

**HARAMAYA UNIVERSITY**  
**SCHOOL OF POSTGRADUATE STUDIES**

**Blood Donation Practice and factors associated among Civil Servant in  
Chiro Town Western Hararghe Eastern Ethiopia**

**MPH THESIS**

**Sintayehu Nigussie (BSc)**

**June, 2018**  
**Haramaya University, Harar**

**Blood donation Practice and factors associated among Civil Servants  
in Chiro town Western Hararghe Eastern Ethiopia**

**A Theses Submitted to School of Post Graduate studies,  
Haramaya University**

**In Partial Fulfillment of the Requirements for the Degree of  
Masters in General Public Health**

**Sintayehu Nigussie Kebede**

**College: Health and Medical Science**  
**School: Public Health**  
**Program: General Public Health**  
**Major Advisor: Tesfaye Gobena (PhD.)**  
**Co-Advisor: Habtamu Mitiku (MSc.)**

**June, 2018**

**Haramaya University, Harar**

## **BIOGRAPHICAL SKETCH**

The author was born in 1981 in Bokoji town, Arsi zone, Oromia Regional State, Ethiopia. He completed his elementary School in Bokoji Tigil-free. He attended his Secondary and Preparatory school in Bokoji Secondary School. After completion of Preparatory School, he joined University of Gondor in 2004. At University of Gondor he studied in School of Health Science and he got BSc Degree in Compressive Nursing on July 2006 .After graduation he was employed by Oromia Regional Health Boureu on October 2006 and served in Health Center as clinician and head, District Health service coordinator, head of District health office. He was working in Chiro blood bank until he joined Haramaya University Post Graduate Program Directorate in October 2016 to pursue study leading to Master of Public Health in General public Health.

## **STATEMENT OF THE AUTHOR**

By my signature below, I declare and affirm that this thesis is my own work. I have followed all ethical and technical principles of scholarship in the preparation, data collection, data analysis, and compilation of the thesis. Any scholarly matter that is included in the thesis has been given recognition through citation.

This thesis is submitted in partial fulfillment of the requirements for MPH degree at the Haramaya University. The thesis is deposited in the Haramaya University library and is made available to borrowers under the rules of the library. I solemnly declare that this thesis has not been submitted to any other institution anywhere for the award of academic degree, diploma, or certificate.

Brief quotations from this may be made without special permission provided that accurate and complete acknowledgement of the source is made. Requests for permission for extended quotations from or reproduction of this thesis in whole or in part may be granted by the Head of the School or Department when in his or her judgments the proposed use of the material is in the interest of scholarship. In all other instances, however, permission must be obtained from the author of the thesis.

Name: Sintayehu Nigussie

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

School/Department: School of Public Health

## **ACKNOWLEDGEMENT**

First and for most I have debt my heartedly thanks to almighty God, the merciful and compassionate, for helping me a candidate of research conductor. Next I would like to acknowledge my advisors Dr.Tesfaye Gobena (Associate Professor) and Mr. Habtamu Mitiku (Assistant Professor) whose kindly support, insight, comments & guidance have turned the whole process starting from the beginning, and I would also like to thank SGS� librarians for their kindly cooperation. I would like to forward my deepest gratitude for Oromia regional Health Bureau for the most important support for me to join Mph Program at Haramaya University, study participants of my study.

Finally, I thanks my wife Etagegnew Wondimu and my friends and colleagues for their direct or indirect inputs in my work.

## TABLE OF CONTENTS

	page
<b>Table of Contents</b>	
<b>BIOGRAPHICAL SKETCH</b>	<b>ii</b>
<b>STATEMENT OF THE AUTHOR</b>	<b>iii</b>
<b>ACKNOWLEDGEMENT</b>	<b>iv</b>
<b>TABLE OF CONTENTS</b>	<b>v</b>
<b>LIST OF TABLE</b>	<b>viii</b>
<b>LIST OF FIGURES</b>	<b>ix</b>
<b>ACRONYMS AND ABBREVIATIONS</b>	<b>x</b>
<b>ABSTRACT</b>	<b>xi</b>
<b>1.INTRODUCTION</b>	<b>1</b>
1.1. Background	1
1.2. Statement of the problem	3
1.3. Significance of the study	5
1.4.Objectives	5
1.4.1.General objective	5
1.4.2.Specific objectives	5
<b>2.LITRATURE REVIEW</b>	<b>6</b>
2.1. Overview of Blood donation	6
2.2. Practice of voluntary blood donation	8
2.3. Associated factors of voluntary blood donation	9
2.3.1. Socio demographic factors	9
2.3.2. Knowledge and Attitude towards blood donation	10
2.3.3. Communication	12

2.3.4. Blood Donation and transfusion service	13
2.4. Conceptual Frame work	15
<b>3. METHODS AND MATERIALS</b>	<b>16</b>
3.1. Study Area and period	16
3.2. Study design	17
3.3. Population	17
3.3.1. Source population	17
3.3.2. Study population	17
3.3.3. Sample population	17
3.4. Inclusion and Exclusion Criteria	17
3.4.1. Inclusion criteria	17
3.4.2. Exclusion criteria	17
3.5. Sample size determination and sampling technique	17
3.5.1. Sample size calculation for quantitative	17
3.5.2. Sampling techniques for quantitative	18
3.5.3. Sample size determination for FDGs	20
3.6. Data collection methods	20
3.6.1. Data collection instrument	20
3.6.2. Data collectors and supervisors	20
3.6.3. Data collection procedure	20
3.7. Study variables	21
3.7.1. Dependent variable	21
3.8. Operational definitions	21
3.9. Data quality control	23
3.9. Data processing and Analysis	23
3.10. Ethical consideration	24
3.11. Scope of the study	24
3.12. Information dissemination	24

<b>4. RESULTS</b>	<b>25</b>
<b>4.1. Sociodemographic characteristics</b>	<b>25</b>
<b>4.2. Level of blood donation Practice</b>	<b>26</b>
<b>4.3. Factors associated with blood donation practice</b>	<b>28</b>
<b>4.4. Qualitative</b>	<b>31</b>
<b>5. DISCUSSION</b>	<b>33</b>
<b>6. CONCLUSION AND RECOMMENDATION</b>	<b>36</b>
<b>6.1. Conclusion</b>	<b>36</b>
<b>6.2. Recommendation</b>	<b>36</b>
<b>7. REFERANCE</b>	<b>37</b>
<b>8. APPENDICES</b>	<b>41</b>
<b>8.1. Appendex-I- Participant information sheet and informed voluntary consent form</b>	<b>41</b>
<b>8.2. Appendix-II-Information sheet and informed voluntary consent form for heads of sector organizations</b>	<b>43</b>
<b>8.3. Appendixes-III-Consent Form for Focused Group Discussion</b>	<b>45</b>
<b>8.4. Appendex-IV-English version Questionnaire</b>	<b>46</b>
<b>8.5. Appendix-V-Script Template for Focused Group Discussion</b>	<b>51</b>
<b>8.6. Appendix-VI-Oromifa version of participant information sheet and informed consent</b>	<b>53</b>
<b>8.8. Appendix-VIII-Afan Oromo version questionnaire</b>	<b>56</b>
<b>8.9. Appendix-IX- Afan Oromo Version of Focused Group Discussion script</b>	<b>62</b>
<b>8.10. Appendix-X-Curriculum vitae</b>	<b>64</b>
<b>8.11. Appendex-XI-Approval sheet</b>	<b>65</b>

## LIST OF TABLE

Table	Page
Table 1: Sample size calculation for different factors associated with blood donation for level of blood donation practice and associated factors among civil servants in Chiro town, Western Hararge, Eastern Ethiopia (n=383)	18
Table 2: Socio-demographic characteristics of participants in chiro town of western hararghe zone, eastern Ethiopia, 2018 (n=383)	25
Table 3: Blood donation knowledge, attitude and practice related characteristics of participants in chiro town of west hararghe zone, eastern Ethiopia, 2018 (n=383)	27
Table 4: Bivariable logistic regression of factors associated with blood donation practice of participants in chiro town of west hararghe zone, eastern Ethiopia, 2018 (n=383)	29
Table 5: Multiple logistic regression of factors associated with blood donation practice of participants in chiro town of west hararghe zone, eastern Ethiopia, 2018 (n=383)	29

## LIST OF FIGURES

Figure	Page
Figure 1:Map of blood banks distribution in Ethiopia, National blood bank service of Ethiopia, 2018	7
Figure 2:Conceptual frame work for level of blood donation and associated factors among civil servants in Chiro town, western Hararge, Eastern Ethiopia, 2018	15
Figure 3:Western Hararge Map for level of blood donation and associated factors among civil servants in Chiro town, Western Hararge, Eastern Ethiopia, 2018	16
Figure 4: Scheme of sampling technique for level of blood donation and associated factors among civil servants in Chiro town, western Hararge, Eastern Ethiopia, 2018	19
Figure 5:Age categories of participants for level of blood donation and associated factors among Chiro town civil servants Western Hararge, Eastern Ethiopia,2018	26
Figure 6:Blood donor's information sources for level of blood donation and associated factors in Chiro town, western Hararghe, Eastern Ethiopia, 2018.	28

## ACRONYMS AND ABBREVIATIONS

CI	Confidence Interval
EFDR	Ethiopian Federal Democratic Republic
Epi-Info	Epidemiological –information
FGDs	Focus Group Discussions
HIV	Human Immune Virus
HIS	International Haemovigilance Seminar
IPFA	International Project Finance Association
NBTS	National Blood Transfusion Services
OR	Odd Ratio
PLHIV	People Living with HIV
SSA	Sub-Saharan Africa
SOP	Standard Operating Procedure
SPSS	Statistical Package for Social Science
TV	Television
VNRBD	Voluntary Non-Remunerated Blood Donors/donation/
WHO	World Health Organization

## ABSTRACT

**Back ground:** The discovery of blood circulation in 1628 has made an important milestone in the history of transfusion medicine. Although the first successful blood transfusion occurred in 1818, Scientists had put quite a lot of effort earlier than this period. Despite the fact that blood transfusion service has about 200 years of history, there is still a significant shortage of blood and blood products particularly in the developing world. In 2016/17 the annual blood demand of Ethiopia was estimated to be 1,000,000 units per year, yet 17.4% (173,930) units of blood collected in the same year. Out of 25,400 units of blood requirement per year in Western Hararghe, only 2750 units (10.8%) was collected in 2016/2017 and 80% of this was from Civil servants which accounted 7.3% of total Civil Servants in the zone.

**Aim:** The aim of the study was to assess blood donation practice and factors associated with blood donation among chiro town civil servants between March 10/2018 to April 20/2018.

**Method:** A cross-sectional study was conducted among 403 civil servants selected by random sampling. Quantitative data was collected using self-administered questionnaire that 383 (95%) of Civil servants were responded. Qualitative data was collected through focus group discussions. Data was analyzed using SPSS version 20 through descriptive, bivariate and multivariate analyses of Logistic regression model.

**Result:** The life time blood donation practice among civil servants was 43.7% [95% CI=38.3, 49.3]. During analysis multivariate logistic regression demonstrated that having willingness of blood donation significantly increase odds of blood donation practice [AOR=2.54 95% CI=1.39, 4.65]. Blood donation practice was 3.24 times higher among Civil servants whose were knowledgeable on blood donation compared to those were not knowledgeable [AOR=3.24 95% CI=1.97, 5.31].

**Conclusion:** Blood donation practice was low in the study area compared to World Health Organization recommendations. Knowledgeable on blood donation and having willingness of blood donation were sound factors associated with blood donation practice in the study.

**Key words:** Blood donation, associated factors, Civil Servant,

# 1. INTRODUCTION

## 1.1. Background

Millions of lives are saved each year through blood transfusions. A voluntary, non-remunerated blood donor (VNRD) is the only source of blood, excluding the traditional family/replacement donors on the grounds of a higher level of safety. All over the world blood transfusion services play an essential, underpinning role in health systems. Donated blood that is provided voluntarily by healthy and socially committed people is a precious national resource. As blood is a scarce resource, motivation, recruitment and retention of voluntary blood donors are important to achieve safe blood donation. Voluntary blood donors are considered to be the safest source of blood (WHO, 2012).

According to 2012 World Health Organization (WHO) figures, globally over 81 million units of blood are collected annually, but only 39 percent of this is collected in developing countries which have 82 percent of the world's population. Blood still remains an entity that has not been made artificially and needs to be replaced for a patient in need by another healthy human being. Blood and blood products are too much important in health care for people those with deficient of one or more blood components. (WHO, 2009). Because of increased life expectancy and utilization of newly expanded surgical and therapeutic methods the quantity required of blood and blood products get rising. But the shortage of blood and blood service remain a big challenge. Blood needs increase gradually in international context as a result of road accident and chronic non communicable disease such as sickle cell, heart disease and cancer like lymphoma and leukemia (Sunnitha et.al, 2009).

Blood transfusion is a core service within health care systems and individuals who donate their blood provide a unique contribution to the health and survival of others. Every country faces an ongoing challenge to collect sufficient blood from safe donors to meet national requirements. The donation of blood by voluntary non-remunerated blood donors is recognized as being crucial for the safety and sustainability of national blood

supplies. Systems based on replacement donation by the family and friends of patients requiring transfusion are rarely able to meet clinical demands for blood while paid “donation” poses serious threats to the health and safety of the recipients as well as the donors themselves (WHO, 2010)

While some countries have well-established systems of voluntary blood donation, the majority are still dependent to varying degrees on family/replacement donors and sometimes on paid donors. Building a sustainable base of safe blood donors requires a long-term approach that requires not only the establishment of an effective voluntary blood donor programme but also improved public awareness and acceptance of the importance of blood donation as a social norm. WHO and the International Federation of Red Cross and Red Crescent Societies (IFRC) aim to support national blood donor programs in building a stable base of the safest possible blood donors to ensure the safety, sufficiency and sustainability of national blood supplies. WHO is committed to supporting its` member states in building safe and sustainable national blood supplies and works primarily with ministries of health, national blood programme and national blood transfusion services. The IFRC focuses on building community awareness and promoting voluntary blood donation through its` network of National Societies (WHO, 2010.)

