



**ASRAT WOLDEYES HEALTH SCIENCE CAMPUS  
SCHOOL OF NURSING AND MIDWIFERY  
DEPARTMENT OF NURSING**

**UTILIZATION OF FAMILY PLANNING AND ASSOCIATED FACTORS  
AMONG WOMEN IN REPRODUCTIVE AGE GROUP WORKING IN  
DEBEBIRHAN INDUSTRIAL PARK, AMHARA, ETHIOPIA, 2023.**

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**Approval sheet**

Asrat Woldeyes Health Science Campus  
School of Nursing and Midwifery  
Department of Nursing

Utilization of family planning and associated factors among women of reproductive age group working in Debrebirhan industrial park, Amhara, Ethiopia, 2023

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## **Abstract**

**Introduction:** Even though the huge advantages of family planning (FP), contraceptive use in Ethiopia was still low and magnitude of unwanted pregnancy is high. Women who were governmental and nongovernmental workers didn't get FP services during every working time. Working related factors is not determined by previous studies in Ethiopia. Determining utilization and associated factors of FP among reproductive age women helps to take action for further improvement of FP utilization.

**Objective:** To assess utilization and associated factors of FP among women of reproductive-age group working in Debrebirhan industrial park, Amhara, Ethiopia, 2023.

**Methods:** Institutional based cross-sectional study design was employed from April 9 - 24/2023. A total of 387 women in reproductive age were included in the study with systematic random sampling technique. Data was collected by face to face interview method. The data was entered into Epi-data version 4.6 and export to Statistical Package for Social Sciences (SPSS) for further analysis. An adjusted odds ratio with 95% confidence interval was used for identifying factors associated with utilization of family planning. A P-value  $<0.05$  were considered as statistically significantly associated with utilization of FP.

**Result:** Utilization of FP among reproductive age women working in industrial park is 47.8%. Factors like working experience (AOR=14.998, 95% CI 4.671-48.154), over all knowledge about modern contraceptive (AOR=9.217, 95% C.I 2.028-41.894), living condition (AOR=5.146, 95% C.I 1.216-21.782), and having sexual partner excluding spouse (AOR=6.959, 95% C.I 1.620-29.885) were independently associated with utilization of FP.

**Conclusion and recommendation:** Utilization of FP remained below from Ethiopian Health Sector Transformation Plan. Special awareness creation about modern contraceptive method should be given to the industrial park women workers. Interventional strategy that promotes FP utilization should consider the associated factors for its better success.

**Key words:** Utilization of family planning, industrial park worker, Debrebirhan, Ethiopia

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## **List of Abbreviations**

AWHSC: Asrat Woldeyes Health Science Campus

CI: Confidence Intervals

CPR: Contraceptive Prevalence Rate

DIP: Debrebirhan Industrial Park

EDHS: Ethiopian Demographic Health Survey

FP: Family Planning

HEW: Health Extension Worker

MC: Modern Contraceptive

MPLC: Manufacturing of Public Limited Company

SPSS: Statistical Package for Social Sciences

SRH: Sexual Reproductive Health

WHO: World Health Organization



# 1 Introduction

## 1.1 Background

Family planning (FP) is referred to the capability of individuals or couples to anticipate and attain their desired number of children and the spacing and timing of their births. It's achieved through use of contraceptive styles and the treatment of involuntary infertility (1). Contraceptive methods are classified as modern and traditional methods. Modern contraceptive (CM) methods include female sterilization, male sterilization, intrauterine contraceptives (IUD), implants, injectable, birth control pills, male condoms, female condoms, emergency contraception, and the locational amenorrhea method (LAM), while traditional methods include rhythm (calendar), withdrawal, and folk methods(2).

Globally FP is crucial to decelerating unsustainable population growth and its negative impacts on the economic, region, and public (3). Family planning saves the lives of women, babe, children, and teenage girls by reducing the number of unplanned gravidity and revocations. FP benefits families, communities and nations by enabling higher public spending per person across all sectors. In addition, natural resources and the environment are relieved(4).

The rates of unmet need for FP in sub-Saharan Africa is high of which is unmet need for spacing and limiting (5).

An unwanted pregnancy is that occurred unplanned or without a desire to have children or the pregnancy is at the missed time and also the pregnancy occurred earlier than desired. Most unwanted pregnancies are the result of not using contraceptives or not using them consistently or correctly. In order to support women, men and couples to prevent or achieve pregnancy, it is important to aware their pregnancy intentions or reproductive life plan (6). The industrial park employs are a large number of young people and mostly women, with limited access to sexual reproductive health (SRH)/FP services in Ethiopia. The advantage of using FP services in the workplace is that they have access to an easily accessible, well-known group of employees. It potentially saves employees time, minimizes lost productivity, and has the benefit of reaching more potential users (1).

## 1.2 Statement of the problem

Globally 1.9 billion women of childbearing age (15-49 years) in 2019, Only 1.1 billion have family planning needs. From 1.1 billion women of childbearing age (15-49 years) in the World 190 million are not using any method of contraception (7).

The prevalence of modern contraceptives in sub-Saharan Africa (SSA) are still low (18.36%), particularly in western regions of Africa such as Nigeria, Gambia, Mali and Burkina Faso (8). Not using of contraceptive regularly leads to unwanted pregnancy, and related to unsafe abortion which is one of the leading causes of maternal death. Unintended gestation affects nearly every one of live and causes a global public health issue. It is related to negative consequences of, induced abortion, infertility, as well as economic effect(9). Family planning services are available free of charge in Ethiopia but unwanted pregnancy is still high and it is challenging in reducing maternal mortality in Ethiopia. The magnitude of unwanted pregnancy during COVID-19 pandemic in Ethiopia was 47%. Most unwanted pregnancies in developing countries including in Ethiopia occur as a result of limited access to family planning services(10) (11).

Contraception is an effective intervention in preventing unintended pregnancies, which are associated with increased risks of poor pregnancy outcomes such as death and unsafe abortions. But many births by women below 20 years of age in developing countries are unplanned, which may be an indicator of the widespread burden of unmet need for contraception(12). Currently, short-term modern FP methods are available at all levels of governmental and private health facilities, while a long-term method is being provided in health centers, hospitals and private clinics. However, the total fertility rate is 4.6 per woman, and the modern contraceptive prevalence rate for married women is strikingly low (2).

Ethiopia's Family Planning 2020 (FP2020) commitments, the Ministry of Health (MoH) developed the 2015 Health Sector Transformation Plan, which aimed to increase the contraceptive prevalence rate (CPR) to 55%, but the contraceptive prevalence rate (CPR) among the current married women aged 15 to 49 years in Ethiopia is 41%, which is unmatched and very low(12). In Ethiopia, there are regional differences in the use of contraceptives. In the four regions that are to use contraceptives in the future, the proportion of women is 74.9% in Benishangul-Gumuz, 50.1% in Gambela, 21.8% in Afar and 20.1% in Somali (13).

According to the Hawassa Industrial Park study, show that the high prevalence rate of 27.7% unmet need (14). It indicated that the need of further research analysis on sexual and reproductive health services around industrial park in Ethiopia

In Ethiopia, there are several scholars conducted to assess the prevalence of family planning methods utilization and associated factors among reproductive age women. But they are not consider some important factors of work related characteristics like work experience, working hours, working factory, and availability of family planning at any working time. According to our working experience, women who governmental and nongovernmental workers always coming in our health center for Contraception use, Even if for emergency contraceptive use out of the governmental working hours (during emergency working time). But health center dispensing pharmacy is not dispensing any methods of contraceptive. Rather it supply from store to family planning service unit. Family planning service is not available during emergency working hours. So women always not served during this time or it prescribed to private pharmacy. Therefore the factors of work related characteristics like year of working experience, per day working hours, working factory and availability of family planning method at any working time might be affect utilization of family planning. This study aimed to assess utilization of family planning and associated factors among women in the reproductive-age working in Debrebirhan Industrial Park.

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

Several studies has been done on contraceptive utilization and associated factor, Even though, it is not effective that much intention to increase contraceptive utilization. The variables of work related characteristics like year of working experience, per day working hours, working factory and availability of family planning method at any working time was added on this research. The finding of this study will be give the theoretical and practical significance for women to prevent unwanted pregnancy, sexually transmitted infection including HIV/AIDS, and to develop decision making skill for family planning use through evidenced family planning service delivery. For public health through providing of evidence based information to the Debrebirhan town health office who working with industrial park organization. For health care providers, to identify women of FP non utilizer and easily addressed the services. For industrial park organization to fulfill the need of employee related to family planning service. For reproductive health care planners and Ministry of health as a whole for further revision of guidelines and intervention on Utilization of family planning which is crucial for further fulfillment of SDG. Finally for researchers, gives base line information.

## **2 Literature review**

Global Utilization of family planning shows, Female sterilization and male condoms are the most commonly used contraceptive methods. 46% of the world's 966 million women of childbearing age use short-acting methods (male condoms, the pill, injections and other modern methods) and 44% use permanent and long-acting reversible methods (male and female sterilization, IUDs) in almost equal proportions , implants (15).

Various studies of family planning use and related factors have shown that socio demographic characteristics, reproductive history and sexual characteristics influence family planning use(16, 17).

### **2.1 Prevalence of family planning utilization**

Worldwide, among women who want to avoid gestation, 77 percent used modern contraceptive. Regions with the lowest proportions of modern contraceptive use are Eastern and South- Eastern Asia (87), Australia and New Zealand (85), Latin America and the Caribbean (83), and Europe and Northern America (80). The regions with the lowest use of modern methods include sub-Saharan Africa (56%) and Oceania excluding Australia and New Zealand (52%). Compared to other regions, larger proportions of women who want to avoid pregnancy do not use any method (37% and 38%, respectively) (15). The prevalence rate for contraceptive use among sexually active female adolescents in Atwima Kwanwoma District, Ashanti region-Ghana is 61.0% (17).

The prevalence of modern contraceptive use in sub-Saharan Africa is 22.0%. Coverage varied widely across countries, ranging from the highest at 49.7% in Namibia to the lowest at 3.5% in the Central African Republic. Other countries with a high prevalence of MC use are Lesotho, 48.5%, Zimbabwe, 47.9% , South Africa, 47.9 % , Malawi 45.2% and Kenya 39.1% (18).

The prevalence of contraceptive use among women of childbearing potential in Ethiopia is 37.6%. Of all contraceptive users, a large number of women, 57.0%, used injectable forms of contraception, followed by implants (24.3%) (19). The use of modern family planning among the currently married women in rural eastern Ethiopia is 43.8% who have ever used modern contraceptive methods, while 18.4% of women are currently using modern methods (20). According to the 2019 Mini-DHS in Ethiopia, 41% of currently married women use modern

methods of family planning and 1% use traditional methods. The most popular contraceptive methods are injections (27%), followed by implants (9%) and the pill and the IUD (2% each). The contraceptive prevalence rate (CPR) among married women increases from 37% in women aged 15-19 to 52% in women aged 20-24, and then steadily decreases to 18% in women aged 45-49 years(21).

A community-based cross-sectional study conducted in SNNPR shows that contraceptive use is 53.3% for each type of contraceptive method. The use of modern contraceptives is 99.6%. Almost three-quarters, 73.9% of current users used short-term contraceptive methods (methods that work for three months or less) (22). Depending on the region, the prevalence rate of contraceptives ranges from 3% in Somali to 50% in both the Amhara region and Addis Ababa (44%)(23).

The use of family planning among students of Arba Minch Town preparatory school shows that 78.6% of experienced persons who have experienced sexual intercourse use the FP service. Male condoms were used the most with 63.2%, followed by 36% tablets, and the least used modern contraceptive is female condoms with only 3.2% during their intercourse(24). The overall use of long-term family planning methods among women of childbearing age in Bahir Dar city is 26.4 percent (16).

Utilization of family planning among pastoral community in Afar region who ever use contraception was 11.6%; but only 8.5% were current user during the study period. From the current users, nine out of ten were used injections. Almost 84% of women reported using FP methods for birth spacing(25).

A study conducted at Bahir Dar health facilities found that the prevalence rate among all women was 35.6%, while the contraceptive prevalence rate among married women was 41.0%(26).

