AWARENESS OF PROSTATE CANCER AND ASSOCIATED FACTORS AMONG MEN OLDER THAN 40 YEARS RESIDING IN MIZAN AMAN TOWN, BENCH SHEKO ZONE, SNNPR SOUTH WEST ETHIOPIA, 2019



BY: ASHENAFI ASSEFA (BSc)

A RESEARCH THESIS SUBMITTED TO JIMMA UNIVERSITY INSTITUTE OF HEALTH, FACULTY OF HEALTH SCIENCES, SCHOOL OF NURSING AND MIDWIFERY, IN PARTIAL FULFILLMENT OF THE REQUIREMENT OF THE DEGREE OF MASTERS SCIENCE IN ADULT HEALTH NURSING.

JUNE, 2019 JIMMA, ETHIOPIA JIMMA UNIVERSITY INSTITUTE OF HEALTH, FACULTY OF HEALTH SCIENCES, SCHOOL OF NURSING AND MIDWIFERY

AWARENESS OF PROSTATE CANCER AND ASSOCIATED FACTORS AMONG MEN OLDER THAN 40 YEARS RESIDING IN MIZAN AMAN TOWN, BENCH SHEKO ZONE, SNNPR SOUTH WEST ETHIOPIA, 2019

BY:

ASHENAFI ASSEFA (BSc, N)

ADVISORS

Mr. GUGSA. NEMERA (BSc, MSc. N, PhD follow)

Mr. GADISA. BEKELE (BSc, MSc. N)

JUNE, 2019 JIMMA, ETHIOPIA **Abstract**

Background: Prostate cancer is the common cause of morbidity and mortality among men

population older than 40 years. Evidence has shown that awareness about Prostate cancer plays

a greater role in early detection of prostate cancer. However, there is a paucity of information

regarding prostate cancer awareness level in Ethiopia in general and in Mizan Aman town in

particular.

Objectives: To assess the awareness of prostate cancer and its associated factors among men older

than 40 years in Mizan Aman town Bench Sheko Zone, SNNPR, South West Ethiopia, 2019.

Methods: Community based cross- sectional study was conducted from April 1-30, 2019 Mizan

Aman town. A total of 322 Study subjects was selected from the total population of 1242 by using

simple random sampling in Mizan Aman town. Data was collected by face to face interview using

a structured questionnaire. Data was entered into Epi Data version 3.1 and analyzed by SPSS

version 20. Descriptive statistics were used to summarize socio-demographic characteristics and

personal history. Bi variable and multi variable logistic regression analysis were used to explore

further variables that were associated with the level of awareness. Significant associations were

declared at P-value < 0.05. And results were presented in text, table, and chart.

Results: Of the total of 322 study subjects,64% had a high level of prostate cancer awareness.

Age (AOR=6.16, 95%CI=2.62-14.47), occupation (AOR=4.684,95% CI=(1.56-13.97) and

economic status (AOR=12.45,CI=95% (3.2-47.77) were significantly associated with the level of

awareness.

Conclusion and recommendation: This study have revealed that 36% of men residing in Mizan

Aman town had a low awareness of prostate cancer. Those older age, low economic status and, un

employment were less likely hoodness of awareness. This indicates the need for collective effort to

enhance the awareness of men regarding prostate cancer.

Key words: Prostate cancer, awareness, men

iii

Acknowledgments

First, my acknowledgment goes to my advisors Mr. Gugsa Nemera and Mr. Gadisa Bekele for their constructive suggestions and comments during this research development. I am also grateful to Jimma University for financial support to conduct this study, and the School of Nursing and Midwifery for providing the chance of study, offering technical support and timely assigning of advisors. I share the credit of my thesis with the data collection supervisor, data collectors and respondents for their contribution to the quality of the data were enormous.

Contents

Abstrac	ct	iii
Acknov	wledgments	iv
List of	table	vii
List of	figure	viii
Acrony	ms And Abbrevation	ix
CHAP	TER ONE: INTRODUCTION	1
1.1	Background	1
1.2	Statement of The Problem	3
1.3	Significance of The Study	4
CHAP	TER TWO: LITERATURE REVIEW	5
2.1	Awareness of Prostate Cancer	5
2.2	Associated Factors	5
CHAP	TER THREE: OBJECTIVES	8
3.1	General Objective	8
3.2	Specific Objectives	8
CHAP	TER FOUR: METHODS AND MATERIALS	9
4.1	Study area and period	9
4.2	Study design	9
4.3	Population	9
4.4	Sample size determination and sampling technique	10
4.5	Study variables	12
4.6	Operational definitions	12
4.7	Data Collection procedure	13
4.8	Data quality control	

4.9	Data processing and Analysis	14
4.10	Ethical consideration	14
4.11	Dissemination of findings	14
СНАРТ	TER FIVE:RESULTS	15
5.1	Socio-Demographic Characteristics	15
5.2	History and Risk factor	17
5.3	Prostate cancer awareness	18
СНАРТ	ER SIX: DISCUSSION	22
СНАРТ	TER SEVEN: CONCLUSION AND RECOMMENDATION	24
7.1	Conclusion	24
7.2	Recommendation	24
referenc	ces	25
Anexes		27
Anne	x 1: Participant Information Sheet and Informed Consent Form	27
Anne	x 2: Questionnaires (English Version) Study participants	29
Anne	x 3: Questionnaires (Amharic Version) Study participants	34
Anne	x 4: Questionnaires (Bench Version) Study participants	37

List of table

Table 1:Socio-demographic characteristics of men older than 40 years in Mizan Aman Town
Bench Sheko Zone In SNNPR South West Ethiopia ,2019
Table 2: History and risk factor Of Prostate Cancer Of Men Older Than 40 Years In Mizan Aman
Town Bench Sheko Zone In SNNPR Southwest Ethiopia ,2019 17
Table 3: Awareness Question About Prostate Cancer In Men Older Than 40 Years In Mizan Aman
Town Bench Sheko Zone In SNNPR Southwest Ethiopia ,2019
Table 4:Bivarite And Multi Variate Logistic Regression For The Study Participant Men Older
2019, Than 40 Years In Mizan Aman Town Bench Sheko Zone In SNNPR Southwest Ethiopia

List of figure

Figure 1:Conceptual Framework On The Study Of Awareness Of Prostate Cancer F	Redesigned
From OLIVIA NAKWAFILAAPRIL 2017	7
Figure 2:Schematic Presentation Of Sampling Procedure In The Study Of Awareness	Of Prostate
Cancer In Men older Than 40 Years In Mizan Aman	11
Figure 3: Level Of Awareness Of Prostate Cancer In Men Older Than 40 Years In M	izan Aman
Town Bench Sheko Zone In SNNPR Southwest Ethiopia ,2019	19

Acronyms And Abbrevation

AOR	Adjusted odd ratio
COR	Crud odd ratio
DRE	Digital Rectal Examination
NCD	Non Communicable Disease
NHIS	National Health Insurance Scheme
PI	Principal Investigator
PSA	Prostate Specific Antigen
WHO	World Health Organization

CHAPTER ONE: INTRODUCTION

1.1 Background

Prostate cancer is an adenocarcinoma of the male prostate gland that developed due to certain predisposing risk factors.

Age: Sixty percent of cases of prostate cancer arise in men over 65 years of age. The disease is rare in men under 40(1).

Race or ethnicity: African-American men and Jamaican men of African ancestry are diagnosed with prostate cancer more often than are men of other races and ethnicities. Asian and Hispanic men are less likely to develop prostate cancer than are non-Hispanic white males(2).

Family history: Prostate cancer can run in families. A man whose father or brother has or had prostate cancer is twice as likely to develop the disease. The younger the family member is when he is diagnosed with prostate cancer, the higher the risk is for male relatives to develop prostate cancer. The risk of developing prostate cancer also increases with the number of relatives affected(2).

Nationality: Prostate cancer is more common in North America, Europe (especially northwestern countries in Europe), the Caribbean, and Australia. It is less common in Asia, Africa, and South and Central America(2).

Other factors: Diets high in red meats and fatty foods and low in fruits and vegetables appear to be associated with a higher risk of developing prostate cancer(2).

A patient with prostate cancer may have the several signs and symptoms but not limited to difficulty and frequency of urination, urinary retention, and decreased size and force of the urinary stream, blood in the urine or semen, painful ejaculation, hematuria, hip pain, perineal and rectal discomfort, anemia, weight loss, weakness, nausea, and oliguria(1).

Prostate cancer is diagnosed through Digital rectal examination (DRE), Prostate specific antigen (PSA) blood test, and Prostate biopsy(1).

Digital rectal examination (DRE): As part of a physical examination, health professional inserts a gloved and lubricated finger into your rectum and feels toward the front of your body. The prostate gland is walnut or larger sized gland immediately in front of the rectum, and beneath your bladder. The back portion of the prostate gland can be felt in this manner. Findings on this exam are compared to notes about the patient's prior digital rectal examinations(3).