Ensuring adequate supply is much important that efforts to be made to increase educating public about relevance of blood donation and initiate more people to donate blood in voluntary regular base by devising effective recruitment and retention strategies. Still death is reported due to inadequate supply of blood and blood products in number of low income countries. Therefore challenges related to voluntary blood donation should be identified though scientific research.

There was up and down number of blood collection from volunteer donors in Western Hararge for the last three years. Unit collected from voluntary donors increased from 2014 to 2016 and it turned down in 2017/18. However, blood donation was dominated by Civil servants that accounted for 80% in 2016/17, they were only 7.2% of Western Hararges` Civil servants donated blood since 2017, which was below the minimum level set by WHO. If all eligible Civil servants in this zone were donated blood as WHO's` set level, there have been about 4724 units of blood per year collected only from Civil servants. This is larger than total blood collected annually from all donors for past five years. So that understanding of Civil servants` status of blood donation and identifying blood donation related challenges such as, Attitude, Knowledge and Information gaps are vital to improve the effectiveness of donor recruitment and retention among Civil servants in Chiro town and the whole western Hararge.

## **1.2. Statement of the problem**

WHO 2017 fact sheet reviewed that, in low-income countries up to 65% of blood transfusions are given to children under 5 years of age; whereas in high-income countries the most frequently transfused patient group is over 65 years of age. There is a marked difference in the level of access to blood between low- and high-income countries (WHO,2017).Almost all countries face challenges in making sufficient supplies of blood and blood products available and sustainable while also ensuring the quality and safety of these products in the face of known and emerging threats to public health (WHO, 2012).

Sub-Saharan Africa has the lowest blood donation rates. According to the latest WHO survey on blood safety and availability,40 African countries collect less than 10 blood donations per 1000 population per year; of these, 25 countries collect less than half the blood that they need to meet transfusion requirements. High-income countries collect around 35 donations per 1000 population per year (WHO, 2014).Factors influencing blood donation practices are different and complex. Of the people who had not donate, most common cause for not donating blood is fear of donation and the procedure of

donation (Hand.K,2016).There are number of culture and communication-related factors influencing blood donation in Sub-Saharan Africa. People are willing to donate blood if the blood will be given to their relatives. While such behavior is not considered as altruistic and Blood donated by people who demand money is generally not safe and it may not be sustainable (WHO, 2010). However, incentives out of cash such as mentioning names of people who achieve certain milestones in regards to blood donations in the media may be attractive despite that some people may not want publicity. Sometimes hospitals payment by blood recipients or their relatives as fee for procedures other than cost of donated blood, the public may think that the fee is used to buy the blood (Appia, et.al 2013).

Regarding knowledge of blood donation criteria the barriers to blood donation are lack of knowledge about the required age range for blood donation, interval between blood donation and the shelf life of collecting blood. Thoughts of individual`s are screened for HIV before donation is also one of deterrent factors to blood donation (Gebremeskel, 2014).

Though the blood donation is lifesaving practice, Ethiopia`s current blood supply is far less compared to the demand. Ensuring adequate blood supply would be vital for the health care system. Civil servants are parts of general population, more participated in blood donation and relatively more accessed for information dissemination. According to WHO recommendation, estimated units of blood requirement in Ethiopia during 2016/17 was one million units per year, yet 173,930units of blood collected in the same year and about 826,070units of blood was deficit in the country. (Source: Yedem Negere, 2017).

The amount of estimated blood requirement in western hararge is about 25,400 units/year. But only 3192 units of blood could be collected per year and about 22,208 units of blood was deficit (Source: 2015, 2016, 2017 Chiro blood bank Reports). This is the gap initiate to conduct study on blood donation.

Maternal mortality and death from severe acute anemia and accidental trauma are major consequences of shortage in blood supply. 25% to 40% of Ethiopian mothers die due to lack of enough blood from donors each year (ENSA, 2014). Lack of awareness of need for blood donation, lack of information about the donation process and misconceptions on blood donation are among major challenges to collect enough units of blood for supply. Civil servants are thought to be one of the potential parts of the community through which these challenges are predominantly overtaken. To the best of my understanding, there is a dearth of research conducted on blood donation among civil servants in Chiro town, western Hararge. Moreover, targeting on specific potential donor population is important to mitigate blood donation related challenges and minimize catastrophic consequences of shortage in blood supply. Hence, this study attempts to assess the status of blood donation and factors associated to blood donation among civil servants in Chiro town, western Hararge.

### **1.3. Significance of the study**

The study is primarily beneficial for blood recipients/patients through identifying barriers for blood donation among civil servants and eventually increasing number of blood donors to save life. It also gives insight for blood bank, health office and other concerned parties in designing and implementing blood transfusion service programs.

### **1.4. Objectives**

#### **1.4.1. General objective**

To assess blood donation Practice and associated factors among Civil servants in Chiro town, Western Hararghe, from February 10/2018 to March 10/2018.

#### **1.4.2. Specific objectives**

1. To assess blood donation practice among civil servants
2. To identify factors associated with blood donation practice among civil servants

## 2. LITRATURE REVIEW

### 2.1. Overview of Blood donation

First Recorded Human-to-Human blood Transfusion was started in Britain while physicians injected 12 to 14 ounces of blood from several donors to patients suffering from internal bleeding in 1818. In 1907 first Cross matching checks the blood of donors and recipients for signs of incompatibility was done. First Blood Donor Service was established in London during 1922, Volunteers agree to be on 24-hour call and to travel to local hospitals to give blood as the need arises. Red Cross agrees to organize a civilian blood donor service to collect blood plasma for the war effort in 1941 (Lincoln N, 2017).

A blood donation occurs when a person voluntarily has blood drawn and used for transfusions and/or made into biopharmaceutical medications by a process called fractionation (separation of whole-blood components). Today in the developed world, most blood donors are unpaid volunteers who donate blood for a community supply. In some countries, established supplies are limited and donors usually give blood when family or friends need a transfusion. Many donors donate as an act of charity, but in countries that allow paid donation some donors are paid, and in some cases there are incentives other than money such as paid time off from work (WHO, 2010).

Blood donations are divided into groups based on who will receive the collected blood. These are allogeneic (homologous) donation, is when a donor gives blood for storage at a blood bank for transfusion to an unknown recipient and autologous, is when a person has blood stored that will be transfused back to the donor at a later date, usually after surgery. The actual process of collecting blood from donors varies according to the laws of the country, and the collecting organization. The World Health Organization gives recommendations for blood donation policies. There are two main methods of obtaining blood from a donor. The most frequent is simply taking the blood from a vein as whole blood. The other method is called apheresis (WHO, 2012)

Blood Transfusion service Established and provided by the Ethiopian Red Cross Society from 1969 to 2010 in Ethiopia with 12 regional blood banks and 52% of the hospitals in the country. By the year 2010 Transferred to the Ministry of Health and 25 blood banks have been functional since the end of 2013. The three years consecutive overview of blood donation in Ethiopia show that, of 63307 units donated blood 10% from voluntary donors in 2013, 87685 units donated blood 70% from voluntary donor's in 2014 and 127838 units donated blood 95.2% from voluntary donors in 2015. (17th IHS Paris, March 9-11 2016, National Blood Bank Service of Ethiopia)

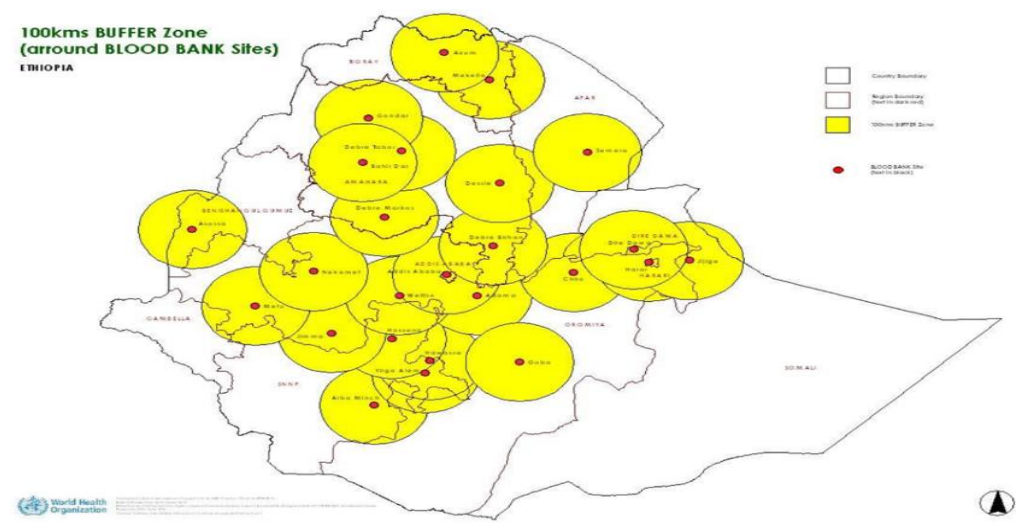


Figure 1: map of blood banks distribution in Ethiopia, National blood bank service of Ethiopia, 2018

## 2.2. Practice of voluntary blood donation

A cross sectional study conducted in Topiwala, Pakistan in 2015 among 111 internists identified that from 53 respondents those ever donated blood, 49.1% donated once, 32.1% donated twice and 18.8% donated three times or more. The study result show that feeling after blood donation as, 88.7% positive, 3.7% negative and 7.6% indifferent and association between gender and practice of blood donation as 16.7% female and 77.2% male donated blood (Prased et.al,20117).A descriptive study conducted in Vellore District, South India 2015 to determine knowledge, attitude, and behavior aspects of voluntary blood donation show that the mean (SD) score of blood donation practice as 33.13 (4.93) for one time ,32.95 (5.12) for 2 to 9 times,31.65 (4.37) for10-39 times and 31.85 (4.01) for above 39 times of blood donation and the maximum and minimum score of blood donation practice were 40.6% and 100% respectively with the mean score 48.98% (Siromani et.al,2016).

According to finding of cross sectional study done in South East Botswana 2014 among peoples age 21-65 years, 27.1% had donated blood in the past and 12.5% of donors had donated blood in 12 months preceding the study. Only 9.6% had been regular donors. The reasons identified for blood donation among donors were 73% individual initiative, 20% organizational initiative,3% emergency and 2% other reasons. Reasons for not donating blood among non-donors were 23.2% lack of knowledge,15% fear or anxiety, 18.9% lack of willingness, 19.3% medical reasons,21.8% no opportunity, 0.4% Cultural beliefs and 2.5% non-specific reason (pule et al,2014).

A facility based cross sectional study conducted in Addis Ababa 2014 among health providers revealed that 32.6% of respondents had ever donated blood at least once in life time and 15.6% of donors have had blood donated based on voluntarism; whereas about 47.6% went to donate for their relatives or friends who needed blood. Regular donors were 7.93% of the overall donor participants. The proportion of regular donors among the study participants was only 2.6%.The main reasons identified for not donating blood by the non-donors were 40.9% not asked to donate, 17.8% need to donate in future for

relatives or friends, 9.9% fear of knowing status and 4.9% because of no remuneration (Destaw et.al, 2014)

According to community based cross-sectional study done in Harar 2015 among 18-65 aged residents 22.6% of respondents had ever donated blood. The proportion of whoever donated blood with good comprehensive knowledge about voluntary blood donation was significantly lower than the study participants who ever donated blood with low comprehensive knowledge about voluntary blood donation [7.6% vs 34.2%,  $X^2=83.7863$ ,  $P < 0.05$ ]. Among those who ever donated blood before, 50.3% donated voluntarily (Urgesa et al, 2017). Similar study conducted among residents of Birbir town in 2016 show that 10.6% of participants have ever donated blood. 6.4% of donors donate once a year and the remaining donate more than once (Addisu et al, 2017). Study done among Aman Sub City Residents in 2015 stated that 26.4% of study subjects have ever donated blood in their life time. 51.2% of donors have donated 3 time, 45.5% donated when blood needed, 37.9% donated for their relatives /and friends as a replacement donor and 27.3% donated voluntarily (Kebadnew et al, 2017).

## **2.3. Associated factors of voluntary blood donation**

### **2.3.1. Socio demographic factors**

Almost in all of European countries a higher frequency is varying between four and six donations per year for men and between three and four for women. In America approximately half (49%) of blood donation were from women, but the percentage differed according to age. Up to 30 years of life, women accounted for over 50% of donors reaching 58% in the age between 21 and 30 years old; subsequently falling to 44% (Marco at el, 2010).

Study done in Uganda 2014 showed that 64% of donors were male and proportion of males donor is higher as compared to females donor (58.6% vs 41.4%). Educational background of donors were 70% literate, 42% primary education, 24% secondary education and 4% post-secondary education. 66.4% of donors were aged 18-28 years with a small proportion (4.2%) aged 49 years or more. 79% of donors were highly educated (tertiary and university) (Byamukama et al, 2015).

Similar study conducted among Bahirdar community 2015 found that 75.5% of donors were male and 24.3% female. The heights donated age group in this study result was 30-39 (37.1%) and lowest was 50-59 (17.1%). 38.6% of donors were first degree holders, 35.7% below first degree and 25.7% above first degree (Fesseha and Silashi, 2016).

