they do not have transport facility for referral patients.

### Major Findings:

All of the respondents 100% (51) said that they do not have transport facility for referral patients.



**Table – 7.27: Suggestions for improvements of BHUs**

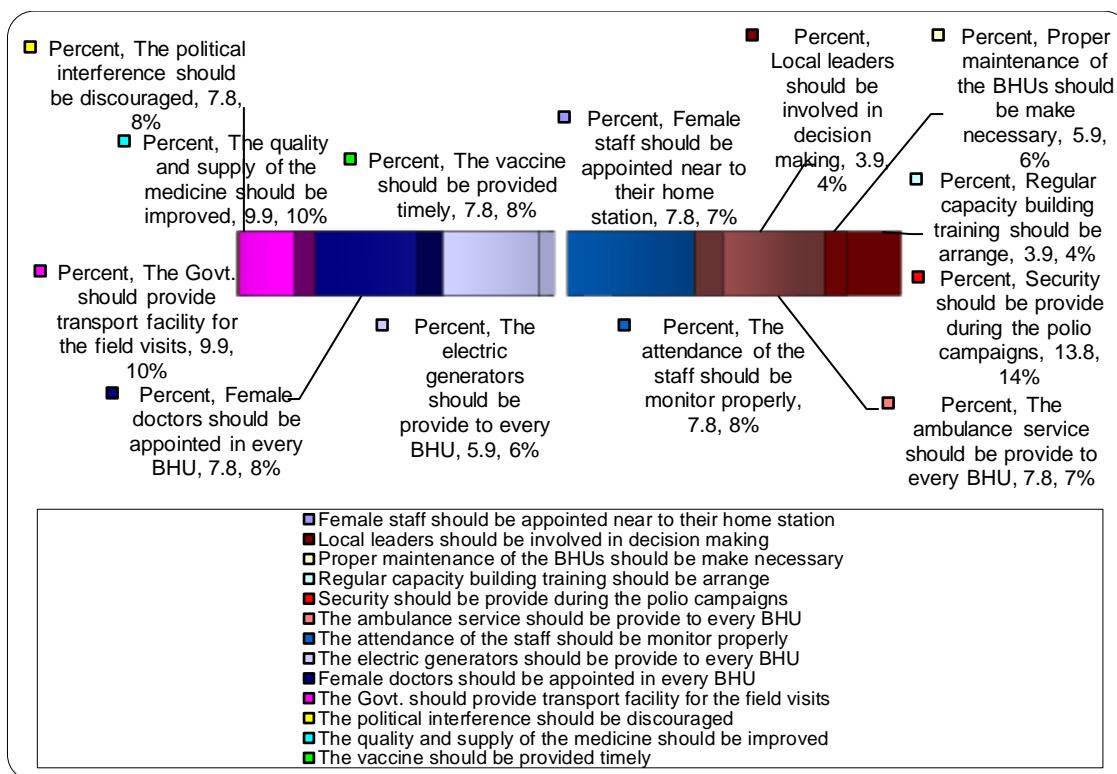
<b>Suggestions</b>	<b>Frequency</b>	<b>%</b>
Female staff should be appointed near to their home station	04	7.8
Local leaders should be involved in decision making	02	3.9
Proper maintenance of the BHUs should be make necessary	03	5.9
Regular capacity building training should be arrange	02	3.9
Security should be provide during the polio campaigns	07	13.8
The ambulance service should be provide to every BHU	04	7.8
The attendance of the staff should be monitor properly	04	7.8
The electric generators should be provide to every BHU	03	5.9
Female doctors should be appointed in every BHU	04	7.8
The Govt. should provide transport facility for the field visits	05	9.9
The political interference should be discouraged	04	7.8
The quality and supply of the medicine should be improved	05	9.9
The vaccine should be provided timely	04	7.8
Total	51	100

Referring to the suggestions by the staff of BHUs for improvement in the services of BHU, patients and staff, most of the respondents 13.8% (07) respondents said that security should be provided to the staff of BHUs during polio campaign, followed by two other groups with same numbers 9.9% (05) who said that the quality and supply of the medicines should be improved and the government should provide transport facility to the staff of BHUs for field visits respectively, then five more groups with same numbers 7.8% (04) respondents who

suggested the vaccine should be provided timely, the political interference should be discouraged, female doctors should be appointed in every BHU, the attendance of the staff of BHU should be maintained properly, the ambulance service should be provided to every BHU, and female staff of the BHU should be appointed at BHUs which are near to their home stations respectively, then another two groups of respondents with 5.9% (03) who suggested that the electric generators should be provided to every BHU and proper maintenance of BHU should be made necessary, and with the minimum numbers 3.9% (02) of two groups of respondents who said regular capacity building training should be arranged for staff of BHUs and local leaders should be involved in decision making respectively.

**Major Findings:**

Most of the respondents 13.8% (07) respondents said that security should be provided to the staff of BHUs during polio campaign.



## **Chapter – 8**

### **Research Findings**

#### **8.1 General Finds of the Research**

##### **8.1.1 Beneficiaries of Basic Health Units (BHUs)**

In this study the data was collected from both males and females beneficiaries of Basic Health Units (BHUs) of District Mardan. Referring the age of the respondents, five age groups were made with equal intervals in the range of 10 years to 60 years. Total number of 768 respondents including 61 men and 707 women were interviewed. Among the male respondents most of them were of 5.3% (41/61) young males between the age 30.1-40 years followed by a group of 1.3% (10/61) respondents between the age of 40.1-50 years and of the same numbers were 10/61 in the age group of 50.1-60 years.

The female respondent's age group, most of the females numbering 44.5% (342/707) young females were between the age 20.1-30 years, followed by a second group of 34.0% (261/707) respondents between the age of 30.1-40 years and third group with 8.2% (63/707) between the age of 40.1-50 years, then fourth group with 2.7% (31/707) between the age of 50.1-60 years and the fifth group with the minimum numbers were 2.6% (20/707) female respondents in the age group of 10-20 years.

The beneficiaries of BHUs were interviewed for their educational status and the level of education acquired. Among the total 768 respondents, 18.8% (144) were literate and 81.2% (624) were illiterate. From the total literate respondents, 8.2% (63) were educated up to primary level, followed by 7.9% (61) who had acquired education till high level and then the minimum number 2.6% (20) were educated up to intermediate level.

Regarding marital status of the respondents, majority of them 89.9% (691) were married, followed by 5.2% (40) were widowed and 3.9% (30) were unmarried and then minimum numbers was 01% (07) who were divorced.

Most of the respondents 41.5% (319) had joint family system, followed by 29.8% (229) respondents who had nuclear type of family and then the minimum number was 28.6% (220) who had extended family type.

About the family size of the respondents, most of the respondents 47.5% (365) had 11-15 family members, followed by a second group of respondents 30.7% (236) who had 6-10 family members and 16.4% (126) had 1-5 members in their family then the least number was of the respondents 5.3% (41) who had 16-20 family members.

The employment statuses of the respondents, as majority of the beneficiaries of BHUs were females so most of the respondents 90.9% (698) were house wives. Among the other respondents, 3.9% (30) were farmers, 2.6% (20) were self employed workers, and about the same number 1.3% (10) each were government employees and daily wagers or labourers respectively.

The monthly income of the respondents, majority of the female beneficiaries of BHUs 90.9% (698) were house wives among whom 30.3% (233) had monthly income up to 5000 PKR, followed by 25.9% (199) who had monthly income up to 5001-10000 and 20.3% (156) who had 10001-15000, 13.0% (100) had 15001-20000 monthly income and the minimum being 1.3% (10) respondents who had up to 20000 PKR and above monthly income. Among the other respondents who were farmers 2.6% (20) had 10001-15000 PKR monthly income, followed by 1.3% (10) respondents who had 15001-20000 PKR monthly income and then 2.6% (20) was of self employed workers, who had monthly income up to 50001-10000 PKR. And the minimum

number was of the daily wagers or labourers and government employees 1.3% (10) who had monthly income up to 15001-20000 PKR.

Referring to the age and disease relationship, among most of the respondents 44.5% (342) belonging to age group 20.1-30 years, 8.3% (64) had malaria, 7.8% (60) had diarrhea, 6.8% (52) had cough and flu, 6.5% (50) had come for pregnancy test, 5.5% (42) had vomiting problem, 4.2% (32) had fever, 4.0% (31) had headache, 1.4% (11) had heat stroke.

Among the respondents 39.9% (302) who belonged to age group 30.1-40 years, mostly had 10.9% (84) diarrhea, then 7.0% (54) had cough and flu, 6.6% (51) had malaria, 5.3% (41) had headache, 4.0% (31) had vomiting, 4.0% (31) came for pregnancy test, and 1.3% (10) had fever.

Among the group of respondents 9.5% (73) who were in the age group 40.1-50 years, mostly 6.8% (52) had cough and flu, and 2.7% (21) had vomiting complaint. From the respondents 4.0% (31) who belonged to 50.1%-60 years, 2.7% (21) had cough and flu, and 1.3% (10) had vomiting complaints. The last group with minimum number 2.6% (20) belonging to 10-20 years of age, 1.3% (10) had fever and the same number 1.3% (10) had malaria.

About the gender and disease relationship, most of the males 2.7% (21) had come to BHUs for the problem of having vomiting, followed by 1.3% (10) each for the diseases of fever, malaria, cough and flu and diarrhea. Among the female respondents, most of them 22.0% (169) had come to BHU for cough and flu disease, followed by a group of female respondents 17.4% (134) who had diarrhea and 15.0% (115) women who had malaria problem, then were 10.8% (83) respondents who had vomiting, then were 10.5% (81) female respondents who came for pregnancy test, another group of female respondents 9.4% (72) who had headache and the minimum number of group was of 1.4% (11) being the heat stroke problem.

Regarding accumulative findings of both male and female respondents diseases, most of the respondents 23.3% (179) had cough and flu problem, followed by 18.8% (144) who had diarrhea, 16.3% (125) had malaria, 13.5% (104) had vomiting, 10.5% female came for pregnancy test, 9.4% (72) had headache, 6.8% (52) had fever and 1.4% (11) had heat stroke.

Related to the Gender status and the means of getting treatment for diseases, most of the male respondents 5.3% (41) goes to a homeopathic doctor for treatment of their diseases, followed by group of respondents numbering 1.3% (10) who goes to private practitioners and then the same number 1.3% (10) who goes to hakim for treatment. Among the female respondents, 74.3% (571) goes to private practitioners for treatment of their diseases, followed by 6.9% (53) who goes to hakims, another group of female respondents 3.1% (24) who goes to BHU for treatment, then 2.7% (21) who goes to homeopathic for treatment, then 1.3% (10) who goes to RHCs and the minimum being 1.0% (8) who goes to a maulvi (religious scholar) for treatment.

Most of the respondents 75.7% (581) goes to private practitioner for the treatment of disease, followed by 8.2% (63) and 8.1% (62) respondents who goes to hakim and homeopathic respectively, and only 3.1% (24) goes to a BHU for treatment of their diseases, and 2.6% (20) who goes to dispensary for getting medicine, and the least was 1.3% (10) and 1.0% (8) who goes to RHC and a maulvi respectively.

Regarding the distance respondents had to cover to reach the BHU, majority of the respondents 66.7% (512) covered 1-3km to reach BHU for treatment and among these respondents 46.2% (355) went to BHU on foot, followed by another group of respondents numbering 10.9% (84) who went by Tonga, then 9.5% (73) who went to BHU by bus. Another group of respondents numbering 30.7% (236) who covered 3.1-6km to reach BHU for treatment,

among these respondents 22.8% (175) went to BHU on foot, 5.3% (41) went by Tonga and 2.6% (20) went by own conveyance. Looking at the minimum number group of respondents 2.6% (20) who covered 6.1 and above distance to reach BHU for treatment, among them 1.3% (10) goes on foot and 1.3% (10) goes to BHU by Tonga.

The services rendered by the BHUs, it was found that 57.4% (441) rendered curative care services, followed by the group 22.4% (172) that rendered health education and then 18.8% (144) rendered both health education and curative care services, and only 1.4% (11) rendered preventive care services.

The findings regarding the problems faced by the beneficiaries at BHU, most of the respondents 28.8% (221) faced unavailability of medicines, followed by 24.6% (189) who said that the doctor was absent when they visited BHU, another group of respondents 20.8% (160) who said that they did not get due attention by the doctor or staff of BHU, followed by another group of respondents 15.6% (120) who said that the doctor of BHU was not available at the time of need, then with the minimum number of group of respondents 10.2% (78) who said that the behavior of the BHU staff was indifferent to them.

Information regarding the number of visits the respondents pay to BHU and their satisfaction regarding the services of BHU, the majority of the respondents 59.4% (456) said that they visited BHU several times, among them 36.6% (281) respondents said that they were not satisfied with the services of BHU offered to them, followed by another group of respondents numbering 21.5% (165) who said that were satisfied with BHU's services and then with minimum number of group of respondents 1.3% (10) who gave no reply on this question.

Another group of respondents 32.4% (249) who paid visit to BHU for two times, among them were a group of respondents 20.1% (154) who were not satisfied with the services of BHU,

followed by another group of respondents 11.1% (85) who were satisfied with its services, and 1.3% (10) gave no reply to this question. The last group of respondents with minimum number 8.2% (63) who visited once to BHU, among them were a group of respondents 4.4% (34) who were satisfied with the services of BHU, followed by 3.8% (29) who were not satisfied with its services.

Information regarding availability of medicine in BHU, majority of the respondents 70.2% (539) said that they did not get medicine from the BHU. On asking for the reasons for not getting medicine, a group of respondents 27.1% (208) said that due to the non cooperative attitude of the staff of BHU they did not get medicine, followed by another group of respondents 26.6% (197) who said they did not take medicine because it was of low quality, then the group of respondents with minimum number 17.5% (134) who said that medicine was in shortage at BHU. Only a small group of respondents 29.8% (229) who said that they get medicine from the BHU.

About the information regarding the attitude of health care providers, most of the respondents 49.9% (383) said that the health care providers at BHU do not pay attention, followed by another group of respondents 36.5% (280) who said that the health care providers were sympathetic and then the minimum number of respondents 13.7% (105) who said that the health care providers were indifferent to them.

About the information regarding the priority or care given by health care providers to the extremely sick, elderly and newborns, majority of the respondents 79.0% (607) said that the health care providers do not give priority to the extremely sick, elderly and newborns, followed by another group of respondents 16.7% (128) who said that the health care providers at BHU

give priority to extremely sick, elderly and newborns and then a group of respondents with minimum number 4.3% (33) who chose to not give any reply by saying they do not know.

Regarding the information about do the health care providers explain diagnosis, care management and follow up to the patients/beneficiaries, majority of the respondents 50.3% (386) said that the health care providers do explain diagnosis, care management and follow up to them, followed by another group of respondents 35.4% (272) who said that the health care providers do not explain the diagnosis, care management and follow up to them and then with minimum number 14.3% (110) who said that they do not know.

Regarding the information regarding do the health care providers at BHU take feedback from the patients, most of the respondents 45.8% (352) said that health care providers do not take feedback from them, followed by another group of respondents 43.0% (330) who said that health care providers take feedback and then the minimum number of respondents 11.2% (86) who gave no reply.

About the referral procedure practicing in the BHU, majority of the respondents 67.4% (518) said that the referral procedure is not practiced in the BHU, followed by 18.5% (142) respondents who said that they do not about it, and then with minimum number of respondents 14.1% (108) who said that referral procedure is practiced in the BHUs.

The stay at BHU and reason of stay, most of the respondents 41.4% (318) said that they have to stay 45 minutes at BHU, the reason for stay among them for 25.6% (197) was that because they had to wait for the doctor/staff, followed by another group of respondents 11.6% (89) who said they stayed in wait of getting the medicines, and the minimum number of respondents among this group 4.2% (32) who said they stayed in wait of the medical test. The second group of respondents 30.3% (233) who said that they had to stay for 30 minutes at BHU,

and the reason for stay among them for 15.3% (117) was they stayed to get medicine, followed by another group of respondents 10.4% (80) who stayed in wait of doctor/staff, and then with minimum number among this group was of 4.6% (36) who said they stayed in wait of medical test. The other group of respondents 14.4% who waited for 15 minutes, and among them 9.5% (72) stayed in wait of doctor/staff, followed by another group in this category with 2.8% (22) who stayed in wait of medicine and then with minimum number of respondents with 2.1% (16) who stayed in wait of medical test.

The minimum number category of respondents 13.9% (107) who stayed for 60 minutes in the BHU and about the reasons for stay most of the respondents among them 5.8% (45) said they stayed in wait for doctor/staff, followed by 5.3% (40) who stayed in wait of medical test and then with the minimum number 2.8% (22) who stayed in wait of getting medicines.

In response to the question that if the waiting area is available for patients at BHU, majority of the respondents 96.5% (741) said that there is no waiting area available for patients at BHU and only the minimum number of respondents 3.5% (27) said that waiting area is available for patients in BHUs.

Regarding ensuring privacy of the patients at the time of consultation, majority of the respondents 82.4% (633) said that privacy is not ensured of the patient at the time of consultation and only a minimum number of respondents 17.6% (135) said that privacy is ensured of patients at the time of consultation.

The awareness regarding the health session in the BHU, majority of the respondents 78.8% (605) said that they are unaware about the health session in BHU while only 21.2% (163) said that they are aware of the health session at the BHU, and among this category of

respondents who are aware of health sessions, only 17.2% (132) had attended that health session at the BHU and 4.0% (31) have not attended the health sessions at the BHU.

About the instruction the health care providers give to the patients about the medication, amount of medicine to be taken and time and duration of the medicines, most of the respondents 30.6% (235) said that the health care providers instruct the patients about medication and duration of the course of medicines only, followed by another group of respondents 29.4% (226) who said that the health care providers instruct the patients about the amount of medicine to take and the time of using the medicines, then another group of respondents 13.0% (100) who said that the health care providers instruct about medication and the similar number of respondents 13.0% (100) who said that the health care provider instruct the patients about medication, amount of medicine to take and the time of using the medicine, followed by another group of respondents 9.4% who said that the health care providers instruct about medication and the time of using the medicines and the minimum number of respondents 4.6% (35) who said that the health care providers instruct about medication, amount of medicine to take, time of using the medicine and duration of the course of medicine.

The awareness about the presence of LHVs/LHWs at the BHU, majority of the respondents 55.9% (429) said that they are aware about the presence of LHVs/LHWs at the BHU and only 44.1% (339) said that they are unaware about the presence of LHVs/LHWs at the BHU.

Regarding beneficiaries' opinion about LHVs/LHWs home visits and the frequency of these visits, majority of the respondents said that the LHVs/LHWs do not visit the homes regularly. A close number of respondents 47.5% (365) who said that LHVs/LHWs visit homes regularly, and about the frequency of these visits 28.3% (217) said that they visit homes on

monthly basis and 19.3% (148) said they visit homes weekly, then there were a minimum number of respondents 1.3% (10) who gave no reply to this question.

About the information about the health committee/supporting group, majority of the respondents 50.0% (384) said that they do not have information about the health committee/supporting group at BHU, while a close number of respondents 48.7% (374) gave no reply to this question, and the minimum number of respondents 1.3% (10) said they have information about the health committee/supporting group at BHU.

The suggestions for the improvement of BHUs, most of the respondents 29.2% (223) said that the quality medicines should be provided to the patients at the BHUs, followed by another group of respondents 11.5% (88) who said that a labour room should be maintained at every BHU, almost near is the group of respondents 10.4% (80) who said that health education sessions should be arranged on monthly basis, followed by the group of respondents 7.8% (60) who said that ambulance service should be provided at BHU, and a close number of respondents 7.0% (54) said that basic equipments like Ultra sound , X-ray etc should be provided at BHUs, then another group of respondents 6.6% (51) who said that there should be monitoring of the staff of BHUs, and then a close group of respondents 6.2% (48) who said that there should be counseling sessions for the pregnant women at BHUs, another group of respondents 5.7% (44) who said that the visits of LHVs/LHWs should be monitored properly, and a close number of respondents 5.2% (40) suggests that a female doctor should also be appointed at BHUs along with male doctors, another group of respondents 4.0% (31) said that the staff of BHUs should be made punctual, and some respondents 3.8% (29) also suggested that health and hygiene sessions should be arranged regularly and the minimum number of respondents 2.6% (20) suggested that proper waiting area and clean drinking water should be provided in each BHU.

### 8.1.2 Non beneficiaries of BHUs

About the gender and age of non beneficiaries respondents, six groups were made with equal intervals in the range of 10 years to 60 years and above. Total number of 768 non beneficiary respondents including 592 men and 176 women were interviewed. Among the male respondents, most were of 25.8% (198) young males between the age 20.1-30 years, followed by a group of 14.2% (109) respondents each between the age of 40.1-50 years and 50.1-60 years, minimum numbers were 11.5% (88) respondents each in the age groups of 10-20 years and 30.1-40 years.

Regarding the female respondents age group, most of the females being 8.7% (67) were between the age 50.1-60 years, followed by second group of respondents 5.7% (44) between the age of 40.1-50 years, followed by another group of 5.6% (43) between the age of 60.1 and above and then with the minimum numbers were 2.9% (22) between 30.1-40 years of age.

The table accumulatively, showed that 25.8% (198) were between 20.1-30 years, followed by another group of 22.9% (176) between 50.1-60 years, and another group of 19.9% (153) between 40.1-50 years, and then another group of 14.3% (110) between 30.1-40 years, followed by a group of 11.5% (88) between 10-20 years, and then with minimum numbers were 5.6% (43) between 60.1 and above.

Referring to the education and level of education of the respondents, majority of them 57.3% (440) were literate, followed by 42.7% (328) who were illiterate. Of the literate respondents, most were 34.4% (264) educated up to high level, followed by another group 20.1% (154) who were educated up to primary and then with minimum numbers 2.95 (22) who were educated upto matric i.e 10<sup>th</sup> grade.

Related to the marital status of the respondents, majority of the respondents being 82.8% (636) were married, followed by another group of 13.1% (100) who were un-married, and then another group of 3.5% (27) who were widow and with minimum numbers 0.6% (05) who were divorced. Referring to the type of family the respondents had, most of them 45.7% (351) had joint families, followed by another group of 42.8% (329) who had nuclear family system and with minimum numbers 11.5% (88) who had extended families. The number of family members of the respondents, most of the respondents 45.8% (352) had 11-15 family members, followed by another group of 22.9% (176) respondents who had 6-10 family members, then another group of respondents 17.1% (131) who had 1-5 family members and then with minimum numbers 14.1% (109) who had 16-20 family members.

About the employment status and monthly income of the non beneficiaries of BHUs, most of the respondents 38.5% (296) were farmers and among them 18.6% (143) had monthly income from 15001-20000, 8.6% (66) had 5001-10000, 5.9% (45) had 20000 and above, 3.7% (29) had 10001-15000, and 1.7% (13) had up to 5000 monthly income. The second group was of 24.4% (187) who were daily wagers or labourers. Among them 14.6% (112) had monthly income up to 50001-10000, 6.2% (47) had 10001-15000, 3.1% (23) had 15001-20000, and 0.7% (5) had up to 5000. The third group was of 22.9% (176) who were house wives and among them 11.4% (88) had monthly income up to 5000, 10.4% (80) had 10001-15000, and 1.1% (8) had up to 10000-15000 PKR monthly income.

The next group of respondents 10.4% (80) were government servants and among them 5.9% (45) had 15001-20000, 2.8% (22) had 10001-15000, and 1.7% (13) had up to 20000 and above. The last with minimum number 3.8% (29) were self employed respondents, and among

them 2.4% (19) had monthly income 10001-15000 and 1.4% (10) had monthly income up to 15001-20000.

Referring to the information about the presence of health services in the catchment area of the respondents, majority of the respondents 71.5% (549) had information regarding the presence of health services in their catchment area while a small number 28.5% (219) did not have information regarding the health services in their catchment area, among these who do not have the information the reasons being, most of 12.8% (98) were unaware, followed by another group of respondents 8.5% (65) who had lack of interest and then 7.3% (56) who said these services are not reliable.

About the gender and information about health services availability in their area, majority of the males 57.2% (439) had information about health services presence in their area while only 19.9% (153) did not have such information.

The female respondents, only 14.3% (110) had information regarding health services presence in their area while 8.6% (66) did not had such information. About the suffering from a disease and from where the respondents get medicines, majority of the respondents 83.7% (643) said they had disease and only 16.3% (125) said they had no disease. Among the respondents who said they had disease, majority 68.4% (525) said they get medicines from a private doctor, followed by another group of respondents 6.9% (53) who said they get medicines from a homeopathic doctor, then another group of respondents 3.1% (24) who said they get medicine from hakim, then 3.0% (23) who said they get medicine from a maulvi, and then with minimum numbers 2.3% (18) who said they get medicine from District Head Quarter Hospital.

About the gender and suffered from any disease in the last 3 months, among the male 77.1% (592) respondents, majority 66.5% (511) said they had suffered from a disease in the last

3 months, followed by 10.5% (81) male respondents who said they had not suffered from any disease in the last 3 months. Looking at female 22.9% (176) respondents, most 17.2% (132) said they had suffered from a disease in the last 3 months and only 5.7% (44) said that they had not suffered from any disease in the last 3 months.

The age wise distribution and suffering from any disease in the last 3 months, among most of the respondents who were 25.8% (198) between 20.1-30 years of age, 23.7% (182) said that they suffered from a disease in the last 3 months and 2.1% (16) said that they did not suffer from any disease in the last 3 months. Another group of respondents 22.9% (176) who were between 50.1-60 years, 18.5% (142) said that they suffered from a disease in the last 3 months and 4.4% (34) said that they did not suffer from any disease. Another group of respondents 19.9% (153) who were between 40.1-50 years, all said that they had suffered from a disease in the last 3 months. The other group of respondents 14.3% (110) who were between 30.1-40 years, almost 11.5% (88) said that they have suffered from a disease in the last 3 months while 2.9% (22) said that they had not suffered. Then the next group of respondents 11.5% (88) who were between 10-20 years, half 5.7% (44) said that they had suffered from a disease in last 3 months and other half 5.7% (44) said that they had not suffered from any disease in the last 3 months. Then with minimum numbers were 5.6% (43) respondents who were between 60.1 and above and among them 4.4% (34) said that they had suffered from a disease in the last 3 months and 1.2% (9) said that they did not suffer from any disease in the last 3 months.

About the reasons for not going to BHU for treatment, most of the respondents 31.5% (242) said that they did not go to BHU for treatment because the staff of BHU does not perform their duty honestly, followed by another group 28.6% (220) respondents who said that because of un qualified staff at BHU, then another group of 28.4% (218) respondents who said they do not

go to BHU for treatment because quality medicines are not given at BHUs, and with minimum numbers 11.5% (88) who said because BHU is far away from their village.

The suggestions the non beneficiaries of BHUs gave for the improvement of health services at BHUs were, most of the respondents 27.5% (211) said that quality medicines should be provided at BHU, followed by another group of respondents 12.9% (99) who said that modern equipments should be provided to the BHUs, then another group of respondents 11.4% (88) who said that more qualified doctors should be appointed in the BHU, then 10.1% (77) respondents said that the staff should give proper time to the patients, 9.8% (75) respondents said that ambulance should be provide to each BHU, 8.9% (68) respondents said that BHU should be constructed within the limits and reach of the community, 6.7% (51) respondents said that proper monitoring should be there for the smooth functioning of BHU, 4.4% (34) respondents said that local community should be involved in the decision making regarding the betterment of the BHU functioning, 4.2% (33) respondents said that proper lab facility should be provide in every BHU, 4.1% (32) respondents said that the local staff should be appointed within the local BHU.

### **8.1.3 Staff of BHU**

About the age of the respondents, six groups were made with equal intervals. Most of the respondents 37.3% (19) belonged to age group 25.1-30 years, followed by another group of respondents 23.5% (12) who belonged to 30.1-35 years, then two groups each with 17.6% (9) for 35.1-40 years and 20.1-25 years respectively, then with the minimum numbers by again two groups 2.0% (1) each for 40.1-45 years and 45.1-50 years respectively.

Regarding the designation of the respondents, most of the respondents 33.3% (17) were doctors, followed by another group of respondents 27.5% (14) who were EPI Technicians, then

another group with 17.6% (9) who were medical technicians, then 15.7% (8) who were LHVs and then with minimum numbers 5.9% (3) who were LHWs.

Regarding the information about the functions of BHUs, majority of the respondents 58.8% (30) said that they have information regarding the functions of BHUs and 41.2% (21) said that they do not have information about the functions of BHUs.

Regarding the conduct of primary health care training, majority of the respondents 60.8% (31) said that they had not conducted any training on primary health care and 39.2% (20) said that they had conducted primary health care training.

About the availability and information regarding job description and the reasons for not having job description, majority of the respondents 70.6% (36) said that they had job description and 29.4% (15) said that they did not have job description. Further about the reasons for not having job description, most of them 13.7% (7) said that because there is lack of facilitation, followed by 11.8% (6) respondents who said because of lack of interest, and with minimum numbers 3.9% (2) who said because government have not provided them with job description.

Regarding the monthly salary of the staff of BHU, most of the respondents 45.1% (23) had monthly salary up to 10001-15000 PKR, followed by 35.3% (18) who had monthly salary up to 15001-20000 PKR, while with minimum numbers 19.6% (10) who had monthly salary up to 20001-25000 PKR.

About the private practice and total monthly income from all sources, majority of the respondents 80.4% (41) said that they do private practice also. Among them most of the respondents 27.5% (14) had monthly income up to 20001-30000 PKR, while 19.6% (10) had monthly income up to 40001-50000 PKR, then another group of respondents with 17.6% (9) who had monthly income up to 60001 and above, then with minimum numbers 2.0% (1) each for both

50001-60000 PKR and 10000-20000 PKR respectively. The next group of respondents 19.6% (10) who do not do any private practice, among them mostly 7.9% (4) had monthly income up to 20001-30000 PKR, while 5.8% (3) had monthly income up to 40001-50000 PKR, followed by another group of respondents 3.9% (2) who had monthly income up to 30001-40000 PKR and with minimum numbers 2.0% (1) who had monthly income up to 60001 and above.

Regarding the provisions of facilities by the government to the staff of BHU in their area, majority of the respondents 64.7% (33) said that no facility is provided by government to them in their areas, followed by 27.5% (14) respondents who said that house is provided by government to the staff of BHU in their areas, while 7.8% (4) said that only utilities are provided by government to the staff of BHU in their areas.

About the level of satisfaction of BHU staff with their salary, job and facilities, most of the respondents 41.2% (21) said that they are not satisfied with their salary, job and facilities, followed by 31.3% (16) respondents were indifferent to this question, while 27.5% (14) respondents who said that they are satisfied with their salary, job and facilities.

The effect of low income and lack of facilities on job performance, majority of the respondents said that low income and lack of facilities does not affect their performance while 37.3% (19) said that it affect their performance, among these 25.5% (13) said that cannot pay full attention to their patients because of low income and lack of facilities, while 9.8% (5) said that their attitude towards their patients become indifferent, and 2.0% (1) said it low income and lack of facilities is decreasing their interests.

Regarding the availability of treatment facilities in the BHU, majority of the respondents 98.0% (50) said that only outdoor treatment facilities are available in the BHU and only 2.0% (01) said that health education facility is present in the BHU.

About the comparison of treatment facilities in rural areas as with urban areas, most of the respondents 37.3% (19) said that treatment facilities in rural areas are bad in conditions as compared with treatment facilities in urban areas, followed by another group of respondents 35.3% (18) who said that treatment facilities are normal in rural areas as compared to the facilities in urban areas, then another group of respondents with 23.5% (12) who said that treatment facilities in rural areas are satisfactory as compared to facilities in urban areas, then with minimum numbers 3.9% (02) who said that treatment facilities in rural areas are good as compared to facilities in urban areas.

About the primary health committee exist in the BHU where the respondents work, majority of the respondents 64.7% (33) said that primary health committee does not exist in the BHU where they work and 35.3% (18) said that primary health committee exists in the BHU where they work.

Regarding the submission of HMIS to EDO and whether patients information is documented and used for monitoring and planning, all respondents 100% (51) said that HMIS is submitted to the EDO. Further on the question about patients information is documented and used for monitoring and planning, majority of the respondents 54.9% (28) said that patients information is documented and used for monitoring and planning, followed by close number of respondents 45.1% (23) who said that patients information is not documented and used for monitoring and planning.

The availability of waiting area at BHUs for the patients, majority of the respondents 62.7% (32) said that waiting area for patients is not available at BHU while 37.3% (19) said that waiting area is available for patients at BHU.

About the right of the patients to complain about services and treatment and whether those complaints are investigated in a fairly and timely manner, majority of the respondents 94.1% (48) said that patients have right to complain about the services and treatment. Among those who said that patients have right, majority of them 50.9% (26) said that those complaints are not investigated in a fair and timely manner and a close number of respondents 43.2% (22) said that those complaints are investigated in a fair and timely manner. Only a small number of respondents 5.9% (03) said that patients do not have right to complain about services and treatment at BHU.

The patient's feedback for the improvement of services at BHU, majority of the respondents 56.9% (29) said that patients' feedback is collected for the improvement of services at BHU and a close number of respondents 43.1% (22) said that feedback is not collected from the patients for the improvement of the services of BHU.

Regarding were the patients informed about the complaints and their outcome, majority of the respondents 80.4% (41) said that patients are not informed about the complaints and their outcomes, while only 19.6% (10) said that patients are informed about the complaints and their outcome.

About whether privacy of the patient is ensured during consultation and examination, majority of respondents 90.2% (46) said that privacy of the patient is ensured during consultation and examination while only 9.8% (05) said that privacy of the patient is not ensured during consultation and examination.

The results of previous care are used in follow up visits, majority of the respondents 58.8% (30) said that results of previous care are used in follow up visits while a close number of respondents 41.2% (21) said that results of previous care are not used in follow up visits.

The conduct of education sessions training, majority of the respondents 76.5% (39) said that education sessions or training was not conducted at BHU, while only a small number of respondents 23.5% (12) said that education sessions or training was conducted.

About the drug supply and whether it is sufficient for the requirements of BHU and if not how the patients arrange the drugs/medicines, majority of the respondents 82.4% (42) said that drug/medicine supply is not sufficient at BHU and further on how the patients arrange if supply is insufficient, all these respondents 82.4% (42) said that patients arrange/purchase these drugs/medicines from the market. Only a small number of respondents 17.6% (09) said that drug/medicines are in sufficient supply at BHU.

On asking whether the patients listen to the advice of the staff of BHU and cooperate with them, majority of the respondents 64.7% (33) said that patients do listen to staff's advice and cooperate with them, followed by another group of respondents 35.3% (18) who said that patients do not listen to the advice and do not cooperate with the staff of BHU.

About the attitude of the patients towards the staff of BHU, majority of the respondents 58.8% (30) said that attitude of the patients towards the staff of BHU is positive; while 41.2% (21) respondents said that the attitude of the respondents towards the staff of BHU is negative. Looking at the reasons for negative attitude of patients towards the staff of BHU, most of the respondents 23.6% (12) said because the patients are not satisfied with the facilities at BHU and only 17.6% (09) said that due to indifferent attitude of the staff of BHU the patients attitude towards them is negative.

Regarding the referrals to RHC/DHQ, majority of the respondents 66.7% (34) said that they do not refer patients to RHC/DHQ, while only 33.3% (17) said that they do refer patients to RHC/DHQ. On further asking to those who referred to RHC/DHQ, most of the respondents

17.6% (09) said they refer 6-10 patients per week to RHC/DHQ, followed by another group of respondents 15.7% (08) who said that they refer more than ten (10) patients in a week to RHC/DHQ. Referring to the transport facility for the referral patients, all of the respondents 100% (51) said that they do not have transport facility for referral patients.

The suggestions by the staff of BHUs for improvement in the services of BHU, patients and staff included, most of the respondents 13.8% (07) respondents said that security should be provided to the staff of BHUs during polio campaign, followed by two other groups with same numbers 9.9% (05) who said that the quality and supply of the medicines should be improved and the government should provide transport facility to the staff of BHUs for field visits respectively, then five more groups with same numbers 7.8% (04) respondents who suggested the vaccine should be provided timely, the political interference should be discouraged, female doctors should be appointed in every BHU, the attendance of the staff of BHU should be maintained properly, the ambulance service should be provided to every BHU, and female staff of the BHU should be appointed at BHUs which are near to their home stations respectively, then another two groups of respondents with 5.9% (03) who suggested that the electric generators should be provided to every BHU and proper maintenance of BHU should be made necessary, and with the minimum numbers 3.9% (02) of two groups of respondents who said regular capacity building training should be arranged for staff of BHUs and local leaders should be involved in decision making respectively.

## 8.2 Major Findings of the Research

### 8.2.1 Beneficiaries of BHU

Most of the male respondents were of 5.3% (41/61) young males between the age 30.1-40 years and most of the females numbering 44.5% (342/707) young females were between the age 20.1-30 years. Among the total 768 respondents, 18.8% (144) were literate and 81.2% (624) were illiterate. Majority of the respondents 89.9% (691) were married. Most of the respondents 41.5% (319) were living in joint family system. Most of the respondents 47.5% (365) had 11-15 family members.

As majority of the beneficiaries of BHUs were females so most of the respondents 90.9% (698) were house wives. Majority of the female beneficiaries of BHUs 90.9% (698) were house wives among whom 30.3% (233) had monthly income up to 5000 PKR.

Most of the respondents 44.5% (342) belonging to age group 20.1-30 years, 8.3% (64) had malaria, 7.8% (60) had diarrhea, 6.8% (52) had cough and flu, 6.5% (50) had come for pregnancy test, 5.5% (42) had vomiting problem, 4.2% (32) had fever, 4.0% (31) had headache, 1.4% (11) had heat stroke. Most of the males 2.7% (21) had come to BHUs for the problem of having vomiting. Among the female respondents, most of them 22.0% (169) had come to BHU for cough and flu disease. Most of the male respondents 5.3% (41) go to a homeopathic doctor for treatment of their diseases and among the female respondents, 74.3% (571) goes to private practitioners for treatment of their diseases. Majority of the respondents 66.7% (512) covered 1-3km to reach BHU for treatment and among these respondents 46.2% (355) went to BHU on foot.

Majority of the BHUs numbering 57.4% (441) rendered curative care services. Most of the respondents numbering 28.8% (221) faced un-availability of medicines at BHU. The majority

of the respondents 59.4% (456) said that they visited BHU several times, among them 36.6% (281) respondents said that they were not satisfied with the services of BHU offered to them.

Majority of the respondents 70.2% (539) said that they did not get medicine from the BHU. On asking for the reasons for not getting medicine, a group of respondents 27.1% (208) said that due to the non cooperative attitude of the staff of BHU they did not get medicine. Most of the respondents 49.9% (383) said that the health care providers at BHU do not pay attention to the patients. Majority of the respondents 79.0% (607) said that the health care providers do not give priority to the extremely sick, elderly and newborns. Majority of the respondents 50.3% (386) said that the health care providers do explain diagnosis, care management and follow up to them. Most of the respondents 45.8% (352) said that health care providers do not take feedback from them.

Majority of the respondents 67.4% (518) said that the referral procedure is not practiced in the BHU. Most of the respondents 41.4% (318) said that they have to stay 45 minutes at BHU, the reason for stay among them for 25.6% (197) was that because they had to wait for the doctor/staff. Majority of the respondents 96.5% (741) said that there is no waiting area available for patients at BHU. Majority of the respondents 82.4% (633) said that privacy is not ensured of the patient at the time of consultation.

Majority of the respondents 78.8% (605) said that they are unaware about the health session in the BHU. Most of the respondents 30.6% (235) said that the health care providers instruct the patients about medication and duration of the course of medicines only. Majority of the respondents 55.9% (429) said that they are aware about the presence of LHVs/LHWs at the BHU. Majority of the respondents said that the LHVs/LHWs do not visit the homes regularly.

Majority of the respondents 50.0% (384) said that they do not have information about the health committee/supporting group at BHU.

### **8.2.2 Non Beneficiaries**

Among the male respondents, most were of 25.8% (198) young males between the age 20.1-30 years and looking at the female respondents' age group, most of the females numbering 8.7% (67) were between the age 50.1-60 years. If we see the total, most of the respondents were 25.8% (198) between 20.1-30 years, followed by another group of 22.9% (176) between 50.1-60 years, and another group of 19.9% (153) between 40.1-50 years, and then another group of 14.3% (110) between 30.1-40 years, followed by a group of 11.5% (88) between 10-20 years, and then with minimum numbers were 5.6% (43) between 60.1 and above.

Majority of the respondents 57.3% (440) were literate, followed by 42.7% (328) who were illiterate. Majority of the respondents 82.8% (636) were married. Most of the respondents 45.7% (351) had joint families. Most of the respondents 45.8% (352) had 11-15 family members.

Most of the respondents 38.5% (296) were farmers and among them 18.6% (143) had monthly income from 15001-20000.

Majority of the respondents 71.5% (549) had information regarding the presence of health services in their catchment area. Majority of the males 57.2% (439) had information about health services presence in their area while only 14.3% (110) females had information regarding health services presence in their area.

Majority of the respondents 83.7% (643) said they had disease and only 16.3% (125) said they had no disease. Among the respondents who said they had disease, majority 68.4% (525) said they get medicines from a private doctor. Among the male 77.1% (592) respondents, majority 66.5% (511) said they had suffered from a disease in the last 3 months and among the

female 22.9% (176) respondents, most 17.2% (132) said they had suffered from a disease in the last 3 months.