PSA blood test: measures the level of a protein found in the blood that is produced by the prostate gland and helps keep semen in liquid form. The PSA test can indicate an increased likelihood of prostate cancer if the PSA is at an increased or elevated level or has changed significantly over time, but it does not provide a definitive diagnosis. Prostate cancer can be found in patients with a low PSA level, but this occurs less than 20% of the time(3).

Prostate biopsy: A biopsy refers to a procedure that involves taking a sample of tissue from an area in the body. Prostate cancer is only definitively diagnosed by finding cancer cells on a biopsy sample taken from the prostate gland(3).

Like any form of cancer, prostate cancer is managed by one or a combination of the following therapies. These are surgery, radiation, chemotherapy, and biological modifiers(1). The prognosis of the patient with prostate cancer depends on the time of detection. Earlier the detection of prostate cancer, the good prognosis, Thus, Screening is the only effective method of reducing prostate cancer associated morbidity and mortality. However, in most of the cases screening is done for self-referred individuals. Individuals who self-referred themselves have better awareness level compared to who usually do not. Thus, men who had awareness of risk factors (age older than 40 years) more likely seek early diagnosis and treatment of prostate cancer. A study has also shown that men with good awareness were more likely to have screened than men with poor awareness(4)

1.2 Statement of The Problem

Prostate cancer ranked as the second most frequent and the fifth leading cause of cancer death in the male population. Globally, in 2018 alone, there are an estimated 1.3 million new cases and 359,000 prostate cancer associated deaths (5). In Africa, a Pooled estimated Prostate Cancer Incidence Rate indicates 22.0/100,000 population with a Median Incidence Rate of 19.5/100,000 population(6). Cancer of the prostate is an important public health problem(7). The incidence of prostate cancer for those Africa America is high and an increasing trend in prostate cancer incidence with advancing age, as report show that the highest known incidence rates for prostate cancer in the world come from among African Americans(8). The incident of prostate cancer in Africa is high according to Systematic Review and Meta-Analysis on prostate cancer. According to 2014 WHO report, there are 1,318 cases of prostate cancer in Ethiopia (9). A cross-sectional study done in Addis Ababa Black Lion Hospital prostate cancer accounts for 2.6% of all cancer (10). Currently, the burden of prostate cancer in Ethiopia is high. According to the latest WHO data published in 2017, prostate cancer deaths in Ethiopia reached 1,335 or 0.21% of total deaths and ranks Ethiopia 154 in the world and the 34 leading cause of death in Ethiopia (11). Prostate cancer diagnosis, prevention, and treatment in recent decades has been heavily influenced by awareness. Men who were aware of the DRE/ PSA test were more likely to have screened compared to men who were not aware of it(4). A good awareness or understanding of diseases is generally associated with a better health care-seeking attitude and behavior(12). According to a study in Uganda in (2014) and (2013), prostate cancer is detected at a more advanced stage in men living in Africa as they have low awareness(13)(14). Lower mortality is reported in developed countries due to early detection, while in developing countries, most cancer victims are diagnosed with late-stage incurable tumors (14).

However, though information about men level of awareness about prostate cancer is necessary to promote screening behavior, there is a paucity of information regarding prostate cancer awareness level in Ethiopia in general and in Mizan Aman town in particular. Thus, the main objective of this study is to assess the awareness level of prostate cancer and its associated factor.

1.3 Significance of The Study

The results from this study create baseline data for the health manager which helps to develop appropriate preventative measures and awareness programs. The study finding will alarm the community about screening from prostate cancer. Health professional was in an ideal position to use these research findings to improve the health of Mizan Aman men by teaching and counseling them about prostate cancer. It was providing data used as a basis for subsequent academic research.

CHAPTER TWO: LITERATURE REVIEW

2.1 Awareness of Prostate Cancer

A good level of awareness of prostate cancer is likely to lead to early presentation of cases with a resultant reduction in the overall morbidity and mortality associated with the disease(15). Study shows that Level of awareness of prostate cancer and PSA screening was significantly higher in those with tertiary education and the awareness of prostate cancer is associated with educational level(15). The awareness level of prostate cancer is different throughout the world. A study was done in Riyadh, Saudi Arabia more than 80% of all ages had heard about prostate cancer and a higher level of education is significantly associated with the level of awareness(16). According to the study done in Nigeria among older men in oyo state, Most respondents (80.0%) were aware of prostate cancer and Sources of information were friends/relatives (24.2%), the mass media (21.0%)(17).based on study in Kenya Most of the respondents 84.6% were aware of prostate cancer disease(18). A study was done in America (56.1 %) of them are a low awareness of prostate cancer and it is an association with marital status, educational level, income level. Education was positively correlated with participants' level of knowledge about prostate cancer (19).

2.2 Associated Factors

2.1.1 Age

The awareness of prostate cancer is a different in different age groups. Older Respondents are poor awareness than others on prostate cancer(18). However, according to the study done in Nigeria Older men scored better than younger men in awareness questions about prostate cancer(20).

2.1.2 Ethnicity

A study done In South African show that there is a statically significant association between awareness of prostate cancer(13).

2.1.3 Religion

According to a study was done in Ghana, there is a significant association between religion and awareness of Prostate cancer. These are due to most churches in Ghana also engage in health talks for their congregation which could account for the high level of awareness among Christians(16). Religious status was significantly associated with the awareness of the respondents towards

Prostate cancer. Good awareness was observed among higher proportions of Christians compared to the other religious groups (16).

2.1.4 Income Level

General awareness of prostate cancer is high on those whose income is high and positively related to the level of income(19). Study done In Namibia show that there are associations between that monthly income and awareness of Prostate cancer(21).

2.1.5 Occupational

Occupational status had significant associations with the level of awareness of prostate cancer(22). According to a study was done in Namibia Occupational is associated with awareness(21).

2.1.6 Educational Status

Study in America shows that awareness is significantly associated with educational status(19). According to the study done in Nigeria educational status influenced screening practices(22). Studies in men staff in Nigeria suggests that the level of education is significantly related to the level of prostate cancer awareness. The level of awareness increased with increasing educational levels(20). A study done in Namibia shows that Educational status is associated with awareness(21).

2.1.7 Marital Status

Study in America shows that awareness is significantly associated with marital status(19). According to a study was done in Namibia marital status is associated with awareness(21).

2.1.8 Family History

A Study done in America show that Statistically significant associations were found between family history and screening for prostate cancer via the PSA method and being interested in screening in the future for prostate cancer. Although respondents with a family history of prostate cancer were willing to have future prostate cancer-screening tests (19).

2.1.9 Smoking

The level of awareness in Malaysia shows a significant association with the respondents' smoking habit. The percentage of good awareness is higher among those who smoked compared to those who were non-smokers. This could be due to the effect of anti-smoking messages that had been targeted at smokers. Smokers may have higher awareness of cancer as cancer is one of the diseases highlighted in the anti-smoking campaign(23).

2.5. CONCEPTUAL FRAMEWORK

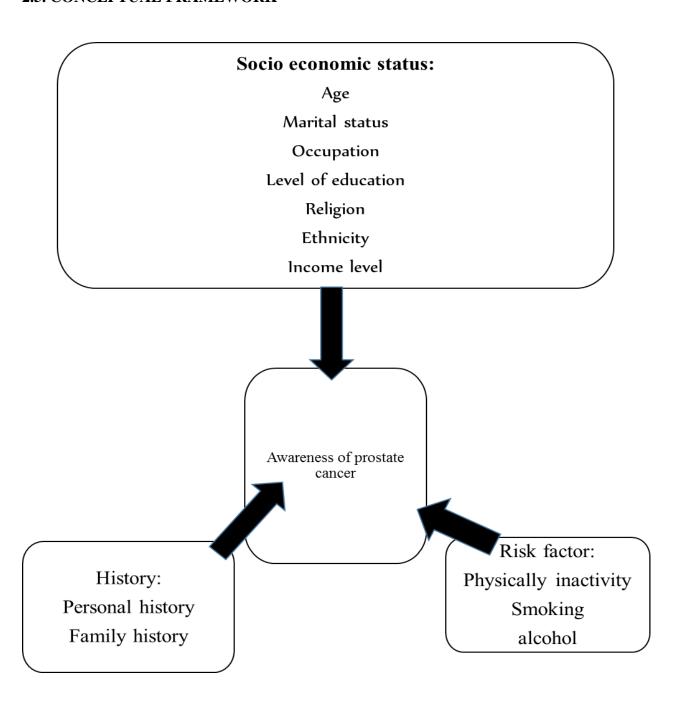


Figure 1:Conceptual framework on the study of awareness of prostate cancer Redesigned from OLIVIA nakwafilaapril 2017

CHAPTER THREE: OBJECTIVES

3.1 General Objective

❖ To assess the awareness of prostate cancer and its associated factors among men older than 40 years in Mizan Aman town Bench Sheko Zone in SNNPR southwest Ethiopia, 2019.