## **2.2 Factors affecting family planning utilizations**

### **2.2.1 Socio demographic characteristics**

According to a study conducted in sub-Saharan Africa, all socio-demographic characteristics used in the study (level of education, place of residence, employment status, marital status and wealth index) are significantly associated with the use of modern contraceptives(18). Contraceptive use increases with women's education and household wealth. Fifty-eight percent

of women with more than a secondary education use some form of contraception, compared to 32 percent of women with no education. Likewise, 28% of women in the lowest wealth quintile use birth control, compared to 53% of women in the highest wealth quintile(27, 28).

Several studies have been conducted on determinants of family planning use in developing countries. In some cases, strong associations have been found between the use of family planning and some socio-demographic and economic characteristics of women(8, 13). Another study in Atwima Kwanwoma District, Ashanti Region, Ghana shows that marital status and the person the respondent is staying with (alone, with partner, or with parents) are significantly affect utilization of family planning (17).

A similar study in Ethiopia also shows that the factors influencing contraceptive use, women's age, place of residence, women's educational status, respondents' region, respondents' wealth index, and marital status are significantly related to use of contraceptive methods. Urban-resident women are more likely use contraception than rural-resident women. Married women used contraceptive more often than single women(19). Although positive associations are confirmed between women with at least a basic education and the use of modern contraceptives, some studies have shown an association between educational attainment and contraceptive use (29, 30). Distinctive types of employment were also generally associated with contraceptive use (31). A similar study in Ethiopia also shows that women's educational level, residents also had a statistically significant impact on respondents' chances of using modern family planning methods (21, 32).

Several scholars of Utilization of family planning among women revealed that urban residence, age greater than 30, educational status, occupation, marital status of married, and monthly income of women from 1000-3000 those they are significantly affect utilization of FP (32, 33).

### **2.2.2 Women's attitude towards family planning**

A study in Atwima Kwanwoma District, Ashanti Region, Ghana shows that perceived contraceptive side effects were the main reason for contraceptive non-use (53.66%)(17).

Several studies have shown that the reasons for not using modern methods are absence of sex, the fear of side effects, the lack of access, waiting for menstruation, the use of alternatives, the

desire to have another child, breastfeeding , less frequent sex, the religious prohibition and others are major reason for not utilizing modern contraceptive(8, 13).

According to study conducted in Gondar city on modern contraceptive utilization and associated factors women's attitude towards family planning are positively associated with modern contraceptive utilization(34)

### **2.2.3 Reproductive history and Sexual characteristics of women**

According to a study conducted in sub-Saharan Africa, the number of surviving children and sex characteristics affect the use of family planning. More (3+) having multiple sex partners other than spouse was associated with a higher score than not having multiple sex partners (18).

Family size is one of the reproductive factors significantly associated with the need for Family planning. Currently, it has been found that married women with five or more living children are more likely to have unmet family planning needs than women with two or fewer children. The number of surviving children is significantly related to the unmet need for family planning, suggesting that as the number of surviving children increases, so does the unmet need for family planning (35, 36).

Scholar in north west Ethiopia also revealed that Women who have number of children more than four have a good practice of family planning(33). Women with no living children and women with five or more children are least likely to use contraception compared to women with 1-2 children or 3-4 children(23, 27). A study in Addis Ababa revealed that women who had no history of birth control before their last birth are less likely to use family planning methods during the postpartum period than those who had(37).

### **2.2.4 Women's knowledge about family planning**

According to a study conducted in sub-Saharan Africa, told of family planning in a health facility and attendance at a health facility in the past 12 months are associated with the use of family planning (18).The use of family planning is affected by women's knowledge of about all contraceptive methods. A study in Ethiopia found that women with knowledge of contraceptive methods are more likely to use contraceptives than women who have no knowledge of



contraceptive methods (19). A similar study conducted in Ethiopia also shows that family planning use is influenced by women's media use (35). Scholars among Postpartum Women also revealed that significant predictors of postpartum family planning (PPFP) are good knowledge of family planning(38).

A similar scholar in Ethiopia revealed that socio-demographic characteristics of education, age, occupation and urban resident all those affect utilization of family planning indirectly by affecting women's knowledge (39).

According to a study by the Arbaminch Preparatory School Students, discussing RH with parents is significantly associated with contraceptive use (24). Respondents knew that health extension workers were significantly associated with the provision of family planning services, with 95% using modern family planning methods (16). Several scholars revealed, women who had good knowledge is highly to practice family planning(33, 40).

According to study conducted in Gondar city on modern contraceptive utilization and associated factors women's knowledge about family planning are positively associated with modern contraceptive utilization(34).

### **2.2.5 Partner related characteristics**

According to scholars among married women couple's discussion, partner desire for additional child, partner involvement in the decision of family planning, were independently associated factors of modern contraceptive utilization (20). The couples who discussed about family planning in the past six months are more use modern reference (16). The man's desire to have children also influences the use of family planning in Ethiopia (36).

A similar study in Ethiopia shows that partners who have discussed family planning in the past six months are more likely to use modern family planning than respondents who have not discussed it with their partner (32)..

### 3 Conceptual Framework

Variables adapted from the literatures reviewed, that affect family planning utilization can be categorized as socio-demographic characteristics, reproductive history and sexual characteristics, women's knowledge about family planning, women's attitude towards family planning, partner related characteristics and work related characteristics as indicated below (33, 34, 40)

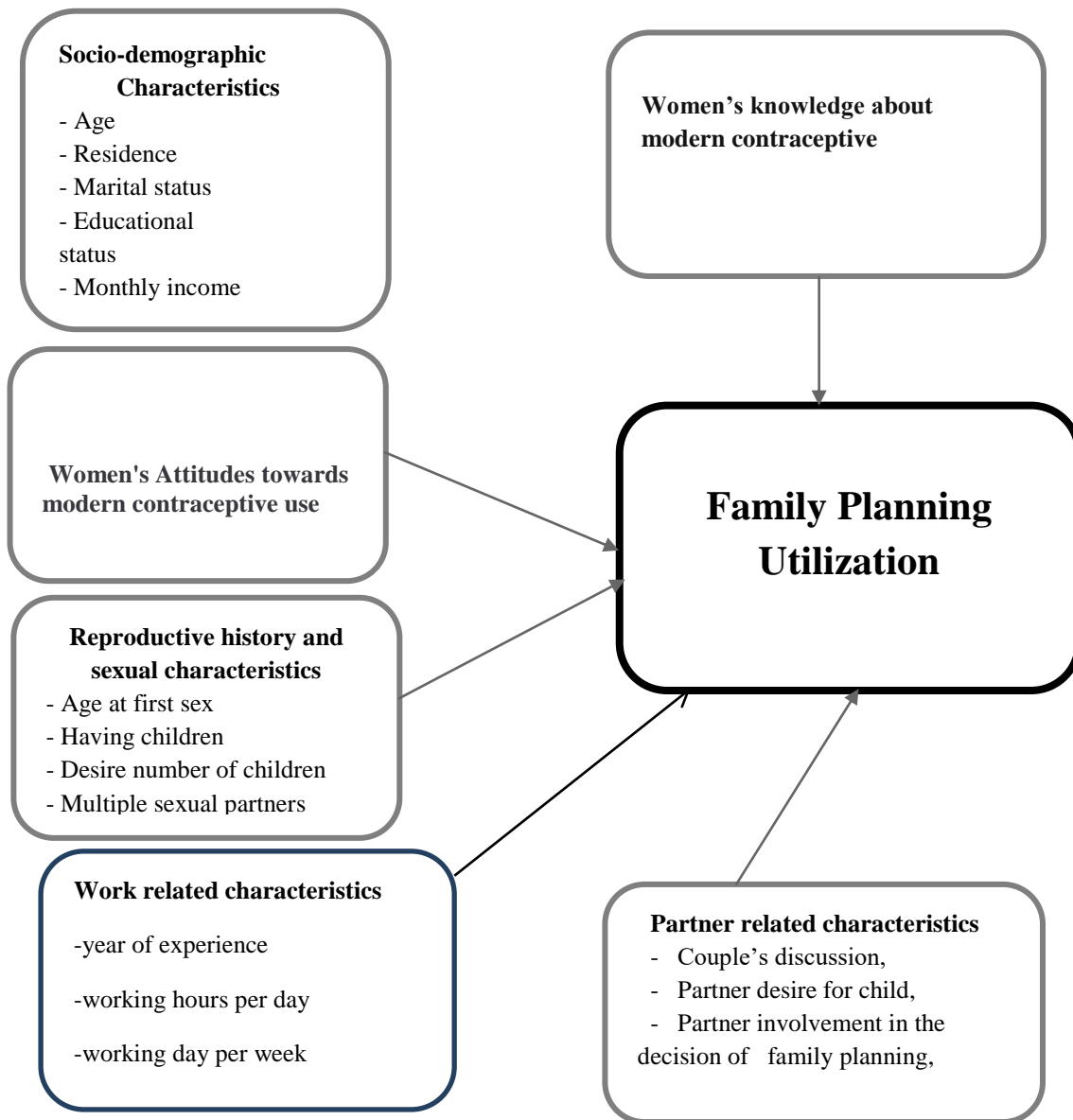


Figure 1: Conceptual framework on factors affecting utilization of family planning among women in reproductive-age group working in industrial park, Debrebirhan, Amhara, Ethiopia, April 2023 (33, 34, 40).

## **4 Objective**

### **4.1 General objective**

To assess utilization of family planning and associated factors among women of reproductive-age group working in Debrebirhan industrial park, Amhara, Ethiopia, from April 9 - 24/2023

### **4.2 Specific objectives**

To identify utilization of family planning among women of reproductive age group working in Debrebirhan industrial park

To identify factors affecting utilization of family planning among women in reproductive age group working in Debrebirhan industrial park

## **5 Methods**

### **5.1 Study area and period**

Debrebirhan industrial park is located in tebasse sub city of Debrebirhan administrative town. It is 135 km far from Addis Ababa. It is one of Ethiopia's public industrial park that specialized on textile and agro-processing. It has started operations January 2019, with 8 factory sheds rented out different investors from Spain and China. Currently only three factories were service provide. The number of reproductive age group women who working in three factories are 2906. Which the three factories were Shangchange wearing appears had 1775 women, Ethiopia knitted Manufacturing had 1099 women and Boortmalt Manufacturing had 32 women. All workers were permanently recruited (The information was gain from human resource manager of Debrebirhan industrial park). The study was employed from April 9 - 24/2023.

### **5.2 Study design**

Institutional based cross sectional study design was employed.

### **5.3 Source and study population**

#### **5.3.1 Source population**

All women in the reproductive age group who worked in Debrebirhan industrial park were the source population.

#### **5.3.2 Study population**

Selected women in reproductive age group who are working in Debrebirhan industrial park were study population.

### **5.4 Inclusion and exclusion criteria**

#### **5.4.1 Inclusion criteria**

Selected women in the reproductive age group who were permanently working in Debrebirhan industrial park during the study period were included in the study.

## 5.4.2 Exclusion criteria

Women in reproductive age group who were pregnant, unable to speak and/or hearing at the time of study period was excluded from the study.

## 5.5 Sample size determination

**For the first objective (outcome):** The sample size was calculated by using single population proportion formula, using the Prevalence and Determinants of Contraceptive Utilization among Women in the Reproductive Age Group from previous study done in Ethiopia is 37.6%[32]. Z-value 1.96 at 95% confidence level and the margin of error of 5% the calculation is show as below.

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

Where:

n= sample size

p= prevalence, using 37.6% from previous study done in Ethiopia (19).

Z  $\alpha/2$ = critical value at 95% CI of certainty (1.96)

d=marginal error of 0.05.

$$n = \frac{(1.96)^2(0.376)(1- 0.376)}{(0.05)^2}$$

n=360.5~361, Then by adding 10% of non-response rate, the sample size was 398.