### **2.3.2. Knowledge and Attitude towards blood donation**

The analysis study done in Spain on the motivations to give blood over six years among Spanish donors 2013 show that, the most important reason to donate blood for the first time donors was the desire of helping a relative or friends and altruism for regular donors. Reasons for not donate blood were fear of needles and perceived risk. Personal characteristics and experiences, motivations, attitudes, situations and perceived risks were internal factors influencing the blood donor decision process (Covadonga and Maria, 2014). According to the cross sectional study results conducted in India among college students in 2015, 37.7% of donor's participants had adequate knowledge and 81.5% has less adequate knowledge on different aspects of blood donation. Practice of blood donation was 3 times less likely among those had inadequate knowledge compared to those had adequate knowledge [AOR=2.99, 95%CI: 1.60, 5.58] (Babita et al, 2016).

Study done in Vellore district, South India 2015 revealed that the p value of knowledge and attitude shows a significant deference with respect to frequency of blood donation. In the less frequent donors group knowledge was lower than for donors in the higher frequency group. Attitude scores steadily and significantly increased over the frequency of blood donation groups. The mean score of knowledge and attitude were high among the donors. Donor's maximum and minimum knowledge score was 32% and 96% and maximum and minimum attitude scores were 26.7% and 100%. The mean score of knowledge and attitude were 19.84% and 46.04% (Siromani et al, 2016).

The review study conducted in Ghana 2013, identified that the belief of voluntary blood donors as, blood was linked to the soul and spirit, and therefore donating blood was seen as giving ones' soul or spirit to another person. Thought of impotency after blood donation, the belief that the hospital sells blood to patients, fear of disease will be detected in the donated blood, lack of incentives and lack of volunteerism were barriers to voluntary blood donation that identified in the study (Appia et.al, 2013)

According to a cross-sectional study conducted in Kenya 2010, the significant perceived reasons for not donating blood were lack of time to go and donate blood [AOR=2.17 95% CI: 2.17, 4.35], lack of willingness to donate blood [AOR=4.33 95% CI: 2.68, 6.99] and fear of getting disease when donate blood [AOR=1.88 95% CI: 1.2 2.91]. Fear of needles and fear of anemia were insignificant perceived reasons for not donating blood (Njuguna, N, 2012).

According to survey conducted among youth age 18-34 in La Dadekotopon, Ghana 2015 motivating factors that influence peoples to engage in voluntary blood donation were, 41% helping others, 35.9% perceived need of blood and 32.3% personal values. Social norms and indirect reciprocity were also motivating factors stated in the study. In contrast major deterring factors that prevent peoples from engaging in voluntary blood donation were 38.2% perception of not having enough blood, 37.3% lack of confidence in one's self and 29.5% fear of the unknown (Tanye.Sh, 2015). A community based cross

sectional study conducted in Bahirdar city ,northern Ethiopia stated that knowledge of blood donation with regardless criteria as 53.5% of participants knows the required age range for blood donation, about 66.4% of participants did not know the time interval between blood donations and 81.8% did not know the shelf life of donated blood. 91.1% of participants were think that as individuals screened for HIV before donation.51% of participants were categorized as low knowledgeable. Participants agreed that blood donation can cause anemia 44.2%,fainting 45.6%and forced screening of HIV before/after donation 54.1%.Only10%of participants had highly supportive attitudes towards blood donation, 61% had moderately supportive and 29% unsupportive attitude towards blood donation (Gebremeskel et al, 2014).

According to the findings of study conducted among residents` of Aman city, south western Ethiopia 2015, knowledge and attitude haven't attribute to practice of blood donation, since from participants whose found good knowledge and positive attitude only 26.4% have ever donated blood in their life time. (Kebadnew et al, 2017). According to the finding of A community based cross-sectional study conducted in Debre Markos town, 2015, the overall level of knowledge towards blood donation was found to be 56.5%.The odds of blood donation was found to be higher among knowledgeable respondents [AOR= 3.17 95% CI: 1.90-5.28] compared to their counterparts and 5 times higher among those with favorable attitude [OR=5.19 95% CI: 3.04-8.85] than with unfavorable attitude (Yenework et al, 2016)

### **2.3.3. Communication**

A cross-sectional sample survey of active blood donors in Oslo by the year 2005 indicated that influence of active blood donors was a single most important recruitment channel which resulted from good communication between active blood donors and potential non donors. This amounted about 55% of all donors reported that they had been recruited by interpersonal communication and media advertising was the second main recruitment channel. In total, 20% of donors indicated that they had been recruited via

advertisements in newspapers, magazines, leaflets, posters and TV or radio (Misje et al, 2005).

The systemic review study of sub Saharan Africa 2013 and a cross sectional quantitative survey conducted in Ghana 2015 identified that, a negative media reporting of blood donation as a deterrent factor, which indicated that prevalence of HIV among blood donors and temporary minor incidents reported by Journalists may prevent future blood donation especially among others who already fear blood donation. It was also stated that the decision whether to report the minor incidents is an ethical challenge because journalists are expected to report the truth on events. Demystify myths on blood donation and encourage more people to donate blood is one of motivating factors identified that could influence peoples to engage in voluntary blood donation Marketing communication (Appia et.al, 2013), Tanye.Sh, (2015).

Another study conducted on blood donation patterns and challenges in Southern Africa 2012 revealed that, inadequate communication system, particularly in rural areas and lack of suitable client relation management systems to communicate with donors as challenges in donor recruitment and retention (Reddy R, 2012). Studies conducted among Aman and Harar Cities residents indicated that 38.94% of donors heard about blood donation from mass media, 27.87% from health professionals in Aman study and 77.7% of Harar study participants got information from mass media as their main source, (Kebadnew et al, 2017) (Kedir et al, 2017).

#### **2.3.4. Blood Donation and transfusion service**

Create an enabling environment for 100% voluntary non-remunerated blood donation is one of World health organization global frame work for action goal (WHO, 2010). Across sectional sample survey conducted among active blood donors in Oslo, Norway in 2005, 95% of the blood donors were satisfied with the professionalism of the collection staff, 5% found donation fully or somewhat unpleasant and 84% positively

evaluate blood bank facilities only 4.7% of all donors mention increased material rewards for blood donation (Misje Et al, 2005).

A comparative study of drop out voluntary blood donors and regular voluntary blood donors conducted in India, in 2009 shows, 33% of total donors explain that blood bank staff to have a good behavior with donors and 18% said that blood should not be wasted and given to the patient.7%wanted blood bank to maintain hygiene and asepsis to maintain donor safety and 7% wanted the staff to arrange blood for them in case they require blood for themselves (Omash, K, 2009). The cross sectional survey conducted in Ghana among youth age 18-34 in 2015 was indicating that 30.9% were motivated by convenience to donation site (Tanye.Sh, 2015).

Cross-sectional facility based quantitative study done among Ambo university students, 2014 revealed that reason for not donating as 17.5% due to safety reasons, 7% not asked to donate blood. voluntary blood donation practice and types of blood donor`s family members receive bloods from blood bank were significantly associated due to the fact that during blood received from blood bank health professionals provide extensive health education by which clear any misconception regarding to blood donation and motivated them to blood donation (Abinet and Dereje, 2014)





## **3.2. Study design**

Cross-sectional study was conducted

## **3.3. Population**

### **3.3.1. Source population**

All civil Servants those employed in Western Hararge zonal sectors

### **3.3.2. Study population**

Civil Servants in 12 randomly selected zonal sectors

### **3.3.3. Sample population**

Number of civil servants selected from 11 randomly selected non-Health sectors and 1 Health sector.

## **3.4. Inclusion and Exclusion Criteria**

### **3.4.1. Inclusion criteria**

Greater than 18 years and less than 65 years age civil servants

Non –pregnant women in civil servants

### **3.4.2. Exclusion criteria**

Civil servants whose reported as sick and absent on data collection date

## **3.5. Sample size determination and sampling technique**

### **3.5.1. Sample size calculation for quantitative**

To get the maximum sample size, a single population proportion sampling formula used. Since there was no study conducted among Civil servants in the study area, estimated proportion of civil servants donated Blood(P) =50% used with the margin of errors of 0.05 at 95% confidence level and plus 5 % non-response.

$$n = \frac{Z^2 \cdot 1. \alpha / 2 P (1-P)}{d^2}$$

d=absolute precision

n=minimum sample size required

$\alpha$ =level of significance at 95% confidence interval

Z=standard normal deviate corresponding to 95% CI (1.96)

P=Assumed estimation proportion of population donate blood 50%

$$n = \frac{(1.96)^2 \cdot 0.5(1-0.5)}{(0.05)^2}$$

=384+5% non-response =403 the total sample size was 403.

Sample size was calculated for factors associated with blood donation obtained from deferent literature using Epi-Info version 7 Statistical calculation with the following assumptions: Confidence Interval 95%, study Power=80% and the ratio of unexposed to exposed almost equivalent to 1.

Table 1: Sample size calculation for different factors associated with blood donation for level of blood donation practice and associated factors among civil servants in Chiro town, Western Hararge, Estern Ethiopia (n=383)

Factors	Blood donation practice		Sample size Plus 5% no-response rate	Reference
	donate	Not donate		
Knowl edge	22.9%	7.1%	193	Yenework et al,2016
Attitud e	16.5%	5.8%	321	Addisu et al,2017

Since 403 is larger than 193 and 321, it was taken as final sample size for the study

### 3.5.2. Sampling techniques for quantitative

Thirty two zonally existing sectors were classified into health and non-health then we have thirty one non health and one health sectors. Then 11 sectors selected by lottery

method from non-health sectors and one health sector taken as it is. Determine number of participants from each 12 selected sectors using sapling fraction of 0.6639. Finally using simple random sampling (lottery method) to identify each participants in 11 non Health sectors and one health sector using workers attendance sheet.

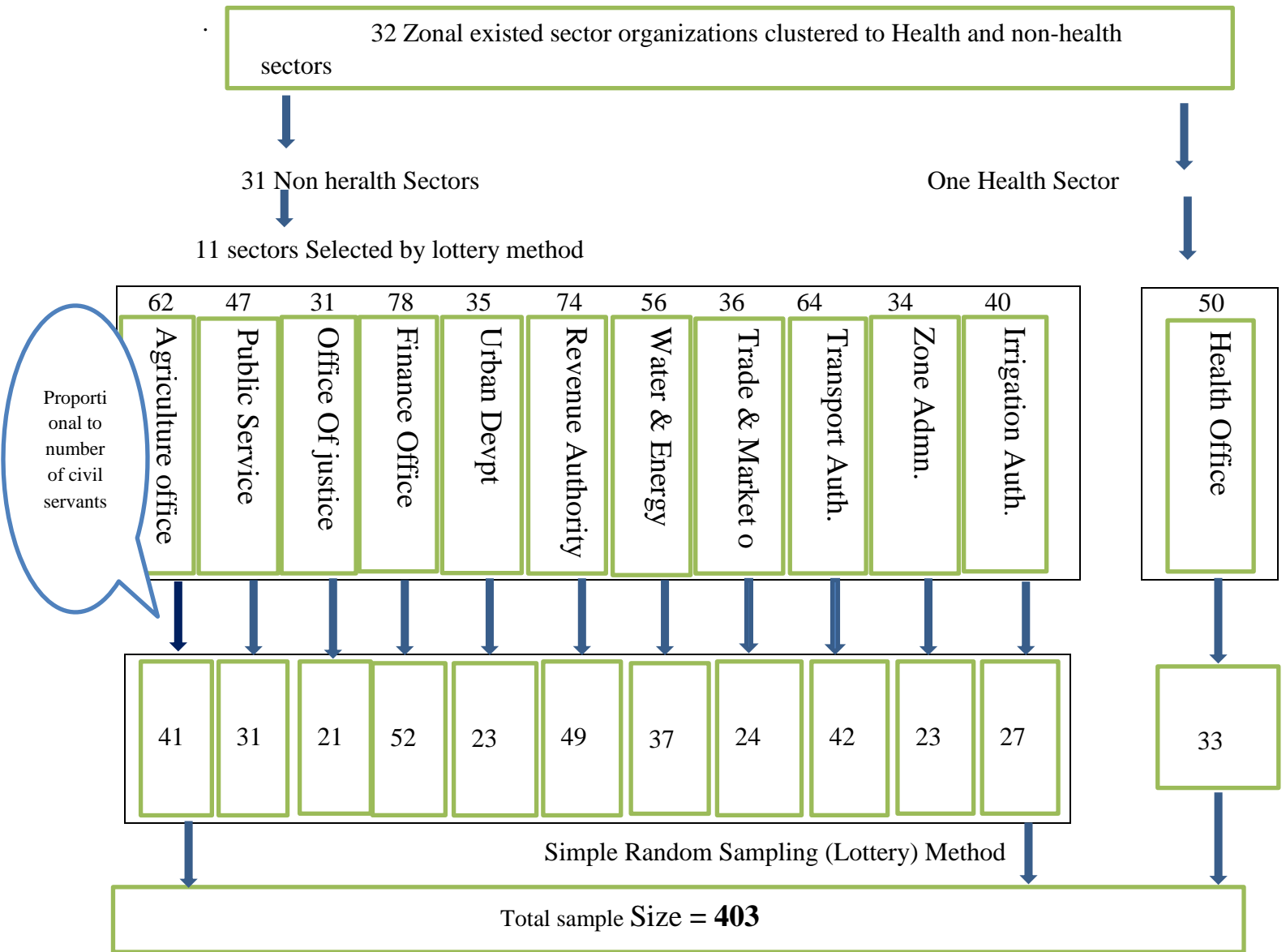


Figure: 4 scheme of sampling technique for level of blood donation and associated factors among civil servants in Chiro town, western Hararge, Eastern Ethiopia, 2018

### **3.5.3. Sample size determination for FDGs**

Three structured moderating focus groups each with eight members was purposively selected. FGD respondents have some commonality and ideally stimulate and influence the thinking and sharing of others. Members of focused groups were selected by convenience method from three purposively selected areas; Health professional, Media professional and blood donor Club members who were members of civil servants.