3.2 Specific Objectives

- 1. To determine the level of awareness of prostate cancer among men older than 40 years in Mizan Aman town Bench Sheko Zone in SNNPR southwest Ethiopia, 2019.
- 2. To identify factors associated with awareness of prostate cancer among men older than 40 years in Mizan Aman town Bench Sheko Zone in SNNPR southwest Ethiopia, 2019.

CHAPTER FOUR: METHODS AND MATERIALS

4.1 Study area and period

The study was conducted from April 1-30, 2019 on men residents of Mizan Aman town. Mizan Aman, a capital town of Bench Sheko Zone, is located at 561 km far from Addis Ababa, the capital city of Ethiopia, Bench Sheko Zone is part of SNNPR Regional State. The town has a total population of 72860 from which 34765 are men and females are 38095 women. The total population of men older than 40 years is 1242.

4.2 Study design

❖ A community based descriptive cross-sectional design was used to assess the awareness of prostate cancer and its associated factors among men older than 40 years in Mizan Aman town Bench Sheko Zone in SNNPR south west Ethiopia

4.3 Population

4.3.1. Source population

All men older than 40 years and residing in Mizan Aman town.

4.3.2. Study Population

Sampled men older than 40 years and residing in Mizan Aman town.

4.4. Eligibility criteria

4.4.1. Inclusion Criteria

Men whose age is older than 40 and residing in Mizan Aman town for more than 6 months.

4.4.2. Exclusion criteria

Men who were critically ill to give a response and who had known hearing impairment and mental illness.

4.4 Sample size determination and sampling technique

4.5.1. Sample size determination

The sample size was computed based on a single population proportion formula and using the prevalence of awareness 50 % because of no study done in Ethiopia. Z-value of 1.96 at 95% confidence interval and margin of error 5%.

$$n = (\underline{Z_{1-\alpha/2}})^{2*} P (1-P)$$

$$d^{2}$$

Where n= sample size

N= Total number of the study population

Z= The standard normal value at $(1-\alpha)$ CI, z=1.96 at 95% CI

P= Estimate of the prevalence of drug use, p=0.5

D = margin of error = 0.05

n =the number of sample size is 384

The study population is less than 10,000 so I used reduction formula then n=293 and 10% non-response rate may final n is 322.

4..5.2. Sampling techniques

A simple random sampling method was used to Men in Mizan Aman town for the study until a target sample size of 322 was achieved.

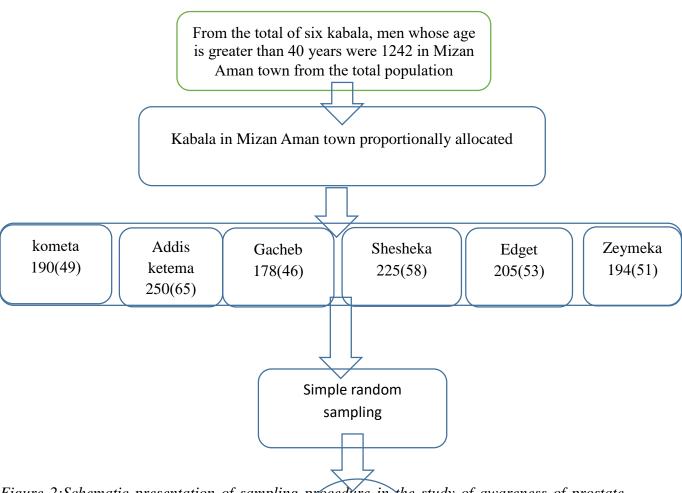


Figure 2:Schematic presentation of sampling procedure in the study of awareness of prostate cancer in menolder than 40 years in Mizan Aman 322

4.5 Study variables

4.6.1. Dependent variables

➤ Awareness of prostate cancer

4.6.2. Independent variables

- **❖** Age
- Education levels
- Occupation
- Religion
- Economic status
- **t**hnicity
- Marital status
- Personal history
- **❖** Family history
- Physical inactivity
- **❖** Smoking
- Alcohol

4.6 Operational definitions

Awareness refers to: being aware of a situation or fact(24). In this study, it was measured by 24 item awareness questions adapted after reviewing of relevant literature.

High level of awareness: respondents who were able to answer greater than or equal to 50% of the total awareness questions appropriately(25).

Low level of awareness: Those respondents who were able to answer less than 50% of the total awareness questions appropriately(25).

.

4.7 Data Collection procedure

4.7.1. Data Collection Instrument

A data collection instrument was adapted from other similar studies done in other countries (16)(25). The tools have 24 items and arranged for four parts. Part I: sample characteristics (seven items), part II: history (two items), part III: risky lifestyle (three items), and part IV: prostate cancer awareness (12 items). The questioners translated from English to local language "Benchagna and Amharic by two language experts and then re-translated, back to English by other language experts to check for consistency.

4.7.2. Pretesting

The pretest was conducted on 5% of the sample (16 individuals) in neighboring Temenjeyaje town which is 18 Km from the study area. 1 week before the actual data collection takes place. The purpose of pretesting was to identify any ambiguity, consistency, and acceptability of the questionnaire, and then necessary corrections were made before the actual data collection. The validity of the questioners is cheeked by two experts. The reliability of the items had done through Cronbach alpha with (0.84) for awareness question.

4.7.3. Data collection techniques

Data were collected by three trained nurses through face to face interviews using Amharic and Benchagna version questionnaires. The data collection process was supervised by one supervisor and principal investigator. The roles of Supervisors were checking the completeness of the collected data daily.

4.8 Data quality control

To assure the quality of data, the following measures was undertaken, including pre-testing of the questionnaire, orientation was given to the data collectors and supervisors by the principal investigator on the objective of the study, maintenance of ethical standards, the methods of data collection, how to recruit simple random sampling, and data collectors were familiarized with data collection tools with respect to the study with practical exercises. The collected data was checked for its completeness at the end of the interview and at the end of the day by the principal investigator.

4.9 Data processing and Analysis

The completed questionnaire was checked for completeness, consistency and coded by the principal investigator. The principal investigator was entered the data using Epi-Data statistical software version 3.1 analysis through spss version 20. Then data cleanup was performed to check for, accuracy, consistency, & values. Descriptive statistical analysis such as simple frequencies, measures of central tendency and measures of variability were used to describe the characteristics of participants such as socio-demographic characteristics, risk factors on prostate cancer.

Then, information was presented using frequency distribution table and chart. For analysis of the outcome variable, high-level awareness recoded as 1 and low-level of awareness recoded as 0. Bi variate analysis was used to assess the association between each independent variable and the dependent variable by using Binary logistic regression. All variables with p-value ≤ 0.25 were taken into the multivariable model to control for all possible confounders and the variables were selected by all method. The multi co-linearity test was carried out to see the correlation between independent variables using the co-linearity diagnosis test of standard error. The odds ratio was used as the primary measure of strength and direction of the relationship between the independent variables. Odds ratio along with 95% CI was estimated to identify factors associated with the level of awareness multivariate analysis in the binary logistic regression. The level of statistical significance was declared at p-value < 0.05.

4.10 Ethical consideration

The proposal was submitted to the college of Health Sciences Research and Ethics Committee, of Jimma University for approval. Then, supportive letter of cooperation was obtained from Bench Sheko Zone Health Office and Mizan Aman Health Office, then objective and purpose of the study was verified briefly to the study participant and confidentiality was assured. Finally, verbal consent was obtained from study participants before conducting the interview.

4.11 Dissemination of findings

The findings of the study were presented to Jimma University Institute of Health. Hard and soft copies were submitted to the School of Nursing then, it was disseminated to Bench Sheko Zone Health Office, Mizan Aman town Health Office, and other concerned bodies through reports. Further, the findings of the study were published in a national or international journal.

CHAPTER FIVE: RESULTS

5.1 Socio-Demographic Characteristics

A total of 322 respondents participated in the study with 100% response rate. The respondents have different socio demographic characteristics. The ages of the respondents ranged between 40-97 years with a median age of 49 years and the majority(63%) of them were in the age category between 40-55 years. The majority of 70.2% were married, 39.4% completed tertiary education, More than half 52.2% were government employers. Regarding religion majority of them were orthodox and protestant150(46.6%),130(40.4%) respectively and half them were Bench by ethnicity. Concerning their socioeconomic status, the mean monthly income of the study participants 3470 Birr for better on information(see table 1).

Table 1:Socio-Demographic Characteristics of men older than 40 years in Mizan Aman town Bench Sheko Zone in SNNPR south west Ethiopia ,2019.