**For the second objective (predictors),** the sample size was determined using double population proportion formula; by considering major predictor variables (residence, Knowledge on FP, Partner involvement and education) from another study conducted in Ethiopia (33, 40). The sample size was calculated by Using Epi info version 7.2.5.0 statistical software. By using a 95% level of confidence, with a power of 80% to calculate it, but the maximum sample size is get from first objective (outcome) 398. Therefore the final sample size was 398 study participants include in the study.

$$n_1 = \frac{\left[ Z_{\alpha/2} \sqrt{\left(1 + \frac{1}{r}\right) P(1 - P)} + Z_{\beta} \sqrt{\frac{P_1(1 - P_1) + P_2(1 - P_2)}{r}} \right]^2}{(P_1 - P_2)^2}$$

Table1: sample size calculation to determine utilization of family planning and associated factors among women working in Debrebirhan industrial park, 2023.

| S.N | Factor              | AOR  | % in un exposed | Sample size | By adding 10% |
|-----|---------------------|------|-----------------|-------------|---------------|
| 1   | residence           | 2.5  | 65.9            | 228         | 251           |
| 2   | Knowledge on FP     | 3.04 | 42.7            | 122         | 135           |
| 3   | Partner involvement | 2.34 | 61.3            | 238         | 262           |
| 4   | education           | 2.35 | 27.5            | 210         | 231           |

## 5.6 Sampling techniques

Total number of Women in Reproductive age working in a total of three factories of Debrebirhan industrial park was 2906. The three factories were Ethiopian knitted Manufacturing, Boortmalt manufacturing and Shangchange manufacturing. All the three factories in the Debrebirhan industrial park were included in the study. After proportional allocated the sample size systematic random sampling technique was used to select study participants. The Formula used to calculate the sample size for each factory workers were:

$$N_i = (n * N_i) / N$$

Where  $n_i$  = sample size of each factory

$n$  = total workers of the factory

$N_i$  = total sample size in all selected factories

$N$  = total number of workers in all selected factory.

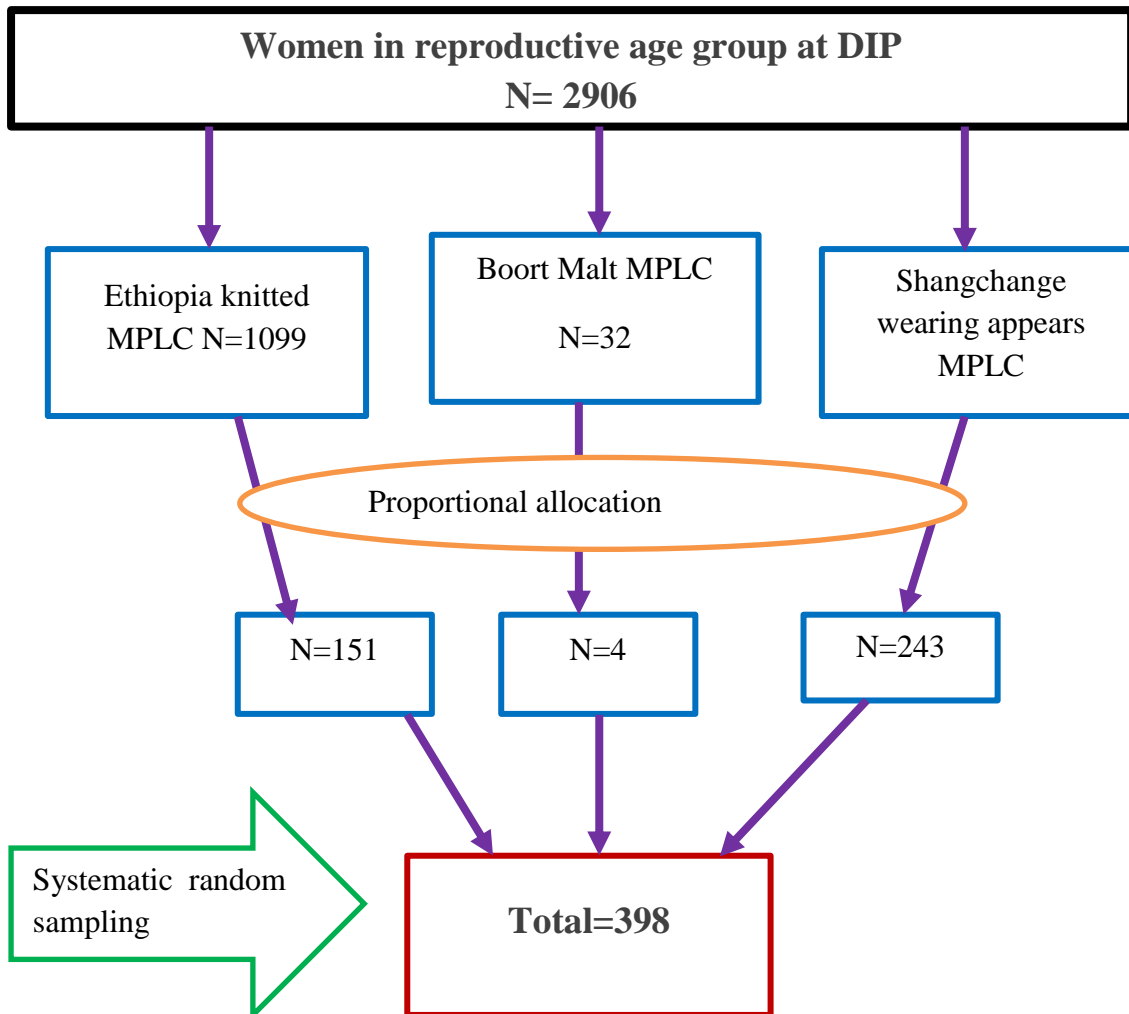
There were a total of 2906 women workers in all selected factories. Using this information as baseline data, the total number of women workers was interviewed from each factory was calculated as follows:

For the 1st Ethiopia knitted Manufacturing was 1099 Hence,  $1099 * 398 / 2906 = 150.5 \sim 151$

For the 2nd Shang change wearing appears was 1775 Hence,  $1775 \times 398 / 2906 = 243.1 \sim 243$

For the 3<sup>rd</sup> Boortmalt Manufacturing is 32 Hence,  $32 \times 398 / 2906 = 4.38 \sim 4$

Finally, a systematic random sampling technique was used to include study participant by calculating K interval:  $N/n = 2906/398 = 7$  the first study participant number five was selected by simple random sampling technique then select every 7 interval.



**Figure 2:** Schematic presentation of the sampling procedure for utilization of family planning and Associated factors among women in reproductive age group working in Debrebirhan industrial park, Amhara, Ethiopia, 2023

## **5.7 Variables of the study**

### **5.7.1 Dependent variable**

Family planning utilization

### **5.7.2 Independent variable**

**Socio demographic characteristics:** Age, Residence, Marital status, Educational status, Monthly income, and Living with parents.

**Reproductive history and sexual characteristics:** Age at first sex, having children, Desire number of children, and multiple sexual partners.

#### **Knowledge of women about family planning use**

**Partner related characteristics:** couple's discussion, partner desire for children, partner involvement in the decision of family planning,

#### **Women's attitude towards family planning use**

**Work related characteristics:** year of working experience, per day working hours, working factory, and availability of family planning methods at any working time.

## **5.8 Operational definitions**

Family planning utilization: in the current study a woman was considered as family planning utilizer if she has been using at least one of the modern contraceptives methods during data collection period (35).

Family planning non-utilization: a woman was considered as family planning non utilizer if she has been not using any modern contraceptive method or using traditional method during data collection period (35).

Knowledge on family planning: Knowledge of contraceptive method was measured by using eleven questions, and having correct answers for at least 70% will be considered as good knowledge on family planning otherwise poor knowledge(40).



Attitude on family planning: attitude about contraceptive methods was measured with the help of 10 attitude-related questions using a five point Likert Scale. The questions on the Likert scale had positive and negative responses that ranged from strongly agree, agree, neutral, disagree, and strongly disagree. The scoring system use with respect to the participant's responses was as follows: strongly agree 5, agree 4, neutral 3, disagree 2, and strongly disagree 1. The attitude responses were summed-up and a total score obtained for each respondent. The mean were calculated and those who scored the mean value and above considered as a favorable attitude and the ones who scored below the mean value considered as unfavorable attitude towards the contraceptive method (34).

## **5.9 Data collection methods**

Data collection method was face to face interview by using semi structured questionnaire. The questionnaires comprise six categories of independent variable related questionnaire and one category of dependent variable related questionnaire. The questionnaire was adapted from previous literatures (33, 34, 40). Then first prepared in English and translated to Amharic language (the national language) and then back to English by two different language experts to check for consistency and clarity. Two BSc midwives were hired as data collectors & supervise by principal investigator when conducting data collection.

## **5.10 Data quality assurance**

Data quality was assured by proper designing of data collection tool. The tool Pre-tested was done at kombolcha industrial park on 40 women (10% of the study participants) other than study area and corrections were made after preliminary data analysis. Definition of concepts and terms was clear to participants with a common language to avoid ambiguity. Two days of training was given for data collectors on objective of the study, basic skills of interview, research ethics, informed consent, sampling method and other data collection procedures. Principal investigator was check the completeness and correctness of each questionnaire on daily basis. The tool reliability of Likert scale questioner was checked by cronbach alpha test. The cronbach alpha test result was 0.705. Construct validity of the tool was tested by Pearson correlation and the level of significance was less than 0.05.

## **5.11 Data processing and analysis**

Each completed questionnaires were checked manually for completeness before data entry. The data was coded and entered into Epi-data version 4.6 and cleaned up to check accuracy and consistency was made and any error identified was corrected. The final data was exported to SPSS version 25 for further analysis. Descriptive statistics like: frequency, proportion, mean and standard deviation was computed and presented using tables, chart and texts. Both Bi-variable and multivariable analysis were done to check the association between the independent and dependent variable. An adjusted odds ratio (AOR) with 95% confidence intervals (CI) using a P-value  $<0.05$  were considered as statistically significantly associated with the outcome variable. The multivariable analysis model fitness was checked by Hosmer Lemeshow test and the test value was

## **5.12 Ethical consideration**

Ethical approval was obtained from the institutional review board of AWHSC. Individual written informed consent and assent for those adolescents age less than 18 was obtained before proceeding to the data collection. All information obtained from the individual subjects was kept confidential. Coding and aggregate reporting was used to eliminate respondents' identification and ensure anonymous.

## **5.13 Dissemination plan**

The thesis will be presented to AWHSC, in scientific workshops and conferences. The thesis will be prepared further for publication. Hard and soft copy will be available in the library of AWHSC. The result of the study will be communicated with Debrebirhan administrative health department and clinical staffs within the Industrial Park organization as well as for other concerned readers.

## 6 Results

### 6.1 Socio-demographic characteristics of the study participants

A total of three hundred eighty seven (387) women of reproductive age participated in the study, making the response rate 97.2%. Mean age of the respondent was 26.51 (SD  $\pm$  4.051) years. More than half 204(52.7%) of the respondent's marital status was single. Near all 336 (86.8%) of the study participant's current residence were urban. More than one fourth 110(28.4%) of respondent's education was college and above (see Table 2).

Table2: Socio-demographic characteristics of reproductive age women working at Debrebirhan Industrial Park Amhara, Ethiopia, April 9 - 24/2023 (n=387).

|                     | <b>Variable</b>   | <b>Frequency(n=387)</b> | <b>Percent</b> |
|---------------------|-------------------|-------------------------|----------------|
| Age                 | 15-24             | 140                     | 36.2           |
|                     | 25-29             | 152                     | 39.3           |
|                     | 30-49             | 95                      | 24.5           |
| Marital status      | Single            | 204                     | 52.7           |
|                     | Married           | 167                     | 43.2           |
|                     | Other(a)          | 16                      | 4.1            |
| Educational status  | Primary           | 165                     | 42.6           |
|                     | Secondary         | 112                     | 28.9           |
|                     | College and above | 110                     | 28.4           |
| Husband educational | no education      | 6                       | 1.6            |
|                     | Primary education | 48                      | 12.4           |

|                    |                     |     |      |
|--------------------|---------------------|-----|------|
| status             | Secondary education | 38  | 9.8  |
|                    | College and above   | 91  | 23.5 |
| Place of residence | Urban               | 336 | 86.8 |
|                    | Rural               | 51  | 13.2 |
| Living status      | alone               | 93  | 24.0 |
|                    | With partner        | 147 | 38.0 |
|                    | Other(b)            | 147 | 38.0 |
| Income             | Less than 1000      | 78  | 20.2 |
|                    | 1000-3000           | 136 | 35.1 |
|                    | Greater than 3000   | 173 | 44.7 |

Other (a) – Widowed and Divorced

Other (b) - With family, friends and relatives

## 6.2 Family planning knowledge and attitude of study participant's

Three hundred eight (79.6%) respondents were ever heard about modern contraception and 306 (79.1%) respondents mentioned at least one modern contraceptive method. The overall respondent's knowledge towards family planning 232(59.9%) was good knowledge. About the attitudes of the respondents towards the benefits of modern contraceptive utilization more than half 208 (53.7%) of them had favorable attitudes.