## **3.6. Data collection methods**

### **3.6.1. Data collection instrument**

Self-administer structured questionnaire was used for data collection in quantitative part and structured moderating focus group discussion with non-directive style to obtain a range of views and understanding on; communication and blood donation/transfusion service that might be associated to blood donation practice.

### **3.6.2. Data collectors and supervisors**

Self-administer structured questionnaire was distributed to respondents and assisted by trained supervisors and FGDs was moderated by trained person.

### **3.6.3. Data collection procedure**

Self-administer structured questionnaires developed in English translated to Afan Oromo and then translated back to English for consistency check. The questionnaire included practice of blood donation and socio-demographic characteristics, knowledge, Attitude, communication and blood donation/transfusion. Subjects were identified using workers attendance sheet then questionnaires given to subjects after introducing the purpose of study and the name of principal investigator and collected back on the same day. The mean score was used to measure knowledge and attitude. With mean response (<Mean Not score Knowledgeable, ≥Mean score Knowledgeable) and (<Mean score Negative attitude, ≥Mean score Positive attitude) .Three FDGs were conducted through Semi-

structured non-directive moderating approach of FGDs using prepared title guide and data was gathered field notes.

### **3.7. Study variables**

#### **3.7.1. Dependent variable**

- Practice blood donation

#### **3.7.2. Independent variables**

- Socio Demographic

Age, Sex, Marital status, Ethnicity, Educational status, Occupation, Religion, monthly salary

- Knowledge of blood donation/transfusion
- Attitude toward blood donation/transfusion
- Willingness of blood donation
- Source of information
  - Mass media, Social media, Inter personal communication
- Blood donation and blood transfusion service

### **3.8. Operational definitions**

- Voluntary blood donor

Person who gives blood, plasma or cellular components of his/her own free will and receives no payment, either in the form of cash or in kind which could be considered a substitute for money (WHO, 2010)

- Knowledgeable

Based on the mean score, those who score mean and above for knowledge questions

- Not knowledgeable

Based on the mean score, those who score below mean for knowledge questions

- Attitude

Those who score mean and above mean for attitude questions were labeled as having positive attitude and who score below mean were labeled as having negative attitude

- Voluntary Non-remunerated blood donation

Donation of blood, plasma or other blood components by persons own free will and receive no payment for it, either in the form of cash, or in kind which could be considered a substitute for money (WHO, 2010).

- Communication

Practice of communicating promotional Blood donation/transfusion information (WHO, 2009)

- Replacement donation

Donation of blood in which persons give blood when it is required by a member of their own family or community (WHO, 2010)

- Paid donors

Persons whose give blood in return for payment or other benefits that satisfy basic need or can be sold, converted into cash or transferred to another person. (WHO, 2010)

- Transfusion service

Giving of blood or blood products to a patient when the patient's need of blood is ascertained by health professional (EFDR, Council of Ministers Regulation No. 330/2014)

- Blood donation

A voluntary humanitarian deed of provision of blood irrespective of gender, race and religious differences which requires participation of the public at large (EFDR, Council of Ministers Regulation No. 330/2014)

- Blood Transfusion

Giving of blood or blood products to a patient when the patient's need of blood is ascertained by a health professional (EFDR, Council of Ministers Regulation No. 330/2014)

- PLHIV

Peoples living with HIV virus and disclosed their own zero status prior to the study period

### **3.9. Data quality control**

The questionnaire was transformed into Afan Oromo for data collection and then translated back in to English. Training was given to supervisors on the data collection tool. The questionnaire was pretested on 5% of the sample among civil servants in women and child affaires sector, Culture and Truism sector and Education sector those were not selected for the study. Completeness of each questionnaire was checked on daily basis. In FGDs monitor the quality of transcription by comparing random sample of the transcribed notes against the actual field note from the beginning.

### **3.9. Data processing and Analysis**

Data was entered in to Epi- Data Verssion-3.1 and exported into SPSS Version 20 and checked for completeness and were cleaned before analysis. Frequencies, percentages and tables were used to present descriptive statistics. Bivariate and multivariate logistic regression model was used to identify the associated factors. Variables having p-value less than 0.25 were taken as candidate for running multivariate analysis and those variables having p-value less than 0.05 at 95% CI in multivariate analysis were considered as significant variables.

Data from FGDs was analyzed for key themes through coding constant comparison approach. Key themes that emerged were discussed. Findings was cross checked with the findings of the quantitative study to see agreements and differences between the two and compared with other published sources.

### **3.10. Ethical consideration**

Ethical clearance was obtained From Institutional Health Research Ethical Review Committee of Haramaya University College of Health and Medical Science, School of post graduate study. Official latter of cooperation was written to western Hararghe administration office. In addition to that, informed, voluntary, written and signed consent was obtained from all study subjects which was assure that participation was voluntarily basis.Finally,all questionnaires was kept locked after data entry completion. Issues related to risks and benefits, confidentiality and rights were considered.

### **3.11. Scope of the study**

The study was focus on the assessments of blood donation practice and factors associated to blood donation among civil servants in chiro town, Western Hararghe Zone with relation to donating blood and targets civil servants of zonal sectors and didn't involve district workers, private sectors and community.

### **3.12. Information dissemination**

The report of study will be submitted to Haramaya University and copies will be given to Ethiopian National blood transfusion services, Oromia regional heath Bureau and chiro blood bank. Attempts will be made to present on national and regional conferences and workshops. Besides, publication on peer-reviewed journal will be taken in to consideration.

## 4. RESULTS

### 4.1. Sociodemographic characteristics

A total of 383 sampled civil servants responded to the questionnaire, which yields 95% response rate. More than half of participants (51.2%) were in the age group of 26-35 years and their median age were 33.0 years (IQR=9).The majority, 274 (71.5%) and about two third, 251(65.5%) of participants were male and currently married respectively. About three fourth, 287(74.9%) of study participants were Oromo and majority, 306 (79.9%) were expert workers. Their median monthly salary was 6147 ETB (IQR=2434) (Table 2).

Table 2: socio-demographic characteristics of Civil servants in chiro town of western hararghe zone, eastern Ethiopia, 2018 (n=383)

Characteristics		Frequency (No)	Percentage (%)
Age categories in years (of participants)	18-25	39	10.2
	26-35	196	51.2
	36-45	118	30.8
	>45	30	7.8
Sex	Male	274	71.5
	Female	109	28.5
Ethnicity	Oromo	287	74.9
	Amhara	77	20.1
	Others* <sup>a</sup>	19	5.0
Marital status	Married	251	65.5
	Single	87	22.7
	Divorce/separated	28	7.3
	Widowed	17	4.4
Religion	Muslim	161	42.0
	Orthodox	152	39.7
	Protestant	64	16.7
	Others* <sup>b</sup>	6	1.6
Educational status	Secondary and below	15	3.9
	Diploma level	51	13.3
	1 <sup>st</sup> Degree	276	72.2
	2 <sup>nd</sup> Degree	41	10.7
Job/working position/areas	Leader/manager	40	10.4
	Expert	306	79.9
	Supportive	37	9.7
(Current) monthly salary of participants in ETB	<3000	31	8.1
	>=3000	352	91.7

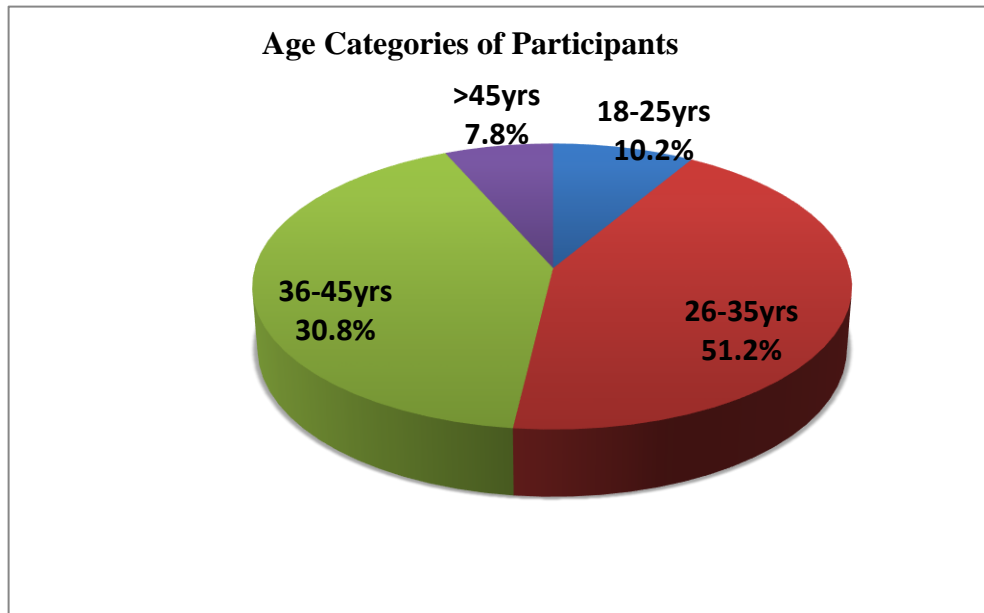


Figure 3: Age categories of participants for level of blood donation and associated factors among Chiro town civil servants Western Hararge, Eastern Ethiopia

#### **4.2. Level of blood donation Practice**

More than half, 219(57.2%) of participants were knowledgeable about blood donation and two third 234(61.1%) have positive attitude toward blood donation. At least one time prevalence of blood donation practice was about 43.6% (167/383) in the study area. The majority, 295(77%) of participants had willingness of blood donation. From donor participants nearly two third 106(63.5%) and one third 61(36.5%) were donated their blood one time and more than two times in their life time respectively. About 34.4% (21/61) of repeat donors were donated blood regularly which account 12.6% of all donor participants. (Table 3)

Table 3: Blood donation knowledge, attitude and practice related characteristics of participants in Chiro town of West Hararghe zone, Eastern Ethiopia, 2018 (n=383)

Characteristics		Frequency (No)	Percentage (%)
Knowledge status (on blood donation)	Knowledgeable ( $\geq$ Mean)	219	57.2
	Not Knowledgeable ( $<$ Mean)	164	42.8
	<i>Mean<math>\pm</math>SD</i>	6.57 ( $\pm$ 1.48SD)	
Attitude status (on blood donation)	Positive ( $\geq$ Mean)	234	61.1
	Negative ( $<$ Mean)	149	38.9
	<i>Mean<math>\pm</math>SD</i>	5.66 ( $\pm$ 2.05SD)	
Blood donation willingness	Yes	295	77.0
	No	88	23.0
Blood donation practice	Donated	167	43.6
	Not Donated	216	56.4
Donors information sources (n=167)	Tv and or Radio	144	86.2
	Donors	14	8.4
	Posters and Leaflets	7	4.2
	News paper	2	1.2
Number of previous blood donation (n=167)	once	106	63.5
	Twice and above	61	36.5
Previous blood donation interval (n=61)	Three months	21	34.4
	Not three months	40	65.6
Main reason to donate blood (n=167)	External push	34	20.2
	Internal satisfaction	133	79.8

About three fourth (285) of study participants were listen advocacy of blood donation on mass media/broadcasting. Out of those who donated blood 86.2 % ( 144/167) were follow mass media/broadcasting advocacy on blood and blood donation. One fourth (26.4%) of study participants use internet on their own mobile phone to know about blood and blood donation. Majority of donors (86%) were received blood donation related information from Radio/TV, 8.2% from donor to donor communication, 4.2% from leaflets and posters and 1.2% from newspaper.

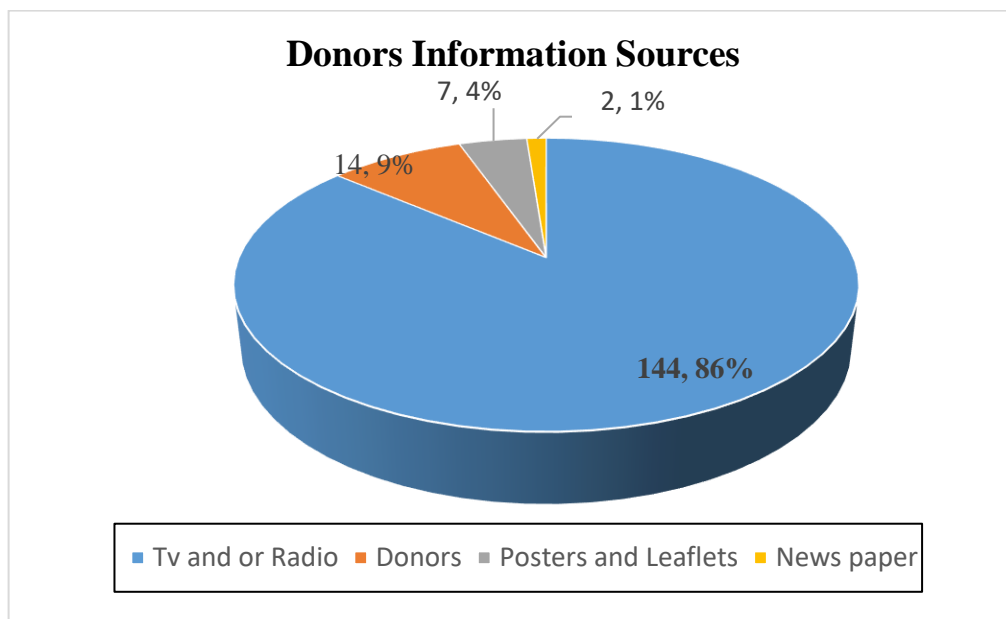


Figure: 5 Blood donor's information sources for level of blood donation and associated factors in Chiro town, western Hararghe, Eastern Ethiopia, 2018

### 4.3. Factors associated with blood donation practice

During bivariate analysis, willingness of blood donation, knowledge about blood donation, attitude toward blood donation, using any social media to know about blood donation and listening to mass media/broadcasting advocacy on blood donation were significantly associated with blood donation practice at  $P\text{-value} < 0.001$ , Job position, Religion and salary were associated with blood donation practice at  $P\text{-value} < 0.25$ . So the criteria set for multivariate was P value less than 0.25, these eight variables taken to multivariate logistic regression analysis (Table 4).