Variable	Categories	Frequency	Percent(%)
Age	40-55	203	63
	56-65	57	17.7
	>65	62	19.3
Marital status	Single	23	7.1
	Married	226	70.2
	Widowed	33	10.2
	Divorce	40	12.4
Educational status	Illiterate	26	8.1
	Literate	49	15.2
	Primary	55	17.1
	Secondary	65	20.2
	Tertiary	127	39.4
Occupation	Unemployment	30	9.3
•	Daily worker	39	12.1
	Merchant	65	20.2
	Government employer	168	52.2
	Farmer	20	6.1
Religion	Orthodox	150	46.6
	Muslim	18	5.6
	Protestant	130	40.4
	Hawaryat	24	7.5
Ethnicity	Bench	161	50
	Keffa	71	22
	Amhara	32	9.9
	Oromo	18	5.6
	Sheko	40	12.4
Income	<2000	75	23.3
	200-5000	219	68
	>5000	28	8.7

5.2 History and Risk factor

A relatively small number of participant reported the potential risk factors of prostate cancer. However, the reported magnitude was varied by the type of risk factors. For more detail information, please see table 2 below.

Table 2: History and risk factor of prostate cancer of men older than 40 years in Mizan Aman town Bench Sheko Zone in SNNPR southwest Ethiopia ,2019.

Variable	Frequency	Percent
Relative have prostate canneer		
Yes	20	6.2
No	302	93.8
Who have prostate cancer		
Father	4	1.2
Brother	7	2.2
Other	9	2.8
Regular physical exercise		
Yes	30	9.3
No	292	90.7
Drinking alcohol regularly		
Yes	30	9.3
No	292	90.7
Smoke regularly		
Yes	49	15.2
No	273	84.8

5.3 Prostate cancer awareness

Regarding prostate cancer awareness question the few respondents know about the screening method, alcohol, high-fat diet and smoking are the risk factor for prostate cancer. for further see table 3.

Table 3: Awareness question about prostate cancer in men older than 40 years in Mizan Aman town Bench Sheko Zone in SNNPR southwest Ethiopia ,2019

Awareness question	Yes(no&%)	No (no&%)
Prostate cancer is a common malignancy	198(61.5)	124(38.5)
Risk of prostate cancer increases with age	206(64)	116(36)
Is It important to be screened for prostate cancer	219(68)	103(32)
DRE&PSA tests is prostate cancer screening or diagnosis	14(4.3)	308(95.7)
The difficulty of micturition a complaint of prostate cancer	190(59)	132(41)
Prostate cancer is curable	220(68.3)	102(31.7)
Prostate cancer is preventable disease	213(66.1)	109(33.9)
Physically inactive people are risky for prostate cancer	204(63.4)	118(36.6)
Prostate cancer can cause death	212(65.8)	110(34.2)
Drinking alcohol is a risk factor for prostate cancer	32(9.9)	290(90.1)
A high-fat diet is a risk factor for prostate cancer	43(13.4)	279(86.6)
Smoking is a risk factor for prostate cancer	36(11.2)	289(88.8)

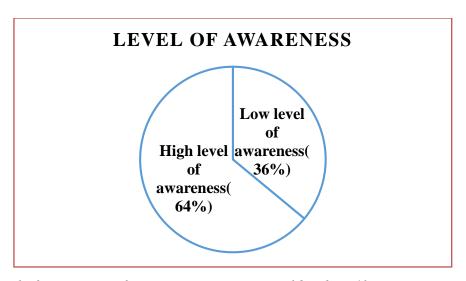


Figure 3: Level of awareness of prostate cancer in men older than 40 years in Mizan Aman town Bench Sheko Zone in SNNPR southwest Ethiopia ,2019

5.4.1. Bi variate logistic regression analysis

On bi variate logistic regression analysis the finding showed those men whose age is (40-55) was 4.65 times more likely in awareness level than compare to those whose age is (>65)(COR =4.65); educational status those whose educational level is tertiary level was 6.99 times more likely in awareness than compare to those who was illiterate(COR=6.99), regarding to monthly income participant whose income level is greater than 5000 was 16.5 times more likely in awareness of prostate cancer than those whose income is less than two thousand(COR=16.5); concerning to occupation respondent who was government employer was 15.7 times more likely awareness in prostate cancer than those of unemployed(COR=15.7) ;those who had positive history in prostate cancer was 3.39 times more likely in level of awareness than compare to those who had no history(COR=3.39).

5.4.2 multivariate logistic regression analysis

On multivariate logistic regression analysis age, occupation and economic status were showed statistically significant association with level of awareness of prostate cancer.

Regarding age respondents whose age (40-55) years old) was 6.16 times more likely awareness in prostate cancer than those whose age is (>65)(AOR = 6.16).

Concerning to occupation were those who had government employer was 7.57 times more likely awareness in prostate cancer than unemployers(AOR=7.57).

Regarding to economic status, those whose monthly income level had >5000 Birr were 12.45 times more likely awareness in prostate cancer compare to those whose income is <2000 Birr.

Table 4:Bivarite and multi variate logistic regression for the study participant men older than 40 years in Mizan Aman town Bench Sheko Zone in SNNPR southwest Ethiopia ,2019

Variables	level of awar	ness	COR(95% CI)	P*val	AOR(95% CI)	P*val
	low level of	high level	-	ue		ue
	awarnes in	of				
	Number, %	awarnes				
		in				
		Number,				
		%				
Age						
40-55	49(24.1)	154(75.9)	4.65(2.55-8.48)	0.00	6.2(2.91-13.21)	< 0.001
56-65	30(52.6)	27(47.4)	1.33(0.64-2.75)	0.44	1.65(0.69-3.9)	0.26
>65	37(59.7)	25(40.3)	1		1	
Marital Sta	tus					
Single	7(30.4)	16(69.6)	1			
Married	73(32.3)	153(67.7)	0.91(0.36-2.33)	0.86		
Widowed	20(60.6)	13(39.4)	0.28(0.09-0.88)	0.03		
Divorce	16(40)	24(60)	0.66(0.22-1.95)	0.45		
Religion						
Orthodox	53(35.3)	97(64.7)	1			
Muslim	10(55.6)	8(44.4)	0.44(0.16-1.17)	0.1		
Protestant	45(34.6)	85(65.4)	1.03(0.63-1.69)	0.9		
Hawaryat	8(33.3)	16(66.7)	1.09(0.44-2.7)	0.85		
Income						
<2000	55(73.3)	20(26.7)	1			
2000-5000	57(26.0)	162(74.0)	7.8(4.3-14.16)	0.000	4.51(2.18-9.34)	<0.001
>5000	4(14.3)	24(85.7)	16.5(5.09-53.5)	0.000	12.45(3.2-47.77)	< 0.001
Educationa	l Status					
Illitrate	17(65.4)	9(34.6)	1			