Table3: Family planning knowledge of reproductive age women working at Debrebirhan industrial park Amhara, Ethiopia, April 9 - 24/2023, (n=387).

| <b>Variables</b>   |  | <b>Frequency</b> | <b>Percent</b> |
|--|--|------------------|----------------|
| Ever heard about modern contraception(n=387)               | Yes                                      | 308              | 79.6           |
|  | No                                       | 79               | 20.4           |
| Mentioned modern contraceptive methods(n=308)              | Male/female sterilization                | 25               | 6.5            |
|  | Implants                                 | 86               | 22.2           |
|  | Pills                                    | 146              | 37.7           |
|  | Injectable                               | 30               | 7.6            |
|  | IUCD(Intra Uterine Contraceptive Device) | 21               | 5.4            |
| Know the importance of modern contraceptive(n=387)         | Yes                                      | 278              | 71.8           |
|  | No                                       | 109              | 28.2           |
| Mentioned importance of modern contraceptive(n=278)        | Prevention of unwanted pregnancy         | 75               | 19.4           |
|  | Child spacing                            | 120              | 31.0           |
|  | Prevention of STD                        | 82               | 21.2           |
|  | Medication                               | 9                | 2.3            |
| Know the side effects of using modern contraceptive(n=387) | Yes                                      | 230              | 59.4           |
|  | No                                       | 157              | 40.6           |
| Side effect mentioned(n=230)                               | Weight gain                              | 52               | 13.4           |
|  | Headache                                 | 97               | 25.1           |
|  | Irregular menstruation                   | 72               | 18.6           |

|   |                           |     |      |
|---|---------------------------|-----|------|
| Ever heard about emergency contraceptive method(n=387)    | Other( Nausea & vomiting) | 9   | 2.3  |
|   | Yes                       | 254 | 65.6 |
|   | No                        | 133 | 34.4 |
| Know a clinic is there at working organization(n=387)     | Yes                       | 274 | 70.8 |
|   | No                        | 113 | 29.2 |
| Visiting a clinic for the last 12 month(n=387)            | Yes                       | 154 | 39.8 |
|   | No                        | 233 | 60.2 |
| Told about family planning at working organization(n=387) | Yes                       | 203 | 52.5 |
|   | No                        | 184 | 47.5 |
| Know health extension worker providing FP service(N=387)  | Yes                       | 137 | 35.4 |
|   | No                        | 250 | 64.6 |
| Total Knowledge   | Poor knowledge            | 155 | 40.1 |
|   | Good knowledge            | 232 | 59.9 |

Table4: Attitude towards family planning use of reproductive age women working at Debrebirhan industrial park Amhara, Ethiopia, April 9 - 24/2023, (n=387).

| Variables   | Strongly disagree    | Disagree  | Neutral | agree | Strongly agree |
|---|----------------------|-----------|---------|-------|----------------|
| Do you think that short acting contraceptives are more effective than long acting contraceptives? | 23                   | 158       | 117     | 87    | 2              |
| Do you think contraceptives have side effect and it will be dangerous to the mother?              | 34                   | 231       | 80      | 37    | 5              |
| Do you think too many children help to improve the income of the family?                          | 40                   | 226       | 82      | 35    | 4              |
| Do you think the contraceptives help the couple to become responsible parents?                    | 38                   | 177       | 70      | 92    | 10             |
| Do you think that using contraceptives causes infertility in women?                               | 58                   | 167       | 93      | 49    | 20             |
| Do you think that child mortality is compensated by too much birth?                               | 43                   | 175       | 84      | 50    | 35             |
| Do you think that child spacing helps to protect the health of the mothers and children?          | 19                   | 76        | 67      | 181   | 44             |
| Do you think that contraceptives help a mother to regain her strength for the next baby?          | 16                   | 78        | 46      | 175   | 72             |
| Do you think that husbands share the responsibility of using contraception?                       | 21                   | 87        | 44      | 155   | 80             |
| Do you think using contraceptive reduces sexual satisfaction?                                     | 110                  | 158       | 56      | 50    | 13             |
|   |                      | Frequency | Percent |       |                |
| Total Attitude  | Unfavorable attitude | 179       | 46.3    |       |                |
|   | Favorable Attitude   | 208       | 53.7    |       |                |
|   | Total                | 387       | 100.0   |       |                |

### 6.3 Reproductive history and sexual characteristics of study participants

Above half 264 (68.2%) of respondents was ever had history of sex. The mean age of first sex was 23.52. More than half 206 (53.2%) of respondents had no sexual partner excluding spouse partner. 241 (62.3%) of respondents want to have five and above children.

Table5: Reproductive history and sexual characteristics of reproductive age women working at Debrebirhan Industrial park, Amhara, Ethiopia, April 9 – 24/2023, (n=387).

| Variables                                     |                | Frequency | Percent |
|---|----------------|-----------|---------|
| Ever had sex(n=387)                           | Yes            | 264       | 68.2    |
|   | No             | 123       | 31.8    |
| First sex age(n=264)                          | 15-19          | 12        | 3.1     |
|   | 20-24          | 156       | 40.3    |
|   | 25-29          | 96        | 24.8    |
| Having sexual partner excluding spouse(n=387) | No             | 206       | 53.2    |
|   | yes            | 20        | 5.2     |
|   | Didn't know    | 161       | 41.6    |
| Child have(n=264)                             | No             | 212       | 54.9    |
|   | Yes            | 52        | 13.4    |
| Child want(n=387)                             | Less than five | 146       | 37.7    |
|   | Five and above | 241       | 62.3    |

### 6.4 Partner related characteristics of the study participants

One hundred fourteen (29.5%) reproductive age women discuss with their partner. On the other hand, 112 (28.9%) reproductive age women are supported by their partner to use the modern contraceptive. Even though, only 64 (16.5%) reproductive age women have joint decision on contraceptive use (see Table 6).



Table 6: Partner related characteristics of reproductive age women working at Debrebirhan industrial park, Amhara, Ethiopia, April 9 - 24/2023.

| Variables   |                         | Frequency(n=183) | Percent |
|---|-------------------------|------------------|---------|
| Husband desire for children                             | Both wants the same     | 66               | 17.1    |
|   | Husband wants more      | 85               | 22.0    |
|   | Husband wants fewer     | 32               | 8.3     |
| Discussion with partner about FP in the last six months | Yes                     | 114              | 29.5    |
|   | No                      | 69               | 17.8    |
| Decides on contraceptive use                            | Mainly my decision      | 92               | 23.8    |
|   | Joint decision          | 64               | 16.5    |
|   | Mainly husband decision | 27               | 7.0     |
| Partner`s idea to wards modern contraceptive use        | Supportive              | 112              | 28.9    |
|   | Not supportive          | 57               | 14.7    |
|   | Neutral                 | 14               | 3.6     |

## 6.5 Work related characteristics of the study participants

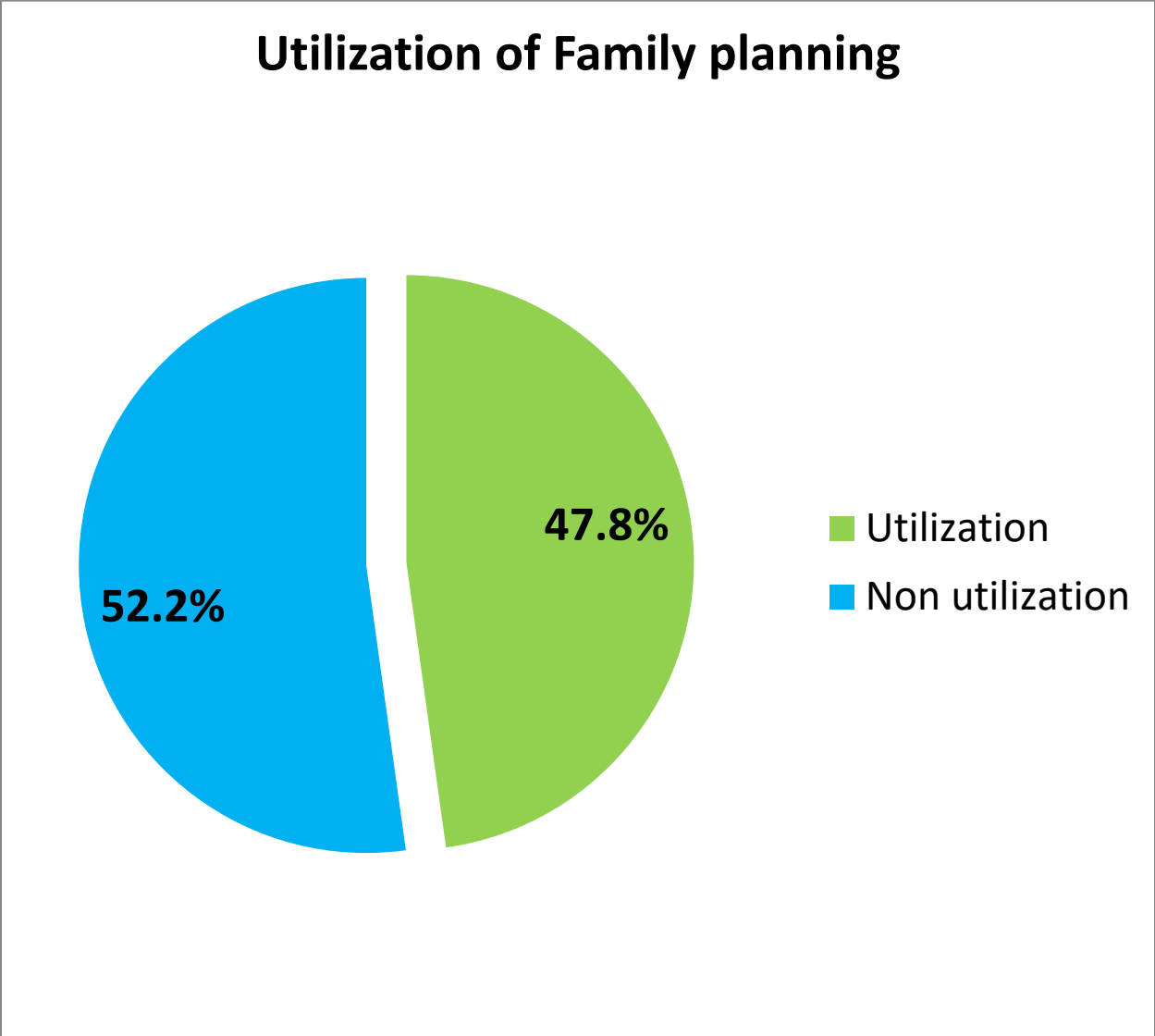
In this study two hundred sixty seven (69%) of respondents had less than 3 years working experience. In related to working day 317 (81.9%) of respondents worked Six and above working day per week. Only 187(48.3%) of respondents get contraception at their working hours.

Table 7: Work related Characteristics of reproductive-age women working in Debrebirhan industrial park, Amhara, Ethiopia, April 9 - 24/2023, (n=387).