Table 4: Bivariable logistic regression of factors associated with blood donation practice of participants in Chiro town of West Hararghe zone, Eastern Ethiopia, 2018 (n=383)

Associated Factors		Blood donation practice		COR (95% CI)	P Value
		YES: No (%)	NO: No (%)		
Religion	Muslim	58(36)	103(64)	0.56(0.319,0.99) *	0.048
	Orthodox	74(48.7)	78(51.3)	0.95(0.54,1.67)	0.855
	Others	35(50)	35(50)	1	
Job Categories	Leader	17(42.5)	23(57.5)	1.99(0.79,5.21)	0.158
	Expert	140(45.8)	166(54.2)	2.28(1.07,4.87)*	0.034
	Supportive	10(27)	27(73)	1	
Salary in birr	<=3000Bir	10(32.3)	21(67.7)	1.69(0.74, 3.69) *	0.188
	>3000Bir	157(44.6)	195(55.4)	1	
Willingness of Blood donation	Yes	147(49.8)	148(50.2)	3.38(1.95,5.84)***	0.000
	No	20(22.7)	68(77.3)	1	
knowledge on blood donation	Knowledgeable	128(58.4)	91(41.6)	4.08(2.89,7.06)***	0.000
	Not Knowledgeable	39(23.8)	125(76.2)	1	
Attitude on blood donation	Positive	127(54.3)	107(45.7)	3.23(2.07,5.04)***	0.000
	Negative	40(26.8)	109(73.2)	1	
Use any social media	Yes	65(64.4)	36(35.6)	3.17(1.98, 5.12)***	0.000
	No	102(36.2)	180(63.8)	1	
Listen mass-media	Yes	144(50.5)	141(49.5)	3.33(1.98, 5.61)***	0.000
	No	23(23.5)	75(76.5)	1	

Statistically significant at P<0.01=\*\*\* and at P<0.05=\*, COR=Crude OR and CI= Confidence Interval

Eight variables (Religion, salary, willingness, knowledge, Attitudes, listen to mass media use social media and job categories) were included during multivariable analysis. From multivariable analysis, compared to lacking willingness of blood donation, having willingness to donate blood significantly increased the odds of blood donation practice [AOR=2.54 95% CI: 1.39, 4.65]. Blood donation practice were about 3.24 times significantly higher among civil-servants who were knowledgeable on blood donation compared to those who were not knowledgeable [AOR=3.24 95% CI:1.97, 5.31]. Blood donation practice was about 1.71 times higher among those who listen blood donation advocacy on mass medias/broadcasting compared to not listen.

Table 5: Multiple logistic regressions of factors associated with blood donation practice of Participants in Chiro town of West Hararghe zone, Eastern Ethiopia, 2018 (n=383)

Associated Factors		Blood donation practice		COR (95% CI)	AOR (95% CI)	P Value
		YES: No (%)	NO: No (%)			
Religion	Muslim	58(36)	103(64)	0.56(0.319,0.99)	0.79(0.42,1.49)	0.794
	Orthodox	74(48.7)	78(51.3)	0.95(0.54,1.67)	1.32 (0.69,2.48)	0.397
	Others	35(50)	35(50)	1	1	
Job category	Leader	17(42.5)	23(57.5)	1.99(0.79,5.21)	1.63(0.055,4.84)	0.374
	Expert	140(45.8)	166(54.2)	2.28(1.07,4.87)*	2.01(0.85,4.71)	0.110
	Supportive	10(27)	27(73)	1	1	
Salary in birr	<=3000Bi	10(32.3)	21(67.7)	1.69(0.74, 3.69)	1.01(0.38,2.68)	0.989
	>3000Birr	157(44.6)	195(55.4)	1	1	
Having Willingness	Yes	147(49.8)	148(50.2)	3.38(1.95,5.84)***	<b>2.54 (1.39,4.65)**</b>	<b>0.002</b>
	No	20(22.7)	68(77.3)	1	1	
Knowledge on blood donation	Knowledgeable	128(58.4)	91(41.6)	4.08(2.89,7.06)***	<b>3.24(1.97,5.31)***</b>	<b>0.000</b>
	Not Knowledgeable	39(23.8)	125(76.2)	1	1	
Attitude level	Positive	127(54.3)	107(45.7)	3.23(2.07,5.04)***	1.63(0.98,2.71)	0.058
	Negative	40(26.8)	109(73.2)	1	1	
Use social Media	Yes	65(64.4)	36(35.6)	3.17(1.98, 5.12)***	1.61(0.94,2.76)	0.085
	No	102(36.2)	180(63.8)	1	1	
Listening Mass Media	Yes	144(50.5)	141(49.5)	3.33(1.98, 5.61)***	1.71(0.94, 3.1)	0.078
	No	23(23.5)	75(76.5)	1	1	

Statistically significant at P<0.001=\*\*\* and P<0.05=\*, AOR=adjusted OR and CI= Confidence Interval, Bold Data indicate Significant association.

#### 4.4. Qualitative

Analysis of the FDGs transcript led to identify main themes and participant quotes regarding blood donation as the following. Health workers ways of communication with patients and patient attendants/relatives as motivation of blood donation. Participants described: “Counseling of patients and relatives/attendants in appropriate manner of communication with practical observation of blood benefit is motivating to ward blood donation”

Participant raised: “Father came with his son bullet injured and the son was in emergency need of blood transfusion. The son became fine after received units of whole blood and other treatment. Father asked “how much money will pay for the blood. He said please take my blood for others” after he told blood is not for sell from hospital like other medicine, but it was donated by someone freely to help others.

The belief that the hospital sells blood to patients who need them was also mentioned as a barrier to blood donation. A blood donor, said: “They have this in mind that even for your blood, if you go and donate it, they will sell it. Having suffered to go and donate your blood, the hospital will rather sell it”

Service given based on standard procedure and empathic communication during blood transfusion was mentioned as one of motivation for blood donation. Administration and appropriate use of blood and transparency of blood utilization through hospital transfusion committee is motivating blood donation: “Women talking in hospital ward; ‘haa this people will have chance of dying if somebody hadn’t donate blood’. Another women said; ‘Yes we should donate blood if it will save life like this’”

Mass medias have power to transmit wider ideas over abroad segment of population within minimum period of time was noticed as one of important factor to promote blood donation. Participant responded: “Yes Mass Medias is powerful to disseminate much ideas on blood donation in shortest period of time. But blood donation is tend to focused

as an event-oriented problem and that it was usually during June 7 (World Blood Donors Day) such news made it in the mass media”. Next participant speak: “journalists are always responsive if provided with well-constructed ideas, information and human interest stories”.

Social Medias mentioned as they have wider range of coverage to disseminate information on blood donation. Respondents reflected: “Social Medias those used to disseminate positive ideas on blood donation is encouraging blood donation”. Participants also said: “Now a day a lot of peoples use to understand about benefit of blood and blood donation trough face book on their own mobile phone”

One participant raised: “My wife had big fear to donate blood but, she decided to donate on the day she look and read on face book some seriously harmed child receiving blood”. Another Argued: “Sometimes things are negatively posted on face book, so that this media can` t be important as such”

The condition of blood bank raised as factor that encouraging peoples to donate blood in regular base. Approaches of blood bank staff increase donor’s motivation of turn back to donate blood. A respondent pointed: “The welcoming approaches of blood bank staff strengthen my intention to go to blood bank again and again”. Another Saied: “One of my friends donate blood if and only if the nurse he preferred is on work in blood bank”

## 5. DISCUSSION

In line with the objective of the study, an effort was made to find out the level of blood donation and respective factors associated toward blood donation of Civil servants in Chiro town.

The study finding showed that life time blood donation among civil servants was 43.6% which was consistent with cross sectional study conducted among workers in Topiwala and descriptive study conducted in Vellore District, Tamilnadu, and South India where found 47.7% and 49% respectively was. In contrast it was higher than the studies conducted to assess blood donation practice in Botswana 27.1%, Addis Ababa 32.6%, Harar city 22.6%, Birbir town 10.6% and Aman city 26.4% (pule et al, 2014, Destaw et.al, 2014, Urgesa et al, 2017, Addisu et al, 2017, Keadnew et al, 2017). The possible reason for this discrepancy may be due to variation of study period, socio demographic characteristics and the study population.

Out of those who donated blood 63.5% were donate once in their life time. This finding is similar to the finding of study conducted in Debre Markos town 63.7% of donor participants donated blood once in their life time (Yenework et al, 2016) where 55.5% of the study participant were civil servants which may reason for this similarity. This finding is higher than the study done on assessments of Knowledge, Attitude and practice of voluntary blood donation and associated factors among residents of Birbir town which was 6.4% of donor participants donated blood one time (Addisu et al, 2017). This might be due to difference in study subjects, only 19.2% of participants were from civil servants.

In this study 79.6% of those who donated blood, donate for reason of volunteerism. This finding is higher than the study done in Aman and Addis Ababa cities where 27.3% and 15.6% of donor participants donate blood for reason of voluntarism (Keadnew et al, 2017, Destaw et.al, 2014). This inconsistency might be due to increased number of regular donors, since regular donors are more likely to be volunteer. So that this finding

suggest that there is improvement from paid and replacement blood donation to sense of voluntary blood donation, but it is still less as compared to national requirement and World Health Organization recommendation.

Having willingness of blood donation was positively associated with blood donation practice in this study [AOR=2.54 95%CI:1.39,4.65]. Those civil servants who had willingness of blood donation were two times more likely to donate blood as compared to those who hadn't willingness of blood donation. This has similarity to the analysis study conducted on the motivation to donate blood in Spain and cross sectional study conducted on factors influencing blood donation practice in Kenya, where lack of willingness was significant reason for not donating blood (AOR=4.33 95%CI: 2.68, 6.99) (Covadonga and Maria, 2014, Njuguna N, 2012).

In our study, 76.65% of donor participants were knowledgeable. This is higher than the study finding in India where mean knowledge score of blood donated participants was 19.84% and in line with the study conducted in Aman city where 76.0% of donor participants had adequate knowledge about blood donation (Siromani et al, 2016), Keadnew et al, 2017).

Having knowledge on blood donation was positively associated with blood donation practice [AOR=3.24 95%CI: 1.97, 5.31]. Participants whose were knowledgeable on blood donation was 3.2 times more likely to donate blood as compared to those not knowledgeable on blood donation. This is in line with finding of cross-sectional study conducted in Debre Markos town where odds of blood donation was higher [AOR = 3.17 95 % CI: 1.90, 5.28] among knowledgeable respondents compared to their counterparts (Yenework et al, 2016).

In this study, 86.2% of donor participants listen mass media/broad casting agencies promotional advocacy on blood donation. This finding was nearly similar with the finding of community-based cross-sectional study conducted in Harar city where 77.7% source of information for donor participants was mass media (Kedir et al, 2017).

FDGs tried to identify areas to be focused on to increase number of volunteer blood donors to save life from perspective of; donors, media men and Health professionals' believe these FDGs are not fully capable of examine all factors related to blood donation in terms of the above perspectives. It may show some points of view to conduct detail qualitative study on issue of blood donation in the future.

By using FDG technique that tried to elicited stories about their experiences, attempt was made to identify what motivate blood donation practice focusing on communication and professionals. The findings of this FDGs describe blood donation motivation in four ways: 1.The Health workers ways of communication, 2.The role of mass Medias`, 3.The importance of social Medias`, 4.The role of blood bank staffs.

It was found that, Health workers way of communication as an important factor for blood donation motivation. Information education and communication on blood related facts in health facilities have tangible benefit to overcome shortage of blood supply. Misconceptions such as, thought of 'Hospitals sell blood to patients 'can be demystified through implementation of IEC.

It was identified that focus on event oriented report (news) on blood donation as the gap on mass Media's promotional advocacy of blood donation. The routine mass media promotion of blood donation was found as motivation of blood donation.

Well-constructed ideas, Information's and human interest stories that provided to responsive journalists used strengthen information dissemination through mass media. This increase the credibility of information on blood donation. The credible information is more cater to head and heart. Even though they are potential means of disseminating

information in to wider range, social Medias have less credibility. It also founded that, practically communication aspects of blood bank staff as one

The strengths of the study: Participants were selected using multi stage sampling which makes study was representative of civil servants in study area and self-administered questionnaire avoid social desirability bias.

### **Limitation**

Since the study was focused on Civil servants in chiro town only, it may not be generalized to community in Western Hararghe and Self-administered questionnaires may reduce the validity of measures

## **6. CONCLUSION AND RECOMMENDATION**

### **6.1. Conclusion**

In this study, Practice of blood donation was found to be low as compared to World Health Organization recommendations. After confounders and interactions were controlled in multivariable analysis, willingness of blood donation and knowledge on blood donation were statistically significant associated factors with Practice of blood donation.

### **6.2. Recommendation**

Based on the major findings of this study, in order to optimize willingness of blood donation among civil servants, Chiro blood bank and health Sector should strengthen awareness creating activities such as information, education and communication among Civil servants on blood and blood donation. Broad Casting Corporation (Oromia Broadcasting network Chiro branch and Haramaya Fana Broadcasting Agency) should work more on educational and promotional advocacy on blood donation in collaboration with blood banks and Hospitals.