Litrate 29(59.2) 20(40.8) 1.3(0.49-3.5) 0.6 Primary 21(38.2) 34(61.8) 3.06(1.16-8.1) 0.024 Secondary 22(33.8) 43(6.2) 3.69(1.4-9.62) 0.008 Teritary 27(21.3) 100(78.7) 6.99(2.8-17.4) 0.000 Occupation Unemploye 22(73.3) 8(26.7) 1 1 d 1 1 1 Daily 28(71.8) 11(28.2) 1.08(0.37-3.14) 0.89 0.84(0.25-2.75) 0.77 Merchant 27(41.5) 38(58.5) 3.87(1.5-9.99) 0.005 2.45(0.82-7.27) 0.106 Governent 25(14.9) 143(85.1) 15.7(6.3-39.2) 0.000 7.58(2.7-21.23) <0.001 Farmer 14(70.0) 6(30.0) 1.18(0.34-4.13) 0.797 0.79(0.19-3.23) 0.74 Ethnicity Bench 60(37.3) 101(62.7) 1 Keffa 19(26.8) 52(73.2) 1.63(0.88-3) 0.12
Secondary 22(33.8) 43(6.2) 3.69(1.4-9.62) 0.008 Teritary 27(21.3) 100(78.7) 6.99(2.8-17.4) 0.000 Occupation Unemploye 22(73.3) 8(26.7) 1 1 d 1 1 1 Daily 28(71.8) 11(28.2) 1.08(0.37-3.14) 0.89 0.84(0.25-2.75) 0.77 Merchant 27(41.5) 38(58.5) 3.87(1.5-9.99) 0.005 2.45(0.82-7.27) 0.106 Governent 25(14.9) 143(85.1) 15.7(6.3-39.2) 0.000 7.58(2.7-21.23) <0.001
Teritary 27(21.3) 100(78.7) 6.99(2.8-17.4) 0.000 Occupation Unemploye 22(73.3) 8(26.7) 1 1 Daily 28(71.8) 11(28.2) 1.08(0.37-3.14) 0.89 0.84(0.25-2.75) 0.77 Merchant 27(41.5) 38(58.5) 3.87(1.5-9.99) 0.005 2.45(0.82-7.27) 0.106 Governent 25(14.9) 143(85.1) 15.7(6.3-39.2) 0.000 7.58(2.7-21.23) <0.001 Farmer 14(70.0) 6(30.0) 1.18(0.34-4.13) 0.797 0.79(0.19-3.23) 0.74 Ethnicity Bench 60(37.3) 101(62.7) 1
Occupation Unemploye 22(73.3) 8(26.7) 1 1 d 1 1 1 Daily 28(71.8) 11(28.2) 1.08(0.37-3.14) 0.89 0.84(0.25-2.75) 0.77 Merchant 27(41.5) 38(58.5) 3.87(1.5-9.99) 0.005 2.45(0.82-7.27) 0.106 Governent 25(14.9) 143(85.1) 15.7(6.3-39.2) 0.000 7.58(2.7-21.23) <0.001
Unemploye 22(73.3) 8(26.7) 1 1 1 d Daily 28(71.8) 11(28.2) 1.08(0.37-3.14) 0.89 0.84(0.25-2.75) 0.77 Merchant 27(41.5) 38(58.5) 3.87(1.5-9.99) 0.005 2.45(0.82-7.27) 0.106 Governent 25(14.9) 143(85.1) 15.7(6.3-39.2) 0.000 7.58(2.7-21.23) <0.001 Farmer 14(70.0) 6(30.0) 1.18(0.34-4.13) 0.797 0.79(0.19-3.23) 0.74 Ethnicity Bench 60(37.3) 101(62.7) 1
d Daily 28(71.8) 11(28.2) 1.08(0.37-3.14) 0.89 0.84(0.25-2.75) 0.77 Merchant 27(41.5) 38(58.5) 3.87(1.5-9.99) 0.005 2.45(0.82-7.27) 0.106 Governent 25(14.9) 143(85.1) 15.7(6.3-39.2) 0.000 7.58(2.7-21.23) <0.001 Farmer 14(70.0) 6(30.0) 1.18(0.34-4.13) 0.797 0.79(0.19-3.23) 0.74 Ethnicity Bench 60(37.3) 101(62.7) 1
Daily 28(71.8) 11(28.2) 1.08(0.37-3.14) 0.89 0.84(0.25-2.75) 0.77 Merchant 27(41.5) 38(58.5) 3.87(1.5-9.99) 0.005 2.45(0.82-7.27) 0.106 Governent 25(14.9) 143(85.1) 15.7(6.3-39.2) 0.000 7.58(2.7-21.23) <0.001
Merchant 27(41.5) 38(58.5) 3.87(1.5-9.99) 0.005 2.45(0.82-7.27) 0.106 Governent 25(14.9) 143(85.1) 15.7(6.3-39.2) 0.000 7.58(2.7-21.23) <0.001
Government 25(14.9) 143(85.1) 15.7(6.3-39.2) 0.000 7.58(2.7-21.23) <0.001 Farmer 14(70.0) 6(30.0) 1.18(0.34-4.13) 0.797 0.79(0.19-3.23) 0.74 Ethnicity Bench 60(37.3) 101(62.7) 1
Farmer 14(70.0) 6(30.0) 1.18(0.34-4.13) 0.797 0.79(0.19-3.23) 0.74 Ethnicity Bench 60(37.3) 101(62.7) 1
Ethnicity Bench 60(37.3) 101(62.7) 1
Bench 60(37.3) 101(62.7) 1
· / · · · /
Keffa 19(26.8) 52(73.2) 1.63(0.88-3) 0.12
Amhara 10(31.2) 22(68.8) 1.3(0.58-2.95) 0.52
Oromo 11(61.1) 7(38.9) 0.38(0.14-1.03) 0.06
Sheko 16(40) 24(60) 0.89(0.44-1.81) 0.75
Any relative who have prostate problem
Yes 3(15) 17(85) 3.39(0.97-11.88) 0.06
No 113(37.4) 189(62.6) 1
Drinking alcohol
Yes 14(46.7) 16(53.3) 1
No 102(34.9) 190(65.1) 1.63(0.77-3.5) 0.21
Smoke
Yes 18(36.7) 31(63.3) 1
No 98(35.9) 175(64.1) 1.04(0.55-1.95) 0.91

CHAPTER SIX: DISCUSSION

The findings of the study show that 64% of men residing in Mizan Aman town have a high level of prostate cancer awareness.

The awareness of prostate cancer is different. Most of the study participant had awar about prostate cancer is a common malignancy in men 198(61.5%), the risk of prostate cancer increase with age 206(64%), it is important to screen for prostate cancer 219(68%), it is curable 220(68.3%), preventable 213(66.1%) and it cases death (212(65.8%). On the other hand, majority of the respondent had low awareness on screening method 14(4.3%) and the risk factor of prostate cancer such as alcohol 32(9.9%), high fat diet 43(13.4%), smoking 36(11.2%). However, the study finding in Riyadh, Saudi Arabia shows that smoking is a risk factor for prostate cancer had (41.5%) different might be due to sample characteristics of those of outpatient (16). However, prostate cancer causes curable is inline similar to those study Riyadh, Saudi Arabia (70.2%)(16). However, the level of awareness regarding prostate cancer varies by sample characteristics such as age, economic status, and occupation. This may indicate that there is a significant number of men who might likely to have a late diagnosis of prostate cancer which could lead to poor prognosis. The level of prostate cancer awareness in the current study is by far less than the findings of the study conducted in Oyo State, Nigeria, which was 80%(26). This variation can be attributed to the difference in sample characteristics and information about prostate cancer. In Nigeria more research done on the awareness, perception, knowledge, attitude, and practice of prostate cancer, this may indicate that more cases of undiagnosed prostate cancer in Ethiopia than in Nigeria.

However, according to the a case study done in rural Mhondoro-Ngezi, Kadoma District, Zimbabwe the awareness of prostate cancer is 21% it might be due to difference in socio demographic status of the study participant due to the rural residency and study design that the study is used which show that those who live in urban were more aware about prostate cancer this implies they use screening service as better than those of rural(27).

Other important findings of the current study are age, economic status and occupation are significantly associated with the level of awareness. Relatively younger age, higher income and being government employed increase the chance of being award to prostate cancer. For example, poor awareness on prostate cancer were older relative to those with good awareness.

Regarding age, those whose age were 40-55 are almost six times more likely award about prostate cancer than who is >65 years. This is in line with the study findings on adult males over the age of 40 years in Turkish(28). This shows men whose age is greater than 60 was associated with awareness of prostate cancer in it diagnosis early it could be curability, treated, and for medical cheek up. This might show that older age was more awarded about prostate cancer than other these could be due to they had to get information more than others on the diagnosis and following cheek up which Imlay that older population more uses of screening service when they were knowledgeable about it(28).

Concerning to monthly income those whose income is between the range of 200-5000 were higher level of awareness than those whose income is <2000 this finding is similar to the study done in Turkish based on monthly income demonstrated that groups with middle-income level had undergone medical examinations statistically significantly more when compared with other groups (p=0.041)(28). This implicate that when the income level is increase leads to increase health seeking behavior.

According to a study was done in Ghana male teachers in the Sunyani municipality all men (100%) study respondents were aware of prostate cancer. Which might be due to the occupation they get information more than others through media, reading different book and other sources of information which imply that being an employer is one of a factor to seeking health(29).

Though this study is the first in its kind in Ethiopia in general and Mizan Aman in particular, many factors may limit the findings of this study. Response to Such kinds of study items may require health literacy and age-related experience. Besides the absence of information on health literacy status, there is not an age registry system in the country, they may underreport or over report their age.

CHAPTER SEVEN: CONCLUSION AND RECOMMENDATION

7.1 Conclusion

This study has revealed that 36% of men residing in Mizan Aman town had a low level of prostate cancer awareness. Those elderly, low economic status and,un employment had less likely hoodness of awareness.

7.2 Recommendation

Based on the study findings the following recommendations were forwarded to a different concern bodies. The means to enhance the awareness of men regarding prostate cancer needs for a collective effort from different stakeholders.particularly should design an awareness creation strategy using an input of the current findings. In collaboration with Mizan Aman Education Bureau, Mizan Aman Health Bureau should develop adult-centered educational programs could be created for those low economics status, unemloyer and aged people in special. further more, a large scale multi-centered, mixed-method future research is required.