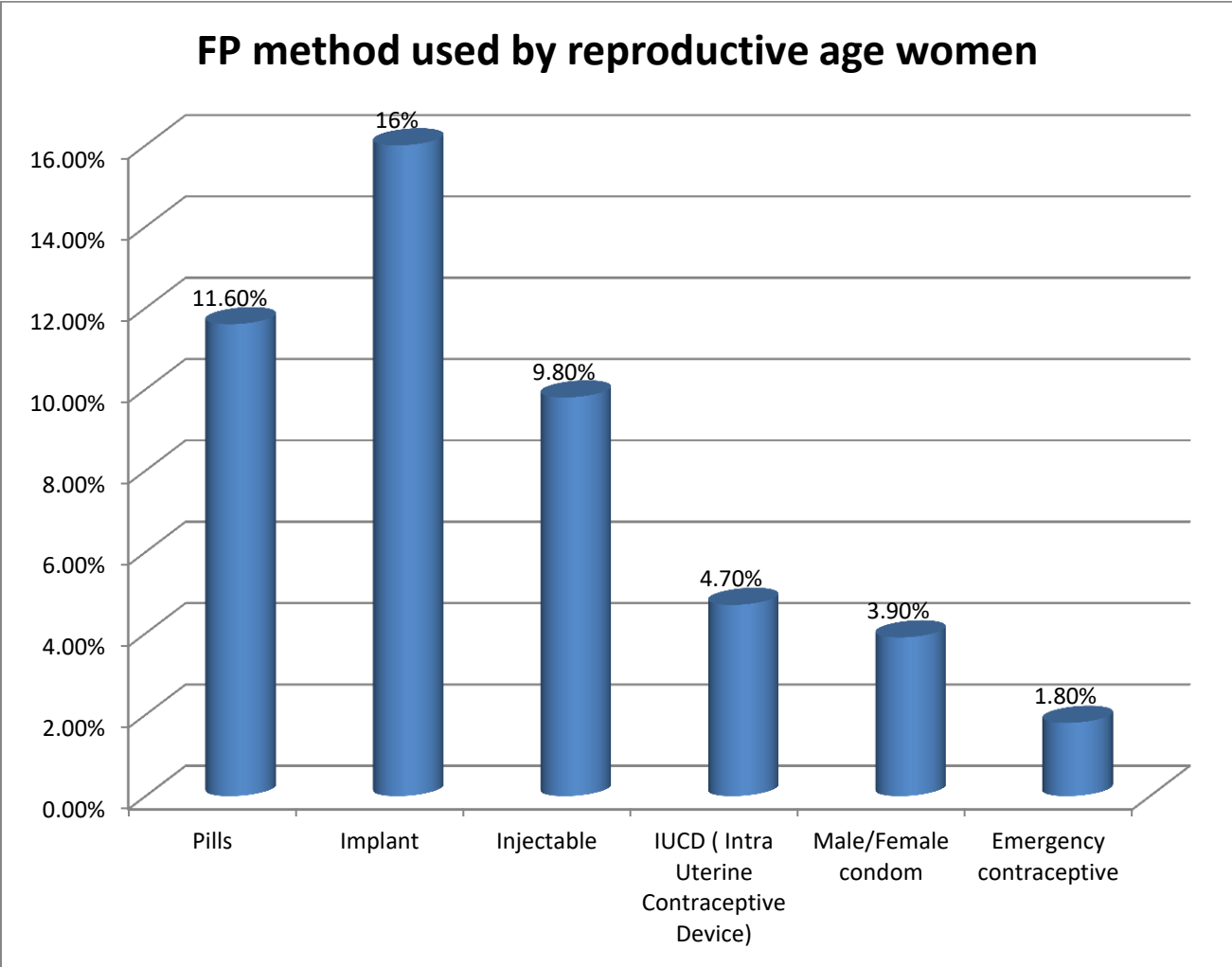
| Variables                                       |                   | Frequency | Percent |
|---|-------------------|-----------|---------|
| Working experience                              | Less than 3 years | 267       | 69.0    |
|   | 3 years and above | 120       | 31.0    |
| Working hour per day                            | Up to 8 hours     | 158       | 40.8    |
|   | Above 8 hours     | 229       | 59.2    |
| Working day per week                            | Up to 5 days      | 70        | 18.1    |
|   | Six and above     | 317       | 81.9    |
| Getting of contraception at their working hours | Yes               | 187       | 48.3    |
|   | No                | 200       | 51.7    |

## 6.6 Family planning utilization of study participants

Utilization of family planning was found to be 185(47.8%). Sixty two (16%) respondents used implants followed by pills 45(11.6%). Two hundred thirty nine (61.8%) respondents were ever used contraceptive. The common reason of not to use contraceptive currently was having infrequent sexual contact 68 (17.6%), ashamed to buy 36 (9.3%), fear of side effects 25 (6.5 %), Use of alternatives 22 (5.7%), and others 22 (5.9).



**Figure 3:** Utilization of family planning among reproductive age women working at Debrebirhan industrial park, Amhara, Ethiopia, April 9-24/2023, (n=387).



**Figure 4:** Family planning method used by reproductive age women working in Debrebirhan Industrial Park, Amhara, Ethiopia, April 9 - 24/ 2023, (n=387).

## 6.7 Factors associated with family planning utilization

In Bivariable logistic regression analysis at 95% CI ( $P < 0.25$ ), working experience, over all knowledge about modern contraceptive, living condition, having sexual partner excluding spouse partner, ever had sex, husbands desire for children, educational status, per day working hours and age were crudely associated to the utilization of family planning. (see table 8)

In the multivariable logistic regression analysis at 95% CI ( $P < 0.05$ ), working experience, over all knowledge about modern contraceptive, living condition, husbands desire for children, educational status, per day working hours and having sexual partner excluding spouse partner were significantly associated to the utilization of family planning.

Women having good knowledge about modern contraceptive methods were 9 (AOR=9.217, 95% C.I 2.028-41.894) times more likely to use family planning method as compared to women having poor knowledge about modern contraceptive methods. Women living with partner were 5 (AOR=5.146, 95% C.I 1.216-21.782) times more likely to use family planning as compared to women living with other (with family, relatives and friend). Women who have no sexual partner excluding spouse were 7 (AOR=6.959, 95% C.I 1.620-29.885) times more likely to use family planning as compared to women who didn't know having sexual partner excluding spouse. Women having working experience of 3 years and above were 15 (AOR=14.998, 95% CI 4.671-48.154) times more likely to use family planning as compared to women having working experience of less than 3 years. Women's whose husband wants fewer children 7 (AOR=7.211, 95% C.I 1.836-16.344) times more likely to use family planning as compared to women who wants both the same (see Table 9).

Table 8: Bivariable analysis of factors associated with family planning utilization among reproductive-aged women in Debrebirhan Industrial park, Debrebirhan, Ethiopia, April 9 - 24/2023 (n = 387).

| Variables                              |                                       | Family planning use |     |                        |         |
|--|---------------------------------------|---------------------|-----|------------------------|---------|
|  |                                       | Yes                 | No  | COR(95%CI)             | P-value |
| Educational status                     | Primary education                     | 23                  | 142 | 0.040(0.021-0.770)     | 0.001   |
|  | Secondary education                   | 74                  | 38  | 0.083(0.046-0.150)     | 0.001   |
|  | College and above                     | 88                  | 22  | 1                      |         |
| Place of residence                     | Urban                                 | 176                 | 160 | 1                      |         |
|  | Rural                                 | 9                   | 42  | 5.133(0.427-1.879)     | 0.856   |
| Ever had sex                           | Yes                                   | 173                 | 91  | 17.585 (9.204-33.598)  | 0.010   |
|  | No                                    | 12                  | 111 | 1                      |         |
| Working day                            | Up to 5 days                          | 58                  | 12  | 1                      |         |
|  | Six days and above                    | 127                 | 190 | 0.138 (0.071-0.268)    | 0.038   |
| Working hour                           | Up to 8 hours                         | 111                 | 47  | 1                      |         |
|  | Above 8 hours                         | 74                  | 155 | 0.202 (.130-0.314)     | 0.017   |
| Child want                             | Less than five                        | 120                 | 26  | 1                      |         |
|  | Five and above                        | 65                  | 176 | 0.080 (0.048-0.133)    | 0.001   |
| Experience                             | Less than 3 years                     | 77                  | 190 | 1                      |         |
|  | 3 years and above                     | 108                 | 12  | 22.208 (11.564-42.648) | 0.001   |
| Knowledge                              | Poor knowledge                        | 21                  | 134 | 1                      |         |
|  | Good knowledge                        | 164                 | 68  | 15.389 (8.969-26.409)  | 0.001   |
| Age                                    | 15-24                                 | 114                 | 26  | 7.867 (4.327-14.303)   | 0.012   |
|  | 25-29                                 | 54                  | 98  | 0.989 (0.579-1.688)    | 0.966   |
|  | 30-49                                 | 34                  | 61  | 1                      |         |
| Husbands desire for children           | Both wants the same                   | 59                  | 7   | 1                      |         |
|  | Husband wants more                    | 49                  | 36  | 7.099 (3.092-16.296)   | 0.001   |
|  | Husband wants fewer                   | 23                  | 9   | 0.303 (0.101-0.910)    | 0.003   |
|  | Didn't know                           | 85                  | 119 | 1.878 (0.777-4.538)    | 0.162   |
| Living condition                       | alone                                 | 50                  | 43  | 7.384 (3.959-13.721)   | 0.001   |
|  | With partner                          | 32                  | 115 | 0.324 (0.184-0.569)    | 0.001   |
|  | Others (family, relatives and friend) | 20                  | 127 | 1                      |         |
| Having sexual partner excluding spouse | None                                  | 144                 | 62  | 11.033(6.660-18.275)   | 0.001   |
|  | One and above                         | 7                   | 13  | 2.558 (0.476-3.285)    | 0.650   |
|  | Didn't know                           | 28                  | 133 | 1                      |         |

Table 9: Bivariable and multivariable analysis of factors associated with family planning utilization among reproductive-aged women in Debrebirhan Industrial park, Debrebirhan, Ethiopia, April 9 - 24/2023 (n = 387).

| Variables                              |                                       | Family planning use |     |                        |                       |         |
|--|---------------------------------------|---------------------|-----|------------------------|-----------------------|---------|
|  |                                       | Yes                 | No  | COR(95%CI)             | AOR(95%CI)            | P-value |
| Educational status                     | Primary education                     | 23                  | 142 | 0.040(0.021-0.770)     | 0.203(0.062-0.665)    | 0.008*  |
|  | Secondary education                   | 74                  | 38  | 0.083(0.046-0.150)     | 0.475 (0.131-1.715)   | 0.256   |
|  | College and above                     | 88                  | 22  | 1                      | 1                     |         |
| Ever had sex                           | Yes                                   | 173                 | 91  | 17.585 (9.204-33.598)  | 1.084 (0.179-6.573)   | 0.930   |
|  | No                                    | 12                  | 111 | 1                      | 1                     |         |
| Working day                            | Up to 5 days                          | 58                  | 12  | 1                      | 1                     |         |
|  | Six days and above                    | 127                 | 190 | 0.138 (0.071-0.268)    | 3.946 (0.677-23.009)  | 0.127   |
| Working hour                           | Up to 8 hours                         | 111                 | 47  | 1                      | 1                     |         |
|  | Above 8 hours                         | 74                  | 155 | 0.202 (.130-0.314)     | 0.067 (0.021-0.214)   | 0.001*  |
| Child want                             | Less than five                        | 120                 | 26  | 1                      | 1                     |         |
|  | Five and above                        | 65                  | 176 | 0.080 (0.048-0.133)    | 0.127(0.043-0.378)    | 0.001*  |
| Experience                             | Less than 3 years                     | 77                  | 190 | 1                      | 1                     |         |
|  | 3 years and above                     | 108                 | 12  | 22.208 (11.564-42.648) | 14.998 (4.671-48.154) | 0.001*  |
| Knowledge                              | Poor knowledge                        | 21                  | 134 | 1                      | 1                     |         |
|  | Good knowledge                        | 164                 | 68  | 15.389 (8.969-26.409)  | 9.217(2.028-41.894)   | 0.004*  |
| Age                                    | 15-24                                 | 114                 | 26  | 7.867 (4.327-14.303)   | 0.194 (0.033-1.011)   | 0.052   |
|  | 25-29                                 | 54                  | 98  | 0.989 (0.579-1.688)    | 0.133 (0.033-0.535)   | 0.005*  |
|  | 30-49                                 | 34                  | 61  | 1                      | 1                     |         |
| Husbands desire for children           | Both wants the same                   | 59                  | 7   | 1                      | 1                     |         |
|  | Husband wants more                    | 49                  | 36  | 7.099 (3.092-16.296)   | 7.968 (0.669-94.872)  | 0.101   |
|  | Husband wants fewer                   | 23                  | 9   | 0.303 (0.101-0.910)    | 7.211 (1.836-16.344)  | 0.013*  |
|  | Didn't know                           | 85                  | 119 | 1.878 (0.777-4.538)    | 1.122 (0.094-13.386)  | 0.927   |
| Living condition                       | Alone                                 | 50                  | 43  | 7.384 (3.959-13.721)   | 0.221 (0.034-1.434)   | 0.114   |
|  | With partner                          | 32                  | 115 | 0.324 (0.184-0.569)    | 5.146 (1.216-21.782)  | 0.026*  |
|  | Others (family, relatives and friend) | 20                  | 127 | 1                      | 1                     |         |
| Having sexual partner excluding spouse | None                                  | 144                 | 62  | 11.033(6.660-18.275)   | 6.959(1.620-29.885)   | 0.009*  |
|  | One and above                         | 7                   | 13  | 2.558 (0.476-3.285)    | 0.413 (0.057-3.000)   | 0.382   |
|  | Didn't know                           | 28                  | 133 | 1                      | 1                     |         |