## 7. REFERANCE

- Addisu, A, Sultan H, Deginet T, Addishiwot Z, Samuel T, Bereket A and Afewerki G,(2017),Assessment of Knowledge, Attitude and Practice of Voluntary Blood Donation and Associated Factors among Residents of Birbir Town *Journal of Community Medicine& Health Education*, 7 (1):1-8 DOI: 10.4172/2161- 0711.1000504
- Aldmiz, C, Soledad M (2014), a behavior model for blood donors and marketing to retain and attract them: rev; *Latino-am. Enfermagem* 22(3): 467-475.
- Appia, B, (2013) Promoting blood donation in Sub-Saharan Africa: role of culture and intervention. Public health. Doctorate. *Canadian Medical Association Journal*, 184(7), E341-E342
- Bahart, O.K, (2009), Factors associated with dropout among voluntary Blood donors attending state blood bank, shimla, himachal prudish, India, epidemiology *Indian Council of Medical Research*: 2-92. R- 127, TNHB, *Unpublished*
- Babita R, Nand P, Mithilesh S,(2016),Voluntary Blood Donation among Students - A Cross-Sectional Study on Knowledge and Practice vs. Attitude. *Journal of Clinical and Diagnostic Research*. Vol-10(10): ec18-ec22 doi:10.7860/jcdr/2016/21957.8733; www.jcdr.net
- Bantahun D, (2014), Knowledge, Attitude, and Practice of Voluntary Blood Donation and Associated Factors among Health Care Providers in Addis Ababa health Facilities, Ethiopia, *an open access journal* 3:4,3(4),<http://dx.doi.org/10.4172/2329-6879.1000209>
- Banil, M Giussni, B, (2010), Gender differences in giving blood: a review of the literature *Blood Transfus journal* 8:278-87 DOI 10.2450/2010.0156-09
- Covadonga A, Maria S, (2014), a behavior model for blood donors and Marketing strategies to retain and attract them. *Rev. Latino-Am. Enfermagem*; 22(3): 46775DOI: 10.1590/0104-1169.3398.2439 [www.eerp.usp.br/rlae](http://www.eerp.usp.br/rlae)

- Gube, A (2017), Assessment of knowledge, attitude and practice among Residents of Birbir Town, southern Ethiopia. *Health, Medicine and Nursing* **35**: 44-53.
- Hailu, F Teshager, S (2016), status and Deterrents of blood donation among civil servants in bahir Dar, Ethiopia, *Ethiop. J. Health Dev.* 30(1): 45-49.
- Hailu, K Yegezu, T, Tena, A (2017), Assesment of Knowledge, Practice andAttitudes on Blood in AmanSub City Residents, South West, Ethiopia. *Health science Journal*, (11) 1:485 DOI: 10.21767/1791-809X.1000485
- Ishmael, P, Rachaba, B, Gilbert M, Damas M, Magafu, and Habte , D, (2014), Factors Associated with Intention to Donate Blood: Sociodemographic and Past Experience Variables. *Journal of Blood Transfusion* Volume 2014, Article ID 571678, 7 pages,<http://dx.doi.org/10.1155/2014/571678>
- Kulkarni, PY, (2014), Role of mass counseling to improve voluntary blood donation *J.Medicl and Health sience.vol4 issue1* DOI: 10.4103/2141-9248.126609
- Marave, N, Lena, G, (2010), Investigating the factors affecting blood donation among Israelis *international emergency nursing journal*,1755599x/s,doi:10.1016/j.ienj.20100035-
- Merutse, G, Fisseha, G, Abebe, L, Birhau, Alemayehu, M, (2014), Intention to donate blood among the eligible population in mekele city, Northern Ethiopia, using the theory of planed behavior. *American Journal of Health, Research*, 2 (4) : 158-163
- Misje, A, Bosnes, V, Gasdap, and H, Heir, E (2005), Motivation recruitment and retention of voluntary non-remunerated blood donors: a survey-based questionnaire study. *VoxSanguinis journal* 89: 236-244
- Musa, Oladimej, A, Bolarniwa, Agaboye, O, (2011), Community survey on blood donation practice in a northern state of Nigeria. *J prevention med hygiene* 2011; 52: 21-25

- Natukunda, B, Agaba, E, wabuyi, P, Bortulsi, R, Mack, (2015), Knowledge, attitudes and practices about regular, voluntary non-remunerated blood donation in Mbararadistrict, south western Uganda *J. Obstet Gynaecol Can* 2015; 37(10): 903–904
- Nigatu, A, Bayisa, D, (2014), Knowledge, attitudes and practices on voluntary blood donation and associated factors among Ambo university regular students, Ambo Town *Community Med Health Education* 4: 315, doi: 10.4172/2161-0711.1000315.
- Njuguna, N. (2012), Factor influencing blood donation at selected sites in Nairobi, Kenya-Public health, Jemo Kenyatta university of Agriculture and technology Masters: 1-74. *Un published article.*
- Prased D, Patil CH, Dehamud A (2017), Study of knowledge, Attitude and practice of voluntary blood donation among interns of municipal medical college. *International Journal of Community Medicine and Public Health*, 4(4): 1166-1170
- Raguhuwshi, B, Nand K, Jeni, P, Sine, h, (2016), Voluntary blood donation among students: across sectional study on knowledge and practice vs Attitude. *Journal of Clinical and Diagnostic Research* 10(10): 18-22.
- Rajiv, Sh, Nadhi, M, (2010), “Factors Influencing Blood Donations and the Rational Use of Blood”, *J. Communicable Dis.* 42(3): 185-190
- Reddy, R, (2012), Blood donation pattern and challenges in South Africa, *ISBTS science series-7*: 296-299
- Rohaida, B, (2013), Factors influencing the intention to donate blood: The application of theory of planned behavior. *International Journal of Social Science and Humanity* 3(4): 344-348.
- Sheila, T, (2015), “Perception of voluntary blood among the youth “in la daddekotopon, *Journal of Applied Health*, University of Ghana: Master: 1-54.
- Siromani, U, Thasian, T, Isaac, R, Selvaraj, K and Mammen, J, (2016), Knowledge, Attitudes and Practices of Blood Donors towards Voluntary Blood Donation in Vellore District, Tamilnadu, South India. *Austin Emergency medical Journal*. 2016; 2(2): 1013

- Urgesa, K, HassenN, Seyoum, A, (2017), Knowledge, attitude, and practice regarding voluntary blood donation among adult residents of Harar town, Eastern Ethiopia: a community-based study. *Journal of Blood Medicine*, 8: 13–20
- WHO (2010), 100% Voluntary Non–Remunerated Donation of Blood and Blood Components. Global consultation. Melbourne, Australia, Perth Business Centre, and Perth, Australia’s: 6849: 1-44.
- WHO (2012), Expert Consensus Statement on achieving self-sufficiency in safe blood and blood products, based on voluntary non- remunerated blood donation. *20 Avenue Appia, 1211Geneva, Switzerland.*
- WHO (2014), World Blood Donor Day: Safe blood needed to save mothers
- WHO (2017), Fact sheet on Blood safety and availability
- Ethiopia National blood bank, 2017, Yedem Negere,
- Yenework A, Ahmed E, Kedir A (2016) Knowledge, attitude and practice towards blood donation and associated factors among adults in Debre Markos town, Northwest Ethiopia. *J.BMC Hematology* (2016) 16:23 DOI 10.1186/s12878-016-0062-8

## **8. APPENDICES**

### **8.1. Appendix-I- Participant information sheet and informed voluntary consent form**

My name is.....I am working as a data collector for the study being conducted in this civil servants by Sintayehu Nigussie who is studying for his Master's degree at Haramaya University, the College of Health and Medical Sciences. I kindly request you to lend me your attention to explain you about the study and being selected as the study participant.

**The study/project title:**

Practice of blood donation and associated factors among civil servant in chiro town

**Purpose/aim of the study:**

The findings of this study can be of a paramount importance for chiro blood bank and bodies concerned with blood transfusion service; those will use the study finding as input in planning, implementing and evaluating the blood donation program components such as, social mobilization, donor recruitment and retention; and communication and education.

Moreover, the aim of this study is to write a thesis as a partial requirement for the fulfillment of a Master's Program in general public health for the principal investigator.

**Procedure and duration:**

I will providing a questionnaire to provide me with pertinent data that is helpful for the study. there are 60 questions that you fill appropriate answers and where I will helping you on unclear question .the questionnaire filling take about 30 minutes, so I kindly request you to spare me this time for answering these questions.

**Risks and benefits:**

The risk of being participating in this study is very minimal, but only taking few minutes from your time. There would not be any direct payment for participating in this study. But the findings from this research may reveal important information for the Blood transfusion service planners.

**Confidentiality:** The information you will provide us will be confidential. There will be no information that will identify you in particular. The findings of the study will be

general for the study community and will not reflect anything particular of individual persons or housing. The questionnaire will be coded to exclude showing names. No reference will be made in oral or written reports that could link participants to the research.

**Rights:**

Participation for this study is fully voluntary. You have the right to participate or not in this study. If you decide to participate, you have the right to withdraw from the study at any time and this will not label you for any loss of benefits which you get from blood transfusion services. You do not have to answer any question that you do not want to answer.

**Contact address:**

If there is anything that unclear or you need further information about the study or the procedures,

Please contact :( PI) **Sintayehu Nigussie** on mobile phone: **09-43 01 31 49**

E-mail address:[sintayehunigussie1234@gmail.com](mailto:sintayehunigussie1234@gmail.com)

If you have any doubt about this research you can contact the responsible Institutional Health Research Ethics Review Committee (IHRERC) Haramaya University, college of health and medical science.

At office phone 025-46-60-20-11 or P.O.Box 235, Harar campus

**Declaration of informed voluntary consent:**

I have read/ was read to me the participant information sheet. I have clearly understood the purpose of the study, the procedures, the risks and benefits, issues of confidentiality, the rights of participating and the contact address for any queries. I have been given the opportunity to ask questions for things that may have been unclear. I was informed that I have the right to withdraw from the study at any time or not to answer any question that I do not want. Therefore, I declare my voluntary consent to participate in this study with my signature indicated below.

Name and signature of participant:.....signature.....date...../...../.....

Name and Signature of Data Collector..... signature.....date...../...../.....

## **8.2. Appendix-II-Information sheet and informed voluntary consent form for heads of sector organizations**

My name is..... I am working as a data collector for the study being conducted in this Organization by Sintayehu Nigussie who is studying for his Master's degree at Haramaya University, the College of Health and Medical Sciences. I kindly request you to lend me your attention to explain you about the study and your institution being selected as the study setting.

### **The study/project title:**

Practice of blood donation and associated factors among civil servant in chiro town

### **Purpose/aim of the study:**

The findings of this study can be of a paramount importance for chiro blood bank and bodies concerned with blood transfusion service; those will use the study finding as in put in planning, implementing and evaluating the blood donation program components such as, social mobilization, donor recruitment and retention; and communication and education.

Moreover, the aim of this study is to write a thesis as a partial requirement for the fulfillment of a Master's Program in general public health for the principal investigator.

### **Procedure and duration:**

I will be providing the civil servants a questionnaire to provide me with pertinent data that is helpful for the study. There are 60 questions that they fill appropriate answers to them and where I will helping on unclear question .the questionnaire filling take about 30 minutes, so I kindly request you to let me collect data.

### **Risks and benefits:**

The risk of being participating in this study is very minimal, but only taking few minutes from some of your worker's time. There would not be any direct payment for participating in this study. But the findings from this research may reveal important information for the Blood transfusion service planners.

### **Confidentiality:**

The information provided will be confidential. There will be no information that will identify individuals in particular. The findings of the study will be general for the study community and will not reflect anything particular of individual persons or housing. The questionnaire will be coded to exclude showing names. No reference will be made in oral or written reports that could link participants to the research.

**Rights:** Participation for this study is fully voluntary. The participants have the right to declare to participate or not in this study. If they decide to participate, they have the right to withdraw from the study at any time and this will not label them for any loss of benefits which they otherwise are entitled. They do not have to answer any question that they do not want to answer.

**Contact address:** If there are any questions or enquires any time about the study or the procedures, please contact:

(PI) Sintayehu Nigussie on mobile phone: 0943013149

➤ E-mail address: [sintayehunigussie1234@gmail.com](mailto:sintayehunigussie1234@gmail.com) and

The responsible Institutional Health Research Ethics Review Committee (IHRERC)  
Haramaya University, college of health and medical science

➤ At office phone 025-466-20-11 or P.O.Box 235, Harar campus

**Declaration of informed voluntary consent:** I have read the participant information sheet. I have clearly understood the purpose of the research, the procedures, the risks and benefits, issues of confidentiality, the rights of participating and the contact address for any queries. I have been given the opportunity to ask questions for things that may have been unclear. I was informed that participants have the right to withdraw from the study at any time or not to answer any question that they do not want. I am also informed that the organization has the right to stop this study from being conducted in the in organization if any misdeeds and unethical procedures are observed during the data collection process.

Therefore I declare a voluntary concern on behave of (.....)  
management to allow this study to be conducted in my organization with my signature as indicated below.

Name and signature of

Manager/leader:.....signature.....date...../...../.....

Name and Signature of Data Collector... ..signature.....date...../...../.....

### 8.3. Appendixes-III-Consent Form for Focused Group Discussion

Focus Group Purpose: Systematic Research on Practice of voluntary blood donation and factors associated

I agree to take part in the research project specified above.

I have read and understand the study purpose as described. I understand that agreeing to take part means that I am willing to:

1. I agree to be involved in a focus group
2. I agree to allow the focus group to be audio-taped

I understand that my participation is voluntary and that I can withdraw at any stage of the project without being penalized or disadvantaged in any way.

I understand that any data that the researcher extracts from the focus group for use in reports or published findings will not, under any circumstances, contain names or identifying characteristics.

Participant's name \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

## 8.4. Appendix-IV-English version Questionnaire

### Self-administered questionnaire

Name-----

Organization-----Region-----

Date -----

ID no -----

Name of data collector.....

#### Part I: General information

N0	Questions	Coding category	Skip
101	Sex	1.Male 2.Female	
102	Age (years)	_____	
103	Ethnicity	1.Oromo 2.Amaara 4.Otters	
104	Occupational status	1.Organization leader 2.Expert 3.Others	
105	Education level	1. High school (9-10) 2.Priparatory (10+2)/diploma 3.1 <sup>st</sup> degree 4.2 <sup>nd</sup> degree and above	
106	What is your marital status	1.married 2.single 3.Divorce 4.Widowed	
107	Religion	1 Muslim 2. Orthodox Christian 3. Protestant 6. Others	
108	Monthly income in birr		

## Part: II. Practice of Blood donation only for donor respondents

N0	Questions	Coding categories	skip
201	Have you ever donated blood?	1. Yes 2. No	
202	If your answer to question no 201 is yes, How many times you donate blood in your life?	1.once 2.twice and above	
203	If your answer for question number 202 is No 2 How often you donate blood?	1.Everythree month 2.Notinevery three months	
204	What is your main reason to donated blood?	1.External force make me to donate 2.For my internal satisfaction	
205	Do you have Willingness toward blood donation?	1. Yes 2.No	

## Part: III. Knowledge of blood and blood donation

N0	Questions	Coding categories	skip
301	Do you know the use of blood?	1. Yes 2. No	
302	Do you know voluntary blood donation is the only sources of safe blood?	1. Yes 2. No	
303	Do you know the age range of blood donation?	1. Yes 2. No	
304	Do you know how many groups' blood are there?	1. Yes 2. No	
305	Do you know your own blood group?	1. Yes 2. No	
306	Do you know as some diseases transmitted through blood transfusion?	1. Yes 2. No	
307	Do you know which blood group is highly demanded?	1. yes 2. No	
308	Is blood donation is useful for donors health	1. yes 2. No 3. Idn` t know	

## Part-V .Attitudes related questions

N0	Questions	Coding categories	Skip
401	Blood donation action is noble act	1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree	
402	I encourage people to donate blood	1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree	
403	Relatives of patient should be asked to donate blood	1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree	
404	There should be payment in cash for donated blood	1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree	

405	Blood donation has high risk to donors health	1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree	
406	Only the strongest and rich should donate blood	1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree	
407	It is good to donate blood on regular base	1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree	
408	Blood donation has benefit for donor Health	1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree	

Part: VI. Communication

N0	Questions	Coding categories	Skip
501	How did you get information to donate blood?	1. donors told me 2. Through newspapers 3. Through magazines, leaflets, posters 4. Through TV or radio	
502	Is good to media reports about HIV test results?	1. Yes 2. No	
503	Are questions asked before donation was clear and easy to understand?	1. Yes 2. No	
504	Are you always telling the whole truth when answering these questions?	1. Yes 2. No	
505	Are questions asked before blood donation important for your safety and health of blood recipient?	1. Yes 2. No	
506	Are you often tell peoples to donate blood after your donation?	1. Yes 2. No	

507	Do you following blood donation advocacy on mass media?	1. Yes 2. No	
508	Do you use mobile internet to know about blood donation?	1. Yes 2. No	

Part: VII. Blood donation and transfusion services. Kindly tick the most accurate regarding the donation site .

<u>No</u>	Question	Yes(Y)	No(N)
601	It is clean and presentable?		
602	It is warm and welcoming?		
603	is attending staff is helpful and courteous?		
604	Is length of stay during blood donation is feasible?		
605	Is Blood processed and kept properly?		
606	Is there privacy and confidentiality?		

Kindly tick the most accurate regarding the Transfusion Ward (hospital)

<u>No</u>	Questions	Yes(Y)	No(N)
607	Is Blood transfused properly?		
608	Is it lifesaving process?		
609	Is Blood free of fee?		
610	Is there shortage of blood?		
611	Is blood given to all patients need transfusion?		
612	Is blood timely availed by responsible staff?		

## 8.5. Appendix-V-Script Template for Focused Group Discussion

### *A.FDG one, Hospital staff*

Opening(10)Minutes

Hello, My name is \_\_\_\_\_ Today we would like to have a conversation with you about association of Blood transfusion service with practice of voluntary blood donation. What we are trying to accomplish before we leave here today is to get a better understanding of association between blood transfusion and voluntary blood donation.”

Are there any questions? Respond to participant questions.

Let’s go over some rules.

First, let’s all turn off our cell phones so we are not one person talking at a time.

Please do not interrupt someone when they are talking.

So we can keep track of what people are saying, remember that we have, everything you tell us today will be kept completely confidential.

We will summarize the things you tell us and combine it with other focus groups we are giving. One of my jobs today as the moderator is to make sure we discuss all of the issues we planned to discuss.

If I ask you questions while you are talking, I’m not being rude; I’m just making sure everyone has a chance to talk and that we discuss all of the issues

Just to get us started, let’s have everyone tell us your name... (Point to someone to start; randomly select people to demonstrate that people do not talk in sequence).

“Let’s begin.”

Question (45 minutes)

Prompt: Question to promote further question

1. What are association between blood transfusion service and voluntary blood donation practice do you think?

Probe: Question to examine an issue at a deeper level

2. How Blood transfusion service influences on Voluntary blood donation practice?

Prompt:

3. What kind of communication between health care provider and blood recipient or attendant good to encourage voluntary blood donation practice?

Probe:

4. How interpersonal communication can be encouraging or discouraging voluntary blood donation practice do you think?

5. What do you think should be done?

***B.FDG Two, media people***

Question (45 minutes)

Prompt: Question to promote further question

1. What are uses of mass media in voluntary blood donation?

Probe: Question to examine an issue at a deeper level

2. How do you think mass media can encourage or discourage voluntary blood donation practice?

Prompt:

3. What are uses of social media in voluntary blood donation?

Probe:

4. How do you think social media can encourage or discourage voluntary blood donation practice?

5. What do you think should be?

**C.FDG Three, blood donor club members**

Question (45 minutes)

Prompt: Question to promote further question

1. What do you think of the association between practice of voluntary blood donation and services given in blood bank?

Probe: Question to examine an issue at a deeper level

2. How blood donation service in blood banks can be encouraging or discouraging to voluntary blood donation practice do you think?

5. What do you think should be?

Closure (2 minutes)

“Are there final questions? (Respond to questions) .Thank you for participating in focus group today. We are excited to learn about what you think.

## **8.6. Appendix-VI-Oromifa version of participant information sheet and informed consent**

Odeeffannoo\_warra hirmatanii

**Seensa** :- Akkam jirtu ani maqaan koo obbo \_\_\_\_\_

Jedhama. Sababiin ani iddoo kanatti argamuu danda'eef qo`annaa obboo sintaayehu Niguseetiifi yuniversityiin haraoomayaa wajjiin waa`ee arjooma dhiigaa fedhii irratti hundaa`ee fi dhimmoota walitti hidhaman irratti gaggeeffamuuf Ragaa funaanaa ta`eetini.

### **Kaayyoon qoranichaa:-**

Sadarkaa arjooma dhiigaa fi dhimmoota walitti hidhama qaban qorachuun addaan baasuufi fuula duraafis gama kanaan qorannoon akka itti fufu gochuun rakkina gama hanqina dhiigaatiin jiru furuun akka danda`amuufi.

**Akkaata adeemsa qoranicha:-**Gaafiwwan qorannoof tahu dandahan dandahan qophahe jira.gaaffiiwwan kuni lakkoofsaan 60 ta`u kanaaf isaan kana hubannoon erga dubbifan booda waan itti amantaniifi sirriidha jettan deebifan.

**Miidha:** - Qorannoo kana irratti hirmaachuu keessaniin miidhaan isin irra gahu tokkollen hin jiru, yeroo gabaabdu isin jalaa fudhatu malee.

**Faayda:-**Yeroo amma qoranno kana irratti hirmachu keessaniin faaydaan argatan hin jiru,garuu qoranna kana irra odeeffannon argamu abbota dhimmi ilaaluuf karoora akka irratti baafataniif faayda guddaa qaba.

**Iciitii qabachuu;-**odeeffanno kannitan hundaaf iciitiin isaa kan eegamuu fi wanti maqaa keessan ibsu tokkolleen hin jiru.kanaaf bu`aan qoranno argamu dhunfaan oso hin taane akka walii galaatti kan ibsamuudha.

**Mirga Hirmaataa;-**Qorqnoo kana irratti hirmachuuf fidhinna guutuu barbaachisa, kanaaf qorannaa kana irratti hirmachuuf ykn hirmachu dhabuuf mirga guutu qabdan.hirmachu yoo hin barbaadin yeroo barbaadanitti qoranicha addaan kuttanii dhiisu

ni dandeessu. Yoon dhiisee bu'aan narraa hafa jettanii hin yaaddina. Gaaafi deebisu hin barbaanne dhiisu dandeessu.

**Teessoo:-**Waa'ee qoranichaa irratti gaafii tahan hunda ykn waan isin yaadessu yoo jiraate teesso armaan gadii kanaan yeroo barbaadanitti argachu ni dandeessu.

Abbaa qorannoo Maqaa:-Sintayehu Nigussie Lakk. Mob.0943013149

Email address -----sintayehunigussie1234@gmail.com

Haramaya University Lakk.wajjira- **0254662011** or Lakk.posta- 235, Harar. Kanaan bilbiluun argachu dandeessan.

**Walii galtee:-**waa'een haala himaanna qoranno erga naaf dubbifame booda kaayyoon qoranna, bu'aan qoranna, miidhaan qorqanno qabu, haalli eegumsa iciitii, mirgi hirmaachu fi hirmachu dhiisuu fi tessoon naaf ibsame jira. Gaafii yoon qabaadhe gaafachhuuf carraan naaf kenname jira, gidduttis dhiisu yoon barbaade yeroon barbaadetti hirmaachu dhiisu akka dandahu gatii deebisuu kan hin barbaachifne tahuu mirga guutu akkaan qabu ergaan hubadhee booda fedhinnaa guutuun qorannoo kana irratti hirmaachuu kaniin murtesse tahu kiyya maqaa fi mallattoo kiyyaanin mirkaneessa.

Maqaa fi mallattoo odefanno kennaa:

Maqaa\_\_\_\_\_

Mallattoo\_\_\_\_\_

Guyyaa\_\_\_\_\_

Maqaa fi mallattoo odefanno sassaaba:

Maqaa\_\_\_\_\_

Mallattoo\_\_\_\_\_

Guyyaa\_\_\_\_\_

Galatoma!!!

## 8.7. Appendix-VII- Afan Oromo version of Focused Group Discussion consent

Unkaa walii galtee marii garee

**Sababa mariin garee barbaachiseef:** Qo`annoo murteessitoota Arjooma dhiigaa fedhii irratti hundaa`ee fi akkamiin murteessitoonni Kun dhiibbaa arjooma dhiigaa fedhii irratti akka umman addaan baasu gaggeessuuf.

Mataa duree qo`annoo armaan olitti yuqame kanarratti hirmaachuuf walii galeetin jira. -Sababa qo`annoon Kun gaggeeffamuufis dubbisee hubadheetiin jira.qo`annicha irratti hubadheen hirmaadha hoon jedhu;

1. Garee marii keessatti hirmadhee yaada kiyya kennuuf walii galeetiin jira.
2. Waraabbiin sagalee marii garee Kun hoo gaggeeffame eeyyameen jira.

Hirmaannaan ani qo`annoo kana keessatti gaggeessu fedhii irratti kan hundaa`e ta`uu fi yeroo kamuu addaan kutuu kiyyaaf itti gafatamummaa tokko malee addaan kutuu akkan danda`us hubadheen jira.

Ragaan marii garee kanarraa argamu fi gabaasaaf oolu yeroo kamiyyuu taanaan maqaa fi amala hirmattota marii garee kan hin hammanne ta`uu isaas hubadheen jira.

Maqaa hirmaataa marii garee; \_\_\_\_\_

Mallattoo hirmaataa \_\_\_\_\_

Guyyaa mariin garee gaggeeffme \_\_\_\_\_

### 8.8. Appendix-VIII-Afan Oromo version questionnaire

Gaaffiilee Oromiffa:

Dhaabbata itti hojjattu-----Naannoo-----

Lakkoofsa EEnyummaa----- Guyyaa -----

Maqaa Nama raga sassaabuu.....