references

- 1. Annesi SM, Brooks-brunn JA, Byers JF, Casey PE, Cash J, Corbin J. Medical-Surgical Nursing. 10th ed. 1496 p.
- 2. Pamela I. Ellsworth M. Prostate Cancer.
- 3. Love M. Bailey & Love's SHORT PRACTICE of SURGERY. 25th ed. Sci NSWMFFm, Professor of Surgery and Centre Lead, Centre for Academic Surgery B and the L, editors.
- 4. Ernest K, Saleh R, Fran C, Rodrigue P, Matthew D, Oghenekome O. Prostate cancer screening knowledge, attitudes, and beliefs among men in Bamenda, Cameroon. 2017;6(4):339–49.
- 5. Bray F, Ferlay J, Soerjomataram I. Global Cancer Statistics 2018 : GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. 2018;394–424.
- 6. Adeloye D, David RA, Aderemi AV. An Estimate of the Incidence of Prostate Cancer in Africa: A Systematic Review and. 2016;0:1–18.
- 7. Udeh EI, Amu OC, Nnabugwu II, Ozoemena OFN. Transperineal versus transrectal prostate biopsy: Our findings in a tertiary health institution. 2015;18(1):110–4.
- 8. Sitemaster. The incidence of prostate cancer in Africa. 2016.
- 9. Profile CM, Trends ACM, Incidence C. Ethiopia. 2014;
- 10. Worku T, Mengistu Z, Semahegn A, Tesfaye G. Rehabilitation for cancer patients at Black Lion hospital, Addis Ababa, Ethiopia: a cross-sectional study. 2017;1–7.
- 11. WORLD HEALTH ORGANIZATION. health profile and world rankings for Ethiopia. 2017.
- 12. Yu JB, Cramer LD, Herrin J, Soulos PR, Potosky AL, Gross CP. J OURNAL OF C LINICAL O NCOLOGY Stereotactic Body Radiation Therapy Versus Intensity-Modulated Radiation Therapy for Prostate Cancer: Comparison of Toxicity. 2014;32(12).
- 13. Mofolo N, Betshu O, Kenna O, Koroma S, Lebeko T, Claassen FM, et al. Knowledge of prostate cancer among males attending a urology clinic, a South African study. Springerplus [Internet]. 2015;4(1):67. Available from: https://doi.org/10.1186/s40064-015-0824-y
- 14. Manuscript A. NIH Public Access. 2014;19(4):165–70.
- 15. Jo A, Eo O, Co N, Eo O. AWARENESS AND KNOWLEDGE OF PROSTATE CANCER AMONG MEN IN BENIN CITY , NIGERIA . 2013;12(2):42–7.
- 16. Almuhanna AM, Alshammari S, Alsalman HK, Albeladi H, Alsubaie A, Abueissa WA, et al. Awareness of Prostate Cancer, Screening and Methods of Managements in a Hospital in Riyadh, Saudi Arabia. 2018;70(January):1090–2.
- 17. Sola AO. PROSTATE CANCER AWARENESS, KNOWLEDGE, AND SCREENING PRACTICES AMONG OLDER MEN IN OYO STATE, NIGERIA. 30(3):271–86.
- 18. Mba WP. ON SELF-VULNERABILITY AND UPTAKE OF SCREENING. 2013;
- 19. Williams PB, Sallar AM. Knowledge, Attitude, and Prostate Cancer-Screening Experience among African American Men in Southside Chicago: Intervention Strategy for Risk Reduction Activities. 2014;52–60.
- 20. Adibe MO, Aluh DO, Isah A, Anosike C. Knowledge, Attitudes and Perceptions of Prostate Cancer among Male Staff of the University of Nigeria. 2017;18:1961–6.
- 21. NAKWAFILA O. KNOWLEDGE AND ATTITUDES TOWARDS PROSTATE CANCER SCREENING AMONGST MEN IN OSHANA REGION, NAMIBIA A.

- 2017;91(April):399–404.
- 22. Balogun O, Ogundare EO, Ekiti A. Knowledge, attitudes and screening practices regarding prostatic diseases among men older than 40 years: a population-based study in Southwest Nigeria. 2017;
- 23. Sembilan N, Ismail S, Zainuddin H, Hamedon TR, Juni MH, Mohd NA. factors associated with awareness, knowledge and attitude towards prostate cancer among Malay men in traditional. 2018;14(June):31–8.
- 24. awareess _ meaning in the Cambridge English Dictionary.
- 25. Towards P, Cancer P, Male A, Staffs P. PROSTATE CANCER AMONG MALE PUBLIC STAFFS IN KELANTAN. 2016;3(6):105–15.
- 26. Oladepo O, Yusuf B, Akinola Y, Arulogun O. Prostate Cancer Awareness, Knowledge, and Screening Practices among Older Men in Oyo State, Nigeria. Vol. 30, International quarterly of community health education. 2009. 271–286 p.
- 27. Moyo S. Men's knowledge about prostate cancer: a case study of rural Mhondoro-Ngezi, Kadoma District, Zimbabwe. Eur J Cancer Care (Engl). 2017;26(1):1–9.
- 28. Turkan S, Doğan F, Ekmekçioğlu O, Çolak A, Kalkan M, Şahin Ç. The level of knowledge and awareness about prostate cancer in the Turkish male and the relevant effective factors. 2016;42(3):134–9.
- 29. Yeboah-asiamah B. PERCEPTIONS AND ATTITUDES ABOUT PROSTATE CANCER AMONG MALE TEACHERS IN THE SUNYANI MUNICIPALITY. 2015.

Anexes

Jimma University

School of Nursing and Midwifery

Annex 1: Participant Information Sheet and Informed Consent Form

My Name is ------. I am working as a data collector for the study being conducted in this community on the awareness of prostate cancer and its associated factors amongst men older than 40 years in Mizan Aman town by Ashenafi assefa, who is studying for his Master's degree at Jimma University, School of Nursing and Midwifery. I kindly request you to give your attention to explain about the study and being selected as a study participant.

The study title: To assess the awareness of prostate cancer and its associated factors amongst men older than 40 years in Mizan Aman town, Southwest Ethiopia

Purpose of the study: The purpose of the study was to determine the awareness of prostate cancer and its associated factors amongst men in Mizan Aman town, Thus, the findings was used as evidence and as input for the Mizan Aman health office and as well as Zonal health bureau and other organizations to address the problems related to Prostate Cancer. The findings will also use as an input for developing policy and strategy. Moreover, the aim of this study is to write a thesis as a partial requirement for the fulfillment of a Master's of Adult health nursing for the principal investigator.

Procedure and duration: I am interviewing you using questionnaire to investigate determinants of Prostate Cancer. Therefore, provide me with pertinent data that is helpful to the study. All of your responses and procedures done are completely confidential. You are kindly requested to answer every question and all the procedures, but you may stop at any time you want to. However, your honest answers to these questions were help for better understanding of determinants of Prostate Cancer. The total time needed for answering the questions was about 20 to 30 minutes. **Risks and benefits**: The risk of participating in this study is very minimal, but only taking 20 to 30 minutes from your time. There would not be direct payment for participating in this study. But the findings from this research may reveal important information for the Mizan Aman health office and government strategy implementers.

Confidentiality: The information you provide us was confidential. There is no information that is identifying in particular. The findings of the study are general for the study community and was not reflect anything particularly of individual persons. The questionnaire is coded to exclude showing names. No reference was not make 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 declare 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 is not labeling you for any loss of benefits which you otherwise are entitled. You do not have to answer any question that you do not want to answer.

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

Principal investigator: Ashenafi assefa, Email: asheashu21@gmail.com or Mob. 0947094256 If respondent agree:

If respondents disagree then stop here.

Annex 2: Questionnaires (English Version) Study participants

Code	
Date	
Keeble	

PART I: SOCIO DEMOGRAPHIC CHARACTERISTICS

Items no	Items	Response
101	Age?	
102	Marital status?	1. Single
		2. Married
		3. Widowed
		4. Separate or divorced
103	Educational status?	 Illiterate (can't read &write) illiterate (read & write) primary Secondary tertiary education
104	Occupation?	1. Unemployed 2. Daily labor
		3. Merchant 4. Government Employee
		5. Others(specify)
105	Religion?	1. Orthodox
		2. Muslim
		3. Protestant
		4. Others(specify)
106	Ethnicity?	1. Bench
		2. keffa
		3. Amhara
		4. Oromo
		5. Others(specify)
107	What is your average monthly	birr
	income?	

PART II: PROSTATE CANCER RISK FACTORS

Items no	Items	Response
201	Do you have any relative/s who ever had	1. yes
	prostate problems?	2. no
202	IF yes to question 201, who is?	1. Father
		2. brother
		3. other specify

PART III: RISK FACTOR FOR PROSTATE CANCER

301	Do you do regular physical exercise?	1. Yes
		2. No
302	Do you drink any form alcohol regularly?	1. Yes
		2. No
303	Are you a regular a regular smoker?	1.Yes
		2. No

PART IV: ASSESS THE AWARENESS OF MEN ON PROSTATE CANCER

Items no	Items	Response
401	Prostate cancer is a common malignancy	1. yes
	occurring in men?	2. no
		3. I don't know
402	The risk of prostate cancer is increases with age?	1. yes
		2. no
		3. I don't know
403	Is It important to be screened for prostate	1. yes
	cancer?	2. no

		3. I don't know
404	Digital Rectal Exam and/or PSA test are the two	1. yes
	most available methods of prostate cancer	2. no
	screening or diagnosis?	3. I don't know
405	Person with prostate cancer usually complain	1. yes
	difficulty of micturition?	2. no
		3. I don't know
406	Prostate cancer is curable?	1. yes
		2. no
		3. I don't know
407	Prostate cancer is preventable disease?	1. yes
		2. no
		3. I don't know
408	Physically inactive people can develop prostate	1. yes
	cancer	2. no
		3. I don't know
409	Prostate cancer can causes death?	1. yes
		2. no
		3. I don't know
410	Drinking alcohol is a risk factor for prostate	1. yes
	cancer?	2. no
		3. I don't know
411	High-fat diet is a risk factor for prostate cancer?	1. yes
		2. no
		3. I don't know
412	Smoking is a risk factor for prostate cancer?	1. yes
		2. no
		3. I don't know