Most of the respondents 31.5% (242) said that they did not go to BHU for treatment because the staff of BHU does not perform their duty honestly. Most of the respondents 27.5% (211) said that quality medicines should be provided at BHU.

### **8.2.3 Staff of BHU**

Most of the respondents 37.3% (19) belonged to age group 25.1-30 years. Most of the respondents 33.3% (17) were doctors.

Majority of the respondents 58.8% (30) said that they have information regarding the functions of BHUs. Majority of the respondents 60.8% (31) said that they had not conducted any training on primary health care. Majority of the respondents 70.6% (36) said that they had job description. Most of the respondents 45.1% (23) had monthly salary up to 10001-15000 PKR. Majority of the respondents 80.4% (41) said that they do private practice also. Majority of the respondents 64.7% (33) said that no facility is provided by government to them in their areas. Most of the respondents 41.2% (21) said that they are not satisfied with their salary.

Majority of the respondents said that low income and lack of facilities does not affect their performance. Majority of the respondents 98.0% (50) said that only outdoor treatment facilities are available in the BHU. Most of the respondents 37.3% (19) said that treatment facilities in rural areas are bad in conditions as compared with treatment facilities in urban areas. Majority of the respondents 64.7% (33) said that primary health committee does not exist in the BHU where they work.

All respondents 100% (51) said that HMIS is submitted to the EDO and majority of the respondents 54.9% (28) said that patients' information is documented and used for monitoring

and planning. Majority of the respondents 62.7% (32) said that waiting area for patients is not available at BHU.

Majority of the respondents 94.1% (48) said that patients have right to complain about the services and treatment. Among those who said that patients have right, majority of them 50.9% (26) said that those complaints are not investigated in a fair and timely manner. Majority of the respondents 56.9% (29) said that patients' feedback is collected for the improvement of services at BHU. Majority of the respondents 80.4% (41) said that patients are not informed about the complaints and their outcomes.

Majority of respondents 90.2% (46) said that privacy of the patient is ensured during consultation and examination. Majority of the respondents 58.8% (30) said that results of previous care are used in follow up visits. Majority of the respondents 76.5% (39) said that education sessions or training was not conducted at BHU.

Majority of the respondents 82.4% (42) said that drug/medicine supply is not sufficient at BHU. Majority of the respondents 64.7% (33) said that patients do listen to staff's advice and cooperate with them. Majority of the respondents 58.8% (30) said that attitude of the patients towards the staff of BHU is positive.

Majority of the respondents 66.7% (34) said that they do not refer patients to RHC/DHQ. All of the respondents 100% (51) said that they do not have transport facility for referral patients. Most of the respondents 13.8% (07) respondents said that security should be provided to the staff of BHUs during polio campaign.

## Chapter – 9

### Analysis and Discussions

#### 9.1 Beneficiaries of Basic Health Units (BHUs)

The findings about the beneficiaries of Basic Health Units (BHUs) suggest that among the total 768 beneficiaries (including 61 men and 707 women) of BHUs of District Mardan, most of the men were young of age group 30.1-40 years and most of the women were younger than men of age group 20.1-30 years. This shows that young generation of the area goes to BHUs for taking medical help when they suffered from any diseases. The educational characteristics of these respondents were such that most of them were illiterate and only a small number were literate up to primary level. Which might be due to non availability of educational facilities in most of the rural areas of District Mardan and if such facilities are available they are so far away that most of the people don't have access to them. One of the other factors being illiterate respondents was as most of the beneficiary respondents of this study were women and it is a common practice in the area that females are not allowed to go out of their homes and so they cannot go to schools and colleges and remain illiterate. And only a few girls complete till primary level education and then are not allowed to pursue higher education as they grow up and are restricted to go to far away schools because of strict *purdah* system prevalent in the district.

About the marital status of the respondents, majority of them were married that shows the early marriage trend in the community and as most of the respondents were women so it shows that girls are married at an early age. The findings about marital status also showed that a very small number of respondents were divorced so we can say that there is less trends of divorce in the area as wife is considered a possession and leaving her for other men to marry again is

considered a taboo and an honour issue, so men do not divorce their wives to let them remarry and if the woman is unhappy in marriage she has to bear the brunt till her death as she cannot escape by getting a divorce.

About the types of family the respondents have, most of the respondents lived in joint family system and most of the respondents had 11-15 family members.

About the employment status of the respondents, as majority of the beneficiaries of BHUs were females so most of the respondents were housewives. Among the other respondents, some were farmers, some were self-employed workers, and some others were government employees and daily wagers or labourers. About the monthly income of the respondents, majority of the female beneficiaries of BHUs were housewives who had monthly income up to 5000 PKR, this amount they earn from selling milk and other milk products of the animals they look after at their homes. Among the other respondents, most of the farmers had 10001-15000 PKR and then the self-employed workers had monthly income up to 5001-10000 PKR and the minimum number was of the daily wagers or labourers and government employees who had monthly income up to 15001-20000 PKR. As the area is mostly agricultural based and most of the men are engaged in farming who earn up to 10000-15000 PKR and they give this money in the hands of their woman to look after the affairs of household as mostly the women are responsible for household management so these housewives had around twenty thousand rupees (their own and their husbands') in their hands. And as they have a joint family of size 11-15 family members so there would be at least two male earning members in the family so the total monthly family income would be around 40000 PKR and all fifteen family members are dependent on this much amount to take care of all their needs and necessities in a month. This also means that PKR 40000 for fifteen persons means PKR 2666 per person per month which is

equal to US\$ 25.641 per person per month if we take US\$ 1=PKR 104, which is very low money to take care of all the needs of one person for one month. If we further divide this amount for per day per person, it becomes PKR 88.86 that is equal to US\$ 0.854 per day per person. This means that an individual is living less than one dollar a day and shows extreme poverty in the people of District Mardan.

Referring to the age and disease relationship, among most of the respondents belonging to age group 20.1-30 years had malaria, among the respondents who belonged to age group 30.1-40 years mostly had diarrhea, than the other group of respondents who were in the age group 40.1-50 years mostly had cough and flu, and some of them also had vomiting complaint. From the respondents who belonged to 50.1%-60 years, mostly had cough and flu and some had vomiting complaints. The last group with minimum number belonging to 10-20 years of age mostly had fever and malaria. This shows that people aged 10-40 years had mostly fever, malaria and diarrhea and people belonging to 40-60 years had the complaints of cough, flu and vomiting. The main reasons behind this are unhygienic living and polluted water. The complaint about the vomiting, which is a serious issue is due to the pesticides spray, because the respondents of age group 40-60 were the farmers and during the spray of pesticides in the fields, the particles of the chemical mix with the breath which result in the vomiting. And the BHU is the most immediate and reasonable place where they can approach for treatment.

About the gender and disease relationship, most of the males had come to BHUs for the problem of having vomiting, followed by the diseases of fever, malaria, cough and flu and diarrhea. The males had vomiting problem because most of them were farmers and they use pesticides and other agricultural chemicals in the fields, and most of the time after spraying pesticides in the fields they do not wash hands properly and when they eat with these hands the

chemical is swallowed by them with food and this cause indigestion and vomiting. Among the female respondents, most of them had come to BHU for cough and flu disease, followed by diarrhea, malaria, vomiting, pregnancy test, headache and the minimum number of group was being the heat stroke problem. The females had cough and flu because of extreme cold weather in the area and as most of their houses are open because of which they get cold easily.

If we accumulatively look at the findings of both male and female respondent's diseases, most of the respondents had cough and flu problem, followed by diarrhea, malaria, vomiting, then females came for pregnancy test, then headache, fever and the least reported being the heat stroke. The cough and flu problem might be due to the extreme weather conditions in the area as mostly the area has severe cold in winter and people had no means of escaping from it as the area is remote and not much developed so most of the facilities are not available in the area to escape from extreme cold weather. The other reported diseases like diarrhea, malaria and vomiting was also because of working in the fields and remaining in the open places most of the times of the day and also because of unhygienic environment as the area is not much developed.

About the Gender and the means of getting treatment for diseases, most of the men go to a homeopathic doctor for treatment of their diseases; some also goes to private practitioners and hakim for treatment. Among the female respondents, majority goes to private practitioners for treatment of their diseases, some go to hakims, than BHU, homeopathic, RHCs and a few also go to a *maulvi* (religious scholar) for treatment. This shows that most of the men go to homeopathic doctors in case of treatment for a disease and most of the women go to private practitioners for the treatment of the disease. A very small number of women preferred to go to BHU for treatment purposes. It was also found that some of the women go to *Maulvi* (religious scholar)

for the treatment of diseases which might be due to the illiteracy and ignorance on the part of women of the area.

If we look at the total, we can say that most of the respondents (both men and women) goes to private practitioner for the treatment of disease, followed by respondents who goes to homeopathic and hakim respectively, and only a small number of respondents go to a BHU for treatment of their diseases, and some goes to dispensary for getting medicine, and the least was a group who goes to RHC and a Maulvi (religious scholar) respectively. (The reasons for not going to BHUs for treatment are discussed in the following paragraphs).

The distance respondents cover to reach the BHU, majority of the respondents 1-3km to reach BHU for treatment and among these respondents mostly went to BHU on foot, followed by another group of respondents who went by Tonga, then some other went to BHU by bus. Another group of respondents who covered 3.1-6km to reach BHU for treatment, among these respondents mostly went to BHU on foot, some went by Tonga and some went by own conveyance. Looking at the minimum number group of respondents who covered 6.1 and above distance to reach BHU for treatment, among them mostly goes on foot and some goes to BHU by Tonga. This shows that most of the respondents covers 1-3km distance to reach BHU for treatment and mostly all respondents covering 1-6.1 and above distance to reach a BHU, goes on foot to BHU as they don't have their own conveyance and cannot afford to go by local transport which is also not commonly available in the area.

About the services rendered by the BHUs, majority of them rendered curative care services, followed by a group that rendered health education and then some rendered both health education and curative care services, and only a small group rendered preventive care services. This shows that mostly the BHUs are providing curative care services and only a small number

of BHUs are providing preventive care services, which is negligence on the part of the government as there should be steps taken to prevent people from becoming prone to diseases rather than only providing curative services when people got sick. As Pakistani government adheres to the recommendations of Bhore Committee that also emphasized on preventive care services so the lack of such services in health sector shows inefficiency and lack of commitment on the part of government of Pakistan.

Mostly the people visiting a BHU for treatment faced the unavailability of medicines or the doctors, some also reported the uncaring attitude of the staff of BHU towards their patients. This shows that quality of services at BHUs is not ensured by the employees and the state, as it is government's responsibility to provide for medicines at the BHUs and its employees; doctors and other staff should also properly take care of their patients and be regular in their duties at the BHU. But mostly the staff of BHU is appointed at far off place from their homes and due to non availability of public transport and personal conveyance they had difficulty in coming to the BHUs and also as they are paid nominal money in response to their services and so they are not honest with their profession. (This would be also discussed in details in the third section of staff of BHUs).

Majority of the beneficiaries of BHUs who visited once to several times, were all not satisfied with the services provided to them at the BHU, this might be a cause of not visiting BHU in need of treatment for diseases and mostly people of the area went to private practitioners as discussed above. Only a small number of respondents who visited once in a while said that they were satisfied which may be due to the fact that they had never again went there or if they visited again and again they would have known the true reality of the situation at the BHU.

About the information regarding getting medicine from BHU, majority of the respondents said that they did not get medicine from the BHU. This shows that medicines are scarce at BHUs and if present are of low quality and are in shortage of supply so the people who came for treatment cannot get medicines from the BHU. And if the medicines are available the patients are discouraged by the attitude of the BHU staff or due to the low quality of medicines they do not take it.

About the information regarding the attitude of health care providers, most of the respondents said that the health care providers at BHU do not pay attention. So most of the beneficiaries of BHU complained about the indifferent and unconcerned attitude of the health care providers at the BHUs and only a small number of the respondents said that the staff of BHUs was sympathetic towards them.

About the information regarding the priority or care given by health care providers to the extremely sick, elderly and newborns, majority of the respondents said that the health care providers do not give priority to the extremely sick, elderly and newborns. It can be said that the health care providers at the BHUs do not give proper attention and care to the extremely sick, elderly and newborns which is against the ethics of the profession of medicine also.

The health care providers are concerned about the patient's diagnosis, care management and follow up and do explain them how to take care of themselves at home and when to come back for check up from a doctor again. But some also reported that these measures are not taken care of by the health care providers to their patients which show negligence on the part of staff of BHUs.

When a patient goes for the treatment to the BHU, it's the duty of the staff to keep his/her history and also give the feedback on his/her illness but most of the respondents said that the

health care providers do not give them feedback on their illness and how to take care of themselves while ill and most of the times the patients are not referred to other medical institutions for the treatment of their diseases. As the main theme of the BHU's are the referral means that the patient will come first to the BHU, if the facilities are not present to deal with his illness or the disease is complex and need more expert attention and care, the patient will be referred to Rural Health Care Centers (RHCs) or D-type hospitals because the RHC's and the D-type hospitals have the indoor and outdoor facilities with specialization. If the facility or the care at the RHC or D-type hospital couldn't fulfill the patient, the RHC staff will referred him/her to the Tehsil hospital and then to the District hospital followed by the tertiary care units.

The stay at BHU and reason of stay, most of the respondents said that they have to stay 45 minutes at BHU, the reason for stay among them was that because they had to wait for the doctor/staff, followed by another group of respondents among the same category who said they stayed in wait of getting the medicines, and the minimum number of respondents among this group said they stayed in wait of the medical test. The second group of respondents who said that they had to stay for 30 minutes at BHU, and the reason for stay among them for some was that they stayed to get medicine, followed by another group of respondents among the same category who stayed in wait of doctor/staff, and then with minimum number among this group was of who said they stayed in wait of medical test. The next group of respondents who waited for 15 minutes, and among them some stayed in wait of doctor/staff, followed by another group in this category who stayed in wait of medicine and then with minimum number of respondents who stayed in wait of medical test. The minimum number category of respondents who stayed for 60 minutes in the BHU and about the reasons for stay, most of the respondents among them said they stayed in wait for doctor/staff, followed by some who stayed in wait of medical test and

then with the minimum number who stayed in wait of getting medicines. So it can be said that most of the beneficiaries of the BHUs had to stay for 45 minutes maximum to get the treatment from the BHU and its staff. And among all types who waited for 15-60 minutes, mostly waited for the doctor or the staff to take care of them for the treatment of their diseases.

In response to the question that if the waiting area is available for patients at BHU, majority of the respondents said that there is no waiting area available for patients at BHU and only the minimum number of respondents said that waiting area is available for patients in BHUs. This is another setback in the provision of services at BHU as mostly the patients as discussed earlier had to wait for maximum 45 minutes for the doctors and there is no place/room for them to sit while waiting that could affect their suffering and can increase their pains of being ill.

Regarding ensuring privacy of the patients at the time of consultation, majority of the respondents said that privacy is not ensured of the patient at the time of consultation and only a minimum number of respondents said that privacy is ensured of patients at the time of consultation. This shows that human factor and professional ethics are not considered while treating patients at BHUs as most of them were not provided with privacy during the time of consultation and as most of the respondents interviewed were women so this shows that women rights of confidentiality and respect were not taken care of at BHUs.

The awareness regarding the health session in the BHU, majority of the respondents said that they are unaware about the health session in BHU while only a small group of respondents said that they are aware of the health session at the BHU, and among this category of respondents who are aware of health sessions, only some had attended that health session at the BHU and a significant number of respondents among them have not attended the health sessions

at the BHU. This shows that majority of the BHUs are not providing health care sessions to the community it serves. And this is evident from above findings that BHUs are only providing curative services and not the preventive services that's also compliment this findings.

The health care providers at the BHUs only instruct the patients about medication and duration of the course of medicines and does not give the detailed instructions about medication, amount of medicine to take, time of using the medicine and duration of the course of medicine, as only a small number of respondents had reported of this detailed instructions, which shows negligence on the part of medical professionals working at BHUs.

The awareness about the presence of LHV/LHWs at the BHU, majority of the respondents said that they are aware about the presence of LHV/LHWs at the BHU and a significant number of respondents said that they are unaware about the presence of LHV/LHWs at the BHU. Regarding beneficiaries' opinion about LHV/LHWs home visits and the frequency of these visits, majority of the respondents said that the LHV/LHWs do not visit the homes regularly. This shows that people are mostly aware of the presence of LHV or LHWs at BHUs but these LHV and LHWs do not visit the homes of the people of community served by the BHU regularly and only a small number of respondents said that LHV and LHWs pay visit on monthly basis.

For strengthening and empowering the BHUs, the Government has planned to setup a health committee or supporting group which should consists of the Medical officer of the concerned BHU, EPI technician, LHW, Female lady councilor, Nazim/Naib Nazim, Religious leader and other influential's of the local area. They have to meet on monthly basis and evaluate the performance of the BHU and have to submit their suggestions to the EDO health of the concerned District. But most of the respondents do not have any information about this health

committee which shows that these committees are not in functional position and are not performing their duties for the services of the communities they serves.

The suggestions for the improvement of BHUs, most of the respondents said that the quality medicines should be provided to the patients at the BHUs, followed by a suggestion of labour room should be maintained at every BHU, then health education sessions should be arranged on monthly basis, ambulance service should be provided at BHU, basic equipments like Ultra sound, X-ray etc should be provided at BHUs, there should be monitoring of the staff of BHUs, and then some suggested counseling sessions for the pregnant women at BHUs, then the visits of LHVs/LHWs should be monitored properly, and some suggested that a female doctor should also be appointed at BHUs along with male doctors, then the staff of BHUs should be made punctual, and some also suggested that health and hygiene sessions should be arranged regularly and a few suggested that proper waiting area and clean drinking water should be provided in each BHU, so most of the beneficiaries of the BHUs demanded that quality medicines should be provided at the BHUs.

## **9.2 Non beneficiaries of BHUs**

About the gender and age of non-beneficiaries respondents, six groups were made with equal intervals in the range of 10 years to 60 years and above. Total number of 768 non beneficiary respondents including 592 men and 176 women were interviewed. Mostly men were interviewed for the study purpose about non-beneficiaries of BHU as it is difficult to access and question women of the area and the strangers in this case the researcher cannot go door to door at their homes because of the strict *purdah* (to cover herself completely from men) system prevalent in the District Mardan and women do not talk with strangers however for any reason so mostly men were questioned to get their responses on the following information.

Among the male respondents, most were young men between the age 20.1-30 years. Regarding the female respondents' age group, most of the females were between the ages of 50.1-60 years. So we can say that the men non-beneficiaries of BHU that were interviewed for the study purpose were mostly 20.1-30 years and the women non-beneficiaries of BHU that were interviewed for the study purpose were mostly between 50.1-60 years.

Referring to the education and level of education of the respondents, majority of them were literate. Of the literate respondents, mostly were educated up to high level. So we can say that mostly the literate persons of the District Mardan do not go to BHU for treatment of their illness and thus are non-beneficiaries of BHU. This is because of the low quality maintained in the services and treatment offered at BHUs.

About the marital status of the respondents, majority of them were married which shows early age marriage trend in the people of District Mardan as most of the non-beneficiaries of BHUs were of young age.

Referring to the type of family the respondents had, most of them had joint families. The number of family members of the respondents, most of the respondents had 11-15 family members. As most of the respondents among this category were living in joint families so we can say that they had many children because they were also married at an early age that gives them advantage of having longer reproductive period of life.

About the employment status and monthly income of the non beneficiaries of BHUs, most of the respondents were farmers and had monthly income from 15001-20000 PKR. The second group was of daily wagers or labourers who had monthly income up to 5001-10000 PKR. The third group was of house wives who had monthly income up to 5000. The next group of

respondent was government servants and they had monthly income up to 15001-20000 PKR. The last were self employed respondents and they had monthly income up to 10001-15000 PKR.

Referring to the information about the presence of health services in the catchment area of the respondents, majority of the respondents had information regarding the presence of health services in their catchment area while a small number did not have information regarding the health services in their catchment area, among these who do not have the information the reasons being, most were unaware, followed by another group of respondents who had lack of interest and then those who said that these health services are not reliable. So it can be said that majority of the people knew that health services are present in their catchment area but mostly do not visit there because of undependable and untrustworthy services provided in their catchment areas. If we see these findings by gender and sex, majority of the men had information about health services presence in their area as compared to a small number of women who had information regarding health services presence in their area.

About the suffering from a disease and from where the respondents get medicines, majority of the respondents said they had suffered from diseases and only a small number said that they had no disease ever. Among the respondents who said they had disease, majority said they get medicines from a private doctor; others go to homeopathic doctors, *hakim* (quacks), *maulvi* (religious scholar) and a few goes to District Head Quarter Hospital. So this shows that majority of the people of the area get medicine from a private doctor when they become ill and had some disease as they are the non beneficiaries of BHUs so it looks they prefer private doctors to going to BHUs for treatment.

About the gender and suffered from any disease in the last 3 months, among the men respondents, majority said they had suffered from a disease in the last 3 months. Looking at

women respondents, mostly said they had suffered from a disease in the last 3 months. This shows that most of the people either men or women had suffered from a disease in the last three months. This reflects that the people of the area are prone to diseases which may be due to the extreme weathers and open environment of the area.

The age wise distribution and suffering from any disease in the last 3 months, among most of the respondents who were between 20.1-30 years of age, mostly said that they suffered from a disease in the last 3 months. Another group of respondents who were between 50.1-60 years, mostly said that they suffered from a disease in the last 3 months. Another group of respondents who were between 40.1-50 years, all said that they had suffered from a disease in the last 3 months. The other group of respondents who were between 30.1-40 years, most of them said that they have suffered from a disease in the last 3 months. Then the next group of respondents who were between 10-20 years, half said that they had suffered from a disease in last 3 months and other half said that they had not suffered from any disease in the last 3 months. Then with minimum numbers were respondents who were between 60.1 and above and among them mostly said that they had suffered from a disease in the last 3 months. This shows that majority of the respondents belonging to all age groups fall ill or had suffered from a disease in the last three months.

About the reasons for not going to BHU for treatment, most of the respondents said that they did not go to BHU for treatment because the staff of BHU does not perform their duty honestly. So it can be said that most of the people do not go to BHU for treatment because of the carelessness on the part of the staff of BHU in performing their duties. The other reasons found out being un-qualified staff, un-availability of quality medicines as well as no access to BHU as it being far from their villages.

The suggestions the non beneficiaries of BHUs gave for the improvement of health services at BHUs were, most of the respondents said that quality medicines should be provided at BHU, some other said that modern equipments should be provided to the BHUs, then a group of respondents said that more qualified doctors should be appointed in the BHU, then some respondents said that the staff should give proper time to the patients, another group of respondents said that ambulance should be provide to each BHU, some other respondents said that BHU should be constructed within the limits and reach of the community, some said that proper monitoring should be there for the smooth functioning of BHU, a few respondents said that local community should be involved in the decision making regarding the betterment of the BHU functioning, some other respondents said that proper lab facility should be provide in every BHU, and the least was the group of respondents who said that the local staff should be appointed within the local BHU. So this shows that most of the people suggested improvement in the services by enhancing the quality of medicines being given at BHUs.

### **9.3 Staff of BHUs**

For the findings about staff of BHUs, total 51 respondents were interviewed. Most of the staff working at BHUs who were interviewed for the study was of 25.1-30 years of young age. Most of the staffs of BHUs who were interviewed for the study were doctors, followed by some EPI Technicians, medical technicians, LHVs and LHWs.

Regarding the information about the functions of BHUs, majority of the respondents said that they have information regarding the functions of BHUs but some said that they do not have information about the functions of BHUs. So most of the staff working at BHUs knew about the functions and services of BHUs but there were also some staff which does not know about the

functions of BHUs which shows the negligence on the part of the staff and hence the cause of inefficiency of the staff and services provided at any BHU.

Primary health care trainings should be provided at all BHUs but majority of the respondents said that they had not conducted any training on primary health care and only a few said that they had conducted primary health care training. These trainings are held to raise awareness among the people of the adjacent community on health, hygiene, sanitation, safe water usages, immunization and also on family planning issues. But as found that most of the staff of BHU said that they had not conducted any such trainings which also shows negligence on the part of staff of BHUs as these primary health care trainings should be provided at the BHUs for its better functioning and services to the people of the adjacent communities.

About the availability and information regarding job description and the reasons for not having job description, majority of the respondents said that they had job description and some said that they did not have job description. Those who said they don't have job description, mostly blamed that there is lack of facilitation to the staff by the concerned health department, followed by some who said because of lack of interest on employer side, and some also said because government have not provided the health department with their job description. So it is found that majority of the staff of BHUs had their job description and the ones who do not had job descriptions it is because of the non facilitations and lack of interest on the part of the government. That shows that even the state or government and the concerned health department are not effectively and efficiently trying to run the BHUs of the country.

Most of the staff of BHUs had monthly salary up to 10001-15000 PKR and in this case as mostly the doctors were interviewed so we can say that a doctor of BHU earns up to 15000 PKR in a month which is equal to 144.23 US\$ at the rate of 1 US\$ equal to 104 PKR. Most of the staff

of BHUs meaning doctors does private practice also after their working time ends at BHU and earns up to 20001-30000 PKR in a month. That shows that a doctor of BHU earns from his salary and private practice a sum of almost 45000 PKR which is equal to 432.69 US\$ in a month and the doctors whole family would be dependent on this money to care for all their needs and necessities in a month.

Majority of the staff of BHUs complained that no facility is provided to them by government in their areas. But some also said that a house and other utilities are provided by the government to the staff of BHU in their areas.

About the level of satisfaction of BHU staff with their salary, job and facilities, most of the respondents said that they are not satisfied with their salary, job and facilities, followed by some who remained indifferent to this question, while only a few respondents said that they are satisfied with their salary, job and facilities. This shows that most of the staff of BHUs was not satisfied with their salary, job and facilities which may be a cause of negligence in their duties and responsibilities found out earlier in the beneficiaries and non beneficiaries' respondents' categories.

The effect of low income and lack of facilities on job performance, majority of the respondents said that low income and lack of facilities does not affect their performance while some said that it affect their performance, among those who said it affects their performance, a group said that they cannot pay full attention to their patients because of low income and lack of facilities, while some others said that their attitude towards their patients become indifferent, and a few also said that low income and lack of facilities is decreasing their interests. So it can be said that for majority of the respondent low income and lack of facilities does not affect their performance but for those who are affected by them complained of lack of attention and

indifference towards patients and lack of their interest in their job and to care for the patients coming to BHUs.

Regarding the availability of treatment facilities in the BHU, majority of the respondents said that only outdoor treatment facilities are available in the BHU and only a few said that health education facility is present in the BHU, while health education facilities should be part and parcel of each BHU but only a small number of the staff of BHU had known about them. That might be the cause of ineffectiveness of BHUs all over the country.

About the comparison of treatment facilities in rural areas as with urban areas, most of the respondents said that treatment facilities in rural areas are bad in conditions as compared with treatment facilities in urban areas. So we can say that most of the staff of BHUs was of the opinion that treatment facilities in rural areas are in bad conditions as compared to treatment facilities available in urban areas. In most of the rural areas of the country the situation is same.

About the primary health committee exists in the BHU where the respondents work, majority of the respondents said that primary health committee does not exist in the BHU where they work. The role of primary health committee is important in keeping up with the efficiency of the staff of BHUs and the effectiveness of the services provided at the BHUs. So in their absence the most of the BHUs are not functioning properly and there is no check from the health department and the state on this matter.

Health Management Information System (HMIS) are designed to generate information on the status of ongoing health related activities to facilitate evidence based decision making and effective management of health care systems at all levels. This information is documented by each BHU along with patients' information and is sent to Executive District Officer (EDO) Health and is used for monitoring and planning of all health care systems in the area. All

respondents said that HMIS is submitted to the EDO. Further on the question about patients information is documented and used for monitoring and planning, majority of the respondents said that patients information is documented and used for monitoring and planning. So it can be said that all staff of BHUs is performing their duty of submission of HMIS to EDO and documenting patients' information to be used for monitoring and planning about health services at BHU and in the adjacent communities.

The availability of waiting area at BHUs for the patients, majority of the respondents said that waiting area for patients is not available at BHU while only a few said that waiting area is available for patients at BHU. This also supplements the findings that we discussed in the beneficiaries' category that waiting area for patients is not available at BHUs.

About the right of the patients to complain about services and treatment and whether those complaints are investigated in a fairly and timely manner, majority of the respondents said that patients have right to complain about the services and treatment. Among those who said that patients have right, majority of them said that those complaints are not investigated in a fair and timely manner. Only a small number of respondents said that patients do not have right to complain about services and treatment at BHU. This shows that majority of the staff of the BHUs agreed and know that patients have a right to complain about the services and treatment meted out to them at BHUs but among these respondents mostly said that those complaints are not investigated afterwards in fairly and timely ways to enhance the effectiveness of the services and treatment provided at BHUs.

The patient's feedback for the improvement of services at BHU, majority of the respondents said that patients' feedback is collected for the improvement of services at BHU and a close number of respondents said that feedback is not collected from the patients for the

improvement of the services of BHU. So the majority of the staff of BHUs claimed that feedback is collected from the patients to improve the services provided at BHUs.

Regarding were the patients informed about the complaints and their outcome, majority of the respondents said that patients are not informed about the complaints and their outcomes, while only some said that patients are informed about the complaints and their outcome. So it is found that most of the times the staff of BHU does not inform their patients about the outcomes of the complaints they register for improvement of services at BHUs.

About whether privacy of the patient is ensured during consultation and examination, majority of respondents said that privacy of the patient is ensured during consultation and examination while only a few said that privacy of the patient is not ensured during consultation and examination. So this shows that the right of privacy is given to the patients during consultation and examination by the staff of BHUs.

The results of previous care are used in follow up visits of patients, majority of the respondents said that results of previous care are used in follow up visits of the patients at the BHU for check up again but there were some respondents who also said that results of previous care are not used in follow up visits.

The conduct of health education sessions training, majority of the respondents said that education sessions or training was not conducted at BHU. So it is found that health education sessions and trainings are not conducted at most of the BHUs as reported by majority of the staff of BHUs. These health education sessions and trainings are meant to raise awareness about health and hygiene and such trainings are not conducted by most of the BHUs as found here.

About the drug supply and whether it is sufficient for the requirements of BHU and if not how the patients arrange the drugs/medicines, majority of the respondents said that

drug/medicine supply is not sufficient at BHU and further on how the patients arrange if supply is insufficient, all these respondents said that patients arrange/purchase these drugs/medicines from the market. So this shows that drugs or medicines are not in sufficient quantity at most of the BHUs as was said by most of the staff of BHUs and the patients in this case have to arrange or buy the drugs and medicines from the market. These markets are often also very far from the homes of the patients and they had difficulty in going to these markets as mostly do not have their own conveyance and public transport is also not available in these areas.

On asking whether the patients listen to the advice of the staff of BHU and cooperate with them, majority of the respondents said that patients do listen to staff's advice and cooperate with them. So this shows that most of the patients cooperate with the staff of BHUs and listen to their advice to work on it.

About the attitude of the patients towards the staff of BHU, majority of the respondents said that attitude of the patients towards the staff of BHU is positive; while some respondents also said that the attitude of the respondents towards the staff of BHU is negative. Looking at the reasons for negative attitude of patients towards the staff of BHU, most of the respondents said because the patients are not satisfied with the facilities at BHU and only a few said that due to indifferent attitude of the staff of BHU the patients' attitude towards them is negative. So it can be said that majority of the patients' attitude towards the staff of BHUs is positive and they show respect, esteem and prestige towards the staff of BHUs. There were some respondents who also said that the attitude of the patients is negative towards them because of their non satisfaction on the provision of facilities at the BHUs and because of the un-caring and indifferent attitude of the staff of BHUs towards them.

Regarding the referrals to Rural Health Center (RHC) or District Health Quarter (DHQ), majority of the respondents said that they do not refer patients to RHC/DHQ, while only some said that they do refer patients to RHC/DHQ. On further asking to those who referred to RHC/DHQ, most of the respondents said they refer 6-10 patients per week to RHC/DHQ, followed by another group of respondents who said that they refer more than ten patients in a week to RHC/DHQ. Referring to the transport facility for the referral patients, all of the respondents said that they do not have transport facility for referred patients. So this shows that most of the staff of BHUs does not refer their patients to RHC or DHQ for further treatment. And among those who refer the patients to RHC or DHQ, most of them refer 6-10 patients in a week to RHC or DHQ and they also said that there is no transport facilities available for such referred patients at the BHUs.

The suggestions by the staff of BHUs for improvement in the services of BHU, patients and staff included, most of the respondents said that security should be provided to the staff of BHUs during polio campaign, followed by two other groups with same numbers who said that the quality and supply of the medicines should be improved and the government should provide transport facility to the staff of BHUs for field visits respectively, then five more groups with same numbers of respondents who suggested the vaccine should be provided timely, the political interference should be discouraged, female doctors should be appointed in every BHU, the attendance of the staff of BHU should be maintained properly, the ambulance service should be provided to every BHU, and female staff of the BHU should be appointed at BHUs which are near to their home stations respectively, then another two groups of respondents suggested that the electric generators should be provided to every BHU and proper maintenance of BHU should be made necessary, and with the minimum number of two groups of respondents who said

regular capacity building training should be arranged for staff of BHUs and local leaders should be involved in decision making respectively. So this shows that most of the staff of BHUs suggested mainly for provision of security during polio vaccination campaigns and quality of medicines and transport facilities for them.

## **Chapter – 10**

### **Conclusions and Suggestions/Recommendations**

#### **10.1 Conclusion of the Study**

The trend of consulting and taking medicines from BHUs as shown by the study was among the young married women whereas young men do not like to go to BHUs for check up and also the old women were also not the beneficiaries of the BHUs. The former generally go to consult for cough and flu or gynecological reasons and the later mostly the young men prefer to go to private clinics for treatment and the old women being infirm cannot cover the distance of 1-3 kilometers in the absence of any reasonable transport to go to these BHUs for consultations.

The most of the BHUs were reported providing only curative services and not the preventive care. The majority of the beneficiaries of BHUs complained about lack of availability of medicines and non cooperative attitudes of medical practitioners at BHUs and the study also revealed that the aged, new born and extremely sick were not given preference at BHUs. The beneficiaries also complained about the non availability of waiting areas at BHUs as they have to wait for almost forty five minutes for their turn to get treatment at BHUs.

The lack of efficacy of the BHUs was also evident from the findings that most of the beneficiaries of the BHUs were not aware about the health care sessions being conducted at any of the BHU they consulted with, nor they were aware about the existence of health committee or supporting group functioning at BHUs. The beneficiaries also complained that lady health visitors and lady health workers seldom visit homes of the community members.

The non beneficiaries were mostly men of young age who prefer to go to private clinics as they were of the view that BHUs staff does not care much of the patients and the medicines being given at BHUs were mostly of low quality.

The staff studied included mostly the doctors of the BHUs who said that they never conducted any primary health care trainings at BHU and also reported that primary health care committee does not exist at most of the BHUs. They also said that no educational sessions or trainings are ever held at BHU. They complained about low quality of medicines provided for patients at BHUs. The doctors reported that they perform their duty of providing statistics for health management information system that goes to executive district officers.

The doctors were mostly not satisfied with their salaries and also complained that no facilities are provided to them by government for working in a rural or sub urban communities. The doctors as well as the beneficiaries of BHUs reported that the patients are generally not referred to rural health centers or district health quarters and they (the doctors) usually try to deal with the illness of the patients by themselves. Most of the doctors were engaged in practicing at their private clinics after their duty ends at BHU.

The complaints and grievance process for patient is there, but mostly patients do not complaints about low quality of services provided at BHUs and if complaints they are not followed up. The majority of the staff of BHUs demanded security for running polio vaccination campaigns in the communities.

This all calls for improving the status and structures of BHUs in the country by making available latest and quality services for patients like availability of quality medicines, provision of waiting areas for patients, referrals to RHCs or DHQs at the time of need and providing incentives and security to the staff of BHUs to effectively perform their duties.

The lady health visitors and lady health workers should also visit the homes of the community people regularly to aware the women of the basic health care about themselves and the other members of the household. As in Pakistani society mostly women are responsible for doing the household chores and caring for most of the needs of the family especially children so the role of lady health visitors and lady health workers is most important in terms of making the woman of the house aware and informed to take care of the health needs of the family.

The health department should also emphasize on providing effective primary care services through these BHUs so the common people of the country can get the health care near their homes and do not have to travel long distances to get basic health needs.

## **10.2 Suggestions / Recommendations**

Majority of the people i.e. 75% of our country live in villages, it is necessary for the government of Pakistan to provide a satisfactory health cover to the rural population, by setting a number of rural health centers and Basic Health Units to provide curative and preventive treatment to villagers at their door step. The following are some suggestions for the improvement of BHUs’.

### **1) Provision of Medicine:**

Medicines provided to BHUs are of low quality and also insufficient to meet the requirement of the target population therefore, the government should provide good quality medicines and in good quantity to the BHUs.

2) Provision of Medical equipment:

There is a shortage of equipment in the BHUs; even the very basic instruments are not available in the BHUs. Therefore, it is necessary that the government should provide basic medical instruments to the BHUs.

3) Proper place:

Environment & location of the BHU should be improved. Most of the BHUs are built at surplus value prices of land, 60% were built outside the villages and in graveyards. When establishing a BHU, the department should purchase suitable land. These should be near to the main road. This will attract doctors for working and living in the premises of BHUs and public would also be benefited as they will have easy access to the BHUs.

4) Appointment of female doctor:

Almost fifty percent of the populations of our country are female. They have their own problems. They hesitate to tell their problems to male doctors.

In the BHUs only LHVs are appointed, they are also in-experienced. So, along with male medical officers, a female medical officer should also be appointed in each BHU. Both will work as a team and this may help to overcome the health problems of the public.

5) Mass Awareness:

About 60% of the population of our country is illiterate. So, they have no knowledge about the BHUs, or health services in the BHUs. The mass awareness of public is very necessary through print media (Newspaper etc.) and electronic media (TV, Radio etc.) by the government about provision of health facilities in the BHUs

6) Check and Balance:

There is not a strict check on the doctors or other staff working in these BHUs. The concerned high authorities should pay surprise visits to BHUs in a month or two to regularize the performance and efficiency of the staff members.

7) Home visits:

In most of the areas the LHVs did not pay home visits which results in the misconception of the community about the health outlets. LHVs should be made to visit the expectant mothers over a month to give them information's about hygiene and also about caring and rearing of their children.

8) Proper security to LHVs'

The government should provide the security to the staff members but especially to the LHVs while working in the field.

9) Transportation:

There is no transport facility available to the staff of the BHUs. In a result the far most areas are left without the visits. The government should arrange the transport facilities to the staff, who are working in the field, to improve the health condition of the masses.

10) Avoid political interference:

In most of the BHUs there is a political war against the villages. The government should discourage the politics in the BHUs.

11) Training to doctors:

When a doctor is appointed in the BHU. He does not know the functions and importance of the BHU. It is the duty of the government to give them such knowledge about the BHU and have a brief description about their duty while appointing them.

12) Local Leadership:

The concepts of local bodies are not new in our country. The elected local representatives should arrange free medical camps and also the mass awareness programmes regarding the importance and services of BHUs.

## Annexure

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**Interview Schedule****(Beneficiaries)**

Respondent No. \_\_\_\_\_

1. Gender
  - a) Male \_\_\_\_\_
  - b) Female \_\_\_\_\_
2. Age:
  - a) 10 – 20 years
  - b) 20.1 – 30 years
  - c) 30.1– 40 years
  - d) 40.1 – 50 years
  - e) 50.1- 60 years
  - e) 60.1 and above
3. Educational qualification:
  - a) Literate \_\_\_\_\_
  - b) Illiterate \_\_\_\_\_
4. If literate, level of literacy?
  - a) Primary
  - b) Middle
  - c) High
  - d) Matric
  - e) FA
  - f) BA
  - g) Masters
  - h) Any other
5. Marital status:
  - a) Married \_\_\_\_
  - b) Unmarried \_\_\_\_
6. Type of family:
  - a) Nuclear
  - b) Joint
  - c) Extended
7. Number of family members:
  - a) 1-5
  - b) 6-10
  - c) 11-15
  - d) 16-20
  - e) 21 and above
8. Employment:
  - a) Unemployed
  - b) Govt. employed

- c) Labour/Daily Wager      d) Farmer
- e) Own Business      f) Private job      g) House Wife
9. Monthly Income:
- a) Up to Rs.5000 P/M      b) Rs.5001 – 10,000 P/M
- c) Rs.10, 001 – 15,000 P/M      d) Rs.15, 001 – 20,000 P/M
- e) Rs.20, 001 & above
10. Have you suffered from any disease in the last 3 months?
- a) Yes \_\_\_\_\_      b) No \_\_\_\_\_
11. If yes, what type of disease?
- a) Headache      b) Fever      c) Malaria
- d) Cough and flue      e) Vomiting      f) Diahoria
- g) Any other \_\_\_\_\_
12. From where you got the treatment?
- a) Civil hospital      b) Dispensary
- c) RHC      d) Private Practitioner
- e) BHU      f) Hakim
- g) Maulvi      h) Homeopathic
- i) DHQ
13. How much the distance between your home and BHU?
- a) 1-3 km      b) 3.1-6 km      c) 6.1 km and above
14. How you approach to the BHU?
- a) By feet      b) By Tanga      c) By Bus
- d) Any other \_\_\_\_\_

15. Did you go to BHU for treatment?  
a) Yes \_\_\_\_\_ b) No \_\_\_\_\_
16. If yes, what services rendered at BHU?  
a) Health treatment  
b) Preventive care  
c) Curative care  
d) Any other please specify\_\_\_\_\_
17. Did you get full attention of the doctor and other staff members?  
a) Yes \_\_\_\_ b) No \_\_\_\_ c) Do not know\_\_\_\_\_
18. If no, what type of problem you face when visit to the BHU?  
a) Not available at the time of need  
b) Do not pay much attention by the staff  
c) Unavailability of essential drugs  
d) The doctor was absent  
e) Any other please specify\_\_\_\_\_
19. For how many times you gone to BHU for treatment in the last six months?  
a) One time  
b) Two time  
c) Several times
20. Are you satisfied with the services rendered at BHU?  
a) Yes \_\_\_\_ b) No \_\_\_\_ c) Do not know
21. If no, what is the reason?  
a) Lack of attention of the staff?

- b) Lack of medicine
  - c) Expensive
  - d) Services not available
  - e) Any other please specify\_\_\_\_\_
22. Do you get free medicine from the BHU?
- a) Yes \_\_\_\_\_ b) No \_\_\_\_\_
23. If no, why?
- a) Shortage of medicine
  - b) Low quality of medicine
  - c) Due to the harsh behavior of the staff members
  - d) Any other please specify\_\_\_\_\_
24. A poster with listed services, opening times and emergency times are displayed in a prominent in the BHU?
- a) Yes \_\_\_ b) No \_\_\_ c) Don't Know
25. The language of the poster is in National/Local language.
- a) Yes \_\_\_ b) No \_\_\_ c) Don't Know
26. Do the health care providers listen and treated in a kind, patients and respectable manner at all stages of services to you?
- a) Yes\_\_\_\_\_ b) No\_\_\_\_\_ c) Do not know\_\_\_\_\_
27. Does the health care providers give priority to extremely sick patients and those of extreme age (early newborns and elderly).
- a) Yes\_\_\_\_\_ b) No\_\_\_\_\_ c) Do not know\_\_\_\_\_
28. Do the health care providers explain diagnosis, care management and follow up to you?
- a) Yes\_\_\_\_\_ b) No\_\_\_\_\_ c) Do not know\_\_\_\_\_

29. Do the health care providers take feedback from you to ensure that you understand the message?  
a) Yes \_\_\_\_\_ b) No \_\_\_\_\_ c) Do not know \_\_\_\_\_
30. Does the health care providers use a defined process for referring emergency cases?  
a) Yes \_\_\_\_\_ b) No \_\_\_\_\_ c) Do not know \_\_\_\_\_
31. How much time you wait after reached to the BHU?  
\_\_\_\_\_  
\_\_\_\_\_.
32. Is there is the waiting area available for the patients?  
Yes \_\_\_\_\_ b) No \_\_\_\_\_
33. If available, then it is protected from sun, rain?  
Yes \_\_\_\_\_ b) No \_\_\_\_\_
34. Are there separated waiting area for male and female?  
Yes \_\_\_\_\_ b) No \_\_\_\_\_
35. Chairs/Bench is available in the waiting area?  
Yes \_\_\_\_\_ b) No \_\_\_\_\_
36. Separate Latrines/Toilets available for male/female?  
Yes \_\_\_\_\_ b) No \_\_\_\_\_
37. Are health care providers ensuring privacy at the time of consultation?  
Yes \_\_\_\_\_ b) No \_\_\_\_\_
38. If yes, whether the consultations and examinations are held behind screens all the time?  
Yes \_\_\_\_\_ b) No \_\_\_\_\_
39. Are you aware of group health education sessions?  
Yes \_\_\_\_\_ b) No \_\_\_\_\_

40. If yes, have you attended that session?  
Yes\_\_\_\_\_ b) No\_\_\_\_\_
41. Do the health care providers use the following materials during the educational/counseling sessions?  
a. Posters      b. Family Planning materials      c. Brochures      d. Leaflets  
e. Flipcharts      f. Cue Cards
42. Do the health care providers give you the health education materials for reading and taking to home?  
Yes\_\_\_\_\_ b) No\_\_\_\_\_
43. Are the health care providers/dispensers instruct patients about:  
a. Medication              b. Amount of medication to take  
c. Time of using the medicine      d. Duration of the course.
44. Did you know the LHV, LHW's of your BHU's?  
a) Yes\_\_\_\_\_ b) No\_\_\_\_\_ c) Do not know\_\_\_\_\_
45. Does the LHV visits your home regularly?  
a) Yes\_\_\_\_\_ b) No\_\_\_\_\_ c) Do not know\_\_\_\_\_
46. If yes?  
a) Weekly \_\_\_\_\_      b) Monthly \_\_\_\_\_      c) Twice a year \_\_\_\_\_
47. Do you have any knowledge regarding Health Committee/Supporting Group?  
a) Yes\_\_\_\_\_ b) No\_\_\_\_\_ c) Do not know\_\_\_\_\_
48. If yes, whether you are a member of that Committee?  
a) Yes\_\_\_\_\_ b) No\_\_\_\_\_ c) Do not know\_\_\_\_\_
49. Whether it includes Local Govt. representative, Staff and Local community?  
a) Yes\_\_\_\_\_ b) No\_\_\_\_\_ c) Do not know\_\_\_\_\_

50. Whether they met regularly and they set an agenda for next meeting?  
a) Yes \_\_\_\_\_ b) No \_\_\_\_\_ c) Do not know \_\_\_\_\_
51. Do you know the doctor of your BHU?  
a) Yes \_\_\_\_ b) No \_\_\_\_
52. Does he perform his duty regularly?  
a) Yes \_\_\_\_\_ b) No \_\_\_\_\_ c) Do not know \_\_\_\_\_
53. What is the attitude of the staff towards beneficiaries?  
a) Good            b) Harsh            c) Indifferent    e) Sympathetic
54. Do you agree with that the “BHU which serves the people in proper way”?  
a) Yes \_\_\_\_ b) No \_\_\_\_
55. Give suggestion to improve the BHU’s condition?  
a) \_\_\_\_\_  
b) \_\_\_\_\_  
c) \_\_\_\_\_

## INTERVIEW SCHEDULE

### Non-Beneficiaries

Respondent No. \_\_\_\_\_

1. Age:
  - a) 10 – 20 years                      b) 20 – 30 years                      c) 30 – 40 years
  - d) 40 – 50 years                      e) 50 years & above
  
2. Educational qualification:
  - a) Literate \_\_\_\_                      b) Illiterate \_\_\_\_
  
3. If literate, level of literacy?
  - a) Primary                      b) High                      c) Intermediate
  - d) Graduate                      e) P/graduate
  
4. Marital status:
  - a) Married \_\_\_\_                      b) Unmarried \_\_\_\_
  
5. Type of family:
  - a) Nuclear                      b) Joint                      c) Extended
  
6. Number of family member: \_\_\_\_\_
  
7. Employment:
  - a) Never employed                      b) Govt. employed
  - c) Skilled labour                      d) Farmer                      e) Student
  
8. Income:
 

a) Upto Rs.1000/-p/.m	<input type="checkbox"/>	b) Rs.1001 – 2000	<input type="checkbox"/>
c) Rs.2001 – 3000	<input type="checkbox"/>	d) Rs.3001 – 4000	<input type="checkbox"/>
e) Rs.4001 & above	<input type="checkbox"/>		

9. Do you know about the health services available in your area?

a) Yes \_\_\_ b) No \_\_\_

10. If no, why?

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11. Have you suffered from any disease in the last 3 months?

a) Yes \_\_\_ b) No \_\_\_

12. If yes, what do you do?

a) Go to private doctor/practitioner

b) Go to RHC/BHU

c) Go to DHQ Hospital

d) Any other \_\_\_\_\_

13. Why you do not go to your BHU's?

a) Because of not qualified doctors.

b) He does not perform his duty.

c) No quality medicine are given there.

d) You are not aware of your BHU.

e) Any other \_\_\_\_\_

14. Give suggestions for the improvement of BHU?

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**QUESTIONNAIRE****(For Management/Health Care Providers)**

Respondent No. \_\_\_\_\_

1. Age: \_\_\_\_\_
2. Designation: \_\_\_\_\_
3. Do you know the definition of health defined by WHO?  
a) Yes \_\_\_\_ b) No \_\_\_\_
4. Do you have known the function of BHU's?  
a) Yes \_\_\_\_ b) No \_\_\_\_
5. Do you have conduct any training on primary health?  
a) Yes \_\_\_\_ b) No \_\_\_\_
6. Do you have your job description while working in BHU?  
a) Yes \_\_\_\_ b) No \_\_\_\_
7. If no, why?
  - a) On behalf of Government
  - b) Lack of training
  - c) Lack of interest
  - d) Any other
8. Are you living in the same village?  
a) Yes \_\_\_\_ b) No \_\_\_\_
9. If no, how far is it from this village?

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10. Have you any transport facility?

- a) Personal                      b) Government                      c) Private

11. Are you getting any extra transport allowance by the govt?

- a) Yes \_\_\_\_                      b) No \_\_\_\_

12. If yes, how much?

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13. What is your monthly salary?

- a) Rs.10000 PM                      b) Rs.10001 – 15,000PM  
c) Rs.15001 – 20,000PM                      d) Rs.25,000 – 30,000PM  
e) Rs.30,001 & above PM

14. Are you doing any private practice?

- a) Yes \_\_\_\_                      b) No \_\_\_\_

15. What is your total monthly income from all resources?

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16. Are you satisfied with your job? Salary and facilities.

- a) Yes \_\_\_\_                      b) No \_\_\_\_

17. If no, why?

- a) Pay scale is very low  
b) Career opportunity  
c) Improvement in qualification  
d) Facilities/services provided to staff

18. What facilities provide to you by the govt. in your area?
- a) Home
  - b) Electricity & Telephone
  - c) Transport facility
  - d) No thing
19. Are you satisfied from your monthly salary?
- a) Yes \_\_\_\_
  - b) No \_\_\_\_
20. Do you think that your low pay & lack of facilities affect your performance?
- a) Yes \_\_\_\_
  - b) No \_\_\_\_
21. If yes, how?
- a. You cannot pay full attention to patient.
  - b. Your attitude with patient is negative
  - c. Any other
22. What facilities of treatment are available here?
- a. Indoor treatment
  - b. Outdoor treatment
  - c. Health education
  - d. Any other
23. How will you compare the treatment facilities given in rural areas as compared with urban areas?
- a) Good
  - b) Satisfactory
  - c) Normal
  - d) Worse
24. Primary care management committee exists in your BHU?
- a) Yes \_\_\_\_
  - b) No \_\_\_\_
25. If yes, whether it includes local govt. representatives, staff and community?
- a) Yes \_\_\_\_
  - b) No \_\_\_\_

26. Whether they meet regularly and they set an agenda for next meeting?

a) Yes \_\_\_                      b) No \_\_\_

27. Does the monthly HMIS is submitted to the EDO health.

a) Yes \_\_\_                      b) No \_\_\_

28. Do the patient information is registered, coded, analyzed and used as a  
Mechanism for monitoring and planning

a) Yes \_\_\_                      b) No \_\_\_

29. Are the health workers provided with the following functioning equipments?

<b>S.No</b>	<b>Name of the Equipment</b>	<b>Comments</b>
a)	Thermometer	Yes/No
b)	Stethoscope	Yes/No
c)	BP Machine	Yes/No
d)	Screen for privacy	Yes/No
e)	Gloves	Yes/No
f)	Masks	Yes/No
g)	Apron	Yes/No
h)	Baby weighing scale	Yes/No
i)	Speculum	Yes/No
j)	Refrigerator	Yes/No
k)	Stools	Yes/No
l)	Equipment for boiling/Sterilizer	Yes/No
m)	Dressing drum	Yes/No

xiv	Adult weighing scale	Yes/No
xv	Nebulizer	Yes/No
xvi	Suction machine	Yes/No
xvii	Oxygen cylinder	Yes/No
xviii	X-ray viewer	Yes/No
xix	Needle safety box	Yes/No
xx	ENT diagnostic set	Yes/No

30. Is there is a reliable, clean and safe supply of water from a protected water source?

a) Yes \_\_\_                      b) No \_\_\_

31. Is there is the waiting area available for the patients?

Yes \_\_\_\_\_ b) No \_\_\_\_\_

32. If yes, then the waiting area is clean and protected.

a) Yes \_\_\_                      b) No \_\_\_

33. Do the facility have clean latrines or toilets?

a) Yes \_\_\_                      b) No \_\_\_

34. Do the patient feedback is collected and used to improve services?

a) Yes \_\_\_                      b) No \_\_\_

35. Do the patients have the right to complain about services and treatment?

a) Yes \_\_\_                      b) No \_\_\_

36. If yes, then there complaints are investigated in a fair and timely manner?

a) Yes \_\_\_                      b) No \_\_\_

37. Do the patients are informed about the complaints and their outcome?

a) Yes \_\_\_\_                      b) No \_\_\_\_

38. Do your BHU have the following facilities?

<b>Sr. No</b>	<b>Name of the Facility</b>	<b>Comments</b>
a)	Electricity	Yes/No
b)	Natural Gas	Yes/No
c)	Backup generator and Budget for its maintenance is available?	Yes/No
d)	A stretcher and two examination couches available?	Yes/No

39. National and provincial treatment guidelines for the priority illness are available at the faculty?

a) Yes \_\_\_\_                      b) No \_\_\_\_

40. The privacy of the patients is ensured during consultation and examination?

a) Yes \_\_\_\_                      b) No \_\_\_\_

41. Do you have monitored the following procedures when a patient comes to BHU:

<b>Sr. No</b>	<b>Procedure</b>	<b>Comments</b>
a)	The registration chit is available	Yes/No
b)	The time of patient's arrival documented and monitored in registration chit	Yes/No
c)	Basic assessment includes temperature, blood pressure and symptom identification is undertaking?	Yes/No
d)	Patient's history is taken and documented	Yes/No
e)	Referrals to other services are made when needed	Yes/No
f)	Results of previous care are used in follow up visits?	Yes/No

42. All children who visit the facility have gone through the following process:

Sr. No	Process	Comments
a)	Are all under 5 children coming to the facility are weighed?	Yes/No
b)	Weight is plotted on the Child's card and follow up action taken based on the plot?	Yes/No
c)	Immunization status is checked and missing immunization given?	Yes/No
d)	Weight and vaccination's information are given to the parents?	Yes/No

43. Are health care providers conduct health education sessions at least 4 times a month?

a) Yes \_\_\_                      b) No \_\_\_

44. Health education messages are posted at prominent places at facility?

a) Yes \_\_\_                      b) No \_\_\_

45. Are health care providers washed hands between patients and between procedures?

a) Yes \_\_\_                      b) No \_\_\_

46. Disposal systems and processing for single use items are available and used?

a) Yes \_\_\_                      b) No \_\_\_

47. A poster with listed services, opening times and emergency times is available and displayed in a prominent place?

a) Yes \_\_\_                      b) No \_\_\_

48. What do you think about drug supply? Is it sufficient to meet the requirement of this BHU?

a) Yes \_\_\_                      b) No \_\_\_

49. If no, then how do you arrange for medicine?

- a) From donation
- b) Patients purchase medicine
- c) Welfare agencies provide

50. Is there any process for checking date of expiry in the facility?

- a) Yes \_\_\_                      b) No \_\_\_

51. The cold chain for vaccines is available and maintained properly?

- a) Yes \_\_\_                      b) No \_\_\_

52. Do the patients listen to your advice & cooperate with you?

- a) Yes \_\_\_                      b) No \_\_\_

53. What is the attitude of the beneficiaries toward you?

- a) Positive \_\_\_\_\_      b) Negative \_\_\_\_\_

54. If negative why? Tick any one.

- a.      Because they are not satisfied with treatment facilities.
- b.      Because they are not satisfied of the working staff.
- c.      They are illiterate

55. Do you pay home visits?

- a) Yes \_\_\_                      b) No \_\_\_

56. If yes,

- a) Weekly              b) Monthly      c) Twice a year

57. What type of patients mostly visits BHU?

- a)      Poor (economically)
- b)      Wealthy

58. Are you satisfied from the medicine provided by Govt.?

- a) Yes \_\_\_                      b) No \_\_\_

59. Have you ever referred the patients to the RHC or DHQ hospital?

- a) Yes \_\_\_                      b) No \_\_\_

60. If yes, how many per week?

a) 1 – 5

b) 6 – 10

c) More than 10

61. Is there any transportation for the referral patients available in the facility?

a) Yes \_\_\_\_

b) No \_\_\_\_

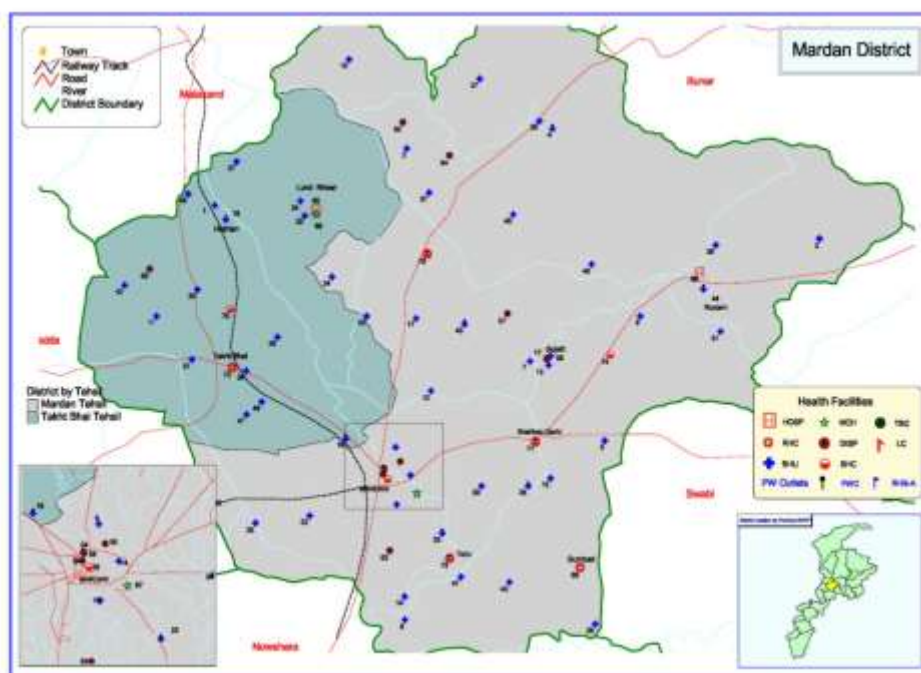
62. Give some suggestions to improve the conditions of BHU?

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### Map of District Mardan, Khyber Pakhtunkhwa (Census Report, 1998)



#### Profile of District Mardan according to Census, 1998

Area	1632 square kilometers
Population	1.9 million
Households	587790
Tehsils	Mardan, Katlang (2) and Takht Bhai (1)
Villages	1662
Union Councils	75
Union Councils of Tehsil Mardan	57
Union Council of Tehsil Takht Bhai	18
Density	945 person/square kilometer
Annual Growth Rate	3.0%
Literacy Rate	47%

### Union Council wise breakup of Population

Union Councils	Population			
	No	Male	Female	Total
Urban	15	169677	163023	332700
Rural	60	831072	798481	1629553
<b>Total</b>	<b>75</b>	<b>1000749</b>	<b>961504</b>	<b>1962253</b>

Source: District Health Profile. (2009), PAIMAN Alumni Trust, Islamabad

### Urban Union Councils, District Mardan

Sr.#	Urban Union Councils, District Mardan			
	Name of U/C	Male	Female	Total Population
1.	Bijligar	16292	15654	31946
2.	Bughdada	10494	10082	20576
3.	Cantt Mardan	4505	4328	8833
4.	MMC	8517	8183	16700
5.	Sharif Abad	9847	9460	19307
6.	Ward No. 12 Guli Bagh	15729	15112	30841
7.	Ward No. Check Hoti	9946	9556	19502
8.	Ward No. Daga Piran	10370	9963	20333
9.	Ward No. Kas Koruna	21017	20193	41210
10.	Ward No. Khaksar	8811	8465	17276
11.	Ward No. Khan Koti	11306	10862	22168
12.	Ward No. Sikandari	10093	9697	19790
13.	Ward No.10 Babu Mahala	9555	9180	18735
14.	Ward No.2 Bicket Gung	13740	13201	26941
15.	Ward No.2 DHQ Bari Cham	9456	9086	18542
<b>Total</b>		<b>169677</b>	<b>163023</b>	<b>332700</b>

Source: District Health Profile. (2009). PAIMAN Alumni Trust, Islamabad

**Rural Union Councils, District Mardan**

Sr.#	Rural Union Councils, District Mardan			
	Name of U/C	Male	Female	Total Population
1.	Akbar Abad	14219	13661	27880
2.	Alo	9311	8945	18256
3.	Aman Kot	6370	6120	12490
4.	Babuzai	8191	7870	16061
5.	Baghicha Dehri	7684	7382	15066
6.	Baizo Kharkai	9300	8935	18235
7.	Bakhshali	13091	12577	25668
8.	Charbanda	7079	6801	13880
9.	Chargulli	13337	12814	26150
10.	Check Mardan	13435	12908	26343
11.	Dheri Lekpani	15599	14988	30587
12.	Fathma	13353	12830	26183
13.	Galyara	12322	11838	24160
14.	Ghari Daultzai	10081	9686	19767
15.	Ghari Ismailzai	13088	12575	25663
16.	Chala Dher	9895	9506	19401
17.	Gujar Ghari	31048	29831	60879
18.	Gujrat	11598	11143	22741
19.	Gumbat	12954	12446	25400
20.	Hathian	14256	13696	27952
21.	Jalala	12401	11914	24315
22.	Jamal Ghari	12264	11783	24047
23.	Jamra	9093	8737	17830
24.	Kata Khat	16457	15811	32268
25.	Kati Ghari	13578	13046	26624
26.	Katlung	22560	21675	44235
27.	Khazana Dehri	15128	14535	29663

28.	Kodinka	11309	10866	22175
29.	Kohi Barmol	10404	9996	20400
30.	Kot Ismail Zai (Batgram)	9991	9599	19590
31.	Kot Jungara	14825	14243	29068
32.	Lund Khwar	27480	26403	53883
33.	Machi	10455	10045	20500
34.	Manga	12495	12005	20500
35.	Mayar	14964	14378	29342
36.	Mian Issa	9996	9604	19600
37.	Mian Khan	7219	6935	14151
38.	Mian Killi	18802	18065	36867
39.	Miangano Killi	10626	10210	20836
40.	Mohib Banda	12750	12250	25000
41.	Muhabat Abad	18233	17518	35750
42.	Nari Baja	13155	12640	25795
43.	Palo Dehri	8007	7693	15700
44.	Par Hoti	21736	20884	42620
45.	Parkho Dehri	13270	12750	26020
46.	Pir Saddo	13088	12575	25663
47.	Qasam	7652	7352	15004
48.	Qasmi	9333	8967	18300
49.	Rustum	37481	36011	73492
50.	Rustum Baazar	14699	14123	28822
51.	Sari Behlol	15667	15053	30720
52.	Sawal Dher	17922	17220	35142
53.	Shahbaz Ghari	17302	16623	33925
54.	Shamat Poor	9360	8992s	18352
55.	Shamozai	15518	14910	30428
56.	Shergarh	14272	13712	27984s
57.	Sheikh Yousaf	13520	12990	26510

58.	Takht Bhai	21490	20647	42137
59.	Takkar	12393	11907	24300
60.	Toru	17967	17263	35230
	<b>Total</b>	<b>831072</b>	<b>798481</b>	<b>1629553</b>

Source: District Health Profile. (2009). PAIMAN Alumni Trust, Islamabad

### District Mardan (Union Council Wise Map)



Source: Mardan (2012). National Commission for Human Development (NCHD)  
Islamabad: Government of Pakistan

### Total Number of BHUs in District Mardan

S. No.	Name of BHU	Tehsil	Catchments Population	Household Size
<b>Tehsil Mardan</b>				

1.	BHU ALO	Mardan	10580	1322.5
2.	BHU AMAN KOT	Mardan	11980	1497.5
3.	BHU BABOZAI	Mardan	9804	1225.5
4.	BHU BAGHICHADHERI	Mardan	11867	1483.375
5.	BHU BAGO BAND	Mardan	9980	1247.5
6.	BHU BAKHSHALI	Mardan	12705	1588.125
7.	BHU CHAR BANDA	Mardan	9201	1150.125
8.	BHU CHARGULI	Mardan	13090	1636.25
9.	BHU CHECK MARDAN	Mardan	8765	1095.625
10.	BHU DHERI LAKPANI	Mardan	9101	1137.625
11.	BHU FATIMA	Mardan	10900	1362.5
12.	BHU GARHI ISMAIL ZAI	Mardan	11567	1445.875
13.	BHU GHALADHER	Mardan	12008	1501
14.	BHU GHARI DAULATZAI	Mardan	10920	1365
15.	BHU GUJAR GARHI	Mardan	23039	2879.875
16.	BHU GULYARA	Mardan	11980	1497.5
17.	BHU JAMAL GARHI	Mardan	37834	4729.25
18.	BHU KATA KHAT	Mardan	8623	1077.875
19.	BHU KATHI GHARI	Mardan	9804	1225.5
20.	BHU KHAZANA DHERI	Mardan	10987	1373.375
21.	BHU KODINAKA	Mardan	9978	1247.25
22.	BHU KOHI BARMOL	Mardan	12300	1537.5
23.	BHU KOT ISMAIL ZAI	Mardan	10749	1343.625
24.	BHU MACHAI	Mardan	8750	1093.75
25.	BHU MANGA	Mardan	9549	1193.625
26.	BHU MAYAR	Mardan	14598	1824.75
27.	BHU MIAN ISA	Mardan	11778	1472.25
28.	BHU MIAN KHAN	Mardan	8209	1026.125
29.	BHU MOHABAT ABAD	Mardan	8903	1112.875
30.	BHU MOHIB BANDA	Mardan	10820	1353.5
31.	BHU PALO PEHRI	Mardan	30985	3873.125
32.	BHU QASAM	Mardan	9904	1238
33.	BHU RUSTAM	Mardan	11203	1400.375
34.	BHU SHAMATPUR	Mardan	8870	1108.75
35.	BHU SHAMOZAI	Mardan	10115	1264.375
36.	BHU SHEIKH YOUSAF	Mardan	10005	1250.625
37.	BHU SWALDHER	Mardan	12060	1507.5

#### **Tehsil Takht Bhai**

1.	BHU AKBAR ABAD	Takht Bhai	9760	1220
2.	BHU HATTIAN	Takht Bhai	14750	1843.75
3.	BHU IKRAM PURA (BAIZO KHARKAI)	Takht Bhai	10700	1337.5
4.	BHU JALALA	Takht Bhai	13450	1681.25
5.	BHU JAMRA	Takht Bhai	9915	1239.375

6.	BHU KOT JUNGARA	Takht Bhai	9130	1141.25
7.	BHU LUND KHAWAR	Takht Bhai	15076	1884.5
8.	BHU MIAN KILLI	Takht Bhai	8945	1118.125
9.	BHU MAINGANO KILLAY	Takht Bhai	10980	1372.5
10.	BHU PARKHO DHERI	Takht Bhai	8872	1109
11.	BHU PEER SADO	Takht Bhai	10600	1325
12.	BHU SERI BEHLOL	Takht Bhai	8712	1089
13.	BHU TAKHAR	Takht Bhai	9857	1232.125
<b>Total</b>			<b>594258</b>	<b>74282.25</b>

**Source: Health Sector Reforms Unit, Govt of Khyber Pakhtunkhwa, Pakistan and District Health Information System, Executive Health Officer, Mardan**

