

# The Afghan Community Health Worker Program: a health systems analysis of a population health intervention

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## Abstract

To tackle one of the world's worst maternal, neonatal and child health outcomes and a chronic shortage of human resources for health, the Afghan Ministry of Public Health deployed volunteer Community Health Workers (CHW) in rural areas of Afghanistan in 2003. This thesis documents the Afghan CHW program, exploring organizational and community contexts. The research design in this study is a mixed methods case study.

The actual Afghan CHW program was situated with an Afghan complex adaptive health system, mainly guided by the policy of the health system but was also largely influenced by the power and gender dynamics of the community context in which it was implemented. The tasks of CHWs were numerous but CHWs role was more than just the sum of their tasks; they occupied a unique location juxtaposed between formal and informal HRH systems. It is important to acknowledge the assembly of so many national and international organizations in achieving a shared goal of providing health services to a large population in an unstable and partially insecure environment. The shared goal in the Afghan context may have been interpreted only in terms availability of services, though the goal carries with it, either explicitly or implicitly, the values of effectiveness, efficiency, timeliness, and costliness – known as quality by some participants of this study. The community component was another layer of the complex adaptive system that made up the Afghan CHW program. Political-ethnic power in the community and legal-rational authority of the health system influenced the way communities were mapped in an inequitable manner, in turn, contributed to the unfair distribution of resources to the populations.

Finally, the intersection of the gender equity approach and the gendered nature of the work as a cross-cutting layer added to the complexity of the Afghan health system.

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**This thesis is dedicated to**

My parents, the two towers of my strength

به دو قوت قلبم – مادرم و پدرم

and

The Community Health Workers of Afghanistan, the invisible army of health in rural  
Afghanistan

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## Acronyms

AADA	Agency for Assistance and Development of Afghanistan
ACTD	Afghanistan Center for Training and Development
AHDS	Afghanistan Health and Development Services
AIL	Afghanistan Institute of Learning
AKDN	Aga Khan Development Network
AMI	Aide Medicale Internationale
AMS	Afghanistan Mortality Survey
ANC	Antenatal Care
ANPHI	Afghanistan National Public Health Institute
ARI	Acute Respiratory Infection
BARAN	Bu Ali Rehabilitation and Aide Network
BDN	Bakhter Development Network
BHC	Basic Health Center
BPHS	Basic Package of Health Services
BRAC	Bangladesh Rural Advancement Committee (The BRAC)
CAAC	Catchment Area Annual Census
CAF	Care for Afghan Families
CBHC	Community-Based Health Care
CD	Communicable Disease
CHA	Coordination of Humanitarian Assistance
CHC	Comprehensive Health Center

CHS	Community Health Supervisor
CHW	Community Health Workers
DAC	Danish Afghanistan Committee
DFATD	Department of Foreign Affairs, Trade and Development
DH	District Hospital
EoI	Expression of Interest
EPHS	Essential Package of Health Services
EPI	Extended Program on Immunization
EU	European Union
FHAG	Family Health Action Group
FHC	Facility Health Council
GCMU	Grant and Contract Management Unit
HDI	Human Development Index
HMIS	Health Management Information System
HN-TPO	Healthnet-Transcultural Psychosocial Organization
HP	Health Post
HRH	Human Resources for Health
HSC	Health Sub-Center
IMC-UK	International Medical Corps – United Kingdom
IMCI	Integrated Management of Childhood Illness
iNGOs	International Non-Governmental Organization
MAAR	Monthly Aggregated Activity Report
MAR	Monthly Activity Report

MM	Maternal Mortality
MMR	Maternal Mortality Ratio
MNCH	Maternal, Neonatal and Child Health
MoPH	Ministry of Public Health
MOVE	Move Welfare Organization
MRCA	Merlin Medical Refresher Course for Afghanistan
NCD	Non-Communicable Disease
NDR	Normal Delivery Referral
NGO	Non-Governmental Organization
NICA	Negotiated Indirect Cost Agreement
nNGOs	National Non-Governmental Organization
NNM	Neonatal Mortality
OCR	Obstetric Complication Referral
ORS	Oral Rehydration Solutions
PHC	Primary Health Care
PNC	Postnatal Care
RfP	Request for Proposal
SAF	Solidarity for Afghan Families
SCA	Swedish Committee for Afghanistan
SDO	Sanayee Development Organization
SEHAT	System Enhancement for Health Action in Transition
SWC	Simon Wiesenthal Center
TB	Tuberculosis

TBA	Traditional Birth Attendant
TT	Tetanus
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Child Fund
USAID	United States Agency for International Development
VHC	Village Health Council
WB	World Bank
WHO	World Health Organization

## Chapter 1. Introduction

In 2004, when a national health program needed a community volunteer in Habashi, a remote village in the mountainous central province of Bamyan, Afghanistan, a woman in her 40s stepped up. Khaala Khurshid (Khurshid Aunty – Khurshid means the sun in Persian) could not read or write; she had never attended a public school. The national health program provided six months of in-class and on-the-job training for the volunteer community members to become a Community Health Worker (CHW). The first challenge for her was to learn the work of a CHW, and then to learn to educate community members about personal and environmental hygiene, to prescribe medications for prevalent diseases among women and children, and to refer (encourage, motivate and cooperate with) patients to health facilities. The venue of the in-class training was around 10 kilometers away from her village – four hours walk both ways. Despite the challenges, she learned all the lessons through pictographs and practical training.

At the end of her training, she received a box of supplies and drugs to start undertaking her three main tasks: cure prevalent diseases, educate and counsel on personal and environmental hygiene, and refer (and sometimes take) patients to health clinics. Initially, the community did not trust her, expressing concerns whether she could provide the right medication, and the community did not believe the health messages she gave. After she successfully treated a few children with pneumonia and diarrhea, she earned respect from the community members. After she had saved a few women bleeding during labour with misoprostol (an anti-haemorrhagic) and basic hygiene, the community members started to question their long-held beliefs that evil ghosts possessed labouring women and forced them to bleed the dirty pregnancy blood. Pregnant women in the community found antenatal and postnatal care lifesaving. Community members began to listen to her advice on personal and public hygiene. Some even called her Khaala

Doctor (Dr. Aunty). In the meantime, she reported on her activities to the health clinic, where she was trained and was provided with drugs and supplies every month.

In 2008, Khaala Khurshid was invited to a ceremony at the provincial governor's office. After a speech by the female governor, she was invited on the stage and given a large notebook-size wood board, something written on it, as if with chalk. She was so overwhelmed on the stage with dozens of people applauding for her that she could not understand why she was given the board. The governor had asked her if she wanted to say something, and she said, "A lot of people call me Khaala Doctor in the village. If you give me some more training so I could treat more diseases, I would be thankful."

Walking back through a desert that led to her village, she once thought to throw away that piece of wood, as it was a burden to carry it for another one hour walk left to get home. But then it came to her that the wood could at least be used for fire in winter, so she kept it. When she got home, her husband, who had learned to read and write while serving in the Afghan army almost three decades ago, read the board and a few drops of tear ran through his face. He said to his wife, "You have become the best woman of the year." That was an award for the woman of the year in Bamyan Province of Afghanistan given to her on the 8<sup>th</sup> of March 2008, the International Woman's Day.



Khaala Khurshid and her husband at a Health Post in Habashi village, Bamyan

She may have been the only one to be awarded for her services, but there are around 13,000 female CHWs across the country, working alongside 13,000 male CHWs. All of them are working in villages to improve the lives of their fellow community members, in particular, women and children. They are the frontline volunteer health workers in the villages of Afghanistan – the first point of contact of the villagers with a health system. This Ph.D. thesis is about them – the CHWs of Afghanistan.

### **1.1 Statement of the problem**

In 2014, Afghanistan had a population of approximately 29.8 million people, with 46% below 15 years of age, and 4% above 60 years (Campbell et al., 2013; WHO, 2015). Life expectancy at birth was estimated to be 60 years, an increase from 47 in 2002 (WHO, 2015). Almost 76% of the population lived in rural areas, and over 60% of the population had improved drinking-water sources, but improved sanitation facilities remained as low as 30% (WHO, 2015). Women and children in Afghanistan had one of the lowest health statuses in the world. Maternal mortality ratio was 400 per 100,000 live births, compared with 170 regionally and 210 globally (WHO, 2015). Out of 1,000 live births, 36 newborns died before reaching their first month, 73 before reaching their first year, and 101 before reaching their fifth year – i.e., one out of ten dies before reaching their 5<sup>th</sup> birthday (Campbell et al., 2013). The fertility rate of 5.1 in Afghanistan was double the global average of 2.5 and contributes to both high maternal mortality and under-5 mortality (WHO, 2015).

Human resources for health remained scarce in most regions of the country in 2013. Overall, there were 1.9 physicians and 7.5 nurses and midwives per 10,000 people in 2013, most of whom were based in cities and big towns, with as high as 7.2 physicians per 10,000 people in cities, and as low as 0.6 physicians per 10,000 people in rural areas (Campbell et al., 2013). Midwives were also typically based in health clinics where they have the necessary medical equipment for service provision (Bick, 2007). In villages, where 76% of the people lived, CHWs were the first and often the only point of contact of villagers with the formal health system (Najafizada, Labonté, & Bourgeault, 2014). There were 26,000 CHWs (8.7 per 10,000 people) registered as volunteer health workers at the Ministry of Public Health in 2014 (Najafizada et al.,

2014a). Traditional Unani and Greek medical doctors, religious healers, traditional birth attendants and drug dispensers worked informally both in urban and rural areas (Wilson, 2011).

To tackle the discouraging maternal, neonatal and child health concerns and a chronic shortage of human resources for health, the Afghan Ministry of Public Health started deploying volunteer Community Health Workers in rural areas of Afghanistan in 2003. The CHW program, a component of a Basic Package of Health Services, had trained around 26,000 CHWs until 2014 (Najafizada et al., 2014). Though some studies have looked into the Basic Package of Health Services, in general (Ameli & Newbrander, 2008; Newbrander, Ickx, Feroz, & Stanekzai, 2014); there is a knowledge gap on the CHW program in Afghanistan and especially on community health workers as a significant health workforce for maternal, neonatal and child health in rural areas.

The literature on CHWs has been growing over the past decade. Yet, three knowledge gaps have been identified in the literature on the role of CHWs in developing countries: First, there is an overall shortage of research studies on the interaction of contextual factors on human resources for health at the community level and their impact on health workforce performance; second, there is a lack of documentation outlining country-wide experiences; finally, there is little evidence on how CHW programs impact maternal, neonatal and child health (Dawson & Gray, 2010). Evidence suggests that CHW programs do improve maternal, neonatal and child health, but rarely do studies explicate the ways through which the impact might happen (Lewin et al., 2006, 2010).

In this thesis, I explore a decade-long national CHW program, which has become a major component of a comprehensive and community-based primary health care. I analyze the contextual factors (policy level, management level, and community level) affecting the CHW

program and the CHWs as human resources for health in rural Afghanistan. Finally, I assess the relationship between the CHW program and maternal, neonatal and child health. The case in this thesis is the CHW program in rural Afghanistan.

### **1.2 Research objectives:**

The overall goal of this thesis is to describe and evaluate the national CHW program in Afghanistan with three objectives. The first objective is to describe the Afghan CHW program, with a specific focus on the adequacy of its recruitment, training, and support for CHWs. The second objective is to describe the interaction between the many different stakeholders at the policy, managerial and community level involved in the national CHW program. The third objective is to understand how CHWs contribute to maternal health in rural Afghanistan.

The complementary concepts that guide this thesis are equity in healthcare, health systems, primary health care, human resources for health, and gender inequity in healthcare. The Afghan CHW program is a component of a national community-based primary health care intervention, in other words, the cornerstone of the Afghan health system. Afghan CHWs are considered human resources for health in rural areas. The CHW program is intended to address geographical and gender inequity in health and healthcare. Thus, I draw on the three overlapping concepts in developing my research: primary health care, human resources for health, and health inequities.

Based on the conceptual guideline and the objectives, the following research questions guide this thesis.

#### Objective 1:

1. What is the structure of the Afghan CHW program?

#### Objective 2:

2. What is the organizational context of the Afghan CHW program and how do the organizations contribute to and influence the CHW program?
3. What is the community context in the Afghan CHW program and how is the community contribute to and influence the CHW program?
4. How are CHWs the human resources for health in rural Afghanistan?

Objective 3:

5. What is the relationship (a potential influence) of the national CHW program with maternal and neonatal health in rural Afghanistan?

To summarize, in this thesis I aim to 1) explore in details the structure of the national CHW program within the broader Afghan health system; 2) understand the community and organizational contexts (government, international agencies, national and international NGOs) influencing the implementation of the CHW program; and finally 3) analyze the relationship of the activities of the Afghan CHW program with maternal and neonatal health outcomes in rural Afghanistan.

The thesis is a mixed methods case study of the CHW program in Afghanistan, including a process and initial impact evaluation on outcomes. Case studies are an empirical inquiry that investigates a “contemporary phenomenon within its real-life context” when the “boundaries between the phenomenon and the context are not clearly evident”, and in which “multiple sources of evidence are used” (Yin, 2003, p.23). A process evaluation is a systematic, step-by-step process to examine all aspects of an intervention to produce data to support decision-making about ways to improve the intervention (Linnan & Steckler, 2004). An impact evaluation is a particular type of evaluation that seeks to identify the changes that are directly attributable to the

program, policy or project (Gertler, Premand, Martinez, Vermeersch, & Rawlings, 2010). The qualitative data I use to answer the research questions include document analysis, observation, and interviews with key stakeholders and community members, whereas the quantitative data include a large administrative dataset of maternal health outcomes from 2009 to 2013.

### **1.3 Background**

Afghanistan is a landlocked country situated at the crossroads of Central Asia, South Asia, and the Middle East. A mountainous country, the country shares borders with the Central Asian States of Tajikistan, Uzbekistan, and Turkmenistan, in the north; Xinjiang province of China, in the northeast; Iran in the west, and Pakistan in the east. More than 99.9% of Afghan people are Shiite and Sunni Muslims, leaving less than 0.1% of Hindus and Sikhs (Iacopino et al., 1998). Afghanistan has four major ethnic groups namely Uzbek, Tajik, Hazara and Pashtun and two languages namely Persian/Dari and Pashto with many other ethnicities and languages (Siddique, 2012). In the absence of accurate census data, determining the true percentage of various ethnic groups has been problematic and sometimes contentious (Siddique, 2012). Ethnic and religious conflicts were part of the civil war in the 1990s.

With a turbulent history, Afghanistan got its independence in 1919 from the British Empire. Not having a political doctrine of its own, King Amanullah Khan attempted to modernize the country. In the 1920s, Amanullah Khan reorganized the independent kingdom, changing it from the Islamic monarchy to a Kingdom where he was called the King, rather than the Ameer (Gregorian, 1967). Some social reform of his times (the 1920s) was the introduction of new criminal and civil codes, including a 1921 family code that banned child marriage, required judicial permission before a man took more than one wife, and removed some family law questions from the jurisdiction of mullahs. King Amanullah Khan's wife, Queen Soraya,

opened the first girls' school in Kabul, and the first Afghan magazine for women called "*Guidance for women*" (Robinson and Dixon, 2013), and the first hospital for women was opened at this time. Modern education was the initial step towards modernization, and King Amanullah founded three secondary schools, each with a foreign language as its medium of instruction; Istaqlal school in 1922 with a French faculty; The Nejat school in 1924 with a German faculty, and the Ghazi school with Anglo-Indian faculty (British since 1942). Habibia High School, established in 1907 by his father, employed American teachers. (Wilber, 1962, pp.84-85). In 1928, a Turkish physician to the court, Dr. Refiki, founded a school to train assistant doctors (Robinson and Dixon, 2013). King Amanullah had sent 50 girls to Turkey to study medicine, which had angered the tribesmen of Afghanistan, leading to a religious upheaval and overthrow of King Amanullah Khan.

Nader Khan of the Royal family overcame the tribesmen and became the king. He was cautious in modernizing the state and discussed all state affairs with religious leaders. Nader Khan and his son Zaher Khan ruled Afghanistan until 1978 controlling mainly the urban areas and leaving the rural areas to tribal structures. Public service during their times had been limited to urban areas, and little effort was made to expand services to rural areas. Despite slow development, some developments regarding health included the establishment of Kabul Medical University, the establishment of Masturat Hospital to provide services for women and children, and the establishment of Ministry of Public Health and setting up of Basic Health Centers in large towns, but covering less than 10% of the population. In 1973, a village health worker program was designed to expand health services to rural areas, but the progress was slow (Robinson and Dixon, 2013).

In the 1960s, socialist movements took root in Afghanistan, and the first socialist party was established in 1965 (Rasekh, Bauer, Manos, & Iacopino, 1998). In 1978, a revolution overthrew the king and Afghanistan became a republic. The Republic of Afghanistan attempted to expand its control, and with it the social and health services, into the rural areas. It established modern state-like institutions, replacing tribal and traditional structures, and asked for Soviet troops to assist, leading to the invasion of 1979. As part of the expanding state control, lands confiscated from feudal landlords were redistributed to farmers, modern schools replaced religious madrassas, health clinics replaced informal traditional healers, and girls were encouraged to attend schools. In doing so, the state faced strong resistance from tribal and religious structures in rural areas (Maley, 1993). Supported by the West, the tribes formed insurgency militias and fought the Russians in the mountains and rural areas first, and gradually in smaller towns and cities, until they overtook the entire country in 1991. After the collapse of the government in 1991, the religious militias, divided by ethnicity and religious sects, fought against one another over power sharing, turning Kabul into ruins. In 1994, the Taliban (meaning religious students) rose from the south of Afghanistan promising to put an end to the civil war and ethnic and religious civil war (Seddiq, Enarson, Shah, Haq, & Khan, 2014). The Taliban took Kabul in 1996 and established Sharia Law similar to that which had existed 1400 years earlier, and which banned women from education and work, and forced men to grow beards and shave their heads, and applied an extreme, radical interpretation of Islam on the Afghan society (Maley, 1997).

Between 1978 and 1991, social and health services had expanded to towns, cities, and some rural areas receptive of the Soviet-backed government (Ahmed-Ghosh, 2013). The rest of the country had sporadic services through civil society in the form of non-government

organization (NGOs) funded by donors and charities (Lipson, 1991). Between 1991 and 2001, the public services were almost non-existent. Instead, charity organizations and national and international NGOs operated on a humanitarian basis to provide some services infrequently to some parts of the country (CAF, ICC, AHED, & WHO, 2007; Iacopino et al., 1998; Maley, 1997).

The civil war of the 1990s destroyed much of the social infrastructure of the country including the health system (Sharp, Burkle, Vaughn, Chotani, & Brennan, 2002). More than two decades of civil conflicts had devastated the country, making it a safe haven for an extremist Islamic regime, the Taliban, famous for whipping women in public if they were to be seen walking alone outside or if any part of their body was uncovered, even their ankle (Beath, Christia, & Enikolopov, 2013). The Taliban deprived women of work and education (Beath et al., 2013). It was not because of the brutality of the Taliban on women that the world became interested in Afghanistan, however, but because of a political mistake – allegedly giving sanctuary to the Al-Qaeda leader, Osama Bin Laden, after September 11, 2001. The United States of America made many demands of the Taliban to hand over Osama Bin Laden, which were consistently rejected. In October 2001, the USA led an international intervention to capture Osama Bin Laden and topple the Taliban regime. The broader international community helped an Afghan resistance force in overthrowing the Taliban.

By December 2001, Afghanistan had an interim government formed on the basis of the 2001 Bonn agreement among various Afghan political factions inside and outside the country. Funded entirely by international donors, the interim government was tasked to pave the ground for a new constitution and a new government. A grand council of representative from across the country approved an Islamic Republic as the form of government and a free market economy.

Any state institutions including physical infrastructures or policies and procedures that remained in Afghanistan were from the Soviet-backed governments; these assumed responsibility for public services such as health, education, housing and transportation, and job creation. Building on the remnants of Soviet-backed institutions, the new state had to mix practices with new policies. In the absence of any major revenue and due to a heavy reliance on international donors, government ministries, including the Ministry of Public Health, had to design their policies according to the criteria set by donors such as contracting out health services to non-governmental organization and allowing investors to set up private hospitals and clinics. Combined with weak state institutions to oversee the equity of access and quality of health services, the result has been a surge in private hospitals in major cities, increased prices for quality services, if available, in major cities, and a decrease in access and quality of health services in rural areas. With free higher education in public universities, hundreds of medical doctors have been trained in the past decade, who ended up setting up private practices in cities. Health provision in rural areas has been left to traditional health providers, community midwives and nurses, and community health workers.

Busy with the internal challenge of institution building the government forgot that an armed opposition was on the rise. The Taliban, as an insurgent armed militia, were almost non-existent between the years of 2002 and 2005. They started to resurge after 2005. Weak judicial Afghan state institutions, and increased foreign support for the Taliban in the form of providing sanctuary, financing and arming have contributed to the resurge. Taliban's ability to capture and controls areas may have been diminished, but they have mainly focused on dramatic suicide bombing attacks in cities targeting foreign troops, Afghan army and government institutions. Through planting roadside bombs and random kidnapping, the Taliban have caused insecurity on

highways restricting mobility for government workers including Ministry of Public Health employees and NGO workers in certain areas of Afghanistan.

As part of the reconstruction process, rebuilding the Afghan health system was a joint effort of national and international organizations. The Afghan Ministry of Public Health (MoPH) became the steward, setting national health priorities and monitoring and evaluating the process. International organizations, mainly the United States Agency for International Development (USAID), the World Bank, and the European Commission, provided comprehensive financial, technical and advisory support. Non-governmental organizations, the providers of sporadic health services during the years of conflict, became the implementers of national health programs. The rebuilding of the health system started with the ultimate goal of providing health services to the population in “greatest need, especially women, children, the disabled, and those living in poverty in rural areas” (MoPH, 2005a, p. vii). Afghanistan has one of the lowest Human Development Index (HDI) in the world, in particular for social indicators pertaining to women. Only 6% of women in Afghanistan have secondary education, and their labour participation rate is 16% (UNDP, 2013). The culture of *purdah* (gender segregation) is practiced all over the country at differing levels, depending on various ethnicities, and with rural-urban differences (Beath et al., 2013).

#### **1.4 The Current Afghan CHW Program**

To be able to provide services to the 76% rural population and to overcome the country’s shortage of human resources for health, a Community Health Worker (CHW) program as a population health intervention became the cornerstone of comprehensive and community-based primary health care. The Afghan CHW program is part of the broader Basic Package of Health Services (BPHS), which is designed to provide universal health coverage to the rural population.

The Basic Package of Health Services is a comprehensive primary health care program that forms the foundation of the health system in rural Afghanistan. The structure of the package is hierarchal starting at the village level and ending at the district level. At the village level, there is a Health Post with two community health workers. At the district level, it has a District Hospital with professional staff and modern medical equipment. CHWs constitute the majority of the health workforce in the BPHS. According to the BPHS policy document, CHWs in Afghanistan are supposed to be volunteer members of a community, trained by organizations implementing the BPHS (a) to provide preventive and simple curative health care, (b) to refer ill members of the community to a nearby medical facility, and (c) to promote community-level initiatives to improve the health of the community (MoPH, 2005a). There are 26,000 CHWs registered with the Afghan Ministry of Public Health, who work out of their houses (a Health Post) to deliver basic health services (MoPH, 2005b). Although CHWs are volunteers, implementing organizations pay Afs150 (approx. 3 US dollars) to CHWs for their monthly visit to health facilities for refresher training or monthly meeting. Implementing organizations also remunerate some CHWs for particular infrequent services such as conducting a polio campaign and annual surveys, reporting TB cases and following up their treatment and selling certain health care products such as bed nets (BRAC, 2011).

The majority of the tasks of CHWs are geared towards improving maternal, neonatal and child health. Numerous factors contribute to poor maternal, neonatal and child health in rural Afghanistan. Direct causes of maternal morbidity and mortality are hemorrhage, obstructed labour, infection, high blood pressure, and unsafe abortion (Bartlett et al., 2005; Huber, Saeedi, & Samadi, 2010). Other factors such as a high fertility rate, low prevalence of contraceptive use, and lack of skilled birth attendants also contribute to high maternal morbidity and mortality in

Afghanistan (Ahmed, Edward, & Burnham, 2004; Viswanathan et al., 2010). Broader social determinants that negatively impact maternal, neonatal and child health are the low socioeconomic status of the population in rural areas, poor physical infrastructure specifically paved roads connecting rural areas with available resources, and cultural practices that prevent women from utilizing available health services (Azimi, Najafizada, Khaing, & Hamajima, 2015).

The historical background, recent development, and major population health problems in rural areas are taken into account throughout the research and helped the analysis of the data and the interpretations of the findings.

### **1.5 Outline of the thesis**

This thesis has two broad sections; a background and methodological section, and a findings and discussion section. The background and methodological section includes three chapters: the literature review, the conceptual approach, and the research design.

The second chapter, a literature review of CHW programs, includes a brief history of the CHW model followed by a description of CHW programs, who they are and what they do in a global context. I then provide a detailed description of previous CHW programs in Afghanistan. Next, I provide a brief review of the literature on the effectiveness of CHW programs on maternal, neonatal and child health. Finally, I summarize the state of knowledge and knowledge gaps on CHWs in the developing countries.

The third chapter explores the concepts guiding this thesis. The chapter starts with describing health systems, various definitions of a health system and building blocks of a health system. Then I explain the concept of primary health care in a health system and highlight the role of CHWs in service provision. Next, I unpack the concept of human resources for health and the strategy of task shifting, which in some way explain the existence of CHWs. Finally, I

address the issue of equity in health care and describe gender equity approaches in health care services.

The fourth chapter outlines the overall research design, provides details of the methodological approaches, the rationale for choosing particular methods, the processes of developing research instruments, data collection, and analysis and the research challenges throughout the process.

The second section includes the detailed findings and discussion of the findings in six chapters. In chapter 5, I describe the CHW program, the way it is designed and implemented as a component of the Basic Package of Health Services. This chapter focuses on the first research question.

In chapter 6, I describe the organizational context of the CHW program. I explore the role of the Afghan Ministry of Public Health as the steward of the CHW program and describe the organizational unit within the ministry that manages the program. I then analyze the role of the international agencies as donors, financiers, and contractors of the program. Finally, I explore the role of NGOs and provincial public health departments as implementers. I compare some elements that impact the effectiveness of state and non-state providers, and of different non-state providers. This chapter addresses the second question.

In chapter 7, I analyze the community component of the CHW program and explain how the community is constructed in the program, and identify community facilitators and challenges. This chapter is focused on the third research question.

In chapter 8, I explore the human resources for health aspects of Afghan CHWs. In this chapter, I examine the status of CHWs as human resources for health and explore the dynamic of

their relationship with other professional and non-professional health providers in the country.

The focus of this chapter is on the fourth research question.

In chapter 9 I present a gender analysis of the Afghan CHW program explaining the gender dynamics at the village, the management, and the policy levels. First, I explain the gender differences in each element of the program. Second, I unpack the concept of gender within the health policies that related to the CHW program and the BPHS. Finally, I explain the advantages and disadvantages of the CHW program to female CHWs in particular.

In chapter 10, I present a quantitative analysis of the role of CHWs to improve maternal and neonatal health in rural Afghanistan. In this chapter, I analyze an administrative database that records the activities of CHWs in relations to maternal and neonatal health outcomes. This chapter focuses on the fifth research question.

In the discussion chapter, I summarize and integrate the research findings pulling together a number of substantial themes across other chapters informed by the conceptual approaches. In addition, I compare the findings of this research with previous studies on national CHW programs in developing countries. I also identify the contribution of this thesis to the international discourse on CHWs and discuss promising directions for future research.

## **Section 1: Literature review, conceptual approach, and research design**

### **Chapter 2. Literature Reviews**

In this chapter, I present a brief history of CHW models followed by a description of who CHWs are and what they do. I describe the Village Health Worker program and the traditional birth attendant training program of the 1970s, both of which are historical predecessors for the current Afghan CHW program. I then present a review of the literature on the effectiveness of CHW programs, in particular on maternal health. After summarizing the state of knowledge on CHWs, knowledge gaps on CHW programs in developing countries are identified and explained.

#### **2.1 A brief history of Community Health Workers in the Global Context**

The first formal model of CHWs is recorded in Ding Xian, China, where local people provided health services to their fellow community members (Sidel, 1972). In the 1920s, illiterate Chinese farmers were trained for three months to provide some basic medical services including first aid and immunization, health promotion services (i.e. health education talks and keeping water-wells clean), and administrative services (i.e. recording births and deaths) (Sidel, 1972). Known as ‘farmer scholars,’ they were the forerunners of the Chinese ‘barefoot doctors,’ who in turn became a significant component of the health system of the People’s Republic of China in the 1950s (Perry, Zulliger, & Rogers, 2014). It was estimated that China had 1 million barefoot doctors to serve 800m population by 1972 – 1 for each 800 people (Perry, Zulliger, Scott, Javadi, & Gergen, 2013).

Three major characteristics made the Chinese barefoot doctors a model for the rest of the developing world. First, these barefoot doctors provided primary health care services, which included limited curative tasks, and more disease preventive and health promotional tasks in

rural areas where physicians were scarce. Their focus was on an array of health-related services that the Western medical model of care did not typically provide. Second, barefoot doctors had a very short training compared to other health professionals, i.e. physicians. The short-term training of barefoot doctors offered a solution to a shortage of human resources for health in the developing world. China was able to produce 1 million barefoot doctors within a couple of decades, a strategy that was both cost- and time-efficient. Finally, barefoot doctors were from the villages that they served and stayed there. (Sidel, 1972)

Physicians who spent several years of their lives in urban settings did not wish to work in rural areas as living in urban areas provides better working opportunities, higher wages, and better conditions of life (Kabene, Orchard, Howard, Soriano, & Leduc, 2006). The barefoot doctor model offered a solution to the shortage of health providers in rural settings. The same need for basic health services in rural areas was present in other countries as well. In the 1960s, a number of countries, namely Indonesia, India, Thailand, Tanzania, Venezuela, Honduras, and Guatemala, established their CHW programs (Perry et al., 2013; Kauffman & Myers, 1997). Primary health care services, short-term training, and community origin became main features of CHW programs.

The adoption of CHW interventions in many countries across the world paved the ground for international recognition of the model. In 1975, the WHO published a book entitled *Health by the People*, which was a series of country case studies where CHW programs had been incorporated into the health system (Newell, 1975). In 1978, the Alma Ata Declaration on Primary Health Care formally recognized CHWs as a health workforce along with physicians, nurses, and midwives. The Declaration was the first global document on primary health care and

was signed by all WHO member states attending the conference in Alma Ata, USSR (now Almaty), and which called for the achievement of health for all (WHO, 1978b).

### **2.1.1 Who are CHWs and what do they do?**

CHWs are members of the community working to improve health. Based on their different activities aimed at enhancing health, a wide range of terms has been used to denote the concept of community health workers. Bhattacharyya and his colleagues (2001) and Gilroy and Winch (2006) list altogether 36 different terms by which CHWs are known in various countries. Despite the breadth of the concept, the WHO has presented a widely accepted definition for CHWs (WHO, 1989):

Community health workers should be members of the communities where they work, should be selected by the communities, should be answerable to the communities for their activities, should be supported by the health system but not necessarily a part of its organization, and have shorter training than professional workers. (WHO, 1989, p.7)

Aside from the definition of CHWs by the WHO, which is focused on low- and middle-income countries (LMICs), there is no widely accepted definition of CHWs for high-income countries (HICs). The American Public Health Association has developed a definition for CHWs, which loosens the standard CHW criteria of recruited exclusively from within local communities:

A community health worker is a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the CHW to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery. A CHW also builds individual and

community capacity by increasing health and knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support, and advocacy. (American Public Health Association, 2009, as in Rush, 2012, p.134).

In the United States alone, it was estimated that there were between 85,000 and 200,000 CHWs working in various settings and roles in 2013 (Perry et al., 2014). In Canada, there are 18 different models of CHWs who serve aboriginal populations, immigrants, low-income families, single mothers, and pregnant women, and other marginalized populations, but they are not recognized and regulated within the broader health system (Najafizada, Bourgeault, Labonte, Packer, & Torres, 2015). In all other high-, middle-, and low-income countries around the world, there are around 5 million CHWs (Perry et al., 2014).

Conceptually, CHWs are considered to be a bridge between the community and the health system. Some theorize CHWs as change agents within their communities. They expect CHWs to have a strong leaning towards the community, representing the needs of the community within the health system (Werner, 1981). David Werner, the author of the influential handbook, *Where There is No Doctor*, said the key role of CHWs, ideally, should be liberators of their people and agents of change in their communities, not ‘lackeys’ of the health system (1981). In practice, most countries use them as a kind of health workforce to provide health care to un-served, underserved, and marginalized populations (Crisp, Gawanas, & Sharp, 2008).

### **2.1.2 Selection and recruitment**

Important factors in selecting a CHW are residence in the community, age, literacy, sex, occupation, and ability to gain the respect of and acceptance by the community (Ofosu-amaah, 1983). Community membership is the core of the concept. Experiences from across the globe

have shown that middle-aged mature men and women who are good opinion leaders carry out their tasks more satisfactorily compared to younger CHWs (Lehmann & Sanders, 2007).

Younger CHWs have a hard time gaining the confidence and respect of the community due to the culture of respect for elders in many countries (Ofosu-amaah, 1983). In addition, since young people have better chances of progress and obtaining more lucrative jobs, or moving to urban areas, their dropout rate is also reported to be higher (Lehmann & Sanders, 2007; Ofosu-amaah, 1983).

Literacy, as a selection criterion, has been subject to debate. When a minimum level of literacy has been required, it has reduced the pool of prospective candidates due to lower levels of literacy in rural areas. People with a higher level of literacy or school education have also shown a desire to become professional health workers, leading to higher dropout rates. In general, however, some minimum level of literacy is recommended so that CHWs can grasp new information through reading or writing, and can receive the training. (Lehmann & Sanders, 2007)

Those responsible for the selection of CHWs vary from country to country. Generally, a local council or a health committee nominate a CHW (Bhutta, Lassi, Pariyo, & Huis, 2010). In some cases, a local priest or opinion leader recommends CHWs for training (Newell, 1975). In other cases, local health authorities select someone from the community who has some involvement in health services such as those who have worked in malaria or polio eradication campaigns (Bhattacharyya, Winch, LeBan, & Tien, 2001). Ideally, it is recommended that both a community council and health service providers be involved in the selection process (Bhutta et al., 2010).

### **2.1.3 Training**

Training of CHWs has been essential in determining and directing their performance in the community. The duration of training varies from country to country, from five days initial training followed by in-service training in Thailand to two years in Iran (Javanparast et al., 2012; Lehmann & Sanders, 2007), and more recently to a specialized group of health extensive workers in Ethiopia who receive two years of post-secondary training (Bhutta et al., 2010). Generally, the duration of training lasts between three weeks to six months (Bhutta et al., 2010). The content of the training ideally should be designed according to the health priorities of the communities. In national programs, this criterion might be difficult to apply, because the needs of communities may differ from one part of the country to another. Countries have developed manuals or adopted the WHO's training manual, which has been criticized for being too complex, high level, not sufficiently based on community needs, and too theoretical (Lehmann & Sanders, 2007; Ministry of Public Health, 2005; WHO & UNICEF, 2012). Most CHW programs provide continuing training to refresh CHWs' knowledge of their tasks and activities (Bhutta et al., 2010; Lehmann & Sanders, 2007).

### **2.1.4 Tasks and functions**

The ultimate goal of CHWs is to improve the health of people in the community, which means engaging in almost any developmental and health-related task that may lead to improved health of the population. An extensive review of such programs in 46 countries found that the tasks of the CHW include:

...home visits, environmental sanitation, provision of water supply, first aid and treatment of simple and common ailments, health education, nutrition and surveillance, maternal and child health and family planning activities, communicable disease control,

community development activities, referrals, record-keeping, and collection of data on vital events. (Ofosu-Amaah, 1983, p.10)

These tasks can be divided into (a) simple curative, (b) disease preventive, (c) health promotional and community health, and (d) health care administration.

### **2.1.5 Supervision**

Supervision of CHWs has been both essential and problematic. Supervisors are usually professional or staff within the health system (Bhutta et al., 2010). Studies have shown that supervision of CHWs by other health care professionals has been problematic due to heavy clinical responsibilities, inappropriate orientation of clinical health professionals towards primary health care, shortage of health professionals and inaccessibility of villages, where many CHWs work (Bhutta et al., 2010). Therefore, it is recommended that CHW supervisors should be trained for the job and oriented properly towards primary health care (Bhutta et al., 2010; Lehmann & Sanders, 2007). Since CHWs by definition are accountable to both the health system and the community, in some countries the community health committee has been involved in CHWs' supervision, which has proved to be successful in satisfying both the community and the health system (Gilroy & Winch, 2006).

### **2.1.6 Remuneration**

Three types of remuneration of CHWs have been identified in the literature: by the government through budget allocation; by the community through mobilization of community resources; and through a combination of the two (Gilroy & Winch, 2006). There are also numerous volunteer models of CHWs (Bhutta et al., 2010). The problem with the government taking full responsibility of remuneration has been that CHWs have shown less commitment towards their communities (Lehmann & Sanders, 2007). Communities in low-income countries

have often been too poor to pay CHWs, although some communities have managed to pay in kind, i.e. giving bags of millet at harvest time, or helping CHWs on their farms (Gilroy & Winch, 2006). A mix of both government wage and community contribution has also been tried in various settings. In short, adequate and sustained remuneration of CHWs is essential for the sustainability of the program and reduction of high dropout rates (Lehmann & Sanders, 2007).

### **2.1.7 Gender roles**

CHWs have been associated with engendered cultural preferences and activity-based biases. Most CHWs are women, and in many countries, women are preferred for this role (Lehmann & Sanders, 2007). Pakistani, Bangladeshi, and Nepalese CHW programs included only female CHWs (Bhutta et al., 2010). Programs that recruit both male and female CHWs are increasing, although their functions may reflect societal gender roles (Bhutta et al., 2010). Patriarchal norms might not allow women to engage in activities that require them to interact with men or travel across villages or communities (Flahault, Piot, & Franklin, 1988). In the Iranian context, the roles of male and female CHWs are divided by the societal gender roles (Javanparast, Baum, Labonte, & Sanders, 2011; Javanparast et al., 2012). In Afghanistan, women were unwilling to visit male CHWs for problems related to pregnancy and childbirth. Thus a (female) traditional birth attendant had to be trained to work with the male CHW (O'Connor, 1980). In developed countries the roles of CHWs are also gendered; more women become CHWs, and their tasks are not recognized and regulated in the broader health care system (Najafizada et al., 2015; Torres, Spitzer, Labonté, Amaratunga, & Andrew, 2013).

In short, community-originated health workers are based mainly in rural and remote areas. They undertake a wide variety of tasks related to primary care and the broader social determinants of health depending on the needs of their communities. Both public health systems

and development organizations train, support, supervise, and remunerate them for their services. Sociocultural context including gender division of labour influences their roles. Their sustainability depends on the communities they serve, the health system that supports them, and their capabilities as health providers.

## **2.2 Effectiveness of CHW programs for maternal and child health**

Poor maternal health persists in many low and middle-income countries (Dawson & Gray, 2010). A chronic shortage of health human resources at the community level remains a major problem in resource-constrained settings contributing to poor maternal health (Crisp et al., 2008). To surmount the problem, CHWs have been recruited in low-resource settings to provide health care services to the underserved populations. Pilot project studies in Afghanistan and regional countries provided evidence that CHWs can rapidly increase contraceptive use in rural areas, increase immunization uptake, and improve reproductive health to ensure safe motherhood (Huber et al., 2010; Lewin et al., 2006, 2010). A Cochrane review by Lewin et al. (2010) found that CHW interventions improve childhood immunization uptake, breastfeeding, and childhood morbidity and mortality, and health seeking behavior among parents for their children. Gilmore and McAuliffe (2013) conducted a systematic review to understand the effectiveness of CHWs' preventive activities for maternal and child health in low- and middle-income countries. They documented some effectiveness in malaria prevention, health education, breastfeeding, essential newborn care, and psychosocial support. Studies conducted in Ghana and Nigeria showed that CHW interventions decreased malaria prevalence among children, increased uptake of medicine for malaria, and increased usage of insecticide treated bed-nets (Bhutta et al., 2010). In India, Pakistan, and Uganda, CHW interventions decreased child diarrhea, improved knowledge, attitudes, and behaviors of mothers regarding sanitation and hygiene practices, increased

immunization uptake and completion, and reduced the under-5 mortality rate (Bhutta et al., 2010). Healthy breastfeeding practices promoted by different CHW interventions have increased in many settings including the Philippines, Bangladesh, Mexico, Burkina Faso, Uganda and South Africa (Gilmore & McAuliffe, 2013). Different CHW interventions on newborn care in Bangladesh and India showed evidence of increased health-professional seeking behavior, increased skin-to-skin practice to prevent hypothermia among newborns, and reduced newborn mortality. Finally, lower depressed mood among pregnant women was also recorded in Pakistan and South Africa after CHW interventions (Gilmore & McAuliffe, 2013).

There are two commonalities in the interventions identified in the above systematic reviews. First, most of the interventions studied were short-term and small-scale. Second, there was a tendency to focus on child's health under the broader theme of maternal and infant health. The gap in knowledge is in how CHW programs contribute to improved maternal health, and whether small-scale interventions inhibit practitioners and policy makers in the development of a strong evidence base to address the complexities of maternal, newborn and child health at a national level (Raman & Girdwood, 2012).

Different studies have also examined the factors that contribute to the effectiveness of CHW programs, beginning with the selection of the appropriate person for the appropriate task. A woman, who is somewhat literate, middle-aged, married, and living in the community, is the most effective CHW for tasks related to maternal and child health, and reproductive health. A man with the same characteristics, who is respected in the community, has employment with sufficient income, and has a couple of hours a day to work as a CHW, is effective for tasks related to the general health of individuals and public hygiene and sanitation (Bhutta et al., 2010; Lehmann & Sanders, 2007).

A standard initial training and continued on-the-job training are equally important for the effectiveness of a CHW program (Lehmann & Sanders, 2007), as is regular and reliable supervision by trained supervisors and sustained support from the health system (Lewin et al., 2006). In small-scale interventions, close supervision of CHWs has been easier. It is in the larger, nationwide interventions that regular oversight and continued support (providing drugs and supplements) have been a challenge, which requires improved management strategies at the program level, and strong political will at the policy level (Lewin et al., 2006).

In addition, the recognition of and respect for CHWs by other health professionals within the formal health system has an immediate impact on the effectiveness of CHW programs. In the health system, CHWs are often in a limbo of human resources for health and considered to be the cheap labour to extend professional services and messages to the rural population, which negatively affects the image of CHWs in the community (Lehmann & Sanders, 2007).

The poor support from the health system coupled with weak social recognition and support from the community where CHWs operate can be crippling for CHWs. Strong community commitment is a must for a successful CHW program. At the same time, it is necessary that the community served should feel ownership of and support the CHW program. Community participation means involvement of community members in the selection process, supervision and monitoring of CHWs, and supporting CHWs in community-related activities (Lehmann & Sanders, 2007).

Finally, there is the issue of incentives. Paid CHWs have lower attrition rates and monetary incentives to work effectively (L10K, 2010). Volunteer CHWs have higher attrition rate, but in-kind compensation by communities, non-monetary incentives such as social recognition and respect, and the prospect of possible future employment in the health system can

sometimes compensate for the lack of monetary payment (Lehmann & Sanders, 2007). Planned regular remuneration is an indication that CHWs are an indispensable health workforce (Lehmann & Sanders, 2007; Lewin et al., 2006).

## **2.3 CHWs in Afghanistan**

### **2.3.1 Afghan Village Health Workers**

Afghanistan first employed CHWs in the 1970s. It was one of several countries to have done so before the Alma-Ata Conference on Primary Health Care (O'Connor, 1980) and which became, in part, the inspiration for that conference. In 1973, advisors from Management Science for Health (MSH) presented the concept of CHW to the Afghan Ministry of Health as a possible strategy to provide health services to the rural populations (Solter et al., 1980). To reach rural people, the Afghan Ministry of Health considered training a number of Village Health Workers (VHWs) in a pilot project. Based on a survey conducted in villages regarding a possible CHW program Solter (1980) concluded that the CHW program was picked for three reasons: (1) there was local interest in the program as it offered new jobs, (2) foreign donors such as WHO, UNICEF, and USAID were very interested in this type of program, and (3) there was no existing Village Health Worker model, and thus no internal resistance.

Health care services have been available in urban Afghanistan since the second half of the 20<sup>th</sup> century (Lowe, 1955; MacFadyen, 1978). Hospitals were established in Afghanistan as early as the 1920s (Robinson, 1956). Kabul Medical School was inaugurated in 1932, followed by a nursing school in 1936 (Lowe, 1955). In 1962, there were 56 hospitals in Afghanistan mainly in cities and town centers (MacFadyen, 1978), but the rural populations have always been left out of the public services. In 1973, between 2% and 10% of the rural population had access to basic health services (Law, 1983; O'Connor, 1980).

According to Solter et al. (1980) the Village Health Worker program was designed to be an extension of health clinics that provided services for the rural populations, known as Basic Health Centers (BHCs). Village Health Workers, the study noted, were supposed to be trained in villages within a 10 km radius of a Basic Health Center. A sanitarian, an employee of a Basic Health Center, was tasked to make supervisory visits to Village Health Workers once a month. The Village Health Workers were supposed to refer patients to Basic Health Centers (Solter et al., 1980)

The design of the program was similar to other CHW programs in the world but slightly reformed to the Afghan context. The selection of Village Health Workers was left to the villagers (Solter et al., 1980). The idea was to form a village health committee, which would then choose a villager to be trained as a Village Health Worker. A guideline of preferable criteria was also provided for the villagers, but it was left to the Village Health Council to select whomever they chose. The criteria included having functional literacy and being above 18, respectable, intelligent and honest, and able to spend at least 4 hours per day as a Village Health Worker. The basic training was limited to three weeks, and further intensive continuing education courses were considered to be a part of the program. The core functions of Village Health Workers were health education, nutrition, personal hygiene, environmental health, and dispensing basic drugs and contraceptives (Solter et al., 1980). Village Health Workers were also taught to administer injections and were then permitted to charge a nominal fee the service. The Village Health Workers were supposed to be supervised by a sanitarian, a health cadre trained in personal health education and nutrition, environmental and housing sanitation, food sanitation, and control of communicable disease. Sanitarians were employed in health facilities (Solter et al., 1980).

Due to strict gender roles in the Afghan society, the Afghan Ministry of Public Health designed its Village Health Worker model based on most of the workers being men. The core tasks of Village Health Workers were focused on curative medicine, environmental health, immunization, and health education. Their duties did not include maternal health, and little attention was paid to newborn and child health. To address maternal and child health, the idea was to train traditional birth attendants (Dais) further, as they were already the image of maternal health services in rural Afghanistan. The Afghan Ministry of Public Health also had plans to train traditional birth attendants (TBAs), in a separate program from the Village Health Worker. Eventually, a small number of Village Health Workers (137) were trained across the country in 1978, and almost all of them (96%) were men, and services for women were left to the traditional birth attendants (Solter et al., 1980).

The first group of 11 Village Health Workers completed their training in May 1977. By the end of 1979, 137 Village Health Workers were trained across the country. A majority of them (58%) were male farmers who had some literacy and a relationship with the chief of the village. Shopkeepers who dispensed drugs and Mullahs (religious clerks) made up another 23% of the Village Health Workers. The rest of them were labourers, unemployed villagers, a traditional medicine practitioner, nomads, and women. Their median age was 34 with a young boy of 15, and a religious cleric of 57 at both extremes. (Solter et al., 1980)

Financing the Village Health Worker program was a challenge. An Afghan rural health survey in the 1970s had revealed that around 87.5% of all money spent on health care in Afghanistan came out of the pockets of villagers, mostly spent on drugs, traditional herbs and medicines (Solter et al., 1980). Based on that finding, the MoPH decided to provide drugs for Village Health Workers to sell as a means of earning an income, supplementing it with a small

fee for service, and a monthly contribution from each household in the village. The drugs were supplied by UNICEF and sold at a lower price than the drug store. Other donors, including USAID, supported the training of Village Health Workers. In practice, Village Health Workers' drug sales generated less than \$5 per month for them. The villagers were too poor to pay for the drugs, let alone an extra fee for service or a monthly contribution, and Village Health Workers knew that. Village Health Workers only charged a nominal fee for administering intravenous drugs provided by donors or bought from drug dispensaries (Solter et al., 1980).

In April 1978, a new pro-Soviet government took power in Afghanistan and decided to eliminate the Village Health Worker program for political rather than technical reasons (Solter et al., 1980). New advisors urged the Ministry to stop training health workers similar to the Chinese barefoot doctors, and that health workers similar to the Soviet *Feldshers* should be trained instead (Solter et al., 1980). Feldshers, who were more like paramedics, came from cities, were based in a fixed health facility located at a distance from villages, and provided strictly medical and health services at the facility, which differed from sanitarians and Village Health Workers who operated in communities (Solter et al., 1980). There is little published literature on the Feldsher program in Afghanistan, apart from what may exist in Russian (a language I could not access). I also did not find any trace of the Feldsher program during my fieldwork in rural Afghanistan. This absence could be for two reasons: First, the Feldsher program was urban-based, and was likely limited to towns and cities; and second, in contrast, the Afghan CHW program and my fieldwork focuses on rural and remote areas where there is no direct access to health facilities.

### 2.3.2 Afghan Female TBAs or *Dai*

Alongside the Village Health Worker program, traditional birth attendants, or *Dai*, were also trained across the country to provide maternal and child health services in the 1970s. Since the Village Health Worker program was designed for tasks that male workers could undertake in rural Afghanistan, the *Dai* training program was complementary to the Village Health Worker program. LeSar (1980) stated that the major difference was that Village Health Workers did not previously exist, while traditional birth attendants or *Dais* already worked in the villages for decades. Therefore, the purpose of the *Dai* program was to develop the skills of the traditional birth attendants to deliver normal births and to treat mild illnesses in children under five, and to identify and refer high-risk pregnancies and critically ill children to health facilities (LeSar, 1980).

Recruitment of *Dais* was easy as practicing traditional birth attendants in villages were already recognized as health providers by their communities. The *Dais* were trained for five weeks to provide health education and essential services for pregnant women and newborns, and to refer high-risk pregnancies and severe childhood illnesses to health facilities (LeSar, 1980).

Afghan nurses under the supervision of United Nations Population Fund (UNFPA) advisors conducted the first two training for around 20 *Dais*. Afghan nurses continued the training without the advisors until the Afghan Ministry of Public Health developed a program to train *Dai* trainers. Twelfth-grade female graduates made up most of the instructors. Between June 1977 and June 1979, the start and the end of the *Dai* training program, 540 *Dais* were trained across the country (LeSar, 1980).

Since the focus of the program was on training, there was no continued supervision in place for the trained *Dais*. They were evaluated for their skills at the end of the training. The

program also recommended continued-education once a year that apparently never took place. The program recommended that the community remunerate *Dais* for their services like they were remunerated before the training. As for the financing of the training, international donors played a major role: United Nations Population Fund - UNFPA, (55.7%), United Nations Children Fund – UNICEF (25.7%), United States Agency for International Development - USAID (13.3%), and the government of Afghanistan (5.4%) financed the first year of the program for a total of \$270,000 (LeSar, 1980). There was a 5-year donor commitment for the program, which only lasted around two years. The *Dai* training program, as with the Village Health Worker program discussed previously, were stopped after 1979, when a Soviet-supported government took power, and the Western international donors of those programs left the country (LeSar, 1980).

## **2.4 Conclusion: A summary of what is known and what is not known**

### **2.4.1 What is known?**

CHW interventions arose out of a need for basic health services in most developing countries. CHW programs are not an alternative to modern Western health care systems, but could be a complementary intervention to a hospital-based model of care. CHW interventions are neither the panacea for a weak health system nor a cheap option to provide access to health care services for underserved populations. CHW interventions are best seen as a bridge to link a wellbeing-oriented community to a community-oriented health care system (Gilson et al., 1989; Lehmann & Sanders, 2007; Ofosu-amaah, 1983).

Overall, there is a consensus in the literature on a number of issues regarding CHW programs. First, CHWs have the potential to improve access to and coverage of basic health care services. Second, careful selection and recruitment, appropriate training and supervision, and adequate and sustained support have been vital for the effectiveness of CHW programs. Third,

community embeddedness is as important as the health system support for an effective CHW program. Fourth, a proper remuneration strategy for CHWs is essential for the sustainability of the CHW program. (Lehmann & Sanders, 2007; Lewin et al., 2010)

#### **2.4.2 What is not known?**

Three significant knowledge gaps can be identified from this literature review. First, there is an overall shortage of research studies on the interaction of contextual factors of health human resources at the community level and their impact on health workforce performance (Dawson & Gray, 2010). Most studies on community health workforces have focused on single interventions without a critique of the effect of the health system or macro-factors such as the geopolitical, socio-cultural or economic context as well as micro factors at the community level. CHW programs have not been the first to provide basic services for the underserved population; as Newell (1975) wrote, there has always been a mother-in-law to help deliver a child, an elder to refer to for health advice, and a traditional healer to help restore the health of a sick person. Thus, there is a knowledge gap in the relationship between organized CHWs and other community health providers such as traditional healers and traditional birth attendants.

Second, there is relatively little evidence on how CHW programs impact maternal health (Dawson & Gary, 2010). Evidence suggests that CHW programs do improve child and maternal health, but rarely do they explicate a way through which the impact might happen. More rigorous studies are needed to assess the contribution that community and health worker partnerships can make in the delivery of maternal services.

Finally, there is a lack of documentation outlining country experiences in the development of CHW performance indicators at the individual, management and policy levels in all contexts, including the community (Dawson & Gary, 2010).

The three knowledge gaps identified from the literature review have informed this thesis. This thesis documents a national CHW program (Afghanistan), explores contextual factors, and analyses the impacts of the program on maternal health.

### **Chapter 3. Theoretical and Conceptual Approach**

This study approaches the Afghan CHW program as both a type of primary health care intervention and as a human resource for health program within the broader Afghan health system, and one that addresses inequity in health care, in particular, gender inequity, and a chronic shortage of human resources for health. The overarching theory guiding this work is Complex Adaptive Systems Theory applied to health systems. Health systems are a complex set of organizations, people, and resources with the goal of improving the health of populations (Hsiao, 2003; Savigny & Adam, 2009). Health systems as defined by the WHO have six building blocks: health service delivery, health workforce, health information system, medical products and technologies, health care financing system, and leadership and governance (Savigny & Adam, 2009). Complex Adaptive Systems Theory addresses not only the entirety of the system, but also the elements of a system, the interactivity between the elements, a possible feedback loop within and without the system, a learning mechanism to adapt to the changing environment (Diez Roux, 2011; Hawe, Shiell, & Riley, 2009; Peters, 2014). Supplementing the systems theory, theories of power and gender are used to analyze the relationship between elements of the health system. A Weberian three-component theory of power stratification is applied to analyze power relations. Weberian stratification posits that power can take many forms, namely in the social order through status, in the economic order through class, and in the political order through party or power – also known as status, class and political party stratification (Weber, 2010).

In this thesis, I start with describing the Afghan CHW program as an element of the Afghan health system. Some of the assumptions that I try to explain in this thesis are that the Afghan CHW program could be considered a service delivery intervention designed to enhance

access, a human resources for health intervention to address a shortage of professional health providers, and a population health intervention to address inequity in health care services and outcomes. Framed within the theory of complex adaptive health systems, theories of power and gender will guide the analyses of the relationships inside and outside the broader Afghan health system.

### **3.1 Complex Adaptive Health Systems**

A system is a combination of interactive and interdependent components that work to achieve a goal (von Bertalanffy, 1968 as cited in Peters, 2014). A system has three main components: parts, the relationship between the parts, and functions (Peters, 2014). The concept of health systems does not have a clear definition, mainly because of the complexity of its nature. Scholars have attempted to define the concept in two ways: descriptive and normative. Descriptive analyses often explain how the health systems are structured and function in the real world, whereas normative analyses often attempt to explain what the health systems should be or do (Savigny & Adam, 2009). Describing what health systems are and do in reality, Roemer (1993) has defined a health system as the combination of resources, organizations, financing, and management that culminate in the delivery of health services to the population. Roemer's definition identifies all the components necessary for a health system, but without attempting to unravel the relationship between components and theorize health system as a concept. Following the same path, the World Health Organization has defined a health system as "all organizations, people and actions whose primary interest is to promote, restore or maintain health (and health equity) in ways that are responsive, financially fair, and to make the best, most efficient, use of available resources". The WHO has identified six building blocks for a health system (Savigny & Adam, 2009) as shown in Figure 3.1.



**Figure 3. 1 WHO's dynamic architecture and interconnectedness of the health system building blocks (Savigny & Adam, 2009)**

A health system, viewed through complex adaptive systems theory, could be defined as a set of interactive and interdependent components to promote, restore and maintain health (and health equity), to reduce financial risk associated with health improvement, and to achieve patient satisfaction (Savigny & Adam, 2009). Systems theory adds a number of features to the descriptive definition of a health system, including interactivity and feedback loop creation among the components, and adaptability (Diez Roux, 2011; Savigny & Adam, 2009). Unlike mechanical systems, adaptive systems have the capability to learn and change (Diez Roux,

2011), and complex adaptive health systems are expected to change according to the needs of dynamic contexts (Plsek & Greenhalgh, 2001).

As a complex system, the Afghan health system is multilayered, so the organizational context matters, the community context matters, the Human Resource for Health context matters, and so does the gender context as a cross cutting layer. The aim of this thesis is to tease apart the many intersecting layers of the Afghan health system.

### **3.2 Power**

Power is often defined in terms of relations between people (Dahl, 1957). This thesis draws primarily from a Weberian theory of power, which remains one of the foundational power theories within the social sciences. Weber defined power as “the ability of an individual or group to achieve their own goals or aims when others are trying to prevent them from realizing them” (Weber 1978 as cited in Weber, 2010). There are multiple categorisations of power. Weber identified power as being either authoritative or coercive. Coercive power is practiced through physical and military force. In the context of this doctoral work, interruption in CHW work by the Taliban can be considered an example of coercive power. The Taliban’s military power to make highways insecure prevented me from traveling to locations that otherwise I would have gone to for data collection.

Authoritative power is typically gained through social position (Dahl, 1957; Weber, 2010). Authoritative power is seen as legitimate because those who are subject to the power do so with consent. Weber identified three forms of authoritative power: charismatic authority, traditional authority, and rational-legal authority (Weber, 2010). Individuals’ ‘charisma’ may become their power to influence a group or person. The source of charismatic authority is personal. Traditional authority is based on established customs, norms, and traditions within a

context, and could be acquired on a hereditary basis. An example of traditional authority is the authority of village chiefs and elders in Afghanistan, who often play an important role in the selection of CHW candidates. The basis of rational-legal authority is often the law and the bureaucratic policies and rules exercised primarily by governments and formal institutions. In this thesis, such power is manifest in the policies governing the CHW program, and in the ability of government policymakers, international donors and implementing organizations to allocate resources to CHWs and communities. Physicians in the Afghan health system can also be considered to have medical authority over patients through their ability to prescribe medications or other forms of treatment.

Weber has also identified three bases for the stratification of power: class, status, and party (political power) (Weber, 2010). Class power has an economic basis. Class is defined in terms of relations of persons and groups to the means of economic production which may also be linked to technical skills or educational qualifications that affect their market situation independent of the ownership/non-ownership of property (Appelrouth & Edles, 2007). Status is defined in terms of the social position of persons or groups, the basis of which is seen as 'pattern of consumption.' Status is acquired by achievements through one's effort or by ascription through being born into a particular socially-inscribed status (Annandale & Clark, 1996). One can occupy multiple identities at the same time, such as being a mother, daughter, teacher, and health worker. Each of these status identities can affect how the individual is regarded or interacted with by others. Finally, party power is defined in terms of organized political parties that take and exercise direct (and often coercive forms of) political power. The intersection of different forms and types of power is always at play in the real world context – something this work will draw upon.

### **3.3 Feminist Theory**

“Nowhere was the precariousness of women’s rights more evident than it was when the Taliban radically rescinded women in Afghanistan between 1996 and 2002” (Appelrouth & Edles, 2007).

Under the rule of the Taliban, women who had previously enjoyed many rights were banished from the workforce, forbidden an education, and prohibited from leaving their homes unless accompanied by a close male relative. The Taliban put extreme patriarchal rules into practice in Afghanistan. The Taliban’s portrayal of the female body as ‘deficient’ was one example of patriarchy against which waves of feminism rose.

“Basic and common to all feminisms is the understanding that patriarchy privileges men by taking the male body as the 'standard' and fashioning upon it a range of valued characteristics (such as good health, mastery, reason and so on) and, through a comparison, viewing the female body as deficient, associated with illness, with lack of control and with intuitive rather than reasoned action”. (Annandale & Clark, 1996)

Feminist theory posits that the origin of gender inequities, both general and health-specific, is gender relations of power – the relations between different sexes to control and decide about resources (Appelrouth & Edles, 2007). In the health sector, the socially constructed attitudes, roles and behaviors towards different sexes affect the degree to which men and women have access to, and control over, the resources required to protect their health (George, 2007). As power relations stretch across all aspects of life, its impact on health can be detected in many social determinants of health including gender (Vissandjide, Weinfeld, Dupere, & Abdool, 2001). Similarly, gender interacts with other determinants such as education, socioeconomic status, place of residence, race, ethnicity, and religion to create and maintain inequities (George, 2007).

Gender refers to the socially constructed roles, behaviors, activities, and attributes that a given society considers appropriate for different sex categories (Krieger, 2003). Sex refers to the biological and physiological characteristics that define male, female and intersexes (Krieger, 2003). It is not biological variances (i.e. male, female, intersexes), but the roles a society assign to them (gender roles) that cause many health inequities (Sen & Ostlin, 2008). Inequalities between sexes are derivative of nature and fixed in biology. Sexual inequalities cannot be considered as inequities, as there is no question of fairness comparing women developing ovarian cancer with men developing prostate cancer, given all the conditions for both sexes are equitable. Second, gender inequities are derived from society and maintained by culture (Sen & Ostlin, 2008).

In developing countries, gender inequities can be observed in health care at various levels, as women suffer the burden of inequity as both the receivers and the providers of health care. As receivers, women face obstacles at three levels: (1) at home where the decision is made regarding care, (2) on the way from home to a health facility, and (3) at the health facility. At home, the decision to receive care is often made by men as the gendered head of the household. Their decisions are made based on their understanding of the severity of the illness, financial ability of the household, accessibility of health care services to the household, and cultural attitudes and practices regarding health care utilization. On the road, availability of gender-appropriate transportation infrastructure and vehicles is necessary for women to receive health care; and at the health facility, availability of gender-appropriate health provider and technology (Thaddeus & Maine, 1994).

As providers, more women undertake low-paid or unpaid health care service providers, while men are more likely to work in higher-paid managerial and decision-making positions

(George, 2007). The role of women as informal care providers outside the formal health care system is also often ignored (Sen & Ostlin, 2008). Gender division of labour in the health care workforce compels women to work as midwives, nurses, community health workers and cleaners, and privileges men to work as physicians, pharmacists and health managers and administrators (George, 2007).

Examining different approaches in health systems to address gender inequities in health, Standing (2000) has distinguished between a women's health need approach and a gender equity approach. A women's health need approach focuses on specific needs of women, in particular, reproductive health care needs (Ettore & Kingdon, 2012). The health services in this approach are focused on maternal health and family planning. In this approach women are seen, as Ettore and Kingdon (2012) describe, as 'fetal containers.' On the other hand, the gender equity approach focuses on the power relations between the sexes and processes that produce and reproduce inequities in health, health care, and resource distribution (Standing, 2012). A gendered perspective takes into account the issues of more men being the victims of tobacco, unsafe sex, reckless driving and war and conflict; and more women being the victims of domestic violence, maternal health, and breast cancer (Standing, 2012). Alongside an emphasis on maternal health, the overall health status of women, men and inter-genders, equity in the participation of all in health provision, and equity in the distribution of resources among all are important elements in a gender equity approach (Ettore & Kingdon, 2012; Standing, 2012).

A significant initial step towards gender equity is to collect data (be it administrative, research-related, or census) segregated by sex and using gender-sensitive indicators (Sen & Ostlin, 2008). Data that could be analyzed by gender helps to create a better understanding of the reality of different genders and provides evidence for decision-making at the policy level (Sen,

Östlin, & George, 2007). Gender analysis must become routine in health care research in order to mainstream gender in health care (Sen & Östlin, 2008).

In this thesis, I attempt to analyze how the Afghan CHW program extends the services to the populations in greatest need, especially women and those living in rural and remote areas. I also assess the distribution of male and female CHWs across rural areas, the supply of drugs through CHWs, and gender disparities in the Afghan health system. Gender differences are highlighted across the findings, and a specific in-depth gender analysis chapter is included in the thesis.

### **3.4 Primary Health Care**

Primary Health Care is essential health care based on practical, scientifically sound, and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford in the spirit of self-reliance and determination. (WHO, 1978a)

Primary Health Care, while not a theory *per se*, describes a comprehensive approach to health care that focuses on health promotion, disease prevention, and curative and rehabilitative services with an ultimate goal of improving health for all (Labonté, Sanders, Packer, & Schaay, 2014). Primary Health Care (hereafter PHC) also aims to achieve universal health coverage – health services for all people who need them without causing financial hardship (Hurley, Baum, Johns, & Labonte, 2010). Its principles form a base against which health systems in developing countries attempt to improve health, generally, and particularly in rural and remote settings, can be assessed.

PHC has evolved based on the premise that medical care that focused on disease management alone was ineffective and inefficient to improve the overall wellbeing of the population (Cueto, 2004). Since the establishment of the World Health Organization in 1948, two activities took momentum across the globe, in particular in developing countries: first, a series of community-based health care programs to improve population health; and second, research on health care in developing countries.

With regards to health care programs, and as discussed earlier, China launched a massive rural health care program with the introduction of ‘barefoot doctors’, who were Village Health Workers living in the community they served. Barefoot doctors emphasized rural and preventive health care and combined traditional and western medicine (Cueto, 2004). The intervention was immensely effective. In addition, Thailand introduced village health volunteers and communicators in the 1950s and 60s (Kauffman & Myers, 1997; Sringernyuang, Hongvivatana, Pradabmuk, & Drugs, 1994), and Afghanistan and India started training Village Health Workers in 1977 (Solter, Cross & Lesar, 1980; Leslie, 1985). All these programs took health care services out of hospitals into the communities. Those programs inspired the PHC movement that ultimately lead to the Alma-Ata Declaration of 1978 in Kazakhstan.

Since then, researchers have examined and critiqued the medicalization of health care in developing countries. One of the strongest critiques of medicalization came from Ivan Illich (1976) in his book *Medical Nemesis*, in which he claimed that medicine was not only irrelevant but also detrimental because physicians expropriated health from the public. The British health historian, Thomas McKeown (1976), took a softer tone arguing that overall the health of populations was less related to medical advances than to improved standards of living and nutrition. A widely circulated approach to reframing our understanding of health care came from

the Canadian Lalonde Report in 1974, named after the then federal Health Minister Marc Lalonde. This report emphasized the importance of lifestyles, living and environmental conditions as determinants of health alongside biology and health services (Lalonde, 1974).

In developing countries, where the basic conditions of living had not improved compared to developed countries, the western medical care model was failing to improve the wellbeing of the general population (Bryant, 1969). The needs were different. To address those needs, Taylor (1976) offered Indian rural medicine as a general model for health care system in developing countries. Taylor's idea did not gain much ground. Around the same time, Kenneth Newell of World Health Organization studied medical auxiliaries in developing countries and concluded that a strict health sectorial approach was ineffective (Newell, 1975).

Eventually, in 1978, the World Health Organization at the Alma Ata Conference recognized the PHC approach as the key health systems approach to ensure health for all. A hundred thirty-four countries signed the Declaration that came out of the conference. The key principles of the Alma-Ata Declaration can be put into four categories: First, health is a fundamental human right, and inequality in the health status of people between and within countries is unacceptable; second, people have the right and duty to participate individually and collectively in the planning and implementation of their health care; third, PHC is the key to provision of universally accessible health services to individuals and communities, and it requires national policies, strategies, and plans of action; and fourth, attainment of the highest possible level of health requires multi-sectoral approach and international and global cooperation. (WHO, 1978a)

Through a PHC approach, Alma-Ata Declaration endorsed a number of radical changes in health systems. First, the declaration promoted a shift in the power relations between the

providers and the receivers, encouraging individual and collective participation in health care services. In the medical model of care, patients were considered as mere receivers who never doubted professional providers (mainly physicians) regarding the medicine and the care they received. The PHC approach did not aim to undermine the status of physicians and professional providers; rather the approach aimed to acknowledge the role and the capacity of individuals as free agents in taking care of themselves and their communities. (Macdonald, 1993)

Second, the Declaration encouraged a change in the relationships and exercise of authority between providers themselves (Magnussen, Ehiri, & Jolly, 2004). A PHC approach requires all health providers to work as a team in order to provide disease prevention, health promotion, curative, and rehabilitation services (WHO, 1978a). A team of PHC providers should be comprised of physicians, nurses, midwives, pharmacists, lab technicians, auxiliaries, community health workers, and administrators. Health care recipients are also required to take charge of their own health individually, as free agents, and to work collectively for the wellbeing of their community (WHO, 1978a).

Third, inspired by CHW programs in many developing countries, the Declaration recommended employing community health workers as one of the strategies to achieve universal health coverage.

For many developing countries, the most realistic solution for attaining total population coverage with essential health is to employ **community health workers** who can be trained in a short time to perform specific tasks. They may be required to carry out a wide range of health care activities, or, alternatively, their functions may be restricted to certain aspects of health care... In many societies, it is advantageous if these health

workers come from the community in which they live and are chosen by it, so that they have its support. (WHO, 1978a, p. 62)

Not only does the Declaration endorse community health workers, it also proposes characteristics for them, such as community origin, selection, and support, specific tasks, and short-term training.

### *Selective Primary Health Care*

Primary Health Care as originally defined in the Alma-Ata Declaration was comprehensive in its scope. Some quickly argued, however, that a comprehensive PHC was too idealistic to be put in practice; instead, a selective PHC was proposed as a strategy for disease control (Magnussen et al., 2004). Examples of selective PHC interventions are GOBI (Growth Monitoring, Oral Rehydration, Breast Feeding, and Immunization) with a focus on child health, and GOBI-FFF (with the addition of Food supplementation, Female literacy, and Family planning) with a focus on maternal and child health (Cueto, 2004). Proponents of selective PHC interventions claim they are feasible and practical, fundable for donors, and easy to monitor, and changes can be tracked by specific indicators as direct outcomes of intervention inputs (Walsh & Warren, 1979).

Opponents of selective PHC have criticized the strategy claiming it functions like a ‘Band-Aid’ (Cueto, 2004). As one of the strongest critics of selective PHC, Newell has argued that:

[Selective primary health care] is a threat and can be thought of as a counter-revolution. Rather than an alternative, it . . . can be destructive . . . Its attractions to the professionals and to funding agencies and governments looking for short-term goals are very apparent. . . It has to be rejected. (Newell, 1988, p.76)

Selective PHC is considered a narrow techno-centric approach to health services that diverts the attention from the root causes of health problems (Cueto, 2004).

Whether comprehensive or selective, PHC interventions have become a cornerstone of health services, particularly in developing countries. Many countries have deployed CHWs nationally as part of their PHC interventions (Bhutta et al., 2010). The coverage and the scope of practice of CHWs have depended on the context in which the programs are implemented. In some places, CHWs are expected to undertake a wide variety of tasks, in other places, they are trained for specific tasks (Bhutta et al., 2010; Lehmann & Sanders, 2007). In this thesis, I studied the Afghan CHW program to explain where they stand in the spectrum of selective and comprehensive PHC.

### **3.5 Human Resources for Health**

Health systems require health workers, and the term, ‘human resources for health’ has been defined by the World Health Organization as a shorthand phrase to describe “all people engaged in actions whose primary intent is to enhance health” (Campbell et al., 2013). In other words, human resources for health include all kinds of clinical and non-clinical staff responsible for public and individual health interventions. Human resources for health (HRH), health human resources (HHR), and health care workforce are terms used interchangeably to convey the notion. The effectiveness of health systems heavily relies on its workforce (Kabene et al., 2006). Significant factors related to health human resources are their size, composition and distribution, education and training, salary and incentive, working conditions, and management and career structure.

The size of the health workforce per population is a key indicator of a country’s capacity to provide health services for its populations. There is no standard number of health providers

per population, but three studies have identified three thresholds for the number of professional health providers required for universal health coverage. The lowest threshold presented by World Health Report 2006 is 22.8 physicians, nurses and midwives per 10,000 populations. The figure is estimated to be the number of professional health workers required to achieve 80% coverage rate for deliveries by a skilled birth attendant in countries most in need. The second threshold of 34.5 physicians, nurses, and midwives per 10,000 population is developed through research conducted by the International Labour Organization to estimate the required number of skilled health professionals for an expanded health benefits package. The third threshold of 59.4 found by researchers from WHO and USAID is the estimate required to reduce global maternal deaths to 50 per 100,000 live births. Mexico had achieved the global maternal outcome by increasing their health workers above the third threshold. Despite their importance for comparison, these thresholds do not reflect a standard number of human resources for health necessary to achieve universal health coverage. (Campbell et al., 2013)

The distribution and composition of the workforce are as significant as the size of the workforce (Raven et al., 2015). Balance in different types of health workforces (physicians, midwives, nurses, pharmacists, laboratory technicians, auxiliary health workers, community health workers, and administrators) and balance in the gender of the workforce are the most important ones. In addition, the distribution of balanced health workforces across geographical areas (in particular between rural and urban) is a daunting challenge. A population of 100,000 scattered in a large area might need a larger and different workforce than a highly dense one. Professional health workers tend to move from rural to urban (high population density) areas where the wage and standard of living are higher (George, 2007).

Furthermore, the size and the distribution of workers will be more effective when the workers are trained well, and when they are incentivized and supported both professionally and personally. A health workforce is better appropriately trained for the skills they need and the tasks they undertake. Overtraining workforces through long and costly training can be as unnecessary and inefficient as undertraining them. Health care workers should also be compensated reasonably in accordance with their training and education, skills and tasks in order to be kept motivated. At the same time, sound working conditions increase productivity and motivation. Managing different kinds of health human resources within and outside the health care system can be a challenging task for developing countries where informal and unregulated health workers are filling in for professional health workers. In addition, recognition, accreditation and regulation of all types of health workers are essential components of managing the workforce. Finally, health care workforce requires proper career structure in order to remain motivated and effective. (Kabene et al., 2006)

In this thesis, I draw on the conceptual framework employed by the World Health Organization report on human resource for health to assess the CHW program in Afghanistan (Campbell et al., 2013). The framework has four components: availability, accessibility, acceptability, and quality. (1) Availability refers to existence of adequate health workers with relevant competencies and skills mix that meet the need of the population. (2) Accessibility refers to physical accessibility of the place where the workforce is located (i.e. rural accessibility, distance from the community and road conditions), financial accessibility (i.e. ability to pay for services and transportation), temporal accessibility (i.e. opening hours) and organizational accessibility (i.e. appropriate referral mechanism). (3) Acceptability refers to users' acceptance of the health workforce for their qualification, age and sex, and cultural awareness. (4) Quality

refers to competencies, skills, knowledge and behaviour of the health workers matching with professional guides and ethics, and user satisfaction.

### *Task shifting*

To tackle a global shortage of human resources for health, a WHO document proposed a strategy based on short training of less specialised cadre of health workers, also known as task shifting (WHO, 2007). Training CHWs was proposed as part of this strategy. Task shifting is “a process of delegation whereby tasks are moved, where appropriate, to less specialised health workers” (WHO, 2007). Chinese barefoot doctors undertook tasks traditionally assigned to physicians or nurses. Thai, Indian and Afghan Village Health Workers assumed responsibilities traditionally assigned to professional health workers (Kauffman & Myers, 1997; O’Connor, 1980). There is evidence from health interventions in Uganda, Bangladesh, Brazil, Mozambique and Malawi that less specialised health workers have successfully undertaken tasks traditionally allocated to more specialized workers (McPake & Mensah, 2008). Shifting tasks to less specialised providers who had shorter training has a number of advantages and challenges. Task shifting increases the pool of human resources for health in resource-constraint settings, potentially offering a solution to chronic shortage of human resources for health across the developing countries (Lehmann & Sanders, 2007). Task shifting also has the advantage of building bridges between health facilities and communities (WHO, 2007). Although task shifting may increase coverage and reduce costs of services, the World Health Organization recommends that it must also improve quality, not be downgraded to become second-rate coverage, and not be primarily focused on saving costs (WHO, 2007).

In this thesis, I have attempted to explain how Afghan CHWs became human resources for maternal health; the size, distribution and skills of CHWs; and how the task-shifting strategy has been employed in the Afghan context.

### **3.6 Equity in Health & Health Care**

#### *Equity in health*

The final element in my theoretical and conceptual approach to my thesis research is that of health equity. The widely accepted definition of health equity is “differences in health that are unjust, unnecessary, and avoidable” (Whitehead, 1992). The concept of justice is one way to differentiate between equality and equity. Equity is often compared with equality, but they are not the same. The term ‘equity’ carries a moral and ethical quality of justice and fairness, while equality can be independent of both and simply a measure of sameness or difference (Braveman, 2006). To examine fairness of inequalities in health, the causes of these differences need to be examined. If natural and biological variations are the causes, they are not considered inequities. For example, certain gene types or the process of aging have their unavoidable health consequences. Unavoidability is a characteristic that is often related to natural and biological differences. They are, as some say, equitable inequalities (A J Culyer & Wagstaff, 1993). Unlike biological differences that cannot be changed, social conditions can be altered to reduce health inequalities, and thus the causes of inequities are often sought in unfair social conditions (Baum, 2007).

In general, Whitehead (1992) has identified seven main determinants of health differentials, and classified them as ‘inequities’ and ‘not inequities’ in health (Table 3. 1). Health equity is important because the unfair, unnecessary, and avoidable differences in health can lead

to higher mortalities of disadvantaged groups compared to advantaged groups (Whitehead, 1992). Thus an operational definition of equity in health is as follows:

Equity in health implies that ideally everyone should have a fair opportunity to attain their full health potential and, more pragmatically, that no one should be disadvantaged from achieving this potential if it can be avoided. (Whitehead, 1992, p.26)

**Table 3. 1 Inequities and not inequities**

<b>Inequities in health</b>	<b>Not inequities in health</b>
<b>Health-damaging behaviors where the degree of choice of lifestyle is severely restricted</b>	Natural, biological variations
<b>Exposure to unhealthy, stressful living and working conditions</b>	Freely-chosen health-damaging behavior
<b>Inadequate access to essential health and other public services</b>	The transient health advantage of one group over another when that group is first to adopt a health-promoting behavior, and the other group has the means to catch up fairly soon.
<b>Natural selection or health-related social mobility involving the tendency for sick people to move down the social scale.</b>	

Opportunity is an important element in the definition of equity, as some persons or population groups might freely choose risky behaviors or unhealthy practices. Freely chosen risks and health-damaging behaviors are not considered health inequities (Whitehead, 1992). Relating it to the principle of ‘equity of choice’ of Le Grand (1987), Olsen (2011) says that health inequalities that result “from equal opportunities to make well-informed choices across a range of health-related options” are equitable inequalities (p.832).

#### *Equity in Health Care*

The definition of ‘equity in health care’ is affected by the variations of definitions of health equity. One definition of equity in health care is an equitable allocation of resources and

access based on health needs (Braveman, 2006). Access, however, must include quality, acceptability and, most importantly, utilization in order to be counted as equitable (Anthony J Culyer, 2015). Access without utilization does not represent equity unless the population freely chooses not to utilize the accessible health care. Furthermore, even if the equal allocation of resources was possible, it would not guarantee equity in health care for all, as certain populations i.e. elders, children, and disabled need more resources than others (Braveman, 2006).

Unequal needs require unequal resources (A J Culyer & Wagstaff, 1993; Anthony J Culyer, 2015). Two aspects of equity can be identified considering need as the basis for health care resource allocation: horizontal equity and vertical equity. Horizontal equity is equal treatment for equal need; and vertical equity is an unequal treatment for unequal need (Braveman, 2006; A J Culyer & Wagstaff, 1993). But the problem with the notion of ‘need’ is that it can be construed in numerous ways, i.e. ‘need for health’, or ‘need for health care’. There is no question that the end goal of health care is to fulfill the need for health, but a fulfilled ‘need for health care’ will not in itself lead to achieving equity in health. In other words, as Culyer and Wagstaff (1993) said, “irrespective of how one interprets need, equality of health will not be attained even if persons in equal need are treated the same and persons in unequal need are treated in proportion to the relevant inequalities” (p.452). In short, the provision of health care resources based on the needs of the population (equality of opportunity) will not necessarily lead to equality of outcome.

Despite the challenges, the arguments on equity in health care have a number of key elements in common: (1) distribution of resources based on the need, (2) access and utilization, and (3) more equitable health outcomes, which are all included in the WHO’s Human Resources for Health Framework (Campbell et al., 2013). Culyer and Wagstaff (1993) have combined all

components to define equity in health care as equal access, distribution according to need, equal utilization, and equal health outcome. Whether or not it is practical to ensure all these equity components is debatable. An operational definition endorsed by the World Health Organization focuses on accessibility, utilization, and quality of the care. In the WHO definition proposed by Whitehead (1992) equity in health care is defined as “equal access to available care for equal need, equal utilization for equal need, and equal quality of care for all” (p.8).

In this thesis, equity is used as a lens throughout the analysis. I attempt to analyze how the Afghan CHW program extended services to the populations in greatest need, especially women and those living in rural and remote areas. Other equity issues taken into account are the distribution of CHWs across rural areas, the supply of drugs through CHWs, and gender composition of CHWs and the Afghan health system. Gender differences are highlighted across the findings, and also a specific in-depth gender analysis chapter is included in the thesis.

### **3.7 Conclusion**

The CHW program is an element of a complex adaptive health system that serves multiple purposes. It can be part of a comprehensive or selective PHC intervention to address universal health coverage and gender and geographical inequities. CHWs can be considered the human resources for health at the rural level to meet the pressing health needs of the populations. Furthermore, understanding health system governance, financing and information management contributes to the understanding of the CHW program. Moreover, as the program is an element of a whole, its relationship with other elements of the health system and the community could be analyzed through a Weberian theory of power and a feminist theory of gender.

The approach to the research in this thesis was guided by the theories and concepts briefly described in this chapter. The findings begin with a discussion of the structure of the

CHW program. The CHW program is then analyzed as an element of the Afghan health system. First, I explain the governance, financing and information management of the CHW program, and then I unpack the power relations in the community context. Second, CHWs are examined as human resources for health within the Afghan health system, and gender and power relations between different forms of health providers are described and analyzed. The issues of health workforce size, distribution, composition, availability, relevance and utilization of the workforce are analyzed in the chapter on human resources for health. Finally, a detailed gender analysis of the CHW program is presented in a separate chapter.

## **Chapter 4: Research Design**

The research design is a mixed methods case study comprising a qualitative process evaluation of the Afghan national CHW program, supported by a quantitative analysis of the activities of CHWs and maternal and neonatal health outcomes. Epistemologically, I employ a constructivist paradigm, in which knowledge is regarded as contingent upon human practices, being constructed in and out of the interaction between humans and their world, and developed and transmitted within an essentially social context (Crotty, 1998). In this chapter, I first describe the research methods and the rationale for using them. Then, I write about my background and the reason I chose to undertake this research. Finally, I explain the data collection and analysis processes.

### **4.1 Case study**

The CHW program in Afghanistan is multi-faceted with many stakeholders including the Afghan government, international donors, national and international NGOs, and the community (MoPH, 2005a). To unpack the context of this intervention, I chose a case study research design using qualitative methods to conduct an in-depth analysis of this highly contextual phenomenon (Yin, 2003).

Yin defines case study research as an empirical inquiry that investigates a “contemporary phenomenon within its real-life context” when the “boundaries between the phenomenon and the context are not clearly evident”, and in which “multiple sources of evidence are used” (Yin, 2003, p. 23). Case study design provides a descriptive, exploratory and/or explanatory analysis of a phenomenon (Bourgeault, Dingwall, & Vries, 2010). The objective of a case study is not to find out how often something occurs, but rather to explore the context in which the phenomenon occurs, why it occurs, and what relationship exists between observed events (Bourgeault et al.,

2010). A case study is particularly useful for evaluating interventions when they are unique when an established intervention is implemented in a new setting when a unique outcome warrants further investigation, or when an intervention occurs in an unpredictable environment (Creswell, 2012). Such is the characteristic of the Afghan CHW program, a unique intervention designed to provide desirable outcomes in an unpredictable, resource-constraint setting. This program has been going on for the past 12 years. A case study design is thus a plausible method to evaluate the CHW program and create a comprehensive and in-depth analysis of what has actually happened.

There are concerns about the generalizability of case studies, the long time required to conduct a case study, and the large reports such studies produce (Yin, 2003). A case study design nevertheless provides valuable information about the process of an intervention and the ways in which all the elements of the program interact, something that other research designs may not provide (Creswell, 2012).

#### **4.2 Process Evaluation**

Process evaluation is a systematic, step-by-step process to examine all aspects of an intervention to produce data to help with decision-making about ways to improve the intervention (Linnan & Steckler, 2004). In a process evaluation, the question is not whether the intervention was successful, but whether the program was “actually carried out as planned? If not, how did the program vary from the original plan?” (Linnan & Steckler, 2004, p.5).

Exploratory studies such as process evaluation can provide insight into a program revealing contextual factors affecting the program that may not have been taken into account when the program was being designed or implemented (Sandelowski, 2010). When studying the method of implementation, sometimes it occurs that interventions are implemented, but participants never

received them, because either the target population did not participate or the tasks were not carried out (Linnan & Steckler, 2004). Moreover, in a process evaluation, when interventions fail, the research helps to determine if the intervention was a failure by design or by poor implementation (Rychetnik, Frommer, Hawe, & Shiell, 2002). Finally, good evaluation research attempts to “understand why an intervention is effective or ineffective” (Rychetnik et al., 2002, p.121).

There are a number of reasons that I have chosen a process evaluation. First, the Afghan national CHW program has been in place for more than a decade now, without any independent analysis of the program. There have been studies on the Basic Package of Health Services but not particularly on the CHW program component. The questions that remain unanswered are how the program was designed, how it was implemented, what contextual factors affected the design and the implementation of the program, where the program stands after more than a decade of its implementation, and what possible relationship exists between the CHW program and the status of maternal health – a major goal the program was originally designed to address. This study is the first independent process evaluation of the program.

Second, in the area of CHW studies, most research has focused on small-scale interventions, leaving a gap in this research of national CHW programs (Lehmann & Sanders, 2007). In a few country-wide case studies of national CHW programs, there is a knowledge gap in examination of the contextual factors affecting those programs (Bhutta et al., 2010).

Third, the political environment in which the Afghan CHW program was initially designed has been changing, and the change was dramatic by the end of 2014. The program was designed with a strong presence of international community (donors and organizations) in 2003. Upon the withdrawal of international troops in 2014, the commitment of the donors and the

international organizations to Afghanistan has changed. The policy question regarding many social service programs that were initially designed with a continued international support in mind is now refocused on whether the programs should be continued, expanded upon, refined, or even eliminated. That is the type of question that a process evaluation is best suited to address (Linnan & Steckler, 2004).

There are limitations to a process evaluation. Previous process evaluations of health interventions have focused on different aspects of the interventions making it difficult to compare the studies (Linnan & Steckler, 2004). There is not a set of standard guideline of evaluation measures to be studied, contributing to a lack of a systematic approach to process evaluations. Many process evaluation researchers have forgotten to clearly state their theoretical framework (Creswell, 2012). Finally, because a wide range of methods of data collection is used in process evaluation, it can be difficult to select the right data needed for analysis, prolonging the analysis process (Linnan & Steckler, 2004). To overcome the limitations, I have chosen a health systems approach as an overarching conceptual framework, with concepts from Primary Health Care, Human Resources for Health, and equity in health and health care to guide this research. I have also chosen fewer methods of data collection and to limit the amount of data collected through the selected methods.

### **4.3 Positionality and reflexivity**

I was born in the city of Kabul, Afghanistan in 1985 when the Soviet Union troops were still in the country. I have lived in Afghanistan during the civil war between 1992 and 1998, and then as a refugee in Pakistan and Iran between 1998 and 2002. Upon my return to Afghanistan in 2002, I started medical school in Balkh University, and completed the program in 2008. I also

worked for the BBC as a media monitor from 2002 until 2009. I studied health communication at the University of Ottawa between 2009 and 2011.

The reason I chose to undertake this research was my education and training in medicine and my interest in public health and societal problems. Working as a resident in different hospitals, I realized the serious need for disease prevention and health promotion. My master's thesis was about the role of media in providing health messages to the public. Furthermore, over eight years of monitoring the Afghan media and writing about broader social problems, I grew interested in studying societal issues such as poverty and poor health and education.

Based on my personal and professional identity and background, I had to be conscious and reflective of a number of issues throughout this research. As an individual, I am a man brought up in a patriarchal society who is focusing on the issue of women's health. To address this issue, I had to be particularly careful of my preconceived notions about gender. Ethnically, I am a Hazara, and there are four major ethnicities in Afghanistan, the rest are Pashtun, Tajik, and Uzbek. Hazaras are mainly Shia Muslims, and the rest of the ethnicities are mainly Sunni Muslims.

Professionally, I am a medical doctor, and I had to be aware of three issues. First, medical doctors are trained to treat individual patients, so I had to be conscious of the population health perspective of my study. My advantage is that I have not practiced medicine for the past five years but researched public health-related topics. Second, medical doctors usually develop an attitude to value positivist knowledge; I had to learn the value of constructionism paradigm to be able to actually conduct a research through that perspective. Third, as a medical doctor and a PhD student, I am considered to have higher social status compared to the population I study. I had to be careful of that social classification during data collection in the communities. To

address the issue, I often tried to present myself as a student, and only in specific situations as a medical doctor or researcher. For example, if I had to interact with women in rural areas, presenting myself as physician would facilitate data collection on maternal health issues.

#### **4.4 Research Assistant**

I recruited a female research assistant during my fieldwork in Afghanistan to collect data from women in rural areas. Gender segregation is widely practiced across Afghanistan, and cultural norms dictate that strange men do not interact with women. If women interacted with me in some parts of the country, it would also be culturally inappropriate for them to speak about female reproductive health issues, pregnancy, and childbirth.

The recruitment of the research assistant, Sadaf Sakina Husseini, took place in the first two weeks of my initial fieldwork. A journalist friend introduced Sadaf to me as someone with experience in conducting interviews and ability to speak multiple local languages including Farsi/Dari and Uzbek. Sadaf was a third-year Faculty of Arts student at the University of Kabul. She had worked as an interpreter and translator with numerous journalists.

Sadaf and I met at a coffee house in Kabul. I briefed her on my Ph.D. research, the data collection process in rural Afghanistan, the risks of traveling to rural areas, and the benefits of becoming a research assistant for a Ph.D. project. Sadaf signed a contract agreeing to interview female participants in rural and urban areas, take field notes, and record and provide observations from the field. She agreed to be audio recorded and photographed for the purpose of the research. She also signed a confidentiality agreement not to share anything about and from this research in any form or format to anyone other than me and erase all the information after the research is completed. She also agreed to accept freely the risks and dangers inherent in undertaking

research activity in rural and urban Afghanistan. The contract and the confidentiality agreement are attached in the appendix.

I trained Sadaf on undertaking research interview rather than journalistic questioning. She was taught to explain ethical procedures of informing the participant about the research, explaining the risks and benefits of participating in the research, and taking consenting in written or verbally from participants. She was trained to ask questions of what, when, where, how, and why, and probing further information as they relate to the subject of health care and community context. In terms of participant observation, she was trained to take notes about the setting of the interview, the relationship of the people in a household, and to jot down her understanding of the community, their involvement in the CHW program, and how the CHW program influenced community members. I was allowed to attend her first focus group with female CHWs in a health clinic. It was an opportunity to evaluate her skills, and provide her feedback. She was keen in capturing personal stories – something that enriched this work.

She accompanied me to health posts in rural areas. If women agreed to an interview with me, she would sit in the room and take part in the interview by asking sensitive questions, taking notes and writing down her observations. If female participants refused to talk to me, she would interview them in a separately, leading the whole interview and/or focus group process. She also took pictures of female participants and family settings, and provided me with her observations and analysis in written form after the field visits.

#### **4.5 Data Collection: Sampling**

Participants were selected purposefully using stratified sampling, a method that divides the population into separate subgroups, and then creates a sample by drawing subsamples from each of those subgroups (Morgan, 2008). Stratified sampling ensures that all subgroups within a

population are represented in the sample, and purposive sampling ensures that stratified sampling is systematically implemented (Morgan, 2008). I stratified the population for this research both hierarchically and horizontally (Table 4.1). Hierarchically, I selected policymakers, health managers, CHW supervisors and trainers, CHWs, and community members. Horizontally, I stratified policymakers into government, international agencies and donor agencies; implementing organizations into international NGOs, national NGOs, and provincial health departments, provinces and villages within provinces into less remote and high remote areas where the CHW program was implemented.

**Table 4. 1 Hierarchical and horizontal classification in sampling**

Hierarchical	Horizontal		
<b>Policy</b> - <b>Policymakers</b>	Government	Donor agencies	UN agencies
<b>Management</b> - <b>Managers,</b> - <b>CHW supervisors,</b> - <b>CHW trainers</b>	Public Health Departments	International NGOs	National NGOs
<b>Community</b> - <b>CHWs</b> - <b>Community members</b>	Less remote communities		Highly remote communities

The selection criteria for participants at the policy and management levels were involvement in and knowledge of the CHW program. The selection criteria for participants in the rural areas were the distance from a provincial hospital, ethnicity of the village population, gender of CHWs (1 male and 1 female), and availability and willingness of CHWs to participate. Selection criteria for focus group participants were available male and female community members who had received services of CHWs or were otherwise involved in the CHW program.

Security of the province and the rural areas was also taken into account during the fieldwork. Security concerns had an impact on the selection of the sites for this study. The researcher and his assistant travelled only to secure districts and villages during the data collection (where there was no evidence of conflict between government and Taliban or other groups), as this was the criteria for data collection. The existence of health clinics in districts and the presence of CHWs in villages was an indication of government control and thus security.

Overall, I selected one international NGO, one provincial health department, and two national NGOs, because one of the national NGOs had remote Health Posts meeting the criteria. I selected four provinces namely Kabul, Parwan, Balkh and Bamyan (Figure 4.1). I collected data from 16 villages and 25 CHWs working in those villages. Figure 4.2 illustrates the sampling diagram at the management and community levels.

Four Provinces included in this study

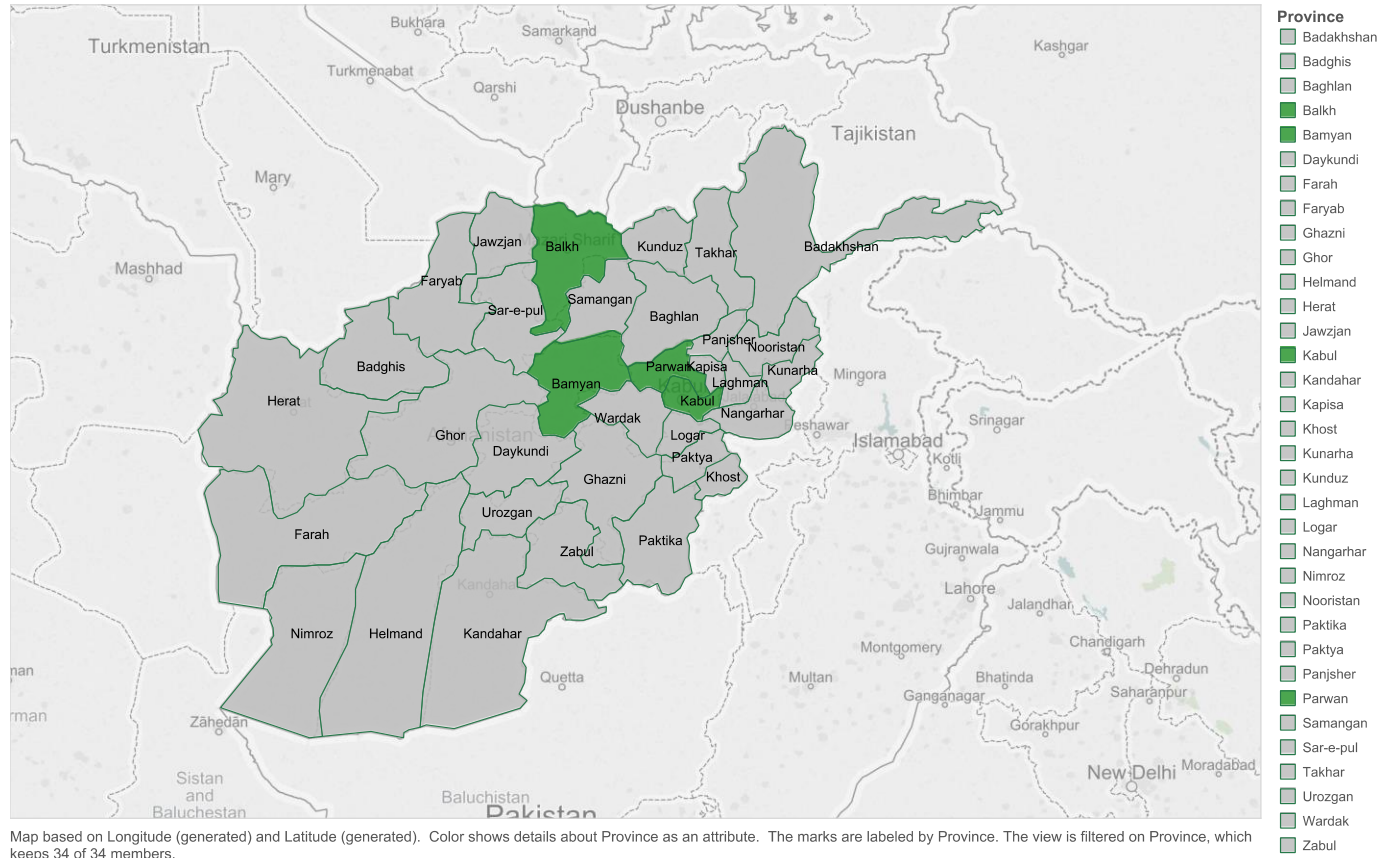


Figure 4. 1 The provinces visited for fieldwork in this study

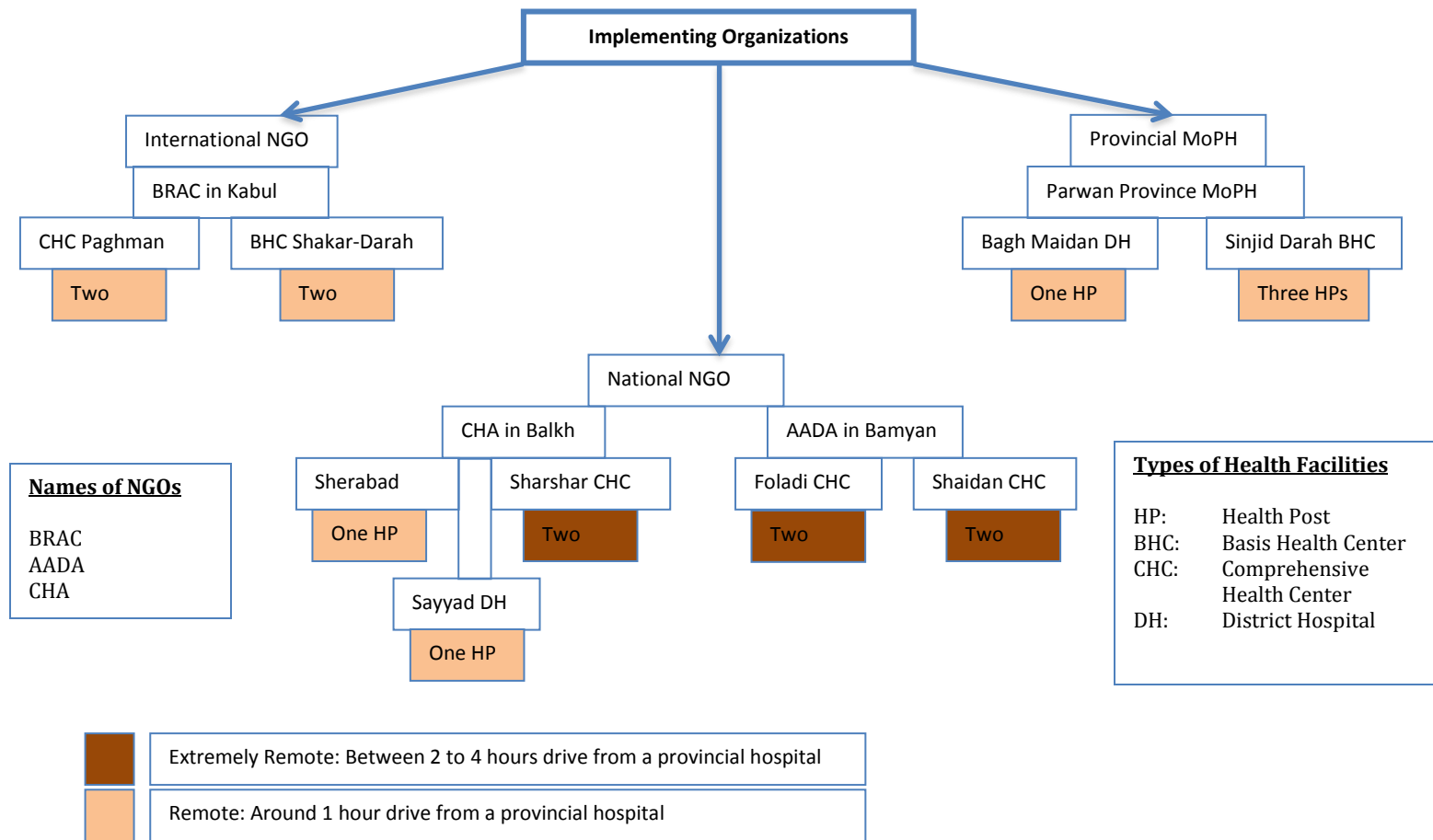


Figure 4. 2 Three types of implementing organizations and their sampling diagram

#### **4.6 Data collection**

**Interview.** Key instruments for data collection were in-depth semi-structured and focus groups interviews. Interview as a form of data gathering is a process involving many individuals in a particular setting whose communication lead to the creation of a politically- and socio-culturally-based mutual story (Fontana and Frey, 2005). Interviews are the main method of data collection in constructionism approach for understanding the phenomenon from the perspective of those involved in it (Yin, 2003).

I created interview guides for every cohort of participants. First, a long list of interview questions was created based on the research questions. The research questions were removed from the list, and probes were added to each question to collect the required data. Based on the presumed knowledge of stakeholders, separate interview guides were developed for policy makers, health managers, CHW supervisors and trainers, CHWs, and community members. The guides were translated into local language and tested at the beginning of the fieldwork at a health facility in Kabul on July 7, 2013. After the pilot test, the guide was refined for the simplicity of its language and ease of understanding, method of asking the questions and the probes, and the sequence of questions. Local jargons used for sensitive medical or health terms were learned to be included in the guide (For example: ‘Happiness Drug’ was used for contraceptive pills; ‘cover’ was used for condom).

I was in the field between 5 July 2013 and 30 September 2013. A total of 25 CHWs, 9 CHW supervisors, 4 CHW trainers, 6 health facility and implementing organization managers, and 11 policy makers were interviewed, and eight focus groups with community members were conducted. The participants at the policy and managerial levels were from the Ministry of Public Health, World Health Organization (WHO), Canadian Department of Foreign Affairs, Trade and

Development (DFATD), United Nations Population Fund (UNFPA), European Union (EU), Bangladesh Rural Advancement Committee (BRAC), Coordination for Humanitarian Assistance (CHA), Agency for Assistance and Development of Afghanistan (AADA), and provincial health department of Parwan. Interviews with policy makers and health managers took place in their offices during their availability. Interviews with CHWs and focus groups with community members took place at Health Posts (HP), except in one district where the interviews took place at the health center for cultural reasons. Some interviews at the community level were turned into focus groups because it was culturally inappropriate for privacy reasons. In an attempt to explain the concept of privacy and confidentiality to community members, a community member asked if I was “a spy or something.” For ethical considerations, I asked all participants to sign or agree to focus group consent forms. In those instances, I conducted individual interviews in the presence of focus group members and then changed into focus group setting involving all participants.

All interviews and focus groups were semi-structured. The interviews lasted between 30 to 90 minutes. The number of focus group participants varied between 3 and 7 people. They were male-only and/or female-only focus groups, except in three villages in Bamyan where both male and female community members participated in the same focus groups.

**Participant Observation.** Interviews alone do not create an in-depth case study research; therefore, it is often combined and complemented with other methods of data collections such as participant observation and/or documents analysis (Yin, 2003). I employed participant observation to complement the data collected through interviews. Participant observation is a method of data collection in which the observer participates in the daily life of the people under study, either overtly in the role of researcher or covertly in some disguised role, “observing

things that happen, listening to what is said, and questioning people, over some length of time” (Becker & Geer, 1957, p.28). Observations of the setting and the intervention process provide direct experience and knowledge of the phenomenon in order to cross-check with the interview data, to complement them, and the critically analyze them (Becker & Geer, 1957). Proper observations involve writing field notes, keeping journals and diaries, or recording memoirs, in which factual statements of what happens, relevant quotes, and other potentially helpful data are recorded (Yin, 2003).

My research assistant and I took field notes during and right after the field visits to document our observations. Our observations focused on the cues related to the community and the health system. Within the community, we spent between 30 minutes to one hour at each village observing the setting such as the structure of the house, the content of the household, the source of drinking water, availability of electricity, distance from the clinic, and main source of income in the community, and the people such as who is the CHW, who are health council members, what is their status in the community, is the CHW related to village chief, the ethnicity and their religious sect of people, female interaction with male, girls education, existence of traditional providers and their relationship with CHWs, and the status of CHWs among CHWs. We also spent between 15 minutes to one hour at each health facility that covered the selected villages, observing the health facility, wards, patients, and services and visiting health care providers in the health facility, the status of CHWs in health facilities, and relations of CHWs with professional providers. After a couple of field visits, I developed a list of measures to be observed and learned during each visit. The list was refined after each field visit. We also took pictures of the villages and Health Posts everywhere we visited, only if the locals permitted us. The field notes included a journal of what happened during these visits, relevant statements, and

the two researchers' initial analytical reflections. The observation notes were used to triangulate with or complement the interview data, and to assist in data analysis.

Theoretically, the aim was to observe power and gender dynamics in the health system and the community, focusing on the cues such as who spoke first, how were people referred to, and whether there was any cultural symbol of power and status. For example, the term 'Saheb' literally meaning owner and metaphorically meaning respected, was used when referring to persons of higher status, like Doctor Saheb. Clean clothes, in particular white color, were a symbol of higher class. White color gets dirty easily in the dusty villages of Afghanistan. Someone who can afford to clean white color clothes almost every day meant he was affluent. If a woman sat and spoke in village councils among men, it meant she had higher status. Separation of women's health councils and women's absence in village elder's meetings meant women of the village had lower status. At the health facility, when women were referred to with their name and a title 'Jan', literally meaning dear, like Sameera Jan, it meant she was valued. Otherwise, women were referred to as someone's mother or daughter. Many other cultural, linguistic, and contextual cues of power and gender dynamics were observed during fieldwork.

**Documents.** The third instrument for data collection was document analysis. Together with interview and participant observation, documents can be very helpful in developing interview protocols, verifying contents of the interviews, and providing a second standpoint about a phenomenon (Yin, 2003). A document may be defined as any symbolic representation that can be recorded and retrieved for description and analysis (Creswell, 2012). Document analysis is a method and research orientation in which the emphasis is on discovery and description, including searching for contexts, underlying meanings, patterns, and processes, rather than on mere quantity or numerical relationships between two or more variables

(Sandelowski, 2010). Administrative documents, which could be quantitative, may provide valuable information to triangulate with other methods of data collection. Press releases about the intervention can be tricky to analyze because those are the partial pieces of the data that the organization attempts to highlight while possibly concealing the other pieces of information (Sale, Lohfeld, & Brazil, 2002). The challenge for the researcher is to clarify and codify the documents so that they provide valuable insights into the case.

I obtained the Health Management Information System (HMIS) database from the Ministry of Public Health. The Microsoft Access database stores data for all components of the Basic Package of Health Services including CHWs, and maternal and neonatal health. I retrieved data for CHW activities and maternal and neonatal health from the database for analysis.

Other documents were collected from the Afghanistan's Ministry of Public Health and international donors and partners: United States Agency for International Development (USAID), the World Bank, the European Union/Commission (EU), World Health Organization (WHO), Department of Foreign Affairs, Trade and Development Canada (DFATD), United Nations Population Fund (UNFPA). Documents were also collected from implementing organizations: international NGOs, national NGOs, and provincial health departments. I sourced publically available documents from these organizations and their websites, and documents not publically available through personal contacts with those organizations. I collected policies, strategies and guidelines, health services contracts, monitoring reports, national research, and administrative databases. Table 4.2 provides a detailed list of all documents reviewed for this thesis.

**Table 4. 2 List of policy documents reviewed**

No	Policy Title	Type	Publication Year
1	A Basic Package of Health Services for Afghanistan - 2003/2005/2010	Policy	2010
2	Health Management Information System Guideline	Guideline	2006
3	National Policy on Reproductive Health	Policy	2006
4	Essential Package of Health Services	Policy	2005
5	Afghanistan National Health Accounts	Report	2010
6	National Policy for Infection Prevention and Control in Hospitals and Health Centers	Policy	2005
7	Public Nutrition Policy and Strategy 2003-2006	Policy	2003
8	Human Resources for Health Policy 2008 - 2012	Policy	2009
9	Human Resource Policy	Policy	2006
10	Afghanistan National Health Workforce Plan 2012-16	Policy	2011
11	Afghanistan National Health Accounts with Sub-accounts for Reproductive Health 2011-2012	Report	2013
12	National Strategy on Human Resource for health Capacity-Building with focus on in-service training	Strategy	2014
13	Community-based Health Care Policy and Strategy 2009 - 2013	Policy	2009
14	Strategic Plan for the Ministry of Public Health 2011-2015	Strategy	2011
15	National Salary Policy	Policy	2005
16	National Essential Drugs list	Report	2007
17	A Basic Package of Health Services 2010/1399	Policy	2010
18	Community Health Worker Training Manual	Guideline	2005
19	Guideline for Sub-Centers	Guideline	2009
20	National Health Policy and National Health Strategy	Policy/Strategy	2010

### **Member checking**

Member checking or validation is a procedure to check the preliminary findings and analysis of research with participants who were the source of the raw data (Bryman, 2004). Member checking adds value to the analysis of the raw data, as the participant takes part not only in providing the data but also in the interpretation of them. During the member check, the researcher(s) and the participants discuss different interpretations to reach a shared interpretation. This process also helps validate misunderstandings, wrong information, and misinterpretations,

though it will be a challenge for the researcher to select how much and what parts of the initial findings be shared and with which participants (Bryman, 2004).

Between 22 August 2014 and 3 November 2014, I conducted member checking of the preliminary findings of the research with almost half of the participants. I shared the preliminary findings with previous participants as well as some new participants and asked for their comments and feedback. At the end of each member checking session, I asked further questions to clarify issues on previous themes and investigated any further new themes that emerged during the member checking. For example, I needed clarification on themes such as gender, supervision of CHWs and antibiotic usage.

I had two technical challenges during member checking. First, some of the participants I interviewed in the first round of data collection had left their occupation. For example, a female CHW I had interviewed had left her job, and her sister had replaced her in the village. In those cases, I either found the initial participants through telephone or validated the initial findings with new participants who had replaced the initial participant.

Second, some implementing organizations I included in the initial round of data collection had lost the implementation contract, and a new implementing organization had taken over the health services. For example, in Bamyan, two of the villages I had visited last year were under the coverage of a national NGO (AADA – Agency for Assistance and Development of Afghanistan). This year, they were covered by an international NGO (AKDN – Aga Khan Development Network) as part of a new contracting period. In Balkh, a national NGO (BDN – Bakhter Development Network) had taken over another national NGO (CHA - Coordination of Humanitarian Assistance). In Bamyan, I validated the findings with a program manager of AKDN, and in Balkh, I interviewed two program managers of BDN. The inclusion criteria for

member checking were the same as those for the initial data collection. Ethical procedures, i.e., signing or agreeing to consent forms were taken into account in all cases.

I conducted member checking and shared the preliminary findings with 8 CHWs, 9 community health supervisors, 4 health managers, 4 policy makers, and 10 community members. Figure 4.3 illustrates how the initial interviews and focus groups, and the follow-up member checking match up.

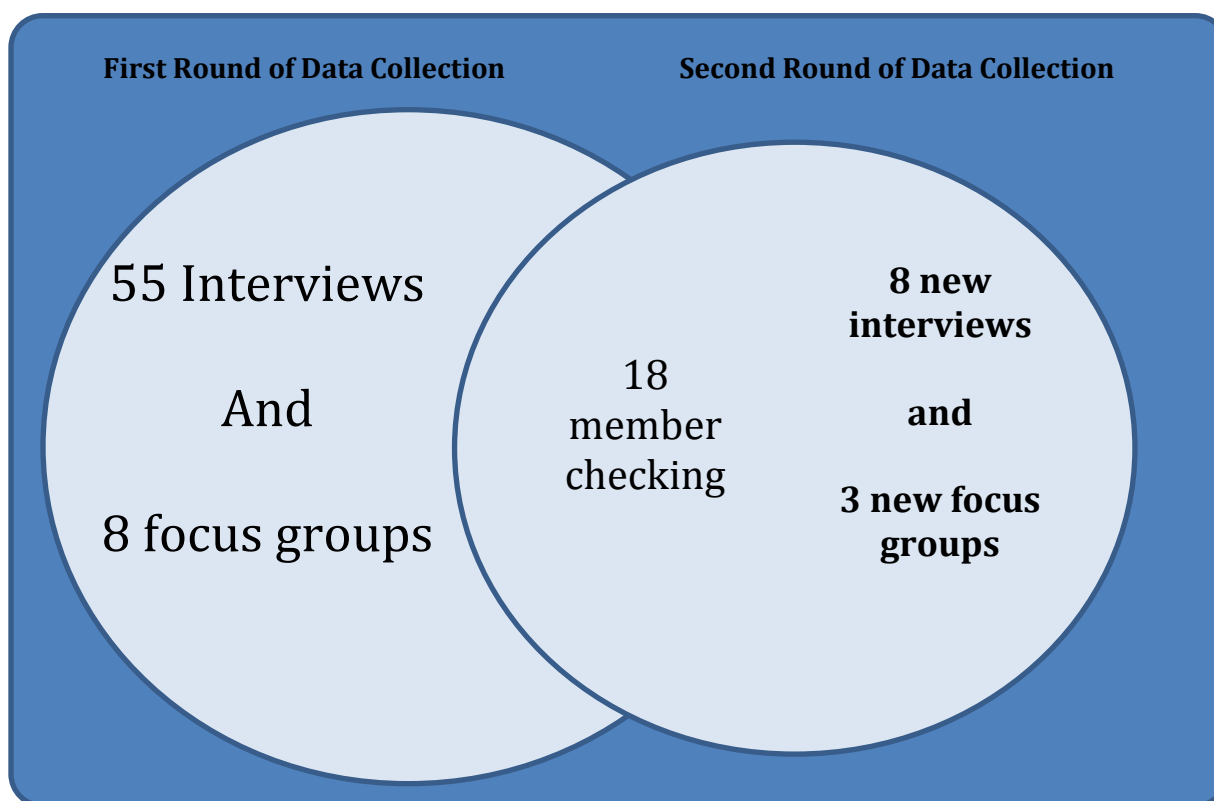


Figure 4. 3 Matching interviews, focus groups and member checking in the two rounds of data collection

Aside from the technical challenges, I found member-checking more difficult than the initial data collection. First, most participants at the community level (CHWs and community members) did not have the literacy to read the findings. For them, I prepared a shorter version of

the findings for narration. I asked them to interrupt me in the middle of my narration if they found anything contradictory to what they had actually said, or had any questions or comments. Some would not stop me in the middle of narration, as it was culturally inappropriate to stop someone while they were speaking. Moreover, CHWs and their supervisors had never previously reported on their activities and been asked for their opinion on the reports originating from CHWs. They have often been praised for their work, but not given the authority to validate their own work. To invite their comments, I decided to stop after each segment (a subtitle or a long paragraph), and give them space and time to express themselves by asking for their opinion, and if they agreed or not with what I narrated to them.

Second, uncovering similar interpretation of the data was also a challenge. During member checking, I felt that some participants thought that if they refuted or challenged the preliminary findings, it would be 'disrespectful' to me. So I had to tell them that their opinion, even if it refuted the preliminary findings, would not be 'disrespectful' but would be valuable to the research. By contrast, some CHWs and community members would go overboard with refuting the analysis. For example, at one Health Post, after I praised a CHW saying that his comments were valuable, he became excessively negative and refuted the finding on the effectiveness of female CHWs claiming that “female CHWs were not more effective than male CHWs.” This comment went against the perspective that many other participants shared. I thanked him for his insight and told him that it would be an improvement to the analysis if he could provide a few examples. Then he talked about how male CHWs were expected to earn for the entire household while women were not. I asked if he wanted to explain the reason for female CHWs not being as effective as male CHWs, he said ‘yes.’ Eventually, we agreed that female CHWs were more active than male CHWs, but male CHWs had legitimate reasons for not being

as active as women. Overall, the more conversational the interview became, the more participants commented and expressed their opinions.

Third, at the managerial and policy levels, those who had the knowledge to read the written version of the preliminary findings were either not interested in reading or did not have the time for it. To the three of them that I sent the written version, they never replied back. I then booked appointments with them, narrated the shorter version to them and asked for their feedback. With the rest of them, I asked if they wanted the written version or the narration, they all wanted to listen to the narration and comment in face-to-face meetings. Eventually, I ended up narrating the findings to the participants and audio-recorded their comments and feedback.

#### **4.7 Qualitative Data Analysis**

The data sources used for qualitative analysis were the key informant interviews representing the range of different participants in the study, policy documents and reports, and field observations. The audio-recorded interviews and focus groups were translated and transcribed simultaneously. The final transcripts were treated as the data for qualitative analysis. Initial analysis of the interviews began during the fieldwork when I wrote fieldwork reports to my supervisors. They were complemented with the fieldwork reports and journals from my research assistant and myself, which were also translated into English. Policy documents and reports informed the entire process starting from making the interview guide. The process was a triangulation of all transcripts. Triangulating data from the different sources enables an in-depth exploration of the context (Creswell, 2012). The final thematic analysis was carried out through reading and re-reading the compiled transcripts (Green & Thorogood, 2004). Manual coding of the transcripts was the first step towards data reduction. Patterns within the codes were

summarized as sub-themes and displayed in the form of a matrix (Sandelowski, 1993, 2010). Constant comparison technique was used to evaluate how emerging sub-themes correlated or varied with each other (Bourgeault et al., 2010). Finally, themes emerging from the similar sets of sub-themes were derived. When discrepancies were observed, facts and opinions were separated. I validated the facts through official and reliable sources. Contradictory opinions were gathered in comparison to each other, and alternative perspectives emerged on a single issue. Confidentiality was practiced at every stage including anonymising the quotes from the interviews.

#### **4.8 Quantitative Data Analysis**

The quantitative dataset was extracted from the Health Management Information System (HMIS) database, and combined with a population census dataset from the Afghan Central Statistics Office. The HMIS is a Microsoft Access database that collects routine information from the implementation of the Basic Package of Health System, and the Essential Package of Health Services. The HMIS was developed in 2003 and revised twice to provide comprehensive information. To analyze the relationship between the CHW's activity and maternal and child health, I chose district as a unit of analysis and included two health outcome variables and five health service and activity variables (Table 4.3).

I gathered data for four years from 2009/10 to 2012/13 (the equivalent of Persian years of 1388 to 1391). The variables are indicators of the existence of and activities by CHWs in a district over a certain period of time. Since the number of Health Posts is reported every month, in order to find the number of active Health Posts in a year, I chose the median number of Health Posts reported over 12 months. The other variables are added over a year. For example, the

numbers of normal delivery referred by CHWs monthly are added over 12 months to give the annual cumulative number. The initial two years of data do not have the antenatal and post-natal visits by CHWs because those activities were not conducted in the whole of the country until 2011, and thus not recorded in the database.

**Table 4. 3 Variables included in the administrative dataset analysis**

Type	Variables
<b>Unit of Analysis</b>	District
	District Population
	•
<b>Health Services and Activities Variables</b>	Number of Health Posts
	Normal Delivery Referral by CHWs
	Obstetric Complication Referral by CHWs
	Antenatal Visits by CHWs
	Postnatal Visits by CHWs
•	
<b>Health Outcomes</b>	Maternal Mortality
	Neonatal Mortality

The objective of the analysis is not to undertake a regression analysis of the impact of health service variables on health outcomes, but to find the association between the variables. Thereby, I first provide descriptive statistics of the quantitative datasets to illustrate the activities of the CHWs and then analyze the relationship between all the variables.

#### **4.9 Ethics approval**

Ethical approval for the fieldwork was obtained from the University of Ottawa (#H05-13-07), and the Afghanistan National Public Health Institute (#356377). I developed a recruitment letter, a consent form for individual interviews, a consent form for individual interviews and observations of the CHWs, Community Health Supervisors and Community members, and a

consent form for focus groups in English. A verbal consent form was also developed for those individuals who could not read and write. Translations of all consent forms in the local language (Dari) were included in research ethical board applications. Both ethics boards approved the consent forms and interview schedules. All the documents are attached in the appendix

A majority of the participants signed written consent forms and some who could not read and write consented to participate in the research orally, which was recorded. For written consent, participants were given time to read the consent forms and ask questions before signing. To receive oral consent, the consent form that included the objectives of the research, ethical issues related to safety, confidentiality, and privacy was read, and/or explained to the participants in the local language before asking if they agreed to the interview or focus group. All of the participants agreed to digital recording; and most of them agreed to be photographed, except for 2 female CHWs and 10 female community members who did not allow being photographed for cultural reasons.

One important ethical challenge was to explain the issues of privacy and confidentiality to participants in rural areas. Because they have lived a communal life, it was hard for them to understand the issues of privacy and confidentiality as observed in the Western world. That lack of understanding made it almost impossible to interview the CHWs or community members individually. For example, almost always, female CHWs had another female or male company from the community. It was considered to be culturally rude and unreasonable to ask others to leave the room or ask for a private setting. In some cases, CHWs only agreed to interview in the presence of their supervisors. In those cases, I asked all the people present in the room to sign or to say yes to a focus group consent form, and involved them in the focus group; however, I

focused on main informants and asked them the questions first. Other participants sometimes commented on the questions or topics discussed.

## Section II: Findings and Discussions

Between July 2013 and November 2014, I conducted two sets of fieldwork in Afghanistan. I visited communities, interviewed people, and collected documents for analysis. Table II.1 shows information on the communities visited during fieldwork. In the four provinces sampled for this study, I visited 17 villages. They were as small as having only 57 households and as large as having around 1000 households. The villages were comprised of different ethnicities namely Hazara, Pashtun and Tajik. The distance of villages from the nearest health clinic varied from 0.5-hour walk to 4-hour walk, with an average of 1.8-hour. Ten of the villages had a source of drinking water, and 14 had electricity to light up their homes at night.

Table II.2 includes demographic information on the 28 CHWs who participated in this study. They had an average age of 34 years (median=37), with a range of between 17 and 69 years. Two third (18) of the CHWs were women; three-fourths (21) were married or widowed; around one-third (11) were unable to read or write; and around one-fourth (8) had not received the basic CHW training. The highest education they had was 12<sup>th</sup> grade, except one CHW, who had received two years of teacher training. Besides working as CHWs, they were school students and teachers, traditional birth attendants, housewives, and farmers. On average, they had worked as CHWs for around 6 years, with as low as 1 year and as high as 11 years.

Table II.3 provides general information on the 11 supervisors who participated in this study. They had an average and median age of 35 years, ranging from 22 to 50 years. They were all married, except one who was engaged. They all had 12th-grade education, except one with 9th-grade level. Only two of them were women. Their average length of experience as supervisor was 3.7 years, with as low as 6 months and as high as 10 years. Collectively, the 11 supervisors

oversaw 329 CHWs in 166 Health Posts, with an average number of 30 CHWs per supervisor. The lowest number of CHWs one of them supervised was 16, and the highest was 54 CHWs.

Table II.4 illustrates demographic data on the four CHW trainers who participated in this study, half of whom were female. Their average age was 41 years, with as low as 35 and as high as 55. Three of them had university level education, and one had a 12th-grade education. Their average length of experience as a trainer was 4.5 years, ranging between 2 and 7 years.

Table II.5 provides information on the 8 health managers who participated in this study. They were program managers, hospital managers, health advisors, community-based health care officers, and technical managers. All of them were men and married. A majority of them (5) had a medical degree from Afghanistan. One had a master's degree in medical sociology from Iran and another had a bachelor of science in health sciences. The average length of experience of the managers was around 7 years, with the highest 13 and the lowest 2. The youngest manager was 52 and the oldest 55.

Table II.6 provides some information on the 12 policymakers who participated in this study. The policymakers were from both the government and the international community. The youngest policymaker was a 27-year-old woman and the oldest a 56-year-old man. Only two of the participants were female. Most policymakers (10) were medical doctors, four of whom had Masters of Public Health degrees from abroad. Two of them had Masters of Art degrees in health economics.

Table II. 1 General Information on villages/communities visited in this study

No	Health Post/Village Name	# of CHW	CHW Gender Ratio	District	Province	Health Facility	House hold	Persons	Village Ethnicity	Distance from clinic	Drinking water	Electri-city	Member checking
1	Zakria Foladi	2	1--1	Central Bamyān	Bamyān	CHC Foladi	75	549	Hazara	2 hour walk	Yes	Yes	Yes
2	Kata Sang Foladi	2	1--1	Central Bamyān	Bamyān	CHC Foladi	150	1100	Hazara	1 hour walk	Yes	Yes	Yes
3	Naal Sheran	2	Two female	Central Bamyān	Bamyān	CHC Shaidan	102	840	Hazara	1 hour walk	No	Yes	Yes
4	Habashi	2	Two female	Central Bamyān	Bamyān	CHC Shaidan	155	930	Hazara	2.5 hour walk	No	Yes	Yes
5	Deh-Yaqub	2	1--1	Shakar Darah	Kabul	BHC Shakar Darah	110	770	Tajik-Pashtun	2 hour walk	No	Yes	No
6	Qala-e Jan Baz	2	Two female	Shakar Darah	Kabul	BHC Shakar Darah	120	780	Tajik-Pashtun	1.5 hour walk	No	Yes	No
7	Qala-e Sarwar	2	1--1	Paghman	Kabul	CHC Paghman	120	1140	Pashtun	1.5 hour walk	Yes	Yes	No
8	Poshta-e Badam	2	1--1	Paghman	Kabul	CHC Paghman	300	2100	Pashtun	1 hour walk	Yes	Yes	Yes
9	Khalazaye	2	1--1	Charikar	Parwan	BHC Sinjid Dara	1000	5000+	Pashtun	2 hour walk	No	No	Yes
10	Deh Rayes	2	1--1	Charikar	Parwan	BHC Sinjid Dara	150	1050	Tajik	1 hour walk	Yes	Yes	Yes
11	Deh Neshar	2	1--1	Charikar	Parwan	BHC Sinjid Dara	320	2240	Tajik	1.5 hour walk	No	Yes	No
12	Nawoch Sufla	2	1--1	Salang	Parwan	DH Bagh Maidan	170	1190	Tajik	0.5 hour walk	Yes	Yes	Yes
13	Sayyad	2	Two female	Kholm	Balkh	DH Kholm	400	2900	Tajik	2 hour walk	No	Yes	No
14	Abdul Hamid	2	Two female	Dehdadi	Balkh	CHC Sherabad	160	1120	Tajik	1 hour walk	Yes	Yes	Yes
15	Shanjeer	2	1--1	Charkent	Balkh	CHC Sharshar	263	1841	Hazara	3 hour walk	Yes	No	No
16	Karmagali	2	1--1	Charket	Balkh	CHC Sharshar	100	700	Hazara	4 hour walk	Yes	No	No
17	<i>*Dew Khana</i>	2	1--1	<i>Central Bamyān</i>	<i>Bamyān</i>	<i>BHC Kuprok</i>	57	399	<i>Hazara</i>	<i>3 hour walk</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>

• *\*Italic with a \*: A village visited in the second round of data collection in summer 2014*

## COMMUNITY HEALTH WORKERS OF AFGHANISTAN

Table II. 2 General Information on Community Health Workers who participated in this study

Number	Title	Age	Gender	Marital Status	Education	Experience in years	Other Occupation	Province	Basic Training	Member checking
1	CHW	17	F	Single	10th Grade	4	Student	Bamyan	No	No
2	CHW	18	M	Single	12th Grade	1	Student	Bamyan	No	No
3	CHW	21	F	Single	Teacher Training	11	School Teacher /Veterinarian	Bamyan	Yes	No
4	CHW	19	M	Single	11th Grade	2	Student	Bamyan	No	No
5	CHW	28	F	Married	12th Grade	4	Teacher	Bamyan	No	No
6	CHW	32	F	Married	9th Grade	6	Teacher	Bamyan	No	Yes
7	CHW	40	F	Widow	Illiterate	6	Dai*	Bamyan	Yes	Yes
8	CHW	45	F	Married	Illiterate	7	Dai*	Bamyan	Yes	Yes
9	CHW	41	F	Married	12th Grade	1.2	Teacher	Kabul	Yes	No
10	CHW	24	M	Single	BA	10	BA in political science	Kabul	Yes	No
11	CHW	18	F	Single	6th Grade	5	Student	Kabul	Yes	No
12	CHW	40	F	Married	Illiterate	5	Housewife	Kabul	Yes	No
13	CHW	40	F	Married	Illiterate	10	Housewife	Kabul	Yes	No
14	CHW	22	M	Single	12th Grade	7	Teacher	Parwan	Yes	Yes
15	CHW	50	F	Widow	Illiterate	7	Dai	Parwan	Yes	No
16	CHW	55	M	Married	12th Grade	6	Cashier	Parwan	Yes	Yes
17	CHW	35	M	Married	12th Grade	5	School Headmaster/Teacher	Parwan	Yes	Yes
18	CHW	35	M	Married	Illiterate	5	Water Distributer	Parwan	Yes	No
19	CHW	69	F	Widow	Illiterate	9	Dai	Balkh	Yes	No
20	CHW	37	F	Married	12th Grade	10	Tailor	Balkh	Yes	No
21	CHW	27	F	Married	8th Grade	10	Tailor	Balkh	Yes	No
22	CHW	47	M	Married	Illiterate	5	Farmer/Religious Services	Balkh	Yes	No
23	CHW	45	M	Married	Religious studies	11	Community worker	Balkh	Yes	No
24	CHW	40	F	Married	Illiterate	5	Housewife	Balkh	Yes	No
25	CHW	40	F	Married	Illiterate	5	Housewife	Balkh	No	No
26	<i>CHW*</i>	23	<i>F</i>	<i>Married</i>	<i>12<sup>th</sup> Grade</i>	7	<i>Housewife</i>	<i>Bamyan</i>	<i>Yes</i>	<i>Yes</i>
27	<i>CHW*</i>	22	<i>F</i>	<i>Married</i>	<i>Illiterate</i>	1	<i>Housewife</i>	<i>Bamyan</i>	<i>No</i>	<i>Yes</i>
28	<i>CHW*</i>	34	<i>M</i>	<i>Married</i>	<i>6<sup>th</sup> Grade</i>	1	<i>Farmer</i>	<i>Bamyan</i>	<i>No</i>	<i>Yes</i>

- \*Dai: Traditional Birth Attendant

- \*Italic with a \*: Those interviewed in the second round of data collection in summer 2014, initial findings were shared with them

## COMMUNITY HEALTH WORKERS OF AFGHANISTAN

Table II. 3 General Information on Community Health Supervisors

Number	Title	Age	Gender	Marital Status	Education	Experience / (years)	Province	# of Health Posts	# of CHWs	# of Male CHWs	# of Female CHWs	Member checking
1	CHS	37	M	Married	12th Grade	3.5	Bamyan	27	54	18	36	Yes
2	CHS	22	M	Single	12th Grade	0.5	Bamyan	19	38	16	22	Yes
3	CHS	50	F	Married	9th Grade	1.5	Kabul	8	16	3	13	No
4	CHS	42	M	Married	12th Grade	4	Kabul	17	34	12	22	Yes
5	CHS	45	M	Married	12th Grade	2	Parwan	9	18	14	4	Yes
6	CHS	35	M	Married	12th Grade	3	Parwan	14	28	18	10	Yes
7	CHS	45	M	Married	12th Grade	8	Balkh	10	20	12	8	No
8	CHS	35	F	Married	12th Grade	10	Balkh	15	29	13	16	Yes
9	CHS	30	M	Married	12th Grade	3	Balkh	9	18	13	5	Yes
10	<i>CHS*</i>	28	<i>M</i>	<i>Married</i>	<i>12<sup>th</sup> Grade</i>	2	<i>Bamyan</i>	11	22	11	11	Yes
11	<i>CHS*</i>	22	<i>M</i>	<i>Married</i>	<i>12<sup>th</sup> Grade</i>	3	<i>Balkh</i>	27	52	24	28	Yes

• *\*Italic with a \*: Those interviewed in the second round of data collection in summer 2014, initial findings were shared with them*

Table II. 4 General information on Community Health Worker Trainers who participated in this study

Numbers	Occupation	Age	Gender	Marital Status	Education	Experience (years)	Member Checking
1	CHW Trainer	35	F	Married	12th Grade	7 years	No
2	CHW Trainer	55	M	Married	Military School	4 years	Yes
3	CHW Trainer	35	F	Married	BA	5 years	No
4	CHW Trainer	40	M	Married	Pharmacist	2 years	No

**Table II. 5 General Information on Health Manager who participated in this study**

Numbers	Occupation	Age	Gender	Marital Status	Education	Experience (years)	Member checking
1	Program Manager	35	M	Married	MD	5 years	No
2	Hospital Manager	50	M	Married	MD	7 years	No
3	Health Advisor	30	M	Married	MA	3 years	No
4	CBHC Officer	50	M	Married	BSc in Health Sciences	10 years	No
5	Program Manager	55	M	Married	MD	9 years	Yes
6	CBHC Officer	32	M	Married	MD	2 years	No
7	<i>Technical Manager*</i>	38	<i>M</i>	<i>Married</i>	<i>MD</i>	<i>10 years</i>	<i>Yes</i>
8	<i>CHBC Officer*</i>	42	<i>M</i>	<i>Married</i>	<i>14<sup>th</sup> Grade</i>	<i>13 years</i>	<i>Yes</i>

*\*Italic with a \*: Those interviewed in the second round of data collection in summer 2014, initial findings were shared with them*

**Table II. 6 General information on policymakers who participated in this study**

Number	Organization	Age	Gender	Education	Department	Member checking
1	MoPH	55	M	MD/MPH	Community-Based Health Care	Yes
2	MoPH - Int Org	45	M	MD	Grant and Contract Management Unit	No
3	MoPH - Int Org	41	M	MD	Grant and Contract Management Unit	No
4	MoPH - Int Org	42	M	MD	Grant and Contract Management Unit	No
5	MoPH	34	M	MD	Health Economics and Finance Department	Yes
6	MoPH	27	F	MA	Health Economics and Finance Department	No
7	MoPH	56	M	MD	Professional Affairs Department	No
8	Int Org	36	F	MA	Health & Development	No
9	Int Org	40	M	MD/MPH	Gender and Community-Based Services	No
10	Int Org	42	M	MD/MPH	Community-Based Services	Yes
11	Int Org	54	M	MD	Health & Development	No
12	<i>MoPH*</i>	55	<i>M</i>	<i>MD/MPH</i>	<i>Policy and Planning</i>	<i>Yes</i>

*\*Italic with a \*: Those interviewed in the second round of data collection in summer 2014, initial findings were shared with them*

## **Chapter 5. Description of the Afghan CHW program**

The CHW program is one main component of the Basic Package of Health Services (BPHS) in Afghanistan. In this chapter, I argue that the actual structure of the CHW program is the result of the interaction of the program design and the community context in which it is implemented. The power and gender dynamics in the community and the health system influence the way the actual CHW program takes shape. I describe the CHW program using data from interviews, focus groups, policy documents, and my observations. I compare the realities on the ground expressed in interviews and observational data with the way the program is defined and presumed to function in the policy documents. This chapter specifically focuses on the first objective of my thesis, which is ‘to explore the detailed the structure of the national CHW program.’

The chapter starts with a definition of CHWs and continues with a detailed description of the following major elements of the program.

- a. CHWs and their tasks
- b. Selection and recruitment
- c. Training
- d. Supervision
- e. Compensation
- f. Drugs and supplies,

The chapter concludes by discussing how differences between the policy intent, and the actual activities, of the CHW program might be understood by reference to the context in which it is implemented.

### **5.1 Community Health Workers & their tasks.**

The Afghanistan program policy defines a community health worker as:

...A person (female or male) selected by the community according to selection criteria reflected in the policy on CHWs, [who] promotes healthy lifestyle in the community, encourages appropriate use of health services, and treats and refers common illnesses, accountable to the local Shura [Council] for performance and community satisfaction and technically accountable to the community health supervisor (CHS) assigned by authorities from the nearest health facility. (MoPH, 2010)

CHWs were volunteer members of the community, nominated by a Village Health Council, and trained, supervised and supported by the organization implementing the BPHS. They were reimbursed for their trips to health facilities, and provided with toothbrush and toothpaste, hand soap and a towel for their own use, but they were not paid a salary.

The tasks of CHWs were divided into three sections: community collaboration and health promotion, direct services, and management activities (Table 5.1). Health promotion activities were mainly focused on maternal and child health, reproductive health, sanitation and hygiene practices, immunization, and mental health. These activities were undertaken during community gatherings and events, house visits and Health Post visits. Activities highly valued in the community were treatment, drug dispensation and referrals clustered under direct services.

CHWs treated mild prevalent diseases such as pneumonia and diarrhea, visited pregnant women and provided them with folic acid and other nutrients (if available), provided first-aid services, distributed contraceptives, and referred patients to health facilities. Through field observations, I found that activities valued in the communities, such as treatment and drug dispensation, brought CHWs higher social status and respect within communities. Tasks related to health promotion and disease prevention were effective when complemented with drug dispensation. In Table 5.1, the tasks designed in the policy for CHWs are compared with the ones CHWs actually undertake. Tasks allocated to all CHWs irrespective of their gender were divided between male and female CHWs. For example, female CHWs participated in female-only events and meetings and undertook tasks that involved women and neonatal health. CHWs participated in national campaigns only when they were asked or employed to do so. Mental health and tuberculosis carried stigmas and thus were rarely reported or dealt with by CHWs, leading to their claim that not many cases of those illnesses existed in communities. My field observations found that active CHWs undertook most of their tasks in varying degrees, and only when the social/cultural context allowed.

One of the tasks of CHWs was to refer patients to health facilities, but my observations suggested that the notion of 'referral' in some places was misconstrued as 'transporting.' The misinterpretation was mainly due to the contexts. In remote rural areas of Afghanistan, I observed that care for the community was the duty of the entire community. CHWs could not only provide a piece of paper to a woman in labour and tell her husband to take her to a health facility. Community norms dictated that a male CHW, as for any other community member if asked for help, would facilitate transportation means.

**Table 5. 1 Observation of how CHWs undertake their assigned tasks**

<b>Tasks in the job description of CHWs (BPHS, 2010)</b>	<b>If and how CHWs undertake the tasks (based on interviews and observational data)</b>
<b>Community Collaboration and Health Promotion</b>	
1. Actively Participate in community meetings and events	Segregated by gender
2. Actively work with mother's groups and Family Health Action (FHA) Groups	Mother's groups and FHA often do not exist
3. Encourage the community to participate in immunization	Yes
4. Participate in immunization campaigns	If asked by the campaign managers
5. Promote good nutrition practice	Yes
6. Promote the use of ORS and ZINC, and homemade rehydration	Yes
7. Promote hygiene and sanitation	Yes
8. Encourage couples to practice birth-spacing	Yes
9. Promote psychosocial and mental health in the community	No
10. Raise awareness on addictive substance	No
<b>Direct services</b>	
1. Treat mild prevalent diseases	Yes
2. Implement community-based IMCI	Yes
3. Implement community-based growth promotion with FHA groups	FHA groups often do not exist
4. Counsel on correct use of medications	Yes
5. TB prevention program	Rarely, due to rare cases of TB
6. Promote ANC and PNC	Yes
7. Encourage skilled birth attendance (and institutional delivery)	Yes
8. Distribute contraceptives	Yes
9. Provide first-aid services to the community	Yes
10. Ensure administration of Vitamin A to children	Yes
<b>Management</b>	
1. Meeting with community health council	Yes
2. Meeting with CHS	Yes
3. Support community midwives	Yes, if there is a midwife
4. Complete and submit Tally Sheet	Yes
5. Know the community and develop a community map	Yes
6. Report mortality and disease outbreak	Yes
7. Manage the Health Post, maintain supplies and drugs, and report utilization	Yes

The same community norm applied to a female CHW to accompany a pregnant woman to health facilities. Almost all male CHWs I interviewed implicitly took it as their duty to facilitate transportation as part of their referral tasks. As one CHW commented:

*“We do have one big problem, transportation. We carry our women on our back”*  
(CHW).

Emergency transportation happened in two ways. First, some health facilities had a functional ambulance to carry patients from and to villages. CHWs had the telephone number for the driver and the facility administrator to request an ambulance, but these ambulances were not always available.

*“The farthest village is 3-hour walk to the road; we have 2 ambulances in the clinic, and they have never been available.”* (CHW)

Second, when the ambulance was not available, as was often the case, CHWs had the telephone number of vehicle owners in the village and requested them to cooperate in emergency cases.

*“I have the number of all the people in the village who have a vehicle, in case of emergency, I call them for help, and they always show up, even if it is 2 am in the midnight.”* (CHW)

Once transportation means was prepared, female CHWs accompanied pregnant women to health facilities.

*“When they start feeling pain, some of them call me (on the cell phone) and some other come to my house asking me to go with them to the clinic. I will call the ambulance and take them to the clinic.” (F-CHW)*

Thus, besides promoting health facility visits, the referral was not only about submitting a referral letter to patients and asking them to visit the health facility, but also about arranging a vehicle for their transportation, and sometimes accompanying patients to the facilities.

Another task of the CHWs was to form a Village Health Council in collaboration with village elders/leaders. With one Village Health Council in each village or catchment area, the councils were male only, female only, or of mixed-sex. Typically, the councils were segregated by gender representing the overall gender-segregated society. In some remote parts of the country where men and women worked together on the farm, the councils were of mixed-sex. These remote areas were usually away from cities and still very agrarian. CHWs convened meetings with the councils on a monthly basis in which they discussed health issues of the village. Male-only health councils often discussed environmental health issues such as water for drinking and for irrigation, electricity, and roads for quick and easy access to the health facilities. Female-only health councils generally focused on maternal and child health such as breastfeeding, good sources of nutrients for mothers and children, antenatal and postnatal care visits, family problems (convincing mothers-in-law and husbands to allow them to access health care services), and provision of vehicles for transportation of pregnant women to the health facilities.

CHWs also attended a monthly refresher training/meeting at the health facility to reinforce and update their knowledge, and to discuss village health problems. Most CHWs

attended the monthly meetings for a number of reasons. First, they were paid a travel stipend, but they usually walked the trip between the village and the health clinic for a lack of transportation and to save the money. Second, the monthly meeting reinforced the relationship of the CHW with the health facility, which in turn boosted the status of the CHW in the community on their return.

*“...because people think we might have brought [back] drugs or something to give them like brochures or posters.” (Male CHW)*

Third, CHWs refreshed their knowledge about the services they provided and learned new information.

CHWs also had administrative tasks. They were responsible for reporting their activities to their supervisors who visited them once a month. CHWs kept a record of their activities in a pictorial tally sheet, which allowed all CHWs including the less literate ones to record their activities (Figure 5.1). CHWs kept track of their community-related tasks in a community map, sketched by CHWs and based on the locations of the main road, water canal, drinking water sources, mosque, schools, cemetery, and/or bazaars. (Figure 5.2) In the map, CHW identified a number of indicators with specific symbols. (Table 5.2)



Figure 5. 2 CHWs map of community catchment area



Table 5. 2 Indicators for CHWs map of community

Indicators	Symbol	Remark
House		Numbered House
Children under 2		
Children above 2		
Using contraceptive	Green	End of contraceptive use
Pregnant woman	Red	End of Pregnancy
Vaccination completed	Crossed	
TB identified		TB treatment ended
Symbol of end of		

## 5.2 Selection and recruitment

This study found that selection of a community member to become a CHW was the first step that ended with the recruitment of the member as a CHW after s/he received full training and a certificate from the implementing organization. Although selection and recruitment were separate stages, once someone was selected they were most often recruited. The selection process started with a community health supervisor (CHS), a staff of the health facility covering the area, visiting the village and informing the community of the CHW program, the advantages of the program, and the procedure to select two of their members (a male and a female) to become CHWs. The standard criteria to become a CHW were:

- Resident in the local area
- Between 20 to 50
- Volunteer, motivated, and interested to serve as CHW
- Respected person in the area
- One male and one female CHW per Health Post
- Literacy is preferred

The standard procedure was that the community should establish a Village Health Council, and the council selected two suitable candidates. In practice, it often happened that CHWs were selected at a general meeting of village elders, and after the CHW received the training and started working, s/he would form a Village Health Council.

The actual minimum criteria for selecting a CHW, albeit not explicit in the written policy, included the agreement of a community member to work as a volunteer and to turn a room in his/her house into a Health Post. Turning one's room into a Health Post meant putting health-related posters on the walls of the room, keeping in the room the health kit (a box of drugs, dressing materials, condoms, pills, injections, and other health-related materials) to provide to the villagers as needed, and holding meeting of the Village Health Council. The villagers came to Health Posts for drugs, contraceptives, health advice, pregnancy-related matters, mild injuries, and sometimes injections. It became a care center for patients and the community, but rarely was it used for an overnight patient stay.

Once someone agreed to become a CHW, a village council (typically comprised of traditional leaders) approved his/her decision, and the person was introduced to the health facility to receive training. Although a minimum literacy was preferred, this research found many illiterate CHWs who undertook their tasks as well as the literate ones, and that the age limit was not strictly applied. There were CHWs under the age of 20 and older than 50.

*“People wouldn't allow their young women... they would introduce weak women in their 50s or 60s.”* (CHW-Trainer)

Field observations suggest that a number of factors could contribute to women's physical weakness in their 50s and 60s in rural Afghanistan. A typical Afghan woman in a rural area usually goes through more than a dozen pregnancies and labours. Despite losing a few children before and after delivery, a woman on average would raise between 5 and 8 children throughout her fertility period. Based on the above assumption, implementing organizations consider a complete household to consist of between 7 to 10 people. In addition to the biological and social

impacts, women in their 50s and 60s are considered weak for the manual, agricultural work required in the rural areas, and thus ‘dispensed’ for CHW work.

I also found that both the health system staff and the community leaders had an influence on the selection process. Sometimes, the community health supervisor identified potential candidates (in particular females, somewhat literate, willing to help her fellow villagers) and encouraged them to become CHWs, and sometimes community leaders selected their relatives or siblings. As health managers in different implementing organizations described local leaders and traditional power roles often played an important part:

*“Our staff would select the volunteers, [and] then he would introduce them to the head of the village.”* (Health Manager)

*“Local leaders like elders, teachers, and Mullahs have a role in the recruitment of CHWs.”* (Health Manager)

*“The leader might not approve of a suitable person, he might approve of a person who is his own man,”* (Health Manager)

### **5.3 Training**

The selected candidates were trained by the implementing organization with a standard training module. The standard training consisted of three phases of 18-days in-class training, and 2 months of fieldwork in between each of the training, for a total of 6 months of training (Table 5.3)

Table 5. 3 CHWs training phases

Phases of Training	Activities	Duration	Status	
			During the phase	End of the phase
Phase 1	In-class training, and exams	18 days	CHW Candidate	Active CHW Candidate
	Undertaking tasks under frequent supervision	2 months	Active CHW Candidate	Active CHW Candidate
Phase 2	In-class training, and exam	18 days	Active CHW Candidate	Active CHW Candidate
	Undertaking tasks under less frequent supervision	2 months	Active CHW Candidate	Active CHW Candidate
Phase 3	In-class training, Final Evaluation, Certification	18 days	Active CHW Candidate	Certified CHW

The major topics for training were divided into the three phases (Table 5.4). In phase 1, prevention of infectious diseases was the major topic with some focus on administrative tasks such as reporting their activities. Phase 2 was more about maternal health, and slightly about community mapping and reporting. Phase 3 was about children's health, drug prescription, and mental health.

**Table 5. 4 Content of CHWs training for each phase**

<b>Phase 1: Communicable disease</b>		
<b>Health education</b>	<b>Direct services</b>	<b>Administrative Tasks</b>
Preventing prevalent communicable diseases	Controlling Malaria and Leishmaniasis	Reporting through Tally Sheet
Personal and home hygiene	Immunization	Interpersonal communication
Safe food and safe water	Diarrhoea	
	Common Skin and eye diseases	
<b>Phase 2: Maternal, Neonatal, Child Health, and Family Planning</b>		
<b>Health Education</b>	<b>Direct Services</b>	<b>Administrative Tasks</b>
Pregnancy and Antenatal Care	Providing contraception	Conducting household survey
Getting Ready for Birth	Antenatal Care	Community mapping, and drawing a community map
Care of the mother and the newborn	Care of the mother and the newborn	Tally sheet recording
Breastfeeding and feeding the child with other food		
Birth spacing		
HIV/AIDS		
Structure and Function of the human body		
Rumors and Misconceptions		
<b>Phase 3: Childhood Illnesses</b>		
<b>Health Education</b>	<b>Direct Services</b>	
Counseling mothers on child care	Treating sick children with appropriate medicine	Intestinal parasites
	General danger signs	Vital sign
	Cough and difficulty in breathing management	First Aid
	Fever management	Drugs prescription, dispensing and Drug abuse
	Ear problems	Injection of Depo-provera
	TB management	Mental Health
	Malnutrition management	

CHWs were provided with a pictographic training manual (easy for those who are unable to read), which included a range of public health awareness and education tasks, a number of direct services such as family planning, nutrition, maternal and child health, and treatment of common diseases, such as diarrhoea and pneumonia, and some administrative tasks such as recording their activities, drawing a community map to identify and follow up with households requiring more attention, and reporting their activities to their supervisors.

After the first 18-day training, CHWs were identified as active CHW candidates and started serving the population. After completing the third round of 18-day training, the CHW received a certificate from the Ministry of Public Health and the implementing organization. CHWs also received a 1-day refresher training every month, and a 3-day refresher training every 6 months.

The actual length of training (6 months in total) had been honored in the beginning years of the program (2003 to 2005). Most participants who were CHWs more than 8 years confirmed that they had received three phases of 18 days training and two two-months on the field supervised activity. CHWs trained as part of expansion of the program or to replace dropouts, however, had shorter in-class training, as this newer CHW commented:

*“Yes, I was trained at Sharshar; the training were 10 days, 5 days, 8 days and 3 days [refresher training].”* (Female CHW)

Health managers usually blamed a lack of budget for shorter training. Sometimes, there were practical reasons such as the number of CHW trainees.

*“When we have one or two CHWs to train, it does not take that long to teach them everything, compared to having 10 or more CHWs in class.”* (CHW Trainer)

Training largely illiterate CHWs had been particularly challenging. Trainers said they had to use different methods when students could not read. They used student-centered and applied methods more often.

*“Even before teaching, we ask them [CHWs] if they see anything in the picture and ask them to explain... then we will explain things and ask each and every one of them to repeat”* (CHW Trainer)

*“We would teach them through flipcharts, or show them practically, for example, the way to prepare ORS [Oral Rehydration Saline]”* (CHW Trainer)

Despite the extensive three-phase training, CHWs I interviewed only remembered general topics and health issues they dealt with on a daily basis.

*“We have learned about diarrhea, malaria, pneumonia, and etc.”* (CHW)

*“Our training was focused on family planning, seasonal diseases, malaria, tuberculosis and ...”* (CHW)

*“I know orally, but not in writing... [For example] I tell people to keep their children clean and wash them.”* (CHW)

Some CHWs criticized their trainers for going over the material very fast, and not caring whether the CHWs actually learned or not. If a health problem arose in the community that

CHWs did not know much about, they informed their supervisors, and the community health supervisors held 1-day refresher training on that topic at the next monthly meeting.

Existing studies indicate that training is an essential component of program success. CHWs recruited at the beginning of the BPHS program in 2003 and 2004, received the total three phases of training for 6 months. They had not learned much since then. Most of them asked for more training on issues outside their current role. For example, they wanted training to administer injections and to check blood pressure; two tasks community members expect CHWs to be able to perform.

#### **5.4 Supervision**

A community health supervisor (CHS), a staff of a health facility, supervises CHWs on a monthly basis. Implementing organizations prefer to recruit someone from local communities or someone who has a good understanding of the communities as supervisors. Table II.3 provides more information on the supervisors participated in this study. They had three main tasks. First, they reviewed CHWs' activities such as the number of people they visited, the number of patients they referred to a health facility, utilization of their drugs and supplies, and the registry of mother and neonatal morbidity and mortality. The supervisors transferred the data from CHWs' pictorial tally sheet to another form called the Monthly Activity Report (MAR) (Table 5.5).

In the monthly activity report, supervisors recorded CHWs' activities in relation to family planning, maternal health, nutrition, immunization, under-5 morbidity, and the status of essential drugs. Important indicators were the distribution of contraceptives, treatments of children, the

availability of essential drugs, and the number of referrals to the health facility. Supervisors aggregated the reports of all the Health Posts in a different form called Monthly Activity Aggregated Record (MAAR) (Table 5.6).

Table 5. 5 Monthly Activity Report - MAR

Monthly Activity Report - Health Post MAR			Government of the Islamic Republic of Afghanistan Ministry of Public Health		
District Code & Name			Province Code & Name		
Year	Month	Facility Code	Facility Name		
			Code & Name of Health Post		
			Total Number of Family Visited		
<b>A. Family Planning</b>					
Number			A1. Users by method		
			1. Oral Pills		
			2. Condoms		
			3. Injectables		
			4. Totals		
<b>C. Nutrition</b>			<b>B. Maternal Health</b>		
# Children Screen with MUAC			# of Normal deliveries Refereed by CHW		
			Number of Obstetric complications referred		
# children Referred due to Nutrition Problem			Number of maternal death		
			Number of neonatal deaths		
<b>D. Immunization</b>					
Women Referred for TT			Referred For EPI (<5y)		
<b>E. &lt;5 Morbidity</b>					
Referred	# treated		Priority Health Problem	Code	
			ARI	01	
			Acute diarrhea	02	
			Malaria	03	
<b>F. Status of Stock of Essential Drugs</b>					
<b>F1. Mark the presence of the drug in the last month</b>					
Oral Contraceptive			Fansidar/Chloroquine		
ORS			Cotrimoxazole		
<b>F2. Comments about stock</b>					
<b>G. Community Health</b>					
			Number of meetings with Health Committee		
<b>I. Report Received/Aggregated By</b>			<b>H. Report Transmitted By</b>		
Date received			Name		
Date aggregated/computerized			Designation		
			Date		
<b>J. Comments</b>					
Any special activities or problems, significant anomalies or trends in morbidity and service delivery					

Table 5. 6 Monthly Aggregated Activity Report

## 2.4.2. MAAR – Form

Monthly Aggregated Activity Report - Health Post  
MAARGovernment of the Islamic Republic of Afghanistan  
Ministry of Public Health

District Code & Name			Province Code & Name		
Year	Month	Facility Code	Facility Name		
			<b>Number of Health Post Submitted MAR</b>		
			<b>Total Number of Family Visited</b>		
<b>:#HP / B. Maternal Health</b>			<b>:#HP / A. Family Planning</b>		
1. # of Normal deliveries Referred by CHW			<b># of units</b>	<b>A1. Units distributed</b>	
2. Number of Obstetric complications referred				1. Oral Pills (cycle)	
3. Number of maternal death				2. Condoms (dozen)	
4. Number of neonatal deaths				3. Injectables (injection)	
5. ANV at home					
6. PNV at home					
<b>:#HP / C2.Nutrition GMP</b>			<b>:#HP / C1.Nutrition Acute Malnutrition</b>		
1. Number of Weighing Sessions				1. # Children Screen with MUAC	
2. Number of children Weighed				2. # children Referred for malnutrition	
3. Number with adequate weight gain					
<b>:#HP / E1. &lt;5 Morbidity and Mortality</b>			<b>:#HP / D. Communicable diseases</b>		
<b>Referred</b>	<b>Treated</b>	<b>Health Problem</b>	1. Referred For EPI (<1y)		
		1. ARI	2. Women Referred for TT		
		2. Acute diarrhea	3. Referred for TB		
		3. Malaria			
		99. Died at home			
<b>:#HP / F. Status of Stock of Essential Drugs</b>					
<b>F1. Put number in front of each drug for number of HPs that reported presence of the drug in the last month</b>					
4. ORS			1. Chloroquine		
5. Zinc tablets			2. Cotrimoxazole		
6. Vitamin A			3. Oral Contraceptive		
<b>F2. Comments about stock</b>					
			<b>:#HP / G. Community Health</b>		
			1. Number of meetings with Health Committee		
			2. Number of FHAG active		
<b>I. Report Received/Aggregated By</b>			<b>H. Report Transmitted By</b>		
Date received			Name		
Date aggregated			Designation		
			Date		
Any special activities or problems, significant anomalies or trends in morbidity and service delivery					

The monthly aggregated activity report forms were collected by the Ministry of Public Health and entered into a large national database called the Health Management Information

System (HMIS), the database used in this study to understand the relationship between the activities of CHWs and maternal and neonatal health in rural areas.

Second, supervisors provided drugs and supplies to CHWs every quarter of a year through their supervisory visits. That was the standard procedure. In remote areas where the roads were blocked during winter, supervisors provided drugs and supplies every 6 months. During winter, supervisors visited those remote villages by donkey or on foot, but as vehicles could not access those villages, they could not transport drugs and supplies during snow seasons. Supervisory visits with the drugs were more detailed as there would be an inventory of previous drugs available, used and/or expired. The findings of my research suggest that these supervisory visits gave a better picture of the way CHWs functioned compared to the ones where no drugs and supplies were provided. For example, supervisory visits with drugs and supplies enhanced the status of CHWs in the community. Villagers' visits to Health Posts also increased after supervisor's visit, in particular because the community members knew that they would receive drugs.

Third, a supervisor's visit to the Health Posts gave credibility to the CHWs and, at times, the supervisors talked about the work of CHWs to the community and resolved issues between CHWs and the community. Supervision was an opportunity for the supervisors to assess and improve the knowledge and skills of CHWs and to advise them on their service delivery. Moreover, supervisory visits encouraged CHWs to remain committed and work more. As most supervisors were from local communities, they were able to build a good rapport with CHWs, even with female workers.

*“We are like brother and sister, and I know all her family.”* (Male Supervisor)

One common problem was an ongoing shortage of drugs relative to the high demand of community members, who often took out their frustration on CHWs. At times when drugs were in short supply, the supervisor calmed down people and shifted the blame from CHWs to the central government and offices that could not provide sufficient drugs.

*“When he [the supervisor] comes, he has the documents that show fewer drugs had been sent... I show the documents to the literate people in the village, and they are satisfied. And it reduces the suspicions of people on us.” (CHW)*

Most CHWs said they were satisfied with their supervisors, but complained about a lack of drugs and supplies, about which they knew their supervisors could not do anything. Supervisors continued to visit CHWs even at times when drugs were in short supply.

Finally, the workload of the supervisors depended on the number of Health Posts under their coverage. As shown in Table II.3 some supervisors covered between 8 and 27 Health Posts. The ones with more than 20 Health Posts could not make a monthly visit to all of them. The one with 27 Health Posts would visit 2 and even 3 Health Posts in a day, but the visits would be short and quick. He was not able to meet with community members or Village Health Councils to resolve problems between CHWs and the community.

### **5.5 Compensation**

According to the BPHS policy, CHWs were volunteers who were supposed to work part-time. They were not paid salary, and thus not on the payroll of either the Ministry of Public Health or implementing organizations. Regarding salary for CHWs, the Ministry of Public Health policy states,

The MoPH will not make regular payments to CHWs from the MoPH budget and do not recommend donors' resources be allocated to CHWs because such policy is financially unsustainable (BPHS, 2009, p.79).

However, CHW were compensated for some expenses. The BPHS policy stated,

CHWs should be compensated for all legitimate expenses (transport and food) when working outside their community. Specifically approved under the recent BPHS revision CHWs were paid: (1) Afs100 [approx. USD2] per month for routine work travel and (2) additional expenses (Afs50) for approved tasks like accompanying a suspected TB patient to a facility with a laboratory. (BPHS, 2009, p.79)

The payment for accompanying TB patients encouraged CHWs to accompany other patients whom CHWs thought were severely ill with a hope of compensation for their trips. Female CHWs usually accompanied severely ill children and pregnant women expecting to deliver. CHWs said that sometimes they were compensated for accompanying patients without TB, but more often they were not. CHWs were also compensated when they were asked to collect data for national surveys, or when they participated in polio vaccination campaigns as vaccinators or guides. In short, CHWs received a regular Afs150 [approx. USD3] every month, and sometimes more for extra work.

The BPHS policy also encouraged communities "to support and compensate CHWs in traditional ways" (BPHS, 2009, P.79). Traditional ways of compensating health workers were in-kind payments such as giving a chicken or a bowl of wheat. The researcher observed during the fieldwork that traditional providers such as traditional healers and traditional birth attendants

were paid in-kind and in-cash. Some traditional birth attendants who became CHWs sometimes charged for their services. The amount of payment depended on the service, the ability of the payer, and the reputation of the providers. Regarding how much she received for her services, a traditional birth attendant said,

*“I don’t charge, they pay with their own will. Someone pays 50 Afghanis [approx. USD 1], someone 20, and some who have pay 100, and I take care of their baby for a few more days.”* (CHW-traditional birth attendant)

Community members mentioned that more reputable healers who claimed to treat infertility and mental problems charge up to 500 Afghanis [approx. USD 10]. There was no standard rate, though.

Communities still compensated traditional health providers through traditional methods of payment; but they did not compensate CHWs. When asked why not? Most CHWs responded, “We are volunteers, we work for the sake of God and the people.” Community members also emphasized that CHWs were volunteers, and that their services were supposed to be free. The researcher also learned through observation that community members saw CHWs as a part of the health system. During a field visit, a CHW trainer with 10 years of experience said,

*“They [community members] have reason to believe CHWs are a member of the system. We [the implementing organization] train them, we provide drugs and supplies, we supervise them, and we compensate for their travel outside the community, so what makes them not one of us?”* (CHW Trainer)

Community members had two reasons not to compensate CHWs. First, community members knew that public health services were constitutionally free in Afghanistan. As CHWs were seen as a member of the health system, their services were also perceived to be free. Second, community members regarded the Afs150 reimbursement to CHWs by the health system as a form of wage or salary, and so they did not feel the need to pay CHWs. The issue of payment as reimbursement versus payment as salary had created a tension in some communities. During site visits, several supervisors, health managers and community health workers quoted community members saying ‘how would someone work for free for so long?’ CHWs were even blamed for receiving wages in US dollars. A member of a community health council trying to explain the issue said,

*“When CHWs are paid, [no matter] for whatever reason, [then] community members say ‘we knew they were paid, and the fact that they are hiding their salary is the reason to believe they are paid in dollars’”.* (Community member)

The supervisors often tried to resolve this payment problem between CHWs and community members. Therefore, the BPHS policy recommended community members to compensate CHWs through traditional channels of payment, but our observations suggest that volunteerism combined with a national policy of free public health services and a tension between CHWs and communities over payment has hindered community reimbursement, even through traditional methods.

## 5.6 Drugs and supplies

CHWs in Afghanistan were provided with a box of drugs and supplies. It contained drugs for headache (Paracetamol®), pneumonia, diarrhoea and other infectious diseases (Co-trimoxazole), dehydration (ORS) and anemia (Ferric acid), multi-vitamin, eye ointment for eye infections, and family planning kit (contraceptive pills, condoms and Depo-Provera®). Their supplies also included dressing materials such as bandage, hydrogen peroxide, gentian violet, scissor, forceps, and other basic health supplies. CHWs received the drugs and supplies every three months. In some villages where winter blocked roads, Health Posts were supplied for six months of winter at once.

Drugs were the most important element in establishing the role and subsequent effectiveness of CHWs. Village residents did not take CHWs seriously unless they provided drugs to them. Drugs gave credibility to CHWs' services, improved their referrals, and made their health advice more attractive and acceptable.

*“The community learns about the arrival of drugs, the moment it reaches the Health Post. And then there is a crowd of villagers arriving with their pains and sicknesses. They often diagnose their own illness, and ask for a particular medication they know about, for example, the round white tablet in a transparent plastic bag, or the other white tablet in a cover.”* (Female CHW)

Community members said in focus groups that they found drugs from CHWs more effective than those bought from the local markets, which were mostly considered as low quality or falsified, said to be imported from the black markets of China and India. Despite its

importance, the biggest challenge to the CHW program was considered to be shortage of drugs. According to health managers and CHWs, the amount of drugs allocated to a Health Post was cut by one third compared to what it was in the beginning of the program.

*“In the beginning of the program, we were given 1000 tablets of paracetamol and 1000 of co-trimaxazol, now they give one third of that, ... 300 of each.”* (CHW)

The reduction in the amount of drugs was observed in all provinces without any specific policy change in the program. One of the explanations was that in the initial years of the CHW program there were more donor support, more drugs, and fewer Health Posts.

*“Afghanistan was at the top of the international agenda, donor interest in Afghanistan was at its height, and that meant more funding was flowing in the country for health and other social issues.”* (Health Manager).

Another health manager said the CHW program had not been as expanded in 2004 and 2005 as it was in 2013, so the implementing organizations could allocate more drugs to Health Posts in the initial years of the program. They said as the number of Health Posts had increased to around 13,000 in 2013, the implementing organizations had to distribute fewer drugs equally to all Health Posts. Another explanation for the shortage of drug supplies was the changing beliefs and behavior of communities towards modern medicine.

*“In those early years, the drugs were never finished... we either had to take it back [to the health facility] or through it away if they were expired... people didn't know about these drugs... they didn't like these medicine... but things have changed”* (Community Health Supervisor)

Poor drug utilization was either because of a lack of awareness of the availability of CHWs with medications, or cultural resistance towards western medicine.

*“People still trust some herbal medicine more than these new drugs... there is this guy who distributes herbal contraceptives in the market, and a lot of women prefer that over the pills or the injections... they [the pills and injections] make them puffy”* (Community Health Supervisor)

A community health supervisor said that the implementing organizations could have decided to reduce the amount of drugs because the communities were not using them. In 2013, though, most village communities I visited were counting days for the arrival of drugs. When they heard of drug’s arrival to the Health Posts, people rushed to the Health Posts only to receive some medications. Community health workers said they had a hard time keeping some for emergency cases. In the past couple of years, Health Posts had been running out of drug supplies weeks before their next supply.

*“They [CHWs] get two or three boxes of tablets, which they distribute to the community; those tablets don’t last [even] a couple of weeks; the moment the drugs arrive, one comes with a headache, other with a stomach-ache, and other with anemia asking for the red pills”* (Community member)

The findings suggest that numerous factors could have contributed to the shortage of drug supplies. Donor commitment to Afghanistan, and thus their funding, gradually decreased. The number of Health Posts and community health workers increased dramatically in the past decade. People’s perception towards modern western medicine has also been changing over a decade of

intervention in rural and remote communities. The people wanted more western medications, but there were fewer medications.

### **5.7 Conclusion**

This chapter described the CHW program as a separate intervention from the basic package of health services, and all of its major components. I found that the actual CHW program in rural Afghanistan was mainly guided by the policy of the health system but was also largely influenced by the power and gender dynamics of the community context in which it was implemented. For example, I found that low-level favouritism took place in communities where village leaders or elders exercised their traditional authority to nominate their siblings and relatives to become CHWs. Village leaders who already controlled economic resources elevated their status through controlling distribution of health resources, particularly drugs, to the population in need. Implementing organizations exercised their technical-rational power reducing the standard 6-month training to weeks as the program was extended, and made the dropout replacement a frequent practice. Implementing organizations knew that if they did not use their technical power, the slow bureaucratic procedure within the system would take almost a year to replace a dropout. The significance of sufficient drug supply for the success of the program referred to the tendency to the medicalization of the program, reflecting the medical power of the physicians who managed the program at the policy level. Community gender roles largely determined task allocation, training, and supervision, and drug supply within the program. Patriarchal norms dictated that men were recruited to undertake tasks outside the home, while women deal with issues of women's reproductive health and child health inside the home. A detailed discussion of gender dynamics is presented in chapter 9.

A typical community health worker program has three major components; the program itself, the health system that supports the program, and the community where the program is implemented. Whereas this chapter was an analysis of the structural components of the CHW program, the following chapter examines the CHW program as a part of the broader Afghan health system. In Chapter six, I analyze the organizational context of the CHW program, referring to the program as a component of the basic package of health services, and in turn the cornerstone of the primary health care in rural Afghanistan. It looks into the issues of financing and contracting, stewardship, implementation methods, and monitoring and evaluation.

## **Chapter 6. Organizational Context of the Afghan CHW Program**

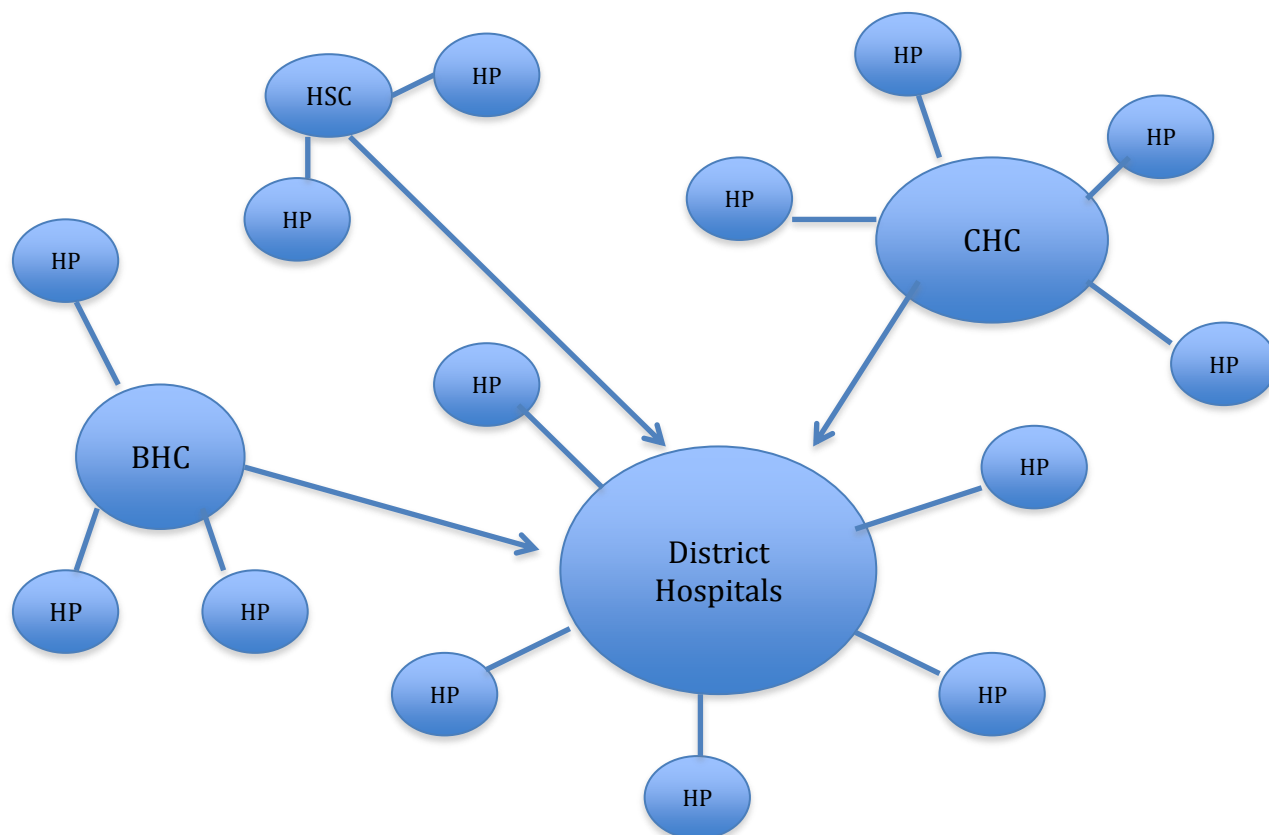
In 2013, there were 23 national and international NGOs, three provincial health departments, two dozen UN and international organizations, and three major donor agencies supporting the implementation of the Basic Package of Health Services (BPHS) in rural Afghanistan. The Ministry of Public Health had the task of managing all of these organizations to provide basic health services to the rural population of Afghanistan. In this chapter, I argue that the complexity and adaptability of the Afghan health systems means one must take into account matters of effectiveness, efficiency, timeliness, and costliness. I find that despite the significant role each organization plays, the interaction of these organizations is overly bureaucratic and often negatively affected the smooth implementation of the BPHS and the CHW program. Lack of coordination between and within these organizations, overlapping roles and structures, duplication of tasks, unnecessary administrivia, and a waste of donation for the administrative processes were some of the many ways negatively affected the CHW program.

The chapter starts with a brief description of the Basic Package of Health Services (BPHS) to locate the position of Health Posts, and thus CHWs, within that structure. Then, the organizations involved in the CHW program are categorized into three sets: ones that play a stewardship role, ones that finance, and ones that deliver the services. Stewardship, financing and service delivery are three of the six building blocks of a health system (WHO, 2015). First, the stewardship role of the Afghan Ministry of Public Health is described in detail. The stewardship role entails the tasks of policy development, contract management, monitoring and evaluation, coordination of donors, and data gathering, analysis, and dissemination. Second, the roles of international donor agencies as financiers and contractors of the program are detailed.

The section explains how donor agencies manage their contracts, how do they engage the Ministry in the process of contracting out health services, and what are the advantages and disadvantages of donor involvement in providing public services. Finally, the role of NGOs and public health departments are explored as implementers of the program. It explains the reason behind the national engagement of NGOs in public service provision and the advantages and disadvantages of NGO service provision. Since the state – the Ministry – also provides basic health services in 3 of the 34 provinces, the chapter compares the perceived effectiveness of state versus non-state health service providers.

### **6.1 The Basic Package of Health Services**

The CHW Program is a component of the Basic Package of Health Services (BPHS), which in turn is the foundation of the primary health care services in Afghanistan (MoPH, 2010). The goal of the Basic Package is to focus on the provision of health services to the population in “greatest need, especially women, children, the disabled, and those living in poverty in rural areas” (Ministry of Public Health, 2005a, p. vii). The BPHS has a semi-hierarchical structure with a Health Post at the bottom, and a District Hospital at the top, designed to cover a specific range of population, also called a catchment area. A Health Post, where typically one male and one female CHW are based (Catchment Area: 1,000-1,500 population) is a room in a villager’s house. Facilities above the Health Post are a Health Sub-Center (HSC; CA: 3,000-7,000), a Basic Health Center (BHC; CA: 15,000-30,000), a Comprehensive Health Center (CHC; CA: 30,000-60,000), and the District Hospital (DH; CA: 100,000 – 300,000) (MoPH, 2010). All establishments above a Health Post are identified as Health Facilities (Figure 6.1).



**Figure 6. 1 Structure of the Basic Package of Health Services (the BPHS) :**

**HP=Health Post HSC=Health Sub-center BHC=Basic Health Center CHC=Comprehensive Health Center**

A Health Sub-Center has a male nurse and a community midwife. These health workers treat diarrhea and pneumonia, and provide immunization, antenatal care, family planning, and TB case detection, referral, and follow-up. All of the services at a sub-center are also provided by CHWs. A Basic Health Center has a nurse, a community midwife and two vaccinators providing further services such as postpartum care, normal delivery and newborn care, routine immunizations; and integrated management of childhood illnesses, and treatment of malaria and tuberculosis. The basic centers do not provide obstetric care or any other emergency care. A Comprehensive Health Center has a male and a female physician providing all the services of a basic center and management of some complications of deliveries, severe cases of

childhood illness, treatment of complicated cases of malaria, and outpatient care for mental health patients. Even a Comprehensive Health center does not provide emergency obstetric care. The most equipped health facility at the rural level is the District Hospital, which has a number of doctors, including female obstetricians/gynaecologists, a surgeon, an anaesthetist, a paediatrician, a psychiatrist, or psychosocial counsellors/supervisors, midwives, laboratory and X-ray technicians, a pharmacist, a dentist and dental technician, and one to two physiotherapists. The District Hospital conducts major surgery under general anesthesia, X-rays, comprehensive emergency obstetric care, and male and female sterilizations. It offers comprehensive outpatient and inpatient care for mental health patients and rehabilitation for persons requiring physiotherapy with referral for specialized treatment.

The relationships between Health Post and health facilities were not rigidly hierarchical. Not all health sub-centers were linked to a Basic Health Center, which in turn should have been linked to a Comprehensive Health Center, and then to a District Hospital. Health Sub-Centers were linked either to a comprehensive center or directly to a District Hospital. Health Posts were the initial point of contact for the rural population with the health system. If CHWs could not manage patients' problems they would refer to health facilities. The link between health facilities and the Health Posts were a Community Health Supervisor (CHS), staff responsible for supervision, support, and refresher training of CHWs.

## **6.2 The state as the steward**

The Afghan Ministry of Public Health and its provincial branches had a stewardship role, with a focus on policy development, financial management, monitoring and evaluation, coordination of donors, and data gathering, analysis and dissemination (MoPH, 2014). A

Community-Based Health Care Department within the Ministry of Public Health managed the CHW program. Figure 6.2 is an organizational chart of the Ministry, showing that the Community-Based Health Care is under the General Directorate of Public Health and Basic Health Services, which is in turn under Deputy Minister Public Health and Human Resource Development.

The document analysis indicated that the Ministry of Public Health had developed more than 20 national strategies, policies, and guidelines since 2003. Some of them had been revised once or twice so far. In the meantime, a number of UN organizations played a pivotal role in policy development. The World Health Organization (WHO), for example, had been involved in the development of every policy and guideline. It offered support to draft and revise the policy, trained policymakers, and supported the Ministry of Public Health in its stewardship role. The logo of the WHO was seen in most policies, strategies, and guidelines as a partner of the Ministry. The advantage of the WHO's involvement in policymaking was to transfer lessons learned from one country to another. At the same time, there were complaints that the WHO lacked contextual consideration in its policy recommendations.

*“Policies are copy-paste from other countries that do not match the Afghan context.”*

(Policymaker)

Another key informant pointed that the lack of contextual consideration had led to a gap between the policy and the actual implementation of programs. As a result, the Ministry of Public Health had to revise the WHO-supported policies to meet the needs of the context.

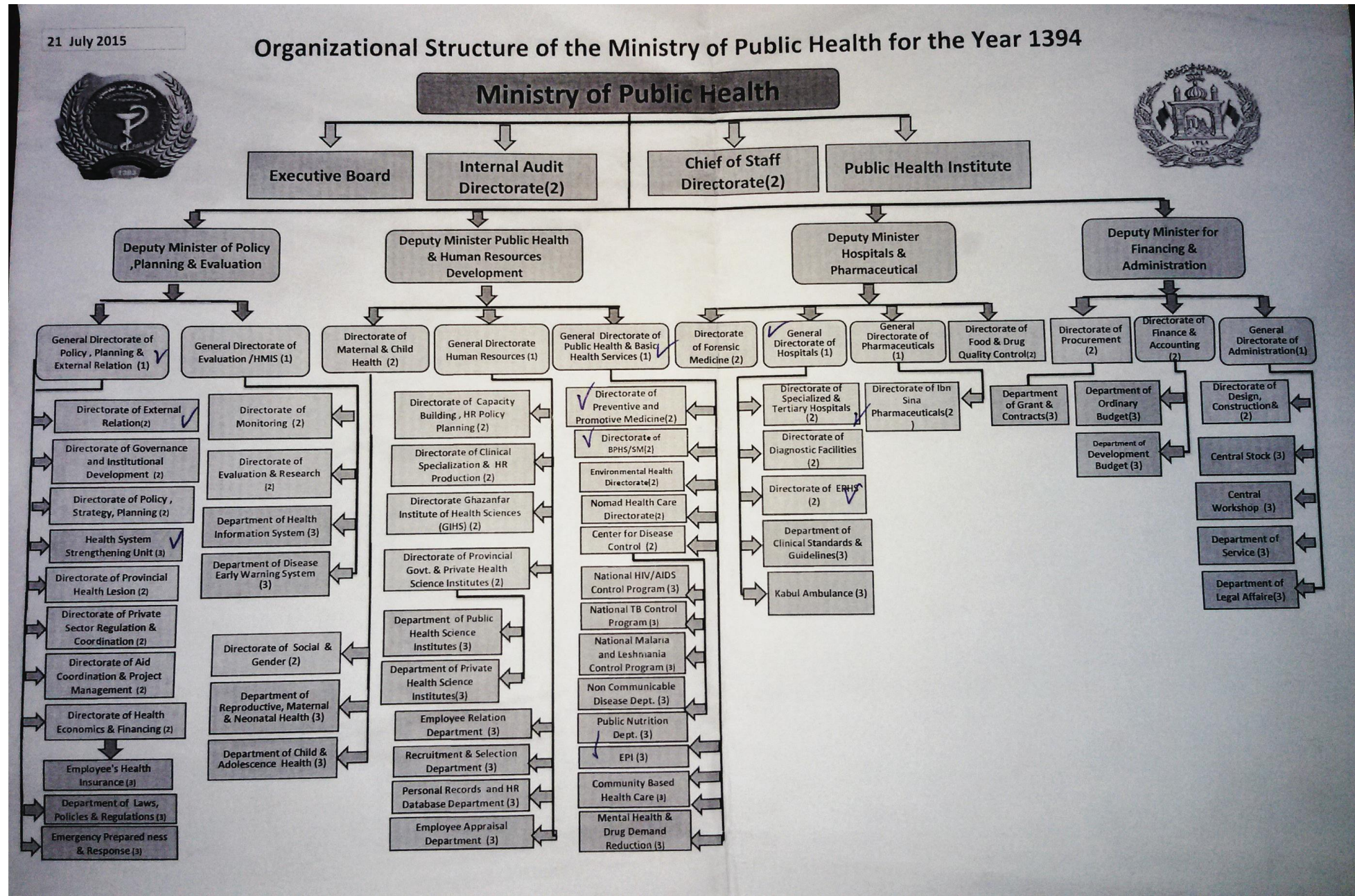


Figure 6. 2 Organizational Structure of the Afghan Ministry of Public Health in 2015

The Ministry of Public Health also had the role of managing donor contracts. Due to a large number of grants and contracts, a special unit was established at the Ministry of Public Health in 2005. This 'Grant and Contract Management Unit' had four sub-units: one for the USAID grants and contracts, one for the World Bank, one for the European Commission, and one for other donor agencies. The office of these sub-units was located at the headquarters of the Ministry of Public Health. The three major donors paid the running cost for these sub-units including the wages of monitoring and grant consultants and other employees. The salaries of employees in this department were higher than those of the Ministry of Public Health employees. The employees in these units were highly qualified and trusted by donor agencies for their procurement, monitoring and evaluation skills. Their offices had functional air-conditioning, unlike other Ministry offices. They had access to faster and more reliable Internet connection and were expected to work more than employees in other departments in the Ministry of Public Health. The quality of work of these sub-units was also believed to be higher than that of regular ministry departments. This department also coordinated projects with other government ministries and donor agencies.

Another task that the Ministry of Public Health undertook was information management. The office for Health Management Information System (HMIS) was located at the headquarters of the Ministry of Public Health on the third floor of the building, where the office of the Minister of Public Health was situated. Young qualified Afghan employees, often graduates of MPH programs abroad, worked in this office to keep the Health Management Information System database up-to-date. They produced quarterly reports and disseminated the information to decision makers. The HMIS system gathered data from the communities and CHWs, patients and health facilities in the rural areas, and hospitals. The HMIS unit produced periodical reports

for the ministry officials on routine activities of hospitals, health facilities, Health Posts, and communities. The HMIS was developed as the information gathering system of the BPHS and later extended to gather information on hospitals at the urban areas. It had specific indicators for community health, and maternal and child health at the rural areas. For example, I was able to access the HMIS database to examine the association between CHWs and maternal and child health.

Afghanistan National Public Health Institute is the department within the Ministry of Public Health that conducts research in collaboration with other departments of the Ministry and external organizations. In 2011, it published the 2010 Afghan Mortality Survey, the first of its kind based on a comprehensive national survey that measured mortality and cause of death, with a special focus on maternal mortality. The survey provided mortality trend by age, sex, socio-economic status, and rural-urban residence. It also provided data on fertility, family planning, and service utilization. The Ministry also produced two National Health Account reports in 2011 and 2013 providing detailed information on the source of all funds for health and the areas of expenditures nationally. The Ministry, the donors, and technical agencies considered the research technically sound and valuable in their contents. The findings of that research had yet not informed policy changes.

The Ministry of Public Health had to coordinate its functions with the rest of the government ministries. The slow bureaucratic procedures within other ministries affected the implementation of health programs. For example, to transfer funding from international donors to implementing organizations, numerous bureaucratic steps had to be followed. First, the donor transferred the funds to the Central Bank of Afghanistan under the supervision of the Ministry of

Finance. From the other end, the Ministry of Public Health reported on the status of the contract to the Ministry of Finance requesting them to release the fund to implementing organizations. The Ministry of Finance informed the Central Bank to transfer the funds to the implementing organization's account in Kabul. The implementing organization's main office in Kabul transferred the funds to their provincial offices. The initial amount of funding was usually released on time at the beginning of the project, but the subsequent installments that were supposed to be transferred periodically to the implementing organization were often delayed by three to six months, mainly due to the many bureaucratic steps organizations had to follow. The same procedure was repeated every nine months to continue the transfer of funds to the implementing organizations.

### **6.2.1 The Community-Based Health Care Department**

The unit that managed the CHW program was the Community-Based Health Care (CBHC) department. The CBHC department had 20 personnel at the Ministry of Public Health and one CBHC officer at every one of the thirty-four provinces. Each NGO that implemented the BPHS had a CBHC program manager at the national level and CBHC officers at the provincial level. Community health supervisors were the representatives of the CBHC department in health facilities. There were 1250 supervisors across the country.

The CBHC unit had four main elements; (1) Community Health Workers (CHWs), (2) Community Health Supervisors (CHSs), (3) Village and Facility Health Councils (VHCs and FHCs), and (4) Family Health Action Groups (FHAGs). CHWs, the supervisors, and the health councils were described in the previous chapter. A Family Health Action Group was a team of breastfeeding mothers in a village who come together to learn about proper childcare from the

CHW and each other. The CHW counseled the women on childcare and provided them with nutrients and supplements. Usually, an FHAG had 10 to 12 members, who would also share their knowledge with other women in their neighboring houses. Officials claimed that there were around 600 to 1000 FHAGs, but I did not find any active FHAG in the villages I visited.

All the above elements of CBHC were managed and administered by CBHC officers at the provincial and national levels. The tasks of CBHC officers at the provincial level included logistically supporting CHWs and Community Health Supervisors, planning for the basic and refresher training of CHWs, assisting with distribution of drugs and supplies to CHWs, monitoring and supervising CHWs and their supervisors, assessing the needs of rural communities, planning for winterization (providing sufficient drugs and supplies for the villages not accessible during winter), and finally collecting information and reporting on the activities of the CBHC elements to their senior officers at the national level.

CBHC officers at the national level monitored and evaluated the CHW program nationally, bringing together reports from 34 provinces. A CHW registry at the CBHC office in the Ministry of Public Health contains the demographic information on all trained CHWs. The CBHC office had also developed a table of indicators to measure and record CHWs activities impact at the community level. Table 6.1 shows a list of indicators for which CHWs collect data and feed into the Health Management Information System. In a quantitative chapter, some indicators from the database are used in this study to describe the activities of CHWs and the maternal and neonatal health outcomes in the rural areas of Afghanistan.

Table 6. 1 Community-Based Health Care Indicators

Number		Numerator	Denominator	Data collection method
1	# of active Health Posts providing services	In order to be counted, a health post must have at least one active CHW. An active CHW is a person who has completed at least the first phase of his/her training and is actively delivering services in the community.		HMIS <i>Facility Status Report (FSR)</i>
2	# Active (Male/Female) CHWs.	An active CHW is a person who has completed at least the first phase of his/her training and is actively delivering services in the community.		HMIS <i>Facility Status Report (FSR)</i>
3	% of CHWs who dropped out during reporting period	<i>Numerator:</i> Number of active CHWs at the end of the last reporting period that ceased activity for whatever reason during this reporting period. <i>Denominator:</i> Total number of active CHWs at the end of previous reporting period		HMIS <i>Facility Status Report (FSR)</i>
4	% of active health posts properly stocked with essential drugs during this reporting period	Indicates number of health posts properly supplied. <i>Numerator:</i> Number of Monthly Activity Report of the Health Post (MAR) with available drugs in this reporting period. <i>Denominator:</i> Total number of Monthly Activity Report of the Health Post (MAR)		HMIS Monthly Activity Report of the Health Post (MAR)
5	Couple years protection (CYP) for health post	<i>Numerator.</i> Number of units distributed of each contraceptive <i>Denominator.</i> Factor to calculate CYP for each type of contraceptive		HMIS
6	Proportion of active health post submitting MAR	<i>Numerator:</i> the total number of Monthly Activity Report of the Health Post (MAR) forms received during the last month of the reporting period. <i>Denominator:</i> total number of active health posts submit MAR		HMIS Number of Monthly Activity Reports (MARs) of the Health Facility received during the reporting period
7	Number of Obstetric complication referred by health posts		•	HMIS
8	Number of visits by health post	This indicator assesses the load of activity of health posts		HMIS
9	Number of Acute Respiratory Infections & diarrhoea cases seen by health posts		•	HMIS
10	Number of referral of ARI/diarrhea by health posts		•	HMIS
11	# and % of suspected TB cases referred out to HFs	No source of information		
12	Number of deliveries referred out by health posts		•	HMIS
13	Proportion of health facilities regularly meeting with community health committee	This indicator assesses the activity of the local health committees. <i>Numerator:</i> Total number of HFs with at least one meeting/month with community health committee. <i>Denominator:</i> the total number of active HFs (Submitted MIAR) in this reporting period		HMIS <i>Monthly Integrated Activity Report of the Health Post (MIAR)</i>
14	Minutes of health council Meetings documented	Proportion of HFs that maintain the minutes of Health council meeting in the health facility <i>Numerator is:</i> Total number of HFs maintaining the minutes of last Health council meeting in the HF <i>Denominator:</i> the total number of visited HFs		BSC
15	Number of maternal death reported by health posts		•	HMIS
16	Number of neonate death reported by health posts		•	HMIS

To summarize, the stewardship role of the Ministry of Public Health has advantages and disadvantages. On one hand, it decreases the burden of service delivery from the Ministry, allowing the Ministry to focus on policymaking, financing, monitoring and evaluation, and research. With the support from its international partners, the Ministry's stewardship capacity had gradually improved. On the other hand, the Ministry of Public Health, which has traditionally been the main service provider and in direct contact with the population, is detached from the communities. The detachment created a sense of instability in service provision among the population for two reasons. First, people perceive the government as the permanent service provider, and they discerned services by the government to be sustainable. Two decades of socialist governments before the civil war may have contributed to this perception. Second, social services by NGOs and charity foundations were regarded as symbols of wartime, collapse of the government, humanitarian aid, and emergency relief. The communities had yet to believe in the sustainability of NGOs as permanent collaborators with the state and the Ministry of Public Health.

### **6.3 Contracting mechanism: the role of donors**

The Basic Package of Health Services including the CHW program is financed mainly by three donors: USAID, the World Bank, and the European Union. Since 2003, USAID has committed to fund the BPHS in 13 provinces, the World Bank in 11 provinces, and the European Union in 10 provinces, covering the entire 34 provinces of Afghanistan. Each donor had a commitment period agreed between the donor and the government of Afghanistan. For example, the latest project of the European Union to finance the BPHS lasted between 2008 and 2013, and the next commitment period was from January 2014 to December 2018. The funds were given in

installments of two to three years (i.e., €125 million for health services in Afghanistan for 2012 and 2013). In 2013, the World Bank committed to funding the BPHS through a new project called System Enhancement for Health Action in Transition until June 30, 2018. It was a \$408 million project, of which around 8% (\$30 million) was expected to come from national revenue. USAID also joined the World Bank's System Enhancement project to continue funding the BPHS in 13 provinces of Afghanistan starting from July 2015 until the end of 2018. By the end of every commitment period, the contracts with implementing organizations to implement the BPHS were also renewed.

### **6.3.1 Contracting mechanism:**

A commitment of the donor agencies to fund health services was the start of the contracting process. Following the written commitment, donor agencies and the Afghan Ministry of Public Health developed a guideline to contract out the Basic Package of Health Services. The contracting mechanism had two stages: procurement and management. At the procurement stage, the donor agency along with the Ministry of Public Health released an announcement asking NGOs to send Expression of Interests regarding implementation. In the Expression of Interest NGOs were required to provide a narrative description of their experiences, personnel qualification, and other factors related to their ability to successfully undertake the BPHS. The following basic information was also required.

- a) Name of lead organization and names of the partners
- b) Date of establishment and official registration document with the government of Afghanistan
- c) Information on partners (if involved)

d) Recent external audit reports

Donor agencies and the Ministry of Public Health reviewed the Expression of Interests and shortlisted a number of NGOs to develop a more detailed Request for Proposal (RfP). Shortlisted organizations were asked to send two proposals: one technical and another financial. The technical proposal included the details of how the services would be provided, and the financial proposal provided details of the cost of the services. The two proposals needed to be separate because they were marked separately through a points system.

The proposals were received by an evaluation committee comprised of representatives of the donor agencies and the Ministry of Public Health. Each donor agency had their own review committee and contracting mechanism, which was different from the others. The World Bank had allowed the Ministry of Public Health to take charge of the procurement and contract management from the beginning of the project in 2003 in order to develop their administrative capacity and improve their stewardship role. USAID, on the other hand, led the procurement and management of its contracts until November 2009 before transferring that responsibility to the Ministry of Public Health. In the cases of USAID and the World Bank, a panel of experts from the Ministry of Public Health evaluated the proposal. Representatives of donors merely observed the technical evaluation and their participation was in a non-voting capacity. Meanwhile, the European Union was still the main contractor with the implementing organizations in 2013. The review committee of the European Union contracts included two voting members from the EU and one voting member from the Ministry of Public Health.

The committee marked the proposals based on predetermined criteria, which usually included organizational experience, qualification, and experience of key staff, strategy to

improve quality, plans to expand access, ways to focus on crucial elements of the intervention, and detailed work and implementation plans. The minimum passing mark for a technical proposal was 60 out of 100. Only the top three technical proposals were shortlisted for bidding and negotiation. If no organization got the minimum mark, the whole process was repeated.

At the negotiation stage, the financial proposals of the top three NGOs were evaluated in the presence of the representatives of the NGOs in a public meeting, where names and scores of technical proposals of the top three organizations were announced. Negotiation with the top three organizations took place at the same time to ensure transparency and minimize corruption. The organizations' financial proposals were inspected to verify that they had remained sealed. Once the financial proposals were opened in the presence of all stakeholders, the total budgets of the competing NGOs were announced and recorded. The major financial items were usually administration costs, as drugs were supplied directly by donors through the Ministry of Public Health. Table 6.2 includes financing items of BPHS implementers.

**Table 6. 2 Items for financing**

General service delivery costs
Salaries and benefits of service providers,
Travel costs
Cost of training of CHWs
Cascading skills and knowledge transfer
Vehicle and building Rentals
Sub-contracting management costs
Cost of household survey
Cost of Catchment area annual census
Purchasing Assets
Cost of signboards
Indirect-costs
Other source of funds

The evaluation committee first made sure the financial proposals were complete, had cost all the inputs in the technical proposals, and had no arithmetic errors. The costs were converted into US dollars or Euros. The lowest costs were given the highest mark (out of 100). The final ranking was a summation of the technical proposal score weighing 80% and the financial proposal weighing 20%. The formula for determining the combined total score was:

$$S = (St \times 0.8) + (Sf \times 0.2)$$

S stands for the combined total score, St the technical score, Sf the financial score.

The implementing organization that got the highest combined technical and financial score was invited for a final negotiation. However, the Ministry of Public Health reserved the right to contract the package to any of the top three organizations.

The main contractor controlled the funding and determined the way funds were transferred. After an NGO won the contract, a certain percentage of the fund (depending on the donor agencies and their requirements) was transferred to the NGO to start implementation. Subsequently, the main contractor financed NGOs every three months. When the Ministry of Public Health was the main contractor, the funding went to the Ministry of Finance first, and then transferred to the implementing organization. The Ministry of Public Health received the financial report of the implementers, approved their financial accountability, and released the next installment of the funding through the Ministry of Finance. When the Ministry of Public Health was not the main contractor, the donor (the European Union, for example) reviewed the quarterly financial report of the implementing organizations, transferred the fund directly to the

implementing organizations. The Ministry of Public Health observed the process, and was informed about the bulk sum of funding given to a particular project, but would not receive the detailed financial accounts of the projects.

The cost of the CHW program, although not separately calculated, was included in the funding for the BPHS. The cost of the BPHS was paid by the overall health service funds of the donors. The European Union's funding for health services in Afghanistan for 2012 and 2013 was €125 million (€62.5 million per year). The cost of the new three-year health project for the entire country was estimated to be USD 408 million. Costs of specific items per year were information hard to access. Some health managers claimed that it cost from USD 400 and USD 500 to train a CHW. The training period lasted from 4 to 6 months depending on the implementing organization and the community context. The drugs and supplements given to CHWs were provided by donor agencies. The other major spending was the salary of supervisors, which was included in the administration cost of the implementing organization. I found an ambiguity in cost allocation to the CHW program and other health services, and it was particularly difficult to access information on wages of health managers and administration costs.

Contract management began after the procurement of the BPHS was completed. Contract management included monitoring and evaluation of the services; coordination between implementers, financiers, and policymakers; financial monitoring; and report reviewing. The BPHS was monitored and evaluated through various mechanisms. The routine activities of the BPHS were recorded and gathered in the previously described Health Management Information System (HMIS). A periodical report was produced based on the HMIS and presented to all stakeholders including donors and the NGOs. Consultants at the Grant and Contract

Management Unit of the Ministry of Public Health made frequent field visits to all the provinces to monitor and evaluate the services provided. They produced reports that were shared with all stakeholders including the NGOs and the donors. In addition, there were two national surveys – the Catchment Area Annual Census (CAAC) and the Household Survey – which were conducted by implementing organizations in their respective provinces and were presented to the Ministry of Public Health. These surveys were also used as tools to evaluate the services at a provincial level. Finally, donor agencies also contracted a third party, usually John Hopkins School of Public Health, to evaluate the implementation of the BPHS and to provide them with detailed reports. When it first won a grant from the World Bank to assess the implementation of health services in 2006, the John Hopkins School of Public Health in collaboration with Indian Institute of Health Management Research developed a Balanced Scoreboard, which employed extensive observation and questionnaires of a random sample of health facilities at the district level to routinely assess the quantity and quality of service delivery. From time to time, the European Union hired a team of researchers to conduct ‘result-oriented monitoring’<sup>1</sup> in the provinces of their coverage. The third party evaluations took place infrequently.

The roles of donors were vital to the existence and functions of the BPHS and the CHW program. They were the financiers of the program and will continue to be until at least 2018. They directly undertook the procurement and the management of the contracts, and supported the Ministry of Public Health to assume that role gradually. The donors also supported monitoring and evaluation of the program. In short, they filled in for the Ministry of Public Health as the

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<sup>1</sup> Result-oriented monitoring is a type of monitoring and evaluation strategy that focuses on ‘results’ – clear and agreed objectives, targets and milestones using quantifiable indicators and qualitative narratives. The strategy is praised for achieving ‘results’, and criticized for shifting the focus from capacity building and system strengthening.

main contractor and the financier, which sometimes led to the perception that the donors functioned as a parallel Ministry of Public Health.

The heavy involvement of donors in health programs had its reasons and its challenges. The reasons, participants believed, were that the government of Afghanistan and the Ministry of Public Health did not have the capacity to procure and manage large contracts in 2003. Thus the donors had to take charge.

*“The donors had to be accountable to their taxpayers and their organizations, and the Afghan government neither could manage those large contracts nor could be accountable. Services are needed to be provided”.* (Policymaker)

The criticism was that this reliance had weakened the status of the Ministry of Public Health within the government, among the NGOs, and in the communities.

*“Other ministries think we are a second-grade ministry... [because] we do not directly provide the services... NGOs do not take us serious because we are not the payers... and local communities do not see us,”* (Policymaker)

Moreover, the donors had their own, differing organizational procedures that created extra work for the Ministry of Public Health. The three major donors had three different procurement procedures, methods of releasing funds, and monitoring and evaluation requirements. At the beginning of the BPHS, USAID, and the European Union contracted the BPHS directly to NGOs, allowing the Afghan Ministry of Public Health to act as an observer. The World Bank, unlike the other two, allowed the Afghan Ministry of Public Health to be the main contractor of the package. According to their contracting mechanism, USAID, and the

European Union transferred the funds directly to NGOs, while the World Bank paid the fund to the government of Afghanistan, which would then be given to implementing organizations. The requirement for procurement, management, and reporting of the contracts varied dramatically among the three donors. To correspond with each donor according to their requirements, terms and policies, the Ministry of Public Health had established contract management units for each donor agency, increasing the aid transaction costs. Had the reporting requirements for the three donors been the same, the Ministry would employ one person to write a single report to all three donors. Instead, there were three employees doing the same job, in different ways, for three different donor agencies.

In the end, however, most key informant participants agreed that the Ministry of Public Health and the government of Afghanistan had to take charge of procurement, contract management, monitoring and evaluation, and eventually financing of its national programs. With the support from donors, the Ministry of Public Health had developed its capacity to undertake procurement and contract management tasks, but the government has yet to generate enough revenue to finance health services.

#### **6.4 Contracting-out and contracting-in: The role of implementers**

The Basic Package of Health Services was principally contracted out to national and international NGOs, and partially to provincial public health departments. There were many implementing organizations categorized into three groups: international NGOs (iNGOs), national NGOs (nNGOs) and provincial government implementers. International NGOs differed vastly from national NGOs. International NGOs included charity foundations based in another country such as International Medical Corps UK, international development agencies such as Aga Khan

Development Network, and NGOs based in another country such as BRAC<sup>2</sup>. Afghan NGOs also included charity foundations and not-for-profit NGOs. National and international NGOs provided the BPHS in 31 of the 34 provinces in Afghanistan (Table 6.3). Only three provincial health departments provide services for their population, also known as a contract-in or strengthening mechanism. All these national and international NGOs had to deal separately with the Ministry of Public Health and with the donor agencies. For example, if an international NGO had an implementation contract with two different donors for two provinces; it had to manage their contracts differently, doubling the administrative costs of the central office. Furthermore, the NGO had to report to the Ministry of Public Health in two different formats.

During the fieldwork, policymakers involved in the development of the BPHS named a number of factors that contributed to the contract-out system in 2003. First, more than two decades of civil war had left nothing of the health infrastructure in the country. The newly established government did not have policies, management capacity, health workforce and physical infrastructure to take on a national project like the BPHS. Second, non-state providers (NGOs and charity organizations) were operating sporadically in the country over the years of armed conflicts to provide basic humanitarian and some social and health services. A policymaker remarked that NGOs had gained experience and skills to reach the rural and vulnerable populations.

*“When we were developing the BPHS, we considered everyone in Afghanistan working in the health sector, including NGOs, as a member of a team for health.”* (Policymaker)

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<sup>2</sup> Formerly known as the Bangladesh Rehabilitation Assistance Committee, and later as the Bangladesh Rural Advancement Committee, is presently known as BRAC. It is an international development organization based in Bangladesh.

**Table 6.3 List of BPHS implementing organizations and donors in 2013**

Implementers					Donors
	Provinces	iNGO	nNGO	Provincial Dept	
1	Daikundi	AMI	AHDS		EU
2	Ghor		ACTD		EU
3	Kunar	AMI-IMC			EU
4	Kunduz	Merlin-Kinder Berg	CAF		EU
5	Laghman	SCA	SWC		EU
6	Logar	MRCA - Kinder Berg			EU
7	<i>Nangarhar</i>	<i>HN-TPO/IMC</i>	<i>SWC</i>		<i>EU</i>
8	Nuristan	IMC-UK			EU
9	Urozgan		AHDS		EU
10	Zabul		Ibn-e-Sina		EU
11	Badakhshan	AKDN	CAF/BARAN		USAID
12	Baghlan	AKDN	BDN		USAID
13	<b>Bamyan</b>	<b>AKDN</b>	<b>AADA</b>		<b>USAID</b>
14	Faryab		SAF		USAID
15	Ghazni	SDO	AADA		USAID
16	<i>Herat</i>		<i>AIL/BDN/DAC</i>		<i>USAID</i>
17	Jawzjan		SAF		USAID
18	<b>Kabul</b>	<b>BRAC</b>			<b>USAID</b>
19	<i>Kandahar</i>		<i>AHDS</i>		<i>USAID</i>
20	Khost	HN-TPO			USAID
21	Paktia	HN-TPO			USAID
22	Paktika	IMC-UK			USAID
23	Takhar		CAF		USAID
24	Badghis		SAF/MOVE		WB
25	<b>Balkh</b>		<b>CHA</b>		<b>WB</b>
26	Farah		CHA		WB
27	Helmand	BRAC	ACTD		WB

28	Kapisa			pMoPH	WB
29	Nimroz	BRAC	SAF		WB
30	Panjsher			pMoPH	WB
31	<b>Parwan</b>			<b>pMoPH</b>	<b>WB</b>
32	Samangan	SCA			WB
33	Sar-e Pul	SCA			WB
34	Wardak	SCA			WB
iNGO: International Non-governmental organization nNGO: National non-governmental organization ProvDep: Provincial public health department <b>Bold</b> are the provinces visited for the study <i>Italic</i> are major urban areas in Afghanistan					

Third, NGOs had connections with both the government and the international donors. Most NGOs were established with support from international donors. In addition, many people appointed at the Ministry of Public Health had experience of working with NGOs. Thus, NGOs were a favorable ally both for the government and for the international donors. Finally, a similar model of contracting-out services to NGOs was implemented in other sectors. A countrywide rural development initiative, National Solidarity Program (NSP), was contracted out to non-state providers for implementation. The program aimed to empower rural communities to identify, plan, manage and monitor their own development projects that included building bridges, digging water wells, paving roads, establishing electricity-generating dams, and building schools and clinics. Many policymakers believed the same rationales were valid for health and the BPHS. A policymaker key informant remarked,

*“...involving NGOs was becoming a norm in all different sectors. Look at the [National] Solidarity Program... very successful”* (Policymaker)

Despite the initial interest in the contract-out system, the Ministry of Public Health had planned to improve the state's capacity in health service provision. Three provincial public health departments in proximity to Kabul (the capital) were selected to implement the BPHS as part of a process to build the capacity of public organizations to provide health services. This initiative was named the Strengthening Mechanism. More than 90% of the provinces were covered through contract-out, and only 3 provinces were served through this 'strengthening mechanism'.

Study participants had opposing views regarding the two contracting mechanisms. In particular, policymakers and health managers pointed to strengths and weaknesses of the two mechanisms. NGOs contracted to provide the services were generally perceived by policymakers to be efficient and to have better management and administration.

*“Talking about efficiency, we started the [BPHS] program in 2003, and we reached all Afghanistan until 2006 [with NGOs]. If it had been implemented by the government alone, I am pretty sure that its procurement would take 2 years at least...NGOs are more efficient, we cannot deny it. And it is proven that bureaucracy of government slow things down” (Policymaker).*

Study participants also believed that NGOs were more autonomous in their management compared to provincial health departments, which operated directly under the Ministry of Public Health, and in connection with other government departments such as provincial finance departments. Compared to public health departments that had limited budget and a salary scale for their personnel, NGOs had the freedom to allocate sufficient budget to employ qualified managers, administrators, and health professionals. A policymaker remarked:

*“NGOs have better vehicles, offices, and salaries, we get the same money but neither do we have better vehicles, nor offices, nor salaries...if you want to buy a pencil, you have to use a dozen papers and go to a dozen departments for a dozen signature before a finance department is satisfied to release the fund.”* (Policymaker)

The policymaker implied that the bureaucracy within the government made it very difficult to use funds efficiently.

My field observations found that administrators and managers working with NGOs were paid up to three times higher salaries compared to those working in a similar position in the government. For example, a CBHC officer working at an NGO was paid USD 600 per month while a CBHC officer working in a public health department was paid USD 250. The reason was that NGOs had a Negotiated Indirect Cost Agreement (NICA) that allowed them to use 10% of their funds in whatever way they wanted. In 2006, the agreement allowed spending up to 25% of the funds however NGOs decided. The government had a national salary policy for health professionals (physicians, nurses, midwives, vaccinators, pharmacists, laboratory technicians, and others) working in health facilities managed by NGOs or public health departments. NGOs were expected to follow the policy, but they adjusted the salary of professionals considering the remoteness of the health clinic and the actual working hours of the professionals. In most remote provinces, physicians came from cities and expected higher wages, living and travel allowances, and longer leaves. NGOs had the autonomy to accommodate those expenses and hired qualified professionals for remote areas, while the public health departments were bound by the government policy, and could not bend the government rules. The autonomy to remunerate properly, to ensure the necessary working conditions, and to overcome unnecessary bureaucracy

was one of the factors that gave the NGOs an edge in providing effective and timely services to the population.

In addition, there was a competition between NGOs every three to five years to re-contract the package. NGOs that did not meet the required standard could lose the contract for the next period. The competition motivated the NGOs to strive for optimal service. The public health departments, on the other hand, did not have to worry about competing to reclaim the contract. A government policymaker mentioned that the standard of services of the public health departments was comparable with those of NGOs, while site observations over the past 12 years concluded that the three public health departments were not sufficiently ineffective to lose their contract. When I visited Parwan province, one of the provinces where a public health department provided the services, however, CHWs had not had drugs or supplies for nine consecutive months between 2012 and 2013, and the employees often received their salaries only every three to six months. When the concerns were shared with policymakers, they agreed that public health providers had their problems, but there was no intention to contract-out services to NGOs in those provinces. The common response from policymakers was ‘it is the way things are done’. Policymakers argued that there was not enough evidence in favor of either contracting-in or contracting-out. In response to the question of which model was better, one of the top policymakers said:

*“This is a question that everyone has asked since 2006...I think there is a need for further studies on the Strengthening Mechanism [Contracting-in to Public Health Departments] and contract-out to NGOs.”* (Policymaker)

My field observations suggested that the contract-in versus contract-out debate had political reasons, as NGOs were perceived to perform better while public health departments enjoyed political support. Technical organizations, donors, and some government policymakers believed NGOs perform better and should continue to provide services. Local people and some policymakers and health managers perceived that public providers were permanent and sustainable, leading to pressure by the national parliament on the Ministry of Public Health to maintain the public provision of services in the three provinces. Some argued that the public provision of health services (the ‘strengthening mechanism’) should expand to other provinces according to the initial plans of the Ministry. In order to not disappoint one or the other, the Ministry of Public Health maintained both.

This study found that NGOs also had their differences and shortcomings. National NGOs (nNGOs) and international NGOs (iNGOs) differed considerably in their operations. While iNGOs were perceived by the key informants to be more effective in providing quality services, nNGOs were hailed as Afghan organizations expected to have deeper ties with the communities. A participant remarked that if armed conflict broke in a rural area, iNGOs would evacuate, while nNGOs would find a way to remain. Moreover, my observations indicated that the presence of locally-based NGOs in provinces created a sense of ownership for communities

The sense of community ownership, however, did not help nNGOs with their management. The long processes of budgetary transfers particularly affected nNGOs in their daily operation and the payment of their employees.

*“Last time our employees did not receive their salary for 6 months, and CHWs were not paid their travel stipends for the same amount of time, because we did not receive our budget for that long from the government,”* (Health manager)

Unlike nNGOs, iNGOs usually had a core budget to keep their projects running smoothly until they received their next installment. International NGOs paid their health care providers on time, provided drugs and supplies to health facilities and CHWs on time, offered refresher training to CHWs on time, and reimbursed CHW's expenses on time. According to the Ministry of Public Health officials, the dropout rate of CHWs was lower in provinces served by iNGOs.

Despite their strengths, NGOs, in general, have been criticized for their high administrative costs, being pocket-driven, and being good at paperwork rather than actual service provision. NGOs paid rent for headquarter and regional offices. The wages for their managers and administrators and health care providers in remote areas were higher than those working in a similar position within the government system. Although the cap for extra costs of NGOs, given to them through Negotiated Indirect Cost Agreement, were reduced from 25% to 10% of their entire funding, it still allows NGOs to spend more on administration compared to provincial health departments. Although NGOs were registered as non-profit organizations, it was widely perceived that some national NGOs were pocket-driven. Study participants pointed out that some policymakers, who influenced the bidding process, were on the board of directors of nNGOs or worked as senior advisors for them. A number of national and international NGOs were blacklisted for their poor performance and corruption. One NGO blacklisted for corruption and poor performance in the previous years had won a BPHS contract in 2014.

The challenges of a government service delivery were also numerous. The procurement system of the government was very bureaucratic creating problems at the CHW level. Drug and supply shortage was a major one. Health facilities and CHWs without drugs and supplies were struggling for their existence. Also, it could take months to get the budget for a refresher training or expanding the CHW program to areas where there was no CHW. Similarly, it could take to reimburse a CHW who had paid to travel to a health facility for training. In addition, the provincial health departments did not have a competitor to replace them in the case of poor performance.

In contrast to NGO-provision of the CHW program, the provincial health departments had a number of advantages. Provincial health departments did not need to pay for headquarter or regional office as there were government structures in place for them, or the government had a responsibility to build provincial offices for their line ministries. Government employees were paid according to the government salary standards, which was substantially lower than that of NGOs. Health service delivery through government health departments reflected the presence of government in rural areas, contributing to its communication with the citizens, and potentially to the legitimacy of the state.

## **6.5 Conclusion**

This chapter analyzed the involvement of three sets of organizations in the implementation of the CHW program: the state as the steward, international donors as financiers, and NGOs as implementers. The Ministry of Public Health's stewardship role included policy development, managing contracts, coordinating donor agencies, monitoring and evaluation, and information management. Only in 3 of the 34 provinces did the Ministry continue to provide

services. Due to its reliance on NGOs for service provision and on donors for financing, the Ministry was often criticized as ‘second-grade’ institution – an institution that neither provides the services nor pays for them.

National and international NGOs undertook all the groundwork of the BPHS service provision and the CHW program in 31 of the 34 provinces of Afghanistan. They recruited CHWs, trained and retrained them, supplied adequate drugs regularly, supervised CHW on a monthly basis, and made sure the health facilities in remote and rural areas functioned smoothly. NGOs were praised for their reach, and more effective services in rural areas compared to state providers but were criticized for high administrative costs. Organizational behaviors of these different national and international NGOs also affected the CHW program implementations. Finally, donors and international technical agencies had as much a stake in the program as the Ministry of Public Health. They financed the CHW program, managed and evaluated the program, and supported the Ministry of Public Health.

The CHW program, and the BPHS, was a package of health services implemented nationally, but with its roots in both local and global organizations. In this packaged model of service, the CHW program, although delivered nationwide, can hardly be described as a national program – a program that is designed, financed, implemented and evaluated by the national Ministry of Public Health. The involvement of international organizations as policymakers, donors, implementers and evaluators were as significant as those of local and national ones for the existence and continuation of the program. However, the numerous and often vague administrative processes among and within these types of organizations could negatively affect the implementation process and health service provision.

From a complex adaptive health system perspective, it is important to acknowledge the assembly of so many parts in achieving a shared goal of providing health services to a large population in an unstable and partially insecure environment. The shared goal in the Afghan context may have been interpreted only in terms availability of services, though the goal carries with it, either explicitly or implicitly, the values of effectiveness, efficiency, timeliness, and costliness – known as quality by some participants of this study. (Table 6.4)

**Table 6. 4 Findings on quality aspects of health services**

	<b>Positive findings from the study</b>	<b>Negative findings from the study</b>	<b>Additional comments</b>
<b>Effectiveness</b>	Increased availability of services	Male CHWs' inactivity in terms of maternal and child health	Participants definition of effectiveness depended on what the optimal outcome was defined
<b>Timeliness</b>	Short-term training makes CHWs available years sooner than professional providers	As gatekeepers CHWs add another step to health services	CHWs have the potential to provide timely basic services
<b>Costliness</b>	CHWs training costs ~\$500 compared to thousands of dollars for a professional provider	May be costly in the long term due to high and frequent dropout, training new CHWs time and again	Costs of public health services are very low in Afghanistan compared to private health services
<b>Efficiency</b>	The program has been efficient based on the cost and the duration of training, and the improved maternal health outcomes		Efficiency depended on how participants defined it

Though the network created among the multiple organizations involved in the CHW program can be very complicated to analyze, the complex health system in Afghanistan struggles to provide quality services taking into account values linked above to it above. One way to assess the values of quality is to analyze the program in communities it is implemented. The following chapter explores the community dynamic of the Afghan CHW program.

### **Chapter 7 The Community component in the Afghan CHW Program**

*“There is this village... very far...that does not have a Health Post...every time we go there for a vaccination, we have to stay in the village overnight. It is about 4 hours walk from the health facility. [Once] I was there, an old man came to say that his daughter was very ill, and asked us to administer an ampule, which he already had at home, to his daughter; he said he did not want to feel guilty if his daughter passed away... she had severe diarrhea... I went to their house, and they had ORS [Oral Rehydration Solutions], ampicillin and Co-trimoxazole... I administered the injection... the next day my colleague said there was no screaming in the house, which meant the girl had survived... Hours later the father came with dried yogurt to thank us and said that his daughter now feels better enough that she eats on her own.”* (Community Health Supervisor)

The community/village in this account was an extension of a larger village located on the other side of a mountain. The larger village was closer to the Health Post and health facility that covered the whole area, but this small village/community was left without basic health services.

Communities’ abilities to obtain appropriate and quality services when they are needed are at the core of a complex adaptive health system. In the Afghan CHW program, communities are defined geographically and demographically as groups of people (between 750 and 1,250 individuals across 150 households) for whom a basic package of health services is provided. This chapter is about villages and communities of the CHW program – sometimes referred to as village-communities. In this chapter, I argue that communities are not homogenous and identifying boundaries around communities and engaging them in the program as communities, not as a mere collection of families or individuals living in a geographical area, has been

challenging. Power relations in the form of ethnic differences and conflicts influence the formation of communities. There are consequences if communities are not engaged appropriately. I also argue that inter-sectoral collaboration takes place organically when communities engage with development programs. The CHW program policy, as a legal authority, had a rigid design for communities, which was stretched, altered and misused, leading to a separation of real communities or creation of pseudo-communities. This inappropriate mapping of communities led to the inequitable distribution of resources, contributing to the power imbalance in the communities. Moreover, CHWs, in extending health services to rural areas, did not appear to function as a representative of communities before the health system.

The concept of community is one of the core elements of CHW programs (Lehmann & Sanders, 2007). There is heterogeneity of definitions for the concept of community depending on the discipline, the context, and the subject of study. The community could refer to international community or village community. MacQueen and colleagues (2001) defined community as “a group of people with diverse characteristics who are linked by social ties, share common perspectives and engage in joint action in geographical locations or settings” (p.1936). In this research, I refer to villages as communities, and like all communities they are heterogeneous, which must be taken into account in any health or development intervention (Pain & Sturge, 2015)

This chapter describes and evaluates what ‘the community’ is, how it is defined in the policy, how it is mapped in practice, and how the community contributes to the program. The chapter focuses on the ‘community context’, answering the third question in the second objective of the thesis, which is to understand ‘the community and organizational context of the CHW

program.' To accord with the Afghan Ministry of Public Health's policy, this chapter begins by positioning the CHW program as a community-based health care program. Three major themes in this chapter are 'mapping communities' and its challenges, engagement of the community with and contribution of the community to the program, and community-level inter-sectoral collaborations.

### **7.1 The community**

In the CHW policy, the term community refers to 100 to 150 rural households or 1,000 – 1,500 people. In Afghanistan, the term community also implicitly refers to a village. In villages, community health councils are called 'Village Health Councils'; and CHWs are sometimes called Village Health Workers. Table II.1 provides general information regarding the villages I visited for this study. The compositions of villages are not the same. Some are large villages, while others are small ones. A mixture of different ethnicities, tribes and languages can be observed within and across villages. Class and gender differences play a significant role in the way villages function. As the size of many villages does not match the criteria for being a community, as defined in the CHW policy, I found that often large villages were split into small communities of 100 to 150 households; and sometimes small villages of less than 100 households were combined to make one bigger community for the CHW program. Changing the existing structure of villages had implications for the program, which are discussed in the challenges of mapping.

In this study, 17 Health Posts (catchment areas or communities or villages) were visited. (Table II.1) The majority of them had one male and one female CHW. Only five of them had two female CHWs. The communities were in the outskirts of Kabul: in Parwan Province located

which neighbored Kabul, in the mountainous province of Bamyan in central Afghanistan, and in the northern province of Balkh. The average number of households in communities was 220, ranging from 57 households in a remote district in Bamyan to around 1000 households in a rural area of Parwan Province. The average number of people living in each community was 1450, ranging from 399 to more than 5000 rural inhabitants. The average distance of each community from the Health Post to the health facility to which they were linked was 1 hour and 48 minutes' walk, ranging from half an hour walk to 4 hours. Seven of 17 communities (41%) did not have access to safe drinking water, and only 3 of the 17 communities (18%) did not have electricity to light up their houses at night. The communities were from ethnic Hazara, Tajik, and Pashtun – three of the four main ethnicities in Afghanistan representing between 85% and 90% of the Afghan population. They spoke in Persian/Dari (Tajik and Hazara Dialect) and Pashto languages. Ethnic Uzbek could not be included due to lack of time and budget, and linguistic challenges.

## **7.2 Mapping of communities**

The major 'community' question in the CHW program is whether program implementers would create new communities (by amalgamating small villages) or dividing existing larger villages into smaller entities, through their mapping of the rural areas. I identified a number of mapping challenges to the CHW program that are inherent to the Basic Package of Health Services. Mapping of Health Posts has been challenging due to the diversity of types and size of villages. Mapping health facilities for a group of villages has been even more challenging. Finally, cross-provincial mapping, which is mapping villages that either straddle more than one province or are closer to health facilities in their neighboring provinces, is something the BPHS policy has absolutely ignored.

The criteria for mapping Health Posts were affected by technical and social factors. Technically, the focus was on the number of households in a catchment area, ignoring the facts that sometimes households lived in close proximity, and sometimes they were dispersed over a larger area, in valleys, on the separate sides of a mountain, or on two sides of a river. Moreover, there were small villages with 50 households and large villages with 1000 households. The general approach to mapping among implementing organizations has been to set up one Health Post for a village of up to 300 households, and two Health Posts for villages of larger than 300 households. In cases of small villages, officials had set up Health Posts for two to three villages in order to meet the criteria of 150 households. Small villages of 50 households, in some cases, were a dozen kilometers apart from one another or on two sides of mountains or rivers. Despite the focus on the number of households, I found that it had been rather impossible for the program to ensure equal Health Post distribution per population, with one Health Post with 57 households and another with 1000 households. The quantitative analysis of this study indicated the inequitable distribution of Health Post per population across the country. (Figure 9.6)

Besides technical challenges, the researcher observed that conflicts of status, class, and party in the form of ethnic favoritism had influenced the process of setting up Health Posts. In a province, one Health Post was set up for 1000 households of a minority ethnicity, whereas in the same province, around 10 km away from this Health Post, another Health Post was set up for only 150 households, and another one for 320 households, who were members of dominant ethnicity. In the past decades of war in Afghanistan, dominant ethnicities have created their military and ethnic political parties in their provinces, taking control of the resources, and suppressing language and cultural traditions of the minorities. Conflict, which negatively affected access, was also a factor not taken into account while mapping. Afghanistan has

suffered from decades of ethnic, linguistic and tribal conflicts (Najafizada et al., 2014). Conflicts between and within villages were observed or described; in one instance, two small villages of around 50 households had tribal conflict, but the Health Post was set up in one of the villages intended to cover both. The other village could not use the services due to the internal conflict between the two. Similarly, in a large village with internal conflict, if CHWs were chosen from one political-ethnic faction, the population affiliated with the other faction would not be served.

An equitable distribution of Health Post per population was important in the case of Afghanistan because drugs and supplies were distributed per Health Post, not per population. As a result of an inequitable distribution, the amount of drugs and supplies allocated to the 75-household Health Post were wasted, and the 1000-household Health Post never had enough. Moreover, the ratio of Health Post per population will be affected by changes in population size and movements over time.

The study found that the locations of health facilities were often inappropriate, and their distribution by population unfair. There were health facilities in close proximity to a single village and very far from the rest of the villages. In some cases, the health facility sat alone in the middle of nowhere, far from all of the villages it was supposed to cover.

*“The clinic is really far, too far. People don’t go to the clinic, it is between 1.5 to 2 hours walk and there is no public transport either.”* (Community Health Supervisor)

*“The location of this clinic is weird...it is located very far from all villages, the closest village is half-an-hour [drive]. There are villages 2.5 hours walk from here”.*

(Community Health Supervisor)

Besides the location of health facilities, unequal distribution of health facilities per population was also noted.

*“For example, in one province, there is one clinic [health facility] in one district, and in another [province] there are 10 clinics in one district”.* (Policymaker)

The decision regarding the location and the number of health facilities was affected by poor program design and political and social nepotism. Technically, the range of catchment area for health facilities was too wide. For example, the catchment area for a Basic Health Center was between 15,000 and 30,000 people, and for a Comprehensive Health Center between 30,000 and 60,000. Thus, it was, according to the policy, permissible to establish either a Basic Health Center or a Comprehensive Health Center for a population of around 30,000 people. The resources allocated for a Comprehensive Health Center, however, was twice as much as the resources allocated for a Basic Health Center. It had happened that there were Basic Health Centers for 30,000 people in one area, and comprehensive centers for the same number of people in another area.

Socially, political and ethnic favouritism contributed to the inappropriate and inequitable health facility establishments. Health policymakers and health managers noted many forms of political pressure. A policymaker said:

*“The system has been politicized, and huge health facilities are established for political reasons rather than the needs of the population...those facilities should be downgraded to smaller ones. For example, they have established CHC for 20,000 population.”*

(Policymaker)

The common explanation was that local leaders and politicians took advantage of the structural weaknesses in the BPHS by putting pressure on the Minister of Public Health and implementing organizations to establish health facilities for smaller populations. The Minister of Public Health required the support of members of parliament to stay in power; members of parliament needed the support of local leaders to get re-elected. This had created a vicious cycle of political pressure on implementing organizations. At the same time, local leaders demanded implementing organizations to set up health facilities in their areas in return for community support. In short, both local and national political power dynamics contributed to the unequal distribution of health facilities and resources in rural areas.

The findings suggested the third issue in mapping – cross-provincial service utilization. Afghanistan has 34 provinces, and each province is contracted out to one implementing organization. Sometimes one implementing organization wins the contract for multiple provinces that may be next to one another or separated by other provinces. Sometimes, two implementing organizations win parts of a single province. Provinces are categorized into 1st-grade, 2nd-grade, and 3rd-grade based on the size of their population, and also additional political factors (A. Evans, Manning, Osmani, Tully, & Wilder, 2004). First-grade provinces, with the largest populations, receive more government budget than 2nd- and 3rd-grade ones. The budget for the health services is also allocated based on the province and its population size. The problem arises when people of one province choose to access health services from a different province. The decision to receive health services from a different province depends on pull factors such as the proximity and/or perceived quality of services provided by the health facility in the neighboring province, and on push factors such as lack of or poor services in their own province. This cross-provincial service utilization is often an issue between first-grade provinces like the capital,

Kabul, and its neighboring lower grade provinces, such as grade-2 Parwan province. Kabul is served by an international NGO while provincial health department serves neighboring grade-2 Parwan province. The population in the neighboring province perceives the services to be better in the health facilities of the capital Kabul.

*“[The distance] to the clinic in Qarabagh [in Kabul] is 20 to 30 min drive... although Charikar Hospital [in Parwan] is closer, people are happy with Qarabagh CHC [Comprehensive Health Center]... they [the people] officially belong to Parwan Province. My own father, when he was sick, chose to go Qarabagh CHC... People are treated well there... People are happy in Qarabagh ... other reason could be that Qarabagh Clinic is managed by an international NGO.” (CHW)*

Legally, Afghans can access health facilities anywhere in the country. But if the population of a certain province chooses to use services from a neighboring province, it creates an extra burden on the province, since it does not receive the budget and resources for populations from a different province. In the example above, this would mean that health facilities in Kabul would require more resources and budget to meet the needs of people from Parwan.

Moreover, the cross-provincial health facility utilization negatively affected the status of CHWs. CHWs can refer patients only to the health facilities to which they are connected. In cross-provincial service utilization, CHWs' referral letters are not only useless in a different province, but also helps the providers identify patients who come from another province, not under their coverage. When too many patients from different provinces are detected, the health facility does not have any option but to deny services to them, as they do not have enough

supplies and drugs for out-of-province patients. When refused health services for having a referral letter from a CHW, community members start to doubt the authority of CHWs in the larger health system. Over time, community members learn that CHWs are not linked to the larger health system, but are actually linked to only one health facility to which they either do not have access or do not choose to access. The health messages of CHWs are then not taken seriously, and they are seen as CHWs of a second-grade provider.

Some study participants said that mapping of communities needed revision at all levels. A number of policymakers suggested a revision of mapping for two reasons. First, there was a need for a fairer distribution of Health Posts and health facilities by population. Second, there have been demographic changes over the last decade and Health Posts and facilities set up 10 years ago for a specific number of populations may no longer be meeting the needs of the current population. As one policymaker suggested:

*“This [the mapping] needs to be revised, and in places where there are many clinics, they [clinics] can be downgraded from a Comprehensive Health Center to a Basic Health Center, if not totally removed, or Basic Health Centers could be transformed into Sub-Centers.”* (Policymaker)

The findings suggest that upgrading some health facilities may also be required. Either way, a revision of community mapping for a fairer distribution of resources was deemed essential by participants to provide equitable access to basic health care in rural Afghanistan.

### 7.3 Community engagement with the program

The communities where the CHW program was delivered were involved in the program in numerous ways, both in the structure and the functions of the program. Community councils such as Village Health Council and Facility Health Councils were a component of the structure of the program. Operationally, Village Health Councils, if set up before the recruitment of CHWs, were involved in the selection of CHWs, helping CHWs in their outreach activities and indirect monitoring of CHWs.

*“All the members of the health council get together [once a month] and talk about our work in the previous month and evaluate if it has been useful, and then we talk about the coming month, and everyone proposes what to be done to solve the problem or make things better.... The head of the health council is also the head of the community council, and the entire village listens to him.” (CHW)*

Sometimes, the councils stepped up to address small problems in health facilities or in communities.

*“For example, we needed a truck of soil to plant vegetable in the garden of the clinic, and the community provided that... or when people have problems [at the community], we try to address them through the village council.” (Community Health Supervisor)*

The initial engagement of community was in the process of selection of CHWs. The program required the community to form a Village Health Council, which in turn nominated a member of the community to become a CHW. As councils of elders or leaders already existed in most villages, those councils played the role of a Village Health Council, and approved of a

community member who had already expressed an interest in becoming a CHW. After CHWs were selected, trained and became active, they would set up Village Health Councils with the support from elders' council. In some places where gender segregation was strictly practiced, women established female-only Village Health Councils, nominated female CHWs, and discuss women's health.

I found that sometimes village leaders took a keen interest in the program, and selection of CHWs. Some leaders took an interest because either they had a favorite candidate or they wanted to take the credit for providing health services to their villages.

*“When local leaders try to take the credit for providing health services to their community... there is usually not much resistance from them.”* (Health Manager)

Other community leaders took a keen interest in selecting a CHW to take advantage of the resources provided for CHWs. In some cases, the leaders nominated their children, siblings or relatives to become CHWs.

*“The leader might not approve of a suitable person; he might approve of a person who is his own man.”* (Health Manager)

When the leaders took interest, the selection process was often undemocratic, with the traditional chief of the village or leaders having the final say.

*“Local leaders like elders, teachers, and Mullahs have a [definitive] role in the recruitment of CHWs.”* (Health Manager)

If community leaders and council members did not have a favorite candidate, they took advice from the implementing organization on whom to select. In villages where the members did not know much about the CHW program, community health supervisors identified potential candidates (in particular females, somewhat literate, willing to help her fellow villagers) and recommended her to the council members, who in turn approved the nomination. When asked regarding her recruitment, a CHW remarked:

*“In 2003, I was sick and went to the clinic for treatment. A doctor in the clinic was encouraging patients to become CHWs... when he told me about it, I thought it was an opportunity to learn; I agreed to become one.”* (CHW)

At the beginning of the program, because not many people knew what a community health worker was, all health facility staff including supervisors, managers, and physicians were engaging with patients to encourage them to become CHWs.

*“Our officers would encourage and select the volunteers, [and] then he would introduce them to the head of the village.”* (Health Manager)

Aside from the Village Health Council, there was Facility Health Council comprised of representatives of Village Health Councils and which met at the health facility once a month. As the heads of Village Health Councils would typically become members of the Facility Health Council, and they were generally men, very few women became members of Facility Health Councils. Physicians and health facility administrators attended the facility health council meetings. CHWs did not attend the facility meetings as a rule, although if they showed up, they were welcomed. CHWs had their own monthly meeting at the health facility in which they

received refresher training and discussed their problems with their supervisors. At the facility meetings, the council members raised the needs and problems of their villages to the health facility, and the health facility presented their health messages to the council to be conveyed to community members. The minutes of Facility Health Council meetings were kept at the facility and reported orally or sometimes in written form to the provincial offices of the implementing organizations. There was no standard format to record the meeting minutes, and no standard procedure to share the minutes with the national offices or the Ministry of Public Health. It was difficult to assess whether or not the local health facility meetings of community representatives with health systems informed decision-making at the provincial or national levels.

The engagement of communities in the program often led to the involvement of local leaders in the CHW program, which had both advantages and disadvantages. Leaders were the community gatekeepers. They usually had a guesthouse to turn into a Health Post. They could influence community members to get involved in the program and cooperate. They had the power to resolve conflicts between CHWs and the community.

The disadvantages of involving community leaders in the program were high expectations of the leaders and, sometimes, poor services provided by their favorite candidates.

A health manager remarked:

*“The community selects the person who is approved by the community leader (Malek), the leader might not approve of a good person, he might approve of a person who is his own man, and he [the CHW] might not work for us too... at the same time, we have to recruit him, because we do not have a choice...and those CHWs will not provide good services... and have high demands... Every time they come with a wish list, and they say*

*if we cannot fulfill their wish list, there is no need for them to come to the clinic.”* (Health Manager)

I observed that a CHW supported by a local leader could easily deny accountability to both the health facility and the community, just because they could. The resources provided to them would reach only those close to the leader. The poorest of the poor and those who were in conflict with the leader would not have access to CHW services.

The presence of strong local leaders was also a disadvantage to women. Local leaders were always men and often strictly religious and conservative. Usually, they disapproved of family planning but allowed safe delivery by a female CHW, midwife or doctor. If the leader was receptive of services for reproductive health, he allowed the establishment of female-only health councils and assigned them to deal with women’s reproductive health. Rarely did leaders publicly approve or promote family planning and contraceptive use. The activities of female-only health councils were restricted to women’s reproductive health and even more focused on their child’s health than their own.

#### **7.4 Community-level inter-sectoral collaboration**

In the most rural areas of Afghanistan, I found evidence of village-level inter-sectoral collaboration. Such collaboration usually happened when actors in education, health, and rural development had to share work or space. For example, when a member of a Village Health Council was also a member of the community development council, an organic collaboration took place between health and rural development sectors. Village Health Councils often discussed disease prevalence, personal hygiene, and health promotion activities, while

community development councils took action regarding building bridges, digging water wells, paving roads, constructing irrigation canals, and/or erecting school and clinic buildings. Three of the 25 CHWs and ten of the 25 Village Health Council members interviewed for this research were also members of their community development councils. They created a link between health and rural development. CHWs raised awareness of development workers on health issues. Decisions regarding community development and health were made jointly. For example, a water pump was built in a place in a village under the supervision of the CHW in the village, and he made sure it kept the water safe. In other cases, paved roads were extended to health facilities and Health Posts. Development councils built latrines away from the residential houses and were covered properly to prevent disease on the recommendation of CHWs. CHWs in many villages undertook the task of maintaining drinking water tanks built by community development councils. A CHW noted:

*“We have relations with community development councils, for example, they build bridges, or roads, or electricity dam, or school... we coordinate with them.” (CHW)*

Health and development councils were part of two different national projects managed by two different ministries, different implementers, and different donors. At the national level, there was no policy document on inter-sectoral collaboration at the Ministry of Public Health. Only at the village level did health and development councils complement one another through their shared memberships.

Another inter-sectoral collaboration in a rural setting was between health and education sectors. In some places, CHWs were also teachers, and Health Posts were used as literacy centers. Of the 25 CHWs interviewed for this study, six of them were schoolteachers. They

taught at primary and secondary schools in their communities. One of the CHWs was a school headmaster, who had organized basic health education for high school students using the CHW curriculum. He noted:

*“I think it should become mandatory for high school students to learn basic things about personal hygiene and public health.”* (CHW)

In addition, three Health Posts were used as literacy houses for women and children of first to third graders.

On the contrary, when probed regarding inter-sectoral collaboration, health managers said there was no collaboration at the management level between health and education or rural development sectors.

*“We do not even exchange information on what are we doing and where...”* (Health manager)

The multitasking of CHWs within various sectors and the multiple uses of a location for different sectors led to a village-level inter-sectoral collaboration in rural Afghanistan.

## **7.5 Conclusion**

The community level is another layer of the complex adaptive system that makes up the Afghan CHW program. Communities of people are not passive recipients of health services, but active participants in the way health services are provided. Communities in the CHW program are seen as geographical and demographic groups that are mapped at the outset of the intervention. The social networks and ethnic relations within context affect the mapping of

communities in the CHW program. This chapter described the challenges of community mapping at the village, provincial and cross-provincial levels. Defining community and appropriate mapping of communities in practice are significant and at the same time challenging tasks. I found that political-ethnic power in the community and legal-rational authority of the health system influenced the way communities were mapped in an inequitable manner. Some communities were formed based on ethnic favouritism in the social context and the implementing organizations. Political conflict within some regions of Afghanistan prevented from mapping two small villages into one community. Inequitable mapping, in turn, contributed to the unfair distribution of resources to the populations.

Unlike most CHW programs discussed in the literature review, in which the CHW is the bridge between the health system and the community, the representatives of the community before the health system in the Afghan model are the village and the facility health councils. In the case of Afghanistan, CHWs only represent the health system in the local community, and not the community within the larger health system. Afghan CHWs have become an extension of the health system in villages. The actual interaction of the health system with the community can be observed at health facility council meetings, in which the council members, as representatives of the community, come up with the needs and problems of villages, negotiate solutions drawing upon resources within the health system, bargain for more and quality service, and promise contributions from the community. Finally, community level inter-sectoral collaboration happens 'organically' at the village level but with little recognition or resources for broader inter-sectoral action/support.

As I found that CHWs had become an extension of the health system in villages, their status as human resources for health is a topic of debate. In the next chapter, I describe the role of CHWs as human resources for maternal health in rural Afghanistan. I explore in details their status as volunteer health workforce, their relationship with existing traditional health providers at the village, and their relationship with formal health providers at health facilities.

### **Chapter 8 Afghan CHWs as a Human Resource for Health**

*“I cannot explain how important are CHWs to the Afghan health system, but let me tell you this, every time we have a new campaign in plan or every time we have a new task to be added to the Basic Package of Health Services, or every time we want to do something new in the rural Afghanistan, the first workforce that comes to mind are CHWs... I believe their list of tasks might have surpassed that of the minister of public health, but we also are aware that CHWs are volunteers...”* (Policymaker)

A WHO report on human resources for health is titled ‘There is no Health without a Workforce;’ (Campbell et al., 2013) there is, of course, no health system without the health workforce. Human resources for health (hereafter HRH) are one, but a significant building block of complex adaptive health systems. It is the workforce that provides and administers the services, manages and leads the system, and gathers and analyzes health and medical information. In the Afghan health system, one of the main reasons for 60% health service coverage in Afghanistan is the existence of CHWs as a linchpin of their HRH. They have taken on the task of providing health services to the rural communities, bringing community members closer to the formal health system to which they had previously had little access.

In this chapter, I argue that CHWs are a special type of health workers who undertake a combination of simple tasks of many health professionals. But it is more than a simple listing of tasks that CHWs undertake that really elucidates their HRH role. Power relations between CHWs and professional providers and between CHWs and traditional providers both influence CHWs’ status in the community and the health system. CHWs must navigate the formal HRH within the health system and the informal, traditional community-based HRH system. Despite all

the time and energy devoted to CHWs and their importance as health workforce in rural Afghanistan, they are not integrated into the broader HRH system of the country. Within the Ministry of Public Health, the CHWs are considered to be second-grade workers, partly due to their unprofessional status. CHWs' training is not accredited by the education system of the country. CHWs do not have career development opportunities. Interestingly, community members do not perceive CHWs as second-grade workers. As a sign of respect and value, CHWs are called village doctors in their own communities. Although CHWs are not an alternative to professional health providers, they have the potential to provide basic services in places where there is no health care professional. I have reason to argue that they deserve to be recognized as members of the broader HRH workforce in Afghanistan.

The chapter starts with brief information on the shortage of human resources for health in Afghanistan, and the availability of a large number of CHWs to take on a number of their tasks. This chapter addresses the issues of size, composition, distribution, accreditation, certification and licensing of the CHW workforce, and their relationship with other health workers. It examines the volunteerism aspect of CHWs and attempts to understand the reasons behind it. The tasks and the status of CHWs are compared with that of other health professionals and traditional health providers such as traditional healers and traditional birth attendants. Finally, it concludes by summarizing the role of CHWs as critical health workers addressing maternal health in the country.

## **8.1 Introduction**

Excluding CHWs, Afghanistan faces a chronic shortage of skilled health professionals (9.4 per 10,000 population). The country has only 1.9 physicians for 10,000 people distributed

unequally across the country with a rate as high as 7.2 in urban areas, and as low as 0.6 in rural areas (Campbell et al., 2013). The rest of the skilled health professionals included in the report by Global Health Workforce Alliance and WHO is comprised of nurses, midwives and dentists (Campbell et al., 2013). On average, there are four times more skilled health professionals in urban areas than in rural areas (Ministry of Public Health, 2011). According to the Global Health Workforce Alliance and WHO (2013), the density threshold of 22.8 skilled health workers per 10,000 people is required for most countries in need to achieve relatively high coverage for essential health interventions. Afghanistan has the least likely chance of hitting the threshold of 22.8 skilled health workers in 2035 (Campbell et al., 2013).

Afghan Human Resource Policy (2006) has standard categories of health providers that include, but is not limited to, physicians, nurses, midwives and vaccinators. (Table 8. 1) The standard category of professional health workers does not include CHWs – an initial indication of their lack of recognition in the Afghan HRH system. But the country may have a chance of achieving relatively high coverage for basic health services through the CHW program. I found CHWs to be a distinct type of provider compared to other professional and non-professional health workers in the country. They were large in number, they were volunteers, they had equal male and female members with female CHWs carrying the major burden of the workload for maternal health, they were dispersed in rural areas, they had a unique combination of skills, yet they did not have a potential career development path.

**Table 8. 1. List of Basic Professional Health Workers in Afghanistan (HR Policy, 2011)**

Category	Length of Training
<b><i>Health Workers Trained by the Ministry of Higher Education</i></b>	
Doctors/General Medical Practitioners	7 years
Medical Specialists	3-5 years (Plus basic 7 years)
Dentist/Stomatologist (Oral medicine)	6 years
Pharmacist <sup>3</sup>	4 years
<b><i>Health Workers Trained by Ministry of Public Health</i></b>	
Registered Nurse	3 years
BSc in Nursing	4 years
Community Health Nursing	3 years
Specialization in Nursing (ICU, ER, CCU, etc.)	1 year (Plus basic 3-4 years)
Midwife	2 years <sup>4</sup>
Community Midwife <sup>5</sup>	18 months <sup>6</sup> ( <i>continuous</i> )
Laboratory Technician	2 years <sup>7</sup>
Radiography Technician	2 years
Pharmacy Technician	2 years <sup>8</sup>
Physiotherapy Technician	2 years <sup>9</sup>
Orthopaedic Technician	3 years
Dental Prosthetic Technician	2 years
Ophthalmic Technician <sup>10</sup>	3 years
Vaccinators	3 months

## 8.2 An army of volunteers

In 2014, approximately 60% of the Afghan population had access to basic health services (Campbell et al., 2013) with CHWs as their first point of contact with the health system.

According to the Ministry of Public Health, the 26,000 volunteer, trained CHWs were by far the

<sup>3</sup> Based on the curriculum of this category, they can be employed as clinical pathologists and medical technologists in health facilities as well.

<sup>4</sup> Midwifery training is conducted in two 9-month academic years (plus holidays)

<sup>5</sup> Community Midwives are trained by NGOs, on behalf of the MoPH. Diplomas are issued by the Institute of Health Sciences.

<sup>6</sup> Community Midwifery training is conducted in an 18 month continuous program. The job description and thus the content is essentially the same as for midwifery. Those community midwives who cannot be considered as graduates of 12 grade will be recruited as contracted employee of MoPH called "Ajeer".

<sup>7</sup> Laboratory Technician training is currently 3 years but will be reduced to 2 years

<sup>8</sup> Pharmacy Technician training is currently 3 years but will be reduced to 2 years

<sup>9</sup> Physiotherapy technician training is currently 2 years, but is proposed to be extended to 4 years

<sup>10</sup> Ophthalmic technicians are trained by NGOs, on behalf of the MoPH. Diplomas are issued by the Institute of Health Sciences.

largest health workforce in the country. The human resource policy of the Ministry of Public Health states:

The category of Community Health Worker, whilst not employed directly by the MoPH, is recognized by the MoPH provided they are trained following a standard curriculum recognized by the MoPH. This category (of skilled volunteer workers) will work collaboratively with health staff in Health Posts and health centers to support health service delivery to their communities. (MoPH, 2006, p.8)

According to Afghanistan National Health Workforce Plan 2012-2016 estimates Afghanistan has 7.43 CHWs per 10,000 population (Ministry of Public Health, 2011).

These individuals were driven by several, intertwined motives to work as volunteers. Altruism, social recognition, personal knowledge gain, and a desire to enter or climb up a ladder of health professionals (mainly community health supervisors, nurses or midwives, which are all paid positions) were a number of common motivators. The most common response regarding the reason they volunteered was that they wanted to serve their community.

*“We have committed to volunteer and want our community to prosper. If people appreciate our work, that’s better.” (CHW)*

A sense of supporting their community was strong in rural Afghanistan, perhaps due to the tribal and communal structure of society.

*“Our relatives had come from Kabul, they asked me why was I helping these neighbors all the time, I said we live in the village, it is like a chain here, we help each other all the time, we only have each other.”* (CHW)

Religion and the promise of reward in the next life were also common motivators for volunteerism.

*“Imagine how much good deeds will be written for you rescuing a child and a mother... we cannot do anything else; this is something we can for the people, why not do it.”*  
(CHW)

CHWs were deployed only in rural and remote areas as opposed to professional providers who congregated in urban areas. The distribution of CHWs in rural areas where there were often no other health providers made them valuable members of the overall health workforce. In response to how important CHWs are to their communities, a participant remarked:

*“I would say more than the Minister of Public Health, because they are at least available, and they do whatever they can, if they couldn't do anything, they refer to a clinic or a hospital.”* (Community member)

In addition, most CHWs were called the village doctors, as they had the authority to distribute drugs, treat common childhood diseases such as pneumonia and diarrhea, provide counseling, and refer patients to health facilities. CHWs sought to gain knowledge and skills, which they believe would not only be advantageous to the community but also to themselves and their families.

*“I was a CHW, so I know it. Once a person is respected and trusted in their community, they even leave their house work and go to help the community... they become famous in their community; they will have access to drugs to give to the community, basically they are becoming the doctors in their community, and that encourages them to stay CHWs for years. When someone from the community calls them a doctor (Doctor Sahib), they will be very happy and encouraged... I also tell them (CHWs) that I was once as one of you, and I worked hard, and now I became a CHS at the clinic, and you may also become one (a supervisor) one day...”* (Community Health Supervisor)

Those CHWs in their 20s or younger hoped that working as a volunteer was a step to further training opportunities to become community health supervisors, midwives, nurses, or even medical doctors.

These motivations were strong in female CHWs, who accounted for half of the CHWs, and who were reportedly more active than their male counterparts and the major providers of maternal and child health services in rural communities. Having had the opportunity to learn, gaining higher social status in their families and communities, and a prospect for future training and employment gave them a sense of empowerment.

*“I like the work, I get more education, and also serve the people. I want to gain more education and become a doctor.”* (CHW)

Moreover, working as a CHW provided the opportunity for women to move around in their village and socialize with other women. The reasons for more active participation of female

CHWs and their focus on maternal and child health are discussed in a separate chapter on gender.

Having an identification card was important for CHWs. During the first round of data collection in 2013, the Ministry of Public Health kept a registry of trained CHWs, but they had yet to start distributing ID cards, which prevented CHWs to be recognized in other health facilities. Emphasizing the importance of identification, a CHW noted,

*“Once, I took a pregnant woman [who was] bleeding to a different clinic [not covering the CHW’s catchment area] for delivery, but the clinic didn’t recognize me, so my patient and I had to wait so long until the baby was born [without the medical staff assistance], and died later.”* (Female CHW)

The Ministry of Public Health started distributing ID cards later in 2013.

The dropout rate of CHWs was not seen to be an issue with the implementing organizations and at the policy level. There was no verifiable attrition rate. CHWs participated in this study had an average work experience of around 6 years as CHWs. There were CHWs, who worked since the inception of the program, and there were newly trained CHWs to replace the dropouts. A top Ministry of Public Health official claimed the attrition rate of CHWs to be less than 5%. Most health managers and policy makers believed the dropout rate could have been higher, but not so critical as to challenge the entire program. The stated common reasons for dropout were moving out of their community, marriage for girls, and income opportunities for men. CHWs received monetary incentives such as travel expenses, lunch money, and educational stipends, and non-monetary incentives such as stationary for a community map, toothbrush,

toothpaste, and hand soap. Health managers and policymakers noted that those monetary and non-monetary incentives provided by the health system were important factors in deployment and retention of more than 26,000 CHWs across the country.

An interesting finding regarding volunteerism was its development as a lower-status type of workforce distinguished from other human resources for health. Every time I asked policymakers at the Ministry of Public Health if CHWs were considered ‘human resources for health’ they emphasized that CHWs were a ‘volunteer’ workforce. I wondered why the officials at the Ministry of Public Health did not regard CHWs as human resources for health. One of the officials explained that the phrase, human resources for health, carried the notion of official recognition of the workforce as paid and professional providers, while the term volunteer implicitly meant non-paid, non-professional, and to some extent second-grade workers. He said that in an organization where most workers were physicians, they understandably looked down on CHWs, who, to an extent, undertook some of their tasks at the rural and remote areas.

That perception was in sharp contrast with how communities regarding volunteer CHWs. At the community level, volunteer CHWs were important enough to be called, sometimes, village doctors. In no community that I studied did I get the feeling that CHWs were considered as second-grade workers. CHWs may have been perceived as a different type of health workers, but not as second-grade workers.

### **8.3 CHWs unique combination of skills**

CHWs work in teams of two and provide more comprehensive services compared to other health professionals who worked alone. The team most often includes a man and a woman,

each undertaking gender-appropriate health tasks ascribed to each gender by the community to better serve people living in his or her catchment area. Noteworthy was that female CHWs are more active, as they were ascribed the majority of the tasks related maternal and child health, which was the focus of the program. The gender dynamics of the work of CHWs are discussed in more detail in the chapter on gender.

The wide-ranging tasks of CHWs distinguished them from the professional providers. A Basic Health Center in rural Afghanistan responsible for delivering a range of health services to a population generally included a physician, a nurse, a midwife, a pharmacist, a laboratory technician, and an administrator. In a Health Post, one male and one female CHW undertook a combination of the gender-specific tasks of all of these health providers. They diagnosed some prevalent diseases and prescribed drugs similar to a physician; dispensed some drugs and advised on the usage of those drugs similar to a pharmacist; cared for the sick, provided first-aid, and administered injections similar to a nurse; kept an eye on pregnant women and sometimes helped with their deliveries similar to a midwife; and kept track of their own activities and the status of health in the communities similar to a health administrator.

*“If I go to the clinic for a headache, I get the same drug as a CHW would give me.”*

(Community member)

*“A small injury is treated similarly by a CHW and someone in the health facility, why trouble, [and] go the long distance!”* (Health manager)

In places where there were no health professionals, CHWs had the potential to provide a wide range of health services. Yet, despite performing a combination of tasks of others, the

findings suggest that CHWs were not an alternative to other professionals. They could only perform some simple and basic tasks of each of those professionals.

CHWs had some unique tasks such as referral. CHWs were expected to be able to refer complicated cases to a health facility, but knowing when to refer could be a complex task and required a certain level of skill and knowledge. For example, the recommended practice was that most children with frequent and fluid defecation were given oral rehydration solutions, and most children with a cough and fever were prescribed a single dosage of co-trimoxazole (a combination of trimethoprim and sulfamethoxazole). If the treatment did not work, they were referred to the health facility. The reality was not that simple. Emphasizing the complexity of referral, a supervisor remarked:

*“What about the child who coughs and has fluid defecation? What about the child with frequent, little defecation? What about the child with a dry cough and without fever? What about the child with a cough with sputum? There could be many other variants of diarrhea and pneumonia.”* (Supervisor)

Referral required knowledge and skills to distinguish between simple pneumonia and diarrhea, and complicated ones. The referral also depended on how vocal the patient was about her or his illness.

*“If a patient says that she is dying from a headache, and make some noise, the CHW will hand her a referral letter and ask her to go to a health facility. And if another patient who is more resilient and plays down her symptoms, she might only receive a few [pain reliever] drugs from the CHW.”* (Health Manager)

The referral also depended on the social conditions such as availability of transportation, road conditions, weather, distance, patient or family's decision regarding the referral, or lack of facilities to refer to. CHWs had gradually learned to deal with those situations.

*“One pregnant woman denied being referred to a health facility because she feared the embarrassment of giving birth in the vehicle on the way to the facility. When warned about complications and death if not taken to a health facility, she still chose to die with honor at home than to live with the shame of giving birth in a vehicle.” (CHW)*

The CHW eventually carried this woman without her consent, and she safely delivered in the health facility.

Other important tasks that CHWs undertook, and which other health professionals in the health facilities often ignored, were health education for individual hygiene and behavior, and community mobilization for societal wellbeing.

*“Dispensing contraceptive is an effortless task but convincing individuals to actually use them is a difficult one.” (Health manager)*

Similarly, study participants noted that distributing soaps did not mean that the people would actually use them. One CHW said that telling people that covered drinking water source kept the water safe was one thing, and participating in covering water wells was another, or asking people to build latrine far from their houses was one thing, and mobilizing community members to do so was another. These are the roles that CHWs have learned according to the needs of their context. These behavioral changes and community wellbeing tasks distinguished the role of CHWs from other professional health providers.

The roles that CHWs have undertaken in the Afghan context, including the assigned ones and the ones that they have learned contextually, indicates CHWs' capacity to adapt to a changing context and learn the tasks that are required there. Facilitating transportation under the role of referral, changing behaviors under the role of health awareness, and mobilizing community under the role of public sanitation are a number of examples of changing roles according to the needs of their communities.

#### **8.4 CHWs' relation with other health providers**

CHWs, as providers, were not linked with professional health providers such as nurses or doctors. CHWs diagnosed and prescribed drugs for diarrhea, pneumonia, and fever (a common sign of infection), but they would not receive feedback from a professional provider to know whether or not they had done their tasks appropriately. A community health supervisor could not determine whether the treatment or prescription of a CHW was medically correct. When a patient did not get well by the drugs provided by a CHW, he or she was referred to the health facility. CHWs only got feedback from the patient in a follow-up visit.

*“We see what kind of drugs the physician provided a particular patient and learn to give the same drugs to the same patient next time.” (CHW)*

Neither the trainers nor the supervisors of CHWs were professional health providers.

In some villages that were closer to the district or provincial hospitals CHWs showed a desire to be a part of the professional health team. In those villages, community members could easily access professional providers if they wanted. At the same time, CHWs would not do

undertake clinical tasks as they would in remote villages because hospitals or comprehensive centers were very close. A CHW living in proximity to a Comprehensive Health Center said,

*“It is closer for some villagers to go to the Comprehensive [Health] Center than to come to me... sometimes they do come [to me] for the referral letter...instead of just giving out referral letters, I could be more useful [working] in the center with the nurses and doctors.” (CHW)*

Another CHW, who lived in close proximity to a health center, traveled to farther areas of his coverage to dispense drugs and encourage people to visit health center if they had serious illnesses.

My field observations suggest that in some villages where the CHWs began to work, traditional health providers such as religious healers, Hakimji<sup>11</sup>, and traditional birth attendants already existed. These providers either became CHWs or worked parallel to the newly recruited CHWs. There were various reasons that traditional providers did not become CHWs. Those traditional providers who were well established and had enough clients to earn well did not become CHWs because the notion of CHW was construed as free workers. A health manager remarked,

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<sup>11</sup> Hakimjis are traditional health practitioners who use Greco-Arab and Unani [Meaning Greek in Persian] medicine. They are usually found in small bazaars in rural areas, and work out of a shop of herbal medicine. According to Unani medicine, health is considered as a state of body with humors in equilibrium and body functions normal. Health is based on six essential elements:

1. Air
2. Drinks and food
3. Sleep and wakefulness
4. Excretion and retention
5. Physical activity and retention
6. Mental activity and rest

*“Why would someone who earns a living through a vocation provide a similar service for free, that’s like hitting your own roots with an ax.”* (Health manager)

Moreover, the CHW program was new, and the traditional providers could not predict the sustainability of the program. A policymaker noted,

*“They thought what kind of project would it be, and [that] it might last a few months.”*  
(Policymaker)

In some sites that I visited traditional providers apparently found the CHW program conflicting with their practices. To become a CHW, religious providers had to risk changing their own beliefs and practices about health and illness for the sake of a new health intervention supported by an outside organization that may or may not have been sustainable. For example, religious providers could never promote contraception or deny the existence of evil spirits that cause sickness.

*“I lost ten newborns. There weren’t doctors or nurses; our relatives were only using gunfire<sup>12</sup> because they thought that my illness was only an Awla [Possession by an evil spirit], or religious healers were called to take care of it.”* (Female community member)

Under the CHW program, she would be referred or taken to a health facility where midwives or doctors could provide obstetric care.

Some traditional health providers may have wished to become CHWs, but were not selected by the community council, which could have been heavily influenced by community

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<sup>12</sup> When a pregnant woman have difficulty delivering baby, communities think she might be possessed by evil spirits, and fire gunshots to scare the evil spirit and make it leave the woman.

leaders. If traditional health providers did not have a good rapport with the council members for any personal or community conflicts, they would be unlikely to have been chosen as CHWs.

When traditional providers did not become CHWs, it led to a conflict of interest between the traditional providers and the new CHWs. Some traditional birth attendants, for example, became fierce rivals of CHWs in the villages. The reason was that they lost their main clients – pregnant women – to the modern health system. In one village in the central province of Bamyan where two female CHWs ran a Health Post, there were two other traditional birth attendants, who created problems for CHWs. A CHW noted.

*“They are mad at us; they say we have stopped their business.”* (CHW)

Our observations suggest that such rivalry between female CHWs and traditional birth attendants was common in most rural areas. Female CHWs visited pregnant women, provided them with nutrition supplements and iron tablets, encouraged them to visit health facilities, educated them on the risks of pregnancy, helped them prepare a birth plan, and promoted institutional delivery. Institutional delivery is found to be much safer in Afghanistan compared to home delivery (Azimi et al., 2015). As a result, the traditional birth attendants lost their clients and started preaching against female CHWs and health facilities. The most common false accusations mostly made by traditional birth attendants and other anti-modern health facility elements were: (1) the contraceptives would make women infertile, (2) there were no female providers in the health facility, and (3) health facilities were run by infidels. The rumors on contraceptives were further boosted by the side-effects of the contraceptives: pills caused dizziness and irritation, and injections caused puffiness in legs, arms and face.

*“Those who have used injectable contraceptives have grown fatter... and those who use pills get nervous... easily irritated, dizzy, nauseous, and have bleeding.”* (Female CHW)

In one site, the observations suggested that the side effects of the contraceptives helped the Unani/Greek medical providers in the local market. As CHWs would convince the villagers to give space between pregnancies, the negative side effects of the hormonal contraceptives led the villagers to Unani providers for herbal contraceptives.

*“People don’t use a lot of contraceptives due to their side-effects, they get herbal medicine from bazaar... A few people have used it, and they are happy with it... It is called herbal contraceptives from Aatay Jaffar [Jaffar’s Father’s Herbal Medicine] in the Titanic bazaar.”* (Female CHW)

Aside from the false accusations, I was frequently told during site visits that the traditional health providers took advantage of some rumors against health facilities and CHWs. The common ones were that (1) the providers at the health facility did not behave well with patients, (2) women were seen by a male stranger which is against the Islamic law, and (3) our mothers and grandmothers had given birth at home, and they turned out to be totally fine.

Health facilities usually received a lot of patients, and in order to see them all, professional providers had a short time to take medical and family history, examine, diagnose, and prescribe. In most health facilities I visited during the fieldwork, a single physician would see between 80 and 200 patients per day. With an average of 150 patients and eight nonstop working hours, a physician would have 3.2 minutes for each patient. In those 3 minutes allocated

for taking history, physical exam, diagnosing, and prescribing, a physician might not have the time to provide the care patients actually expected.

There were also complaints of health workers' treatments of patients. One community member, for example, accused midwives of not treating pregnant women well.

*“Midwives slap women who scream during delivery.”* (Female community member)

These accusations, however, were not common, and I observed in many health facilities that midwives were on call to work 24 hours a day, seven days a week. As labour and delivery do not always happen during office hours, midwives had to be available late in the night or early in the morning as well. Some midwives stayed in the health facility on shifts of 48 to 72 hours, sleeping sporadically when there were no patients. Some midwives had to move from urban areas. The stress of such working condition could lead to ill-treatment of the patients. Regarding accusations that male providers at health facilities saw female patients, my field observations found that most health facilities had some type of female professional providers, whose absence at some point in time could have fuelled the rumors I heard of there being ‘no female providers’ in health facilities.

Finally, changing the attitude of ‘we have always done things this way’ was a difficult task regarding behavior change for all CHWs. Traditional, cultural and social practices had long been on the side of the traditional birth attendants. CHWs had to work hard and be effective in the initial months and years of their work in order to win the trust of the community and change the sociocultural beliefs.

Aside from the conflict between traditional health providers and CHWs, I found communities where traditional health providers had become CHWs. These providers, mostly young, had seen an opportunity to learn and become professional health providers. They had a good relationship with community leaders too.

*“I used to be an injectionist<sup>13</sup> before the CHW program, and also gave medications for some problems, and helped people with other health-related problems,”* (CHW)

These CHWs integrated their previous role with their new ones. One of the advantages of recruiting a traditional birth attendant as a CHW was that there was no rivalry and the traditional birth attendant-turned-CHW was more likely to work with the health system and its health facilities. She learned from the CHW program and promoted the health system. Most importantly she kept her income as a traditional birth attendant.

*“...they give a bowl of flour, a chicken, soap, or 50Afs [~\$1] to 100Afs... the poor ones give 20Afs, and I don't say anything... I don't argue over whatever they give.”* (TBA-turned-CHW)

The traditional birth attendant-turned-CHW sometimes played a double-role, assisting with the normal deliveries at home (something that the health system did not allow but for which she was paid), and sending the complicated ones to the health facility. Female CHWs must refer all deliveries to the health facility, but most TBA-turned-CHWs decided on their own which

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<sup>13</sup> Injectionists are those who administer injections. In Afghanistan during the communist government in the 1980s, some were trained to administer injections, check blood pressure and provide first aid for communities, applying the Russian Feldsher model. Ampules were provided/sold at dispensaries, and injectionists administered them at a minimal rate. Over time, many learned to administer injections on their own.

deliveries to conduct by themselves, and which one to refer to the health facility. It was not allowed under the CHW program but often practiced.

*“I take between 3 to 10 or more pregnant women [to clinic monthly]. Normally they call me, and if they are really ill, I take them to the clinic; if not, they will deliver in their homes.”* (TBA-Turned, CHW)

*“I am good at being a Dai [TBA], and for the community, I am both of them [Dai and CHW]. I deliver babies, and I also tell them whatever the doctors tell me. I tell them to take care of themselves when they are pregnant, do not go to the field or do physical work...if there is bleeding, we do not have any injection or anything like that...[I] refer.”*  
(TBA-turned-CHW)

The traditional birth attendants did provide not only health services but also other housework services, and worked as a personal support. They helped with the first weeks to months of raising the child and with the house chores and offered advice on how to keep the child and the mother healthy. After becoming CHWs, they adapted to their new role and found new ways of getting compensation.

*“Those women who deliver [at the health facility] ask me to go with them, before this CHW program I used to serve as a Dai [TBA].”* (TBA-turned-CHW)

With providing some kind of service such as accompanying the pregnant women to the health facility, the traditional birth attendants expected some type of compensation from the patient. Given that they had always been compensated for their services in cash or in kind prior to becoming a CHW, they continued to expect compensation one way or the other.

The policy on CHWs recommended recruiting traditional health providers as CHWs, but at the same time, it deprived them of their previous privileges such as attending deliveries. Those traditional providers who had become CHWs and gotten the support of the health system had either changed their roles or combined them. Those who remained outside the system were already parallel health providers. Communities, where traditional health providers were trained as CHWs, might rejoice that the services of both are provided by a single person, while communities where the traditional provider and the CHW were two different people, members would choose whose services were needed the most and when. Many health managers agreed that the TBA-turned-CHWs benefited all: they reduced the workload of the health facility, they reduced the cost of delivery for the family, and they earned some income for their families. The only challenge was that delivery was not an accepted task of CHWs.

Instead, the health system trained community midwives for 18 months to conduct deliveries in villages, but there were very few of them.

## 8.5 Career Development

Afghan CHWs did not have a standard career development route due to multiple factors. First, there were a lot of CHWs who could not read and write, hindering further training and career opportunities for them. Second, a lack of accreditation and licensing procedure for CHWs limited their career opportunities. The Afghan Ministry of Public Health human resource policy provided a definition for certification<sup>14</sup>, accreditation<sup>15</sup>, and licensure<sup>16</sup>. All categories of

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<sup>14</sup> Acknowledgement of those quality standards has been met. (e.g. certificate issued to indicate successful completion of a course of study having achieved the required levels of competence).

<sup>15</sup> The process of external quality review, which is applied to training institutions and or programs to assess the quality. It measures the institution and or program against agreed-upon standards thereby assuring that they meet the national agreed upon standards.

professional health providers were trained in educational institutes administered or accredited by the Ministry of Higher Education. CHWs, on the other hand, were trained by the BPHS implementing organizations and provided with a certificate approved by the Ministry of Public Health. The Ministry of Public Health in collaboration with the WHO developed the CHW training curriculum without the involvement of the Afghan Ministry of Higher Education, the entity that accredits educational institutes and programs in Afghanistan. CHWs needed standard training module approved by the Afghan Ministry of Higher Education in order to go through the process of accreditation and licensing. The lack of accreditation and licensing limited their career opportunities, as CHWs could not get into educational programs administered and accredited by the Ministry of Higher Education solely with CHW training and experience.

Third, there were not many community-based careers for the promotion of CHWs. During site visits, CHWs said that they were told they would have opportunities to become nurses, midwives, and supervisors. Some female CHWs indeed did receive further training and became midwives, and some CHWs ended up becoming supervisors. The observations indicated that high school education was a significant factor in the admission of CHWs into midwifery training. Midwifery programs operated independent of the CHW program and did not have CHW training or experience as a prerequisite or preferable criterion for admission (Ministry of Public Health, 2011; Smith, Currie, Azfar, & Rahmanzai, 2008). In addition, a number of health managers noted that they preferred male CHWs to become supervisors when there was a job opening, but it was not a standard procedure to promote CHWs with a certain level of experience and training to paid jobs such as supervisors or midwives.

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<sup>16</sup> The approval given to an individual professional practitioner once minimal requirements have been met. This is obtained through examination (e.g. Testing and Certification Board Examinations) or through graduation from an accredited training institution.

Our findings suggest that there was no standard career development path for CHWs. Occasionally, CHWs became supervisors, nurses, and midwives but not through the CHW program. A few might have progressed into paid positions, but many remained volunteer CHWs for several years.

## **8.6 Conclusion**

Human resources for health are a significant component of any complex adaptive health system. As an HRH, CHWs are the frontline care providers in rural areas of Afghanistan. They are an army of 26,000 male and female health workers. Unlike professional health providers, such as doctors and nurses who congregate in cities, CHWs are embedded within rural and remote areas of the country. As CHW arise from communities, their allegiance is not to the health system like other more formal HRH but to the communities from which they come from and where they live. As 76% of the Afghans live in rural areas, CHWs appear to cover the marginalized and needy population more than do professional providers. The composition of CHWs in a Health Post is often gender-balanced with one male and one female CHW due to the unique gendered context that makes up the Afghan society. The tasks of CHWs are numerous including diagnosis and treatment of prevalent diseases, health education and awareness, referral, and administration of a Health Post, but their role is more than the sum of the tasks that they undertake. It is the unique location that they occupy, navigating between formal and informal HRH systems, crossing boundaries between the two. CHWs are primarily community-based volunteers but reimbursed for the cost of their monthly trips to health facilities, immunization campaigns, and annual data collection for household surveys. This is where they cross the boundary between formal and informal HRH systems. As volunteers, they could be situated

within informal system of care, but as member of the health system they attempt to gain a status within the health system, perhaps as member of the health providers' team. Because professional health providers who are the main decision-makers at the health facilities do not supervise CHWs, CHWs do not receive feedback on their clinical tasks and feel isolated from professional providers. In a way CHWs are an HRH onto themselves who have to navigate the formal health system on behalf of their clients or the populations they are supposed to serve. In other words, CHWs have some administrative link with the health system, but they lack the link with the professional, recognized HRH system. They are yet to be accredited, licensed and formally recognized in Afghanistan. Although the policymakers view CHWs as necessary, but second-grade, workers. It negatively affects the status of CHWs in communities, where CHWs are sometimes hailed as village doctors, but that perception is also influenced by gender disparities exist in communities.

CHWs are by no means an alternative to professional health providers, but in places where there is no professional provider and the chances of training and/or recruiting professional providers are low, CHWs are the only option to meet basic health needs of the population. That CHWs are necessary in their context is obvious, but the challenge is that they are viewed as second option after professional providers. This study suggests in places where professional providers are available; CHWs have the potential to extend the services to marginalized populations, provide community health services, and become a member of the health provider team. Viewing them as part of a team contributes to their status both in the community and the health system. CHWs also have the capacity to learn new roles quickly, with the potential to help a complex health system adapt to changing contexts and needs, but dependent upon their ability to influence the formal health system. CHWs are trained in weeks. In the recent outbreak of

Ebola virus in the West Africa and Nigeria, CHWs were the frontline workers to engage with communities limiting the spread of the virus (Perry et al., 2016). With increasing new cases of polio in Uttar Pradesh, India in 2011, CHWs contributed to the elimination of polio transmission there (Perry et al., 2016).

It is worth noting that the maternal and neonatal services are predominantly provided by female CHWs, as gender segregation in the society dictates only women to care for women. Male CHWs may sometimes help with arranging transportation for pregnant women, but female CHWs are the ones who refer normal deliveries and obstetric complications and visit pregnant women for antenatal and postnatal care. Female CHWs are the ones who potentially change the traditional behaviors, mentioned previously, by convincing rural women to visit health facilities. The roles of male and female CHWs and the gender dimensions of the CHW program are discussed in the following chapter.

### **Chapter 9. Gender Dynamics of the Afghan CHW Program**

On my first visit to the head office of an implementing organization in Kabul, I raised the issue of gender with a health manager by asking if there was any policy document or report regarding gender issues of the Afghan CHW program. He said he was not aware of any particular gender policies or reports, but they took gender into account in their daily operational activities. I asked how. He said they encouraged recruiting female CHWs; they had female trainers for female CHWs, and only female CHWs took care of pregnant women and maternal health issues in their coverage area. The small talk hinted at two interesting points. First, he used the English word 'gender' in the conversation, not its Persian translation, which is the same as the translation of sex. Since talking about sex is a taboo in Afghanistan, the translation of gender had a connotation of sexuality, and thus avoided in conversation. Second, he spoke about female CHWs and issues related to women, as if gender was about women's issues. That was the beginning of a gender analysis for this research.

In this chapter, I argue that a gender-equity approach is misconstrued as women's reproductive health approach and that patriarchal norms influenced policy documents and undervalued women's work outside the home. Yet, the program also offered some opportunities for women. By exploring the roles of male and female CHWs in the program, and gender differences in the policy and managerial levels, I present that women carry the burden of providing maternal, neonatal, and child health in rural areas. As the gender-equity focus was on women as patients more so than women as health providers, it could be described that women are used as cheap health workers to tackle health issues related to women. I also identify

advantages and challenges to female CHWs and the focus on women's health and conclude with an analysis of the overall perspective of the Afghan health system on gender.

### **9.1 Gender differences in the CHW program**

The Basic Package of Health Service policy states there should be one female and one male CHW at every Health Post. Policymakers and health managers confirmed that around half of the trained CHWs across the country were female. The Basic Package of Health Services policy did not separate the roles of CHWs by their gender, but my field observations suggested that the implementing organizations took gender sensitivities of communities into account and developed implementing strategies accordingly. Furthermore, my research assistant and I observed in multiple sites where female CHWs were more active on the ground compared to their male counterparts. Following the gender norms of the Afghan society, women paid home visits to inspect the condition of pregnant women and their newborn children; they knew more about the health problems of women and children in their communities, and they dispensed their drugs more appropriately. I elaborate below on gender differences in all aspects of the CHW program.

#### **9.1.1 Recruitment**

The policy on CHWs recommends having a male and a female CHW in a Health Post, who are *Mahram* -- close relatives of opposite gender allowed by Islamic law to interact (Ministry of Public Health, 2005). On the ground, the two CHWs at a Health Post have been a male and a female or two females or two males. The findings suggest that the male/female ratio in each Health Post depended on the culture of the area and whether the local custom allowed

participation of women in outdoor activities, availability of men and women for the position, or the attitude of the implementing organization towards gender issues. In some areas, the permission of the male head of the family was necessary for a woman to become a CHW. I identified many cases where female CHWs stopped working after they got married because their husband or their husband's family did not allow it. Some implementing organizations, like Org A, proactively focused on gender inequities, while others, like Org B, did not. In areas where gender segregation was religiously practiced, Org A recruited only female CHWs and focused only on maternal and child health. Org A also made arrangements (i.e. creating female-only environments by recruiting female supervisors and trainers) and obtained the agreement of the community leaders, who were almost always men, to allow female CHWs to go to other villagers' houses and work on maternal and child health. In a similar setting, Org B recruited either one or two male CHWs, turning a blind eye to the poor maternal and child health status in communities, for which Org B blamed the gender segregation in the region.

### **9.1.2 Training**

The major gender issue with the training pertained to CHW trainers. There was nothing in the policy documents regarding the gender of CHW trainers. Implementing organizations chose male or female CHW trainers based on the attitude of the population in a region towards male-female interaction. In central Bamyan, for example, where the interaction of the two sexes was not a taboo, there was one male trainer for both male and female CHWs; however, in Kabul, Balkh and Parwan, female CHWs had female trainers, and male CHWs had male trainers. But even in those provinces, sometimes, male trainers filled in for their female counterparts.

*“We have a female trainer...[but] it has happened that our female CHW trainer had problems, and we had to cover for them... [but] we do ask for their [female CHWs] consent first, whether it is okay if a male trainer taught them, and they usually agree.”*

(Male CHW trainer)

Despite the separation of men and women in training sessions, the content of the CHW program curriculum was taught to all. Male CHWs learned about menstruation, pregnancy, labour and delivery, neonatal care, and all other issues that were contextually a realm of women. Female CHWs learned anything in the curriculum that was about men’s health.

### **9.1.3 Gendered Division of CHW Tasks**

In communities where both male and female CHWs worked, maternal and neonatal health tasks were assigned to female CHWs and environmental health matters to male CHWs. Responding to a question on whether he undertook maternal and neonatal health tasks, a male CHW remarked:

*“We have learned about pregnancy related issues in our training, but my female colleague takes care of pregnant women.”* (Male CHW)

One of the tasks of female CHWs was to distribute contraceptives to women and promote contraceptive use. To do it effectively, I found through field observations that CHWs had to convince not only the women but also their husbands, heads of family, and/or their mothers-in-law. A female CHW remarked that the decision to use contraceptives was usually made by the head of the family – typically a man – and that made their task more challenging. Our observations suggested that female CHWs found it easier to convince women of reproductive

age to use contraceptives than to convince male and other female decision-makers in the families. In some places, where gender segregation was not strictly practiced, female CHWs involved husbands in counseling sessions to make them aware of the risks of too many or too quickly-spaced pregnancies. Female CHWs had learned that husbands' involvement in the counseling sessions could be more effective than talking only to the women.

*“...when they say that their men [Husbands] do not allow them to use contraceptives... next time I go to their house at a time that her man is at home, and I ask her to bring her man too, and counsel them together.”* (Female CHW)

CHWs said that they promoted contraceptives with two goals in mind: first, to prevent families from having a large number of children; and second, to increase the birth space between children. The latter was more common among younger women, the former among women in their late 30s. In response to how they promote contraceptives a CHW said:

*“First, we ask how many children do they have? If they had more than four children, we encourage to use contraceptives and not to have more children. If they were young and had one or two children, we encourage them to use contraceptives to give space to their children, which is good both for them as mothers and their children.”* (Female CHW)

Most female community members and female CHWs participated in this study said the preferable number of children were four to five, while most families, who had stopped having children, actually had between eight to twelve children or siblings in their a family.

The findings suggest that the decision to use contraception also depended on the sex of the children and on whether the family had the desired number of boys. Normally, families,

according to community members and CHWs, wanted more boys. In response to how many children a family wished to have, one CHW noted:

*“Mostly like four kids, boys and girls, but unfortunately when they do not have baby boys, they keep trying.”* (Female CHW)

In some cases, women of reproductive age had a difference of opinion with their mothers-in-law on birth spacing and the desired number of children. Women wanted fewer children and longer spaces between their children. In those cases, the women secretly took contraceptives, thereby causing tensions between the family and the CHW, as CHWs were not expected to provide contraceptives to women without the approval of their family.

*“...her mother-in-law came here [at the health posts, saying], ‘you are doing bad, you are not allowed to give my daughter-in-law contraceptives’ ... she told the entire village that I had given contraceptives to her daughter-in-law secretly... that fight lasted two-three months.”* (Female CHW)

In some cases when the tensions affected house visits and other activities of female CHWs, male CHWs discussed the matter with the head of the village and the Village Health Council, who would then support CHWs. Otherwise, male CHWs participated in public gatherings to promote personal and environmental hygiene and healthy behavior among men once a week. In comparison to the tasks of female CHWs, who were culturally assigned all maternal, neonatal and child health issues, key informants perceived the tasks of male CHWs to be less demanding.

### 9.1.4 Gendered Division of Supervision

Table II.3, presented at the beginning of section II, shows that most supervisors in the Afghan CHW program were men. Our observations suggested that men had the social and organizational support to become supervisors. Men became supervisors as they had more freedom of mobility than women who had a difficult time leaving their homes. Men could visit all the Health Posts under their coverage in near and far villages. They usually had a vehicle (typically a motorcycle) which was provided and fuelled by the implementing organizations to visit each Health Posts at least once a month. Not only social norms but also organizational procedures discouraged women from becoming supervisors. In the 17 sites visited for this research, I found only two female supervisors, whom I purposefully included in the study. Female supervisors often had to walk hours to get to villages or pay for their transportation. They were not reimbursed for their transportation costs during their field visits, and road safety was an issue for female supervisors, which they had to overcome their own way. A female supervisor said.

*“To the far villages ... it is 1 hour 40-minutes walk one way... and I don't go alone. Sometimes, I take the clinic guard with me. Or I go with a patient from the village, who had come to the clinic, and on the way back I bring other patients from the village... the doctor will give them medicine, and they are happy to get treated, and I get my job done.”* (Female Supervisor)

As a rule, a supervisor was appointed within a health facility to oversee the tasks of both male and female CHWs. The interaction of male supervisors with female CHWs differed in different parts of the country depending on each community. In some cases where the

supervisors and CHWs were from the same ethnicity or religious sect, they openly interacted with one another. In Bamyan, where the interaction of men and women were not strictly prohibited, female CHWs and male supervisors sat in the same room during the supervision. On the other hand, in Paghman District of Kabul province, male supervisors briefly talked to female CHWs through a door or a curtain during supervisory visits. To overcome the gender segregation barrier, male supervisors had to build trusting relationships with the families of female CHWs. Sometimes, supervisors were from a neighboring village, and that made the rapport building easier.

### **9.1.5 Gendered nature of drug and prophylactic supply and distribution**

Drug dispensation was also affected by gender roles in the society, as female CHWs provided drugs to women and male CHWs to men. In villages where only female CHWs worked, adult men would send a woman from their family for drugs and referral letters.

An interesting finding was that female CHWs were the sole providers of contraceptives in their communities. I found that condoms were not the contraceptive of choice in rural Afghanistan, but when some men chose to use them, their wives would get the condoms from female CHWs. Male CHWs did not distribute condoms even to other men. Site observations suggested that anything related to sexual activity such as talking about it was a taboo in the public space in rural Afghanistan, and distributing condoms was considered a shameful endeavor for men.

*“When a man gives away condoms, usually others think of him as a pimp.”* (Supervisor)

In short, societal gender segregation affected all aspects of the CHW program including recruitment, training, task allocation, supervision, and drug supply. In some places where the interaction of different sexes was a taboo, male and female CHWs or supervisors had to interact through a curtain or a door. In other places where the norms were not so strict, they easily interacted for training, supervision and drug supply purposes.

## **9.2 Gendered nature of policy and managerial activities**

Policy documents stated the Afghan Ministry of Public Health was committed to the principle of gender equity. The National Health Policy and Strategy mentioned the term gender twice: First, when it affirmed the existence of ‘large gender disparity’ in the country, and second when it referred to the establishment of a unit in the structure of Reproductive Health Directorate – Gender and Reproductive Health Unit (MoPH, 2006). The Ministry of Public Health had established a gender unit under Reproductive Health Director, which had the responsibility of ‘gender mainstreaming’ within the Ministry (MoPH, 2006).

The only policy document specifically on gender at the Ministry of Public Health was a chapter on Gender and Reproductive Health in the reproductive health policy document. This chapter affirmed the commitment of the Afghan government to gender mainstreaming, gender equity, and women empowerment, and had three strategic guidelines to promote gender equity: (1) “Increasing general awareness of gender, reproductive health and rights” (MoPH, National RHS; p. 58); (2) enhancing women’s decision-making role in relation to health seeking practices (p.58); and (3) involving men in activities of reproductive health and rights (p.59). At the policy level, the role of men as higher gender was asserted and their engagement in maternal health was encouraged. The policy chapter on gender in the National Reproductive Health Strategy said:

*“Men, as fathers and husbands, are to be more intimately involved in their wife’s pregnancy and childbirths than are other male family members. Besides, they are often the decision-makers, the mahram who accompany their wives to a clinic and the ones who pay for care (including the transportation)”*. (MoPH, Gender and Reproductive Health, 2006 p.59)

Both the structural unit for gender and the policy document on gender suggested that gender was mainly linked with reproductive health, particularly of women.

The findings indicated that many resources had been provided for the cause of maternal health, but at the managerial level, signs of giving control of the resources to women did not exist. For example, in the four provinces (17 sites) that I visited, I could not find a single female health facility administrator, someone who controlled and managed the resources of a health facility. There was not a single female Community-Based Health Care officer or a single female manager in an implementing organization. It was known to all and specifically to a high-ranking policymaker, who said during an interview at his ministerial office in Kabul:

*“In particular female human resource and technical staff are lacking at the health facility level.”* (Policymaker)

I found that except for an army of female volunteer CHWs who actively worked in their communities, very few women were supervisors, and only rarely might there be a female health manager at upper levels.

### 9.3 Unique advantages and challenges for female CHWs

Female CHWs were affected the most in the CHW program as they were seen as the second gender in the Afghan society. I identified a number of gender-related challenges and facilitators to the work of CHWs. The challenges were numerous and at many levels. First, the participation of women in activities outside the home was sexualized. Second, the work that women undertook outside the home was considered as low-status. Finally, familial control over women extended to their work outside the home.

Site observations suggested that sexual stigmatization of women's activity outside the home was common. During field visits, I asked a number of female CHWs whether they were seen as 'bad women' – the local phrase for sexual stigmatization. "Of course," said a female CHW in central Bamyan, "but not everyone [in the village] sees us that way." There were always some in the community who saw female CHWs as 'bad women,' but there also were people who appreciated their work and saw them as role models. The findings suggested that respect for female CHWs had increased over years, but their sexual stigmatization had not disappeared.

*"There will always be someone who may think of us as that kind of person... you know, someone who work outside the home for sex purposes."* (Female CHW)

The stigmatization and sexualisation were particularly strong if the employment was linked with foreign and non-government organizations. Speaking about the perception of the community regarding women workers, a community health supervisor said:

*"If a woman works for an NGO and especially a foreign NGO, then she is a bad woman... that's a general perception."* (Male Supervisor)

On the other hand, I noted that the public sector, such as government departments or public schools, was less castigated as sexual places for women. That could be due to the large number of women schoolteachers, gender segregation in schools, and the slightly religious image of the Islamic Republic of Afghanistan compared to NGOs that are seen as foreign and foreigner-supported institutions.

Another challenge to the work of CHWs was degradation of women's work. I noted that women's area of work was considered low-status. One way to degrade women's active participation in the CHW program, as half the registered CHWs were women and women actively worked as volunteer was to look down at volunteerism. Although volunteerism was promoted in Islam, I observed that male community members regarded volunteers as low-status workers. A male community elder participating in a focus group mockingly said that *'when you cannot find a job, you volunteer.'* Because volunteerism was considered low-status, not many men happily undertook those activities. A female supervisor who had worked as CHW for several years remarked:

*"We have three [male CHWs] ... [only] two of them are working. We took the third one because of his wife. No one would work as CHW in that village, so we hired both. The man brings his wife to the clinic, and he doesn't take part in the training and workshops. He considers the work of CHWs a shame for himself."* (Female Supervisor)

The argument, in some areas of Afghanistan, was that because a lot of women worked as CHWs, it made the occupation to be perceived as a low-status. I noted that in the rural areas where men were considered the higher gender and women as the second gender, the mere participation of women in an occupation contributes to its value. In one district where mostly

women had become CHWs, I went to the bazaar (the community market) to have an informal conversation with male community members and to find out the reason men did not volunteer to become CHWs. Bazaars are generally a masculine sphere in rural Afghanistan where only men could be seen as shopkeepers, taxi drivers, restaurant owners, and daily labourers. First, I asked them if they knew what CHW were and most men did. Then, I asked if they thought to become CHWs for a couple of hours a day or a few hours a week. Most of them did not want to become CHWs. When I asked why they did not want to become CHWs, the two common responses were ‘that’s women’s work’, and ‘a lot of women are doing it.’ I asked whether they would volunteer as CHWs if a lot of men did it, almost everyone said ‘yes.’ Those who said ‘No’ had other business to take care of or believed they did not have the literacy to become CHWs. The findings indicated that because many women actively participated in the CHW program, CHW tasks were related to women, and thus considered a degrading task for men.

I also found that familial control over female CHWs extended to their work when a woman became CHW. For example, when female CHWs were questioned about how they were able to work outside their houses in rural Afghanistan, they responded that they had the permission of their family.

*“When I was asked [to become a CHW], I said I needed to have my husband’s permission. When I told this to my husband, he told me to forget about it, and that I needed to take care of my kids at home. I said it was just a few months ... and if I didn’t like I won’t go anymore. Then he agreed.” (CHW-turned-Supervisor)*

In some places, their husbands were also recruited as a CHW in order to both support and keep an eye on her wife while she was undertaking the major tasks related to maternal and child health.

As challenging as the CHW program was for female CHWs, it provided them with an opportunity to work in a traditionally female realm, learn something, work outside the home, and change the perception of the community regarding their work and their realm of work. First, almost all community health supervisors and health managers stated that female CHWs were better at their tasks compared to male CHWs. The reasons were often stated to be (1) the focus of the program on maternal and child health, (2) women's availability for volunteer work and keenness in maternal and child health and (3) women's 'natural' caring proclivities. Maternal and child health has traditionally been the realm of women's work, which has helped both female CHWs to work in that area, the health system to recruit female CHWs. Also, it provided women with an opportunity to receive some education. Most female CHWs took pride in learning about health matters, and that knowledge improved their social status. Two female CHWs remarked:

*"I get to raise my awareness about pregnancy issues and health matters, and also serve the people."* (Female CHW)

*"The people will not let me go now... some of them call me 'respected doctor.'"* (Female CHW)

Second, becoming a CHW gave women an opportunity for mobility. Their responsibility required them to make home visits to their villages to promote a healthy lifestyle, to encourage women to get vaccinated for tetanus, for example, and to provide antenatal, postnatal and

delivery care. Typically, women need permission from their husband or a male head of the family to go out of their homes in rural Afghanistan. As CHWs, they did not.

*“Women do not go outside without their men’s permission; as CHWs we can, [working as CHW] and going to the clinic is like taking a break.”* (Female CHW)

The freedom to go outside their homes whenever they wanted, however restricted it was to the villages they covered and to the health facility they were connected with, was expressed as an empowering opportunity by female CHWs.

Third, I noted that no matter how powerless these women might have felt in the society as a whole, they still held the key to change in their home environment and in particular with their children. For example, with increased knowledge, the women demanded their husbands to provide clean water and to make safer latrines, and that everyone in the house should wash their hands before and after the meal.

*“After we learn about health matters, we can make our homes clean, and teach our kids a little, and encourage them to study further.”* (Female Supervisor)

Finally, the CHW program contributed to changing the social attitudes and perceptions regarding women’s work outside the home. A CHW trainer pointed out that because of the visibility of many female CHWs in rural areas and the good work that they have been doing, community members have become more receptive to the work of women outside the home in the field of health and education. A female supervisor, who had started to volunteer more than a decade ago as a teacher and as a health worker for international NGOs and then for the BPHS, had become a role model in her community. She had saved the lives of many women and

children in her area and earned the respect of the communities she worked. She had recruited many female CHWs in the villages she supervised. To get approval of community councils to recruit female CHWs, she said,

*“I usually ask them [community members] ‘Am I a bad woman!?! If you think so, then do not allow your women to become CHWs, teachers, nurses or midwives. If I am not, then let your daughters come with me,’ and thank God it has always worked.”* (Female Supervisor)

During the field visits, she mentioned that she had been able to encourage many girls and women to become CHWs, nurses, midwives and teachers.

In other villages, reputable male school teachers, government employees, and university students had become CHWs and helped change the perception of community members regarding the task of CHWs.

*“When the program started, no one wanted to be volunteer CHWs, but now they see me and my work, I am sure if I leave there will be a lot of men who may want to be in my place.”* (Male CHW)

The finding suggested that the presence of male and female role models in the program boosted the status of CHW as an occupation.

#### **9.4 Conclusion**

Afghanistan is a society where patriarchal norms are naturalized through religion, tradition, and culture, and in which gender division of labour is practiced strictly. For example,

the task of CHWs in rural Afghanistan are divided based on the gender of the CHWs with men undertaking roles outside the home, and women undertake roles inside the home and related to women's reproductive health and child care. According to the literature, professions are segregated by gender roles, as midwifery and nursing are socially feminine professions, and medicine a masculine one (Currie, Azfar, & Fowler, 2007; James & Nursing, 2001; Smith et al., 2008). Even when women enter medical schools, they are most likely to become obstetricians and gynecologists (Belay, 2010). The roles and tasks undertaken by CHWs are affected by gender dynamics of the broader Afghan society. That the majority of active CHWs are women is not surprising in light of the tasks they are to undertake – focused on maternal and child health, reflecting a broader gendered division of health labour. What is also similar to other health system contexts, very few women are community health supervisors, and even fewer are in managerial or policy-making positions. The fact that many women were recruited as CHWs was an implication of the gender-segregated society, as men were not allowed to provide services for women.

The findings indicate that the government and the Afghan Ministry of Public Health had stated commitment to gender equity, but the policy on gender was limited to reproductive health, reducing the gender-equity approach to maternal and child health. This perspective of focusing on maternal health as a gender-equity approach had its advantages and disadvantages. The first advantage was that a large portion of resources for health was directed towards women's health. Afghan women and children were suffering badly from poor health and this focus of the primary health care on maternal and child health improves their health. Second, the culture of gender segregation in the Afghan society had the accidental logic of encouraging more women to become CHWs. As only women provide health services for women, implementing organizations

preferred to recruit female providers in order to be successful in delivering the BPHS. So there are some uniquely gendered synergies of the gender of CHWs, the gendered nature of the work they undertake, and the gender of their clients. In doing so, the female CHWs gained some knowledge, social recognition, mobility in their communities, and decision-making opportunities.

The disadvantage of the perspective of focusing on maternal health was that women were considered as ‘fetal containers’ (Standing, 2012). Also, emphasizing the role of men as decision-makers and financier of services for women in the policy was an assertion of the superiority of men over women. This maternal health-focused perspective ignored the need to change the power relations between different genders within the health system. The focus of the health system on maternal health was mistakenly construed as a gender-equity approach. Gender-equity was translated as improving maternal health of women rather than strengthening the capability of women to become free agents independent of their reproductive capacity and rights, and obviously independent of their male relatives.

It is noteworthy that most of the tasks of CHWs related to maternal, neonatal and child health are undertaken by female CHWs, whereas male CHWs focus on environmental health and community outreach. It would be appropriate to call the Afghan CHWs the human resources for maternal health in rural areas. The following chapter analyzes a national administrative database to describe in details and in numbers the relationship of the Afghan CHW program with maternal, neonatal and child health outcomes.

## **Chapter 10. The activities of CHWs and maternal and neonatal outcomes in Afghanistan**

The purpose of this chapter is to understand the contribution of CHWs to maternal and neonatal health in rural areas of Afghanistan. Every year, CHWs visit thousands of pregnant women in rural areas for antenatal and postnatal care, counsel community members on nutrition and safe practices, help pregnant women prepare a birth plan, raise awareness regarding danger signs of pregnancy and delivery, and help communities get required services from health facilities. CHWs also collect data on maternal and neonatal outcomes in those rural areas. In this chapter, I argue that the countrywide spread of the CHW services in and of itself is a contribution to improved maternal and neonatal health by presenting some of their measured activities. I also find correlations between the activities of CHWs and maternal and neonatal health outcomes. The expansion of CHW services, however, has not been equitable across the country, potentially leading to the inequitable distribution of outcomes. Some areas have received more services and drugs, while other areas remained under-served or un-served.

Some analyses in this chapter help us understand the distribution of Health Posts and frequency of CHW activities (e.g., ANV and PNV over time and across districts, both in absolute terms and relative to the sizes of the populations served. Other analyses give a sense of the number of deliveries and pregnancy complications managed by CHWs both in absolute and relative to population size. Finally, some analyses are about the context of maternal and neonatal mortality in Afghanistan.

The data presented in this chapter is derived from a large administrative database from the Afghan Ministry of Public Health. I use the Health Management Information System (HMIS), focusing on variables related to the CHW activities and maternal and neonatal death in

rural areas. The chapter starts with presenting the details of designing and extracting the dataset from the HMIS and Central Statistics databases. It continues with the presentation of the raw numbers, ratios of variables by population, ratios of variables by Health Posts, ratios of outcomes by Health Post activities, and a correlation analysis. The chapter concludes with a discussion of the relationship of the CHW program with maternal and neonatal health.

### **10.1 Dataset extraction and data cleaning**

The dataset developed to analyze the relationship of the CHW program with maternal and neonatal health included the following variables as shown in Table 10.1. The variables related to districts, which are included in the final dataset, were population of the district, male population, female population, and province name. To analyze the relationship between CHW activities and maternal and child health, district was chosen as a unit of analysis.

The CHW activities included in the dataset are number of Health Posts, normal delivery referrals, obstetric complication referrals, and antenatal and postnatal visits. Health Post is a house in a village where two CHWs are based. CHWs have many tasks in relation to maternal and child health, but only four of those tasks are recorded in the datasets:

(1) Normal delivery referral is the number of normal deliveries referred by the two CHWs in a Health Post to a health facility,

(2) Obstetric complication referral is the number of pregnant women with obstetric complications referred by the two CHWs in a Health Post to a health facility,

(3) Antenatal visits are the number of visits the two CHWs in a Health Post make to pregnant women in their coverage area, and

(4) Postnatal visits are the number of visits the two CHWs in a Health Post make to women who recently delivered babies in their coverage area.

These variables are indicators of the existence of and activities by CHWs in a district.

**Table 10. 1 Variables included in the dataset for analysis**

<b>Type</b>	<b>Variables</b>	<b>Codes</b>
<b>Characteristics of districts</b>	District	District
	District Population	PopDistrict
	District Population – Male	PopMale
	District Population – Female	PopFemale
	Province	Province
	Year	Year
		•
<b>Health Services and activities</b>	Number of Health Posts	HP
	Normal Delivery Referrals by CHWs	NDR
	Obstetric Complication Referrals by CHWs	OCR
	Antenatal Visits by CHWs	ANV
	Postnatal Visits by CHWs	PNV
		•
<b>Health outcomes Variables</b>	Maternal Mortality	MM
	Neonatal Mortality	NNM

The data was extracted from the Health Management Information System (HMIS) database and combined with a population census dataset from the Afghan Central Statistics Office. The HMIS is a Microsoft Access database that gathers information on the implementation of primary health care across the country. The HMIS was developed in 2003 and revised twice to include comprehensive information on health services. After a consultation with

HMIS officers, I chose to analyze data from 2009 onward as HMIS officials indicated that data quality and comprehensiveness had improved by 2009.

The data on districts of Afghanistan were retrieved from the national census dataset of the Afghan Central Statistics Office. As the CHW program was intended only for rural populations, I included only those districts with a rural population in the national census dataset. The term 'rural' did not have a clear-cut definition by the Afghan Central Statistics Office. Reviewing the dataset of the Afghan Central Statistics Office, I observed that the urban-rural divide in Afghan databases was ambiguous at best. The number of people living in an area is one, but not definitive, way of distinguishing urban from rural. I observed that the lowest number of people in a district (Mahmud Raqi, the capital town of Kapisa Province) considered urban by the Afghan Statistics Office was 1,550 people. In contrast, I visited a rural area, a large scattered village, in Parwan Province, which had approximately 5000 people. In short, the criteria for urban-rural distinction were not explicit in Afghan documents.

For this research, rural areas in Afghanistan refer to an area not identified as urban by the Afghan Central Statistics Office. Some districts had the value zero for the variable 'urban', meaning those districts were entirely rural. In 2014, only three out of 34 provinces of Afghanistan were entirely rural, and the rest of the provinces had at least one urban district.


There was also a mismatch in the number of districts with rural populations between the HMIS data and the national census data. The CHW program covered five districts with no rural population in the national census data as rural areas. In order to be able to describe the ratio of variables by population, those five districts with no rural population in the national census database, but with data from the HMIS, were removed from the final dataset. Afghan Central

Statistics Office's database had 408 Districts, 10 of which were temporary (not yet promoted to a full administrative unit) and five others did not have any rural population. Thus, there were 393 districts in the entire country with rural populations. All districts with Health Posts and records of its activities were included in the final dataset. There were 22 districts without Health Posts, which were removed from the final dataset. Districts with Health Posts, but with missing activities such as referrals and home visits were also removed from the dataset because the mere existence of Health Posts without their activities would not contribute to the analysis. There were 13 such districts.

Data from 2009/10 to 2012/13 (the equivalent of Afghan/Persian years of 1388 to 1391) were included in the analysis. Since the number of Health Posts was reported every month, to find the number of active Health Posts in a year, the median number of Health Posts reported over 12 months was chosen because an outlier in a month would dramatically change the mean. Other health services and activity variables were added over a year. For example, the number of normal delivery referrals by CHWs monthly was added over 12 months to give the annual cumulative number. The initial two years of data did not have antenatal and postnatal visits by CHWs because those activities were included in the terms of reference of CHWs in 2011.

Tests of normality on all variables indicate a significant deviation from normal distribution (Kolmogorov-Smirnov Sig = 0.000 and Shapiro-Wilk Sig = 0.000). Thus, the median is used for the general description of the data, and mean is reported in parenthesis. (Appendix – Table 10.2)

### 10.1.1 Quality of the data

Ensuring the quality of data from developing countries is always difficult. In the meantime, understanding the process of data collection and evaluating each step can help us to understand the extent to which the data are robust and identify potential challenges. The data of the HMIS was collected by CHWs. CHWs were provided with a pictorial tally sheet (Figure 5.1) to record their activities and some major health indicators such as maternal and neonatal death on a monthly basis. The tally sheet had a box for each indicator including antenatal and postnatal visits at home, normal delivery referrals, obstetric complication referrals, maternal death, and neonatal death. CHWs used straight lines as a unit of measurement. For example, a symbol like ‘’ in the normal delivery referral box meant 5 referrals were made in that month. At the end of the month, CHW supervisor recorded CHWs’ pictorial tally sheets in another form called the Monthly Activity Report (MAR<sup>17</sup>). The supervisors combined the monthly activity report from all their CHWs into another form called the Monthly Aggregated Activity Report (MAAR). These forms were entered into a provincial HMIS database and sent to the national Ministry of Public Health in Kabul. The provincial HMIS was manually updated into the national HMIS every quarter of a year. At the end of the year, the national HMIS office received a paper copy of the Monthly Aggregated Activity Report to crosscheck with the provincial HMIS.

To examine the validity of the national HMIS data, I collected Monthly Activity Reports and Monthly Aggregated Activity Reports from Health Posts and health facilities for the year 2012 during my fieldwork and crosschecked them with the data in the provincial and national

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<sup>17</sup> Mar (or Maar) in Persian means snake. The data collection form MAR is known as the small snake, and MAAR as the large snake. It signifies two things: first, a large form that collects data on activities of the CHWs from the communities; and second, a chain through which information is carried to the highest level at the Ministry of Public Health.

HMIS. During my fieldwork in 2013, I collected the 2012 Monthly Activity Report and Monthly Aggregated Activity Report forms from 16 Health Posts and 9 health facilities in 8 districts of 4 provinces. I crosschecked the data from Health Posts with the health facilities, and from health facilities with the HMIS database. The aggregated data from one level matched the higher level of data, supporting the quality of the HMIS database at least in terms of its accurate representation of the monthly reporting forms.

## **10.2 Findings**

### **10.2.1 Descriptive summary of raw numbers**

A general summary of all variables is provided in raw numbers in Table 10.3 (In Appendix). The number of districts with at least one Health Post (two CHWs), according to the HMIS, has been changing from 361 in 2009, to 355 in 2010, to 374 in 2011, and 371 in 2012. Around 19 million people lived in those rural areas (Figure 10.1). The number of population in each district ranged from 5,500 to 241,700, with a median of 42,000 (mean=51375).

The number of Health Posts and their referrals also changed over years. In 2009, there were 7,930 Health Posts across the rural areas of the country. The number decreased slightly to 7,776 in 2010 and increased steadily to 10,503 in 2011 and 11,715 in 2012. In the meantime, CHWs in the Health Posts referred more than 100 thousand normal deliveries and slightly less than 24 thousand obstetric complications to health facilities in 2009. The referrals followed the same trend as the number of Health Posts, slightly decreasing in 2010 and increasing continuously in 2011 and 2012. (Figure 10.2)

In 2011, antenatal visits (ANV) and postnatal visits (PNV) were added to the tasks of CHWs. In the first year of the introduction of the tasks, CHWs made more than 200 thousand antenatal visits and around 150 thousand postnatal visits across the country. In the second year (2012), the numbers almost doubled to around 400 thousand antenatal visits and around 260 thousand postnatal visits. (Figure 10.3)

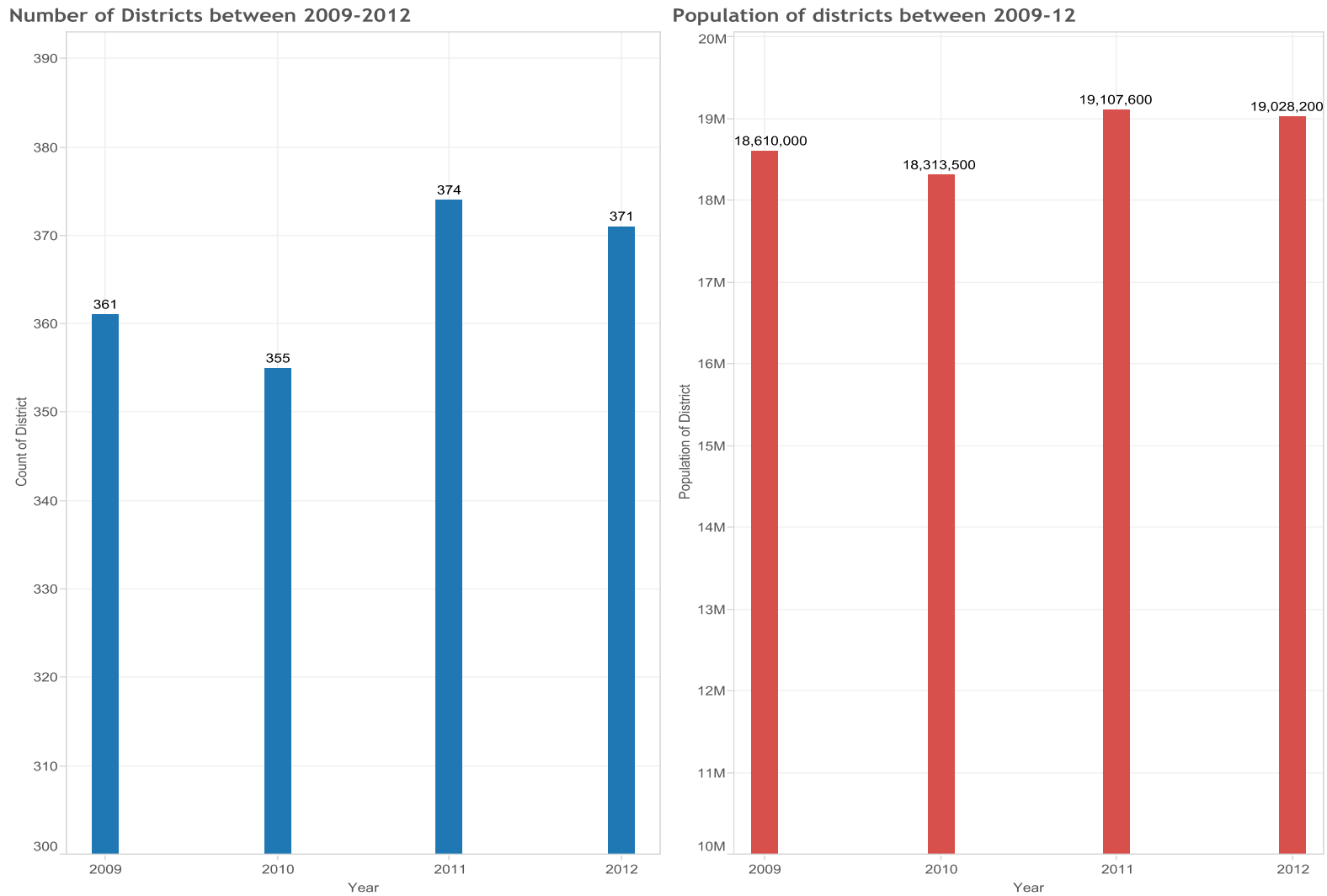
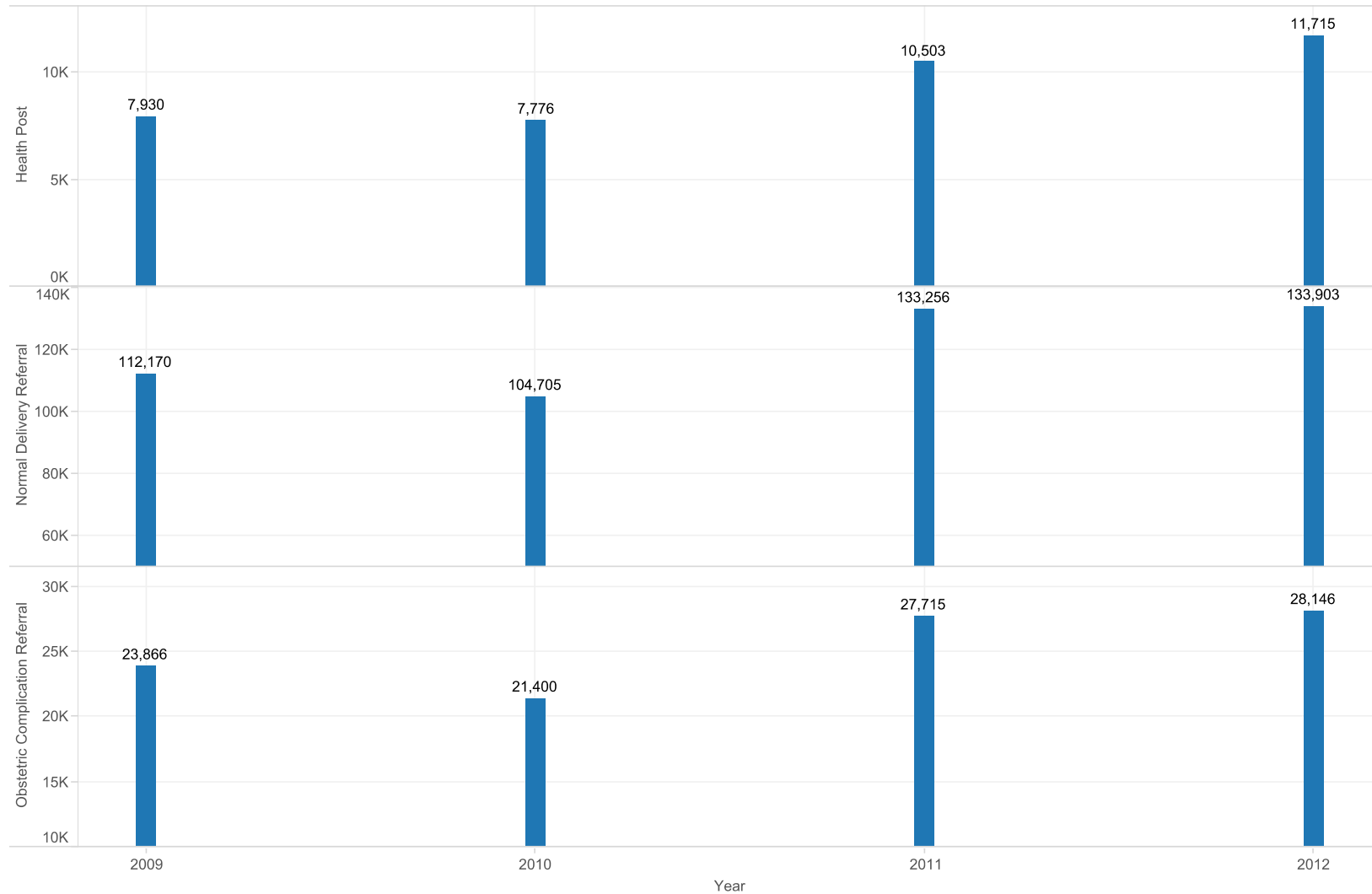


Figure 10. 1 Number and population of districts covered by the CHW program, 2009-2012 (CSO, 2014)

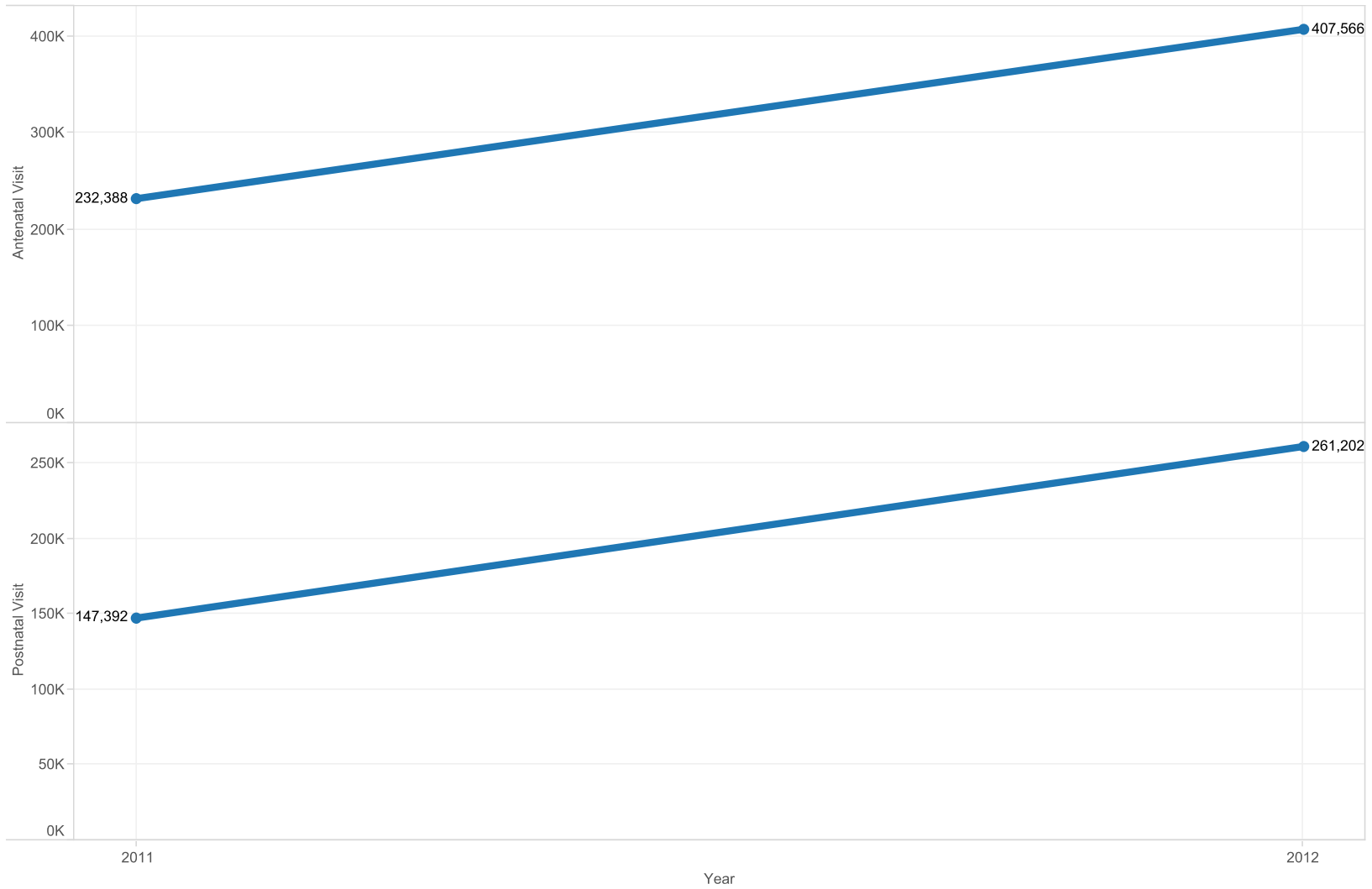
Number of health posts, normal delivery and obstetric complication referrals between 2009-2012



The plots of sum of Health Post, sum of Normal Delivery Referral and sum of Obstetric Complication Referral for Year.

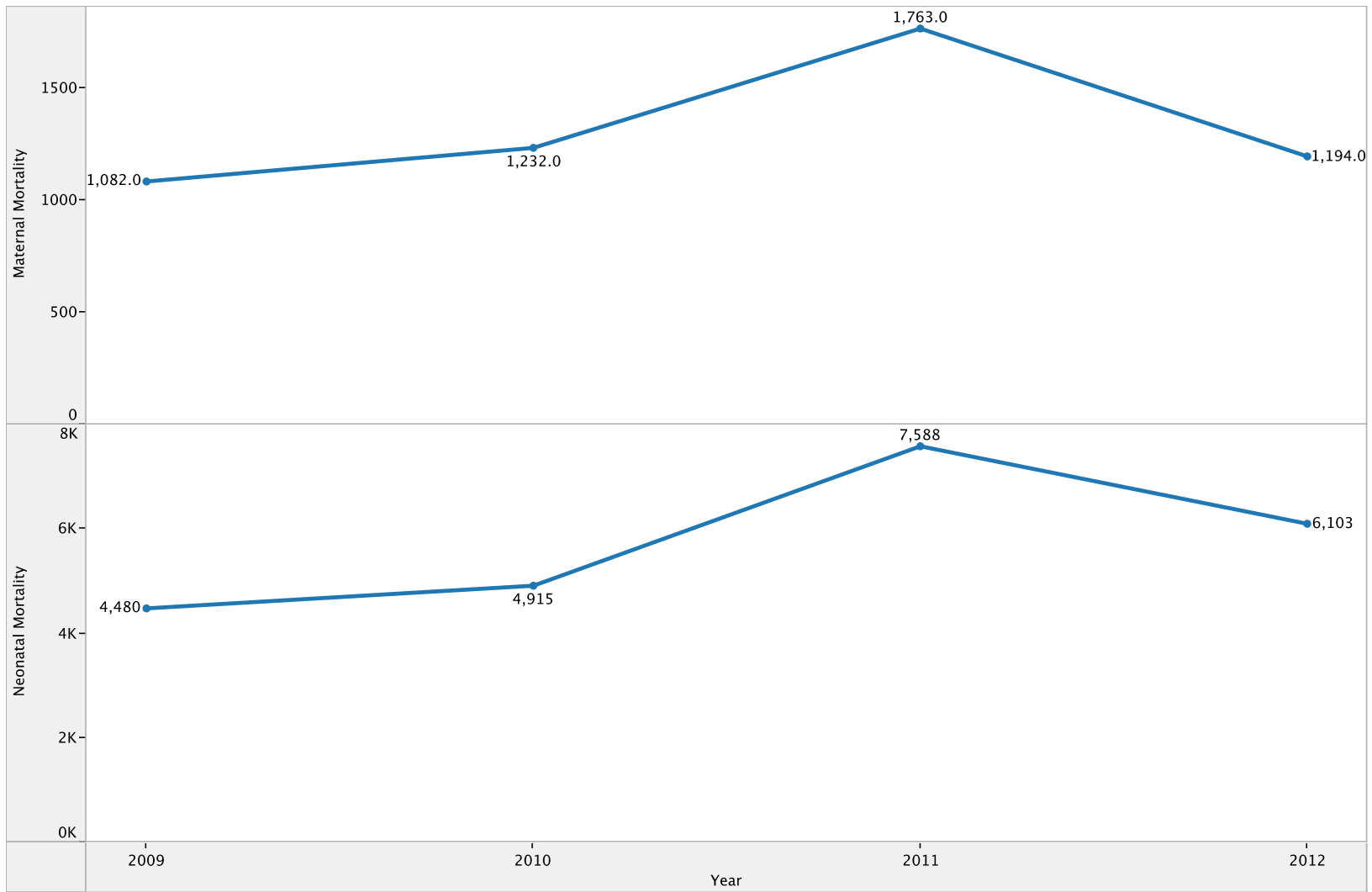
**Figure 10. 2 Number of health posts, normal delivery referrals and obstetric complication referrals, 2009-2012**

Number of antenatal and post natal visits



The trends of sum of Antenatal Visit and sum of Postnatal Visit for Year.

**Figure 10. 3 Trend of antenatal and postnatal visits from 2011 to 2012**



The trends of sum of Maternal Mortality and sum of Neonatal Mortality for Year.

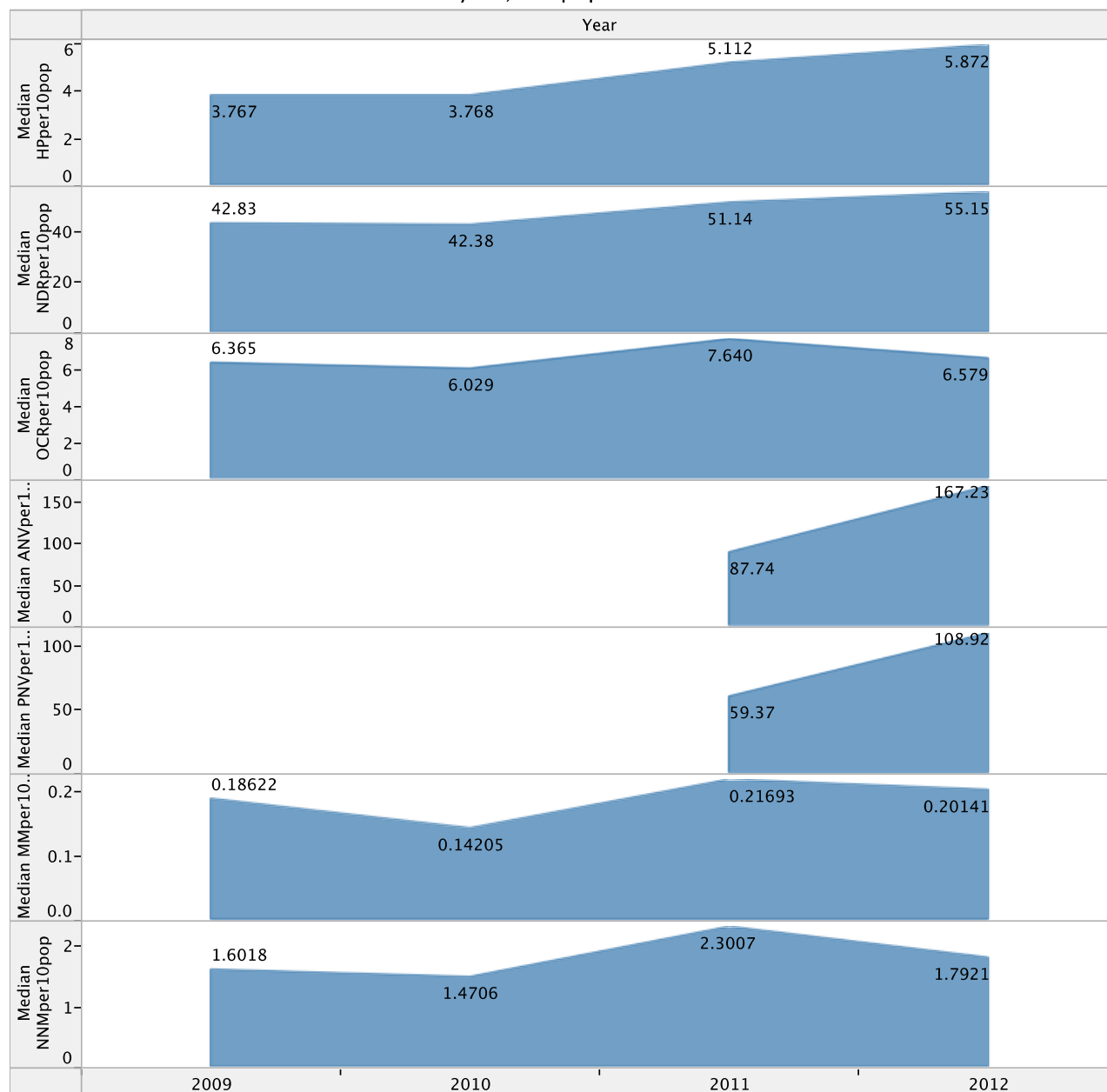
**Figure 10. 4 Trend of maternal and neonatal deaths between 2009 and 2012**

In terms of maternal mortality (MM) and neonatal mortality (NNM), CHWs recorded 1,082 maternal deaths and 4,480 neonatal deaths in 2009. The number increased to 1,232 maternal deaths and 4,915 neonatal deaths in 2010, and to 1,763 maternal deaths and 7,588 neonatal deaths in 2011, but decreased to 1,194 maternal deaths and 6,103 neonatal deaths in 2012. (Figure 10.4)

### **10.2.2 Description of ratios by population**

In Table 10.4 (Appendix) and figure 10.5, the data are reported in relation to the underlying population of each district in order to interpret differences over time. The median ratio of Health Posts per 10,000 people increased from 3.8 (Mean=4.6) in 2009 and 2010, to 5.1 (mean=5.9) in 2011, and 5.9 (mean=6.6) in 2012. The median ratio of normal delivery referrals and obstetric complication referrals dropped slightly from 2009 to 2010, increased from 2010 to 2011, and remained almost the same level from 2011 to 2012. The median ratio of antenatal and postnatal visits increased dramatically from 2011 to 2012, following the same trend as the raw numbers. The median ratios of maternal and neonatal mortality per 10,000 people dropped slightly in 2010, increased in 2011, and dropped again in 2012. (Figure 10.5)

Ratio of variables by 10,000 population between 2009–12



Median of HPper10pop, median of NDRper10pop, median of OCRper10pop, median of ANVper10pop, median of PNVper10pop, median of MMper10pop and median of NNMper10pop for each Year.

**Figure 10. 5 Median Ratio of variables by 10,000 population between 2009 and 2012**

*Distribution of Health Posts per 10,000 population by province*

The ratio of Health Posts by population indicates the burden of coverage on the existing Health Posts. According to the BPHS policy, a Health Post has a catchment area of 1,000 to 1,500 people (average 1,250). I took that number as a measure to describe Health Post distribution in each province of the country over four years. To estimate the distribution of Health Posts per population in each district the numbers of Health Post in a district are added over a year, divided by the population of each district, and multiplied by 10,000.

$$\text{HPper10pop} = \text{HPs} / \text{District Population} * 10,000$$

HPper10Pop is the ratio of Health Posts per 10,000 population in each district. HPs is the sum of all Health Post numbers in a given year and district, and 10,000 is the average minimum number of people for 10 Health Posts. I mapped the number of Health Posts by 10,000 population, as readers might find it easier to read 3 per 10,000 rather than 0.3 per 1,000. To present the data by province the median numbers of Health Post per population in districts were added to make up the median number of Health Posts in a province between 2009 and 2012.

As a Health Post was designed to cover a range of 1,000 to 1,500 people, the map of each province turned green when it reached a ratio of one Health Post for 1250 people (8 for 10,000). Numbers between 8, the idea number of Health Posts for 10,000 population and 0, the lowest possible number, were equally divided into three ranges to categorize the provinces. Median numbers below 2.67 were considered extremely low and painted in the darkest color. Median numbers below 5.34 and above 2.67 were considered low. Median numbers below 8 and above 5.34 were considered slightly low and painted in light red.

Figure 10.6 shows the distribution of Health Posts per population in all provinces from 2009 to 2012. By 2012, only 6 provinces had reached the ratio of 1 Health Post for 1250 people. There were no provinces with an extremely low number of Health Posts, but still, as many as 8 provinces had lower than 5.34 Health Posts per 10,000 people.

### **10.2.3 Description of ratios by Health Posts**

Reporting variables by Health Post are important because it helps understand the distribution of workload on CHWs, and the distribution of health outcomes by catchment areas. Table 10.5 (Appendix) summarizes the ratios of all variables by Health Post. The median ratio of referrals per Health Post showed a steady decrease over four years. In 2009, around 12.5 (mean=13.9) normal deliveries were referred by each Health Post, decreasing to 12.1 (mean=13.2) in 2010, to 10.7 (mean=12.2) in 2011, and finally to 9.7 (mean=10.9) in 2012.

The median ratio of obstetric complication referral per Health Post dropped from 2.3 (mean=3.3) in 2009, to 2.0 (mean=2.9) in 2010, to 1.7 (mean=2.8) in 2011, and to 1.3 (mean=2.6) in 2012. The median ratio of antenatal visits per Health Posts increased dramatically from 16 in 2011 to 28 in 2012. The media ratio of postnatal visits per Health Posts increased from 11 in 2011 to 19 in 2012.

The median ratio of maternal deaths was around 3.6 per 100 Health Posts in 2009, decreasing to 3.4 in 2010, increasing to 4.3 in 2011, and decreasing back to 3.1 in 2012. The median ratio of neonatal deaths increased from around 40 per 100 Health Posts in 2009 and 2010 to 45 in 2011 and dropped to 33 in 2012. (Figure 10.7)

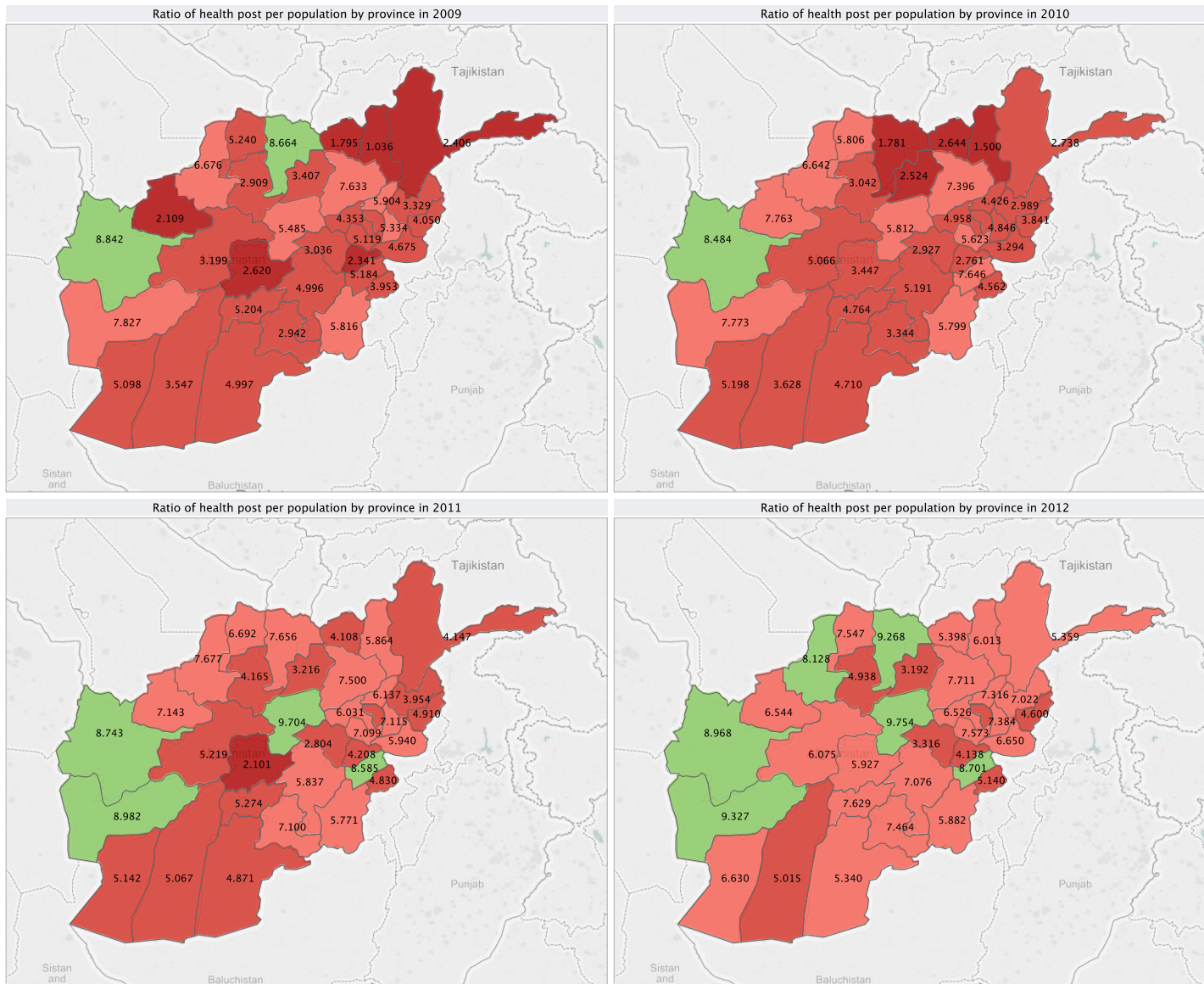
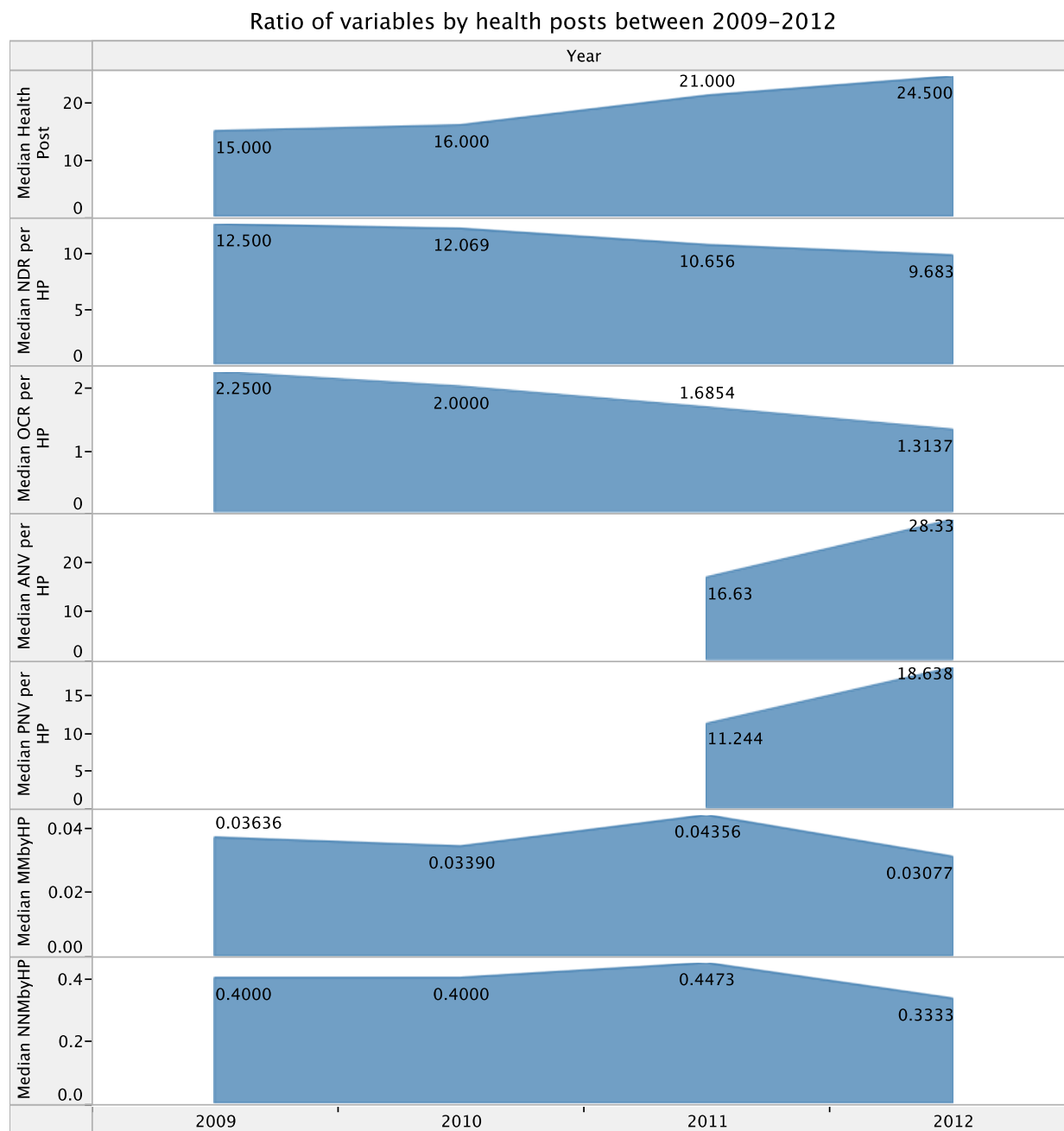


Figure 10. 6 Ratios of health posts per 10,000 population by province by year



Median of Health Post, median of NDR per HP, median of OCR per HP, median of ANV per HP, median of PNV per HP, median of MM-byHP and median of NNMbyHP for each Year.

**Figure 10. 1 Median ratio of variables by health posts over four years**

#### **10.2.4 Description of ratio of outcomes by CHW activities**

The final stage of the descriptive analysis was to examine the relationship between activities of CHWs and the maternal and neonatal outcomes. Table 10.6 (Appendix) and Figure 108 shows the ratio of maternal and neonatal mortality by normal delivery referrals, obstetric complication referrals, antenatal visits and postnatal visits.

In 2009, the median ratio of maternal mortality by 100 normal delivery referrals was 0.27, which means one maternal death in 400 normal deliveries. In 2010, it decreased to 0.22, and again increased to 0.44 in 2011, and decreased again to 0.32 in 2012.

In 2009, almost 2 (1.82) mothers died for every 100 obstetric complication referrals in rural Afghanistan. The ratio followed the same decrease-increase-decrease pattern in the following years (1.54 in 2010; 2.67 in 2011; 1.75 in 2012).

As antenatal and postnatal visits started in 2011, one woman died for every 500 antenatal visits in 2011 (ratio 0.19), which dropped to one death in every 1250 visits (0.08) in 2012. For postnatal, one woman died for every 300 postnatal visits in 2011, which dropped to one woman for every 700 postnatal visits.

In terms of neonatal mortality, 3 newborns died for every 100 normal delivery referrals in 2009, increasing to 3.2 in 2010 and to 4.5 in 2011, and decreasing to 3.4 in 2012.

The number of deaths linked to obstetric complication referral was high. Twenty newborns died for every 100 obstetric complication referrals in 2009, increasing to 20.4 in 2010 and to 28.6 in 2011, and then decreasing to 23 in 2012.

In relation to home visits, 2.4 newborns died for every 100 antenatal home visits in 2011, dropping to 1.2 in 2012. Almost 4 newborns died for every 100 postnatal visits in 2011, dropping to around 1 in 2012.

Overall, the median ratio of maternal mortality followed the general trend of raw numbers, which showed a slight drop in 2010, an increase in 2011, and a decrease in 2012. The median ratio of neonatal mortality also followed the same trend; except instead of the slight drop, it showed a slight elevation in 2010.

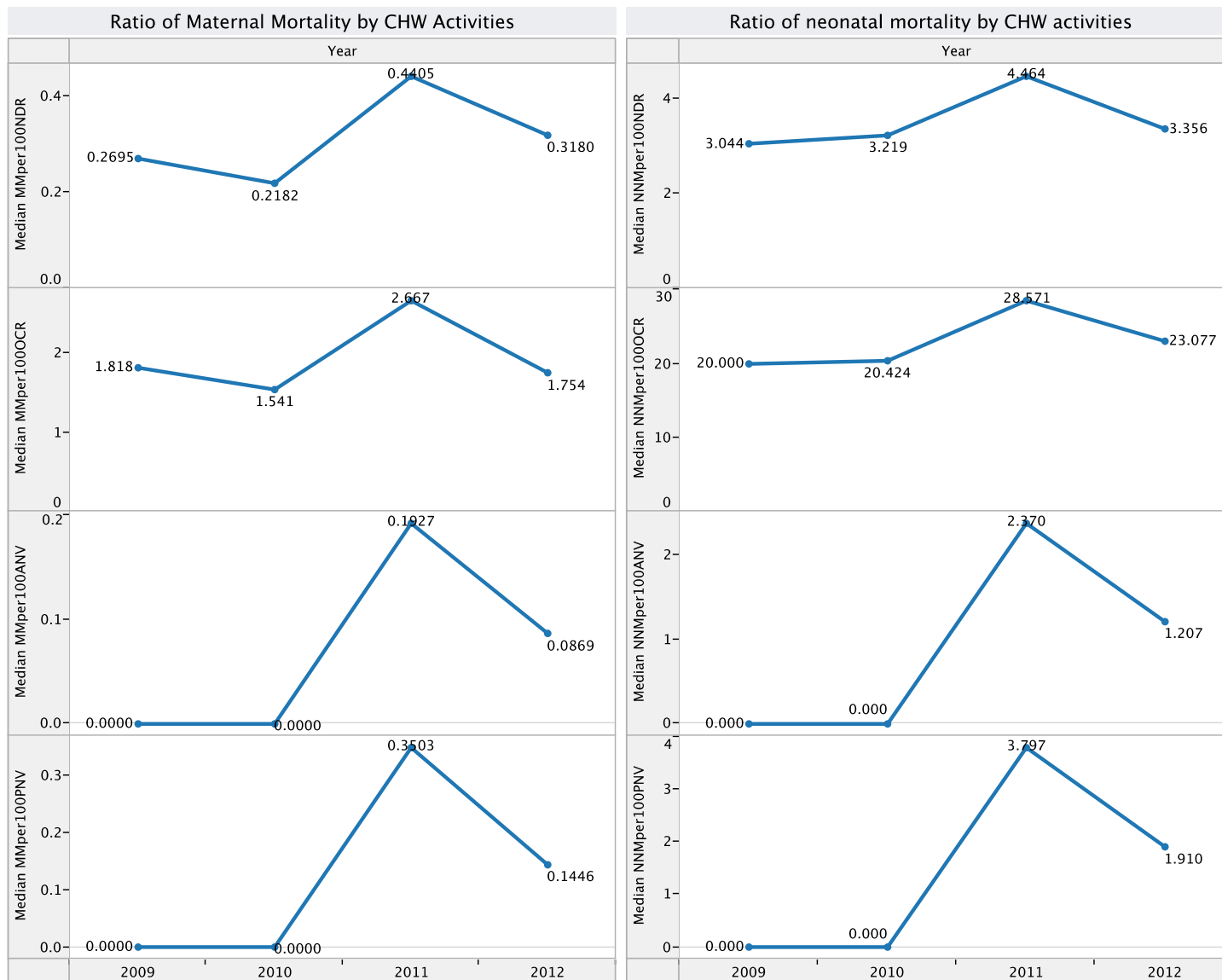


Figure 10. 2 Trend of ratio of maternal and neonatal mortality by CHW activities between 2009 and 2012

### 10.2.5 Correlations

I also analyzed correlations between ratios of all the variables by 10,000 populations, finding that most variables were significantly correlated at 0.01 or 0.05 level. In some cases, the Spearman coefficient was higher than the Pearson coefficient, meaning that the correlation might not be linear.

Table 10.7 shows the ratios of Health Posts are positively correlated with normal delivery referrals ( $r_s=0.5$ ), obstetric complication referral ( $r_s=0.3$ ), antenatal visit ( $r_s=0.5$ ), and postnatal visit ( $r_s=0.5$ ). The correlation of Health Post with maternal mortality is not significant at  $r_s=0.03$ , while the correlation of Health Post with neonatal mortality is significant but weak ( $r_s=0.07$ ).

Table 10.7 also shows the ratios of normal delivery referral are positively correlated with obstetric complication referral ( $r_s=0.6$ ), antenatal visits ( $r_s=0.4$ ), postnatal visits ( $r_s=0.5$ ), maternal mortality ( $r_s=0.05$ ), and neonatal mortality ( $r_s=0.07$ ). It shows the correlations with maternal and neonatal mortalities are very low.

Table 10.7 shows that the ratios of obstetric complication referral are significantly and positively correlated with antenatal visits ( $r_s=0.2$ ), postnatal visits ( $r_s=0.3$ ), maternal mortality ( $r_s=0.3$ ), and neonatal mortality ( $r_s=0.2$ ). Table 10.7 also shows that antenatal visits have a significantly positive correlation ( $r_s=0.9$ ) with postnatal visits. Both antenatal and postnatal visits have positive, weak correlation with maternal mortality ( $r_s=0.1$ ), and neonatal mortality ( $r_s=0.2$ ). Finally, the table shows maternal mortality by population has a strong positive correlation ( $r_s=0.6$ ) with neonatal mortality.

**Table 10. 2 Correlations between ratios of health posts, its activities, and maternal and neonatal mortalities by 10,000 population**

	Type of Correlation	Health post per 10,000 people	Normal Delivery Referral per 10,000 people	Obstetric Complication Referral per 10,000 people	Antenatal Visit per 10,000 people	Postnatal Visit per 10,000 people	Maternal Mortality per 10,000 people	Neonatal Mortality per 10,000 people
<b>Health post</b>	•	1	•	•	•	•	•	•
<b>Normal Delivery Referral per 10,000 people</b>	Spearman Pearson	.535** .625**	1					
<b>Obstetric Complication Referral</b>	Spearman Pearson	.326** .297**	.571** .450**	1				
<b>Antenatal Visit per 10,000 people</b>	Spearman Pearson	.498** .620**	.430** .710**	.207** .197**	1			
<b>Postnatal Visit per 10,000 people</b>	Spearman Pearson	.535** .605**	.493** .716**	.288** .291**	.911** .927**	1		
<b>Maternal Mortality per 10,000 people</b>	Spearman Pearson	.029 .057*	.052* .062*	.251** .166**	.095** .034	.103** .053	1	
<b>Neonatal Mortality per 10,000 people</b>	Spearman Pearson	.065* .235*	.068** .198**	.244** .114**	.180** .318**	.172** .280**	.628** .551**	1

\* Correlation is significant at the 0.05 level (2-tailed)  
 \*\*Correlation is significant at the 0.01 level (2-tailed)

### 10.3 Discussion

The chapter did not aim to attribute the impact of the activities of CHWs on maternal and neonatal deaths. Maternal and neonatal health is the function of multiple factors including, but not limited to, genetics, environment and social factors, lifestyle and the health system. Using the administrative dataset available in Afghanistan, the chapter described available data and more modestly attempted to find associations between the activities of CHWs and maternal and neonatal outcomes.

CHWs undertook most of the activities related to maternal health in the villages of Afghanistan where there was a lack of professional health providers. The findings indicate that thousands of pregnant women in rural Afghanistan were referred to health facilities for maternal and child health services. Thousands of others were visited at their homes before pregnancy and after delivery to ensure they were well taken care of. CHWs even arranged transportation for pregnant women to health facilities to receive proper care. The numbers are significant because rural Afghan women have a tradition of giving birth at home and avoid seeking professional health services even in severe cases of complications (Mayhew et al., 2008).

But the distribution of Health Posts across the country was problematic. The significant non-normal distribution of Health Posts by population found in this study suggests there were highly unequal district and provincial coverage, leading to potential unequal maternal and neonatal health outcomes. Previous studies on maternal and child health outcome found unequal distribution across the country, where mountainous and hard-to-reach areas had many times higher mortalities than rural areas close to towns and cities (Azimi et al., 2015; Bartlett et al.,

2005; Gupta, Shuaib, Becker, Rahman, & Peters, 2011). First, the findings imply that there were large pockets of populations who were not covered by Health Posts. Second, as resources were allocated to all Health Posts equally, without any considerations to the number of people they covered, the findings suggest that there was a significant mal-distribution of resources, particularly drugs in areas covered by Health Posts. It means that small pockets of the population under apparent coverage of Health Posts do not receive services. Thus, it is not just about the absence of CHWs but also about fewer of them for larger populations. The findings indicate there is a need for more Health Posts and more equitable coverage of populations by Health Posts. There is also a need for further studies to identify those large and small pockets of populations who are not truly served by the program.

The descriptive analysis of the data suggests a generally positive correlation between Health Posts, the activities of Health Posts, and the maternal and neonatal outcomes over four years (from 2009-2012). The trend in the number and ratio of Health Posts shows a slight downward slope in 2010 and steady upward slope in 2011 and 2012. Activities of CHWs follow the same trend. From a starting point in 2009, the number of maternal and neonatal mortality increases in 2010 and 2011, and then drops notably in 2012. But the ratios of maternal and neonatal mortality by population and by Health Post show a decrease in 2010, an increase in 2011, and a decrease in 2012. (Figure 10.9) The association between the ratio of Health Posts and their activities (except obstetric complication) by population and maternal and neonatal mortality by population were both positive in 2011, and negative in 2010 and 2012. The only variable that followed the same trend as the ratio of maternal and neonatal mortality by population was the ratio of obstetric complication referrals by population.

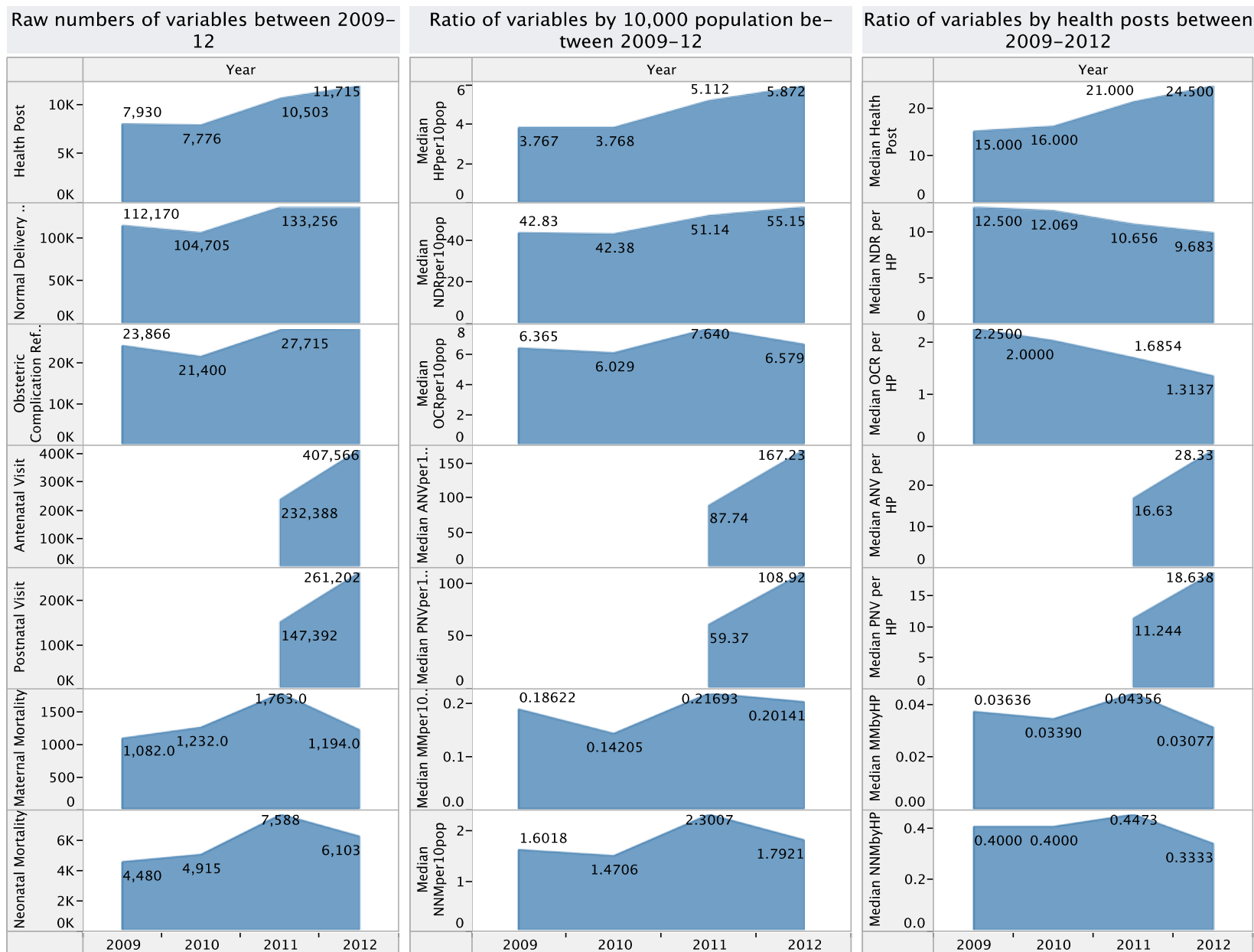


Figure 10. 3 Numbers and ratios of health posts, their activities, and maternal and neonatal deaths

A possibly useful interpretation of the trends can be carried out through understanding the way outcomes are reported. The increase in the ratio of maternal and neonatal mortality in 2011 could be explained by an increase in the ratio of Health Posts in the same year, meaning an increase in the coverage area, leading to an increase in reporting maternal and neonatal outcomes. Second, as the impact of some maternal services could be measured months later, a delayed relationship between the number of CHWs and their activities and maternal and neonatal deaths could be seen in the trends – identified as delayed association in our study. One example of delayed association is that with the decrease in the number of Health Posts and the number and ratio of CHW activities in 2010, the number and ratio of maternal and neonatal deaths increased in 2011. Also, with the increase in the number and the ratio of Health Posts and CHW activities in 2011, the number and ratio of maternal and neonatal mortality decreased in 2012. Another factor that might have contributed to the drop of maternal and neonatal death in 2012 was the inclusion of antenatal and postnatal visits to the task of CHWs in 2011. The antenatal visits of 2011 might be associated with the maternal and neonatal mortality through the delayed association process.

In short, the relationship of CHWs and their activities with maternal and neonatal deaths are correlational. CHWs, as volunteer primary health care providers in rural Afghanistan, make an important contribution to maternal and neonatal health, as the mere existence of Health Posts with two CHWs in rural areas is an improvement compared to no health services. More research is required to determine if there is a causal relationship between the CHW activities and maternal and neonatal outcomes, although the data presented in this chapter are suggestive of this.

Administrative data have both strengths and limitations for health services research. The major advantages of administrative datasets are the large numbers of observations from a wide range of area, giving researchers the ability to generalize their findings. The Health Management Information System had data from more than 300 districts of Afghanistan. Despite the fact that data was available for 9 years, I used only four years data. Another advantage of administrative data is the low cost of data acquisition. The Health Management Information System is available for researchers upon an ethics approval by the Afghan National Public Health Institute.

An important limitation of the administrative dataset was a general lack of socio-demographic variables that could be used to analyze disparities in healthcare. The smallest unit in the Health Management Information System was a Health Post, not an individual. The database lacked information on gender, age, education, income or ethnicity of users. Demographic data available were location and population size. Another limitation was that the data were available from areas where CHWs existed. Places, where CHWs did not or could not work, did not have data.

## Chapter 11 Discussion and Conclusion

This thesis aimed to explore an Afghan CHW program, which was designed to address one of the world's worst maternal and neonatal mortality and a chronic shortage of human resources for health in rural settings. In 2002, one woman died every 30 minutes due to pregnancy-related causes and complications (MMR: 1600/100,000 live births) (Bartlett et al., 2005). In 2015, maternal mortality had dropped fourfold to 400, but still remained one of the worst in the world (WHO, 2014). In terms of human resources for health, excluding CHWs, Afghanistan had 9.4 health professionals for 10,000 population in 2013, with the minimum required professionals estimated to be 22.8/10,000 (Campbell et al., 2013). Access to basic health care nonetheless had increased from around 10% of the population in 2002 to 57% in 2013.

One of the many factors that contributed to improved health status in the decade after 2002 was the Afghan national CHW program. The CHW program was a component of a Basic Package of Health Services (BPHS) contracted out by the Afghan Ministry of Public Health to non-governmental organizations for implementation. The objectives of this thesis were (1) to explore the structure of the CHW program within the Afghan health system, (2) understand the organizational and community contexts influencing the implementation of the program, and (3) analyze the relationship of the CHW program with maternal and child health outcomes in rural Afghanistan. The research questions related to objectives were:

### Objective 1:

1. What is the structure of the Afghan CHW program?

## Objective 2:

2. What is the organizational context of the Afghan CHW program and how do the organizations contribute to and influence the CHW program?
3. What is the community context in the Afghan CHW program and how does the community contribute to and influence the CHW program?
4. How are CHWs the human resources for health in rural Afghanistan?

## Objective 3:

5. What is the relationship (a potential influence) of the national CHW program with maternal and neonatal health in rural Afghanistan?

The overarching theory guiding this work was Complex Adaptive Systems Theory applied to health systems. Systems have parts, relationships, and functions; health systems have building blocks, relationships, and goals. The building blocks of health systems are health service delivery, health workforce, health information system, medical products and technologies, health care financing, and leadership and governance (Savigny & Adam, 2009). Applying Complex Adaptive Systems Theory on the health system is about explaining the complexity of the relationships between parts of health systems, and taking into account that people are at the core of a complex adaptive health system (Savigny & Adam, 2009). This study approaches the Afghan CHW program as an HRH intervention that intersect the primary health care and population health systems within the broader Afghan health system, and one that addresses inequity in health care, in particular, gender inequity. The relations within and without the health

system are influences and therefore analysed through the theoretical lenses of power and gender dynamics in particular.

In this final chapter, I revisit the data that responds to the research questions first. I then compare the findings with the existing literature on CHWs and discuss the theoretical dimension of the CHW program. Finally, I describe the key contributions of this research, but also highlight the limitations and areas for future research.

### **11.1 Summary of the findings**

In answering the first research question, the main argument of chapter five was that the actual CHW program in rural Afghanistan was mainly guided by the policy of the health system but was also largely influenced by the power and gender dynamics of the community context in which it was implemented. Low-level favouritism took place in communities where village leaders or elders exercised their traditional authority to nominate their siblings and relatives to become CHWs. Village leaders elevated their status through controlling distribution of health resources. Implementing organizations exercised their technical-rational power reducing the standard training durations and bypass bureaucratic procedures. The significance of sufficient drug supply for the success of the program referred to the tendency to the medicalization of the program, reflecting the medical power of the physicians who managed the program at the policy level. Community gender roles largely determined task allocation, training, and supervision, and drug supply within the program, something furthered discussed in the chapter on gender.

In Chapter 6 I argued that the complexity and adaptability of the Afghan health systems means one must take into account matters of effectiveness, efficiency, timeliness, and costliness.

I find that despite the significant role that the Afghan Ministry of Public Health, international donors and technical agencies, and implementing organizations play, the interaction of these organizations is overly bureaucratic and often negatively affected the smooth implementation of the BPHS and the CHW program. Lack of coordination between and within these organizations, overlapping roles and structures, duplication of tasks, unnecessary ‘administrivia’, and a waste of donation for the administrative processes were some of the many ways negatively affected the CHW program.

Chapter 7 was developed around the third research question and explored the community component of the Afghan CHW program. The community level is another layer of the complex adaptive system that makes up the Afghan CHW program. Communities were mapped at the outset of the CHW program intervention, but these communities of people are not passive recipients of health services, but active participants in the way health services are provided. This chapter described the challenges of community mapping at the village, provincial and cross-provincial levels. Defining community and appropriate mapping of communities in practice are significant and at the same time challenging tasks. I found that political-ethnic power in the community and legal-rational authority of the health system influenced the way communities were mapped in an inequitable manner. Inequitable mapping, in turn, contributed to the unfair distribution of resources to the populations. In typical CHW programs, CHWs are considered to be a bridge between the health system and the communities representing both parties, but in Afghanistan, CHWs only represented the health systems in the communities. Representation of the village-communities to the health system was not by the CHWs, but mainly by the Facility Health Councils. Finally, inter-sectoral action aligning education, health, and rural development

efforts occurred naturally in village-communities without any top-down instructions, as community members found it important to do so.

Addressing the fourth research question on CHWs as a human resource for health in rural Afghanistan, Chapter 8 argued that CHWs are the frontline care providers in rural areas of Afghanistan. Unlike professional health providers, such as doctors and nurses who congregate in cities, CHWs are dispersed in rural and remote areas of the country with strong ties to their communities. The tasks of CHWs are numerous but CHWs role is more than just the sum of their tasks; they occupy a unique location juxtaposed between different systems. CHWs are primarily community-based volunteers but reimbursed for the cost of their monthly trips to health facilities, immunization campaigns, and annual data collection for household surveys. As volunteers, they could be situated within informal system of care, but as member of the health system they attempt to gain a status within the health system, as well as within their own community. CHWs are by no means an alternative to professional health providers, but in places where there is no professional provider and the chances of training and/or recruiting professional providers are low, CHWs are the only option to meet basic health needs of the population. That CHWs are necessary in their context is obvious, but the challenge is that they are viewed as second option after professional providers; therein lies a paradox. This study suggests in places where professional providers are unavailable; CHWs have the potential to extend the services to marginalized populations, provide community health services, and become a member of the health provider team. Viewing them as part of a team contributes to their status both in the community and the health system. CHWs also have the capacity to learn new roles quickly helping a complex health system adapt to a changing need of the context.

Chapter 9, exploring gender dynamics of the Afghan CHW program, revealed that the Afghan CHW program had two intersecting layers influenced by gender. The gender equity focus of the CHW program aimed at improving access to health care for women through focusing on maternal health. Despite some positive aspects, the gender-equity focus of the program was on women as patients more so than on women as health providers. The uniquely dichotomized gendered division of labour in the Afghan society divided tasks explicitly between male and female CHWs. In keeping with gendered norms, female CHWs undertook activities within the realm of the house such as home visits for maternal and neonatal health, while male CHWs undertook activities outside the realm of the house such as sanitation and public message provision. In the realm of gendered work, women were regarded primarily as cheap health workers able to tackle health issues related to women. The literature on the gendered division of labour in Western contexts may reflect a more invisible yet insidious division, while in Afghanistan it is more explicit but at the same time perhaps even more taken for granted. The intersection of the gender equity approach and the gendered nature of the work as a cross-cutting layer add to the complexity of the Afghan health system.

Drawing on a large administrative dataset from the Afghan Ministry of Public Health, chapter 10 focused on the contributions of the CHW program to improved maternal and neonatal health. The data suggest that increased antenatal and postnatal home visits along with referrals were associated with decreased maternal and neonatal mortality over time. At the same time, a positive correlation was found between obstetric complication referral and neonatal death.

## 11.2 Afghan CHW program and the existing literature

My findings of the Afghan CHW program is comparable to a number of other national and country-wide CHW programs, namely CHW programs in Pakistan, Bangladesh, Iran, Brazil, and Ethiopia (Table 11.1). The similarity of these programs is in their overall structure. They are all country-wide programs attempting to link communities with the health system. Their differences lie in the details of their tasks, the recruitment process, training, supervision, incentive, and career development.

Generally, the size of these CHW programs depends on the number of populations they cover. Afghanistan's 26,000 CHWs serving a rural population of around 19 million is comparable with Iran's 31,000 *Behvarz*, who serve an estimate of 23 million rural populations (Javanparast et al., 2012; Perry, 2013). In most countries, a CHW has the responsibility of around 750 to 1000 individuals, which is similar to the Afghan findings, except in Ethiopia where a Health Extension Worker covers around 2,500 individuals. But Ethiopia's Health Extension Workers, who are paid by the country's health ministry, lead a group of ten volunteer community health workers (Bhutta et al., 2010; Najafizada et al., 2014).

**Table 11. 1 Comparing Afghan CHW program with other national CHW programs**

Country – Program	CHW Program (CHWs title)	Number of CHWs	Ratio per population	Recruitment (Community recommendation, gender, educational criteria)	Training (Duration, Type)	Roles and Responsibilities	Supervision (Frequency of supervision of a CHW)	Incentive	Professional Development
Pakistan – Federal Government	Lady Health Workers Program (LHWs)	100,000 in 2006	1/1000 individuals	- Community approval - Only women - 8 years of schooling	- 3 months in-class - 1 year on-the-job (1 week per month in-class)	- MNCH, Nutrition, CD, PHC	Yes: Lady Health Supervisors (Once a month)	Salary:\$30 a month	Lady Health Supervisor and Field Program Officer
Bangladesh – BRAC	Shasthya Shebika CHW Program (SS)	100,000 in 2013	1/150-200 Households	- Community approval - Women - Few years of schooling	- 4 weeks in-class - Monthly refresher	- MNCH, Nutrition, CD, PHC	Yes: High-level CHWs called Shathyo Kormi (Once a month)	Volunteer	None
Ethiopia – Government	Health Extension Program (Health Extension Workers)	30,190 in 2010	1/2500 individuals (supported by Volunteer CHWs 1/250 individuals)	- Community approval - Women - 10 years of schooling	- 6 -12 months - Frequent refresher	- MNCH, Nutrition, CD, and PHC	Yes: District Supervisory Team (Multiple times a month)	Salary:\$40-\$60 a month	Certificate to Diploma to become (Nurses) – Proper education
Brazil – Government	Family Health Strategy (Community Health Agents)	240,000 in 2009	1/750 individuals (150 households)	- Community approval - Men and women - 8 years of schooling	- 8 Weeks in-class - Once a month	- MNCH, Nutrition, CD, PHC, NCD	Yes: Nurses (Once a month)	Salary:\$100 to \$228 a month	None (Strong Unions)
Iran – Government	CHW Program (Behvarz)	31,000 in 2007	1/750 individuals	- Community approval - Men and women - 12 years of schooling	- 2 years in-class and on-the-job training - Annual Refresher	- MNCH, Nutrition, CD, NCD, PHC	Yes: Rural Health Centers	Salary:	Inclusion of Behvarz Curriculum into university program to receive bachelor's degree
Afghanistan – Government implemented by NGOs	CHW Program (CHWs)	26,000 in 2013	1/750 individuals	- Community Approval - Men and women - Preferably literate	- 6 months (in-class and on-the-job training - Monthly refresher	- MNCH, CD, PHC	Yes: Community Health Supervisors (Once a month)	Volunteer	Occasionally CHWs become supervisors, receive further training to become community midwives, and community nurses

MNCH=Maternal, Neonatal and Child Health, CD=Communicable Disease, NCD=Non-communicable disease, PHC=Primary Health Care

CHWs have a broad range of roles and responsibilities, which is similar to the other countries. Studies on CHWs, including this thesis, indicate that CHWs undertake a variety of tasks including tasks related to maternal, neonatal and child health, nutrition, communicable diseases, hygiene and sanitation, disease prevention, and general health promotion (Perry et al., 2016; Bhutta et al., 2010; Javanparast, Baum, Labonte, & Sanders, 2011), but CHWs' roles are flexible depending on what is required of them in particular contexts (Perry et al., 2016). CHWs, in developing countries such as in Afghanistan, fill a void created by a lack of professional health providers by undertaking simple curative services. CHWs extend health services of professional providers by referring patients to them. CHWs extend the range of health-related services by undertaking health promotional and disease prevention tasks that professional providers usually do not assume (Bhutta et al., 2010). My contribution to this literature is that in a relatively weak health system where there is a shortage of human, physical and financial resources for health, volunteer CHWs fill the vacuum by providing basic health services in rural and remote areas through partly playing the role of a doctor, partly a nurse, partly a counsellor, and partly a community developer (Najafizada et al., 2014). Overall, CHW's role and responsibilities in various countries, including Afghanistan, have contributed positively to the country's health situation (Bhutta et al., 2010; Javanparast, Baum, Labonte, Sanders, et al., 2011; Najafizada et al., 2014).

The challenges to the roles of CHWs I found in this thesis are similar to the ones in other studies. Some challenges that CHWs encounter, in providing services, are due to the health system and some are due to the community. Health system challenges include shortage of basic drugs and equipment, insufficient initial and continuing training, poor supervision, and low

remuneration (Perry et al., 2016; Bhutta et al., 2010; Lehmann & Sanders, 2007; Najafizada et al., 2014). In terms of remuneration, for example, salaried CHWs may be obligated to undertake their tasks, but volunteer CHWs can easily escape overwhelming load of responsibilities by either choosing to do certain tasks or not do any tasks at all (Najafizada et al., 2014). Community challenges include unhealthy traditional beliefs and practices such as non-institutional delivery, considering running water as drinkable, seeking religious healers for mental health and many others (Najafizada et al., 2014).

The recruitment criteria for CHWs in Afghanistan could be seen in other contexts too. For example, one of the main recruitment criteria in all the CHW models reviewed for this thesis has been community origin and/or approval by the community (Bhutta et al., 2010; Lehmann & Sanders, 2007). The criteria has been practiced in three ways: selection by community leaders, nomination by health facility officers and approval by community leaders, or selected by a community health council (Bhutta et al., 2010; Javanparast, Baum, Labonte, Sanders, et al., 2011; Najafizada et al., 2014). The Afghan CHW policy suggested recruitment of CHWs by a community health council, but in practice all three recruitment methods were used in the Afghan CHW model. The particular method chosen was contingent on the village context.

Literacy and education has been a preferred criteria in the literature, but often overlooked in the Afghan context as it has been difficult to find literate and educated people in rural areas of Afghanistan (Bhutta et al., 2010; Najafizada et al., 2014). Some countries only recruit female CHWs taking into account the gender context of their society such as those in Pakistan, Bangladesh and Ethiopia (Bhutta et al., 2010). Afghan CHW program, on the other hand, has ignored the gender context of the society and recruited both male and female CHWs,

allowing the community to assign gendered roles to the CHWs. This is similar to the Iranian model where both male and female CHWs are trained but they assume different tasks appropriate to each gender in the community (Javanparast, Baum, Labonte, & Sanders, 2011).

Training has been a significant component of all CHW programs with implications for further professional development, supervision and remuneration. The literature indicates that CHW programs have three types of training: in-class, on-the-field, and in-service. In-class training includes the theoretical component, on-the-field training includes the practical component, and refresher training is a continuous update and upgrade of knowledge of CHWs (Bhutta et al., 2010). The Afghan model included all three types of training. The difference between the Afghan model and the others is in the duration of training. The Afghan model has an initial 6-month training with on-going refresher training every month, while Bangladesh has 4 weeks of initial training and Iran has 2 years of initial training (Bhutta et al., 2010; Javanparast, Baum, Labonte, & Sanders, 2011). Another important aspect of the training is the deliverer of the training, and whether the training is integrated in the education system of the country. In Afghanistan, the training is delivered by implementing organizations at their provincial offices and sometimes at health facilities, and the certificate of completion of training is approved by the Ministry of Public Health (Najafizada et al., 2014). In Iran, there are permanent training centers similar to vocational institutes, and the CHW training curriculum is included as a 2-year program at the university level (Javanparast et al., 2012). In Ethiopia, the CHW training is a collaboration between the Ministry of Health and the Ministry of Education delivered at technical and vocational schools (Bhutta et al., 2010). When the training is delivered by the education system of the country by formally trained instructors, CHWs have better opportunities for career development. Training such as in Iran and Ethiopia sets the stage for the production of a semi-

professional cadre of health providers (Perry et al., 2016). Training in Afghanistan, on the other hand, leaves a CHW stranded between a lay worker and a skilled cadre of health providers.

In terms of supervision, the similarity and difference of the Afghan CHW model with others is in the supervisors and the frequency, content and quality of supervision (Bhutta et al., 2010; Najafizada, Labonté, & Bourgeault, 2014; H. B. Perry et al., 2014). Pakistani and Bangladeshi programs have trained supervisors specifically for CHWs, which is similar to the Afghan model (Bhutta et al., 2010). Ethiopian and Iranian models have a team of professional providers based in health centers to supervise CHWs (Bhutta et al., 2010). In the Brazilian model, a nurse within a health center has the task of supervising community health agents (Giugliani, Harzheim, Duncan, & Duncan, 2011). There is no evidence in the literature to suggest that one model of supervision is superior to the other (Lehmann & Sanders, 2007). Contextually, different supervision models can have different implications for the CHW program. When supervisors are members of a professional health providers' team, their CHWs are seen as an extension of the team both by the health system and by communities, such as in Iran and Ethiopia (Javanparast et al., 2012; Perry et al., 2013). In the case of Afghan CHWs model, the community and the health system have different views regarding CHWs and their supervisors. Community health supervisors are employees based in health facilities (Najafizada et al., 2014). The community sees the supervisors and the CHWs as representatives of the health facility and the health system and, thus, their supervisory visits strengthen the position of CHWs in the community as a representative of the health system. In contrast, the health system personnel, including professional health workers, consider supervisors and CHWs as a distinct group of providers separate from professional providers, partly because CHWs and their supervisors are not registered as human resources for health at the national level. The segregation

of CHWs and their supervisors as an isolated group of providers from doctors, nurses, midwives, pharmacists and lab technicians undermines their status in the health system. In other word, CHWs and their supervisors are neither strongly linked with the communities nor with the health system. They are stranded between the two.

With regards to incentives and compensations, CHWs in the Afghan and Bangladeshi models are volunteers with some type of compensation. Afghan CHWs are remunerated for their trips to health facilities. Bangladeshi CHWs are provided drugs to sell at a minimum cost with profits they can retain for themselves (Reichenbach & Shimul, 2011). The Bangladeshi model of incentivizing CHW has been ongoing for decades, and could be added as another way to incentivize Afghan CHWs. The disadvantage of the model is that it might lead to inappropriate selling of drugs in the market, and in turn to antimicrobial resistance. In the cases of Brazil and Iran, CHWs are employees of the government, and in the cases of Pakistan and Ethiopia, CHWs are paid workers without having the status of being a government employee (Bhutta et al., 2010). Government employees usually have other benefits that paid workers do not (Khim, 2016). Salaried CHWs are believed to be better at their jobs compared to volunteers (Khim, 2016; Bhutta et al., 2010), but there is no comparative cost-effective analysis to explain whether paid CHWs, for example in Ethiopia, are more effective compared to volunteer CHWs in Afghanistan.

A career ladder and professional advancement is missing in almost all the CHW models including Afghanistan. Nevertheless, most CHW programs have some irregular advancement opportunities. Promotion to community health supervisor was common in Afghanistan, which is similar to the model in Pakistan. I also found that Afghan CHWs had infrequent opportunities to

receive further training to become nurses, while Ethiopian CHWs had some opportunities to become nurses or specialized Community Health Practitioners. Iran's model is different from the Afghan model as Iran has integrated the CHWs training into university curriculum allowing CHWs to get further university education and advance their career (Javanparast, Baum, Labonte, Sanders, et al., 2011). Only in the case of Brazil, standard professional advancement is intentionally avoided to maintain the community attachment of the workers, and prevent the workers from becoming what some observers have described as 'the lackeys' of the health system (Veras, 2015). Instead, CHWs in Brazil are recognized as community agents locally, with the ability to negotiate with communities the terms of their relationship with the health system (Giugliani et al., 2011). The Afghan model can learn from different context and apply the one best suited for its own.

Although a volunteer, CHWs in Afghanistan resemble health system extension workers rather than community agents of change. The same can be concluded in the cases of Iran, Ethiopia, and Pakistan, where they extend services promoted by the health system to their communities. Only in the case of Brazil do CHWs appear more as community agents of change, which could be related to their political history and context. In the Afghan context, communities are represented in the health system through community councils (*Shura*), not by the CHWs.

Despite its similarities with and differences from other nation-wide CHW programs, Afghan CHW program has some distinct features that may contribute to the debate on national CHW programs. They are volunteers with very little monthly compensation for their trips to health facilities. Similar model could be applied to post-conflict settings where contextual volunteerism is highly appreciated. Female CHWs are more active than male CHWs in the

Afghan context partly due to the focus of the program on maternal and neonatal health. It may be necessary to revise the program and recruit only female CHWs to address maternal health or take into account more masculine tasks for male CHWs. Still, the finding is interesting because it was unexpected that so many female CHWs had been recruited to the program, given Afghan women were banned from education and work throughout the 1990s and patriarchal norms are still prevalent across the country. The gendered nature of the Afghan CHWs has more similarities to the Iranian model where both male and female CHWs are trained and assigned gender-appropriate tasks (Javanparast, Baum, Labonte, & Sanders, 2011; Najafizada et al., 2014). Given the focus of the program, Pakistani and Bangladeshi models have deployed only female CHWs (Bhutta et al., 2010), something that Afghan policymakers may need to consider given the focus of the Afghan model on maternal and child health, and thus better participation of female CHWs than their male counterparts.

### **11.3 Theoretical dimensions of the Afghan CHW program**

From a complex adaptive systems theory perspective, a case study of the Afghan CHW program represent a particularly unique gendered CHW model within a complex health system and a unique configuration of working at the boundary of formal and informal HRH systems. The findings of this study indicate that the CHW program cuts across the building blocks of a health system. In this section, I discuss how this research is a population health research, and the Afghan CHW program is a population level HRH intervention operating within a complex Afghan health system. Then, I explain that the term community in the Afghan CHW context could be defined as village-communities. Furthermore, I provide examples of forms of power and dimensions of gender in this research, followed by the relations of social determinants of

health with the health system. I also explore whether the role of CHWs is a task-shifting strategy (Campbell & Scott, 2011; WHO, 2007). Finally, I examine the relationship of the Afghan CHW program as a service delivery intervention to improve access to basic services. The contributions of the Afghan CHW program are discussed in relation to four aspects of access to universal health coverage, namely (1) availability of services and supplies, (2) utilization, (3) relevance, and (4) equity (Gulliford et al., 2002).

### **11.3.1 Population HRH Intervention within a Complex Adaptive System**

“Population health intervention research involves the use of scientific methods to produce knowledge about policy and program interventions that operate within or outside of the health sector and have the potential to impact health at the population level” (Hawe & Potvin, 2009).

This study focused on how CHWs are a population HRH intervention and as such it applies scientific methods and produces knowledge about an intervention within the health sector that impacts the health of populations. There are a number of reasons that the Afghan CHW program can be considered a population health intervention. The CHW program does not focus only on disease management but also on health education and promotion, individual and public sanitation, and community involvement in taking control of their health. The program involves community members in the recruitment of their health providers, and community members participate in health promotion services provided by CHWs. Unlike medical innovations that become available to the affluent and urban dwellers, the CHW program addresses the needs of the population in rural and remote areas, thereby affecting health equity. Furthermore, the program has a specific focus on mothers and children – a population with particularly

problematic health outcomes in Afghanistan. In other words, the CHW program addresses both geographic and gender inequity in health care access in the Afghan society. With all these features, it is reasonable to say that the Afghan CHW program is a population health intervention, and this research is a population health research.

As a population HRH intervention, the Afghan CHW program operates within the framework of the Afghan health system. The CHW program fits under ‘service delivery’, ‘human resources for health’, and ‘health information’ blocks of the Afghan health system (Figure 11.1). With multiple facets and layers, the CHW program can also be regarded as an example of interactive and interdependent parts of a complex adaptive health system. There is a community layer, an organizational layer, a human resource for health layer, and a cross-cutting a gender dimension to the program. Not only are the people the target of service delivery as populations in need but also engaged in the program as communities to nominate CHWs and support them in their tasks. Communities contribute to how the complex health system is structured and functions. As human resources for health, CHWs help to mediate relations between health system and communities.

### **11.3.2 The concept of community in the Afghan CHW program**

When talking about community-based health program, it is important to pay attention to actual meaning of the term ‘community’. McKeown (1987) says a number of themes emerge when talking about ‘community’: as a multifaceted concept that could range from a small group of people to an international group; as dynamic and best viewed as assortment of social processes; and comprising many different sub-communities within itself (McKeown, Rubinstein, & Kelly, 1987). MacQueen (2001) offers a definition for community “as a group of people with

diverse characteristics who are linked by social ties, share common perspectives, and engage in joint action in geographical locations or settings” (MacQueen et al., 2001, p.1936). In the Afghan CHW program, community was understood as a combination of a policy definition of community and people’s implicit understanding of their communities.

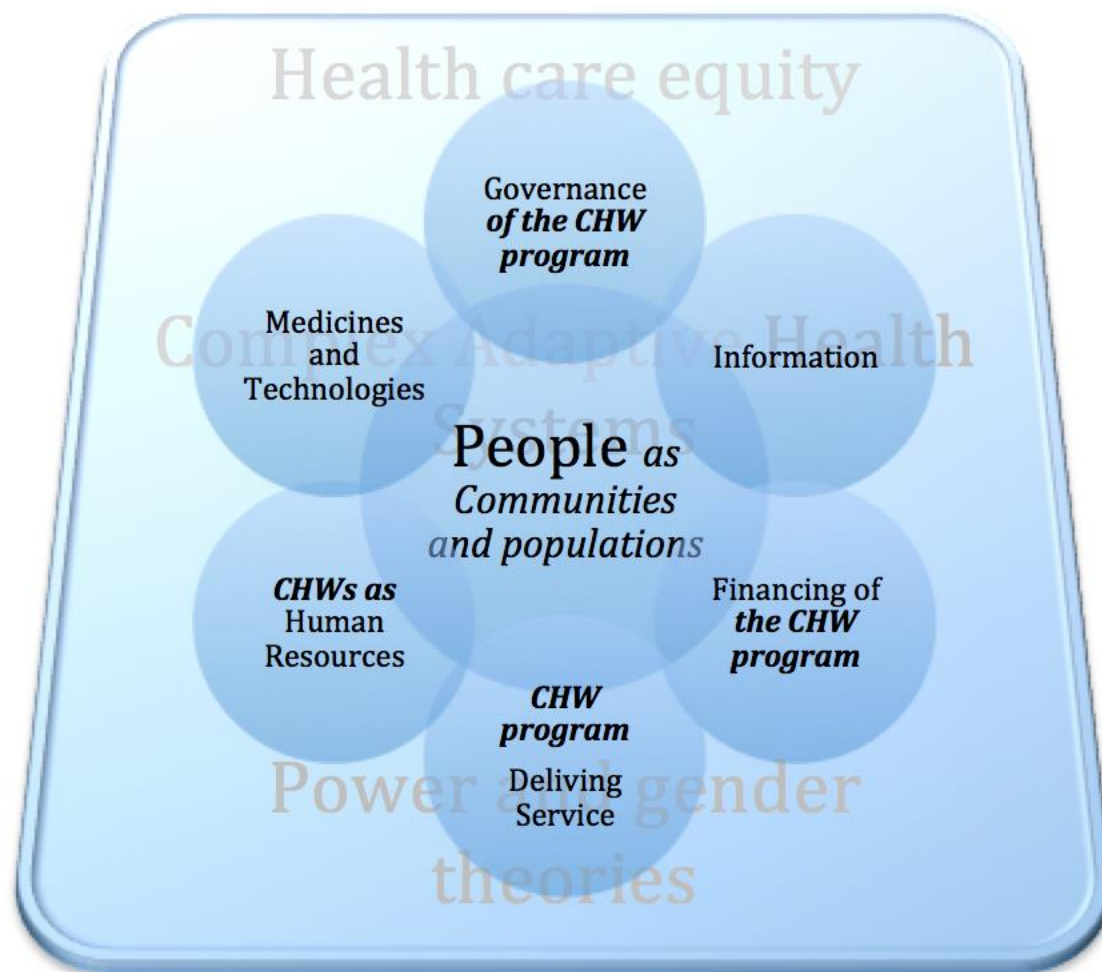


Figure 11. 1 Model Adapted from WHO Systems Thinking for health systems strengthening (Savigny & Adam, 2009)

The Afghan CHW policy defined ‘community’ as a group of 100 to 150 households in a specific geographic area. Our findings indicate that ‘village’ was also implicitly taken into account as a ‘community’ during the program’s implementation. Often, villages of 50 to 1000

households became individual communities for the CHW program. Sometimes, big villages were split or small villages were combined to form communities for the purpose of the CHW program.

Village, on the other hand, is different from ‘community’. Village is a significant unit of social structure in Afghanistan (Schetter & Mielke, 2007). Many development interventions in rural Afghanistan ignore the diverse village contexts (Pain & Sturge, 2015). Community in the Afghan CHW program can best be called ‘village-communities’, in which both the technical definition of community plays a role and the diversity of villages, as identified and experienced by people themselves, impact the implementation of the program.

### **11.3.3 Power and gender relations and social determinants of health**

Many forms of power relations at the community and policy levels influenced the CHW program within the broader health system. Forms of charismatic and traditional authorities were observed at the community level. In terms of charismatic authority, this research distinguished charismatic individuals in communities who became CHWs, school headmasters, and chiefs of rural development council organizing efforts in various sectors to improve the lives of people in their villages. I visited a female CHW supervisor who had convinced village chiefs, heads of families, and village elders to allow girls and women to get education and become CHWs, midwives, and nurses. In terms of traditional authority, village chiefs and elders influenced nomination of community members as CHWs.

As charismatic and traditional authorities influence power relations within communities, rational-legal authority affect the relation of CHWs with the health system. A traditional sociological analysis of CHW programs situates CHWs as a bridge between communities and health systems. Strong community influence may turn CHWs into agents of change in

communities. Strong health system influence may turn CHWs into extension workers for the health system. Despite that the Afghan CHW program was designed to enable communities to be actively engaged in all aspect of the health services, due the legal power of implementing organizations in recruitment, training, resource allocation and supervision, Afghan CHWs appeared to be an extension of the health system in communities.

The typologies of power hardly exist in their purest forms in the real world. There is usually an interdependence and interconnectedness of multiple forms of power. For example, a village chief with traditional authority has higher social status and is typically a large landowner, which puts him in a higher social class and often obtains him some form of legal authority from the state. Women in the Afghan context, by contract, have lower social status, are deprived of property ownership and educational attainment, and thus remain in a lower economic class. The intersection of different forms and types of power is always at play in the real world context.

Gender relations of power in the Afghan health system context are very explicit in the Afghan setting, specifically in the health care division of labour in this study. As the Western countries are moving towards acknowledging the existence of intersex, sex is dichotomized between male and female in the Afghan setting, with gender also dichotomized between masculine and feminine. Gender influences who does what in the provision of care. Patriarchal rules dictate that female CHWs provide services to women, and male CHWs to men, and that, more specifically, women's reproductive health is completely a realm of female CHWs' labour.

Following from this dichotomy of gender, male and female CHWs garner different status and class in the society. Women are born to a lower status in the Afghan society, and the patriarchal form of production puts them as second-class persons compared to men. As such when women become health providers, the CHW profession loses some status. In contrast, as

health profession has a higher status, women CHWs also obtain some social recognition for being part of a higher social status group. As men have higher status than women, their participation in CHW activities improves the statuses of men as CHWs and of the CHW profession. Thus, gender status and professional status intersect and influence one another in an iterative way.

Besides complex relations of power and gender, it is worth noting that social determinants of health in the Afghan setting act in profound relation with the health system. For example, education, geography, poverty, and security affect the health system structure and functions and vice-versa. The CHW program, as a population health and health systems intervention, has trained thousands of literate and illiterate men and women with new knowledge and skills, taking on some of the functions of an education sector. As explained in details in the chapter on community dimension, the social and physical geography of villages dictated how communities were mapped inappropriately, in turn influencing the health system to allocate resources to the population in ways that were often inequitable.

#### **11.3.4 Task shifting**

In countries like Afghanistan where there is a chronic shortage of human resources for health, CHW program addresses the problem through development of a unique cadre of health worker strategy framed as task-shifting strategy. Task shifting has been an urgent response to the chronic shortage of health workforce in developing countries (C. Campbell & Scott, 2011; Lehmann & Sanders, 2007; WHO, 2007). In simpler words, task shifting is to delegate some tasks of physicians to physician assistants, some tasks of physician assistants to nurses, some tasks of nurses to nursing assistants and community health works (WHO, 2007). Since CHWs in

Afghanistan are providing services in rural and remote areas where none had existed (or at least not for some time), task shifting is a slight misnomer but does capture the idea that CHWs are able to undertake certain tasks that might otherwise require a more highly trained health professional.

In the Afghan CHW model, CHWs perform less specialised tasks of all types of health professionals. Similar to physicians, they diagnose and prescribe drugs. Similar to nurses, they administer injections and dress wounds. Like midwives, they attend deliveries. In addition to those tasks, CHWs provide health education and counselling, promote environmental hygiene and sanitation, and take part in community initiatives that improve the health and wellbeing of the community. Not only do CHWs undertake less specialised tasks of professional health worker, they also perform health-related tasks at the community level that professionals would never do or be assigned to do. Educating and raising awareness of patients might be in the list of tasks of physicians, but physicians in resource-constraint settings, where they had to visit more than 100 patients in eight hours, have no time to educate patients on healthy behaviour. In addition, community outreach activities such as helping to ensure safe drinking water or proper latrine were not expected of professional health providers.

In short, the activities that CHWs undertake is not a simple task-shifting, which is to hand over some tasks of one provider to another provider, but ‘strategy to develop new cadre of health workers’ through which CHWs provide a wide range of services otherwise delivered by a number of providers. In other words, CHWs are not a replacement for any one specific health professional. They are a unique type of health worker who best complement a team of

professional providers. They operate independently with some supervision from professional providers.

In terms of governance, task shifting is more of a top-down approach within the realm of health system. The direction of CHWs development, however, is as much or more bottom up rather than top down. In the Afghan context, the top-down engagement of the health system is combined with the bottom-up participation of communities in the development of the Afghan CHW program. There is an iterative relationship between the health system and the communities in the Afghan CHW program.

The Afghan CHWs clearly benefit from their attachment to their communities and to the health facilities. CHWs bridged the gap in both direct and indirect ways. Directly, they provide the basic services to the population and refer patients to health facilities. Indirectly, they close the gap between communities and specialized professions. Professionalization often creates social distance between lay people and professionals in order to maintain the identity and power of the professionals (Mellow, 2006). Our findings suggested that CHWs were perceived as extension of health system within their communities. The advantage of that perception is that communities feel the health system and professional services are closer to them, are not alien phenomenon, and could be reached through CHWs. Therefore, CHWs in the Afghan model closes the professional gap between communities and professionals.

There are a number challenges to the Afghan CHW model. Our findings suggest that CHWs are used primarily as a form of cost-efficiency strategy by the Afghan health system. Evidence suggests that volunteer models cannot be sustained over the long term (Lehmann &

Sanders, 2007). Moreover, study participants viewed the quality of CHW services to be poor partly due to lack of drugs and supplies and shorter training.

Studies suggest that appropriate compensation could improve quality and ensure sustainability of CHW programs (Bhutta et al., 2010; Lehmann & Sanders, 2007). On one hand, there is no doubt that the Afghan government struggles to maintain the current level of services, especially with reducing donor funds. On the other hand, Afghan national health accounts of 2008-2009 and 2010-2011 show the 75% of the national health expenditures were paid out of pocket (Ministry of Public Health, 2010b, 2013). The national health accounts make two points. First, it is Afghans who carry the major burden of their health expenditure, not the international donors. Second, the government needs better financing strategies to channel the large out-of-pocket expenditure in a fair and efficient way. The public health services across the country in 2012 cost only 18% of the national health expenditure (Ministry of Public Health, 2013). If 50% of the national health expenditure, now coming out-of-pocket, were channelled instead through social insurance or risk pooling, around three times more financial resources would have been available for public services without international donor funding. Therefore, a proper financing mechanism could pay all CHWs a minimum wage, improve their training, and provide them with adequate drugs and supplies.

Finally, standardized training, official recognition, and regulated payment mechanisms remain major challenges to the Afghan CHW model. As Afghanistan faces a chronic shortage of human resources for health, the current cohort of 26,000 CHWs has the potential to address the shortage in the short- and medium-term. With improving their knowledge and skills through further training, they also have the capacity to become professional workers in the long-term.

That could be possible through standardized training for CHWs provided or accredited by the education and higher education systems, recognition of CHWs as human resources for health, and setting a standard minimum wage and regulated payment mechanisms for CHWs within the Afghan health system.

### **11.3.5 The impact of CHWs on Access**

There are four ways CHWs affected access: availability, utilisation, relevance and equity.

*Availability:* Availability of health services and goods within reasonable reach of those who need them is one of the main dimensions of universal access (D. B. Evans, Hsu, & Boerma, 2013; Fotso, Ezeh, Madise, Ziraba, & Ogollah, 2009; Gulliford et al., 2002). This study suggests that the Afghan CHW program has increased availability of services to the rural population by taking the basic services to communities. In 2001, less than 10% of the Afghan population had access to basic health services (Ameli & Newbrander, 2008). These services were sporadic and scattered all over the place (Loevinsohn & Sayed, 2008; Newbrander et al., 2014). By 2013, approximately 60% of the Afghan population had access to some basic health services (Campbell et al., 2013), mainly through CHWs as the first point of contact to the health system. In the past ten years, more than 26,000 CHWs have been trained in rural and remote communities across the country. Based in the communities, CHWs bypass the challenges of distance, travel time, transportation, and business hours. For example, with the presence of CHWs, community members did not need to travel many kilometers, or spend time and money for basic services. Furthermore, CHWs were open for villagers 24 hours and 7 days a week. In addition, the referral mechanism has made health facilities services available for the rural

populations. Many participants in this study stated that the mere presence of trained CHWs in rural and remote communities was an improvement to the previous condition.

Two major challenges to the availability of universal access remained in the Afghan context. The coverage of the BPHS, which included health facilities and CHW services, had not exceeded 60% of the rural populations when coverage was last studied in 2013. Extension of services to the remaining population has been more difficult due to geographical remoteness of communities, lack of transportation and communication, and fading international funding for Afghanistan. Some studies suggest that the challenge could be overcome through further community-based interventions similar to the CHW program (Edward et al., 2011; Newbrander et al., 2014). A second challenge has been a shortage of drugs and supplies in communities where CHWs operated. This study found that CHWs lose credibility for not providing drugs and supplies to the population, as they had previously done. Minor problems have been the workload of CHWs and the dropout rate in some places, leading to unavailability.

*Utilisation.* Availability does not necessarily translate into utilisation (Gulliford et al., 2002). More efforts are required to promote utilisation of available services. CHWs in Afghanistan have contributed to the utilisation of health-related services through promotion and enabling greater demand for services. Through counselling and health education, CHWs have contributed to changes in unhealthy sociocultural practices and resistance against western medicine. The quantitative analysis revealed that CHWs visited more than 200,000 women for antenatal care and more than 150,000 women for postnatal care in 2012. As part of their responsibility, CHWs have contributed significantly to the utilisation of health facility services through constant referrals and promotional activities. It also found that CHWs referred 133,903

normal deliveries and 28,146 obstetric complications to health facilities across the country in 2012.

The role of female CHWs has been particularly significant in increasing utilisation of maternal and child health services in rural areas. Afghan CHWs have also addressed the issues of inability to pay for services and transportation to facilities. Ability to pay for services and supplies has usually been one of the main challenges to using modern health facilities (Edward et al., 2011; Gulliford et al., 2002; Whitley, Everhart, & Wright, 2006). Services and drugs provided by CHWs were free, and did not require much transportation. Afghan CHWs lived in village communities and provided services whenever they were needed. CHWs did not expect compensation from villagers, unlike traditional healers or birth attendants who implicitly expected some sort of cash or in-kind payment. Utilization of community and facility health services has steadily increased since the beginning of the program in 2003 (Newbrander et al., 2014).

Despite these improvements, challenges to utilisation remained. A lack of availability of services for 40% of the population in rural and remote areas meant a lack of utilisation. Another challenge was out-of-pocket expenditure. Almost three quarters (73.6%) of the total health expenditures of Afghanistan in 2012 were out of pocket (Ministry of Public Health, 2013). These costs were for hospital services, drugs and diagnostic tests, medical procedures, and external costs such as transportation and accommodation. These expenditures were particularly inequitable for the poorest households (Ministry of Public Health, 2013). Fair distribution of financial risk due to health services remains a major challenge for the entire health system.

*Relevance:* Relevance of access is about the right service at the right time at the right place (Gulliford et al., 2002). The CHW program was (and still is) highly relevant to the rural Afghan context. In 2002, with only 10% of the population having access to basic health care, any service anywhere in post-conflict rural Afghanistan would be the right service at the right time at the right place. In 2002, there was no organized health care in rural Afghanistan, and the country had one of the worst maternal and child mortality indicators in the world. The CHW program was designed for rural areas and prioritized maternal and child health services. The challenge to relevance is the changing needs of the population. The top causes of death include both acute and chronic diseases, which calls for a change of focus from infectious diseases to both infectious and chronic diseases. Soon, CHWs in Afghanistan will need to be trained on diet and lifestyle counselling for older population. Continuous training for changing needs keeps the program relevant.

*Equity.* It is key to the concept of universal access to ensure the health care needs of different populations are met (D. B. Evans et al., 2013; Gulliford et al., 2002). The Basic Package of Health Services was designed to provide services to the population in greatest need – those living in rural areas and particularly women and children (Ministry of Public Health, 2010a). Health care services have been available in urban Afghanistan since the second half of the 20<sup>th</sup> century (Lowe, 1955; MacFadyen, 1978). It wasn't until 2003 that basic health services were taken to the rural populations on a national scale with the establishment of the BPHS and the CHW program.

The CHW program's attempt to reduce rural-urban inequity in health services has faced multiple challenges. The amount of health care resources allocated to rural health facilities and

some structural factors beyond the health system have been problematic. In the extremely rural areas of Afghanistan, Basic and Comprehensive Health Centers, which were the initial referral points for CHWs, did not have emergency obstetric care – a service urgently needed. Major structural challenges that were beyond the control of the health system and negatively impacted the population health were shortage of drinking water, lack of proper latrines, absence of electricity, unpaved, bumpy and blocked roads, and lack of adequate secondary schools and higher education institutes. Most importantly, these structural inequities were accepted realities of living in the rural areas, as if the notion of ‘rural’ carried with it a naturalized reality of being underprivileged.

There was more to the disparity in allocation of health care resources than just the urban-rural divide. Within the rural context, the only BPHS structure that took into account a horizontal equity approach was the Health Post, or the services provided by CHWs. With the idea of equal treatment of the equal (Magnussen et al., 2004) the assumption was that all rural Afghan populations had the same health problems: i.e. poor maternal and child health, a number of prevalent communicable diseases, lack of water and sanitation, and low health awareness. Based on that assumption, the policymakers decided to provide similar services, by the CHWs, to the entire rural populations. The problem with this horizontal equity approach was that the rural populations in Afghanistan were not the same, did not live under the same conditions, and did not have similar health problems. Geographically, Afghanistan is largely mountainous in the center, with most fertile plain soils in the north and large deserts in the south and west (Defense Language Institute, 2012) . A 5 km distance in the plain south is not similar to a 5 km mountainous distance in the central. The weather in the south rarely falls below 10C in winter, while the central Afghanistan has long, freezing cold winters (Defense Language Institute,

2012). In winter, the South needs more medication for diarrhoea, while central Afghanistan needs medication for pneumonia. Afghan CHW program lacks a vertical equity approach – unequal, though equitable, treatment of the unequal. The needs of communities across the country are different and must be taken into account in service provision.

Finally, the design of the BPHS and the CHW program promotes inequitable services to the rural population. The District Hospitals were located in the district capital, with better roads connecting them to provincial capitals. The Health Sub-Centers and the Basic Health Centers covered remote areas where roads were unpaved, electricity did not exist, and open wells were the source of drinking water. The resources allocated to these facilities varied, with little resources allocated to health sub-centers and more resources to District Hospitals. District Hospitals provided more and comprehensive services compared to the sub-centers. As a result, the Health Posts covered by a District Hospital were highly privileged over the ones covered by a Health Sub-Center or a Basic Health Center. Emergency patients referred to a District Hospital often received the care at their first point of contact, while emergency patients referred to a health sub-center would most likely be referred to a Basic or Comprehensive Health Center and, then to a District Hospital. In short, even the program designed to serve the rural poor were structured in a way to favour those living near the towns or district centers. The poorest of the poor, the underprivileged living in remote communities and isolated villages remain under-served.

#### **11.4 Key Contributions and Limitations of the Study**

This thesis has made a couple of key contributions. First, through a contextual analysis, this thesis reveals that effective implementation of the CHW program depends on the

performance of the elements of the health system, the form of participation of the communities, and the relationship of CHWs with the community, the health system, and other formal and informal providers. Lack of coordination between elements of the broader health system, slow bureaucratic processes and administrative trivia and pocket-interested implementation organization has negative effect on the CHW program. Community power relations and nepotism has the potential to alter the structure of the program in the community. Finally, CHWs has to manage their relationship with indigenous informal providers and establish links with professional health providers. Whether it is better to train traditional providers as CHWs or recruit other community members as CHWs to work alongside traditional providers should be decided based on the context. Linking CHWs with professional health workers who are the main decision-makers in health clinics, rather than with low-level administrative supervisors, can boost CHWs status in the community as service providers and community agents.

When analysing CHW programs in the future, the question should not be whether the health system and the community are involved in the program, but rather how they are involved. It is the details of the involvement that matters to the program the most. Strong health system involvement means standardized and accredited training, adequate drug supply, recognition of the CHWs in the broader health system as human resources for health, and linking them with other professional health providers through supervision or other standard methods. Participation of community should not be symbolic and better involve communities in program design, selection and recruitment, supervision, potentially compensation of CHWs.

Another important contribution of this thesis to the literature is that it documents a national CHW program, its development, implementation, and potential contribution to maternal

and child health. This research on Afghan CHWs is the first of its kind in Afghanistan with potential lessons for policymakers, program implementers and communities.

Finally, despite the fact that providing maternal and child health services contribute to improving their health, recruiting women as CHWs can contribute to empowerment of women and thus improvement of their and their children's health. Women's maternal health could be improved through educating them, improving their social status, and providing opportunity for social participation – things that CHW programs have the potential to do. The contributions of CHW program to women may have been a side effect of the Afghan CHW program, but they could be planned for future reforms or other programs.

This study had a number of limitations, some of which are related to the context of the research and some to the methods undertaken for data collection. First, despite many attempts, I could not access the database on CHWs at the Ministry of Public Health. I was only provided a summary chart of it. This national dataset would provide demographic information on CHWs including sex, age, literacy and education level, other occupation, and possibly drop out rate. The 17 sites visited during this study included different ethnicities, extreme and relative rural places, and different implementers. Demographic information of the 25 CHWs who participated in this study could be reflective of the entire population on a small scale.

Second, Afghanistan is affected by war; the safety of the researcher and key informants was a major concern. The initial plan was to conduct weeks-long anthropology-like fieldwork in rural areas of Afghanistan, but safety concerns hindered visits to insecure provinces and overnight stays in villages. Fieldwork over an extended period of time in rural areas could bring to our attention other community contexts that affected the CHW program. Still, I had the

advantage of being local, speaking the local languages and knowing the local context well, which has contributed to the analysis of the community contexts.

Finally, it has been difficult for a male researcher to interact with female participants in a gender-segregated society. Had I been able to interact with many of the female participants in rural areas, I may have observed different nuances of the context. To address the issue, a female research assistant was hired who was trained in asking questions, probing important issues further, taking notes, and observing the context. There were challenges and advantages to working with a female research assistant. It took time until we could communicate about reproductive health matters in details, and that she could probe the issues from other female participants. I had to take into account her contextual constraints such as making sure she returned home in the evening. On the positive side, her assistance was most valuable as she added a female perspective in this research.

### **11.5 Future research**

Based on this study and other literature, I suggest three possible and valuable future research on CHW programs. First, it would make an important contribution to the knowledge on CHWs to compare the effectiveness and possibly sustainability of paid and volunteer CHWs. This study found that volunteer CHWs had worked several years and had a relatively strong social commitment to continue to volunteer. There are other studies that suggest volunteer models of CHW program are less effective and sustainable compared to paid CHWs (Lewin et al., 2010; Pallas et al., 2013). A comparison of the two models would make a valuable contribution to the debate.

Second, there is a lack of information on the cost-effectiveness of CHW programs all over the world. I tried to find out the cost of the Afghan CHW program, but because the cost of the program was calculated within the Basic Package of Health Services neither was there a document for it nor did the participants know the costs. For policymakers and donors who often have to make choices based on limited financial resources, cost-effectiveness analysis of various CHW models would be very helpful.

Finally, the findings of this research suggest that CHWs were a type of health workers who undertook simple tasks of many professional workers such as physicians, nurses, and midwives. A valuable contribution would be to evaluate the quality and effectiveness of services provided by CHWs in comparison with the same services provided by other professional health workers.

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## Appendices

## Tables

Table 10.3 Test of Normality on all variables

Tests of Normality							
Year		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
HPper10pop	2009	.132	361	.000	.731	361	.000
	2010	.142	355	.000	.752	355	.000
	2011	.134	374	.000	.755	374	.000
	2012	.142	371	.000	.747	371	.000
NDRper10pop	2009	.251	361	.000	.480	361	.000
	2010	.279	355	.000	.361	355	.000
	2011	.239	374	.000	.463	374	.000
	2012	.220	371	.000	.514	371	.000
OCRper10pop	2009	.251	361	.000	.649	361	.000
	2010	.275	355	.000	.561	355	.000
	2011	.235	374	.000	.691	374	.000
	2012	.285	371	.000	.524	371	.000
ANVper10pop	2011	.261	374	.000	.452	374	.000
	2012	.239	371	.000	.439	371	.000
PNVper10pop	2011	.214	374	.000	.574	374	.000
	2012	.215	371	.000	.498	371	.000
MMper10pop	2009	.325	361	.000	.468	361	.000
	2010	.341	355	.000	.431	355	.000
	2011	.303	374	.000	.559	374	.000
	2012	.361	371	.000	.300	371	.000
NNMper10pop	2009	.259	361	.000	.632	361	.000
	2010	.274	355	.000	.597	355	.000
	2011	.282	374	.000	.531	374	.000
	2012	.286	371	.000	.528	371	.000

a. Lilliefors Significance Correction

HP=Health post, NDR=Normal Delivery Referral, OCR=Obstetric Complication Referral, ANV=Antenatal Visit, PNV=Postnatal Visit, MM=Maternal Mortality, NNM=Neonatal Mortality, 10pop=10,000 Population

Table 10. 4 General summaries of all variables over four years (2009-2012)

General Case Summaries									
Year		Population of District	Health Post	Normal Delivery Referral	Obstetric Complication Referral	Antenatal Visit	Postnatal Visit	Maternal Mortality	Neonatal Mortality
2009	N	361.0	361.0	361.0	361.0			361.0	361.0
	Mean	51551.2	22.0	310.7	66.1			3.0	12.4
	Median	42900.0	15.0	179.0	28.0			1.0	7.0
	Minimum	5500.0	1.0	0.0	0.0			0.0	0.0
	Maximum	241700.0	146.0	2755.0	571.0			60.0	116.0
	Sum	<b>18610000.0</b>	<b>7929.5</b>	<b>112170.0</b>	<b>23866.0</b>			<b>1082.0</b>	<b>4480.0</b>
2010	N	355.0	355.0	355.0	355.0			355.0	355.0
	Mean	51587.3	21.9	294.9	60.3			3.5	13.8
	Median	42400.0	16.0	178.0	24.0			1.0	6.0
	Minimum	5500.0	1.0	0.0	0.0			0.0	0.0
	Maximum	241700.0	146.5	3108.0	755.0			55.0	170.0
	Sum	<b>18313500.0</b>	<b>7776.0</b>	<b>104705.0</b>	<b>21400.0</b>			<b>1232.0</b>	<b>4915.0</b>
2011	N	374.0	374.0	374.0	374.0	374.0	374.0	374.0	374.0
	Mean	51089.8	28.1	356.3	74.1	621.4	394.1	4.7	20.3
	Median	40950.0	21.0	202.0	33.5	359.0	236.5	1.0	10.0
	Minimum	5500.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
	Maximum	241700.0	149.0	5561.0	661.0	5792.0	4893.0	117.0	224.0
	Sum	<b>19107600.0</b>	<b>10502.5</b>	<b>133256.0</b>	<b>27715.0</b>	<b>232388.0</b>	<b>147392.0</b>	<b>1763.0</b>	<b>7588.0</b>
2012	N	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0
	Mean	51288.9	31.6	360.9	75.9	1098.6	704.0	3.2	16.5
	Median	42000.0	24.5	233.0	31.0	699.0	456.0	1.0	8.0
	Minimum	5500.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
	Maximum	241700.0	173.0	3428.0	1144.0	7471.0	5078.0	156.0	351.0
	Sum	<b>19028200.0</b>	<b>11714.5</b>	<b>133903.0</b>	<b>28146.0</b>	<b>407566.0</b>	<b>261202.0</b>	<b>1194.0</b>	<b>6103.0</b>
Total	N	1461.0	1461.0	1461.0	1461.0	745.0	745.0	1461.0	1461.0
	Mean	51375.3	26.0	331.3	69.2	859.0	548.4	3.6	15.8
	Median	42000.0	19.0	199.0	29.0	485.0	324.0	1.0	8.0
	Minimum	5500.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
	Maximum	241700.0	173.0	5561.0	1144.0	7471.0	5078.0	156.0	351.0
	Sum	<b>75059300.0</b>	<b>37922.5</b>	<b>484034.0</b>	<b>101127.0</b>	<b>639954.0</b>	<b>408594.0</b>	<b>5271.0</b>	<b>23086.0</b>

Table 10. 5 Case summaries of ratios of variables by 10,000 populations

General summary of variables by 10,000 population									
Year		Population of District	HPper10pop	NDRper10pop	OCRper10pop	ANVper10pop	PNVper10pop	MMper10pop	NNMper10pop
2009	N	361.0	361.0	361.0	361.0			361.0	361.0
	Mean	51551.2	4.6	65.2	14.3			0.7	3.1
	Median	42900.0	3.8	42.8	6.4			0.2	1.6
	Minimum	5500.0	0.3	0.0	0.0			0.0	0.0
	Maximum	241700.0	38.3	1442.9	176.8			19.1	35.0
	Sum	<b>18610000.0</b>	<b>1666.3</b>	<b>23553.9</b>	<b>5179.4</b>			<b>251.4</b>	<b>1101.1</b>
2010	N	355.0	355.0	355.0	355.0			355.0	355.0
	Mean	51587.3	4.6	61.3	13.3			0.8	3.4
	Median	42400.0	3.8	42.4	6.0			0.1	1.5
	Minimum	5500.0	0.2	0.0	0.0			0.0	0.0
	Maximum	241700.0	40.3	1726.0	246.7			15.9	54.1
	Sum	<b>18313500.0</b>	<b>1647.5</b>	<b>21770.9</b>	<b>4710.3</b>			<b>268.2</b>	<b>1213.3</b>
2011	N	374.0	374.0	374.0	374.0	374.0	374.0	374.0	374.0
	Mean	51089.8	5.9	71.5	16.2	130.1	80.3	0.9	4.9
	Median	40950.0	5.1	51.1	7.6	87.7	59.4	0.2	2.3
	Minimum	5500.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
	Maximum	241700.0	42.9	1545.5	138.8	2962.3	1288.3	12.6	109.1
	Sum	<b>19107600.0</b>	<b>2206.4</b>	<b>26732.3</b>	<b>6060.2</b>	<b>48675.6</b>	<b>30038.5</b>	<b>346.4</b>	<b>1838.6</b>
2012	N	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0
	Mean	51288.9	6.6	71.8	16.3	230.2	144.1	0.7	3.8
	Median	42000.0	5.9	55.2	6.6	167.2	108.9	0.2	1.8
	Minimum	5500.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
	Maximum	241700.0	42.9	1342.9	362.0	5105.2	2675.3	31.6	59.6
	Sum	<b>19028200.0</b>	<b>2446.7</b>	<b>26636.2</b>	<b>6030.5</b>	<b>85414.1</b>	<b>53464.2</b>	<b>252.4</b>	<b>1415.5</b>
Total	N	1461.0	1461.0	1461.0	1461.0	745.0	745.0	1461.0	1461.0
	Mean	51375.3	5.5	67.6	15.0	180.0	112.1	0.8	3.8
	Median	42000.0	4.7	47.6	6.6	121.0	80.9	0.2	1.7
	Minimum	5500.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
	Maximum	241700.0	42.9	1726.0	362.0	5105.2	2675.3	31.6	109.1
	Sum	<b>75059300.0</b>	<b>7967.0</b>	<b>98693.3</b>	<b>21980.4</b>	<b>134089.7</b>	<b>83502.7</b>	<b>1118.2</b>	<b>5568.5</b>

Table 10.6 Case summary of ratio of variables by health posts

General summary of variables by health posts									
Year		Population of District	Health Post	NDR per HP	OCR per HP	ANV per HP	PNV per HP	MMbyHP	NNMbyHP
2009	N	361.0	361.0	361.0	361.0			361.0	361.0
	Mean	51551.2	22.0	13.9	3.3			0.2	1.1
	Median	42900.0	15.0	12.5	2.3			0.0	0.4
	Minimum	5500.0	1.0	0.0	0.0			0.0	0.0
	Maximum	241700.0	146.0	58.8	31.1			3.3	16.0
	Sum	<b>18610000.0</b>	<b>7929.5</b>	<b>5009.2</b>	<b>1185.0</b>			<b>79.5</b>	<b>412.8</b>
2010	N	355.0	355.0	355.0	355.0			355.0	355.0
	Mean	51587.3	21.9	13.2	2.9			0.2	1.0
	Median	42400.0	16.0	12.1	2.0			0.0	0.4
	Minimum	5500.0	1.0	0.0	0.0			0.0	0.0
	Maximum	241700.0	146.5	58.2	27.3			4.0	11.0
	Sum	<b>18313500.0</b>	<b>7776.0</b>	<b>4695.7</b>	<b>1017.9</b>			<b>74.9</b>	<b>348.3</b>
2011	N	374.0	374.0	374.0	374.0	374.0	374.0	374.0	374.0
	Mean	51089.8	28.1	12.2	2.8	21.1	13.3	0.2	1.0
	Median	40950.0	21.0	10.7	1.7	16.6	11.2	0.0	0.4
	Minimum	5500.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
	Maximum	241700.0	149.0	66.3	23.8	122.0	77.8	2.6	11.2
	Sum	<b>19107600.0</b>	<b>10502.5</b>	<b>4560.2</b>	<b>1059.4</b>	<b>7901.1</b>	<b>4968.0</b>	<b>75.3</b>	<b>368.1</b>
2012	N	371.0	371.0	371.0	371.0	371.0	371.0	371.0	371.0
	Mean	51288.9	31.6	11.0	2.6	34.5	21.8	0.1	0.6
	Median	42000.0	24.5	9.7	1.3	28.3	18.6	0.0	0.3
	Minimum	5500.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
	Maximum	241700.0	173.0	67.3	40.9	167.8	127.6	6.0	10.2
	Sum	<b>19028200.0</b>	<b>11714.5</b>	<b>4066.2</b>	<b>956.9</b>	<b>12790.4</b>	<b>8083.4</b>	<b>44.3</b>	<b>232.1</b>
Total	N	1461.0	1461.0	1461.0	1461.0	745.0	745.0	1461.0	1461.0
	Mean	51375.3	26.0	12.5	2.9	27.8	17.5	0.2	0.9
	Median	42000.0	19.0	11.2	1.8	21.9	14.4	0.0	0.4
	Minimum	5500.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
	Maximum	241700.0	173.0	67.3	40.9	167.8	127.6	6.0	16.0
	Sum	<b>75059300.0</b>	<b>37922.5</b>	<b>18331.3</b>	<b>4219.2</b>	<b>20691.4</b>	<b>13051.4</b>	<b>273.9</b>	<b>1361.2</b>

Table 10. 7 General summary of the ratios of maternal and neonatal mortality by the activities of the CHWs

General summary of ratios of maternal and neonatal mortality by CHWs activities									
Year		MMper100NDR	MMper100OCR	MMper100ANV	MMper100PNV	NNMper100NDR	NNMper100OCR	NNMper100ANV	NNMper100PNV
2009	N	360.0	331.0	158.0	158.0	360.0	331.0	70.0	70.0
	Mean	3.5	20.0	0.0	0.0	16.4	89.2	0.0	0.0
	Median	0.3	1.8	0.0	0.0	3.0	20.0	0.0	0.0
	Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Maximum	200.0	1400.0	0.0	0.0	800.0	3800.0	0.0	0.0
	Sum	<b>1267.7</b>	<b>6634.7</b>	<b>0.0</b>	<b>0.0</b>	<b>5898.3</b>	<b>29518.8</b>	<b>0.0</b>	<b>0.0</b>
2010	N	354.0	324.0	165.0	165.0	354.0	324.0	74.0	74.0
	Mean	3.6	13.8	0.0	0.0	18.0	72.4	0.0	0.0
	Median	0.2	1.5	0.0	0.0	3.2	20.4	0.0	0.0
	Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Maximum	200.0	600.0	0.0	0.0	1600.0	1650.0	0.0	0.0
	Sum	<b>1265.2</b>	<b>4467.3</b>	<b>0.0</b>	<b>0.0</b>	<b>6356.6</b>	<b>23464.1</b>	<b>0.0</b>	<b>0.0</b>
2011	N	369.0	344.0	365.0	361.0	369.0	344.0	365.0	361.0
	Mean	2.6	14.7	5.6	4.9	19.1	96.3	13.9	17.6
	Median	0.4	2.7	0.2	0.4	4.5	28.6	2.4	3.8
	Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Maximum	65.4	475.0	1400.0	400.0	1033.3	1600.0	2075.0	680.0
	Sum	<b>961.5</b>	<b>5058.4</b>	<b>2054.2</b>	<b>1780.0</b>	<b>7043.4</b>	<b>33114.8</b>	<b>5088.2</b>	<b>6339.0</b>
2012	N	362.0	337.0	366.0	366.0	362.0	337.0	366.0	366.0
	Mean	2.4	11.5	0.7	1.2	13.2	74.6	3.0	7.5
	Median	0.3	1.8	0.1	0.1	3.4	23.1	1.2	1.9
	Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Maximum	100.0	233.3	48.4	107.1	500.0	1350.0	74.2	650.0
	Sum	<b>857.7</b>	<b>3877.8</b>	<b>264.6</b>	<b>439.9</b>	<b>4778.1</b>	<b>25145.6</b>	<b>1086.7</b>	<b>2735.2</b>
Total	N	1445.0	1336.0	1054.0	1050.0	1445.0	1336.0	875.0	871.0
	Mean	3.0	15.0	2.2	2.1	16.7	83.3	7.1	10.4
	Median	0.3	2.0	0.0	0.0	3.5	23.1	1.0	1.6
	Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Maximum	200.0	1400.0	1400.0	400.0	1600.0	3800.0	2075.0	680.0
	Sum	<b>4352.1</b>	<b>20038.2</b>	<b>2318.9</b>	<b>2219.8</b>	<b>24076.5</b>	<b>111243.2</b>	<b>6174.9</b>	<b>9074.2</b>

## University of Ottawa Research Ethics Board Approval

File Number: H05-13-07



Date (mm/dd/yyyy): 06/24/2013

**Université d'Ottawa** **University of Ottawa**  
 Bureau d'éthique et d'intégrité de la recherche Office of Research Ethics and Integrity

**Ethics Approval Notice****Health Sciences and Science REB****Principal Investigator / Supervisor / Co-investigator(s) / Student(s)**

<u>First Name</u>	<u>Last Name</u>	<u>Affiliation</u>	<u>Role</u>
Ivy	Bourgeault	Health Sciences / Others	Supervisor
Ronald	Labonté	Medicine / Medicine	Co-Supervisor
Said Ahmad	Najafizada	Health Sciences / Others	Student Researcher

**File Number:** H05-13-07**Type of Project:** PhD Thesis**Title:** An Evaluation of Community Health Worker Program to improve maternal health in Afghanistan

<b>Approval Date (mm/dd/yyyy)</b>	<b>Expiry Date (mm/dd/yyyy)</b>	<b>Approval Type</b>
06/24/2013	06/23/2014	Ia

**(Ia: Approval, Ib: Approval for initial stage only)****Special Conditions / Comments:**

N/A

File Number: H05-13-07

Date (mm/dd/yyyy): 06/24/2013



**Université d'Ottawa** **University of Ottawa**  
Bureau d'éthique et d'intégrité de la recherche Office of Research Ethics and Integrity

This is to confirm that the University of Ottawa Research Ethics Board identified above, which operates in accordance with the Tri-Council Policy Statement and other applicable laws and regulations in Ontario, has examined and approved the application for ethical approval for the above named research project as of the Ethics Approval Date indicated for the period above and subject to the conditions listed the section above entitled "Special Conditions / Comments".

During the course of the study the protocol may not be modified without prior written approval from the REB except when necessary to remove subjects from immediate endangerment or when the modification(s) pertain to only administrative or logistical components of the study (e.g. change of telephone number). Investigators must also promptly alert the REB of any changes which increase the risk to participant(s), any changes which considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project and safety of the participant(s). Modifications to the project, information/consent documentation, and/or recruitment documentation, should be submitted to this office for approval using the "Modification to research project" form available at:

<http://www.research.uottawa.ca/ethics/forms.html>.

Please submit an annual status report to the Protocol Officer four weeks before the above-referenced expiry date to either close the file or request a renewal of ethics approval. This document can be found at:

<http://www.research.uottawa.ca/ethics/forms.html>.

If you have any questions, please do not hesitate to contact the Ethics Office at extension 5387 or by e-mail at:



**Signature:**



Protocol Officer for Ethics in Research  
For Daniel Lagarec, Chair of the Sciences and Health Sciences REB

2

550, rue Cumberland, pièce 154 Ottawa (Ontario) K1N 6N5 Canada 550 Cumberland Street, room 154 Ottawa, Ontario K1N 6N5 Canada

<http://www.research.uottawa.ca/ethics/index.html>  
<http://www.recherche.uottawa.ca/deontologie/index.html>

File Number: H05-13-07

Date (mm/dd/yyyy): 08/15/2014



**Université d'Ottawa** **University of Ottawa**  
 Bureau d'éthique et d'intégrité de la recherche Office of Research Ethics and Integrity

**Ethics Renewal Notice**  
**Health Sciences and Science REB**

**Principal Investigator / Supervisor / Co-investigator(s) / Student(s)**

<u>First Name</u>	<u>Last Name</u>	<u>Affiliation</u>	<u>Role</u>
Ivy	Bourgeault	School of Management / School of	Supervisor
Ronald	Labonté	Medicine / Medicine	Co-Supervisor
Said Ahmad	Najafizada	Health Sciences / Others	Student Researcher

**File Number:** H05-13-07

**Type of Project:** PhD Thesis

**Title:** An Evaluation of Community Health Worker Program to improve maternal health in Afghanistan

<b>Renewal Date (mm/dd/yyyy)</b>	<b>Expiry Date (mm/dd/yyyy)</b>	<b>Approval Type</b>
06/24/2014	06/23/2015	Ia

(Ia: Approval, Ib: Approval for initial stage only)

**Special Conditions / Comments:**

N/A

File Number: H05-13-07

Date (mm/dd/yyyy): 08/15/2014



**Université d'Ottawa**      **University of Ottawa**  
Bureau d'éthique et d'intégrité de la recherche      Office of Research Ethics and Integrity

This is to confirm that the University of Ottawa Research Ethics Board identified above, which operates in accordance with the Tri-Council Policy Statement (2010) and other applicable laws and regulations in Ontario, has examined and approved the ethics application for the above named research project. Ethics approval is valid for the period indicated above and subject to the conditions listed in the section entitled "Special Conditions / Comments".

During the course of the project, the protocol may not be modified without prior written approval from the REB except when necessary to remove participants from immediate endangerment or when the modification(s) pertain to only administrative or logistical components of the project (e.g., change of telephone number). Investigators must also promptly alert the REB of any changes which increase the risk to participant(s), any changes which considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project and safety of the participant(s). Modifications to the project, including consent and recruitment documentation, should be submitted to the Ethics Office for approval using the "Modification to research project" form available at: <http://www.research.uottawa.ca/ethics/forms.html>.

Please submit an annual report to the Ethics Office four weeks before the above-referenced expiry date to request a renewal of this ethics approval. To close the file, a final report must be submitted. These documents can be found at: <http://www.research.uottawa.ca/ethics/forms.html>.

If you have any questions, please do not hesitate to contact the Ethics Office at extension 5387 or by e-mail at:



**Signature:**



Ethics Coordinator  
For Catherine Paquet, Director of the Office of Research Ethics and Integrity



Islamic Republic of Afghanistan  
Ministry of Public Health  
Afghanistan National Public Health Institute  
Institutional Review Board

Date: 19/June/2013



جمهوری اسلامی افغانستان  
وزارت صحت عامه  
انستیتوت ملی صحت عامه افغانستان

د افغانستان اسلامي جمهوریت  
د عامې روغتیا وزارت  
د انستیتوت ملي صحت عامې افغانستان



No. 356377

To: Said Ahmad Maisam Najafizada MD  
PhD Student  
Population Health Institute, University of Ottawa

Subject: Approval for proposal entitled, "Evaluation of Community Health Workers".


Dear Sir,

Institutional Review Board, Ministry of Public Health has examined and reviewed your proposal entitled, "Evaluation of Community Health Workers".

We are pleased to note satisfactory response therefore, your study is approved. However, we reserve the rights to monitor and audit your study and any violation of ethical norms during the course of study shall lead to withdrawal of given approval.

The duration of approval for a study to begin the research project is valid for six months and the exact date of research project implementation (start and end) should be informed to IRB secretary.

You are bound to share the result of your study with MoPH prior any dissemination plan.

  
Director General  
Afghanistan National Public Health Institute (ANPHI) &  
Chairman, Institutional Review Board (IRB)  
Ministry of Public Health

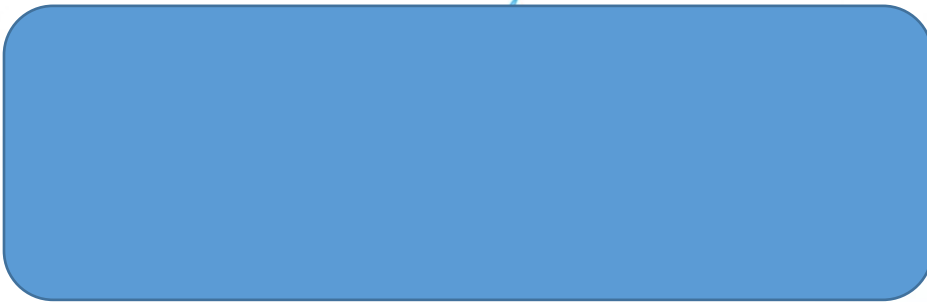
**Research Assistant Confidentiality Agreement**

This study, an evaluation of the community health worker program in Afghanistan, is being undertaken by Dr. Said Ahmad Maisam Najafizada, a PhD candidate at the University of Ottawa.

I, Sakina Sadaf, agree to:

1. Keep all the research information shared with me confidential by not discussing or sharing the research information in any form or format (e.g. disks, tapes, transcripts) with anyone other than the Principal Investigator(s);
2. Keep all research information in any form or format secure while it is in my possession;
3. Return all research information in any form or format to the Principal Investigator(s) when I have completed the research tasks;
4. After consulting with the Principal Investigator(s), erase or destroy all research information in any form or format regarding this research project that is not returnable to the Principal Investigator(s) (e.g. information sorted on computer hard drive).

Research Assistant:



If you have any questions or concerns about this study, please contact:  
Dr. Said Ahmad Maisam Najafizada



This study has been reviewed and approved by the Research Ethics Board at the University of Ottawa. For questions regarding participants rights and ethical conduct of research, contact the University of Ottawa Research Off

**Research Assistantship Contract**

This is to say that I Sakina Sadaf Petrat  
have agreed to work as a research assistant with Dr. Said Ahmad Maisam Najafizada,  
a PhD Candidate in Population Health Department at the University of Ottawa, for a  
daily wage of \$100 for as many days as required on the following conditions.

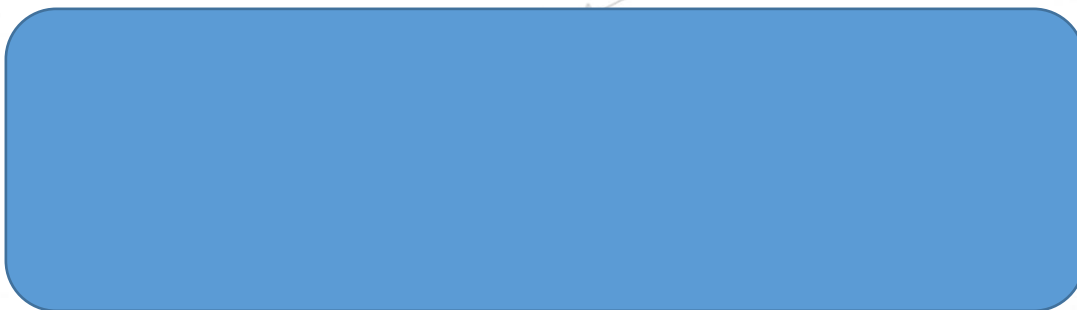
Dr. Said Ahmad Maisam Najafizada conducts research on Community Health Workers in Afghanistan and its relationship with maternal health. This doctoral research requires interview with CHWs, Community Health Supervisors, Community members, health organization managers, and policy makers at the Ministry of Public Health, and other international organizations such as USAID, World Bank, European Commission, CIDA, WHO, UNICEF, UNFPA, and others.

As a research assistant, I am required to interview female participants of the research in rural areas and urban settings, if necessary. I will also take part in interviews conducted by the research, take notes, and record observation as instructed by the researcher. I will then provide the notes and observations to the principle investigator.

- I might be audio recorded for the purpose of the research  
 I might be photographed for the purpose of the research

By signing this document I

- Agree to sign a confidentiality agreement.
- Agree to freely accept the risks, dangers, and hazards inherent in undertaking the activity, and that the researcher does not have any responsibility
- Agree to waive any and all claims that I or my heirs have or may have against the researcher, from my participation in the activity including claims of personal, physical, property, psychological or financial loss, damage, harm, injury, or expense.



**Solicitation Letter**

Hello there,

You are invited to participate in a doctoral research conducted by Said Ahmad Maisam Najafizada, a PhD student in the Population Health Program at the University of Ottawa, under the supervision of Professor Ivy Lynn Bourgeault and co-supervision of Professor Ronalde Labonte.

The purpose of this research is evaluate the process of implementation of Afghanistan's Community Health Worker program and assess its relationship with improved maternal health.

You are cordially invited to participate in a semi-structured interview in person at your place of work with the researcher. The data that you will provide will be kept confidential and anonymous. Only the researcher and his supervisor and co-supervisor will have access to the information.

Participation in this study is completely voluntary. If you initially wish to participate but change your mind later, you will be able to withdraw from the study.

Your participation in this study will contribute to a better understanding of the process of the CHWs program and its impact on maternal health.

If you have any questions, please feel free to contact me.

Thank you,  
Said Ahmad Maisam Najafizada

## Solicitation Letter in Dari

نامه درخواست

سلام

از شما تقاضا به عمل می آید که در تحقیق دوره دکترا سید احمد میثم نجفی زاده، دانشجو دوره دکترا در رشته صحت عامه در دانشگاه اوتواوا، اشتراک نمایید. این تحقیق دکترا تحت نظر پروفیسور آیفی بورژو و پروفیسور رونالد لیانتهی اجرا می شود.

هدف این تحقیق ارزیابی روند اجرایی برنامه کارکنان صحتی جامعه در افغانستان و تأثیرات این برنامه بر صحت مادران در افغانستان می باشد.

از شما دعوت می شود که در یک مصاحبه تحقیقی رو در رو با محقق در محل کار خود اشتراک کنید. معلومات که در این مصاحبه از شما جمع آوری می شود محرمانه و تحت نام مستعار نگهداری می شود. به این معلومات تنها محقق و راهنما های علمی وی دسترسی خواهد داشت.

اشتراک شما در این تحقیق کاملاً اختیاری است. در صورت اشتراک شما حق کامل دارید که نظر تان را عوض کنید و میتوانید از اشتراک به تحقیق اجتناب کنید.

اشتراک شما در این تحقیق به شناخت بهتر برنامه کارکنان صحتی جامعه و تأثیرات آن به صحت مادران کمک می کند .

در صورت که سوالی داشته باشید، لطفاً آزادانه با من در تماس شوید.

با احترام

سید احمد میثم نجفی زاده



**Consent forms****Consent form for policymakers and managers**

**uOttawa**

**Université d'Ottawa**

Faculté des sciences de la santé  
École interdisciplinaire des  
sciences de la santé

**University of Ottawa**

Faculty of Health Sciences  
Interdisciplinary School of  
Health Sciences

Tel: 613-562-5833  
Fax: 613-562-5632

25 Université/University  
Ottawa ON K1N 6N5 Canada  
www.uOttawa.ca

**Consent Form**

**An evaluation of Community Health Workers Program to improve  
maternal health in Afghanistan**

**Principle Investigator: Said Ahmad Maisam Najafizada**  
PhD candidate in Population Health Program  
Faculty of Graduate and Postdoctoral Studies, University of Ottawa

**Supervisor: Prof. Ivy Lynn Bourgeault, Ph.D.,**  
Faculty of Health Sciences, University of Ottawa

**Co-supervisor: Prof. Ronald Labonte, Ph.D., Department of**  
Epidemiology and Community Medicine, Faculty of Medicine,  
University of Ottawa

**Invitation to Participate: I am invited to participate in the above**  
mentioned research study conducted by Said Ahmad Maisam  
Najafizada for this doctoral thesis.

**Purpose of the Study: The purpose of the doctoral thesis is to**  
evaluate the process and impact of Community Health Worker's  
Program in Afghanistan. The thesis will explore the models of CHW  
programs in Afghanistan, understand contextual factors that might  
affect the design and the implementation of the program, and assess  
its relationship with maternal health.

**Participation: My participation will consist of an interview session**  
conducted in-person. The interview might last between 45 to 90  
minutes. In this interview, I will be asked questions by the researcher  
about the CHWs program. I will be asked to talk about my experience  
with and views regarding CHWs, CHW program, and maternal health.

The interview will be audio recorded.

I might be photographed for this study.

**Risks: My participation might have physical discomfort, risk of**  
psychological and emotional discomfort, social repercussions,  
economic inconvenience, or other inconvenience.

- I might need to travel a distance, which can cause physical discomfort and economic inconvenience. I am assured that my research-related travel expenses will be refunded.
- The duration of interview might cause some physical discomfort. I am assured that the interview will be conducted in a way that I am physically comfortable and that I will be allowed breaks in-between the interview to relax.
- Recalling unpleasant memories during interview might cause psychological and emotional discomfort. If so, I am assured that the interview will be stopped, and I will be given time to relax and decide if I wanted to proceed. If I didn't feel well, I will be referred to a health center.
- My critical comments might have social repercussions. I am assured that my comments are not shared with anyone in the organization, and they will be reported anonymously to mitigate the social repercussions.
- I am assured that I will be allowed time to perform my religious activities if the interview timing interferes with it, and that I will be provided lunch during lunchtime.

Other than the risks mentioned above, I understand that there is no risk involved in participating in this study, beyond those risks experienced in everyday life.

Benefits: My participation in this study will contribute to a better understanding of the CHWs program in Afghanistan, and it doesn't have any personal benefits for me.

Confidentiality and Anonymity: I have received assurance from the principle investigator that the information I will share will remain strictly confidential. I understand that the contents will be used only for the creation of a PhD thesis and that my confidentiality will be protected by the fact that only the researcher and his supervisors will have access to the data. Anonymity will be protected by the removal of any identifying characteristics from the data during the analysis and reporting stages.

Conservation of Data: The data collected, including tape recordings of interviews, electronic and print versions of transcripts, and electronic and print notes will be kept by the researcher in a secure manner. The electronic data will be stored on a password-protected USB drive and both the drive as well as the printed materials will be kept in the supervisor's office. Only the researcher and his supervisors will have access to the data and it will be conserved for 5 years. After the conservation period has expired, all the electronic records will be securely deleted. Paper documents will be shredded.

Voluntary Participation: I am under no obligation to participate and if I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, all data gathered until the time of withdrawal will be deleted and/or destroyed.

Acceptance: I, \_\_\_\_\_, agree to participate in the above research study conducted by Said Ahmad Maisam Najafizada, Ph.D. candidate in the Population Health Department at the University of Ottawa, who is under the supervision of Professor Ivy Lynn Bourgeault and co-supervision of Professor Ronald Labonte.

If I have any questions about the study, I may contact the researcher or his supervisors.

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 159, Ottawa, ON K1N 6N5, Canada

There are two copies of the consent form, one of which is mine to keep.

Participant's signature:

Date:

Researcher's signature:

Date:

Witness Signature:

Date:

## ورقه موافقت برای اشتراک در تحقیق

ارزیابی برنامه کارکنان صحتی جامعه برای بهبود خدمات صحتی برای مادران در افغانستان

محقق: سید احمد میثم نجفی زاده

نامزد دوکتورا در بخش صحت عامه در پوهنتون اوتاوا

ناظر محقق: پروفیسور آیوی لین بورژو

فاکولته علوم صحتی - پوهنتون اوتاوا

ناظر محقق: پروفیسور رونالد لبانتی

بخش اپیدمیولوژی و طبابت اجتماعی - فاکولته طب - پوهنتون اوتاوا

دعوت برای اشتراک در تحقیق: از من دعوت می شود که در تحقیق که در بالا ذکر شده است و توسط داکتر سید احمد میثم نجفی زاده صورت میگیرد اشتراک کنم.

هدف تحقیق: هدف این تحقیق ارزیابی روند و تاثیرات برنامه کارکنان صحتی جامعه در افغانستان می باشد.

نحوه اشتراک در تحقیق: اشتراک من در این تحقیق شامل مصاحبه رو در رو می باشد. در مصاحبه محقق از من سوال های در مورد برنامه کارکنان صحتی جامعه می پرسد.

خطرات اشتراک در تحقیق: اشتراک درین تحقیق هیچ خطری ندارد.

نفع اشتراک در تحقیق: اشتراک در این تحقیق هیچ نفع شخصی برای اینجانب ندارد ولی برای درک بهتر برنامه کارکنان صحتی جامعه در افغانستان مفید خواهد بود.

محرمیت و عدم افشای نام: محقق برایم اطمینان داده است که معلومات جمع آوری شده شدیداً محرم نگهداری می شود و تنها محقق و ناظرین محقق به این معلومات دسترسی خواهد داشت و این معلومات فقط به هدف تحقیق دوکتورا استفاده خواهد شد. در جریان تحلیل و تجزیه و گزارشدهی تحقیق هیچ اثری که منجر به شناسایی اینجانب شود وجود نخواهد داشت.

حفظ و نگهداری معلومات: معلومات جمع آوری شده - چه به شکل صوتی و یا نوشتاری چاپی و یا برقی- توسط محقق محفوظ نگهداشته می شود. معلومات الکترونیکی در حافظه های برقی رمزدار نگهداری می شود. معلومات چه به شکل برقی یا چاپی در دفتر محقق و ناظر محقق در پوهنتون اوتاوا حفظ می شود. تنها محقق و ناظرین

محقق به این معلومات دسترسی خواهد داشت و این معلومات برای ۵ سال نگهداری خواهد شد. بعد از ۵ سال معلومات برقی و چاپی از بین برده می شود.

اشتراک داوطلبانه: من به هیچ قیدی برای اشتراک در این تحقیق ندارم. در صورت اشتراک داوطلبانه هر زمانی می توانم از تحقیق منصرف شوم و یا به سوالاتی پاسخ ندهم. در صورت منصرف شدن از تحقیق تمام معلومات که از من جمع آوری شده حذف و یا از بین برده خواهد شد.

موافقت: اینجانب ..... موافقت می کنم که در تحقیق ذکر شده که توسط  
 داکتر سید احمد میثم نجفی زاده - نامزد دوکتورا در بخش صحت عامه در پوهنتون اوتاوا - تحت نظر پروفیسور  
 آوی بورژو و پروفیسور رونالد لیاننتی. اجرا شود اشتراک کنم .

اگر در مورد تحقیق کدام سوالی داشتم با محقق و یا استاد راهنما محقق به تماس خواهم شد.

اگر در مورد روش اجرایی تحقیق کدام سوالی داشتم - میتوانم با کارمند مربوط اداره روش های تحقیق در پوهنتون اوتاوا به آدرس سالن تبرت - خانه ۵۵۰ در سرک کیومبرلند - اطاق ۱۵۹ - اوتاوا و کد پستی K1N6N5 به تماس شوم. شماره تلفن: ۰۰۱۶۱۳۵۶۲۵۸۴۱ و ایمیل: ethics@uottawa.ca

دو کاپی این فرم موافقت وجود دارد و یکی از آنها برای من است.

امضای اشتراک کننده تاریخ

امضای محقق تاریخ

امضای شاهد تاریخ



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Consent Form for CHWs

An evaluation of Community Health Workers Program to improve  
maternal health in Afghanistan

Principle Investigator: Said Ahmad Maisam Najafizada  
PhD candidate in Population Health Program  
Faculty of Graduate and Postdoctoral Studies, University of Ottawa

Supervisor: Prof. Ivy Lynn Bourgeault, Ph.D.,  
Faculty of Health Sciences, University of Ottawa

Co-supervisor: Prof. Ronald Labonte, Ph.D., Department of  
Epidemiology and Community Medicine, Faculty of Medicine,  
University of Ottawa

Invitation to Participate: I am invited to participate in the above  
mentioned research study conducted by Said Ahmad Maisam  
Najafizada for this doctoral thesis.

Purpose of the Study: The purpose of the doctoral thesis is to  
evaluate the process and impact of Community Health Worker's  
Program in Afghanistan. The thesis will explore the models of CHW  
programs in Afghanistan, understand contextual factors that might  
affect the design and the implementation of the program, and assess  
its relationship with maternal health.

Participation: My participation will be consisted of an interview  
session conducted in-person, and observation of my routine  
activities as a CHW. The interview might last between 45 to 60  
minutes. In this interview, I will be asked questions by the  
researcher about the CHWs program. I will be asked to talk about my  
experience with and views regarding CHWs, CHW program, and  
maternal health. The researcher will also observe me while I am  
undertaking my activities as a CHW. The observation will include the  
setting I work, and my interaction with the clients, the villager health  
committee, my supervisor, and the health organization I work with.

The interview will be audio recorded.

I might be photographed for this study.

Risks: My participation might have physical discomfort, risk of psychological and emotional discomfort, social repercussions, economic inconvenience, or other inconvenience.

- I might need to travel a distance, which can cause physical discomfort and economic inconvenience. I am assured that my research-related travel expenses will be refunded.
- The duration of interview might cause some physical discomfort. I am assured that the interview will be conducted in a way that I am physically comfortable and that I will be allowed breaks in-between the interview to relax.
- Recalling unpleasant memories during interview might cause psychological and emotional discomfort. If so, I am assured that the interview will be stopped, and I will be given time to relax and decide if I wanted to proceed. If I didn't feel well, I will be referred to a health center.
- My critical comments might have social repercussions. I am assured that my comments are not shared with anyone in the organization, and they will be reported anonymously to mitigate the social repercussions.
- I am assured that I will be allowed time to perform my religious activities if the interview timing interferes with it, and that I will be provided lunch during lunchtime.

Other than the risks mentioned above, I understand that there is no risk involved in participating in this study, beyond those risks experienced in everyday life.

Benefits: My participation in this study will contribute to a better understanding of the CHWs program in Afghanistan, and it doesn't have any personal benefits for me.

Confidentiality and Anonymity: I have received assurance from the principle investigator that the information I will share will remain strictly confidential. I understand that the contents will be used only for the creation of a PhD thesis and that my confidentiality will be protected by the fact that only the researcher and his supervisors will have access to the data. Anonymity will be protected by the removal of any identifying characteristics from the data during the analysis and reporting stages.

Conservation of Data: The data collected, including tape recordings of interviews, electronic and print versions of transcripts, and electronic and print notes will be kept by the researcher in a secure manner. The electronic data will be stored on a password-protected USB drive and both the drive as well as the printed materials will be kept in the supervisor's office. Only the researcher and his supervisors will have access to the data and it will be conserved for 5 years. After the conservation period has expired, all the electronic records will be securely deleted. Paper documents will be shredded.

Voluntary Participation: I am under no obligation to participate and if I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, all data gathered until the time of withdrawal will be deleted and/or destroyed.

Acceptance: I, \_\_\_\_\_, agree to participate in the above research study conducted by Said Ahmad Maisam Najafizada, Ph.D. candidate in the Population Health Department at the University of Ottawa, who is under the supervision of Professor Ivy Lynn Bourgeault and co-supervision of Professor Ronald Labonte.

If I have any questions about the study, I may contact the researcher or his supervisors.

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 159, Ottawa, ON K1N 6N5, Canada

Tel.: (613) 562-5841

Email: [ethics@uottawa.ca](mailto:ethics@uottawa.ca)

There are two copies of the consent form, one of which is mine to keep.

Participant's signature:

Date:

Researcher's signature:

Date:

Witness Signature:

Date:

## Consent form for CHWs and community members in Dari



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## ورقه موافقت برای اشتراک در تحقیق

ارزیابی برنامه کارکنان صحتی جامعه برای بهبود خدمات صحتی برای  
مادران در افغانستان

محقق: سید احمد میثم نجفی زاده

نامزد دوکتورا در بخش صحت عامه در پوهنتون اوتاوا



ناظر محقق: پروفیسور آیوی لین بورژو

فاکولته علوم صحتی - پوهنتون اوتاوا



ناظر محقق: پروفیسور رونالد لیانته

بخش اپیدمیولوژی و طبابت اجتماعی - فاکولته طب - پوهنتون اوتاوا



دعوت برای اشتراک در تحقیق: از من دعوت می شود که در تحقیق که  
در بالا ذکر شده است و توسط داکتر سید احمد میثم نجفی زاده  
صورت میگیرد اشتراک کنم.

هدف تحقیق: هدف این تحقیق ارزیابی روند و تاثیرات برنامه کارکنان  
صحتی جامعه در افغانستان می باشد. این پایاننامه دوکتورا مودل های  
مقاوت برنامه کارکنان صحتی جامعه در افغانستان را ارزیابی کرده و  
عوامل اجتماعی، سازمانی و محیطی را که در طرح و تطبیق این  
برنامه اثر گذار هستند را بررسی میکند، و تاثیرات آنرا بر صحت  
مادران درمیابد.

نحوه اشتراک در تحقیق: اشتراک من در این تحقیق شامل مصاحبه  
رو در رو می باشد. این مصاحبه بین ۴۵ الی ۶۰ دقیقه داوم خواهد  
کرد. در مصاحبه محقق از من سوال های در مورد برنامه کارکنان  
صحتی جامعه می پرسد. سوالات در مورد تجربه کاری ام و نظریات  
من در مورد کارکنان صحتی جامعه و برنامه آنها و صحت مادران می  
باشد. محقق کار هایم را به حیث یک کارکن صحتی جامعه مشاهده  
می کند. این مشاهده (ارزیابی) شامل محیط کاری، تعاملات من با

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— برای این تحقیق تصویر من نیز برداشته می شود.

- خطرات اشتراک در تحقیق: اشتراک من در این تحقیق احتمالاً سبب ناراحتی فیزیکی، ناراحتی روانی و عاطفی، انعکاس های اجتماعی، زحمت اقتصادی را به همراه داشته باشد.
- این تحقیق شاید نیاز به سفر داشته باشد که سبب ناراحتی فیزیکی و اقتصادی من شود. به من اطمینان داده شده است که مصارف این سفر را من پرداخت خواهم کرد.
  - طول مصاحبه شاید سبب ناراحتی فیزیکی شود. به من اطمینان داده شده است که در صورت ناراحتی فیزیکی وقفه داده میشود.
  - یادآوری خاطرات ناخوشایند در جریان مصاحبه شاید سبب ناراحتی روانی و یا عاطفی شود، و به من اطمینان داده شده است که در آن صورت مصاحبه توقف داده می شود و به من وقت داده می شود تا راحت شوم و تصمیم بگیرم که میخوام به مصاحبه ادامه بدهم یا خیر. در صورت عدم احساس سلامتی، به مرکز صحت مراجعه داده می شوم.
  - نظریات من شاید انعکاس های اجتماعی را به همراه داشته باشد. به من اطمینان داده شده است که نظریاتم با هیچ کسی در سازمان صحت شریک نخواهد شد، و به صورت ناشناخته درج پایاننامه دوکتورا خواهد شد تا از انعکاس های اجتماعی جلوگیری شود.
  - به من اطمینان داده شده است که در هنگام فرض های مذهبی مصاحبه توقف داده می شود و در هنگام نان چاشت غذا برایم داده خواهد شد.
- 
- به جز از خطرات که در بالا ذکر شده اشتراک درین تحقیق هیچ خطری ندارد.

نفع اشتراک در تحقیق: اشتراک در این تحقیق هیچ نفع شخصی برای اینجانب ندارد ولی برای درک بهتر برنامه کارکنان صحت جامعه در افغانستان مفید خواهد بود.

محرمیت و عدم افشای نام: از تمام اشتراک کننده ها خواسته می شود که محرمیت اعضای گروه مصاحبه را احترام کنند و معلومات که در مصاحبه مطرح می شود با دیگران شریک نشود ولی بعضی اشتراک کننده ها شاید این محرمیت را زیر پا بگذارند. محقق برایم اطمینان داده است که معلومات جمع آوری شده شدیداً محرم نگهداری می شود و تنها محقق و ناظرین محقق به این معلومات دسترسی خواهد داشت و این معلومات فقط به هدف تحقیق دوکتورا استفاده خواهد شد. در جریان تحلیل و تجزیه و گزارشدهی تحقیق هیچ اثری که منجر به شناسایی اینجانب شود وجود نخواهد داشت.

حفظ و نگهداری معلومات: معلومات جمع آوری شده - چه به شکل صوتی و یا نوشتاری چاپی و یا برقی- توسط محقق محفوظ نگهداشته می شود. معلومات الکترونیکی در حافظه های برقی رمزدار نگهداری می شود. معلومات چه به شکل برقی یا چاپی در دفتر محقق و ناظر محقق در پوهنتون اوتوا حفظ می شود. تنها محقق و ناظرین محقق به این معلومات دسترسی خواهد داشت و این معلومات برای ۵ سال نگهداری خواهد شد. معلومات جمع آوری شده در ۳۰ آوریل ۲۰۲۰ از بین برده خواهد شد.

اشتراک داوطلبانه: من به هیچ قیدی برای اشتراک در این تحقیق ندارم. در صورت اشتراک داوطلبانه هر زمانی می توانم از تحقیق منصرف شوم و یا به سوالاتی پاسخ ندهم. در صورت منصرف شدن از تحقیق تمام معلومات که از من جمع آوری شده حذف و یا از بین برده خواهد شد.

موافقت: اینجانب ..... موافقت می کنم که در تحقیق ذکر شده که توسط  
 داکتر سید احمد میثم نجفی زاده - نامزد دوکتورا در بخش صحت عامه در پوهنتون اوتاوا - تحت نظر پروفیسور  
 آوی بورزو و پروفیسور رونالد لبانتی. اجرا شود اشتراک کنم .

اگر در مورد تحقیق کدام سوالی داشتیم با محقق و یا استاد راهنما محقق به تماس خواهم شد.

اگر در مورد روش اجرایی تحقیق کدام سوالی داشتم - میتوانم با کارمند مربوط اداره روش های تحقیق در پوهنتون  
 اوتاوا به آدرس سالن تیرت - خانه ۵۵۰ در سرک کیومیرلند - اطاق ۱۵۹ - اوتاوا و کد پستی K1N6N5 به تماس  
 شوم. شماره تلفن: ۰۰۱۶۱۳۵۶۲۵۸۴۱ و ایمیل: ethics@uottawa.ca

دو کاپی این فرم موافقت وجود دارد و یکی از آنها برای من است.

امضای اشتراک کننده تاریخ

امضای محقق تاریخ

امضای شاهد تاریخ

## Consent form for Focus Groups



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## Consent Form for focus group

An evaluation of Community Health Workers Program to improve maternal health in Afghanistan

Principle Investigator: Said Ahmad Maisam Najafizada  
PhD candidate in Population Health Program  
Faculty of Graduate and Postdoctoral Studies, University of Ottawa

Supervisor: Prof. Ivy Lynn Bourgeault, Ph.D.,  
Faculty of Health Sciences, University of Ottawa

Co-supervisor: Prof. Ronald Labonte, Ph.D., Department of Epidemiology and Community Medicine, Faculty of Medicine, University of Ottawa

Invitation to Participate: I am invited to participate in the above mentioned research study conducted by Said Ahmad Maisam Najafizada for his doctoral thesis.

Purpose of the Study: The purpose of the doctoral thesis is to evaluate the process and impact of Community Health Worker's Program in Afghanistan. This doctoral thesis will explore the models of CHW programs in Afghanistan, understand contextual factors that might affect the design and the implementation of the program, and assess its relationship with maternal health.

Participation: My participation in this doctoral thesis will consist of a focus group discussion of approximately 5 to 8 community members. The focus group interview might last between 60 to 120 minutes. In this interview, I will be asked questions by the researcher about the CHWs program. I will be asked to talk about my experience with and views regarding CHWs, CHW program, and maternal health.

- The interview will be audio recorded.  
 I might be photographed for this study.

Risks & Benefits: My participation in this study will contribute to a better understanding of the CHWs program in Afghanistan, and it doesn't have any personal benefits for me. I understand that it might have some physical, psychological or emotional discomfort, or economic or other inconveniences. I understand that there are no other risks involved in participating in this study, beyond those risks experienced in everyday life.

Confidentiality and Anonymity: I understand that everyone will be asked to respect the privacy of the other group members. I am assured that all

participants will be asked not to disclose anything said within the context of the discussion, but it is important to understand that other people in the group with me may not keep all information private and confidential. Other than that, I have received assurance from the principle investigator that the information I will share will remain strictly confidential. I understand that the contents will be used only for the creation of a PhD thesis and that the researcher and his supervisors will have access to the data. Anonymity will be protected by the removal of any identifying characteristics from the data during the analysis and reporting stages.

**Conservation of Data:** The data collected, including tape recordings of focus group interview, electronic and print versions of transcripts, and electronic and print notes will be kept by the researcher in a secure manner. The electronic data will be stored on a password-protected USB drive and both the drive as well as the printed materials will be kept in the supervisor's office. Only the researcher and his supervisors will have access to the data and it will be conserved for 5 years after the end of the research. After the conservation period has expired, all the electronic records will be securely deleted. Paper documents will be shredded.

**Voluntary Participation:** I am under no obligation to participate and if I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, all data gathered until the time of withdrawal will be deleted and/or destroyed.

**Acceptance:** I, \_\_\_\_\_, agree to participate in the above research study conducted by Said Ahmad Maisam Najafizada, Ph.D. candidate in the Population Health Department at the University of Ottawa, who is under the supervision of Professor Ivy Lynn Bourgeault and co-supervision of Professor Ronald Labonte.

If I have any questions about the study, I may contact the researcher or his supervisors.

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 159, Ottawa, ON K1N 6N5, Canada  
Tel.: (613) 562-5841

Email: [ethics@uottawa.ca](mailto:ethics@uottawa.ca)

There are two copies of the consent form, one of which is mine to keep.

Participant's signature:

Date:

Researcher's signature:

Date:

Witness Signature:

Date:



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University of Ottawa

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Health Sciences

## ورقه موافقت برای اشتراک در تحقیق

ارزیابی برنامه کارکنان صحتی جامعه برای بهبود خدمات صحتی برای  
مادران در افغانستان

محقق: سید احمد میثم نجفی زاده

نامزد دوکتورا در بخش صحت عامه در پوهنتون اوتاوا



ناظر محقق: پروفسور آیوی لین بورژو

فاکولته علوم صحتی - پوهنتون اوتاوا



ناظر محقق: پروفسور رونالد لیانتي

بخش اپیدمیولوژی و طبابت اجتماعی - فاکولته طب - پوهنتون اوتاوا



دعوت برای اشتراک در تحقیق: از من دعوت می شود که در تحقیق که  
در بالا ذکر شده است و توسط داکتر سید احمد میثم نجفی زاده  
صورت میگیرد اشتراک کنم.

هدف تحقیق: هدف این تحقیق ارزیابی روند و تاثیرات برنامه کارکنان  
صحتی جامعه در افغانستان می باشد. این پایاننامه دوکتورا مودل های  
متفاوت برنامه کارکنان صحتی جامعه در افغانستان را ارزیابی کرده و  
عوامل اجتماعی، سازمانی و محیطی را که در طرح و تطبیق این  
برنامه اثر گذار هستند را بررسی میکند، و تاثیرات آنرا بر صحت  
مادران درمیآید.

نحوه اشتراک در تحقیق: اشتراک من در این تحقیق شامل مصاحبه  
گروهی که حدوداً ۵ تا ۸ اشتراک کننده خواهد داشت. این مصاحبه  
بین ۶۰ تا ۱۲۰ دقیقه داوم خواهد کرد. در مصاحبه محقق از من سوال  
های در مورد برنامه کارکنان صحتی جامعه می پرسد. سوالات در مورد  
تجربه کاری ام و نظریات من در مورد کارکنان صحتی جامعه و برنامه  
آنها و صحت مادران می باشد.  
این مصاحبه ضبط صوتی می شود.

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— برای این تحقیق تصویر من نیز برداشته می شود.

- خطرات اشتراک در تحقیق: اشتراک من در این تحقیق احتمالاً سبب ناراحتی فیزیکی، ناراحتی روانی و عاطفی، انعکاس های اجتماعی، زحمت اقتصادی را به همراه داشته باشد.
- این تحقیق شاید نیاز به سفر داشته باشد که سبب ناراحتی فیزیکی و اقتصادی من شود. به من اطمینان داده شده است که مصارف این سفر را من پرداخت خواهم شد.
  - طول مصاحبه شاید سبب ناراحتی فیزیکی شود. به من اطمینان داده شده است که در صورت ناراحتی فیزیکی وقفه داده میشود.
  - یادآوری خاطرات ناخوشایند در جریان مصاحبه شاید سبب ناراحتی روانی و یا عاطفی شود، و به من اطمینان داده شده است که در آن صورت مصاحبه توقف داده می شود و به من وقت داده می شود تا راحت شوم و تصمیم بگیرم که میخوام به مصاحبه ادامه بدهم یا خیر. در صورت عدم احساس سلامتی، به مرکز صحت مراجعه داده می شوم.
  - نظریات من شاید انعکاس های اجتماعی را به همراه داشته باشد. به من اطمینان داده شده است که نظریاتم با هیچ کسی در سازمان صحتی شریک نخواهد شد، و به صورت ناشناخته درج پایاننامه دوکتورا خواهد شد تا از انعکاس های اجتماعی جلوگیری شود.
  - به من اطمینان داده شده است که در هنگام فرض های مذهبی مصاحبه توقف داده می شود و در هنگام نان چاشت غذا برایم داده خواهد شد.
- 
- به جز از خطرات که در بالا ذکر شده اشتراک درین تحقیق هیچ خطری ندارد.

نفع اشتراک در تحقیق: اشتراک در این تحقیق هیچ نفع شخصی برای اینجانب ندارد ولی برای درک بهتر برنامه کارکنان صحتی جامعه در افغانستان مفید خواهد بود.

محرمیت و عدم افشای نام: از تمام اشتراک کننده ها خواسته می شود که محرمت اعضای گروه مصاحبه را احترام کنند و معلومات که در مصاحبه مطرح می شود با دیگران شریک نشود ولی بعضی اشتراک کننده ها شاید این محرمت را زیر پا بگذارند. محقق برایم اطمینان داده است که معلومات جمع آوری شده شدیداً محرم نگهداری می شود و تنها محقق و ناظرین محقق به این معلومات دسترسی خواهد داشت و این معلومات فقط به هدف تحقیق دوکتورا استفاده خواهد شد. در جریان تحلیل و تجزیه و گزارشدهی تحقیق هیچ اثری که منجر به شناسایی اینجانب شود وجود نخواهد داشت.

حفظ و نگهداری معلومات: معلومات جمع آوری شده - چه به شکل صوتی و یا نوشتاری چاپی و یا برقی- توسط محقق محفوظ نگهداشته می شود. معلومات الکترونیکی در حافظه های برقی رمزدار نگهداری می شود. معلومات چه به شکل برقی یا چاپی در دفتر محقق و ناظر محقق در پوهنتون اوتوا حفظ می شود. تنها محقق و ناظرین محقق به این معلومات دسترسی خواهد داشت و این معلومات برای ۵ سال نگهداری خواهد شد. معلومات جمع آوری شده در ۳۰ آوریل ۲۰۲۰ از بین برده خواهد شد.

اشتراک داوطلبانه: من به هیچ قیدی برای اشتراک در این تحقیق ندارم. در صورت اشتراک داوطلبانه هر زمانی می توانم از تحقیق منصرف شوم و یا به سوالاتی پاسخ ندهم. در صورت منصرف شدن از تحقیق تمام معلومات که از من جمع آوری شده حذف و یا از بین برده خواهد شد.

موافقت: اینجانب ..... موافقت می کنم که در تحقیق ذکر شده که توسط  
 داکتر سید احمد میثم نجفی زاده - نامزد دوکتورا در بخش صحت عامه در پوهنتون اوتاوا - تحت نظر پروفیسور  
 آوی بورزو و پروفیسور رونالد لبانتی. اجرا شود اشتراک کنم .

اگر در مورد تحقیق کدام سوالی داشتیم با محقق و یا استاد راهنما محقق به تماس خواهم شد.

اگر در مورد روش اجرایی تحقیق کدام سوالی داشتم - میتوانم با کارمند مربوط اداره روش های تحقیق در پوهنتون  
 اوتاوا به آدرس سالن تبرت - خانه ۵۵۰ در سرک کیومبرلند - اطاق ۱۵۹ - اوتاوا و کد پستی K1N6N5 به تماس  
 شوم. شماره تلفن: ۰۰۱۶۱۳۵۶۲۵۸۴۱ و ایمیل: ethics@uottawa.ca

دو کاپی این فرم موافقت وجود دارد و یکی از آنها برای من است.

امضای اشتراک کننده	تاریخ
امضای محقق	تاریخ
امضای شاهد	تاریخ

## Verbal consent form



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## Verbal Consent Form

An evaluation of Community Health Workers Program to improve  
maternal health in Afghanistan

**The content**

*My name is Said Ahmad Maisam Najafizada, and I am a student  
researcher at the University of Ottawa, in Canada.*

*I am doing my PhD research, and the objective of my PhD thesis is to  
understand the Community Health Worker's Program and how it  
impacts maternal health in Afghanistan.*

*I am inviting you to participate in my research. It means I will  
interview you regarding your experience and opinions regarding  
community health workers program and maternal health in your  
community.*

*When you share your experiences and opinions, you might feel  
psychological discomfort or social repercussions. I will give you time to  
relax if you had psychological discomfort, and will try to report the  
analysis anonymously to mitigate social repercussions. If you have  
travelled a distance, I will pay for it. There is no other major risk in  
participating in this study.*

*Your participation in this study will contribute to a better  
understanding of the CHWs program in Afghanistan, and it doesn't  
have any personal benefits for you.*

*I assure you that the information you will give me will remain strictly  
confidential. Only I and my supervisor, and co-supervisor will have  
access to it. Your name will not be mentioned in the analysis and you  
will remain anonymous. It will only be used for my PhD thesis.*

*The information that you will give me will be kept in a secure  
password-protected file in my computer. Only my supervisor, my co-  
supervisor and I will have access to it. The information will be deleted  
on 30 April 2020.*

*Your participation is voluntary and you are not under any obligation to  
participate if you don't want to. You can withdraw from the study at*

*any time, or refuse to answer any questions. If you wanted to withdraw, all the data gathered from you will be deleted or destroyed.*

*If you have further questions regarding the study my contact information with those of my supervisor and co-supervisor are in this form. If you have any questions regarding ethical conduct of the study, the contact information of the ethics board of the University of Ottawa is also provided below.*

*Now, do you agree to participate in this research on your will and without any obligation? If you agree please tell me your name and say that you agree, and please tell me today's date, and the place that you are now*

*Witness: Can you please tell me your name and tell me that you witnessed the process of taking consent, and please tell me the date, and the place that you are now.*

I will submit this form to the participant.

Principle Investigator: Said Ahmad Maisam Najafizada  
PhD candidate in Population Health Program  
Faculty of Graduate and Postdoctoral Studies, University of Ottawa

Supervisor: Prof. Ivy Lynn Bourgeault, Ph.D.,  
Faculty of Health Sciences, University of Ottawa

Co-supervisor: Prof. Ronald Labonte, Ph.D., Department of Epidemiology and Community Medicine,  
Faculty of Medicine, University of Ottawa

Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street,  
Room 159, Ottawa, ON K1N 6N5, Canada  
Tel.: +1 (613) 562-5841  
Email: ethics@uottawa.ca

## Verbal consent form in Dari



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University of Ottawa

Faculty of Health Sciences  
Interdisciplinary School of  
Health Sciences

## ورقه موافقت برای اشتراک در تحقیق

ارزیابی برنامه کارکنان صحتی جامعه برای بهبود خدمات صحتی  
برای مادران در افغانستان

نام من سید احمد میثم نجفی زاده است، من محصل دوره دوکتورا در  
دانشگاه (پوهنتون) اوتاوا در کانادا هستم

من در اینجا بخاطر انجام تحقیق دوره دوکتورا آمده ام و هدف از  
تحقیق دوکتورا من ارزیابی برنامه کارکنان صحتی جامعه و تاثیرات آن  
بر صحت مادران در افغانستان می باشد

از شما دعوت می کنم که در این تحقیق اشتراک نمایید. در این تحقیق  
با شما مصاحبه می کنم و در مورد تجربه و نظریات شما در مورد  
کارکنان صحتی جامعه و صحت مادران از شما سوال خواهم پرسید

وقتی نظریات و تجارب خود را شریک میکنید، شاید احساس ناراحتی  
روانی و فزیکمی نمایید، و نیز مصاحبه شما شاید انعکاس های  
اجتماعی داشته باشد. در آن صورت، برای شما وقت داده می شود تا  
راحت شوید. محتوی مصاحبه به صورت ناشناخته نوشته خواهد شد  
تا از انعکاس های اجتماعی جلوگیری شود. در صورت سفر بخاطر  
مصاحبه، مصارف سفر بازپرداخت می شود. در غیر آن، اشتراک  
درین تحقیق خطرات دیگری ندارد

— این مصاحبه ضبط صوتی می شود  
— برای این تحقیق تصویر من نیز برداشته می شود

خطرات اشتراک در تحقیق: اشتراک من در این تحقیق احتمالا سبب  
ناراحتی فزیکمی، ناراحتی روانی و عاطفی، انعکاس های اجتماعی،  
زحمت اقتصادی را به همراه داشته باشد  
این تحقیق شاید نیاز به سفر داشته باشد که سبب ناراحتی فزیکمی و -  
اقتصادی من شود. به من اطمینان داده شده است که مصارف این  
سفر رایم پرداخت خواهد شد

- طول مصاحبه شاید سبب ناراحتی فزیکمی شود. به من اطمینان -  
داده شده است که در صورت ناراحتی فزیکمی وقفه داده میشود
- یادآوری خاطرات ناخوشایند در جریان مصاحبه شاید سبب -  
ناراحتی روانی و یا عاطفی شود، و به من اطمینان داده شده است

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- ناراحتی روانی و یا عاطفی شود، و به من اطمینان داده شده است که در آن صورت مصاحبه توقف داده می شود و به من وقت داده می شود تا راحت شوم و تصمیم بگیرم که میخوام به مصاحبه ادامه بدهم یا خیر. در صورت عدم احساس سلامتی، به مرکز صحتی مراجعه داده می شوم.
- نظریات من شاید انعکاس های اجتماعی را به همراه داشته باشد. به من اطمینان داده شده است که نظریاتم با هیچ کسی در سازمان صحتی شریک نخواهد شد، و به صورت ناشناخته درج پایاننامه دوکتورا خواهد شد تا از انعکاس های اجتماعی جلوگیری شود.
  - به من اطمینان داده شده است که در هنگام فرض های مذهبی مصاحبه توقف داده می شود و در هنگام نان چاشت غذا برآیم داده خواهد شد.
  -
- به جز از خطرات که در بالا ذکر شده اشتراک درین تحقیق هیچ خطری ندارد.

اشتراک در این تحقیق هیچ نفع شخصی برای شما ندارد ولی برای درک بهتر برنامه کارکنان صحتی جامعه در افغانستان مفید خواهد بود.

من برایتان اطمینان میدهم که معلومات جمع آوری شده شدیداً محرم نگهداری می شود و تنها من و ناظرین من به این معلومات دسترسی خواهد داشت و این معلومات فقط به هدف تحقیق دوکتورا استفاده خواهد شد. در جریان تحلیل و تجزیه و گزارشدهی تحقیق هیچ اثری که منجر به شناسایی شما شود وجود نخواهد داشت.

معلومات جمع آوری شده - چه به شکل صوتی و یا نوشتاری چاپی و یا برقی - توسط من محفوظ نگهداشته می شود. معلومات الکترونیکی در حافظه های برقی رمزدار نگهداری می شود. معلومات چه به شکل برقی یا چاپی در دفتر محقق و ناظر محقق در پوهنتون اوتاوا حفظ می شود. تنها محقق و ناظرین محقق به این معلومات دسترسی خواهد داشت و این معلومات برای ۵ سال نگهداری خواهد شد. این معلومات در ۲۰ آوریل سال ۲۰۲۰ از بین برده خواهد شد.


شما به هیچ قیدی برای اشتراک در این تحقیق ندارید و در صورت اشتراک داوطلبانه هر زمانی می توانید از تحقیق منصرف شوید و یا به سوالاتی پاسخ ندهید. در صورت منصرف شدن از تحقیق تمام معلومات که از شما جمع آوری شده حذف و یا از بین برده خواهد شد.

حال، آیا موافق هستید که با رضایت و بدون کدام قید و شرط در این تحقیق اشتراک کنید؟ در صورت موافقت لطفاً اسم خود را بگویید، و بگویید که موافق هستید که در این تحقیق اشتراک کنید و زمان و مکان موافقت را نیز بگویید.


شاهد: لطفاً اسم خود را بگویید و بگویید که شاید این پروسه موافقت بودید و زمان و مکان موافقت را نیز یاد آوری کنید.

اگر در مورد تحقیق کدام سوالی داشتید با محقق و یا استاد راهنما محقق به تماس شده می توانید.


محقق: سید احمد میثم نجفی زاده  
نامزد دوکتورا در بخش صحت عامه در پوهنتون اوتاوا



ناظر محقق: پروفیسور آیوی لین بورژو  
فاکولتہ علوم صحی - پوهنتون اوتاوا



ناظر محقق: پروفیسور رونالد لبانتی  
بخش اپیدیمیولوژی و طبابت اجتماعی - فاکولتہ طب - پوهنتون اوتاوا



اگر در مورد روش اجرایی تحقیق کدام سوالی داشتید - میتوانید با کارمند مربوط اداره روش های تحقیق در پوهنتون اوتاوا به آدرس سالن تربت - خانه ۵۵۰ در سرک کیومبرلند - اطاق ۱۵۹ - اوتاوا و کد پستی K1N6N5 به تماس شوید. شماره تلفن: ۰۰۱۶۱۳۵۶۲۵۸۴۱ و ایمیل: [ethics@uottawa.ca](mailto:ethics@uottawa.ca)

**Interview Guides**

Interview Guide in English

**An evaluation of Community Health Workers Program in Afghanistan to improve maternal health****Interview guide**

*The purpose of this interview is to explore the CHW program in Afghanistan, identify contextual factors affecting the design, development and implementation of the program, and highlight it's (potential) impact on maternal health.*

**(Policymakers at the national level)**

Organization: Government Policymaker

Position held by informant in the organization:

Date of interview:

Contact:

1. To begin with, what interested you about this research project?
2. Have you been involved in the CHWs program?
  - a. If yes, how? what experience do you have with CHWs?

**Structure**

3. What's the organizational structure of CHWs at the national level?
  - a. What does CHWs Department at the Ministry of Public Health do?
  - b. Do you keep any registry of CHWs at the national level?
    - i. Age, gender, education?
    - ii. Attrition rate?
4. There is a job description for CHWs in the BPHS policy, is it really a job? If yes, how?
  - a. Is it registered/recognized with the Ministry of Labour and Social Affairs?
  - b. Is there any accreditation or recognition mechanism at the national level?
  - c. Do they advance in their work? If yes, how and what do they become?
    - i. Undertake more advanced tasks,
    - ii. Increase in their compensation,

**Implementation (Monitoring and Evaluation)**

5. How is the CHWs' program being implemented?
  - a. How do you contract it out to an implementing partner?
  - b. Any procedure?
  - c. Any criteria for selection of the implementing partner?
6. Do you monitor and evaluate the implementation of the CHWs program?
  - a. If yes, how? Any protocol for that?

**Financing mechanism**

7. Is the government financing the CHWs program?

- a. If yes, how?
8. If the government cannot finance the CHWs program, who does it?
  - a. Is there any protocol or guide for that?
  - b. Do they directly fund the program or through the government?
    - i. If directly, what's the role of the government in that process?
    - ii. If through the government, how?
  - c. For how long have the organizations been funding the program?
  - d. Have the criteria for funding changed over time?
  - e. The government will eventually take responsibility for financing the program, is there any procedure for reducing the international funding and making sure the government take over the financing of the program?
9. As mentioned in the national Basic Package of Health Services (BPHS) policy, CHWs and Community-Based Health Care are the corner stone of the primary health care services, what is the reason for that?
  - a. Community participation?
  - b. Lack of health human resources?
  - c. Type of services they provide?
  - d. Is there a focus on maternal health? If yes, how?
10. How do you ensure sustainability of CHWs program?
  - a. What happens if the international funding of the program decreases dramatically or stops?
  - b. What if an implementing organization fails to meet the criteria for winning the contract for another term?
    - i. What happens to CHWs as health human resources?
    - ii. What happens to the implementing partners?
11. Do you have anything else to say about the CHW program?

Thanks

**International Organization donors**

Organization:

Position held by informant in the organization:

Date of interview:

Contact:

1. For a starter, what interested you in this research project?
2. Have you been involved in the CHW program?
  - a. If yes, how? what experience do you have with the CHW program?

Financing the CHWs program?

3. Does your organization fund or finance the CHW program? If yes,
  - a. On what grounds? Is there any protocol for that?
  - b. Does the funding go through the national government or directly to implementing partners?
4. If it goes directly, will the government be informed or involved in the process?
  - a. If yes, how?

Monitoring and evaluation

5. Do you monitor and evaluate the implementation of the program?
  - a. If yes, how? Any protocol? And how often?
  - b. If no, who does it? Do you get monitoring and evaluation report?
6. For how long have your organization been funding the program?
  - a. Have the criteria for funding changed over time?

Sustainability

7. Is there any mechanism to ensure sustainability of the CHWs program?
  - a. For how long will you fund the CHWs program?
    - i. Any mechanism for that?
    - ii. Any reason for that?
  - b. The government shall eventually take responsibility of financing the program, is there any procedure to make sure it happens?
8. Anything else you want to add to the CHW program?

Thanks

**(Managers/Trainers/Supervisors in the implementing organizations)****Managers**

Organization:

Position held by informant in the organization:

Date of interview:

Contact:

1. For a starter, what interested you in this research project?
2. Have you been involved in the CHWs program?
  - a. If yes, what experience do you have with the CHWs program?
  - b. How long has your CHW program been operating?
  - c. How many CHWS are working in it? Where are they working?
3. Tell me a little about the CHWs, who they are and what they do?

**Recruitment**

4. Tell me about the recruitment of CHWs in your program?
  - a. Who nominates CHWs for recruitment? Community?
  - b. Are there any criteria for nomination? Age, gender, education level?
  - c. Gender Dynamics (GD): Are nomination process and criteria similar for men and women or different? If different how? And why is it different?

**Training**

5. Tell me about the training of CHWs in your program?
  - a. The content, the duration, the location?
  - b. In-service (refresher) training? How often?
  - c. Is there a training manual, if yes, who has developed the training manual?
  - d. Who are the trainer? And what is the training style (classroom oriented/fieldwork oriented)
  - e. Evaluation of training?
  - f. GD: Is the training process similar or different for men and women? If different, how? And why is it different?

**Tasks and responsibilities**

6. Tell me about the specifics tasks of CHWs in your program?
  - a. Tasks related to maternal health?
  - b. GD: tasks of men CHWs and women CHWs? Are the tasks always similar for or differentiated by gender? If different how? And why is the difference?

**Supervision**

7. Do you supervise CHWs in your program? If yes, how?
  - a. Any supervision guide or protocol or formal process?
  - b. Communication with supervisors (frequency, and how)
  - c. GD: different for men and women CHWs, gender differences in their supervisors? If yes, how? And why?

**Support**

8. Are CHWs given any material goods or facilities by your organization, the health system, or the community? If yes, what and how?
  - a. System Support:

- i. Transport facilities? For themselves or patients?
  - ii. Supplements (bed nets, condoms, nutrients) or medicine?
  - iii. How do CHWs engage with other sectors other than health? Any formal protocol to be identified by other sectors? What do other sectors give CHWs? And how would you say they are received by these other sectors?
  - iv. GD: Any difference of similarities in supporting men or women CHWs? If yes, how? And why?
- b. Community support:
- i. Any material goods or facilities from the community?

### **Remuneration**

9. Tell me about the remuneration of CHWs in your program?
- a. Do you they get remunerated?
  - b. If yes, how? In cash or in Kind or any other form?
  - c. Is your remuneration same or different from other implementing organizations?

### **Community Health Workers as a profession**

10. Is Community Health Work a job – a part-time or a full time?
- a. Accreditation or recognition? If yes, what?
  - b. Promotion? If yes, how?
  - c. Do you keep track of retention rate? The longest a CHW has worked/the shortest?
  - d. What makes them stay longer as CHWs?
  - e. What causes them to leave their role as CHWs?
  - f. What motivates individuals to work as CHWs?
  - g. Is there any community factor? If yes, what?
  - h. Is there any retention factor or mechanism in your organization or in the system that keeps them as CHWs?

### **Community Health Worker's Program**

11. How do you get the contract of the health services? From the international organization or the government ministry?
- a. What is the process of winning the contract? Are there any conditions for that? If yes, what?
  - b. How long is the contract for? How are they extended? If they are extended?
  - c. Do you report on your activities to the donors or the government? If yes, how often? And if there is any protocol or guide?
  - d. What happens after the contract ends? What happens to CHWs if another organization wins the contract next time?
12. Does the government monitor and evaluate the CHWs program?
- a. If yes, how? And how often?
13. Do you evaluate the CHWs program in your organization?
- a. If yes, how? What type of evaluation materials do you have?
14. What are the barriers to the CHWs program? And what are the facilitators?
15. What are the strengths of the CHWs program? And what are the weaknesses?
16. What do you think are the ways to improve the program?
17. Anything else you want to add regarding the CHWs?

Thanks

**Trainers**

Organization:

Date of interview:

Contact:

1. To begin with, how did you become interested to participate in this project?
2. Tell me about yourself, how did you become a CHW trainer?
  - a. Education
  - b. Experience
3. Tell me about the training of CHWs in your program?
  - a. The content
    - i. Is it according to the needs of the community?
  - b. The duration
    - i. Is the duration long enough for the CHWs to gain the knowledge and skills required of them?
  - c. The location
    - i. Is the location convenient enough for the CHWs
4. How do you training CHWs who cannot read and write?
  - a. Any method of training?
5. Do you have problem training CHWs who are not the same gender as yours?
  - a. Is the training manual similar for both male and female CHWs?
  - b. Isn't there any socio-cultural problem training male/female CHWs?
6. Is there a training manual?
  - a. If yes, who has developed the training manual?
  - b. What does the training guide include?
    - i. Content of training, duration of training, method of training
  - c. Is the training manual appropriate for the community and the CHWs you train?
7. How do you know the CHWs you train actually learn the knowledge and the skills?
  - a. Exam or any evaluation?
    - i. If yes, how?
  - b. Supervision on the field
8. Do you also give training to CHWs who are already working? In-service training?
  - a. The content of those training?
  - b. How often?
  - c. What's the difference of newly recruited CHWs from those who have experience from the field? What kind of questions they ask? What kind of issues they raise?
9. Anything you want to say about the CHW program and the CHWs.

Thanks

**CHW Supervisor****Supervisors:**

Organization:

Date of interview:

Contact:

1. To begin with, how did you become interested to participate in this project?
2. Tell me about yourself, how did you become a CHW supervisor?
  - a. Education
  - b. Experience
3. Tell me about the supervision process of CHWs, what do you supervise them for?
  - a. Their activities? Their knowledge? Their skills?
  - b. Any outcomes you expect from them?
4. What supervising materials do you have?
  - a. Is there any supervising guide or protocol?
5. How often do you supervise them? Any particular reason for that?
6. How is your communication with the CHWs?
  - a. How do CHWs reach you in case they need you?
7. Do you provide any supervision report to your organization?
  - a. If yes, any guide for that?
8. Do you supervise both male and female CHWs?
  - a. If yes, any difference in supervision for male or female CHWs?
  - b. Any barriers or facilitators while you are supervising
9. Wrap up: Do you want add anything else aside from you have said, or do you want to emphasize any particular thing?

Thanks

**(Community Health Workers)**

Organization working with:

Date of interview:

Contact:

1. To begin with, what interested you to participate in this research project?
2. Tell me about yourself, your family, and your education?
  - a. Age? Education?
  - b. Marital status (if married, Is your husband or wife also a CHW?)?
3. How did you become a community health worker?
  - a. Why did you become a CHW, any particular motivation?
  - b. Any background in community service?
  - c. Did you make your house a health post? If yes, why did you do that?
  - d. IF (If Female): Didn't your family or community have any problem with you becoming a CHW?
  - e. What do you think your role is as a CHW?

**Recruitment**

4. Tell me how were you recruited as a CHW?
  - a. Community nomination? Referral? Applied for it? Or anything else?
  - b. Were there any process such as exam or interview?
  - c. What do you think about the recruitment process?
  - d. IF: Any particular challenge during the recruitment process because you are a woman?

**Training**

5. Did you receive any training when recruited as a CHW?
  - a. If yes, please describe the content, the duration, and the location of training
  - b. Is the content of the training according to the needs of the community?
    - i. If no, what do you suggest to improve the training?
  - c. IF: Any particular challenges during the training?
6. How about refresher (in-service) training, or training while you are doing your work?
  - a. The process (The content, the duration, the location)?
  - b. Did you find it useful?

**Tasks and responsibilities**

7. Do you start taking on your task and activities right after your training? Tell me about your tasks and activities as a CHW?
  - a. Anatenatal, natal, postnatal services: Any services for pregnant women or for women in labour or after delivery?
  - b. Referring pregnant women to health institutions for delivery?
  - c. Health education (danger signs of pregnancy, importance of breastfeeding)
  - d. Family planning (More maternal health related activities will be probed)
  - e. Are the tasks to address maternal health issues meeting the needs of the community?
  - f. GD: What are your challenges while doing your job as a male/female CHW?
8. Do you work out of a Health Post?
  - a. If yes, how many CHWs are there in your Health Post? Are they all male, female or both?

- b. How many villages/households/people are covered by you or your health Post?
- c. How far are the villages/households?
- d. Do people come to you or your Health Post (if not health post, anywhere else such as a mosque or a community center)? If yes, how many daily?
- e. What do you have in your Health Post?
  - i. Medicine, nutrient supplements, bed nets, communication facility to call for help,
- f. How far is the health Post from the nearest clinic?

### **Supervision**

- 9. Do you have any supervisor, or is there any supervision process for you? If yes.
  - a. Who supervises you? How often?
  - b. What are you supervised for (your knowledge, your work, are you expected to report anything to your supervisor, does your supervisor give you training, advise or material goods?
  - c. Is the supervisor supportive? And what do you think about the supervision?

### **Support**

- 10. Do you get any facilities or materials from the health organization?
  - a. Transportation facilities? Supplementary materials i.e. medicine, bed nets, nutrients, family planning material, etc.
  - b. What do you expect to receive in order to meet the needs of the community?
- 11. Does the government, not the organization that you work with, contribute to your work as a CHW in any way?
  - a. Recruit you in national health campaigns?
  - b. Recruit you in other social service projects that affect health of the community?
  - c. Give you any other privilege as a CHW?
- 12. Does the community help you in your job in any way? If yes, how?
  - a. Do they recognize you as a CHW? Do they listen to your advice? Do they respect you as a CHW?
  - b. Do they help you help patients, provide a source of clean water, provide transportation for pregnant women? Do you remember any story in which the community has joined hands with you to improve the health of the community?
- 13. Does the community or anyone in the community cause trouble for you or doesn't help you as a CHW? If yes, who and how?

### **CHW as a program**

- 14. Are you expected to achieve certain outcomes?
  - a. What are the facilitators or barriers for you to achieve those outcomes?
- 15. Is the workload of a CHW reasonable, is it more or less?
  - a. Can you describe a time when you feel really effective in your role as a CHW?
  - b. What activities or people you were working with makes your work effective?
  - c. Can you describe a time when you were not as effective as you liked? What were the reasons for that?
- 16. In terms of maternal health, do you think being a female helps your work effectively or being a male hinders you from being efficient in any way? If yes, what's the reason?
  - a. What do you think are the most important causes of poorer maternal health in your village?

17. What are the main barriers or work-related issues that prevents you to act or serve the people the way you like?
18. Is there anything else you want to add?

Thanks

### **Focus group with community representatives**

Name of the community:

Date of interview:

Contact:

*Let's talk about yourselves, your community and how come you were interested to participate in this project.*

1. To begin with, how come you wanted to participate in this project?
2. Tell me a little about your community?
  - a. How many households?
  - b. How do you make your living?
  - c. Is there any school around? How far?
  - d. How far is it from the nearest town with a clinic? Is there any proper road?

*Let's talk about CHWs in your community?*

3. Tell me a little about CHWs in your community?
  - a. Who they are? What do they do? And how do they become a CHW?
4. Do you have any experiences with CHWs?
  - a. If yes, can you please tell me your experiences?
  - b. Do they really address the health needs of the community, in particular maternal health needs?

*Let's talk about maternal health issues in the community?*

5. What are the maternal health issues in your community?
  - a. Why pregnant women get sick or die in your community?
  - b. Any story about pregnant women having health problems?
  - c. What do you think can be done to improve health of pregnant women?
6. Is the community health worker helping with the maternal health problems in your community?
  - a. If yes, how? Any particular story that you remember?
  - b. Educating about danger signs of pregnancy?
  - c. Giving nutrients or medicine when they get sick?
  - d. Helping with delivery?
  - e. Helping with transportation of pregnant women to clinics?
  - f. What else the CHWs can do to help improve the health of pregnant women?
7. GD: Which community health worker is more helpful in terms of maternal health? The man or the woman? And How?
  - a. In terms of health education, providing nutrients, helping with delivery
  - b. In terms of transportation,

8. What can you, as a community, do to help improve the health of would-be-mothers in your community?
9. Do you have any suggestion for CHWs that help them improve the health of mothers and would-be-mothers in your community?
10. Anything else you want to say about CHWs and maternal health in your community?

Thanks.

ارزیابی برنامه کارکنان صحتی جامعه در افغانستان برای بهبود خدمات صحتی برای مادران

راهنمای مصاحبه

هدف این مصاحبه ارزیابی برنامه کارکنان صحتی جامعه در افغانستان، دریافت شاخص های تاثیرگذار در طرح، توسعه و اجرای این برنامه، و برجسته کردن تاثیرات آن بالای صحت مادران می باشد.

پالیسی سازان در وزارت صحت عامه

ارگان: پالیسی سازان دولتی

پست:

تاریخ مصاحبه:

- ۱ - در آغاز، چرا شما علاقمند اشتراک در این تحقیق شدید؟
- ۲ - آیا شما در برنامه کارکنان صحتی جامعه دخیل بودید؟
- الف: اگر بله، چه تجربه از این برنامه دارید؟

ساختار برنامه کارکنان صحتی جامعه

- ۳ - ساختار اداری کارکنان صحتی جامعه در مرکز چگونه است؟

الف: دفتر ک-ص-ج در وزارت چه فعالیت دارد؟

ب: آیا دفتر ثبت ک-ص-ج در وزارت وجود دارد؟

- سن، جنس، تحصیلات

- نرخ ایفا ک-ص-ج

- ۴ - در پالیسی بی پی ایچ اس مشخصات کاری برای ک-ص-ج آمده است، آیا ک-ص-ج یک شغل است؟ اگر بله، چگونه؟

الف: آیا ک-ص-ج ثبت وزارت کار و امور اجتماعی است؟

ب: آیا کدام میکائیزم برای برسمیت شناختن ک-ص-ج وجود دارد؟

ج: آیا ک-ص-ج در کار شان ترقی می کنند؟ اگر بله، چگونه و به چه شغل دیگر ترقی می کنند؟

- کار های پیچیده را اجرا می کنند؟

- افزایش درآمد؟

اجرا برنامه ک-ص-ج

- ۵ - برنامه ک-ص-ج چگونه به اجرا در می آید؟

الف: چگونه به سازمانها قرارداد می شود؟

ب: کدام روند؟

ج: چه مشخصه های برای انتخاب شرکای اجرایی وجود دارد؟

- ۶ - آیا شما اجرای برنامه ک-ص-ج را ارزیابی و کنترل می کنید؟

الف: اگر بله، چگونه؟

میکائیزم مالی

- ۷ - آیا دولت برنامه ک-ص-ج را حمایت مالی می کند؟

الف: اگر بله، چگونه؟

- ۸ - اگر دولت برنامه ک-ص-ج را حمایت مالی نمی کند، کدام ارگان این کار را می کند؟

الف: آیا کدام پروتوکول برای اینکار وجود دارد؟

ب: آیا این سازمان ها این برنامه را مستقیم حمایت مالی می کند و یا از طریق دولت این کار را می کنند؟

- اگر مستقیم، نقش دولت در این میان چه است؟

- اگر از طریق دولت، چگونه؟

ج: برای چه مدت این ارگان ها این برنامه را حمایت مالی می کنند؟

د: آیا معیار های حمایت مالی تغییر کرده است؟

ه: دولت بلاخره باید مسولیت حمایت مالی این برنامه را باید به عهده بگیرد، آیا کدام روند برای آن وجود دارد تا حمایت مالی بین المللی به

حمایت ملی بدل شود؟

- ۹ - در پالیسی بی-پی-ایچ-اس آمده است که ک-ص-ج محراق خدمات صحتی اولیه را تشکیل میدهد؟ دلیل آن چی است؟  
 الف: سهم جامعه در این برنامه؟  
 ب: کمبود منابع بشری صحتی؟  
 ج: نحوه خدمات که آنها عرضه می کنند؟  
 د: آیا توجه اصلی آن خدمات صحتی برای مادران است؟ اگر بله، چگونه؟

۱۰ - تداوم پذیری برنامه ک-ص-ج را چگونه تامین می کنید؟

- الف: چه خواهد شد اگر حمایت مالی سازمان های بین المللی از این برنامه شدیداً کاهش یابد و یا توقف کند؟  
 ب: چه خواهد شد اگر سازمان های اجرایی معیار های برای برنده شده را برآورده نکنند؟  
 - به ک-ص-ج که مربوط آن سازمان های است چه اتفاق خواهد افتاد؟  
 - خود آن سازمان ها چه خواهد شد؟

۱۱ - چیزی دیگر در مورد برنامه ک-ص-ج برای گفتن دارید؟

### سازمان های بین المللی

سازمان:

پست مصاحبه کننده:

تاریخ مصاحبه:

- ۱ - در آغاز، چرا شما علاقمند اشتراک در این تحقیق شدید؟  
 ۲ - آیا شما در برنامه کارکنان صحتی جامعه دخیل بودید؟  
 الف: اگر بله، چه تجربه از این برنامه دارید؟

مالیه برنامه ک-ص-ج

- ۳ - آیا سازمان شما برنامه ک-ص-ج را حمایت مالی می کند؟ اگر بله؟  
 الف: تحت چه شرایطی؟ آیا کدام پروتکول برای آن وجود دارد؟  
 ب: آیا حمایت مالی مستقیم به ارکان های اجرایی داده می شود و یا از طریق دولت افغانستان؟  
 ۴ - اگر مستقیم داده می شود، آیا دولت افغانستان در جریان قرار می گیرد و یا در آن دخیل می شود؟  
 الف: اگر بله، چگونه؟

ارزیابی و کنترل

- ۵ - آیا شما اجرا برنامه ک-ص-ج را کنترل و ارزیابی می کنید؟  
 الف: اگر بله، چگونه، آیا کدام پروتکول وجود دارد؟ سال چند بار؟  
 ب: اگر نخیر، کی این کار را می کند، و آیا شما گزارش کنترل و ارزیابی آنها را دریافت می کنید؟

- ۶ - چند مدت می شود که شما این برنامه را حمایت مالی می کنید؟  
 الف: آیا معیار های کمک مالی تغییر کرده است؟

تداوم-پذیری

- ۷ - آیا کدام میکانیزم برای تامین دوامداری برنامه ک-ص-ج وجود دارد؟  
 الف: برای چند مدت این برنامه را کمک مالی خواهید کرد؟  
 - کدام پروتکول برای آن و یا کدام دلیل برای آن؟  
 ب: دولت بلاخره باید مسوولیت حمایت مالی این برنامه را باید به عهده بگیرد، آیا کدام روند برای آن وجود دارد تا حمایت مالی بین المللی به حمایت ملی بدل شود؟

۸ - چیزی دیگر در مورد برنامه ک-ص-ج برای گفتن دارید؟

تشکر

مدیر/ آموزگار/ ناظرین-ک-ص-ج در ارکان های اجرایی

مدیر

سازمان:

پست مصاحبه کننده:

تاریخ مصاحبه:

۱ - در آغاز، چرا شما علاقمند اشتراک در این تحقیق شدید؟

۲ - آیا شما در برنامه کارکنان صحتی جامعه دخیل بودید؟

الف: اگر بله، چه تجربه از این برنامه دارید؟

ب: چند مدت است که برنامه ک-ص-ج شما فعالیت می کند؟

د: چند ک-ص-ج در آن کار می کند و در کجا کار می کند؟

استخدام

۴ - در مورد استخدام کارکنان صحتی جامعه کمی معلومات بدهید؟

الف: کی آنها را نامزد ک-ص-ج می کند؟ جامعه؟

ب: آیا معیاری برای انتخاب ک-ص-ج وجود دارد؟ سن، جنس، سطح تحصیل

ج: کاوش جنسیتی: آیا روند انتخاب و معیار های برای مردان و زنان یکسان اند؟ اگر متفاوت هست، چگونه و چرا؟

آموزش

۵ - در مورد آموزش ک-ص-ج کمی معلومات بدهید؟

الف: محتوی، مدت و موقعیت؟

ب: آموزش در جریان کار؟ چند بار؟

ج: آیا راهنمای آموزش ک-ص-ج وجود دارد؟ کی این راهنما را ساخته است؟

د: آموزگاران کی ها هستند؟ چگونه آموزش میدهند؟

ه: آیا آموزش ک-ص-ج ارزیابی می شود؟ چگونه؟

و: کاوش جنسیتی: آیا روند آموزش برای زنان و مردان یکسان هست یا متفاوت؟ اگر متفاوت، چگونه و چرا؟

وظیفه و مسولیت

۶ - در مورد وظایف و مسولیت های ک-ص-ج کمی معلومات بدهید؟

الف: چه وظایف مربوط به صحت مادران دارد؟

ب: آیا وظایف ک-ص-ج برای مردان و زنان یکسان است یا متفاوت؟ اگر متفاوت است، چگونه و چرا؟

نظارت

۷ - آیا ک-ص-ج در برنامه شما نظارت می شوند؟ اگر بله، چگونه؟

الف: آیا کدام پروتوکول یا روند رسمی وجود دارد؟

ب: ارتباط با ناظرین چگونه است، مدت و محتوی آن؟

ج: آیا نظارت برای مردان و زنان یکسان هست یا متفاوت؟ اگر متفاوت هست، چگونه و چرا؟

حمایت

۸ - آیا کارکنان ص-ج از شما، نظام صحتی و یا جامعه کدام مواد و یا سهولت های دریافت می کنند؟ اگر بله، چه و چگونه؟

الف: حمایت از سوی نظام

- سهولت وسایط نقلیه، برای ک-ص-ج و یا مریضان

- مواد غذایی، جالی خواب، تابلت و یا مواد کنترل حاملگی، دوا

- چگونه ک-ص-ج با دیگر سکتور ها در تماس می شود، آیا کدام پروتوکول برای آن وجود دارد؟ آیا دیگر سکتور ها از ک-ص-ج

حمایت می کنند؟ اگر بله، چگونه؟

- کاوش جنسیتی: آیا تفاوت در حمایت از ک-ص-ج زن و یا مرد وجود دارد، اگر بله، چگونه و چرا؟

ب: حمایت جامعه

- مواد و یا سهولت های دیگر؟

پاداش

۹ - در مورد پاداش دهی به ک-ص-ج کمی معلومات بدهید؟

- الف: آیا به آنها پاداش داده می شود؟  
 ب: اگر بله، پاداش نقدی و یا غیر نقدی؟ و یا کدام شکل دیگر؟  
 د: آیا پاداش دهی برای زنان و مردان یکسان است؟  
 کار صحتی جامعه به حیث یک شغل  
 ۱۰ - آیا کار صحتی جامعه یک شغل است، نیمه وقت و یا شغل کامل؟  
 الف: به رسمیت شناخته می شود یا خیر؟ اگر بله، چگونه؟  
 ب: ارتقا وظیفوی دارد؟ اگر بله چگونه؟  
 د: آیا نرخ ایقا آن را ثبت می کنید؟ بیشترین مدت که یک کارکن وظیفه اجرا کرده؟ کوتاه ترین مدت؟  
 و: چه باعث ایقا آنها می شود و چه سبب می شود که کار را ترک کنند؟  
 ه: آیا کدام انگیزه شخصی برای کار بخیث ک-ص-ج وجود دارد؟ کدام انگیزه اجتماعی؟ اگر بله، چه انگیزه ها؟  
 ی: آیا کدام میکانیزم برای حفظ کارکن صحتی ج در ارکان شما وجود دارد؟ اگر هست، چه؟

#### برنامه ک-ص-ج

- ۱۱ - چگونه خدمات صحتی ک-ص-ج را قرارداد می کنید؟ با سازمان های بین المللی و یا دولت؟  
 الف: روند برنده شده در قرارداد ها چیست؟ چه شرایط برای برنده شده وجود دارد؟  
 ب: قرارداد ها برای چه مدت است؟ تمدید آنها چگونه می شود؟  
 ج: آیا به سازمان های بین المللی کمک دهنده گزارش می دهید و یا به وزارت صحت؟ آیا کدام پروتوکول برای آن وجود دارد؟  
 د: بعد از ختم قرارداد چه اتفاق می افتد؟ به سازمان و ک-ص-ج چه میشود اگر ارکان دیگر برنده قرارداد شود؟  
 ۱۲ - آیا دولت برنامه ک-ص-ج را کنترل و ارزیابی می کند؟  
 الف: اگر می کند، چگونه و هر چند وقت بعد؟  
 ۱۳ - آیا شما برنامه ک-ص-ج را در ارکان خود ارزیابی می کنید؟  
 الف: اگر بله، چگونه و چه مواد های برای ارزیابی دارید و چه گزارش های در دست دارد؟  
 ۱۴ - چه چیز ها مانع کار ک-ص-ج می شود و چه چیز ها به کار ک-ص-ج کمک می کند؟  
 ۱۵ - نقاط قوت و نقاط ضعف برنامه ک-ص-ج در چیست؟  
 ۱۶ - چه چیز های میتواند برنامه ک-ص-ج را تقویت بخشد؟  
 ۱۷ - چیزی دیگری اگر شما میخواهید علاوه کنید؟  
 تشکر

#### آموزگار

ارگان:

تاریخ مصاحبه:

طریقه تماس:

- ۱ - در آغاز، چرا شما علاقمند اشتراک در این تحقیق شدید؟  
 ۲ - در مورد خودتان بگویید، چگونه آموزگار ک-ص-ج شدید؟  
 الف: تحصیلات ب: تجربه کاری  
 ۳ - در مورد آموزش کارکنان صحتی جامعه بگویید؟  
 الف: محتوی آن، آیا محتوی آن نیاز جامعه را برآورده می کند؟  
 ب: مدت آن؟ آیا مدت آن برای یادگیر دانش و فن لازم برای ک-ص-ج کافیست؟  
 ج: موقعیت آن؟ آیا موقعیت آن برای ک-ص-ج مناسب است؟  
 ۴ - کسانی که خواندن و نوشتن را بلد نیستند چگونه آموزش می دهید؟  
 الف: کدام روش خاص؟  
 ۵ - آموزش کسانی که از جنس مخالف هستند کدام مشکلی ندارد؟  
 الف: آیا راهنمای آموزش برای مردان و زنان یکسان است؟  
 ب: آیا کدام مشکلات اجتماعی - فرهنگی برای این تحقیق وجود ندارد؟  
 ۶ - آیا کدام راهنمای آموزشی وجود دارد؟  
 الف: اگر بله، کی راهنما را ساخته است؟  
 ب: راهنما چه چیزهای را در بر دارد؟ محتوی، مدت، شیوه آموزش

- ج: آیا محتوی راهنما نیاز های جامعه و ک-ص-ج را برآورده می کند؟  
 ۷ - چگونه ک-ص-ج را آزمایش می کنید؟  
 الف: ارزیابی داخل صنفی و یا در ساحه؟  
 ۸ - آیا آموزش در جریان کار هم دارید؟  
 الف: محتوی، مدت  
 ب: نظارت در دوران آموزش چگونه است؟  
 ج: آیا تفاوت میان ک-ص-ج که تازه کار می کنند و کسانی که کار کشته اند وجود دارد؟  
 ۹ - آیا چیزی دیگری در مورد ک-ص-ج و برنامه ک-ص-ج برای گفتن دارید؟  
 تشکر

#### ناظر ک-ص-ج

ارگان:

تاریخ مصاحبه:

طریقه تماس:

- ۱ - در آغاز، چرا شما علاقمند اشتراک در این تحقیق شدید؟  
 ۲ - در مورد خودتان بگویید، چگونه آموزگار ک-ص-ج شدید؟  
 الف: تحصیلات  
 ب: تجربه کاری  
 ۳ - در مورد نظارت ک - ص - ج کمی معلومات دهید؟ از چه چیز ها آنها را نظارت می کنید؟  
 الف: از وظایف شان، از دانش شان و ، یا از مهارت های شان  
 ب: آیا کدام دستاورد از آنها تقاضا دارید در جریان نظارت؟  
 ۴ - چه موادهای برای نظارت در دست دارید؟  
 الف: آیا کدام راهنمای نظارت وجود دارد؟  
 ۵ - چند بار در ماه نظارت می کنید؟ چه دلیل برای این اوقات؟  
 ۶ - ارتباط با ک-ص-ج چگونه برقرار میکنید؟ نحوه ارتباط؟  
 الف: اگر ک-ص-ج نیاز به برقراری ارتباط با شما داشته باشد؟  
 ۷ - آیا کدام گزارش از نظارت تان به ارگان صحتی میدهید؟  
 الف: آیا کدام میکانیزم و پروتوکول برای آن وجود دارد؟  
 ۸ - آیا هر دو ک-ص-ج زن و مرد را نظارت می کنید؟  
 الف: اگر بله، کدام تفاوت در نظارت ک-ص-ج زن و مرد  
 ب: چه ممانعت ها و چه سهولت ها در جریان نظارت؟  
 ۹ - چیزی دیگر در مورد نظارت ک - ص - ج برای گفتن دارید؟  
 تشکر

#### کارکنان صحتی جامعه

سازمان:

تاریخ مصاحبه:

طریقه تماس:

- ۱ - در آغاز، چرا علاقمند شدید که در این تحقیق اشتراک کنید؟  
 ۲ - در مورد خود تان کمی معلومات بدهید؟  
 الف: سن، سطح تحصیل، تجارب کاری؟  
 ب: مجرد یا متأهل (آیا همسر نیز ک-ص-ج است؟)  
 ۳ - چگونه کارکن صحتی جامعه شدید؟  
 الف: انگیزه؟  
 ب: تجربه کاری در بخش خدمات اجتماعی

- ج: آیا خانه خویش را به مرکز صحتی بدل کرده است؟ چگونه و چرا؟  
 د: آیا خانواده و یا جامعه مانع شما نشد؟  
 ه: نقش شما به حیث یک ک-ص-ج چیست؟

## استخدام

- ۴ - در مورد اینکه چگونه به حیث ک-ص-ج استخدام شدید کمی معلومات بدهید؟  
 الف: انتخاب جامعه، راجع شده از طرف کسی، تقاضا کار نمودید، و یا به شکل دیگر؟  
 ب: آیا کدام روندی را طی کردید، مثلا امتحان یا مصاحبه؟  
 ج: در مورد روند استخدام چه فکر می کنید؟  
 ه: کاوش جنسیتی: آیا کدام چالش خاصی رو به رو شدید بخاطر اینکه شما خانم هستید؟

## آموزش

- ۵ - بعد از استخدام آیا به حیث ک-ص-ج آموزش گرفتید؟  
 الف: اگر بله، در مورد محتوی، مدت آموزش و موقعیت آن کمی معلومات دهید؟  
 ب: آیا محتوی آموزش بر اساس نیاز های جامعه بود؟  
 - چه پیشنهاد برای بهبود آموزش دارید؟  
 ج: ک-ج: چالش بخصوص در جریان آموزش؟  
 ۶ - آیا کدام آموزش در جریان کار گرفتید؟ چگونه؟  
 الف: محتوی، مدت، موقعیت؟  
 ب: آیا آموزش در جریان کار مفید بود؟

## وظایف و مسولیت ها

- ۷ - کمی در مورد وظایف و مسولیت های تان معلومات بدهید؟  
 الف: خدمات صحتی قبل از ولادت، در جریان ولادت و بعد از آن؟ کدام خدمات صحتی در جریان حاملگی؟  
 ب: راجع زنان حامله به مرکز صحتی  
 ج: تعلیمات صحتی (علام خطر در حاملگی)  
 د: تنظیم خانواده؟  
 ه: آیا خدمات صحتی برای مادران بر اساس نیاز جامعه است؟  
 و: ک-ج: چه چالش های را برای اجرای کار دارید؟  
 ۸ - آیا از خانه صحتی کار میکنید یا در خانه های مردم میروید؟  
 الف: چند ک-ص-ج در یک خانه صحتی است؟ مرد، زن، هر دو؟  
 ب: چند خانه توسط یک خانه صحتی پوشش داده می شود؟  
 ج: خانه ها و قریه ها از خانه صحتی چقدر فاصله دارد؟  
 د: آیا مردم برای اخذ خدمات صحتی به خانه صحتی می آیند؟ تعداد؟  
 ه: در خانه صحتی چه وسایل و یا مواد صحتی موجود است؟  
 - دوا، مواد تغذی، جالی خواب، وسایل ارتباطی و نقلیه  
 و: نزدیکترین کلینیک از خانه صحتی چقدر فاصله دارد؟

## نظارت

- ۹ - آیا کدام ناظر دارید، که از شما نظارت کند؟  
 الف: کی از شما نظارت می کند؟ چند بار در ماه؟  
 ب: برای چه شما را نظارت می کند (وظایف، دانش، مهارت ها، آیا باید چیزی گزارش بدهید؟ چگونه؟ آیا ناظر چیزی برای شما میدهد؟)  
 ج: آیا ناظر روحیه حمایتی دارد؟ در مورد ناظر و نظارت چه نظر دارید؟

## حمایت

- ۱۰ - آیا سازمان صحتی چیزی برای شما میدهد؟  
 الف: وسایل نقلیه؟ مواد غذایی؟ دوا؟ وسایل تنظیم خانواده؟  
 ب: چه چیز های نیاز دارید تا نیاز ها جامعه بر آورده شود؟

- ۱۱ - آیا دیگر ارگان های دولتی چیزی به شما میدهد؟ و یا به شما کمک و از شما حمایت می کند؟  
الف: استخدام در کامپاین صحتی؟  
ب: استخدام برای دیگر کار های اجتماعی؟  
ج: و یا کدام چیزی دیگر؟
- ۱۲ - آیا جامعه در وظایف شما به شما کمک می کند؟ چگونه؟  
الف: آیا شما را به رسمیت می شناسد، به گفته های شما گوش می کنند؟ به شما احترام می کنند؟  
ب: کمک به مریض زنانه، تهیه آب آشامیدنی، وسیله نقلیه برای زنان، کدام داستان که جامعه کمک کرده باشد؟  
۱۳ - آیا جامعه و یا فردی مانع کار شما به حیث کارکن صحتی می شود؟ چرا و چگونه؟
- برنامه ک-ص-ج
- ۱۴ - آیا ارگان صحتی از شما کدام آمار فعالیت و یا کدام نتیجه عملی در ساحت (هدف) توقع دارد؟  
الف: چه سهولت ها و ممانعت ها بخاطر رسیدن به آن هدف وجود دارد؟  
۱۵ - حجم کاری تان را چگونه ارزیابی می کنید؟ کم یا زیاد؟  
الف: آیا وقتی شده است که کار خود را بسیار موثر ارزیابی کنید؟  
ب: چه کار ها و یا کدام افراد برای انجام وظایف تان برای شما مفید است؟  
ج: آیا میشود بگویید که کدام وقتی کار خود را زیاد موثر نیافته باشید؟ آیا کدام دلیلی برای آن وجود دارد؟  
۱۶ - در بخش صحت مادران، آیا زن بودن برای انجام وظایف تان موثر است و یا مرد بودن مانع کار در بخش صحت مادران می شود؟ دلایل آنها چیست؟  
الف: دلایل اصلی و ریشه ای وضعیت بد صحت مادران در جامعه شما چیست؟  
۱۷ - مهمترین موانع و یا مشکلاتی که مانع انجام وظایف تان میشود چیست؟  
۱۸ - آیا چیزی دیگر برای گفتن دارید؟  
تشکر

#### مصاحبه جمعی با اعضای جامعه

- نام جامعه:  
تاریخ مصاحبه:  
طریقه تماس:
- ۱ - چگونه علاقمند شدید که درین تحقیق اشتراک کنید؟  
۲ - در مورد جامعه تان کمی معلومات بدهید؟  
الف: چند خانواده است؟  
ب: چگونه زندگی را تامین میکنید؟  
ج: آیا مکتب در این نزدیکی است؟ تا صنف چند و چقدر فاصله دارد؟  
د: نزدیکترین کلینیک چقدر فاصله دارد؟ آیا سرک وجود دارد؟  
۳ - در مورد ک-ص-ج کمی معلومات دهید؟  
الف: آنها کی ها هستند؟ چه کار می کنند؟ و چگونه ک-ص-ج می شوند؟  
۴ - آیا کدام تجربی از آنها دارید؟  
الف: نظر شما در مورد آنها چیست؟ آیا آنها واقعا نیاز های صحتی جامعه را برآورده می کنند، بخصوص نیاز های صحتی برای مادران را؟  
۵ - مسایل مربوط به صحت مادران در قریه شما چیست؟  
الف: چرا زنان حامله در قریه شما مریض می شوند و میمیرند؟  
ب: کدام داستان در مورد زنان حامله که مشکلات صحتی داشته باشند؟  
ج: چه میشود کرد تا صحت مادران در جامعه بهبود یابد؟  
۶ - آیا ک-ص-ج مشکلات صحتی مادران را در قریه حل می کنند؟  
الف: اگر بله، چگونه؟ کدام داستان اگر به یاد داشته باشید؟  
ب: آموزش در مورد علایم خطر زمان حاملگی  
ج: دادن مواد تغذی و یا دوا به زنان حامله وقتی مریض می شوند  
د: کمک به ولادت؟ کمک برای انتقال زنان حمله به مرکز صحتی؟  
ه: دیگر چه کار های از دست ک-ص-ج میاید تا صحت مادران را بهبود ببخشند؟

- ۷ - ک-ج: کدام کارکن صحنی جامعه بیشتر مفید است برای صحت زنان؟ زن یا مرد؟ و چگونه؟  
الف: برای تعلیمات صحنی؟ تهیه مواد غذایی و کمک به ولادت؟  
ب: در بخش انتقال زنان؟
- ۸ - شما به حیث یک جامعه برای بهبود صحت زنان حامله کرده می توانید؟
- ۹ - آیا کدام پیشنهاد برای تقویت صحت مادران دارید؟
- ۱۰ - چیزی برای گفتن در مورد صحت مادران و ک-ص-ج دارید؟  
تشکر