Research team	Name	Signature	Date
Interviewer			
Supervisor			
PI			

Started time of interview	
Interviewer Name	Signature
Checked by supervisor: Signature	Date
Ouestionnaire Identification Number	

የመጠየቂያ ቅጽ እና የተጠያቂወ ፍቃደኛነተ ጣረጋገጫ

ስሜ ------ሲሆን አሸናፊ አሰፋ በፕሮስቴት ካንሰር ላይ ለሚያካሄደው ጥናት ላይ *ጦ*ርጃ ሰበሳቢ ስሆነ ለዚ ደግሞ ተግቢዎን ምላሸ እንድትሰሑኝ በአክብሮት እጠይቃለሁ::

የጥናት ርዕሱ፡ፕሮስቴት ካንሰርን እና ተያያዥ መንሴዎቹ ምንድነወ ሚለዋን 40 በላይ ዕድሜ ባላቸወ ወንዶች ላይ መለየተ፡፡ የጥናቱ ዓላማ፡ የጥናቱ አላማ ፕሮስቴት ካንሰር እና ተያያዥ ምክንያቶች መለየት እና እንደዚሁም ግኝቶቹ እንደ ማስረጃ ለሚዛን አማን ጤና ቢሮ እና ለዞን ጤና ቢሮ እና ሴሎች ድርጅቶች ከፕሮስቴት ካንሰር ጋር የተያያዙ ችግሮችን ለመፈታት ይርዳል. ግኝቶቹ ፖሊሲ እና ስትራቴጃ ለማዘጋጀት እንደ ግብዓት ይጠቀማል::

የስራወ ሂደትና የሚያቆየወ ጊዜ- ስለ ፕሮስቴት ካንሰር ወሳኝ ነገሮችን ለማወቅ ጥያቄ በመጠቀም ቃለ መጠይቅ አደረጋለወ. ሁሉም የሚሰጧቸው መልሶች እና ሂደቶች ሙሉ በሙሉ ሚስጥራዊ ናቸው ሁሉንም ጥያቄዎች እንዲመለሱ በአክብሮት እጠይቃለሁ ፡፡ነገር ግን በፈለጉት ጊዜ ማቆም ይችላሉ :: ለጥያቄዎች ትክክለኛ መልስዎ ስለ ፕሮስቴት ካንሰር ወሳኝነት የበለጠ ለመረዳት ይረዳል:: ጥያቄዎቹን ለመመለስ ጠቅላላ ጊዜ ከ 20 እስከ 30 ደቂቃዎች ይፈጃል::

ጉዳትና ጥቅሞች: ከእርስዎ ጊዜ ከ 20 እስከ 30 ደቂቃዎች ብቻ ነው የሚወስደው::በዚህ ጥናት ለመሳተፍ ቀጥተኛ ክፍያ አይኖርም::

ሚስጢራዊነት-የሚሰጡን መረጃ ሚስጥራዊ ይሆናል በተለይ ለይቶ የሚያውቀው ምንም መረጃ የለም :: የጥናቱ ግኝቶች ለጥናቱ ማህበረሰብ ጠቅሳላ ነወ እናም የግለሰብን ልዩነት የሚያንጸባርቅ አይደለም::

መብቶች፡ ለዚህ ተናት ሚሳተፍት ሙሉ በሙሉ በፈቃደኝነት ነው:: በዚህ ተናት ውስተ መሳተፍ ወይም አለመሳተፍ መብት አለዎት::ለመሳተፍ ከወሰኑ በጣንኛውም ጊዜ ከምርመራዎ የማቋረጥ መብት አለዎት::ለመመለስ የማይፈልጉትን ጣንኛውም ተያቁ መልስ መስጠት የለብዎትም::

አድራሻ: ስለ ጥናቱ ወይም ስለ ሂደቱ ማንኛውንም ጥያቄ ካለ *መ*ጠየቅ ይቸላሉ, በዚ*ህ* አድራሻ *ያነጋ*ግሩ.

ዋና ተመራጣሪ: አሸናፍ አስፋ, ኢሜል: asheashu21@gmail.com ወይም ሞባይል. 0947094256 መልስ ሰጪው ከተስማማ

*ማ*ልስ ሰጪዎች ካልተስማም, እዚህ ላይ አቁም

Annex 3: Questionnaires (Amharic Version) Study participants

የአማረኛ ተያቄዋቸ
h <i>ድ</i>
ቀን
ቀበሌ
ክፍለ አንድ የሰስድ ይመማኤፈ በህርየት ጥየቂዋች

ተ.ቁ	ተ ያቄ	<i>መ</i> ልስ
101	ዕድሜ በአመት	
102	የኃብቻ ሁኔታ	1. ያላזባ 2. ያንባ
		3. የሞተቸበት/የሞተበት 4. የተለያዩ ወይም የተፋቱ
103	የትምህርት ሁኔታ	1. ማንበብ እና መጻፍ ማይቸል 2. ማንበብ እና መጻፍ ሚቸል
		3. አንደኛ ደረጃ 4. ሁለተኛ ደረጃ
		5. ሶስተኛ ደረጃ(ኮሌጅ እና ዩኒቨረሰቲ)
104	የስራ ሁኔታ	1. ስራ የሌለወ 2. የቀነ ጉልበት ሰራተኛ 3 ነጋኤ 4. የመንግስት ሰራተኛ
		5. ሌላ (ይግለጹ)
105	ሃይጣኖት	1. ኦርቶዶክስ 2. ምስሊም
		3. ፕሮቴስታንት 4. ሌላ (ማለጹ)
106		1. ቤንቸ 2. h ፋ
	ብሔረ	3. አማራ 4. አሮም 5 ሌሎች
107	አማካይ <i>ወርሃዊ ገ</i> ቢ	nc
	ምን ያህል ነወ?	1. ንቢ የለም 2. አላውቅም 3. መልስ የለም

ክፍል ሁለት. ፕሮስቴት(የ ወስጥ ሽንት *መ*ሽኛ ቱቦ *ጫ*ፈ ላይ የሚፈጠረ) ካንሰር ከ ዘመድና *ጋ*ረ ያለወን ትስስረ ጥያቄዋች

ተ.ቁ	<u> </u>	<i>ማ</i> ልስ
201	የፕሮስቴት(የ ወስጥ ሽንት <i>መ</i> ሽኛ ቱቦ ጫፈ ላይ የሚፈጠረ) ካንሰረ	1 አለ 2 የለም
201	ችግረ <i>ያጋ</i> ጠጧቸው ዘመድ አሉዎት?	1. tut 2. ttt
202	ለመጠየቅ 201 አዎ ከሆነ, ማን ነው?	1. አባት 2. ወንድም
		3. ሴሳ ይማለጹ

301	ዘወትር አካላዊ እንቅስቃሴ ይሰራሉ?	1. አዋ 2. አልሰራም
302	በየጊዜው ምንም አይነት አልኮሆል <i>መ</i> ጠፕ እብዘተወ ይጠጣሉ?	1. አዎ 2. አልጠጣም
303	ሲ <i>ጋ</i> ራ በየቀኑ በብዛት ያጬሳሉ?	1. አዎ 2. አላጬስም

ክፍል አራት ስለ የፕሮስቴት (የ ወስጥ ሽንት *መ*ሽኛ ቱቦ *ጫ*ፈ ላይ የሚፈጠረ) ካንሰር ያለዋን ግንዛቤ *መ*ጠይቅ

ተ.ቁ	ተያቄ	<i></i> ማልስ
401	ፕሮስቴት(የ ወስጥ ሽንት መሽኛ ቱበ ጫፌ ላይ የሚፈጠረ) ካንሰር	1. አዎ 2. አይደለም
	በወንዶች ላይ የሚከሰት የተለመደ ችግር ነውን?	3. አላውቅም
402	ፕሮስቴት(የ ወስጥ ሽንት መሽኛ ቱበ ሜፌ ላይ የሚፈጠረ) ካንሰር	1. አዎ 2. አይደለም
	እድሜ ሲጨ <i>መረ የመያዝ እ</i> ድል <i>እየጨመረ ይሄዳ</i> ል?	3. አላውቅም
403	ለፕሮስቴት(የ ወስጥ ሽንት መሽኛ ቱቦ ሜሬ ላይ የሚፈጠረ) ካንሰር	1. አዎ 2. አይደለም
	<i>መታ</i> የት አስፈላጊ ነውን?	3. አላውቅም
404	ዲጂታል ሬክታል ምርመራእና / ወይም የ PSA(ስለ ፕሮስቴት ካንሰር	1. አዎ 2. አይደለም
	ደም ምርመራ) ሁለቱ በጣም የተሻሉ የፕሮስቴት(የ ወስጥ ሽንት	3. አላውቅም
	መሽኛ ቱበ ጫፈ ላይ የሚፈጠረ) ካንሰር መርመራያዎች ናቸው?	
405	የፕሮስቴት(የ ወስጥ ሽንት መሽኛ ቱቦ ሜፌ ላይ የሚፈጠረ) ካንሰር	1. እወነት 2 ሐሰት
	በሽታ ያለበት ሰው ብዙውን ጊዜ የሽንት መሽናት ችግር ያሰጣሉ?	3. አላውቅም
406	ፕሮስቴት(የ ወስጥ ሽንት መሽኛ ቱቦ ሜሬ ላይ የሚፈጠረ) ካንሰር	1. እወነት 2 ሐሰት
	ሊታከም ይቸላልን?	3. አላውቅም
407	የፕሮስቴት (የ ወስጥ ሽንት መሽኛ ቱበ ሜሬ ላይ የሚፈጠረ) ካንሰር	1. እወነት 2 ሐሰት
	በሽታን መከላከል ይቻላል?	3. አላውቅም
408	አካላዊ እንቅስቃሴ የሌላቸው ሰዎች ለፕሮስቴት(የ ወስጥ ሽንት <i>መ</i> ሽኛ	1. እወነት 2 ሐሰት
	ቱቦ ሜሬ ላይ የሚፈጠረ) ካንሰርን የ <i>መጋ</i> ለጥ እድላቸወ ከፈተኛ ነወ?	3. አላውቅም