Kutaa 1<sup>ffaa</sup> : Odeeffannoo walii galaa

lakk	Gaaffiilee	Filmaata deebii ta`uu malan	Darbii
101	Saala	1.Dhiira 2.Dubartii	
102	Umrii(waggaa)	-----	
103	Saba	1.Oromoo 2.Amaara 3.kan biroo	
104	Haala hojii keetii	1.Gaggeessaa 2.Eksipertii/raawwataa waajjiraa 3. kan biro biroo	
105	Sadarkaa barnootaa	1.sadarkaa 2 <sup>ffaa</sup> ( kutaa 9-10) 2.Qophaa`ina (10+2) 3.Sadarkaa koollejji (BLTO) 4. Sadarkaa yuniversiitii.	
106	Sadarkaan gaa`ila kee maali?	1.kan fuudhe/Heerume 2.Kan hin fuudhin /hin heerumin 3.Kan biroo	
107	Amantaa	1.Ortoodoksii 2. Musliima 3. Proteestaantii 4.Kanbiroo	
108	Gali j`aa	1.≤ 3000 Qar 2.>3000 Qar	

Kutaa 2<sup>ffaa</sup> Muuxannoo arjooma dhiigaa ilaalchisee

lakk	Gaaffilee	Filmaata deebii ta`uu malan	Darbii
201	Kanaan dura Dhiiga arjoomtee beektaa?	1. Eeyyee 2. Miti	
202	Deebiin kee 201 eeyyee hoo ta`e yeroo meeqa?	1. Yeroo tokko 2. Yeroo lamaa fi lamaa oli	
203	Deebiin kee lack 202 fianno lama ta`e hangam hangamiin arjoomta?	1. Baatii sadi sditti 2. Baatii sadi sadiin miti	
204	Sababiin guddaan ati arjoomtuuf maali?	1. Sababa adda addaatiin dhiibbaameeni 2. Gammachuu keessoo kiyyaatiifi	
205	Fedhii dhiiga arjoomuu qabdaa?	1. Eeyyee 2. Miti	

Kutaa 3<sup>ffaa</sup> Beekkumsa dhiigaa fi Arjooma dhiigaa wajjiin walqabate

lakk	Gaaffilee	Filmaata deebii ta`uu malan	Darbii
301	Faayidaa dhiigaa beektaayii?	1. Eeyyee 2. Miti	
302	Maddi dhiiga qulqulluu Arjooma dhiiga tola ooltummaa qofa ta`uu ni beektaa?	1. Eeyyee 2. Miti	
303	Dhiigni giddu gala umrii kamiitti akka arjoommamu beektaa	1. Eeyyee 2. Miti	
304	Gartuu dhiigaa meeqa akka jiru beektaa?	1. Eeyyee 2. Miti	
305	Gartuu dhiiga keetii beektaa?	1. Eeyyee 2. Miti	
306	Dhiiga osoo hin qoratamne dabarsuun dhibee daddabarsuu akka danda`u beektaa?	1. Eeyyee 2. Miti	
307	Gartuun dhiiga kum haalaan akka barbaaddamu beektaa?	1. Eeyyee 2. Miti	

308	Dhiiga arjoomuun fayyaa nama arjoomuutiif faayidaa qabaa?	1.EEyyee 2.Miti 3.Hin beeku	
Namoota kana dura dhiiga arjoomee hi n beekne qofaan kan guuttamu			
309	Sababni dhiiga hin arjoomneef maali?		
	1. Hanqina yeroo?	1.EEyyee 2.Miti	
	2. Haalli itti arjooman dhabamuu?	1.EEyyee 2.Miti	
	3. arjoomuun yeroo dheera fudhacuu?	1.EEyyee 2.Miti	
	4. Hir`ina dandeettii ogeeyyii dhiiga fuudhanii?	1.EEyyee 2.Miti	
	5.Faayidaa dhiigaa beekuu dhabuu	1.EEyyee 2.Miti	
	6.sodaa gaggabuudhaa	1.EEyyee 2.Miti	
	7.Sodaa dhukkubbii limmee	1.EEyyee 2.Miti	
	8.Dhiiga arjoomuun gaarii waan hin taaneef	1.EEyyee 2.Miti	
	9.Shakii dhiiga arjoomuu dooda dhibeen qabamuu	1.EEyyee 2.Miti	
	10. Dhiignin Arjoomu gurguramuu waan danda`uuf	1.EEyyee 2.Miti	
	11.Kafaltaan waan hinjirreef	1.EEyyee 2.Miti	
	12.Amantaan kiyya waan dhoorkuuf	1.EEyyee 2.Miti	
	13.Akkan arjoomu waanin hi gaafatamneef	1.EEyyee 2.Miti	

Kutaa 4<sup>ffaa</sup> Ilaalcha arjooma dhiigaa irratti jiru ilaalchisee

Lakk.	Gaaffilee	Filmaata deebii ta`uu malan	Darbii
401	Dhiiga arjoomuun gochaa gaariidha	1. sirriittin walii gala 2.waliifi gala 3. waliif hin galu 4. sirriitti waliif hin galu	
402	Namoonni dhiiga akka arjoomaniif nan jajjabeessa	1. sirriittin walii gala 2.waliifi gala 3. waliif hin galu 4. sirriitti waliif hin galu	
403	Dhiiga dhukkubsataan fudhatu maatiin isaa bakka buusuu qaba.	1. sirriittin walii gala 2.waliifi gala 3. waliif hin galu 4. sirriitti waliif hin galu	
404	Dhiiga arjoomamuuf kafaltaan qarshii barbaachisaadha	1. sirriittin walii gala 2.waliifi gala 3. waliif hin galu 4. sirriitti waliif hin galu	
405	Arjoominni dhiigaa nama arjoomuuf Balaa olaana qaba	1. sirriittin walii gala 2.waliifi gala 3. waliif hin galu 4. sirriitti waliif hin galu	
406	Namoonni ciccimoon qofti dhiiga arjoomuu qabu	1. sirriittin walii gala 2.waliifi gala 3. waliif hin galu 4. sirriitti waliif hin galu	
407	Dhiiga osoo addaan hin murre itti fufiinsaan arjoomuun gaariidh	1. sirriittin walii gala 2.waliifi gala 3. waliif hin galu 4. sirriitti waliif hin galu	
408	Dhiiga arjoomuun fayyummaa nama arjoomuutiif nifayyada	1. sirriittin walii gala 2.waliifi gala 3. waliif hin galu 4. sirriitti waliif hin galu	

Kutaa 5<sup>ffaa</sup> Gaaffilee Odeeffannoo ilaalchisee gaafataman irratti

Lakk.	Gaaffilee	Filmaata deebii ta`uu malan	Darbi
501	Dhiiga arjoomuuf odeeffannoo eessarara argate?	1.Namoota arjooman irraa 2.Gaazexaarraa 3.Maxxansaaleadda addaafi poostarootarraa 4.Raadiyooykn Tleviziinii irraa	
502	Bu`aan qorannoo HIV dhiiga arjoomtotaa miidiyaadhaan osoo gabaafame waan gaariidha?	1. Eayyee 2.Miti	
503	Beeksisa arjooma dhiigaa miidiyaadhaan ni hordoftaa?	1. Eayyee 2.Miti	
504	Waa`ee arjooma dhiigaa baruuf interneetatti mobaayiliin fayyadamtuu?	1.Eeyyee 2.Miti	

Kutaa6<sup>ffaa</sup>: Waa`ee Dhaabbata (baankii) dhiigaa Amman dura ilaatani isa sirrii ta`e saanduqa kaassatti mallaattoo barreessaa.

Lakk	Gaaffilee	Sirriitinwa li gala (1)	Waliifin gala (2)	Walihi n galu (3)	Sirriitti walihing alu (4)
601	Qulqulluufi ga`umsa qaba				
602	Simannaa gaarii fi kaka`umsa qaba				
603	Hojjattooni afuura deeggarsaa fi Naamusa gaarii qabu				
604	Dheerinni yeroo turtii arjooma dhiigaa kan ta`uu qabuudha				
605	Dhiini qixa sirriin qophaa`eet kan kaa`amuudha				
606	Iciti fi dhimmi dhuunfaa ni eeggama				

Waa`ee iddoo (hospitaala) dhiigni itti namaa kennamuu amma dura ilaatan isa sirrii ta`e saanduqa keessatti mallattoo barreessaa

Lakk		Sirriitin waliif gala (1)	Waliifin gala (2)	Walii hin galu (3)	Sirriitti walii hin galu (4)
607	Dhiigni qixa sirriitiin dhukkubsataaf kennama				
608	Adeemsa lubbuu baraarudha				
609	Dhiigni kafaltaa gatii dhiigaatiin ala kennama				
610	Hanqinni dhiigaa hin jiru				
611	Dhiigni nama dhiigni barbaachisu hundaaf kennama				
612	Dhiigni ogeessa dhimmi ilaallatuun yeroon dhiyaata				

## 8.9. Appendix-IX- Afan Oromo Version of Focused Group Discussion script (questions)

Baniinsa (Daqiiqaa 10)

“Akkam bultan/ooltan.Maqaankiyya muluqan Dagafaan jedhama.

Guyyaa har`aa isin kana wajjiin mariin mari`annu Sababoota murteesso fedhii arjooma dhiigaa irratti irratti hoot a`u.hanga wajjiin turrutti dhimmoonni raawwannu; Sababoota murteessoo fedhii arjooma dhiigaa tii fi dhiibbaa sabboonni kunniin arjooma dhiiga fedhii irratti hundaa`e irratti qaban gadi fageenyaan hubachuudha.

Gaaffii qabduu laata?

Seerota adda addaa haa tumannu.

<sup>1ffaa</sup> -Hundi keenya hanga yeroo marii kanarra jirruutti bilblila keenya sagalee malee haa goonu.

Yeroo tana keessatti haasawa mariin alaa raaewwachuudhaabuu qabna.

Namni tokko yeroo yaada kennutti jidduun addaan kutuu hin dandeenyu.

Yaada namni tokko kennu hanga dhumaatti nidhaggeeffanna.

Hubadhaa yaanni har`aan tana marii kanarratti ka`an kamuu iccittummaan isaanii

Kan eeggame ta`.

Ga`een kiiyas har`a akka haala mijeessaatti qabxiileen mari`atamuuf karoorfaman

hundi akka Mari`ataman mirkaneessuudha.

Miseensonni marii kanaa hundi carraa dubbachuu akka argatan gochuun qabxiileen marii hundi isaanii akkka qaqqabaman mirkaneessuudha.

Jalqabuukeenyan dura namuu maqaa Kenya wal haa beeksifnu.

“Jalqaba”

Gaaffii 1-3 Daqiiqaa 20f

1.Namoonni dhiiga fedhiidhaan akka hin arjoomne maal maaltu ittisa jettanii yaaddu?

2.Namoonni dhiiga fedhiidhaan akka arjooman maal maaltu kakaasa jettanii yaaddu?

3. Gochoonnii fi yaadonni aadaa namoonni dhiiga fedhiidhaan akka hin arjoomne dhiibbaa taasisan maal fa`a jettanii yaaddu?

Gochoonnii fii yaadonni aadaa namoonni dhiiga fedhiidhaan akka arjooman ni kakaasu jettanii yaaddan maal faadh?

- Gochoonnii fi yaadonni adaa eerman kun akkamitti;
- Namoonni fedhii isaaniitiin dhiiga akka rajooman kakaasu jettanii yaaddu?
- Namoonni fedhii isaaniitiin dhiiga akka hin arjoomne ittisan jettanii yaaddu?

Gaaffii 4<sup>ffaa</sup> –Daqiiqaa 10f

4. Jechamoonni arjooma dhiigaa fedhiinii irratti dhiibbaa geessisan jettee yaadu maali maali?

jechamoonni kunniin akkamitti afedhiin arjoomuu namoota irratti dhiibbaa uumuu danda`u jettee yaadda?

Gaaffii 5<sup>ffaa</sup>-daqiiqaa-10

5. Maaamiltoonni sabqunnamtii(communication) nii Ajooma dhiigaa fedhii irratti dhiibbaan isaan qaban jettan jiraayii?

Qunnamtiin Namoota fi namoota jidduu(interpersonal)

Dhiibbaan namoonni dhiiga fedhiidhaan akka arjooman gochuu danda`u maal ta`uu danda`a?

Dhiibbaan namoonni dhiiga fedhiidhaan akka hin arjoomne gochuu danda`u maal ta`uu danda`a?

Midiyaan walii gala(mass midian,EBC,OBN fi kanbiroo)

Dhiibbaan namoonni dhiiga fedhiidhaan akka arjooman gochuu danda`u maal ta`uu danda`a?

Dhiibbaan namoonni dhiiga fedhiidhaan akka hin arjoomne gochuu danda`u maal ta`uu danda`a?

Midian hawaasaa(social median)n

Dhiibbaan namoonni dhiiga fedhiidhaan akka arjooman gochuu danda`u maal ta`uu danda`a?

Dhiibbaan namoonni dhiiga fedhiidhaan akka hin arjoomne gochuu danda`u maal ta`uu danda`a?

Gaaffii 6<sup>ffaa</sup> –daqiiqaa 5f

6. Wanti sirriin gara fuula duraa hojjatamuu qabu maali?

➤ Akkaataa kamiin hojjatama jettee yaadda?

Cufiinsa –daqiiqaa 2f

➤ Gaafilee xumuraa qabduu/jaruu?

Marii garee ha`a gaggeeffame irratti hirmaannaa keessaniif galatoomaa.yaadni isin kaasaa turtan miira barnoota irraa argachuu dandeenyuun ture.

## 8.10. Appendix-X-Curriculum vitae

### 1. Personal identification

Full name                    Sintayehu Nigussie  
 Date of birth                27/10/1983 G.C  
 Sex                             Male  
 Place of birth                Arsi Bokoji  
 Marital Status               Married  
 Nationality                  Ethiopian  
 Address                      Phoneno.+025-651-04-25,E-mail, sintayehunigussie1234@gmail.com  
 Mobile No                    .0943-01-31-49

### 2. Educational Background

University                    University of Gondor, 2006 graduate in BSc Nurse  
 Preparatory School        Bokoji Preparatory School  
 High School                 Bokoji Secondary School  
 Elementary school        Tigil Fire Primary School

### 3. Language skill

Language	Listening	Speaking	Reading	Writing	Remark
Oromifa	X	X	X	X	
English	X	X	X	X	
Amharic	X	X	X	X	

4. Work Experience.....12(twelve) years

5.Hobbies.....do what capable off

6. Computer skill..... Good

### 7. References

Dr.Gudina Egata, (PHD), Head coordinator at SGS office of Haromaya University.

Phone No-+251-911-64-13-62

[E-mail-gudinaejeta@yahoo.com](mailto:E-mail-gudinaejeta@yahoo.com)