## 7 Discussion

This study revealed that 47.8% of women of reproductive age group were currently used family planning method. The Confidence Interval is 42.7-52.9. This finding is in line with study done in African country Lesotho (48.5%), Zimbabwe, (47.9% ), South Africa (47.9 % ) , and Malawi (45.2%) (18)

Family planning utilization in the current study which is higher than the study done in Ethiopia among women of childbearing potential (37.6%), at Bahir Dar health facilities found that the prevalence rate among all women (35.6%), while the contraceptive prevalence rate among married women was 41.0% and Gondar city(41.2%) (19, 26, 34). This difference may be due to primary and above educated study participants in the current study which might have knowledge on modern contraceptive leads to increases the usage of family planning and have better access to sexual reproductive health services with in the current study area. This finding is lower than a community-based cross-sectional study conducted in SNNPR (53.3%), Arba Minch Town preparatory school (78.6% ),and a study done in Atwima Kwanwoma District, Ashanti region-Ghana among sexually active female adolescents (61.0%) (17), (22), (24). This difference may be due different size and type of study population used from previous study.

In the current study Women living with partner were 5 (AOR=5.146, 95% C.I 1.216-21.782) times more likely to use family planning as compared to women living with other (with family, relatives and friend). This finding is supported by another study done in Atwima Kwanwoma District, Ashanti Region, Ghana shows that the respondent is staying with ( with partner, or with parents) are significantly associated with utilization of family planning (17). This might be due to women were living with their partner might have regular sexual intercourse may force to use contraceptives to maintain their desire number of children.

In this study revealed women having good knowledge about modern contraceptive methods were 9 (AOR=9.217, 95% C.I 2.028-41.894) times more likely to use family planning method as compared to women having poor knowledge about modern contraceptive methods. This finding is similar with a study done in Ethiopia found that women with knowledge of contraceptive methods are more likely to use contraceptives than women who have no knowledge of contraceptive methods. This finding also supported by the finding of Gondar City show women's



knowledge about family planning are positively associated with modern contraceptive utilization (19), (34). This might be due to the governmental action on availability and accessibility of family planning services at industrial park. In the current study show that women having working experience of 3 years and above were 15 (AOR=14.998, 95% CI 4.671-48.154) times more likely to use family planning as compared to women having working experience of less than 3 years. The possible explanation might be due to as increase working experience women well known about working environment as well as family planning service at their working organization and easy to access.

In this study women who have no sexual partner excluding spouse were 7 (AOR=6.959, 95% C.I 1.620-29.885) times more likely to use family planning as compared to women who didn't know having sexual partner excluding spouse. This finding is different from study in sub Saharan Africa further data analysis show that having more (3+) multiple sexual partners excluding spouse is associated with the use of modern contraceptive compared with having no multiple sexual partners (18). This difference may be due to women who have no sex partner excluding spouse might have knowledge on the consequence of having multiple sexual partners than women who didn't know having sex partner excluding spouse.

Women with primary education were 79.7% times less likely to use family planning (AOR= 0.203, 95% C.I 0.062-0.665) as compared to women with college and above education level. This finding is similar from some studies done in Tigray, and Ghana have shown an association between educational attainment and contraceptive use (29, 30). The possible explanation for this might be that women are less sexually active than women with college and above level of education.

Women who work above 8 hours per day were 93% times less likely to use family planning (AOR= 0.067 95% C.I 0.021-0.214) as compared to women who work up to 8 hours. This is due to women who working above 8 hours have work over load and less time to get family planning service.

## **8 Conclusion**

The prevalence of family planning utilization is 47.8%. Above half of the study participants had good knowledge and favorable attitude towards modern contraceptive method. Factors like working experience, over all knowledge about modern contraceptive, living condition, and having sexual partner excluding spouse were independently associated with utilization of family planning. Any interventional strategy that promotes family planning utilization should consider the associated factors for its better success.

## **9 Recommendation**

Based on the findings, the following recommendations are given to be implemented by concerned governmental and non-governmental bodies

**For SRH service provider:** knowledge about modern contraceptive method should be create among reproductive age women worker.

### **For Debrebirhan Health Administrative Office:**

Special awareness creation about modern contraceptive method should be given to the industrial park women workers. This will help them to develop appropriate knowledge.

### **For Health programmers/policy maker**

Maintain reproductive health services at all women's working hour time to address the service for all reproductive age women worker.

### **For researcher**

Further qualitative research should be done to explore women's views and opinions about family planning. Include male workers in the research to explore their role in supporting the family planning utilization and their participation on the use of male family planning methods.

## **10 Strength and Limitations**

### **Strength**

The strength of this study is used primary data to get adequate study variable and most reliable data.

### **Limitations**

Lack of adequate reference especially on similar study setting for comparison of the result

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## **12 Annexes**

### **Anne I: information sheet**

You have been chosen to participate in research study to be conducted by Zewedie Yeshaw student of Debrebirhan University. Please read the following statements and ask any unclear questions before you agree to participate.

**Introduction:** These information sheet and consent form is prepared to explain the purpose of this research in order to get your willingness to participate in the study

**Topic:** Utilization of family planning and associated factors among Debrebirhan industrial park workers.

**Objective of the study:** The objective of this study is to assess utilization of family planning and associated factors among Debrebirhan industrial park workers. The information you provide will be helpful to the community and government to provide policy on contraceptive utilization.

**Participation Procedure and Guide lines:** The information you provide will be kept completely anonymous. Your name will not write on the questioners form. Your answers are completely confidential. It will be stored in a file using codes, without your name. And it will not be revealed to anyone except the principal investigators. In addition, it will be used only this particular research but not for other purpose.

**Rights to Refuse or Withdraw:** You have the full right to refuse from participating in this research. You can choose not to answer any or all questions and this will not affect you and your family from getting any kind of health care services. You have also the full right to withdraw from this study at any time you wish, without losing any of your right.

**Right as a participant:** You have a right to ask any question or if you need clarification on the study.

Name of principal investigator: Zewedie Yeshaw Teklie

Phone No: 09 04 11 22 95

Email address: yeshawzewedie@gmail.com

**Annex II: consent form**

The investigator briefly explained the purpose and benefits of the study in my language. I believe that I understand the benefits and roles of the research, I will participate in the research, and finally, I confirm that my interest in participating in this research is informed.

Do you agree to participate? A, Yes

B, No

Signature\_\_\_\_\_ Date\_\_\_\_\_

**Assent form for parents or guardians for their children less than 18 years' old.**

I am going to give some very personal questions to your child. Your child participation will be based on your agreement since your child's age is below 18 years. Hence, I kindly request your consent to agree on your child's participation on the study.

Do you agree to participate? A, Yes

B, No

Signature\_\_\_\_\_ Date\_\_\_\_\_



### Annex III: Questionnaire

| <b>Part one: Socio-demographic characteristics of women's in Reproductive age working at Debrebirhan industrial park, Amhara, Ethiopia, 2023.</b> |                                  |   |             |
|---|----------------------------------|---|-------------|
| <b>Q. No</b>  | <b>Question</b>                  | <b>Response</b>   | <b>Skip</b> |
| 101   | How old are you?                 | ..... years   |             |
| 102   | Your marital status?             | 1.single<br>2. Married<br>3. Divorced<br>4. Widowed                                       |             |
| 103   | Your educational status?         | 1. no education<br>2. Primary education<br>3. Secondary education<br>4. College and above |             |
| 104   | Husband's educational status?    | 1 no education<br>2 Primary education<br>3.Secondary education<br>4. College and above    |             |
| 105   | Place of your current residence? | 1. Urban<br>2. Rural  |             |
| 106   | With whom you live?              | 1. With alone<br>2. With Parent<br>3. With Friend<br>4. With Relative<br>5. With Husband  |             |
| 107   | Your monthly income?             | ..... birr  |             |

**Part two:** Family planning knowledge of women's in Reproductive age working at Debrebirhan industrial park Amhara, Ethiopia, 2023.

| Q. No | Questions  | Response                                    | Skip |
|-------|--|---|------|
| 201   | Did you ever heard about modern contraception?                 | 1. Yes                                      |      |
|       |  | 2. No                                       |      |
| 202   | Can you mention modern contraception methods mentioned?        | 1. male/female sterilization                |      |
|       |  | 2. pills                                    |      |
|       |  | 3. IUCD(Intra Uterine Contraceptive Device) |      |
|       |  | 4. Injectable                               |      |
|       |  | 5. Implants                                 |      |
|       |  | 6. male/female condom                       |      |
|       |  | 7. Lactation Amenorrhea Method (LAM)        |      |
|       |  | 8. Emergency Contraceptive                  |      |
|       |  | 9. Other specify_____                       |      |
| 203   | Did you know the importance of modern contraceptive?           | 1. Yes                                      |      |
|       |  | 2. No                                       |      |
| 204   | Can you mention the importance of using modern contraceptives? | 1. Prevention of unwanted pregnancy         |      |
|       |  | 2. Birth spacing                            |      |
|       |  | 3. Medication                               |      |
|       |  | 4. Prevention of STD                        |      |
|       |  | 5. Others specify .....                     |      |
| 205   | Did you know the side effects of using modern contraceptive?   | 1. Yes                                      |      |
|       |  | 2. No                                       |      |
| 206   | Can you mention the side effects of using contraceptive?       | 1. Weight gain                              |      |
|       |  | 2. Headache                                 |      |
|       |  | 3. Irregular menstruation                   |      |
|       |  | 4. Vomiting                                 |      |
|       |  | 5. Nausea                                   |      |
|       |  | 6. Other specify_____                       |      |
| 207   | Did you ever heard about emergency contraceptive method?       | 1. Yes                                      |      |
|       |  | 2. No                                       |      |

| 208   | Have you know a clinic is there at your working organization?          | 1. Yes               |      |
|---|--|----------------------|------|
|   |  | 2. No                |      |
| 209   | Have you visit a clinic for the last 12 month?                         | 1. Yes               |      |
|   |  | 2. No                |      |
| 210   | Have you told about family planning at your working organization?      | 1. Yes               |      |
|   |  | 2. No                |      |
| 211   | Do you Know health extension worker providing Family planning service? | 1. Yes               |      |
|   |  | 2. No                |      |
| <b>Part three:</b> Reproductive history and sexual characteristics of women's in Reproductive age working at Debrebirhan industrial park, Amhara, Ethiopia, 2023. |  |                      |      |
| Q. No   | Question   | Response             | Skip |
| 301   | Have you ever had sex  | 1. Yes<br>2.No       |      |
| 302   | Age at first sex   | ----- years          |      |
| 303   | Number of sex partners excluding spouse?                               | 1. None              |      |
|   |  | 2. One               |      |
|   |  | 3. Two               |      |
|   |  | 4. Three and above   |      |
|   |  | 5. Don't know        |      |
| 304   | How many children do you have?   | ----- child/Children |      |
| 305   | How many children do you want to have?                                 | ----- child/Children |      |

| <b>Part four:</b> Partner related characteristics of women's in Reproductive age working at Debrebirhan industrial park, Amhara, Ethiopia, 2023. |  |   |      |
|--|--|---|------|
| Q. No  | Question   | Response                                    | Skip |
| 401  | Your husband's desire for children?  | 1. Both wants the same                      |      |
|  |  | 2. Husband wants more                       |      |
|  |  | 3. Husband wants fewer                      |      |
|  |  | 4. Don't know                               |      |
| 402  | Have you discuss about practice of family planning with your partner in the last six months? | 1. Yes                                      |      |
|  |  | 2. No                                       |      |
| 403  | Who decides on contraceptive use?  | 1. Mainly my decision                       |      |
|  |  | 2. Joint decision                           |      |
|  |  | 3. Mainly husband decision                  |      |
| 404  | What is your partner`s idea to wards modern contraceptive use?                               | 1.Supportive                                |      |
|  |  | 2. Not supportive                           |      |
|  |  | 3. Neural                                   |      |
| <b>Part five:</b> Family planning utilization of women's in Reproductive age working at Debrebirhan industrial park, Amhara, Ethiopia, 2023.     |  |   |      |
| Q. No  | Question   | Response                                    | Skip |
| 501  | Have you ever used contraceptive?  | 1. Yes                                      |      |
|  |  | 2. No                                       |      |
| 502  | Have you use contraceptive currently?  | 1. Yes                                      |      |
|  |  | 2. No                                       |      |
| 503  | Which type of contraceptive method you used currently?                                       | 1. male/female sterilization                |      |
|  |  | 2. pills                                    |      |
|  |  | 3. IUCD(Intra Uterine Contraceptive Device) |      |
|  |  | 4. Injectable                               |      |
|  |  | 5. Implants                                 |      |
|  |  | 6. male/female condom                       |      |
|  |  | 7. Lactation Amenorrhea Method (LAM)        |      |
|  |  | 8. Emergency Contraceptive                  |      |
|  |  | 9. Other specify_____                       |      |

|     |   |                             |
|-----|---|-----------------------------|
| 504 | Why you didn't use contraceptive currently? | 1.Fear of side effects      |
|     |   | 2. Infrequent sexual        |
|     |   | 3.Use of alternatives       |
|     |   | 4. Ashamed to buy           |
|     |   | 5. Gating /want to pregnant |
|     |   | 6.Breast feeding            |
|     |   | 7. Lack of access           |
|     |   | 8.Waiting for menstruation  |
|     |   | 9. Other(specify)_____      |
|     |   |                             |

**Part six:** Attitude towards family planning of women's in Reproductive age working at Debrebirhan industrial park Amhara, Ethiopia, 2023.

| Q .No | Questions   | Strongly agree | Agree | Neutral | Disagree | Strongly disagree |
|-------|---|----------------|-------|---------|----------|-------------------|
| 601   | Do you think that short acting contraceptives are more effective than long acting contraceptives? | 5              | 4     | 3       | 2        | 1                 |
| 602   | Do you think contraceptives have side effect and it will be dangerous to the mother?              | 5              | 4     | 3       | 2        | 1                 |
| 603   | Do you think too many children help to improve the income of the family?                          | 5              | 4     | 3       | 2        | 1                 |
| 604   | Do you think the contraceptives help the couple to become responsible parents?                    | 5              | 4     | 3       | 2        | 1                 |
| 605   | Do you think that using contraceptives causes infertility in women?                               | 5              | 4     | 3       | 2        | 1                 |
| 606   | Do you think that child mortality is compensated by too much birth?                               | 5              | 4     | 3       | 2        | 1                 |
| 607   | Do you think that child spacing   | 5              | 4     | 3       | 2        | 1                 |

|     |  |   |   |   |   |   |
|-----|--|---|---|---|---|---|
|     | helps to protect the health of the mothers and children?                                 |   |   |   |   |   |
| 608 | Do you think that contraceptives help a mother to regain her strength for the next baby? | 5 | 4 | 3 | 2 | 1 |
| 609 | Do you think that husbands share the responsibility of using contraception?              | 5 | 4 | 3 | 2 | 1 |
| 610 | Do you think using contraceptive reduces sexual satisfaction?                            | 5 | 4 | 3 | 2 | 1 |

| Part seven: Work related Characteristics of women in reproductive-age group working in Debrebirhan industrial park, Amhara, Ethiopia, 2023. |  |                  |
|---|--|------------------|
| S.n   | Questions  | Answers          |
| 701   | You're working experience?                           | _____month/years |
| 702   | How many hours a day do you work?                    | _____hours       |
| 703   | How many days a week do you work?                    | _____days        |
| 704   | You're working factory?                              | _____factory     |
| 705   | Can you get contraception during your working hours? | 1.Yes<br>2.No    |

Amharic version questionnaire

**አባሪ 1: የመረጃ ወረቀት**

የደብረብርሃን ዩኒቨርሲቲ ተማሪ ዘወዴ የሻው በማደርገው የምርምር ጥናት ላይ እንዲሳተፉ ተመርጠዋል። ለመሳተፍ ከመስማማትዎ በፊት እባክዎ የሚከተሉትን መግለጫዎች ያንብቡ እና ግልጽ ያልሆኑ ጥያቄዎችን ይጠይቁ።

**መግቢያ:-** በጥናቱ ለመሳተፍ ፈቃደኛነትዎን ለማግኘት እነዚህ የመረጃ ሉክ እና የስምምነት ፎርም የዚህን ምርምር ዓላማ ለማስረዳት ተዘጋጅቷል።

**ርዕስ:-** በደብረብርሃን የኢንዱስትሪ ፓርክ ሠራተኞች መካከል የቤተሰብ ምጣኔ እና ተያያዥ ጉዳዮች አጠቃቀም።

**የጥናቱ አላማ:-** የዚህ ጥናት አላማ በደብረብርሃን ኢንዱስትሪያል ፓርክ ሰራተኞች መካከል ያለውን የቤተሰብ ምጣኔ አጠቃቀም እና ተያያዥ ጉዳዮችን መገምገም ነው። እርስዎ የሚያቀርቡት መረጃ ለህብረተሰቡ እና ለመንግስት የእርግዝና መከላከያ አጠቃቀም ፖሊሲን ለማቅረብ ይረዳል።

**የተሳትፎ አሰራር እና መመሪያ መስመሮች:** ያቀረቡት መረጃ ሙሉ በሙሉ ስም-አልባ ይሆናል። ስም በጠያቂዎች ቅጽ ላይ አይጻፍም። መልሶችዎ ሙሉ በሙሉ ሚስጥራዊ ናቸው። ያለ ስምዎ ከድ በመጠቀም በፋይል ውስጥ ይከማቻል። ከዋናዎቹ መርማሪዎች በስተቀር ለማንም አይገለጽም። በተጨማሪም, ይህ የተለየ ምርምር ብቻ ጥቅም ላይ ይውላል, ነገር ግን ለሌላ ዓላማ አይደለም. እምቢ የማለት ወይም የመውጣት መብቶች: በዚህ ጥናት ውስጥ ላለመሳተፍ ሙሉ መብት አልዎት። ማንኛውንም ወይም ሁሉንም ጥያቄዎች ላለመመለስ መምረጥ ይችላሉ እና ይህ እርስዎ እና ቤተሰብዎ ማንኛውንም አይነት የጤና አጠባበቅ አገልግሎት እንዳያገኙ አይጎዳዎትም። እንዲሁም ማንኛውንም መብትዎን ሳያጡ በፈለጉት ጊዜ ከዚህ ጥናት የመውጣት ሙሉ መብት አለዎት። ልክ እንደ ተሳታፊ: ማንኛውንም ጥያቄ ወይም በጥናቱ ላይ ማብራሪያ ከፈለጉ የመጠየቅ መብት አልዎት።

ዋና መርማሪ:- ስም ዘውዴ የሻው ተክሌ

ስልክ ቁጥር:- 09 04 11 22 95

ኢሜል አድራሻ:- yeshawzewedie@gmail.com





መመሪያ

እያንዳንዱን ጥያቄ በተመለከተ የመረጡትን መልስ ከበቡ።

| <b>ክፍል አንድ፡</b> በደብረብርሃን ኢንዱስትሪ ፓርክ የሚሰሩ፣ ሴቶች በተዋልዶ ዕድሜ ውስጥ ያሉ የሶሻሎ-ዲሞክራሪ ባህሪያት፣ አማራ፣ ኢትዮጵያ፣ 2015ዓም |                  |                     |     |
|---|------------------|---------------------|-----|
| ተ.ቁ   | ጥያቄ              | ምላሽ                 | ዝላል |
| 101   | ስንት አመትዎ ነው?     | _____ ዓመት           |     |
| 102   | የእርስዎ የትዳር ሁኔታ ? | 1. ያላገባ             |     |
|   |                  | 2. ያገባ              |     |
|   |                  | 3. የተፋታ             |     |
|   |                  | 4. ባል የሞተባት         |     |
| 103   | የትምህርት ደረጃዎ?     | 1. ምንም ያልተማረ        |     |
|   |                  | 2. የመጀመሪያ ደረጃ ትምህርት |     |
|   |                  | 3. የሁለተኛ ደረጃ ትምህርት  |     |
|   |                  | 4. ኮሌጅ እና ከዚያ በላይ   |     |
| 104   | የባል የትምህርት ደረጃ?  | 1. ምንም ያልተማረ        |     |
|   |                  | 2. የመጀመሪያ ደረጃ ትምህርት |     |
|   |                  | 3. የሁለተኛ ደረጃ ትምህርት  |     |
|   |                  | 4. ኮሌጅ እና ከዚያ በላይ   |     |
| 105   | የመኖሪያ ቦታዎ?       | 1. ከተማ              |     |
|   |                  | 2. ገጠር              |     |
| 106   | ከማን ጋር ነው የሚኖሩት? | 1. ብቻውን             |     |
|   |                  | 2. ከወላጅ             |     |
|   |                  | 3. ከጓደኛ             |     |
|   |                  | 4. ከዘመድ             |     |
|   |                  | 5. ከትዳር አጋር         |     |
| 107   | የርስዎ ወርሃዊ ገቢ?    | _____ ብር            |     |

| <b>ክፍል ሁለት፡</b> በደብረብርሃን ኢንዱስትሪ ፓርክ ሴቶች በመውለድ እድሜ ውስጥ ሆነው የሚሰሩ ስለእርግዝና መከላከያ ያላቸው እውቀት አማራ፣ ኢትዮጵያ፣ 2023 |                      |       |        |
|---|----------------------|-------|--------|
| ጥ.ቁ   | ጥያቄዎች                | ምላሽ   | ዝላል    |
| 201   | ስለ ዘመናዊ የእርግዝና መከላከያ | 1. አዎ | መልስዎ 2 |

|     |  |                                    |                       |
|-----|--|------------------------------------|-----------------------|
|     | ሰምተው ያውቃሉ?   | 2. አይ                              | ከሆነ ወደ 203 ይሂዱ        |
| 202 | አዎ ካሉ ዘመናዊ የእርግዝና መከላከያ ዘዴዎችን ይዘርዝሩ? (ከአንድ በላይ መልስ ሊኖረው ይችላል)                    | 1. ወንድ/ሴት ማምከን                     |                       |
|     |  | 2. እንክብሎች                          |                       |
|     |  | 3. IUCD(የማህፀን ውስጥ የወሊድ መከላከያ መሳሪያ) |                       |
|     |  | 4. በመርፌ የሚሰጥ                       |                       |
|     |  | 5. በክንድ ቆዳ ስር የሚቀመጥ                |                       |
|     |  | 6. የወንድ/የሴት ኮንዶም                   |                       |
|     |  | 7. ጡት የማጥባት ዘዴ                     |                       |
|     |  | 8. ድንገተኛ የወሊድ መከላከያ                |                       |
|     |  | 9. ሌሎች ይግለጹ _____                  |                       |
| 203 | የዘመናዊ እርግዝና መከላከያ አስፈላጊነትን ያውቃሉ?   | 1. አዎ<br>2. አይ                     | መልስዎ 2 ከሆነ ወደ 205 ይሂዱ |
| 204 | አዎ ካሉ ዘመናዊ የእርግዝና መከላከያ መጠቀም አስፈላጊነትን ይዘርዝሩ? (ከአንድ በላይ መልስ ሊኖረው ይችላል)            | 1. ያልተፈለገ እርግዝና ለመከላከል             |                       |
|     |  | 2. ልጆችን አራርቆ ለመውለድ                 |                       |
|     |  | 3. ለመድሃኒት                          |                       |
|     |  | 4. የአባላዘር በሽታ ለመከላከል               |                       |
|     |  | 5. ሌሎች ይግለጹ _____                  |                       |
| 205 | ዘመናዊ የእርግዝና መከላከያ መጠቀም የሚያስከትለው የጎንዮሽ ጉዳዮችን ያውቃሉ?                                | 1. አዎ<br>2. አይ                     | መልስዎ 2 ከሆነ ወደ 207 ይሂዱ |
| 206 | አዎ ካሉ ዘመናዊ የእርግዝና መከላከያ መጠቀም የሚያስከትለውን የጎንዮሽ ጉዳት ይዘርዝሩ? (ከአንድ በላይ መልስ ሊኖረው ይችላል) | 1. ክብደት መጨመር                       |                       |
|     |  | 2. ራስ ምታት                          |                       |
|     |  | 3. መደበኛ ያልሆነ የወር አበባ               |                       |
|     |  | 4. ማስመለስ                           |                       |
|     |  | 5. ማቅለሽለሽ                          |                       |
|     |  | 6. ሌላ ይግለጹ _____                   |                       |
| 207 | ስለ ድንገተኛ የእርግዝና መከላከያ ዘዴ ሰምተው ያውቃሉ?  | 1. አዎ<br>2. አይ                     |                       |
| 208 | በስራ ድርጅትዎ ውስጥ ክሊኒክ እንዳለ ያውቃሉ?  | 1. አዎ<br>2. አይ                     |                       |
| 209 | ላለፉት 12 ወራት ክሊኒክ ሄደው ያውቃሉ?   | 1. አዎ<br>2. አይ                     |                       |
| 210 | በስራ ድርጅትዎ ውስጥ ስለ ቤተሰብ  | 1. አዎ                              |                       |

|     |  |              |  |
|-----|--|--------------|--|
|     | ምጣኔ ተነግሮዎታል?                                   | 2.አይ         |  |
| 211 | የቤተሰብ ምጣኔ አገልግሎት የሚሰጠውን የጤና ኤክስቴንሽን ሠራተኛ ያውቃሉ? | 1.አዎ<br>2.አይ |  |

| <b>ክፍል ሶስት፡</b> በደብረብርሃን ኢንዱስትሪ ፓርክ፣ አማራ፣ ኢትዮጵያ፣ 2023 የሴቶች ስነ ተዋልዶ ታሪክ እና ጾታዊ ባህሪያት። |                                |                  |                                |
|--|--------------------------------|------------------|--------------------------------|
| ጥ.ቁ  | ጥያቄዎች                          | ምላሽ              | ዝላል                            |
| 301  | ወሲብ ፈፀመው ያውቃሉ?                 | 1. አዎ<br>2. አይ   | መልስዎ<br>2 ከሆነ<br>ወደ 401<br>ይሂዱ |
| 302  | በመጀመሪያ ወሲብ ዕድሜዎ ስንት ነበር?       | _____ ዓመታት       |                                |
| 303  | የትዳር ዳደኛን ሳይጨምር የወሲብ አጋሮች ብዛት? | 1.አንድ            |                                |
|  |                                | 2.ሁለት            |                                |
|  |                                | 3.ሶስት እና ከዚያ በላይ |                                |
|  |                                | 4.አላውቅም          |                                |
| 304  | ስንት ልጆች አለዎት?                  | ----- ልጅ/ልጆች     |                                |
| 305  | ስንት ልጆች መውለድ ይፈልጋሉ?            | ----- ልጅ/ልጆች     |                                |

**ክፍል አራት፡** በደብረብርሃን ኢንዱስትሪ ፓርክ፣ አማራ፣ ኢትዮጵያ፣ 2023 የሴቶች የመራቢያ ዕድሜ ውስጥ ያሉ የትዳር አጋር ተዛማጅ ባህሪያት።

| ጥ.ቁ | ጥያቄዎች   | ምላሽ                      | ዝላል |
|-----|---|--------------------------|-----|
| 401 | ባለቤትዎ ለልጆች ያለው ፍላጎት?                            | 1. የሁለታችንም ፍላጎት ተመሳሳይ ነው |     |
|     |   | 2. ባል የበለጠ ይፈልጋል         |     |
|     |   | 3. ባል ያነሰ ይፈልጋል          |     |
|     |   | 4. አ ላ ወቅ ም              |     |
| 402 | ባለፉት ስድስት ወራት ውስጥ ስለቤተሰብ ምጣኔ ከባለቤትዎ ጋር ተወያይተዋል? | 1. አዎ                    |     |
|     |   | 2. አይ                    |     |
| 403 | የእርግዝና መከላከያ ለመጠቀም የሚወስነው ማነው?                  | 1. በዋናነት የኔ ውሳኔ          |     |
|     |   | 2. የጋራ ውሳኔ               |     |
|     |   | 3. በዋናነት የባል ውሳኔ         |     |
| 404 | ስለዘመናዊ የእርግዝና መከላከያ የባለቤትዎ ሀሳብ ምንድን ነው?         | 1. ይደግፋል                 |     |
|     |   | 2. አይደግፍም።               |     |
|     |   | 3. ገለልተኛ                 |     |

**ክፍል አምስት፡** በደብረብርሃን ኢንዱስትሪ ፓርክ፣ አማራ፣ ኢትዮጵያ፣ 2023 በመውለድ እድሜ ውስጥ ሆነው የሚሠሩ ሴቶች ያላቸው የቤተሰብ ምጣኔ አጠቃቀም።

| ጥ.ቁ | ጥያቄዎች                                      | ምላሽ                                | ዝላል                   |
|-----|--|------------------------------------|-----------------------|
| 501 | የእርግዝና መከላከያ ተጠቅመው ያውቃሉ?                   | 1. አዎ                              | መልስዎ 2 ከሆነ ወደ 504 ይሂዱ |
|     |  | 2. አይ                              |                       |
| 502 | በአሁኑ ጊዜ የእርግዝና መከላከያ ተጠቅመዋል?               | 1. አዎ                              | መልስዎ 2 ከሆነ ወደ 504 ይሂዱ |
|     |  | 2. አይ                              |                       |
| 503 | በአሁኑ ጊዜ የትኛውን ዓይነት የእርግዝና መከላከያ ዘዴ ተጠቅመዋል? | 1. ወንድ/ሴት ማምከን                     |                       |
|     |  | 2. እንክብሎች                          |                       |
|     |  | 3. IUCD(የማህፀን ውስጥ የወሊድ መከላከያ መሳሪያ) |                       |
|     |  | 4. በመርፌ የሚሰጥ                       |                       |
|     |  | 5. በክንድ ቆዳ ስር የሚቀመጥ                |                       |
|     |  | 6. የወንድ/የሴት ኮንዶም                   |                       |
|     |  | 7. ጡት የማጥባት ዘዴ                     |                       |
|     |  | 8. ድንገተኛ የወሊድ መከላከያ                |                       |
|     |  | 9. ሌላ ይግለጹ_____                    |                       |

|     |                                 |                         |  |
|-----|---------------------------------|-------------------------|--|
| 504 | በአሁኑ ጊዜ የወሊድ መከላከያ ለምን አልተጠቀሙም? | 1. የጎንዮሽ ጉዳዮችን በመምፈራት   |  |
|     |                                 | 2. ወሲብ አልፎ አልፎ ስለሆነ     |  |
|     |                                 | 3. አማራጮችን ስለምጠቀም        |  |
|     |                                 | 4. ለመግዛት ስለማፍር          |  |
|     |                                 | 5. ማርገዝ ስለምፈልግ          |  |
|     |                                 | 6. ጡት ስለማጠባ             |  |
|     |                                 | 7. አቅርቦት ስለሌለ           |  |
|     |                                 | 8. የወር አበባ እስኪመጣ ስለምጠብቅ |  |
|     |                                 | 9. ሌላ(ይግለጹ) _____       |  |
|     |                                 |                         |  |

**ክፍል ስድስት:** በደብረብርሃን ኢንዱስትሪ ፓርክ ውስጥ የሚሰሩ የሴቶች የቤተሰብ ምጣኔ አመለካከት በ2023 ዓ.ም

| ጥ. ቁ | ጥያቄዎች   | በጣም እስማማለሁ | እስማማለሁ | ገለልተኛ | አልስማማም | በጣም አልስማማም |
|------|---|------------|--------|-------|--------|------------|
| 601  | የአጭር ጊዜ የእርግዝና መከላከያዎች ከረጅም ጊዜ የእርግዝና መከላከያዎች የበለጠ ውጤታማ ናቸው ብለው ያስባሉ? | 5          | 4      | 3     | 2      | 1          |
| 602  | የእርግዝና መከላከያ ዘዴዎች የጎንዮሽ ጉዳዮች እንዳሉት እና ለእናቶች አደገኛ ይሆናሉ ብለው ያስባሉ?       | 5          | 4      | 3     | 2      | 1          |
| 603  | በጣም ብዙ ልጆች የቤተሰቡን ገቢ ለማሻሻል የሚረዱ ይመስልዎታል?                              | 5          | 4      | 3     | 2      | 1          |
| 604  | የእርግዝና መከላከያ ዘዴዎች ጥንዶቹን ኃላፊነት የሚሰማቸው ወላጆች እንዲሆኑ የሚረዳቸው ይመስልዎታል?       | 5          | 4      | 3     | 2      | 1          |
| 605  | እርግዝና መከላከያ መጠቀም የሴቶች መካንነትን ያስከትላል ብለው ያስባሉ?የ                        | 5          | 4      | 3     | 2      | 1          |
| 606  | የልጆች ሞት ከመጠን በላይ በመውለድ የሚካካስ ይመስልዎታል?                                 | 5          | 4      | 3     | 2      | 1          |
| 607  | ልጆችን አራርቆ መውለድ የእናቶችን እና የህፃናትን ጤና ለመጠበቅ ይረዳል ብለው ያስባሉ?               | 5          | 4      | 3     | 2      | 1          |
| 608  | የእርግዝና መከላከያ እናት ለቀጣዩ ህፃን ጥንካሬዋን እንድታገኝ የሚረዳት ይመስልዎታል?                | 5          | 4      | 3     | 2      | 1          |

|     |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|
| 609 | ባለቤትዎ የእርግዝና መከላከያ አጠቃቀምን ሃላፊነት የሚጋራ ይመስልዎታል? | 5 | 4 | 3 | 2 | 1 |
| 610 | እርግዝና መከላከያ መጠቀም የወሲብ እርካታን ይቀንሳል ብለው ያስባሉ?   | 5 | 4 | 3 | 2 | 1 |

| <b>ክፍል ሰባት:</b> በደብረብርሃን ኢንዱስትሪ ፓርክ ውስጥ የሚሰሩ በመውለድ እድሜ ውስጥ ያሉ ሴቶች ከስራ ጋር የተያያዙ ባህሪያት በ2023 ዓ.ም |                                     |               |
|--|-------------------------------------|---------------|
| ጥ.ቁ  | ጥያቄዎች                               | ምላሽ           |
| 701  | ምን ያህል የሥራ ልምድ አለዎት?                | _____ ወር/ ዓመት |
| 702  | በቀን ስንት ሰዓት ይሰራሉ?                   | _____ ሰዓት     |
| 703  | በሳምንት ስንት ቀን ይሰራሉ?                  | _____ ቀን      |
| 704  | እርስዎ የሚሰሩበት ፋብሪካ?                   | _____ ፋብሪካ    |
| 705  | የእርግዝና መከላከያ በስራ ሰዓትዎ ጊዜ ማግኘት ይችላሉ? | 1.አዎ<br>2.አይ  |