409	ፕሮስቴት ካንሰር ዓ	ንሰር ሞትን ሊያስከትል ይቸላል?			ት 2 ሐሰት	
				3. አላው	ቅም	
410	አልኮል <i>መ</i> ጠፕ ለ	ለፕሮስቴት(የ ወስጥ ሽንት <i>መ</i> ሽኛ ቱቦ ጫፈ ላይ			^ት 2 ሐሰት	
	,	. እንዱ ምክንያት ነውን?	3. አላው	ቅም		
411	ከፍተኛ ስብ ያላቸወ ምግቦች ለፕሮስቴት (የ ወስጥ ሽንት መሽኛ ቱቦ			1. እወነት	ት 2 ሐሰት	
	<i>ጫ</i> ፈ ላይ የሚፈጠረ) ካንሰር <i>ያጋ</i> ልጣል?				ቅ ም	
412	ሲጋራ ጣጩስ ለፕሮስቴት(የ ወስጥ ሽንት መሽኛ ቱቦ ጫፈ ላይ				· 2 ሐሰት	
	የሚፌጠረ) ካንሰር ያ <i>ጋ</i> ልጣል			3. አላውቅም		
					10	
		ስም	ፌርማ		ቀን	
<i>ቃ</i> ለ- <i>መ</i> ጠይቅ ጠ <i>ያቂ</i>						
ተቆጣጣሪ						
ዋና ተመራጣሪ						

ቃለ		
የጠያቂወ ስም	ስልክ ቁፕር	
የተቆጣጣሪወ ጣር ጋገጫ ፊርጣ	ቀን	
ቁጥር		

Annex 4: Questionnaires (Bench Version) Study participants

Ochaga kutssa esh yesemakush fetushaga hutss

Ta summe	-fetagushe d	asheafi	assrfaye	kaytseskushaga	erte	kaytseze	yetekey
tam karsesuweshe yetekeze och	aa taa yissk	xuwee					

Ertaga afee: prostate cancer masteskush eynaga shesh bone keskush bura yii nabii harew masteskush eyane 40 berge debbe yeskushan feteskuwe.

Ertaga gatstee:prostate cancer (masteskush eynaga shesh bone keskush bura yii) nabii harew bade atse erstush gesh Mizan Aman sotasagushaga tsaf ketanona fetagaq eratush no atensusha ye afam kaytsa kytsensuweshe bde eutsensuwee.

Aba yess beshennsuwe:atse keyannge useskush karte ertashesh soye fetuweshe atse ebaeamush karse karsensuwesh ocha tayiskuwe.

Yega gatsa etaa: yess koysteskush abee 20-30 dekika becha gezew.

Ache gaa:hasha ocha ochaseskushe erasagone erase hasez bekensarguwe.

Mebtii:ocha ochashen melse atse karsensushe baga shunamagezew hawush satenagon yefetan bakoyargu yefetan dobi akensuwe.

Tayez yentekein yami makann:yintekin yeam yafensushe

Ahenafi assefa emaili <u>asheashu21@gmail.com</u> usergu yefetan taselka 0947094256 feteskuwee.

Bench nonn ochee
Kodd
Abee
Kebaalee
Ochaagaa mate yega yetsendeze noteskush
101,niberge ammewee?
102,maynez wosew? 1.eyarsartanuwe 2.eyarsantanuwe 3.hayyka boka 4. Astna noboka
103,timirtaga wosasew 1.nababayind tsafin akartanuwe2.nababama tafa taakeskuwee 3. Matnush
derejayee 4. Namush derejaye 5 Kazeushh derejayee
104,kaytsa wosew? 1. Kaytse taten kayguwe 2. Abaga kaytsasee 3. Gitnasee 4. Mangeest kaytsasee
5. Dumarsee
105, gibate wosew? 1. Orthodoxee 2. Muslimme 3. Protestantee 4. Dumarsee

106,zarii hareww? 1. Benchh 2. Gomarr 3. Amaharee 4. Oromooye 5. Dumarse

107,eyrfe ame yakistagawo?_____

Namnasush zara bana deymageskush ochee

201, prostate cancer (masteskush eynaga shesh bone keskush bura yii) yetenken zarkan yistage? 1.

Yew 2. Kayguw

202, yistaban oneww?1. babee 2. Echee 3. Dumarsee

Kaznasush eratabana bana deymageskush ochee

30, sport kaytsestane? 1. Yewa 2. Kaytsartanuwe

302, aush aushkistane? 1. Yew 2. Aushartanuwee

303, dambayy aushkistane? 1. yew 2. Aushartanuwe

Odnasush:prostate cancer (masteskush eynaga shesh bone keskush bura yii) ertaga ochh 401, prostate cancer (masteskush eynaga shesh bone keskush bura yii) eyann bichan fugestagee? 1, yew 2. Sesar tanuwe 3. Terarguwe

402. prostate cancer (masteskush eynaga shesh bone keskush bura yii) berge kazan ase utestage?

1, yew 2. Sesar tanuwe 3. Terarguwe

403, prostate cancer (masteskush eynaga shesh bone keskush bura yii) bestenenuwey koystestage?

1, yew 2. Sesar tanuwe 3. Terarguwe

404,DRE/PSA baname yea prostate cancer (masteskush eynaga shesh bone keskush bura yii)

Ersteskush fetush erestane? 1, yew 2. Sesar tanuwe 3. Terarguwe

405, prostate cancer (masteskush eynaga shesh bone keskush bura yii) sheshez eratasestagee? 1, yew 2. Sesar tanuwe 3. Terarguwe

406, prostate cancer (masteskush eynaga shesh bone keskush bura yii) hakkamasestage? 1, yew 2. Sesar tanuwe 3. Terarguwe

407. prostate cancer prostate cancer (masteskush eynaga shesh bone keskush bura yii) hakkamasestage afaren detsase atensarguwesh atasngee? 1, yew 2. Sesar tanuwe 3. Terarguwe 408,sport kaytsargushe bayam (masteskush eynaga shesh bone keskush bura yii) bedensuwee?

1, yew 2. Sesar tanuwe 3. Terarguwe

409., sport kaytsargushe bayam prostate cancer (masteskush eynaga shesh bone keskush bura yii) hakkamasestage weteskuwe?

1, yew 2. Sesar tanuwe 3. Terarguwe

4010, prostate cancer (masteskush eynaga shesh bone keskush bura yii) aushkiskush ase debe besheshtage? 1, yew 2. Sesar tanuwe 3. Terarguwe

4011? prostate cancer (masteskush eynaga shesh bone keskush bura yii) ko wumeskend atse debe besheshtage? 1, yew 2. Sesar tanuwe 3. Terarguwe

4012 i prostate cancer (masteskush eynaga shesh bone keskush bura yii) dambay aushkeshkend atse dembe besheshtage ?1, yew 2. Sesar tanuwe 3. Terarguwe

Oches gadasush satt	
Och uchuss	
Sattt	
Abee	
Kodd	
Wanaga summ	
Selk kuterr	
Declaration by researcher	

I, the undersigned, MSC Adult health nursing Stude	ent declare that this proposal is me
Original work in partial fulfillment of the requireme	ents for Master's degree in Adult health
Nursing	
Place of submission: School of Nursing and Midw	ifery, Faculty of Health Science, Institute of
health science, Jimma university.	
Date of submission: june , 209Gc	
Researcher Name; Aashenafi Assefa	
June/ 2019Gc signature:	
APPROVED BY MY ADVISORS	
1. Name	
	DATE/
	SIGNATURE:
2. Name	DATE/
	SIGNATURE:
APPROVED BY MY INTERNAL EXAMINOR	
1. Name	DATE/
	SIGNATURE: