



“Infertility Prevalence among the Armenian Population”

Quantitative Survey

ARMENIA 2022

Content

A Word of Gratitude	4
Abbreviations	5
Introduction	5
Executive Summary	7
PART 1. Quantitative research methodology	14
Research sampling	15
Research process and control	16
PART 2	17
Section 1: Social-demographic characteristic and livelihood conditions of respondents	17
Section 2: Sexual Life and Marriage	20
Section 3: Nature of Menstruation Cycle	21
Section 4: Disrupted Sexual Function, Specifics of Body and Sexual Development	23
Section 5: Wish and ability to have babies	25
5.1 Wish and ability to have babies: female respondents	25
5.2. Wish and ability to have babies: male respondents	28
Section 6: Clarification on Outcomes of Pregnancy	32
6.1 Clarification of Outcomes of Pregnancy: Female respondents	32
6.2. Clarification on Pregnancy Outcomes of Respondents' Wives: male respondents	34
Section 7. Personal Experience and Opinion on Termination of Pregnancy (abortion)	36
7.1 Personal Experience and Opinion on Termination of Pregnancy (abortion): Female Respondents	36
7.2 Personal Experience and Opinion on Termination of Pregnancy (abortions): male respondents	41
Section 8. Personal Experience and Opinion on Contraceptive Means	46
Section 9: Self-assessment of Body Structure and External Symptoms of Diseases	49
Section 10. Health Condition, Symptoms and History of Diseases	52
Section 11: Availability of Primary Healthcare, Information and Modern Reproductive Technologies	57
PART 3	65
Section 12. Prevalence of Infertility	65
12.1. Social-Demographic Characteristics and Livelihood Conditions of Fertility Groups among Men and Women	66
Section 13: Physiological and Other Characteristics of Infertility	77
13.1. Sexual Relations	77
13.2. Menstruation and Sexual Function	80

13.3. Outcomes of Pregnancies and Cases of Termination of Pregnancy among People with Secondary Infertility	82
13.4. Health Condition, Self-Assessment of External Symptoms of Diseases	84
Summary and Recommendations	90

A Word of Gratitude

“Advanced Public Research Group” (APR Group) NGO expresses its deep gratitude to persons and structures who have participated in the process of study on prevalence of infertility, one of main fundamental issues in the republic.

We express our special gratitude to the UNFPA for financial support and specialized expertise during the study. Special thanks to the Ministry of Healthcare of RA, namely the staff of the Mother and Child Healthcare Department, in person of N. Pashayan for interest in this research.

We are grateful to doctors/experts of the National Healthcare Institute of MoH of RA, namely gynecologist/reproductologist, professor Eduard Hambardzumyan, Head of the Obstetrics, Gynecology and Reproductive Health chair and Founder of the Fertility Center and Gynecologist/reproductologist, Doctor of Medicine Merri Khachikyan, Associate Professor of the Chair of Pediatrics and Co-founder of the St. Mariam Family Health center for active participation in and considerably contribution to all phases of the research.

We are grateful to the staff, analysts, interviewers, field work coordinators and quality controllers engaged in the project for unbiased and comprehensive work, as well as over 300 respondents who provided frank answers to all questions in spite of personal nature of the topic.

This report was developed with the financial support of UNFPA. Opinions expressed in the report are responsibility of the author and do not necessarily reflect official views of UNFPA.

Abbreviations

WHO	World Health Organization
ECF	Extracorporeal Fertilization
DA	Difficult to Answer
RA	Republic of Armenia
APR Group	Advanced Public Research Group
RA	Refuse to Answer
UN	United Nations
UNFPA	United Nations Population Fund
RIRHPOG	Republican of Institute of Reproductive Health, Perinatology, Obstetrics and Gynecology

Introduction

According to the data of the Statistical Committee of RA, decline in birth rate and demographics have been recorded during last 3 decades conditioned with the low birth rate that doesn't ensure even simple reproduction (1,57). The birth rate has continuously declined (22.5% in 1990, 10.6% in 2000, 14.7% in 2010 and 12.3% in 2018) meaning reduction for 1.8 times. As a result, compared to 1990 the birth rate has decreased for 2.2 times (36,131 births in 2019 against 79,882 in 1990) and the natural growth rate – for 4.9 times (it made up 3.3% in 2019 against 16.3% in 1990). Because of declined birth rate in 2018, compared to 1990, 1/3 decrease of children between 0 and 14 years old was recorded making up 20.2% and the number of disabled population has doubled making up 11.6% which indicates aging of the population. In the condition of declining birth rate, following issues continue to remain in the agenda: ¹

- 1) Insufficient level of early detection and treatment of pathologies among pregnant women which results in high level of reproductive losses conditioned with unfavorable pregnancy outcome (spontaneous abortion, stillbirth, non-developing pregnancy, premature birth of an infant with low weight) whose number is ranging between 2500 and 3000 during recent years in spite of considerable decline;
- 2) Slow progress in reduction of child mortality, with a high proportion of infants with perinatal causes and neonatal deaths, premature conditions, low-weight and pathologies;
- 3) Lack of pre-pregnancy check and pre-fertilization care services for couples;
- 4) Prevalence of infertile marriages in the Republic.

Infertility prevalence rates in different countries range between 8-25%. It makes 10% in European countries, 8-23% in different regions of the Russian Federation, 10-15% in Kazakhstan, 15-17% in

¹ <https://www.arlis.am/DocumentView.aspx?DocID=140281>

Ukraine, 12% in China, 6-15% in the USA and 16% in Canada. According to the definition of the World Health Organization 15% infertility level is considered crisis and affects demographics and birth rate. Previously quantitative representative surveys were conducted in 1990, 1998 and 2009 to identify the level of infertility prevalence in Armenia.

In 1989-1990 an epidemiological research on infertility prevalence among 4,349 married women was conducted in Yerevan city (K.B. Akunts and co-authors), according to which primary infertility made up 3.2% and secondary infertility – 21.4%.

In 1997-1998 “For the Sake of Family Health” NGO (M.A. Khachikyan and co-authors) conducted a national level epidemiological research on infertility prevalence among 1,400 women and 1,400 men of reproductive age, according to which primary infertility among women made up 3.4% and secondary infertility – 28.5%. Primary infertility among men made up 3.3% and secondary infertility – 15.2%.

In 2009 the Institute of Perinatology, Obstetrics and Gynecology of the Ministry of Healthcare of RA (R. Abrahamyan and co-authors) conducted a clinical and social research among 1,618 Armenian households with the financial support of the UNFPA and engagement of the National Statistical Service of RA, according to which, primary infertility among women made up 5.4% and secondary infertility – 11.4%. Primary infertility among men made up 2.3% and secondary infertility – 2.8%. Findings of this research were revised and the report was re-published in 2014.

In 2020-2021 “Advanced Public Research” (APR) Group NGO conducted a sampling survey among 3,000 women and men with the financial support of the Armenian office of the UNFPA aiming at identification of infertility prevalence among the population of the Republic of Armenia. The research findings will become a basis for development of evidence based targeted healthcare policies and strategies.

This report presents the methodology and findings of the quantitative survey. It describes in details social-demographic characteristics of respondents, their livelihood, sexual life, issues of use of contraceptives, abortion attempts, outcomes of pregnancy, as well as a number of other questions related to health condition. To define infertility prevalence, groups of respondents have been selected that are considered infertile, fertile and potentially fertile as well as people with unknown status of fertility. This report summarizes description of those groups according to social-demographic indicators, livelihood conditions and other indicators defining health condition.

The report offers a number of recommendations which are necessary to consider when initiating reforms in the sector and development of policies.

Executive Summary

Decrease of the birth rate in RA leads to the disruption of the reproductive process. Reasons for the latter may include emigration, change in reproductive behavior, socio-economic conditions of the population etc. In addition, 44-day war in 2020 with its consequences further emphasizes the relevance of this issue in the Republic.

In the past, representative quantitative studies aimed at revealing the prevalence of infertility in Armenia were carried out in 1990, 1998, 2009, according to which the rate of infertility was 24.6%, 31.9%, respectively, and according to the results of the 2009² study by the RIRHPOG, the figure was 16.8% for women (out of which 5.4% primary and 11.4% secondary infertility) and 5.1% for men (out of which 2.3% primary and 2.8% secondary infertility). In 2020-2021, with the financial support of the United Nations Population Fund, Advance Public Research Group NGO conducted a sample survey among the population of Armenia. 3,000 people of reproductive age took part in the survey, out of which 1,532 were men and 1,468 - women. Interviews were conducted through household visits/face-to-face meetings using the CAPI³ computer program. The research sample included the city of Yerevan and all regions of the Republic of Armenia in proportion to the population.

Due to the use of different terminology and definitions in the field of reproductive health, especially regarding the prevalence of infertility, published data at the national and international levels are often confusing and make it difficult to compare published data and trends. According to WHO,⁴ "**Infertility**" is a disease of male or female reproductive system characterized by failure to get pregnant after 12 or more months of regular and unprotected sexual relations. Causes of infertility can be related only to **women** or only to **men**: a **combination of male and female factors** is also possible. However, **unexplained infertility** often occurs. Data analysis of this study was based on the revised WHO International Classification of Mortality and Morbidity Statistics (ICD-11) (version: 02/2022)⁵, which provides clinical definition of **primary and secondary infertility in females and males**. In order to achieve goals of this research, internationally accepted epidemiological and demographic definitions of "Infertility", "Sterility" and "Fecundity" were also used, as the new WHO definitions of infertility are of a clinical nature. Such approach enables to make comparisons with previously conducted research at the national and international levels and to clarify trends.

The study found out that 1.7% of respondents have **primary infertility**. These are couples who failed to get pregnant after 12 or more months of regular, unprotected sexual relations.

15.1% of respondents have **secondary infertility**. They are couples who have had at least 1 child in the past, but failed to get pregnant in the last 12 or more months of regular and unprotected sexual relations. The secondary infertility group also includes those couples who are **sterile**. They

² Results of this research were revised and the report was re-published in 2015.

³ Computer Assisted Personal Interviewing, is an interviewing technique with which the interviewer enters the information obtained during the face-to-face interview with the respondent into an electronic questionnaire installed on the computer

⁴ WHO definition of Infertility, https://www.who.int/health-topics/infertility#tab=tab_1

⁵ The WHO Eleventh Revision of the International Classification of Diseases (ICD-11) for Mortality and Morbidity Statistics (Version: 02/2022) <https://icd.who.int/browse11/l-m/en#/http://id.who.int/icd/entity/1237004558>

make up 0.9% of the respondents, couples who achieved pregnancy after 12 months or more of regular and unprotected sexual relations, but did not have a viable baby due to spontaneous miscarriage, non-developing pregnancy or other reasons.

In this study, the term **unknown fertility status** was also used, where respondents who do not have children were counted if: 1) the duration of marriage was less than 12 months and they did not use contraceptives during that period, or 2) they do not wish to have children (in the near future) and during the last 2 years have been using contraceptive means continuously. They made up 9% of respondents.

Supposedly fertile and fertile are respondents who have ever been married or had a relationship, don't have primary and secondary infertility, and unknown fertility status. Thus, a woman who is currently pregnant or has been breastfeeding a child for the past two years is considered fertile, and a woman who has ever been pregnant and has at least 1 child, who usually uses any contraceptive mean and does not plan to have a child(ren) in the near future is considered fertile (except for pregnant women and those who have been breastfeeding for the past two years). They made up 74.2% of respondents.

Prevalence of infertility

Thus, the prevalence of infertility among cohabiting couples of reproductive age is 16.8%, in which:

- Primary infertility: 1.7%
- Secondary infertility: 15.1%, in this case, secondary infertility also includes those people who have ever been pregnant, but did not have a viable child.
- Among female respondents, primary infertility is 1.3%, secondary - 13%, and among male respondents, primary infertility is 2.2% and secondary - 17.6%.
- For couples with primary infertility, the average age for women is 31 and 36 for men. For couples with secondary infertility, the average age for women is 34 and 38 for men.
- 54% of couples with primary infertility are from urban areas and 46% from rural areas. 71% of couples with secondary infertility are from urban areas and 29% from rural areas. 74% of those with fertile and supposedly fertile status are from urban areas and 26% from rural areas.
- 14.7% of couples with primary infertility are from Yerevan, Ararat and Armavir, 11.8% from Syunik, 8.8% each from Aragatsotni, Gegharkunik, Shirak, and 5.9% each from from Lori, Kotayk and Vayots dzor. 39.2% of couples with secondary infertility are from Yerevan, 10.7% from Ararat, 10% from Armavir, 9.4% from Shirak, 7.4% from Lori, and the rate in regions is relatively few. 34.2% of those considered fertile are from Yerevan, 9.6% from Kotayk, 9.3% from Armavir, and the least - 1.2% - from Vayots Dzor. Moreover, when looking at marzes, primary infertility is higher in Vayots Dzor and Syunik marzes, and secondary infertility is higher in Vayots Dzor, Ararat, Shirak marzes and Yerevan.
- 48% of women couples with primary infertility have incomplete higher and university education, while 24% of men have higher education. 43% of women couples with secondary

infertility have incomplete higher and higher education, and 37% of men have incomplete higher and university education.

- In all fertility groups, more than half are employed and more men than women are employed. Employment of women in primary and secondary infertility groups is higher than in the fertile and supposedly fertile status groups. Meanwhile, among couples with primary infertility, male employment is lower (88%) than in the group with fertile and supposedly fertile status.
- More than half of employed women with primary and secondary infertility have satisfactory working conditions. More than half of men couples with primary infertility also have adequate working conditions, while more than half of men couples with secondary infertility, 51%, have unsatisfactory working conditions. Men's working conditions are more unsatisfactory than women's. Unsatisfactory working conditions for women are mainly work in a forced position, physical load, mental overstrain, etc. (in order of priority), while in case of men, they include physical load, mental tension, work in a forced position, contact with toxic materials, work in a radiated environment.
- Most couples live in their own apartment. Housing conditions of the majority of couples are satisfactory, they do not receive benefits from the state, they have loans or other debts, the average monthly family income is AMD 150,000 or more.
- The role of man in couple's infertility is greater in secondary infertility than in primary infertility.
- Some disorders of sexual or menstrual function are observed among those with primary infertility. Secondary infertility is influenced by factors such as age, stress, infections or inflammations that develop over time, etc.
- Cases of termination of previous pregnancies and/or spontaneous abortions can also have their influence on secondary infertility.
- Occurrence of secondary infertility is also influenced by acquired diseases and sexually transmitted infections, which rather contribute to infertility among men.

Main findings of the research are presented below:

- The average age of female respondents who have ever had sexual relations is almost the same for the first relationship and first marriage - 22 years old. And for 77% of men, these ages do not match. The average age of men's first relationship was 19 and the average age of marriage was 29.
- The majority of respondents who have ever menstruated had their first menstruation at the age of 12-14. For the majority, the duration of menstruation is 4-7 days, the frequency is once a month, mostly regular, the abundance is moderate, mostly painless, sometimes accompanied with pain.
- The majority of male respondents do not have sexual dysfunction. Those who have, cite sexually transmitted and other diseases, stress, psychological problems, etc. as causes of sexual dysfunction. The average age of 1st nocturnal ejaculation is 14-16. Almost half of the

respondents did not want to answer the question about that physiological process. The maximum number of sexual relations per month varies by almost half ranging from 1 to 10 times with an average of 6 times.

- 95% of female respondents got pregnant during their last marriage. At the time of the survey, the most of pregnant women had planned their pregnancy, while others, who had not planned it, decided to keep the child.
- More than half of female respondents have both male and female children, ¼ only male, and 16% only female. The average number of children is 2.48.
- Most women either do not plan to have children or plan to, but not in the near future. Among women, main reasons for not wishing to have children are age, financial difficulties, health problems, etc.
 - Most of the respondents who mentioned age as a reason for not wishing to have children, 85%, are 40-49 years old.
 - 50% of respondents who mentioned financial difficulties as a reason for not wishing to have a child have an average monthly family income of 150,000 AMD, 44% have 150,000-300,000 AMD, and the remaining 6% have higher.
 - 48% of the respondents who mentioned the reason "We have as many children as we planned" have 2 children, 44% - 3 children, 7% - 4 children, and the rest - more.
 - 95% of respondents who indicated the options "I have health problems" and "My husband has health problems" have never had problems with having children. The latter indicates that the health problems mentioned by the respondents are not related to the health problems causing infertility, at least in their perception.
 - Wives of 93% of male respondents got pregnant during the last marriage, in 7% of cases, for one reason or another, they didn't wish to have a child or didn't get pregnant. For those male respondents whose wives were pregnant at the time of the survey, the pregnancy was planned and they intend to keep it.
 - More than half of male respondents have both male and female children, about ¼ only male and 17% only female. Among those with children, the average number of children is 2.38.
 - Most men either don't plan to have children or plan to, but not in the near future. Among them, the main reasons for not wishing to have children are age, financial difficulties, the planned number of children, health problems, etc.
- 40% of the respondents who mentioned age as a reason for not wishing to have children are in the age group of 38-48 and 60% - 49-54.
- For 48% of respondents who mentioned financial difficulties as a reason for not wishing to have a child, the average monthly income of the family is 150,000 AMD, 41% has 150,000-300,000 AMD, others have higher income.
- 4% of the respondents who mentioned the reason "we have as many children as we planned" have 1 child, 42% - 2 children, 44% - 3 children and others - more children.

- 97% of the respondents who indicated the options "I have health problems" and "My wife has health problems" have never had problems with having children. The latter indicates that the health problems mentioned by the respondents are not related to the health problems causing infertility, at least in their perception.
- Most recent pregnancies of female respondents and most recent pregnancies of wives of male respondents resulted in live birth, others resulted in abortion before 12th week, non-developing abortion, ectopic pregnancy, etc. Most of them had no complications.
- About ¼ of both female and male respondents have had a caesarean section, mostly 1 time.
- 3.5% had a child with a birth defect, out of which 1.3% (14 people) died. The majority of male respondents did not have a child with a birth defect. 2.3% had a child with a birth defect, and in 0.3% of them (2 people) the child died.
- All live births of 97.5% of female respondents are alive, and about 2% died (mostly under 12 months). All live-born children of 96.4% of male respondents are alive, 3.3% died (mostly under 12 months of age).
- More than half of the female respondents (54%) have never undergone termination of pregnancy, 20% have performed once, 17% - 2-3 times and others - more. The main reasons for not seeking abortion included avoiding unwanted pregnancy, conflict with values and religious beliefs. More than half of women who performed abortion, 56%, performed abortion for the first time at the age of 25-35, 36.9% at the age of 19-24. The majority of abortions occurred before 12th week. Most of couples made the decision to terminate pregnancy together, in 1/5 cases the doctor made the decision, in 1/5 cases the woman made the decision herself. Husbands mostly agreed with the termination of pregnancy. Women who underwent abortion rated their physical condition higher than their psychological condition. For respondents, common motivations for abortions are health/life threatening, financial difficulties, having the desired number of children, planning a child later, etc. Most recent abortions have occurred in maternity hospitals and medical facilities. About 92% of terminations were performed by obstetricians-gynecologists, in 5.7% of cases women performed self-managed abortion. 52% of women who have ever had abortion received full counseling about possible consequences of abortion before termination, including 48.3% of women who had an abortion in the past 5 years. Only 24.4% of women who had ever had an abortion were given a 3-day waiting period to reconsider and change their abortion decision. 54.4% of women wanted to have a child after the abortion, but 44.2% actually had a child or are currently pregnant.
- Information about abortion among male respondents is almost the same as information obtained from female respondents (previous point), with the exception that men's assessments of both physical and psychological state of women after abortion do not differ much from each other, while women when assessing themselves state they were in a worse psychological state than physically after the abortion.

- 50% of female and 54% of male respondents have never used modern contraceptive means, 38% of female respondents and 32% of male respondents indicated that they always use it. Among the respondents, the most common contraceptive methods ever used are condom, interrupted sexual relations, intrauterine device, etc. During last two years, most commonly used means are condoms, then interrupted sexual relations, rhythmic or calendar method, etc.
- In terms of body structure and external symptoms, the majority of respondents states that they haven't had any weight fluctuations, but there is a trend for weight loss in case of males and weight gain trend in case of females. 17% of female respondents have mild or severe hair covering on unusual body parts. About half of the latter noticed excessive hair growth at the age of 25-40. 13% of female respondents and 32% of male respondents have hair loss on head, which is mostly observed in the age group of 25-40 years. Breast problems are present among approx. 22% of surveyed women, which are expressed mainly in form of premenstrual pains, neoplasms, direct pains, etc.
- Most of the female respondents consider themselves or their husbands healthy, the same is the case with male respondents, but among male respondents there are more people who consider themselves and their wives healthy than among female respondents.
- The majority of both female and male respondents had no genitourinary and endocrine problems, but female respondents had more genitourinary problems than male respondents, and more genitourinary than endocrine problems. The majority of both female and male respondents didn't have genital problems, but the most common genital problem among them were itching or unpleasant discharge in genital area, followed by genital inflammatory diseases. The vast majority of female respondents and their husbands didn't have diseases, but among those who do, the most common was fungal infection of genital skin, followed by Gardnerellosis. Fungal infection of genital skin, hepatitis, etc. are more common among male respondents.
- The majority of respondents, 87% stated that they have never had problems with having a child, 6% have had it before and recovered, 6% have ever had. More than half of respondents, 74%, consulted a doctor together with their wife/husband, in case of 11% only wife did, and for 15% no one did. Main reasons for not consulting a doctor are: waiting to get pregnant without treatment, lack of problem with husband, financial difficulties, avoiding behavior by husband, distrust in doctors, etc. Most of them visited specialized center, maternity hospital in provincial center. More than half of female respondents had all necessary tests done, while more than half (74.8%) of their husbands had sperm tests, and less than half had other tests done. According to more than half of female respondents, the cause of infertility related to them. For more than half of the male respondents, out of necessary tests only sperm examination (79% of cases) and blood hormone level (52% of cases) check were performed, all other tests were performed in fewer cases. According to 37% of male respondents, the reason related to their wives. 10% of female respondents have undergone surgery to recover fertility, while only 5%

of male respondents reported having undergone surgery, moreover, 13% of male respondents stated that their wives have undergone surgery, so women are more likely to undergo surgery than men.

- The vast majority of female respondents have only heard about modern reproductive technologies for fertility restoration. 6% of respondents applied for invitro fertilization and artificial insemination with their husband's sperm but did not achieve results. In the case of male respondents, the majority has never used modern reproductive technologies either. Some have applied for invitro fertilization (IVF) (6%), artificial insemination with husband's sperm (4%) and haven't achieved results, but a smaller number of respondents have used same technologies and are satisfied (2% and 5% achieved results, respectively).
- The overwhelming majority of female respondents generally agree with the statement "If couples cannot have a child, they should use modern methods of fertility" (96%), about half generally agree with "If a woman wants to have a child and does not have a partner, she should have a child naturally, from another man" (54%). The majority of male respondents mostly agree with the statement "If couples can't have a child, they should use modern fertility methods" (79%), but mostly disagree with the statement "If a woman wants to have a baby and doesn't have a partner, she should have a baby naturally from another man" (51%).

The main recommendations made based on the results of the study are:

Develop multi-sectoral strategies, within the framework of which measures and steps can be undertaken to enable Armenian families to have desirable number of children.

Implement state interventions in order to improve the demographic situation in Armenia.

Considering the fact that abortion is used as a method of family planning, it is necessary to take steps to educate the population, especially young people, about healthy and literate sexual behavior, avoiding unwanted pregnancies and desirability of pregnancy.

Raise awareness of women and men about the effectiveness of modern contraceptive means, as well as about the negative consequences of self-managed abortions.

In order to prevent infertility, women and men of reproductive age should be given an opportunity to undergo examinations and receive appropriate treatment within the framework of state order.

Encourage couples to seek and/or apply for fertility restoration services. In order to increase their efficiency, there is a need to create an opportunity so that a couple who wants to get pregnant can apply for the service several times within the framework of state order, until the desired pregnancy is achieved.

PART 1. Quantitative research methodology

Research goal

The goal of the research is to identify infertility prevalence among the population of reproductive age of the Republic of Armenia.

Research object and subject

The object of the research were people of reproductive age residing in RA (female representatives aged 15-49 and male representatives age 15-54) independent of the fact whether they had sexual relations or not.

Infertility was the subject of the research.

Definition of main terms

During the research clinical definitions by the World Health Organization on infertility were used taking into account necessity of collecting comparable data on global levels and national characteristics.

Infertility: Infertility is a male and female reproductive system disease resulting in a failure to get pregnant and have a baby for a couple that lives with regular sexual life and doesn't use contraceptive means for a period of 12 and more months.

Primary infertility: If a couple has never succeeded to get pregnant, the infertility is classified as primary infertility.

Secondary infertility: If an infertile couple has previously got pregnant at least once, but can't get pregnant any more, or has got pregnant but couldn't have a viable baby, the infertility is classified as secondary infertility.

Reproductive age: The defined reproductive age for women is 15-49 years old and 15-54 years old for men.

Research Method

The main research method was standardized face-to-face meeting using mostly questionnaires with close ended questions. Interviews were conducted using computer software – CAPI.⁶ Research data was analyzed using SPSS software.

⁶ With Computer-assisted personal interviewing (CAPI) interviewer inputs the data collected through face-to-face interviews into the electronic questionnaire installed in the tablet. The soft allows high level control over interviewing.

Research objectives

To achieve the defined goal the research referred to questions related to the following objectives:

1. Social-demographic characteristics,
2. Sexual life and marriage,
3. Characteristics of menstruation cycle,
4. Disrupted sexual function, specifics of body and sexual development,
5. Wish and ability to have children,
6. Clarification of outcomes of pregnancies,
7. Personal experience and opinion on abortions,
8. Personal experience and opinion on contraceptive means,
9. Self-assessment of body structure and external symptoms of diseases,
10. Health conditions, symptoms and history of diseases,
11. Primary healthcare provision, availability of information and modern reproductive technologies for couples which currently has or previously had infertility,
12. Livelihood conditions,
13. Characteristics of groups.

Research sampling

According to the data of the Statistical Committee of the Republic of Armenia as of 2020⁷ the number of female representatives aged 15-49 is 745,017 and the number of male representative aged 15-54 is 762,553. The general conglomerate of the research is 1,507,570.

For the margin of error of 1.8% and 95.15% of confidence level interval the sample size calculated using statistical formulas makes up 3,000. The size of sampling was distributed in Yerevan and 10 marzes of RA in proportion to the number of population (Table 1).

A cluster and quota sampling was developed. The sample size for each marz was divided into the size of the cluster to calculate how many clusters in the given marz should be selected. The size of clusters for this research is 16. The list of polling stations in marzes became a basis for sampling and selection of settlements/survey points in each marz. Subsequently polling stations from the list were selected using coordinated step. Selected polling stations then became as starting points for clusters. The number of interviews in Yerevan was proportionally distributed according to its administrative districts followed by selection of starting points from the list of polling stations according to the number of clusters.

Table 1: Distribution of Respondents and Clusters according to Marzes
--

⁷ <https://www.armstat.am/am/?nid=209>

Marz	Quantity	Percent	Number of Clusters
Yerevan	1064	35%	66,5
Aragatsotn	128	4%	8
Ararat	256	9%	16
Armavir	288	10%	18
Gegharkunik	240	8%	15
Lori	208	7%	13
Kotayk	256	9%	16
Shirak	240	8%	15
Syunik	144	5%	9
Vayots Dzor	48	2%	3
Tavush	128	4%	8
Total	3000	100%	187,5

In each marz the sample was distributed according to the number of quotes. For each quote calculations were made how many people from specific age and gender group should be interviewed. That, as a result, made the sample representative.

Within the cluster, household located on a specific direction will be considered as the first household where interviews will start from. If in the household the interview is conducted in accordance with set quote, 4 next households will be skipped and interview will be conducted in the 5th household. If no quote based interview is conducted, the next household should be targeted for the interview. During all phases of the sampling steps were undertaken to ensure the representation of the sample as much as possible

Research process and control

Before the field work launch research instruments were developed by experts (doctors and sociologists) involved in the project and submitted to the donor organization - Armenian office of the UNFPA. Questionnaires were also discussed with representatives of the Ministry of Healthcare.

Following the approval of questionnaires, they were installed in the relevant soft, as well as piloted and finalized for further use.

At the field work preparation phase interviewers, field coordinators and quality controllers underwent specialized training on the research topic, questionnaire and sampling. Doctors-experts were also engaged in the training to present peculiarities of the topic.

The field work was conducted using computer technologies which ensured high level of field work control. All CAPI control mechanisms were applied.

Following the data processing, research results were analyzed using SPSS statistical software package. Findings are summarized in this report.

PART 2

Section 1: Social-demographic characteristic and livelihood conditions of respondents

Note. Information summarized in this part refers to all respondents (n=3000)

Interviews were conducted among the RA population in all marzes including about 3000 respondents of reproductive age, out of which 51% were men and 49% women (Table 2).

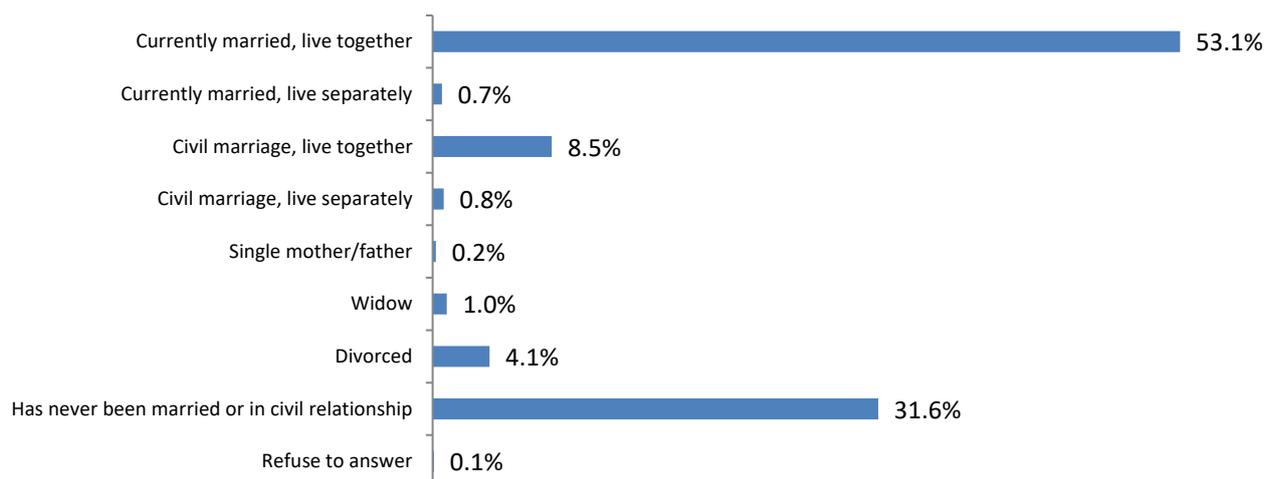
Table 2. Gender of respondents	Quantity	Percent
Male	1532	51%
Female	1468	49%
Total	3000	100%

Table 3. Distribution of respondents according to marz	Quantity	Percent
Yerevan	1064	36,4%
Armavir	288	9,5%
Kotayk	256	8,5%
Ararat	256	8,6%
Shirak	240	7,8%
Gegharkunik	240	7,6%
Lori	208	7,1%
Syunik	144	4,6%
Tavush	128	4,2%
Aragatsotn	128	4,2%
Vayots Dzor	48	1,6%
Total	3000	100%

Table 4. Age of respondents	Quantity	Percent
16-19 years old	363	12%
20-24 years old	353	12%
25-29 years old	456	15%
30-34 years old	515	17%
35-39 years old	461	15%
40-44 years old	383	13%
45-49 years old	318	11%
50-54 years old	151	5%
Total	3000	100%

The majority of respondents are either married or are in the state of civil marriage, however one third was never married or in civil relationship (Chart 1).

Chart 1: Marital Status(n=3000)



When looking at male and female marital statuses (Chart 2) it becomes obvious that about 41% of male and about 22% of female respondents have never been in marital or civil relationship. This means that male respondents that have never been married or in civil union are twice more than female respondents with the same status.

Chart 2: Marital status according to males and females

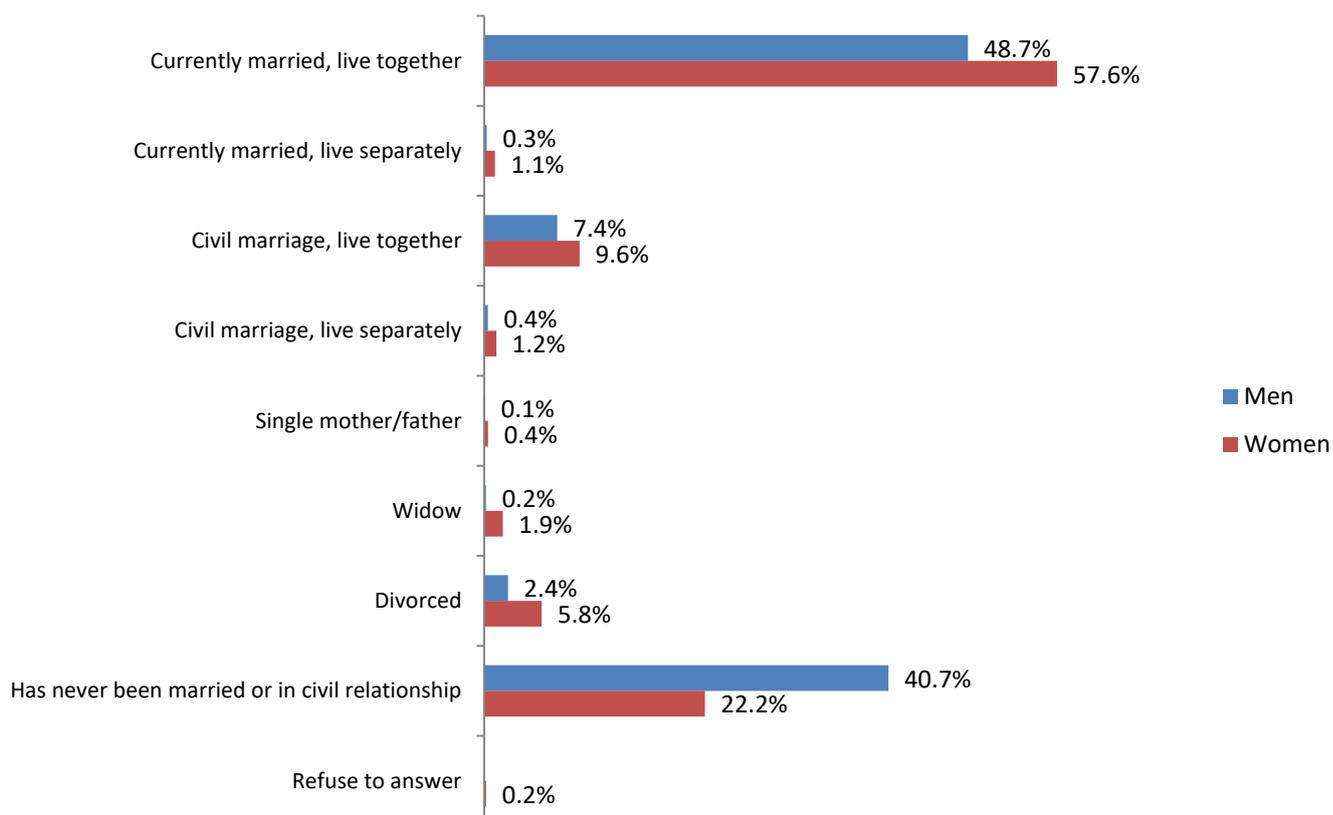


Table 5: Have you or your husband lived for more than 5 years in a settlement that had mines, chemical factories and other facilities in the surrounding area?	Female respondents	Male respondents
Yes, me	6,0%	8,0%

Yes, only my wife (husband)	1,7%	0,7%
Yes, both of us	7,7%	7,3%
No	84,0%	83,4%
Difficult to answer	0,6%	0,5%
Total	100,0%	100,0%

Table 6: Citizenship of respondents	Percent	Quantity
RA citizen	2886	96%
Citizen of another country	66	2%
Dual citizenship (including RA)	48	2%
Total	3000	100%

Table 7: Churches that respondents follow	Female		Male		Total	
	Quantity	Percent	Quantity	Percent	Quantity	Percent
Armenian Apostolic church	1366	93%	1409	92%	2775	92,5%
Other Christian directions (catholic, protestant)	41	3%	30	2%	71	2,4%
I'm not an adept of any church (atheist)	26	2%	27	2%	93	3,1%
Other religion	31	2%	62	4%	53	1,8%
Difficult to answer	4	0%	4	0%	8	0,3%
Total	1468	100%	1532	100%	3000	100%

Table 8: Education of respondents	Female		Male		Total	
	Quantity	Percent	Quantity	Percent	Quantity	Percent
Elementary			1	0%	1	0%
Incomplete secondary (8 grades)	97	7%	180	12%	277	9%
Secondary (10-12 grades)	557	38%	652	43%	1209	40%
Secondary vocational education	300	20%	219	14%	519	17%
Incomplete higher education	41	3%	43	3%	84	3%
Higher education (excluding master's degree)	269	18%	285	19%	554	18%
Higher education (including master's degree)	188	13%	136	9%	324	11%
Post-graduate (doctoral degree)	16	1%	16	1%	32	1%
Total	1468	100%	1532	100%	3000	100%

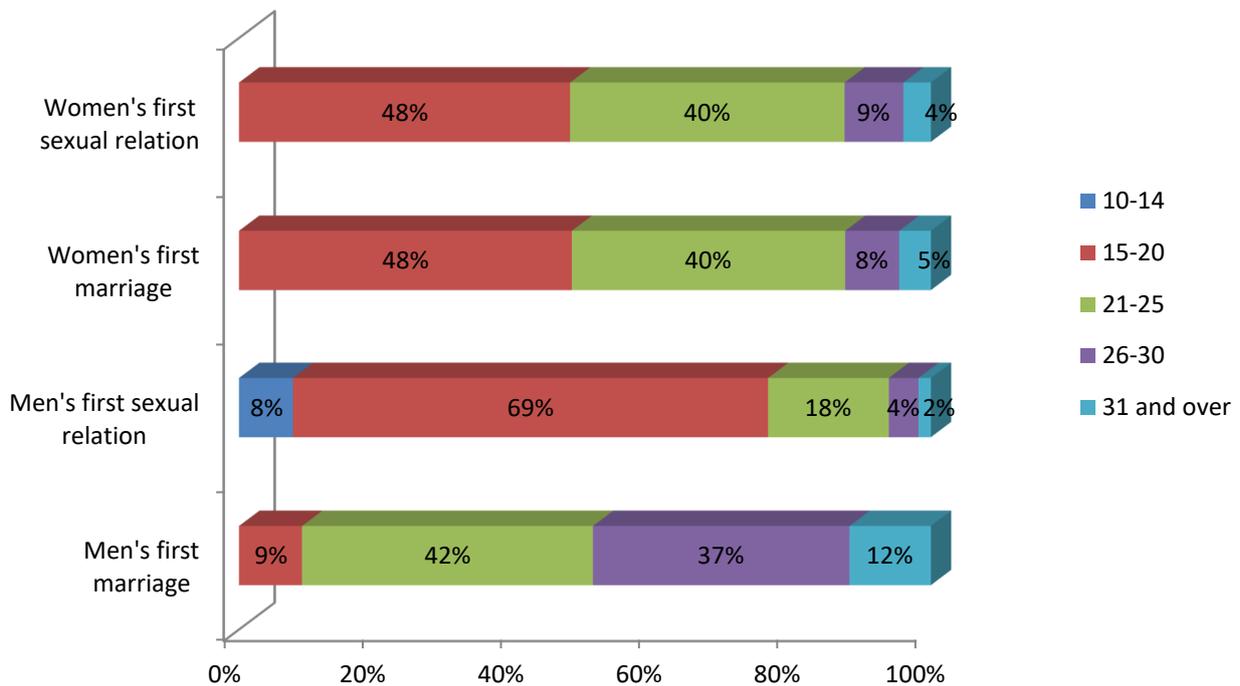
Section 2: Sexual Life and Marriage

Note: This part summarizes information on respondents, who have had sexual relations (married, being in civil union, single mother/father, divorced), and doesn't include respondents that have never had relations and never been married, as well 4 female respondents that refused to answer questions of this part. (female respondents - 1142, male respondents - 909):

Table 17: How many times have you been married or living jointly with a representative of an opposite sex?	Female respondents (n=1142)	Male respondents (n=909)
Once	96,7%	95,8%
Twice	3,2%	3,6%
3 times and more	0,1%	0,6%
Total	100%	100%

The average age of female respondents that ever had sexual relations was 21.5 during first sexual relation and 21.9 during the first marriage. Ages of women's first sexual relations and first marriage mostly match (22 years old), while they don't match for 77% of men. The average age of male first sexual relation was 18.8, while the marriage age was 28.7. About 4% of female respondents (mostly at the age of 17) and 30% of male respondents had sexual relations before becoming 18 years old. It is interesting, that, in difference to women, 15% of men couldn't or refused to answer the question on the age of their first sexual relation.

Chart 3: Age of first sexual contact and first marriage according to gender



Currently 987 female respondents are married or are in civil union with their husbands or partners. About 80% states that during last two years they had sexual relations every month. Majority of them – about 80% - in response to the question on whether during sexual relations they have a wish, or they are indifferent and do that to fulfil marital responsibilities, states that have such wish (always –

63.8% and sometimes – 23.5%), 6.4% has sex to fulfil marital responsibilities and 0.6% to have a baby. 5.8% couldn't or refused to answer the question on wish.

In case of question *“How often do you feel pain during sexual relations with husband?”* 10% of women states that relations are always or often accompanied with pain, about 32% feels pain rarely and more than the half – 55% - doesn't have pain at all.

Responses to the question *“How often do you feel pleasure during sexual relations with your husband?”* come to prove that about 77% of female respondents feels pleasure (always or often), 13% - rarely and 2.4% - never. Others refused to speak on the mentioned question.

To the question *“During last two years have you had sexual relations with your wife without modern contraceptive or natural means?”* 858 **male respondents** – about 70% - who are currently married or are in civil union, answered that during last two years they had sexual relations without modern contraceptive or natural means, 27% didn't have such relations and 3% couldn't or refused to answer the question.

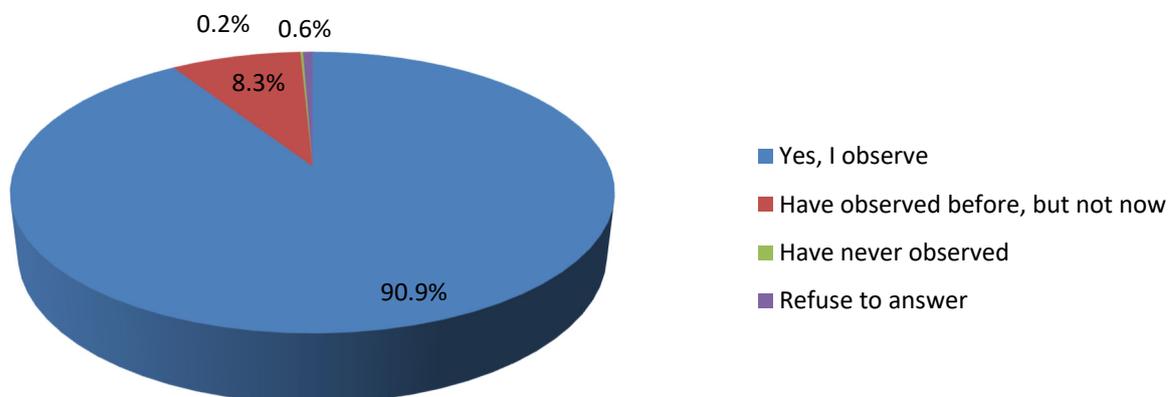
In response to the question *“During sexual relations with your wife do you have a wish are indifferent and have a sex to fulfil marital responsibilities?”* majority of man – 91.6% - states that they have a wish during relations (always – 85.1% and sometimes – 6.4%), 2.3% has sex to fulfill marital responsibilities and 0.8% to have a baby. 5.3% of respondents couldn't or refused to answer.

To the question *“Have you ever had sexual weakness or impotence?”* only 2.7% of male respondents states that they very often or often have sexual weakness or impotence, 11.8% states rarely, 83.4% - never and 2.2% couldn't or refused to answer.

Section 3: Nature of Menstruation Cycle

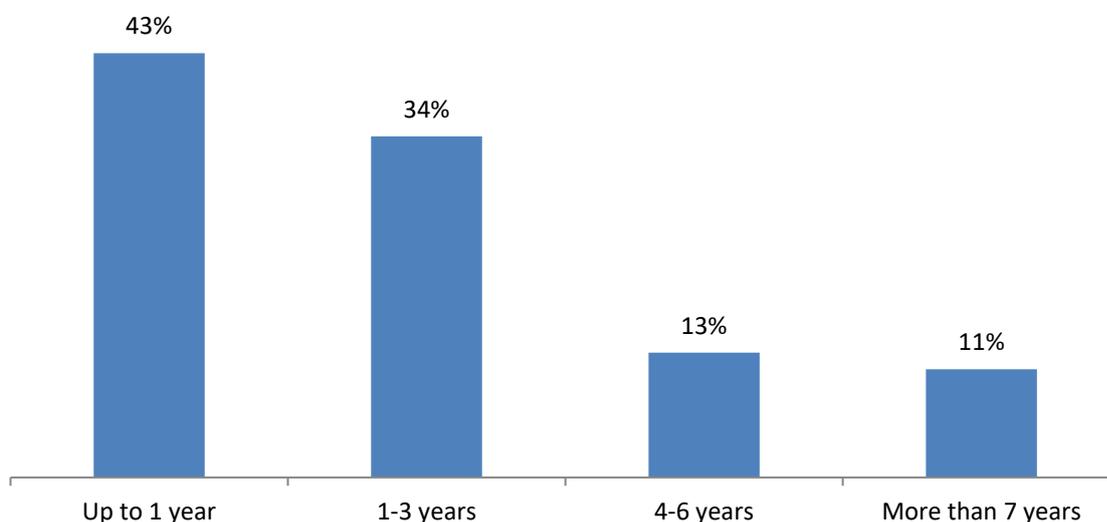
Note: This part summarizes information on all female respondents independent of the marital status (female respondents - 1468).

Chart 4: Do you observe menstruation?



Majority of 1468 female respondents sees menstruation and only 8.3% (122) states that they have seen previously, but don't see now. For this group the research attempted to clarify how long no menstruation has been observed (Chart 5).

Chart 5: How long has it been that you haven't observed menstruation? /n=122



69% of respondents that have ever seen menstruation saw their first menstruation when being 12-14 years old (Table 18).

Table 18: How old were you, when you first saw menstruation?	Percent
7-11 years old	6%
12 years old	18%
13 years old	25%
14 years old	26%
15 years old	14%
16 years old and over	11%
Total	100%

During last 1 year menstruation of 66.3% of respondents lasted 4-7 days, 1-3 days among 30.3% and more than 7 days among 2.4% (1% couldn't or refused to answer the question on the duration of menstruation). Among 97.3% of respondents the frequency of menstruation is once per month, twice per month among 1.8% and rarer among others.

Menstruations regularly happen in case of 81.6% of women, irregular with delays among 12.6% and irregular but frequent among 4.5% (1.3% couldn't or refused to answer).

44.3% of respondents doesn't have painful menstruations, for 32.3% menstruation is sometimes accompanied with pain and for 22.7% menstruations are always painful (0.8% couldn't answer).

70% of respondents has moderate, 19.5% heavy and abnormally heavy and 8.3% light menstruations (1.4% couldn't or refused to answer).

Section 4: Disrupted Sexual Function, Specifics of Body and Sexual Development

Note: This part summarizes information of all male respondents independent of marital status (male respondents - 1532).

Table 19: Do you have disruption of sexual function?	Quantity	Percent
No, my sexual function is normal	1476	96%
Erection occurs rarely	12	1%
Erection doesn't occur (impotence)	4	0,2%
Ejaculation occurs early	7	0,5%
Ejaculation occurs with difficulty	5	0,3%
Difficult to answer	17	1%
Refuse to answer	11	1%
Total	1532	100%

Majority of male respondents – 96% - states that they don't have disruption of sexual function, 2% couldn't or refused to answer and other 2% states reasons for disruption of sexual function (Table 20).

Table 20: Reasons for disruption of sexual function	Percent
Sexually transmitted infections or other diseases	23%
Stress	15%
Psychological issues	12%
Inflammation of genital organs	8%
Diabetes	8%
Senior age	8%
Insomnia	4%
Physical overload	4%
Stroke	4%
Abuse of alcohol	4%
Difficult to answer	12%
Total	100%

To the question “Can you remember how old you were when you had your first night ejaculation?” 48% of male respondents couldn't or refused to answer, about 30% had that physiological process when being 14-16 years old.

Table 21: How old were you, when your first night ejaculation occurred?	Percent
8-10 years old	1%
11-13 years old	14%
14-16 years old	30%
17 years old and over	7%
Difficult or refuse to answer	48%
Total	100%

24% of male respondents couldn't or refused to answer to the question on the maximum quantity of sexual relations during 1 month and the distribution of answers by the remaining 76% is presented in Table 22.

Table 22: Maximum quantity of sexual relations during 1 month.	Percent
0	12%
1-5	29%
6-10	20%
11-15	15%
16-20	9%
21-26	3%
26-30	7%
Over 30	4%
Total	100%

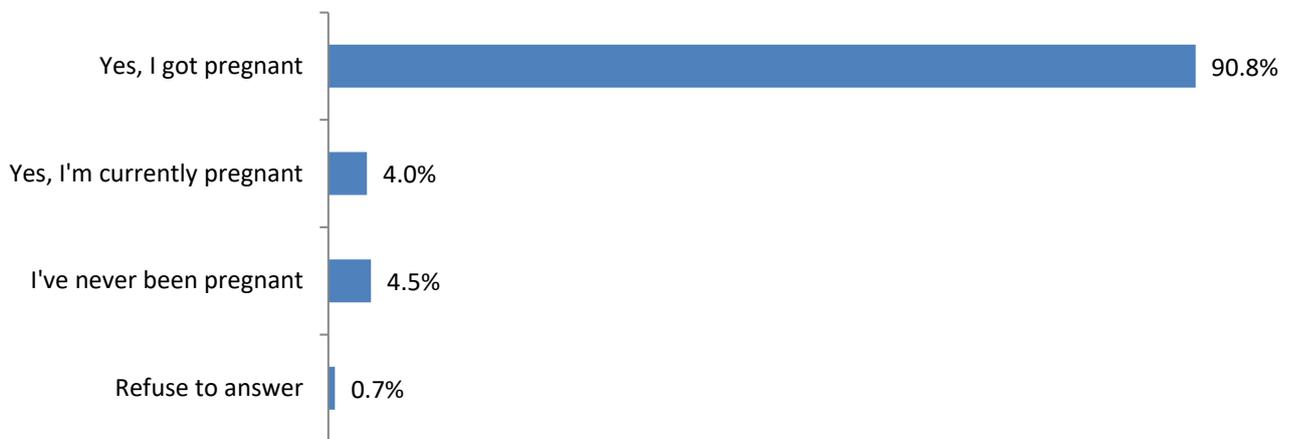
Section 5: Wish and ability to have babies

5.1 Wish and ability to have babies: female respondents

Note: This part summarizes information from female respondents who have ever had sexual relations (married, civil union, single father/mother, widow, divorced) and doesn't include respondents that have never had relations and haven't been married (number of respondents – 1146).

1146 woman that have ever had relations were asked: “Have you ever got pregnant during the given (last) marriage?”. As a result majority – 91% - states that they got pregnant, 4% mentions that they are currently pregnant, 4.5% has never got pregnant and 1% refused to answer. 10 out of respondents that have never got pregnant are divorced women, while others are either married or are in civil union.

Chart 6: Have you ever got pregnant during current (previous) marriage?



At the moment of the survey 70% of 46 pregnant women states that the pregnancy was planned, while it wasn't planned for 30% but they decided to keep the baby.

Chart 7: Was that pregnancy planned, do you intend to keep it and have a baby?

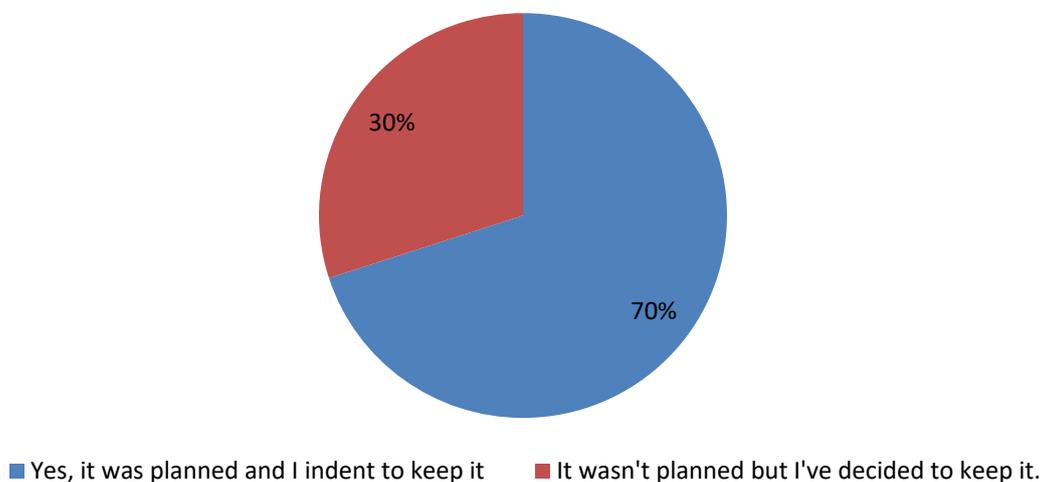


Table 23: What is the gender of your children from your last marriage?	Quantity	Percent
Male and female children	611	54%
Only male	268	24%
Only female	179	16%
I don't have babies	76	7%
Total	1134	100%

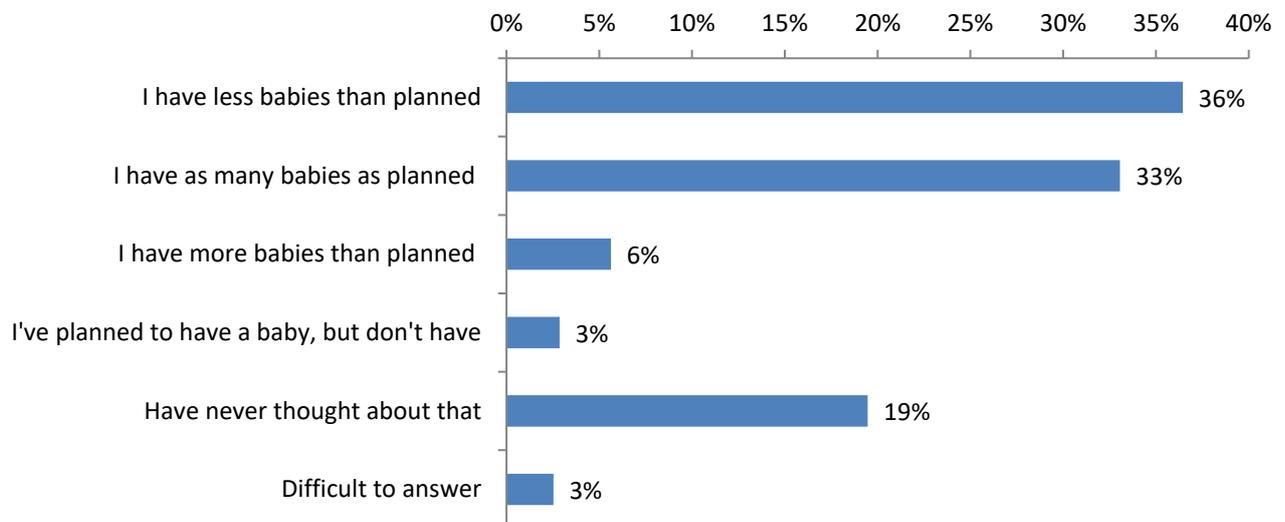
More than the half of female respondents has both male and female children, 24% has only male and 16% has female children. Quantity of female and male children is presented in the Table 24. Female respondents have in average 2.48 children.

Table 24: How many childrens do you have from your last marriage?	Male Quantity	Male Percent	Female Quantity	Female Percent
1	508	58%	477	60%
2	280	32%	236	30%
3	49	6%	34	4%
4	1	0%	2	0%
5	2	0%	0	0%
12	0	0%	1	0%
0	39	4%	40	5%
Total	879	100%	790	100%

Female respondents state that they don't have adopted children.

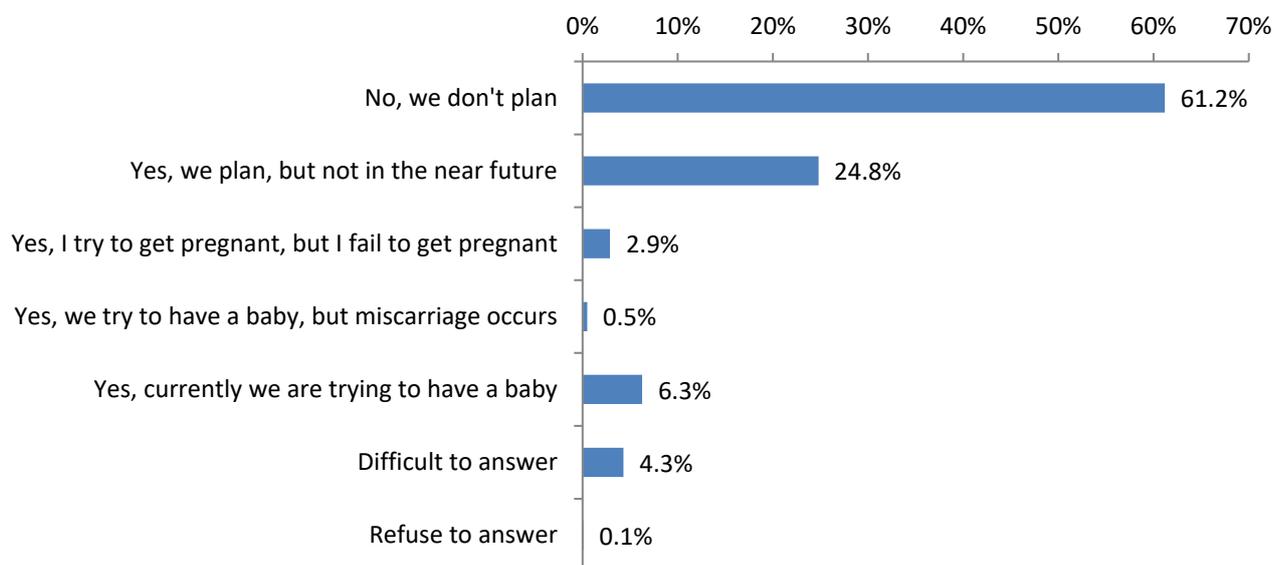
To the question "Do you have as many babies, as you planned before marriage?" 36% of female respondents states that they have less than planned and 3% has planned to have a baby but couldn't.

Chart 8: Do you have as many babies, as you planned before marriage?



To the question “Do you plan to have baby(ies) in the near future?” majority of women – 86% - either don’t plan to have babies in the near future or don’t plan at all, 6.3% tries to have a baby, while 3.4% tries but fails to have a baby.

Chart 9: Do you plan to have a baby/babies in the near future?



Main reasons for lack of wish to have a baby among women are mainly age, financial challenges etc. Only 15.6% of reasons relates to health issues (Table 25)

85% of respondents that mentioned “Already not young” as a reason is 40-49 years old and 15% is 35-40 years old.

50% of respondents that mentioned financial challenges as a reason has an average monthly family income of 150000 AMD, 44% - 150000-300000 AMM and the remaining 6% - more.

48% of respondents that mentioned “We have as many babies, as planned” as a reason has 2 children, 44% - 3 children, 7% - 4 children and the rest has more.

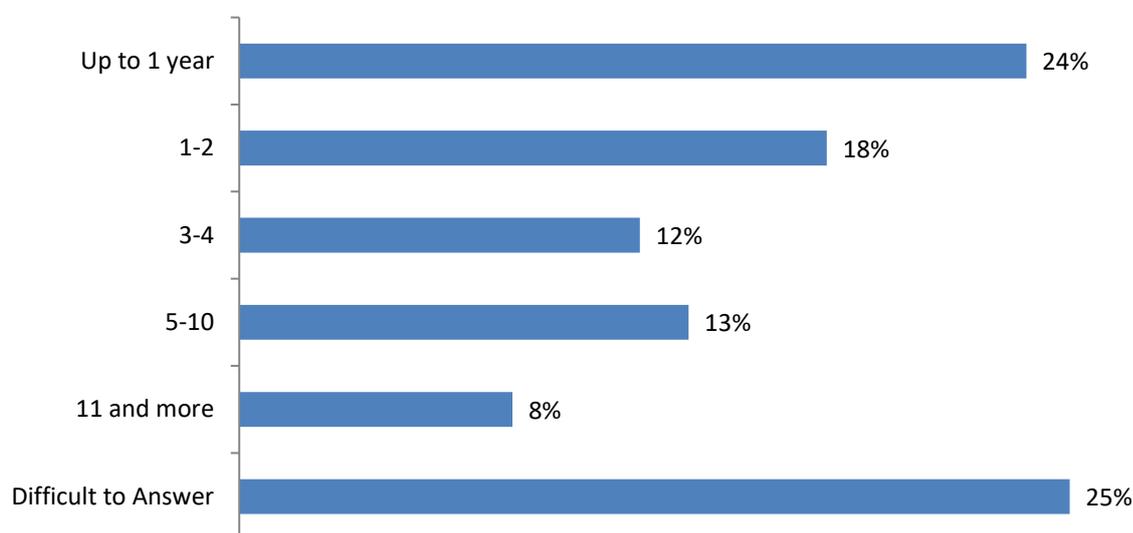
Out of respondents that stated “I have health issues” and “My husband has health issues” options only 5% answered yes to the question on whether they have had any issues with having a baby. This proves that health issues are not related to health issues leading to infertility (at least in their perception)

Table 25: Why don't you wish to have a baby?	Percent (according to reasons)
Already not young	21,7%
Financial challenges	15,0%
We have as many children as planned	14,7%
I have health issues	14,0%
Country's situation is not stable	7,9%
Infavorable living, apartment conditions	7,0%
I have no partner (widow, divorced)	5,9%
Difficulties with taking care of babies	4,7%

Children have grown up	2,9%
I/we have no job	2,8%
My husband has health issues	1,6%
Children are too young	0,4%
I/we haven't yes finished studying	0,3%
We are young and try to recognize each other more	0,1%
Disunity in family	0,1%
Other	0,7%
Difficult to answer	0,3%

The women who mentioned that they try to get pregnant were asked: "When have you tried to get pregnant since?". As a result the distribution of responses are stated in the Chart 10 according to which 54% has tried to get pregnant for up to 4 years.

Chart 10: Attempts to get pregnant during the current marriage



5.2. Wish and ability to have babies: male respondents

*Note: This part summarizes information from **male** respondents who have ever had sexual relations (married, in civil union, single mother/father, divorced: number of respondents - 909).*

Men that have ever had sexual relations (909 in total) were asked: "Has your wife ever got pregnant from you?". As a result, majority – 88% - states that she got pregnant, 4% states that she is currently pregnant, 7% states that she has never got pregnant and 1% refused to answer. 4% of men who stated that their wives are currently pregnant, all mention that pregnancy was planned and they intend to keep the baby.

Chart 11: Have your wife ever got pregnant from you? (n=909)

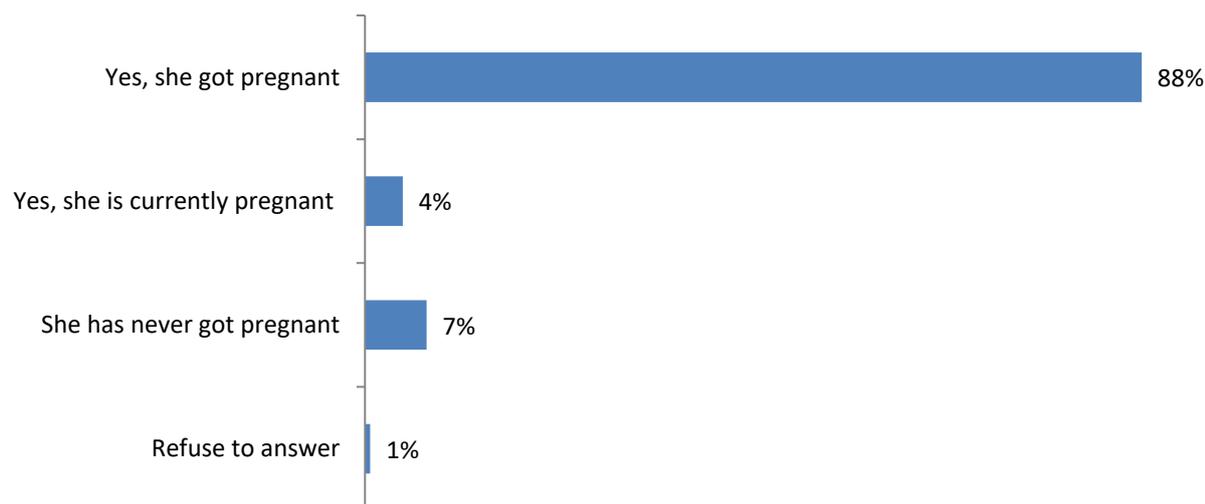


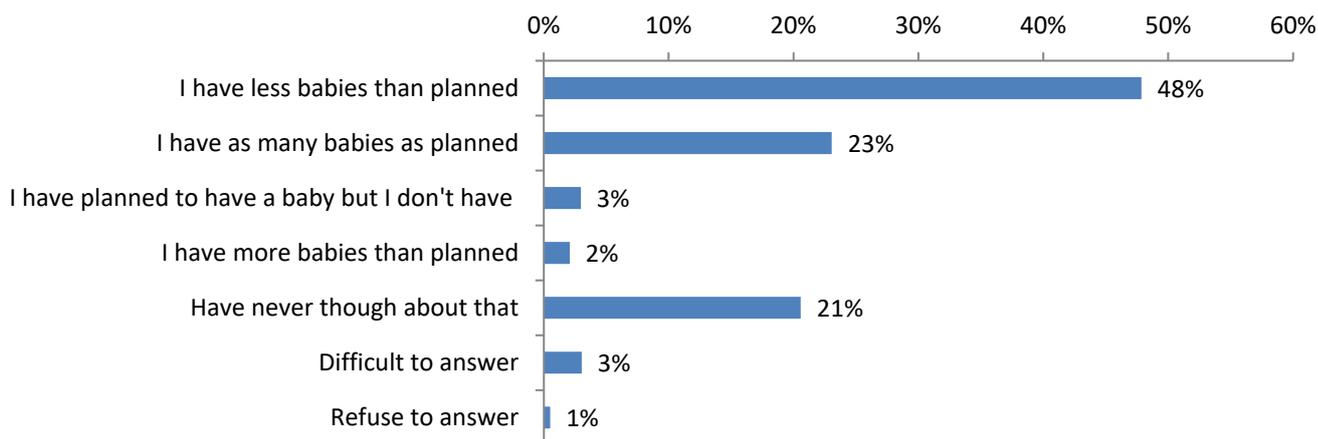
Table 26: What is the gender of your children from your last marriage?	Quantity	Percent
Male and female children	463	51%
Only male	209	23%
Only female	156	17%
I don't have babies	81	9%
Total	909	100%

Half of married (who had sexual relations) male respondents has both male and female children, 23% has only male and 17% has only female children (Table 26). The average number of children is 2.38.

Quantity of female and male children is presented in the Table 27.

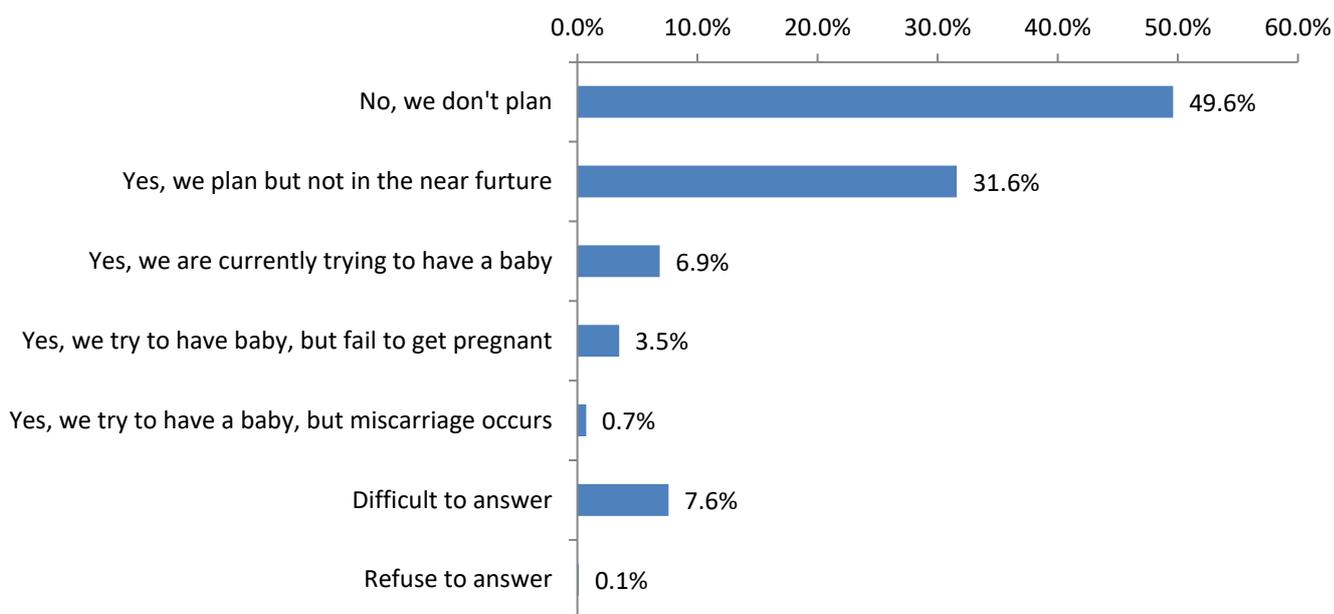
Table 24: How many children do you have from your last marriage?	Male Quantity	Male Percent	Female Quantity	Female Percent
0	35	5%	25	4%
1	403	60%	389	63%
2	210	31%	186	30%
3	23	3%	19	3%
4	1	0%	0	0%
Total	672	100%	619	100%

Chart 12: Do you currently have as many children, as you planned to have before marriage?



To the question “Do you now have as much children as you planned before marriage?” 48% of male respondents that have children states that they have less children than planned and 3% has planned but failed to have babies.

Chart 13: Do you and your wife plan to have a baby/babies in the near future?



Majority of men – about 81% - either don't plan at all or don't plan to have a baby in near future, 6.9% tries and 4.2% tries but fails to have a baby.

Main reasons for lack of wish to have a baby among men are age, financial difficulties, having planned number of babies etc. Only 9% of reasons relates to healthcare issues (Table 28).

40% of respondents stated “Already not young” as a reason are 38-48 years old, 60% are 49-54 years old.

48% of respondents that stated financial difficulties as a reason have a family average monthly income of 150000 AMD, while 41% has income of 150000-300000 and the rest have higher income.

4% of respondents that stated “We have as much children as planned” reason has 1 child, 42% has 2 children, 44% has 3 children and the rest have more children.

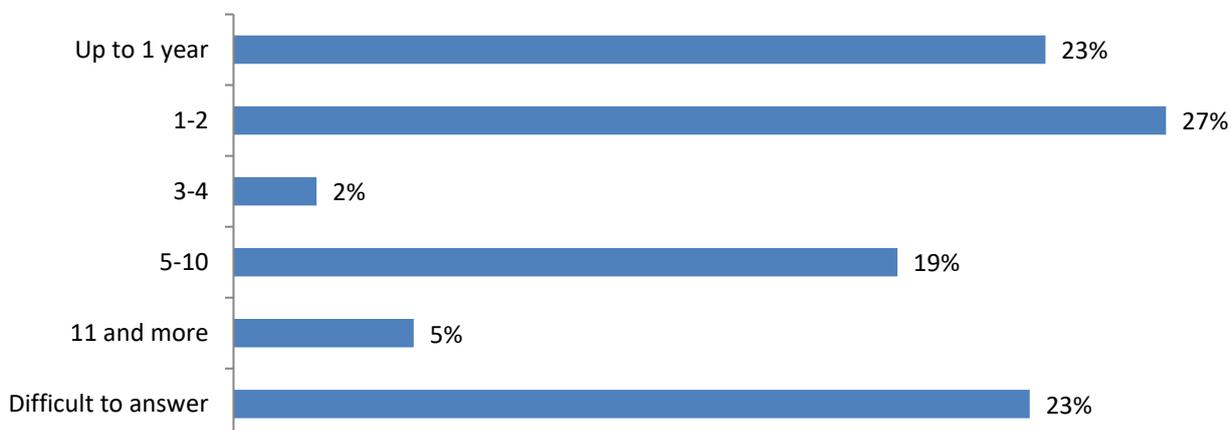
Only 3% of respondents that stated “I have health problems” and “My wife has health problems” as reasons answered yes to the question: “Have you ever had problems with having a baby?”. The latter proves that health problems outlined by respondents are not connected with infertility related health problems.

Table 28: Why don't you wish to have a baby?	Percent (of reasons)
Already not young	27,1%
Financial difficulties	14,8%
We have as much children as planned	13,7%
Situation in the country is not stable	9,1%
My wife has health problems	6,4%
Unfavorable household, apartment conditions	5,4%
Difficulties with child care	4,0%
I have health problems	3,0%
Don't have a partner (widow, divorced)	2,6%
I/we don't have a job	2,6%
Children are already grown up	1,2%
We are young and wish to know each other better	0,6%
Lack of solidarity in the family	0,6%
I/we haven't graduated	0,2%
Children are still young	0,6%
Difficult to answer (including don't which to answer)	1,0%
Refuse to answer	0,2%

Main reasons of lack of wish to have a baby among men of 20-30 years old are “we are young and wish to know each other better” and “we have a newborn who is too young”.

Men who stated that they tried to make impregnate their wife, were asked the following question: “How long has it been since you are trying to impregnate your wife?”. As a result 98 responses by men are distributed in the Chart 14 , according to which 50% has tried for up to 4 years.

Chart 14: Period for attempts to get pregnant during the given marriage



Section 6: Clarification on Outcomes of Pregnancy

6.1 Clarification of Outcomes of Pregnancy: Female respondents

Not: The section refers to women that have ever got pregnant (number of respondents – 1086).

Women that have ever got pregnant were asked: “*What was the outcome of your last pregnancy?*” and distribution of responses according to percent are presented in the Table 29, according to which 78.4% had a live infant as an outcome of pregnancy.

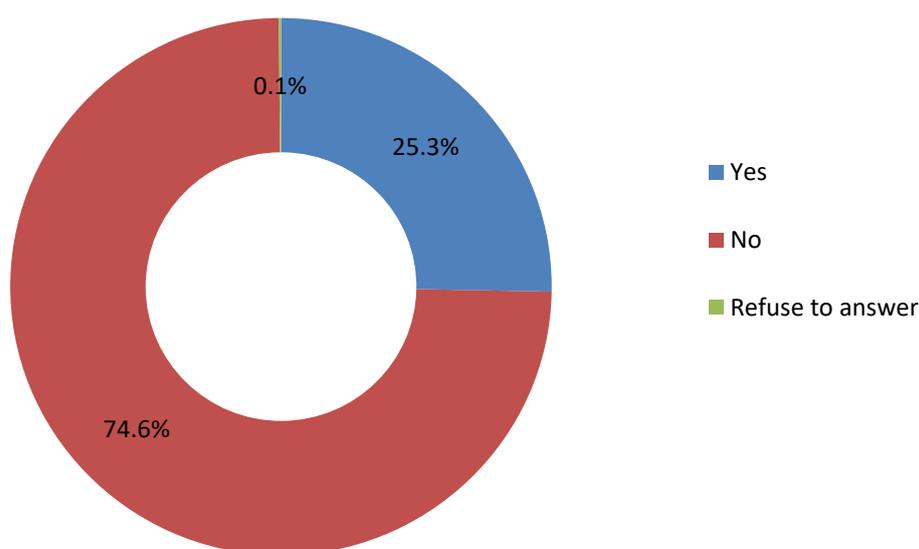
Table 29: What was the outcome of your last pregnancy?	Percent
Birth of a live infant	78,4%
Abortion before the 12 th week of the pregnancy	13,8%
Termination of desired pregnancy (spontaneous abortion)	3,3%
Termination of non-developing pregnancy	2,1%
Extrauterine pregnancy	0,8%
Abortion after the 12 th but before 22 nd week of the pregnancy	0,6%
Stillbirth	0,5%
Other	0,4%
Refuse to answer	0,1%
Total	100,0%

Complications at the end of pregnancy were expressed mostly in form of bleeding, problems of infectious nature as well as loss of consciousness.

Table 30: Have any complications occurred at the end of your pregnancy; if yes, please specify?	Percent
No complications occurred	83,0%
Yes, bleeding	4,9%
Yes, complications of infectious character	3,0%
Yes, convulsions or loss of consciousness	2,8%
Other	7,0%
Difficult to answer	0,3%
Refuse to answer	0,1%
Total	100,0%

Majority of 1086 female respondents that have ever got pregnant – 74.6% - states that no caesarean section was performed during delivery. In case of 25.3% caesarean section was performed, out of which 56.9% had caesarean section once, 34% - twice, 8.7% - thrice and 0.4% - 4 times.

Chart 15: Has Caesarean section ever been performed during delivery?



Majority of female respondents didn't have a child with congenital defect. 3.5% had children with congenital defect out of which 1.3% (14 persons) lost their child.

Table 31: Have you ever had a baby with congenital defect, if yes, is the child alive?	Percent
Have never had	96,2%
Had a child with congenital defect, the child is alive	2,2%
Had a child with congenital defect, the child died	1,3%
Difficult to answer	0,2%
Refuse to answer	0,1%
Total	100,0%

To the question “**Are all of your children born alive?**” majority of female respondents – 97.5% - stated that all children are alive and the remaining 2% mentioned that their children died (majority of them before 12 months old) (Table 32).

Table 32: Are all of your children born alive?	Percent
Yes, all children are alive	97,5%
Died before the 6 th day of life	0,4%
Died between 7 th and 28 th day of life	0,7%
Died between 28 th day and 12 months of life	0,8%
Died between 1-5 years old	0,1%
Died between 5-16 years old	0,1%
Died after turning 16 years old	0,1%
Other	0,1%

Refuse to answer	0,1%
Total	100,0%

6.2. Clarification on Pregnancy Outcomes of Respondents' Wives: male respondents

*Note: This section refers to **men** whose wives have ever got pregnant (number of respondents - 843).*

Distribution of male responses to the question “*What was the outcome of your wife’s last pregnancy?*” is presented in the Table 33 below according to which for 84.6% pregnancy ended with a birth of a live infant.

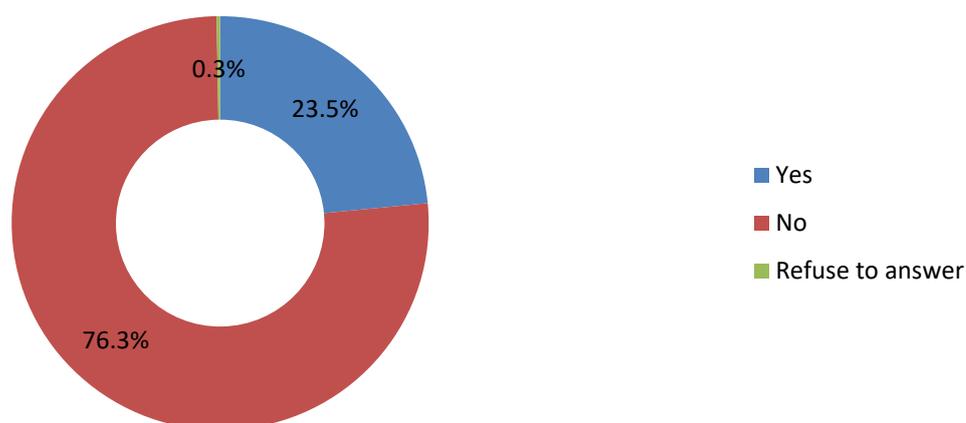
Table 33: What was the outcome of your wife’s last pregnancy?	Percent
Birth of a live infant	84,6%
Abortion before the 12 th week of the pregnancy	9,1%
Termination of desired pregnancy (spontaneous abortion)	1,9%
Termination of non-developing pregnancy	1,3%
Extrauterine pregnancy	0,7%
Abortion after the 12 th but before 22 nd week of the pregnancy	0,5%
Birth of a live infant who died before the 6 th day of life	0,4%
Other	1,0%
Refuse to answer	0,6%

At the end of pregnancy complications were expressed mostly in form of bleeding, loss of consciousness, as well as complications of infectious character.

Table 30: Have any complications occurred at the end of pregnancy; if yes, please specify?	Percent
No complications occurred	86,1%
Yes, bleeding	3,5%
Yes, complications of infectious character	1,5%
Yes, convulsions or loss of consciousness	0,5%
Other	5,9%
Difficult to answer	2,4%
Refuse to answer	0,3%

Majority of male respondents – 76.3% - states that no caesarean section was performed during delivery. In case of 23.5% caesarean section was performed out of which 54.5% underwent caesarean section once, 37.5% - twice, 7.3% - thrice and 0.7% - for times.

Chart 16: Has Caesarean section every been performed during your wife's delivery?



Majority of male respondents stated that they didn't have children with congenital defects. 2.3% had children with congenital defects out of which 0.3% lost their child (2 persons).

Table 31: Have you ever had a baby with congenital defect, if yes, is the child alive?	Percent
Have never had	97,3%
Had a child with congenital defect, the child died	0,3%
Had a child with congenital defect, the child is alive	2,0%
Difficult to answer	0,4%

To the question “**Are all of your children born alive?**” majority of male respondents – 96.4% - stated that all children are alive, 3.3% stated that they died (majority of them before 12 months old).

Table 36: Are all of your children born alive?	Percent
Yes, all children are alive	96,4%
Died before the 6 th day of life	1,1%
Died between 7 th and 28 th day of life	0,8%
Died between 28 th day and 12 months of life	0,9%
Died between 1-5 years old	0,1%
Died between 5-16 years old	0,2%
Died after turning 16 years old	0,1%
Other	0,2%
Refuse to answer	0,2%

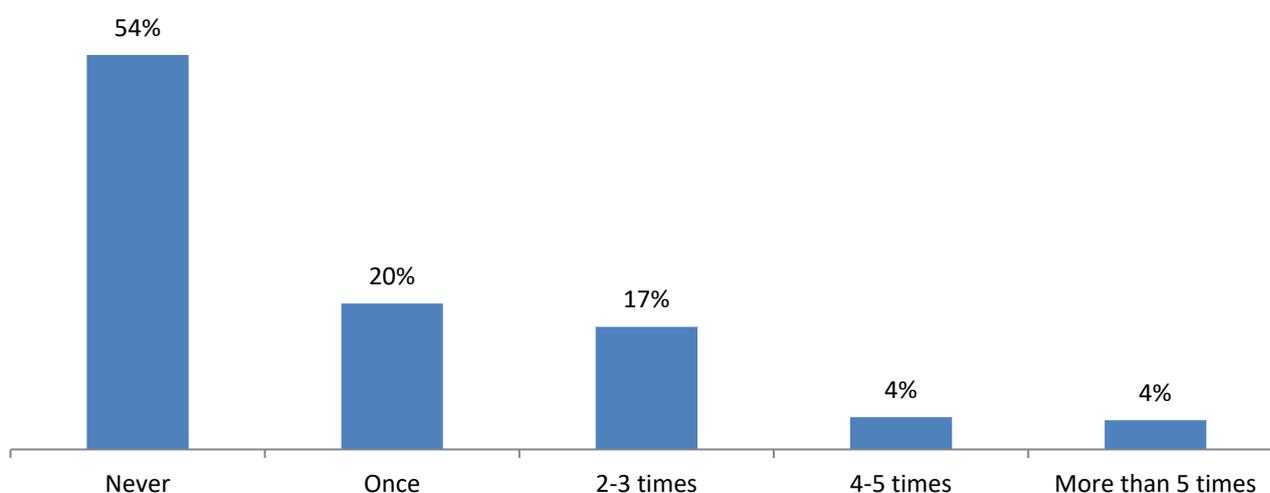
Section 7. Personal Experience and Opinion on Termination of Pregnancy (abortion)

7.1 Personal Experience and Opinion on Termination of Pregnancy (abortion): Female Respondents

Note: This section refers to **women** that have ever got pregnant (number of respondents – 1086).

More than half of 1086 who have ever got pregnant – 54% - states that they haven't undergone termination procedure for pregnancy (hereinafter abortion) and 46% has undergone at least once. More details are presented in Chart 17.

Chart 17: How many times have you undergone abortion?



Respondents that have never undergone abortion, as a reason, mention that they didn't wish to have undesirable pregnancy (85.4%), contradicts their values and religious beliefs (9.4% and 3.9% accordingly) (Table 37).

Table 37: Reasons for not undergoing abortion	Percent
Didn't have undesirable pregnancy	85,4%
Contradicts my values	9,4%
Contradicts my religious beliefs	3,9%
Not to harm my health and avoid infertility	0,9%
Difficult to answer	0,4%
Total	100,0%

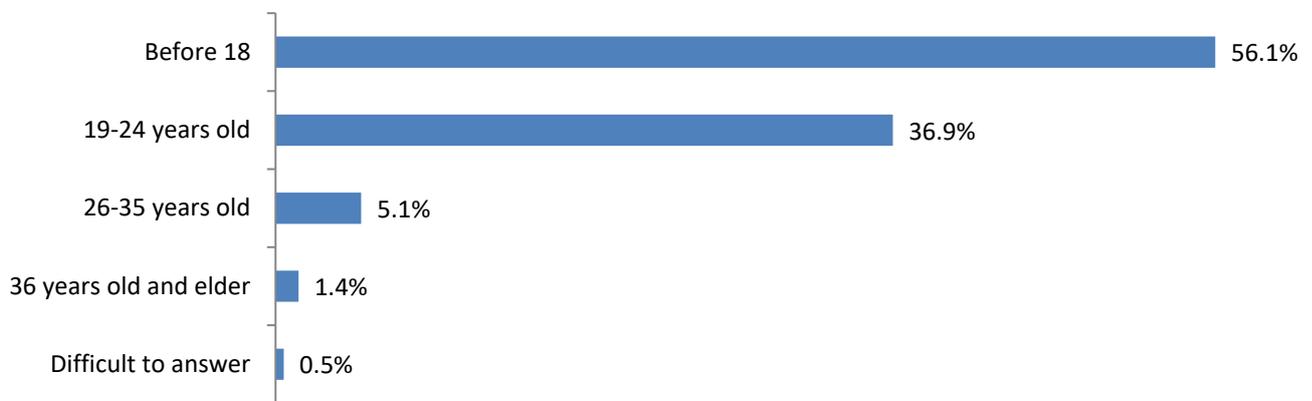
493 respondents that have undergone abortion at least once were asked "Have you ever tried to provoke miscarriage yourself, and if yes, has it succeeded?". According to respondents majority 76.2% has never tried to provoke miscarriage herself, 15% has tried and succeeded, 7.3% has tried but failed and 1.2% has occasionally succeeded (Table 38).

Table 38: Have you ever tried to provoke miscarriage, and if yes, has it succeeded?	Percent
--	----------------

Have never tried	76,2%
Yes, I've tried once and succeeded	9,4%
Yes, I've tried several times and always succeeded	5,6%
Yes, I've tried once but failed	5,3%
Yes, I've tried several times but never succeeded	2,0%
Yes, I've tried several times and occasionally succeeded	1,2%
Difficult to answer	0,3%
Total	100,0%

More than the half women – 56% - underwent abortion at the age of 25-35, 36.9% - at the age of 19-24. The number of respondents who underwent abortion before 18 and after 36 is comparably lower.

Chart 18: How old were you when you underwent abortion for the first time?



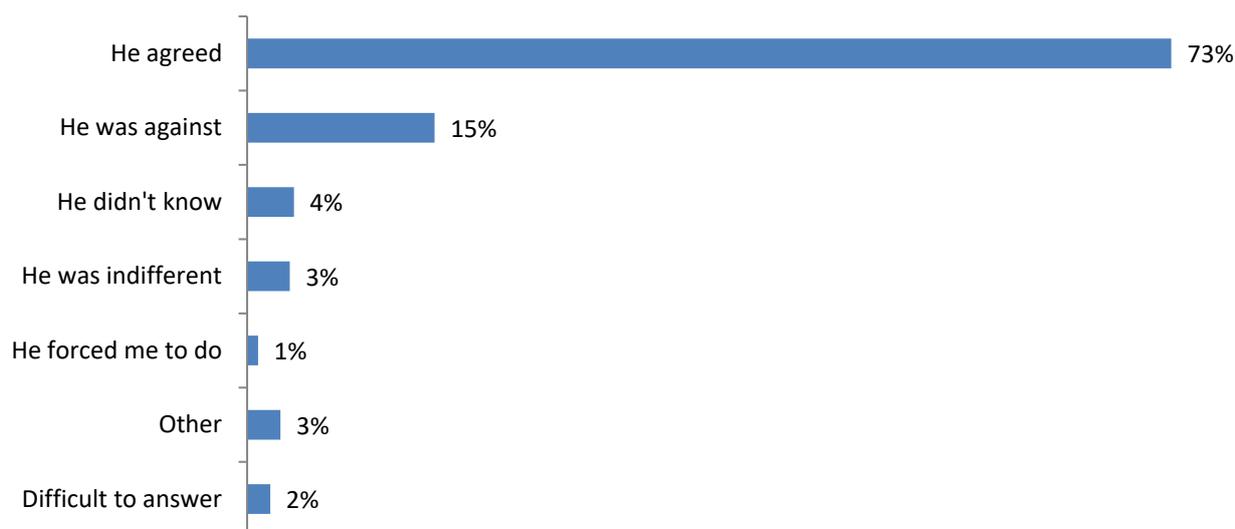
In case of 86% of women, pregnancy was terminated before the 12th week of pregnancy, for 13% - between the 12th and 22nd week and for about 1% - after the 22nd week. Main reasons for interrupting pregnancy after the 22nd week of pregnancy were conditioned with mother's or fetus's health conditions – *“There was a suspected intrauterine development defect”, “the fetus was dead” and “my health was in danger”*. 90% of women had a child before their first abortion, while 10% didn't have any child.

To the question *“Who were decision makers during the last abortion?”* 53.6% of women respondents stated they had decided with their husband/partner and in case of 21.5% decision was made by doctor.

Table 39: Who were decision makers during the last abortion?	Percent
We have decided with husband/partner	53,6%
Doctor has decided as it my life was in danger	21,5%
I have decided myself	20,3%
Parents of my husband have decided	3,7%
My parents have decided	0,5%
Difficult to answer	0,2%
Refuse to answer	0,2%
Total	100,0%

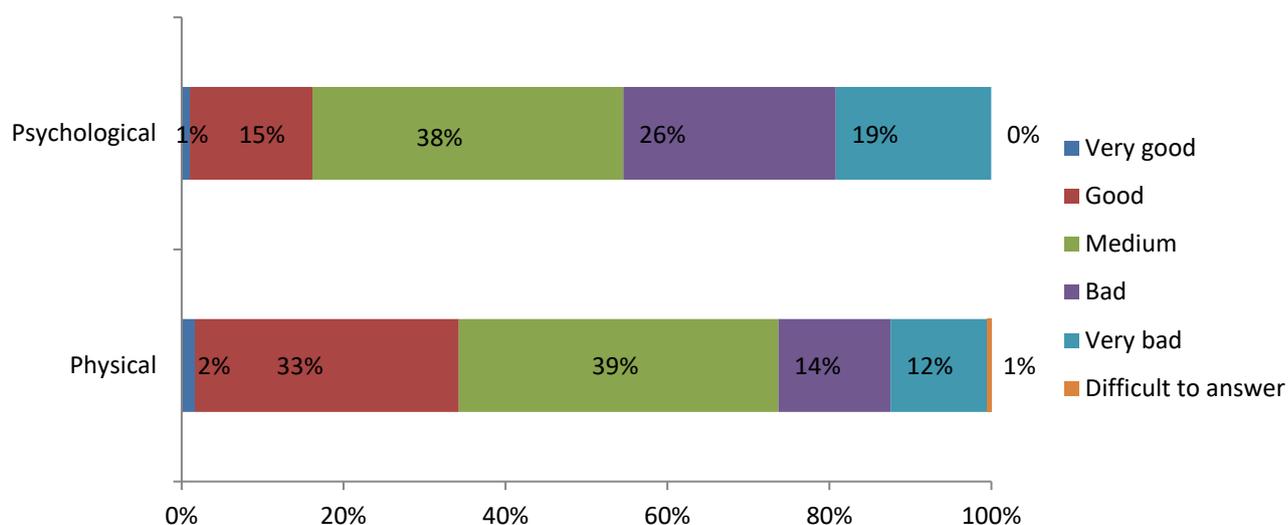
To the question *“What was the attitude of your husband/partner towards the first abortion?”* majority of women – 73% - stated that their husband agreed.

Chart 19: What was the attitude of your husband/partner towards first abortion?



From the chart describing physical and psychological state of women that underwent abortion, it becomes obvious that women physically were comparably in better condition than psychologically (Chart 20).

Chart 20: What was your physical and psychological condition after abortion?



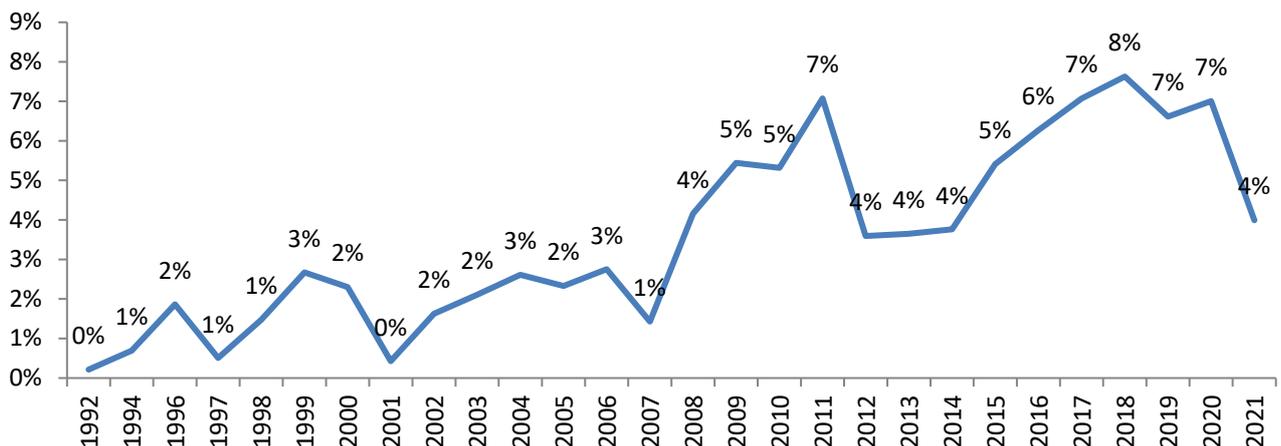
Among widespread reasons for abortions are threat to health/life, financial difficulties, having desirable number of children, planning children at a later stage etc.

Table 40: Which were the reasons for abortion(s)?	Percent (according to responses)
It was a threat to my health/life	22%
Financial difficulties	21%
We already have the desirable number of children	19%
We have planned to have a baby at a later stage	17%
There was a risk for intrauterine development defect	12%
Children were very young	12%
Insufficient apartment conditions	11%

Gender of fetus – we didn't want a girl	7%
Fetus was dead	5%
My/his parents insisted	3%
That would interfere with my/our education or career	2%
We were too young	2%
My husband/partner didn't want (that) baby	2%
Other	1%
We are not young already	1%
Miscarriage has started	1%
Gender of fetus – we didn't want a boy	1%
Relations ended / we got separated	1%
Family relations	1%
I wasn't married / wasn't in a civil union	1%
Difficult to answer	0%
Total	140%

67% of last abortions took place between 2010-2021.

Chart 21: When did the last case of abortion took place?



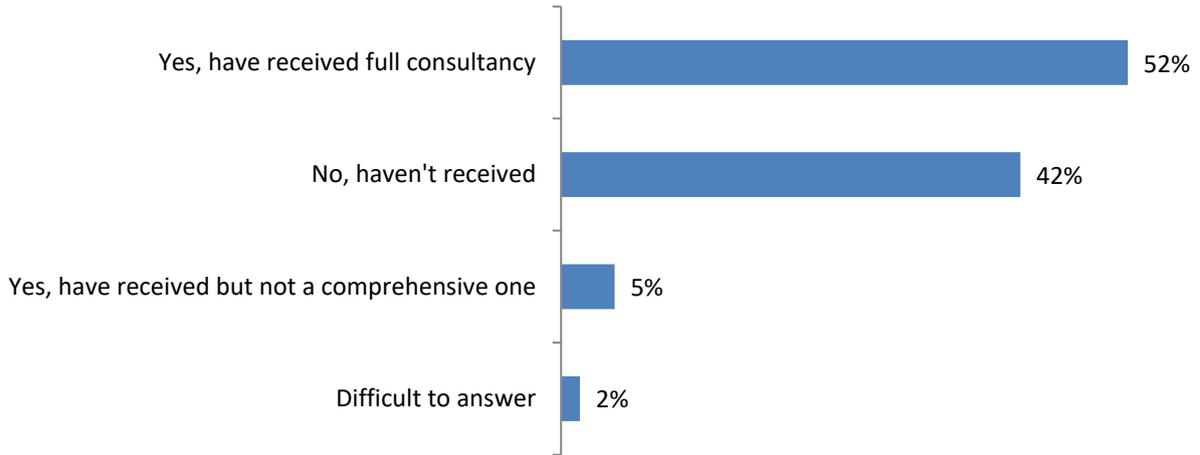
88% of **last** abortions was performed before the 12th week of pregnancy, 10% - between 12th and 22nd week and 2% - after 22nd week. The last abortion was performed mostly within maternity hospitals and medical centers. About 92% of abortions were performed by doctor/specialist, in case of 5.7% women performed self-managed abortion and remaining responses are summarized within other and difficult to answer options.

Table 41: Where did the last case of abortion take place?	Percent
Maternity hospital / medical facility	67,6%
Medical-Obstetrical Center (MOC)	11,8%
At home	7,3%
Polyclinic / women consultation center	7,2%
Specialized center	3,2%
Rural ambulatory/hospital	1,3%
Other	1,0%
Difficult to answer	0,3%

Refuse to answer	0,3%
Total	100,0%

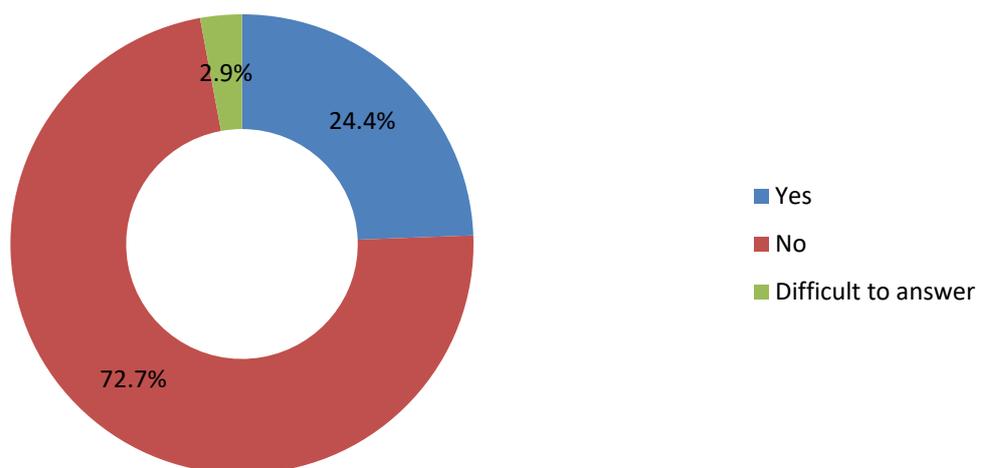
Before termination of pregnancy, 52% of female respondents have received proper consultancy on possible consequences of abortion (Chart 22). Moreover, 48.3% of them are women that performed abortion during last 5 years.

Chart 22: Before abortion have you received full consultancy on possible complications and consequences of abortion?



73% of women stated that they haven't been provided with 3 day waiting time to think and change decision on abortion (Chart 23).

Chart 23: Have you been granted with a waiting time of 3 days to think and change your decision on abortion?



Majority of women – 84% - didn't experience any complications during abortion, and others had physiological and psychological complications which are presented in the Table 42.

Table 42: What kind of complications did you experience during abortion?	Percent
No complications occurred	84%
Bleeding	6%
Remains of placenta or fetal parts in uterine cavity	4%
Febrile condition	1%
Acute inflammation of uterus and ovaries	1%
Psychological depression	1%
Pains	1%
Injuries to vagina, cervix, or uterine body	1%
Heart problems	0%
Blood pressure problems	0%
Worsening of health conditions	0%
Mucous membrane problem	0%
Other	1%

As we can see in the next 2 charts, 54.4% of women wished to have a baby after abortion, however 44.2% in fact had a baby or are currently pregnant.

Chart 24: Did you wish yo have a baby after abortion?

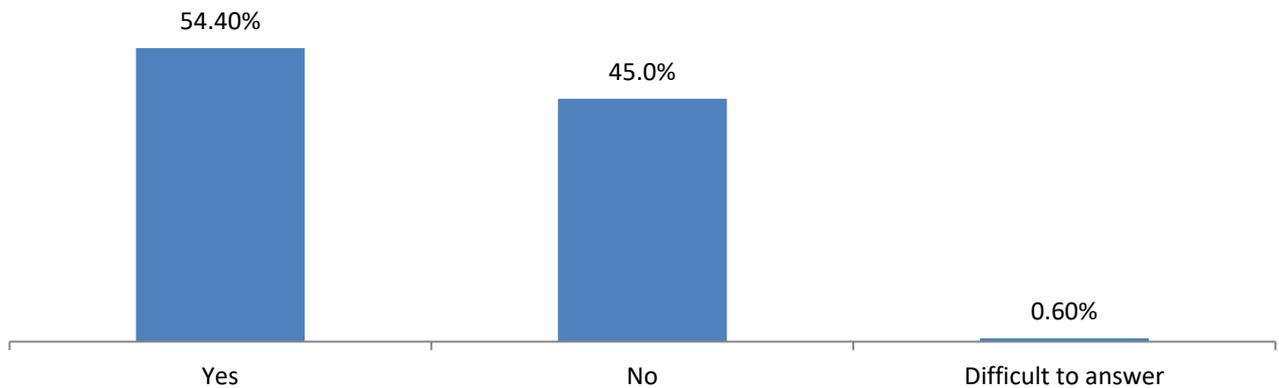
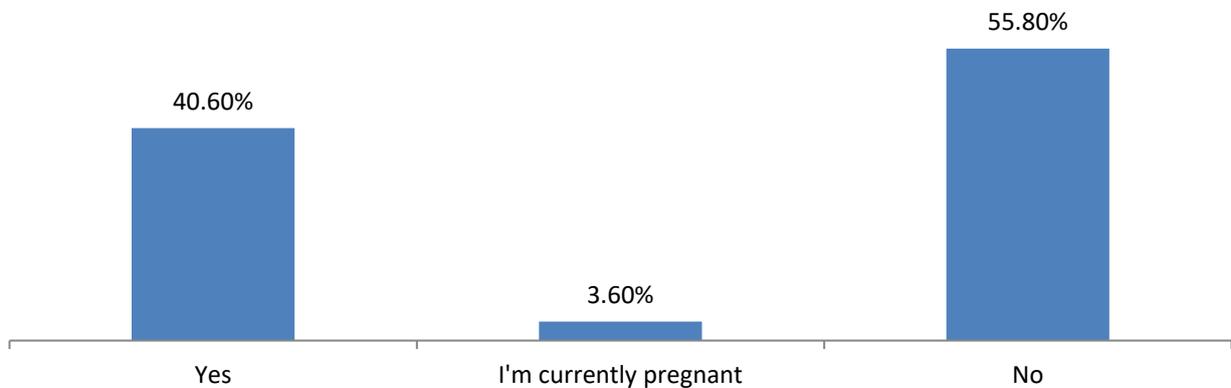


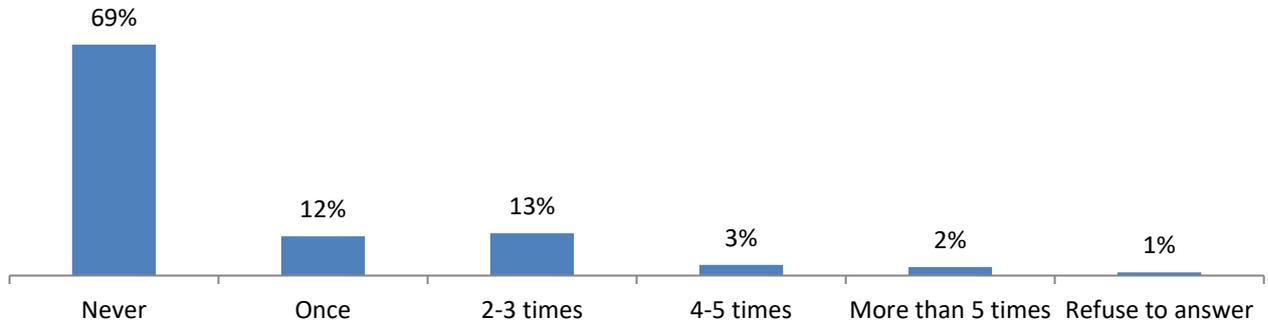
Chart 25: Did you have a baby after abortion?



Note: This section refers to men who have ever impregnated a woman (number of respondents - 843).

More than half of 843 men that have impregnated women – 69% - states that their wives have never undergone abortion and 31% has had at least once.

Chart 26: Has many times did any woman that had ever got pregnant from you undergo abortion?



According to men, their wives have never undergone abortion as they haven't had any undesirable pregnancy (84%) (Table 43). It's interesting that 2% of men states that they haven't agreed on abortion however women haven't mentioned such option on the reasons for the same question.

Table 43: Reasons for not undergoing abortion	Percent
Hasn't/Haven't had undesirable pregnancy	84%
Contradicts our values	8%
I haven't agreed	2%
Contradicts religious beliefs	2%
Not to harm health and avoid infertility	1%
Other	1%
Difficult to answer	2%
Total	100%

According to male respondents, majority of their wives/partners who underwent abortion – 53% - first time had abortion at the age of 25-35, 28% - at the age of 19-24. The number of respondents who had abortion before 18 and after 36 years old is comparably lower.

How old was your wife/partner, when you underwent abortion for the first time?

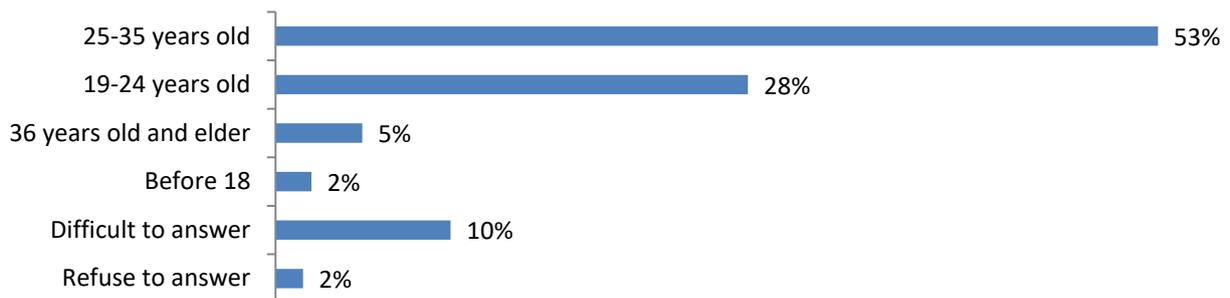
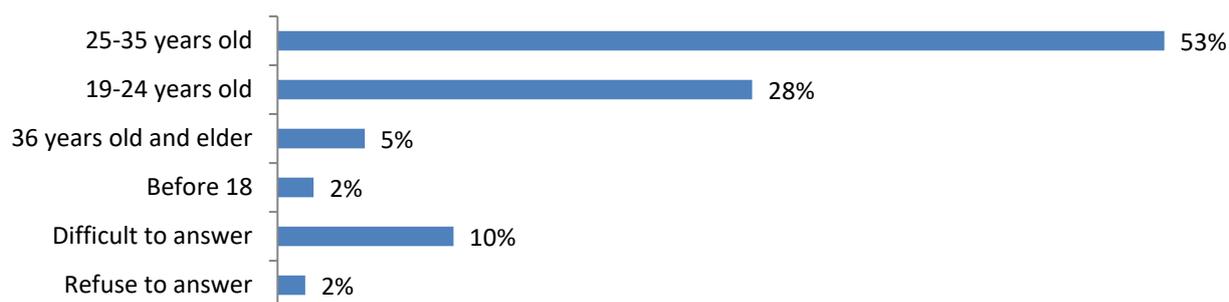


Chart 27: How old was your wife/partner, when she underwent abortion for the first time?



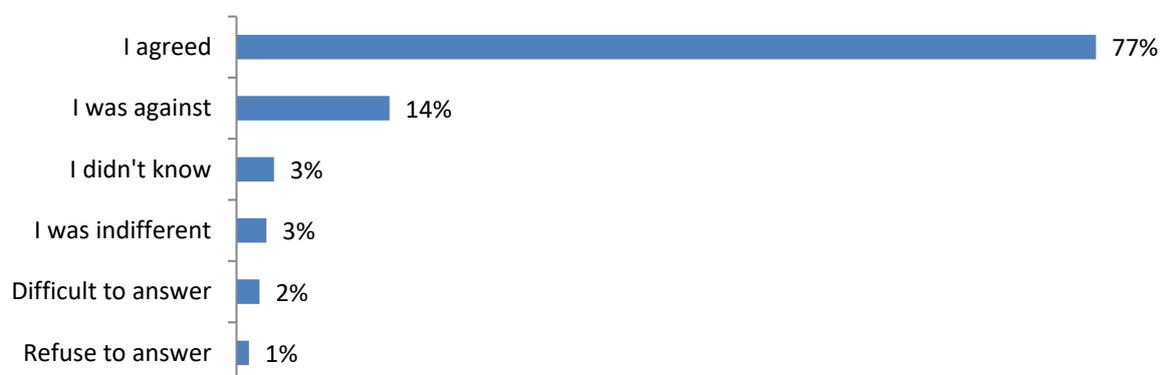
According to male respondents, 82% of wives/partners that have undergone abortion, already had a child before, while 15% didn't have children and other refused to answer.

To the question “*Who were the decision makers during the last abortion?*” 62% of male respondents stated that they have decided together with their wife/partner and in case of 22% doctor has decided.

Table 44: Who were decision makers during the last abortion	Percent
We have decided with my wife/partner	62%
Doctor has decided, as her health was in danger	22%
She has decided herself	5%
Parents of my wife/partner have decided	4%
My parents have decided	1%
Other	4%
Difficult to answer	2%
Refuse to answer	1%
Total	100%

When answering the question “*What was your attitude towards the first abortion?*” majority of men – 77% - mentioned that they agreed to do that.

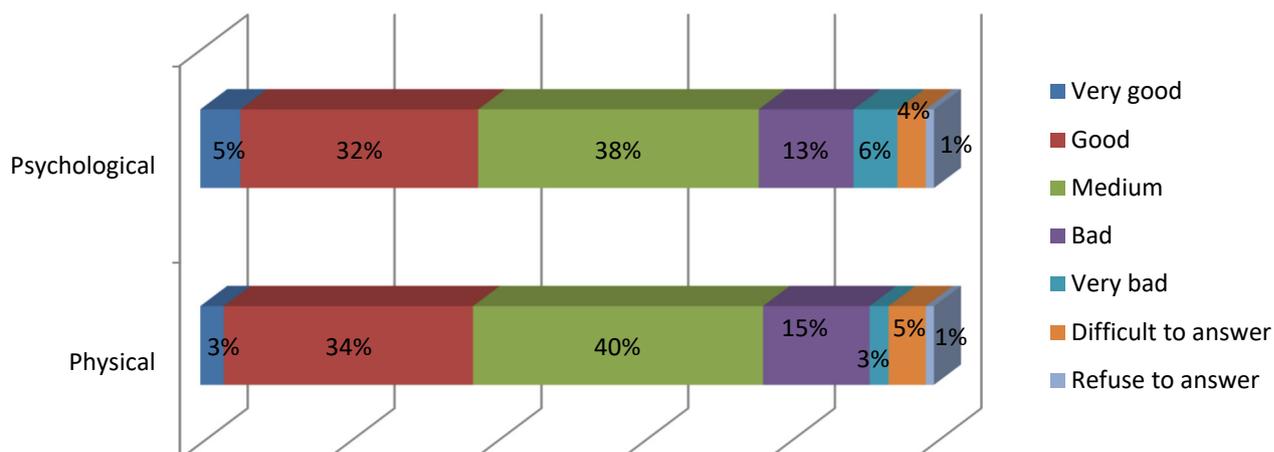
Chart 28: What was your attitude towards first abortion?



From the chart describing physical and psychological condition of women after abortion it becomes clear that according to men assessments of physical and psychological condition of women do not

have much difference, while women, when assessing themselves, state that they were worse psychologically than physically.

Chart 29: What was the physical and psychological condition of your wife/partner after abortion?

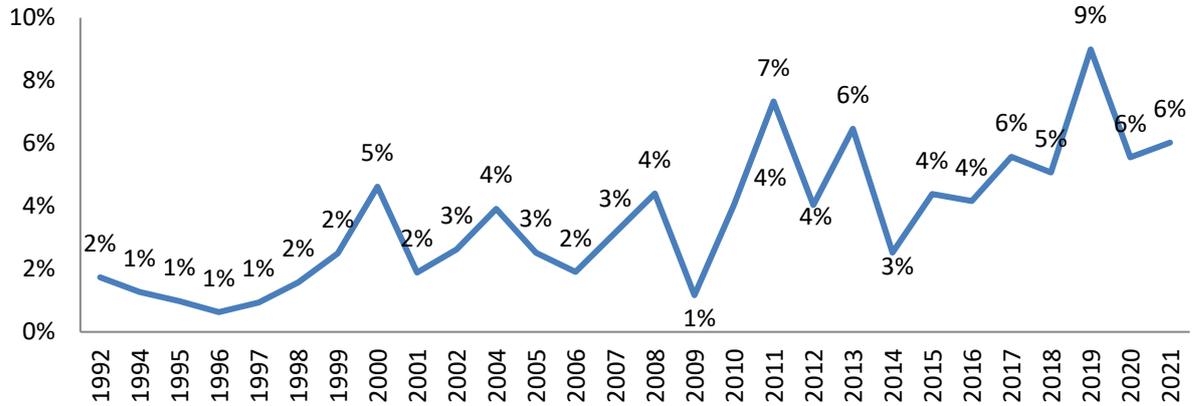


Widespread reasons for abortions were danger to health/life, financial difficulties, intrauterine development defect etc.

Table 45: Which were the reasons for abortion/abortions?	Percent (according to responses)
My wife's/partner's health/life was in danger	17%
Financial difficulties	15%
Suspected intrauterine development defect	14%
We already had desirable number of children	12%
We have planned to have a baby later	11%
Children were too young	7%
Insufficient apartment conditions	7%
I didn't want that baby	6%
Fetus was dead	6%
We are not young already	5%
Gender of fetus – we didn't want a girl	5%
Relations ended / got separated	3%
That would interfere with my/our studies or career	3%
I was not married/in civil union	3%
Gender of fetus – we didn't want a boy	3%
We were too young	2%
My/her parents insisted	2%
Miscarriage has started	0%
Children were already grown up	0%
Difficult to answer	3%
Refuse to answer	2%
Total	126%

According to male respondents 64% of abortions took place during 2020-2021.

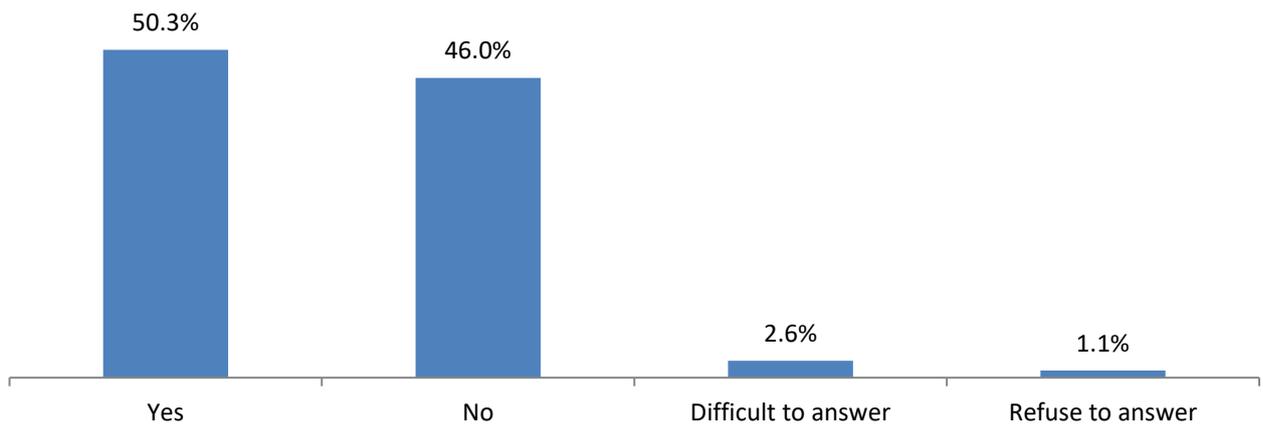
Chart 30: When did the last abortion occur?



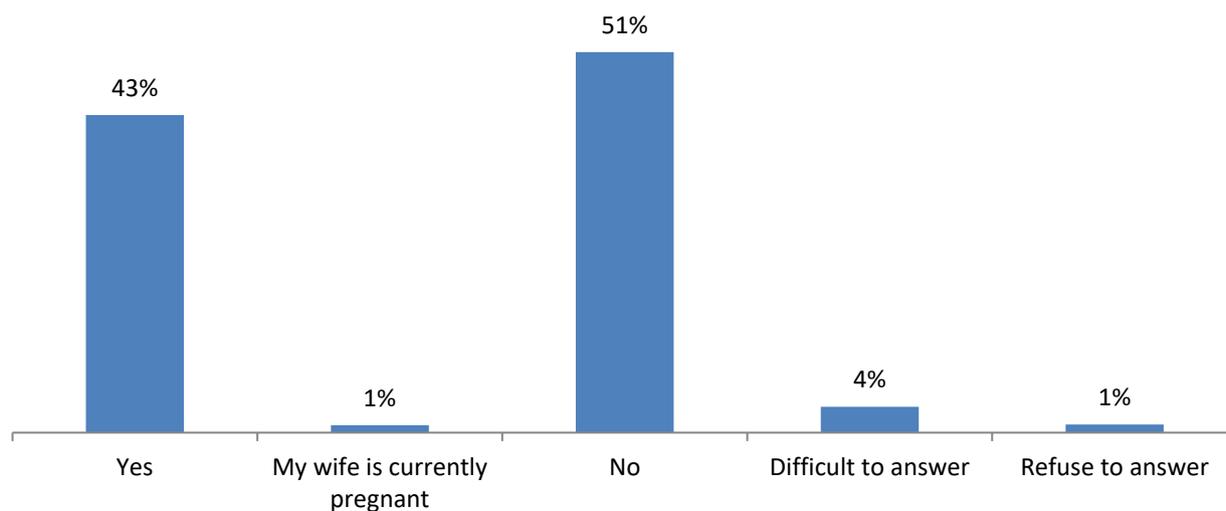
According to male respondents 82% of abortions took place before the 12th week of pregnancy, 9% - between 12th and 22nd weeks of pregnancy and 9% couldn't or refused to reply.

As can be seen in Charts 31 and 32, 50.3% of men wished to have a baby after abortion, however 44% of their wives has had a baby or is currently pregnant.

Chart 31: Did you wish to have a baby after abortion?



Did your wife have a baby after abortion?

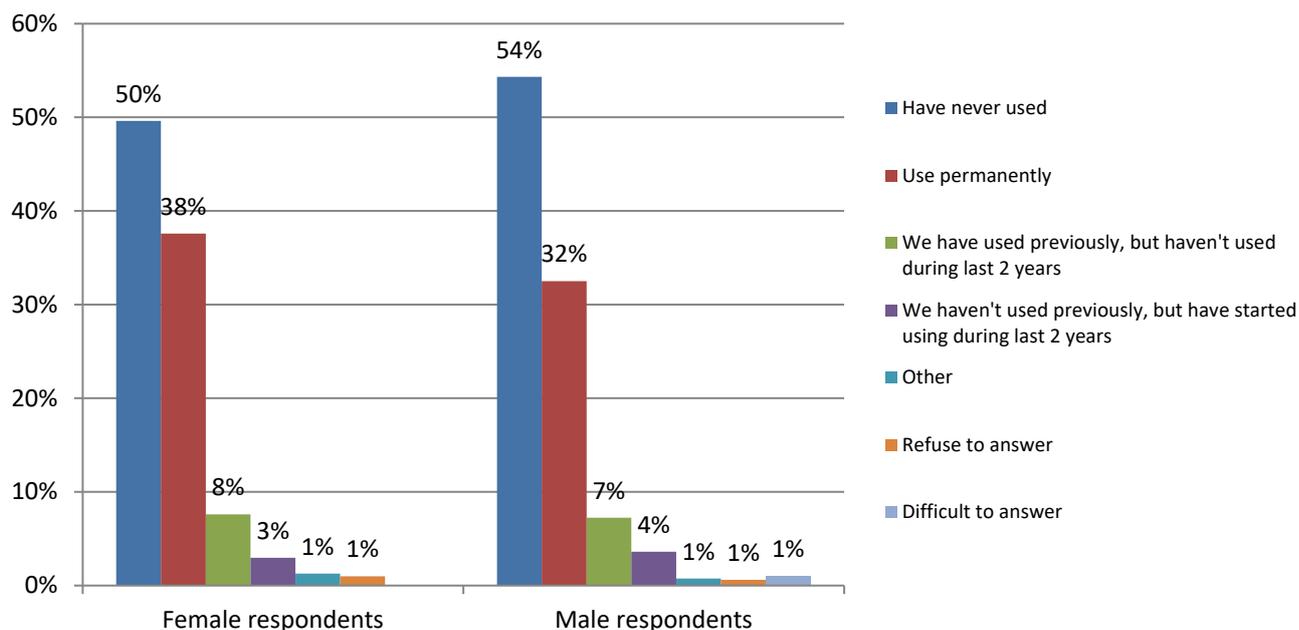


Section 8. Personal Experience and Opinion on Contraceptive Means

Note: Answers to questions in this section were received from women who have ever been married or in sexual relations (1146) and married men (909).

Both men and women who participated in the survey and who have ever been married or in sexual relations were asked “**Have you or your husband/wife ever used modern contraceptive means?**”. As a result 50% of female respondents and 54% of male respondents have never used modern contraceptive means, 38% of female respondents and 32% of male respondents mentioned that they use permanently.

Chart 33: Have you and your husband/wife used modern contraceptive means?



Respondents using modern contraceptive means were asked “Which contraceptive methods have you and/or your wife ever used?”. Respondents were able to provide several options (which is the reason why the sum exceeds 100 percent). As a result the most widespread contraceptive means are condoms, terminated sexual relations, intrauterine spiral etc.

Table 46: Which contraceptive methods have you and/or your wife ever used?	Female respondents (according to responses)	Male respondents (according to responses)
Condoms for men	48%	54%
Terminated sexual relations	46%	40%
Intrauterine spiral	19%	14%
Rhythmic or Calendar method	17%	11%
Lactational amenorrhoea method	10%	3%
Hormonal pills	8%	6%
Intravaginal spermicide suppositories, pills, or gels	3%	1%
Female sterilization	2%	1%
Refuse to answers	2%	3%
Other means	2%	1%
Difficult to answer		2%
Total	157%	136%

In difference to ever used contraceptive means when the most widespread one was male condom among both women and men, during last two years the most frequently used mean has been terminated sexual relation (46% for men and 39% for women) followed by condoms etc. (Table 47).

Table 47: During last two years which of following temporary contraceptive means have you used most frequently?	Female respondents (according to responses)	Male respondents (according to responses)
Terminated sexual relation	39%	36%
Condom	38%	46%
Rhythmic or calendar method	12%	6%
Intrauterine spiral	9%	
Other means	8%	11%
Hormonal pills	3%	4%
Lactational amenorrhea method	2%	
Refuse to answer	2%	3%
Difficult to answer	2%	3%
Intravaginal spermicide suppositories, pills, or gels	1%	
Total	115%	109%

To the questions “Have you ever had undesirable or unplanned pregnancy during use of contraceptive methods?” 17% of female respondents said “yes” and 8% of male respondents mentioned that their wives have had undesirable pregnancy (Chart 34).

Chart 34: Have you ever had undesirable or unplanned pregnancy during use of contraceptive method(s)?

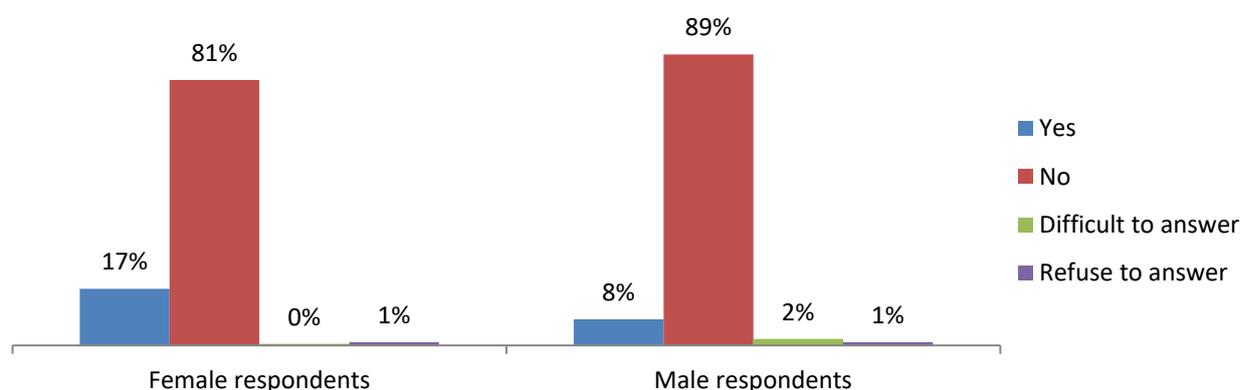


Table 48 shows during use of which contraceptive method such cases occurred according to which majority of both men and women outlined terminated sexual relation.

Table 48: Contraceptive mean during which undesirable or unplanned pregnancy occurred	Female respondents	Male respondents
Terminated sexual relation	58%	65%
Condom	20%	8%
Rhythmic or calendar method	11%	5%
Intrauterine spiral	4%	11%
Hormonal pills	3%	4%
Lactational amenorrhea method	3%	
Other	1%	6%

Section 9: Self-assessment of Body Structure and External Symptoms of Diseases

Note: this section summarizes data of respondents that have ever had sexual relations (married, those in civil union, single mother/father, widow, divorced) and doesn't include respondents who mentioned that have never been in marriage and/or sexual relations (1146 female and 909 male respondents).

Majority of female respondents states that they haven't had any sharp weight gain or loss during last 2 years, and same for their husbands, however from the perspective of weight change, the number of women with weight gain is higher and in case of husbands weight loss cases prevail (Chart 35). The same tendency can be noticed in responses provided by male respondents (Chart 36).

Chart 35: Did you or your husband have sharp weight gain or loss during last two years?

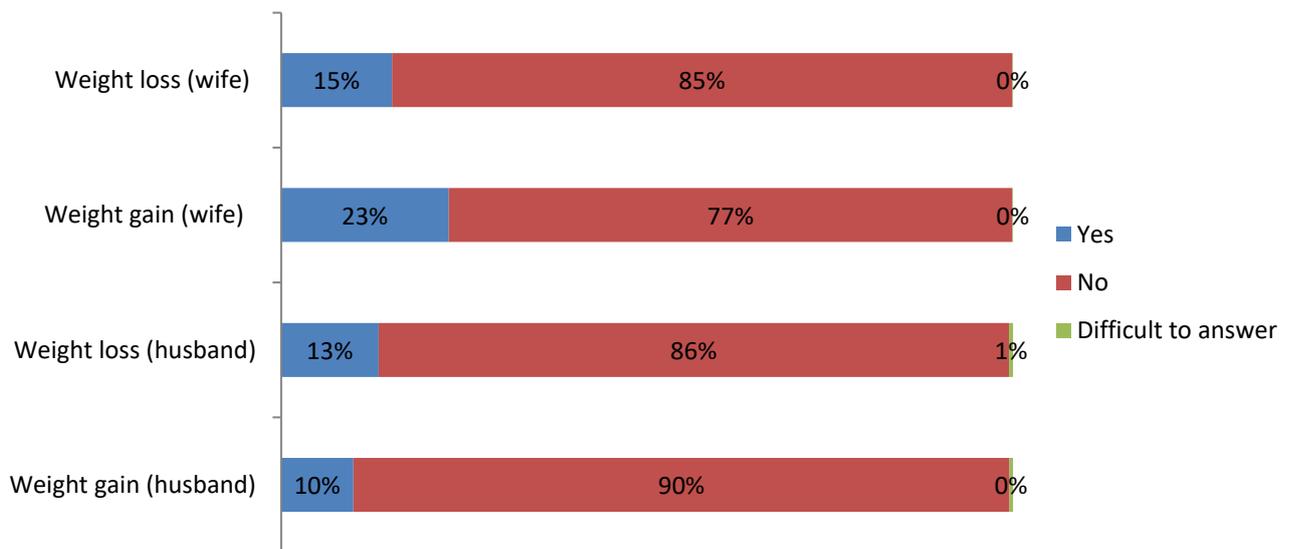
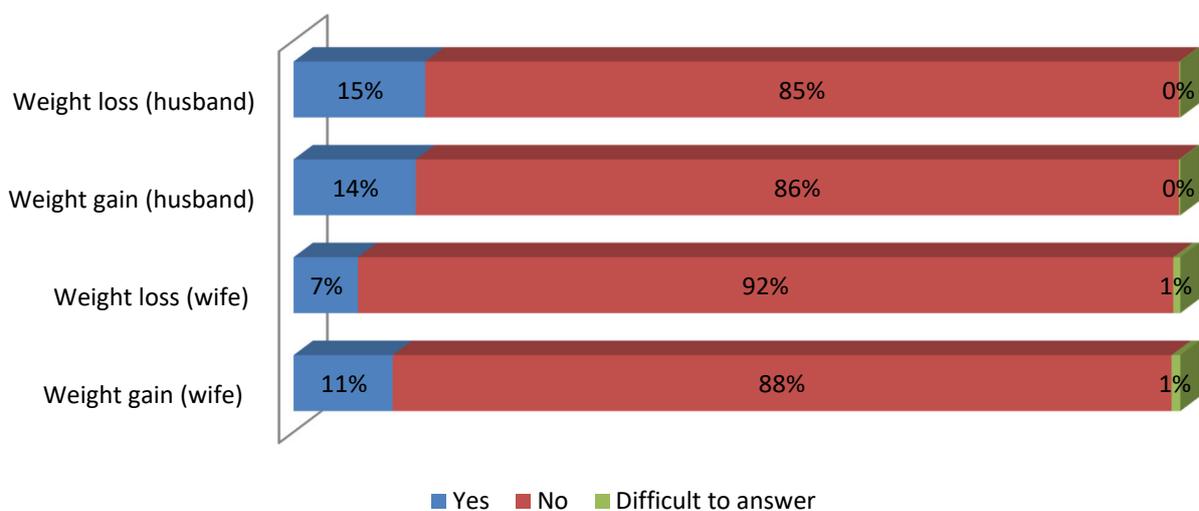


Chart 36: Did you or your wife have a sharp weight gain or loss during last two years?



Majority of female respondents – 83% - states that they don't have excessive hair growth on unusual areas of the body, while 17% has slight or expressed hair growth (Chart 37). Almost half of these respondents – about 48% - have noticed hair growth at the age of 25-40 (Chart 38).

Chart 37: Do you have excessive hair growth on unusual parts of the body?

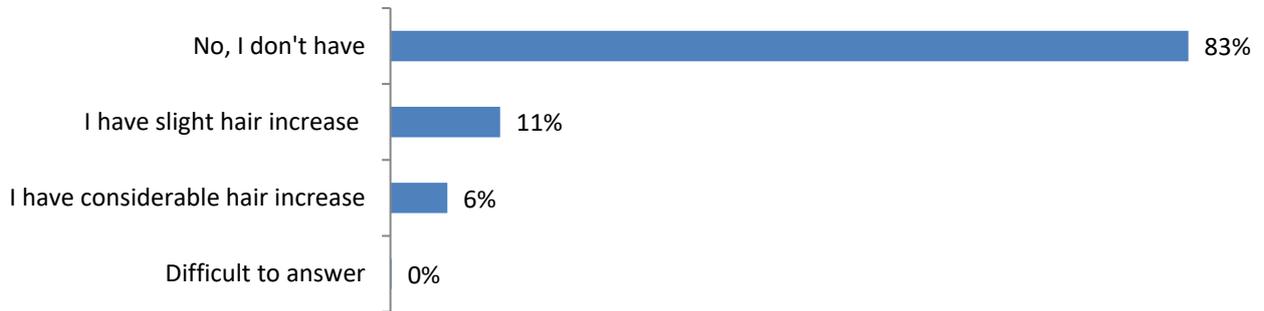
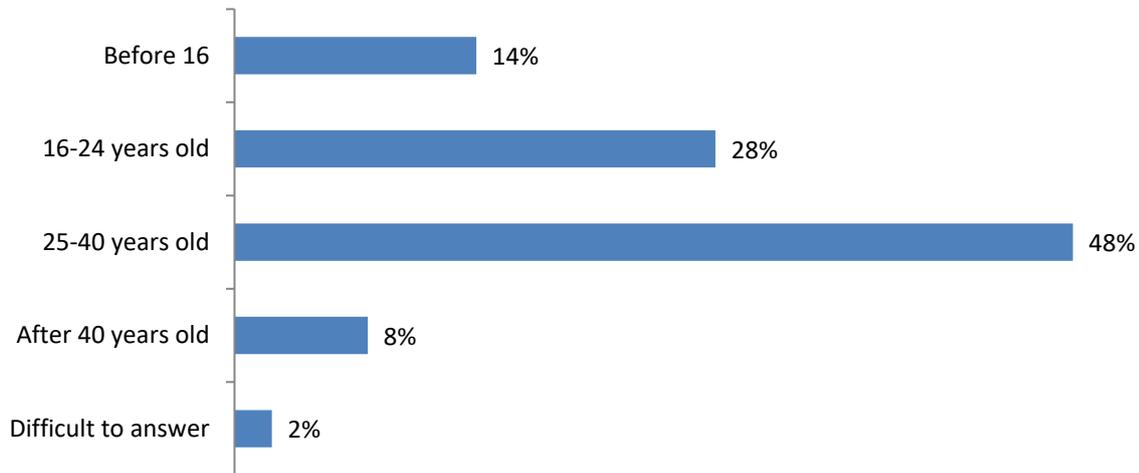


Chart 38: How old were you, when you noticed for the first time excessive hair growth on unusual parts of your body?



Majority of male respondents – 87% - states that they didn't have hair loss on body or head and 13% had hair loss on the head (Chart 39). Majority of these respondents – 53% - has noticed partial hair loss at the age of 25-40 (Chart 40).

Chart 39: Do you have partial hair loss on body or head?

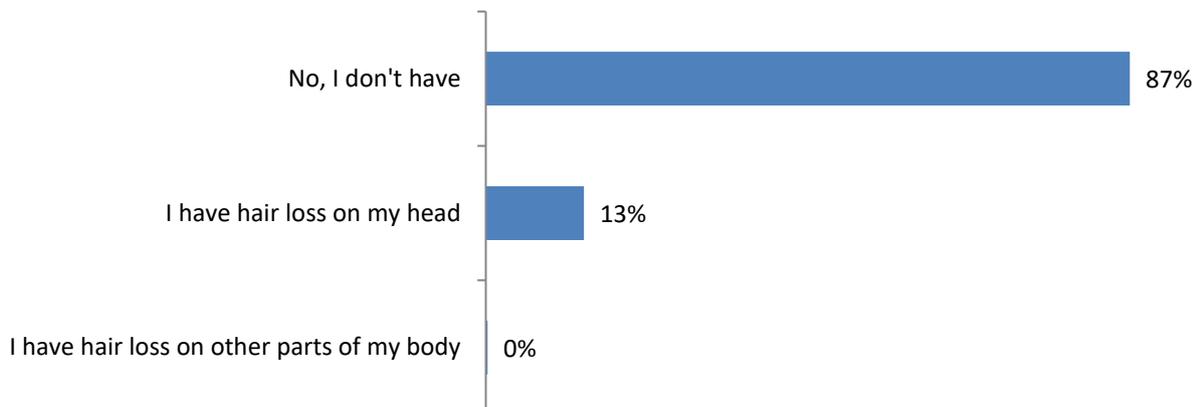
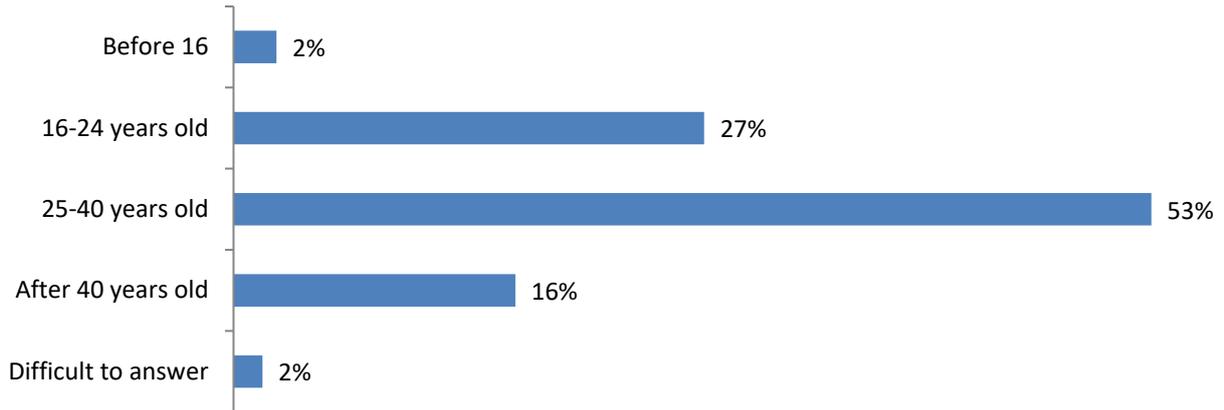


Chart 40: Approximately how old were you, when you first noticed hair loss?



In difference to women, male respondents had more hair loss on body or head – about 32% (Chart 41). About half of latter – 50.3% - has noticed first hair loss at the age of 25-40.

Chart 41: Do you have partial hair loss on your body or hair?

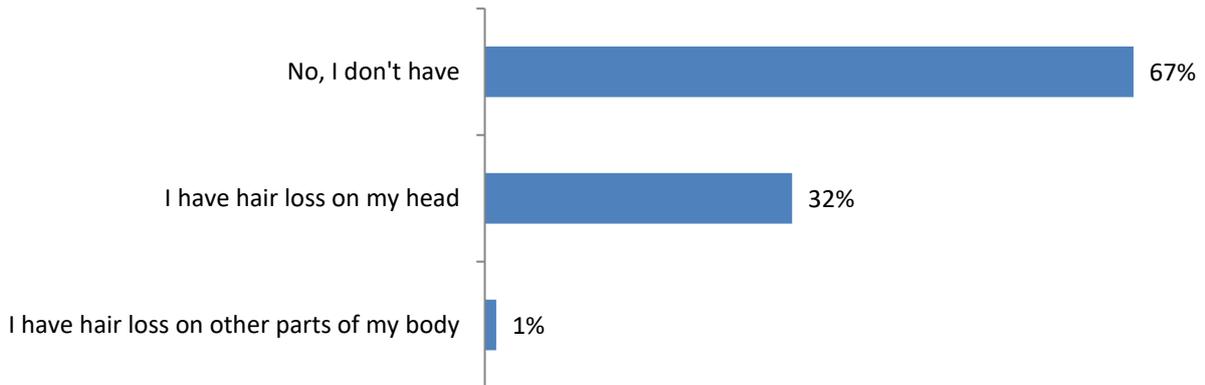
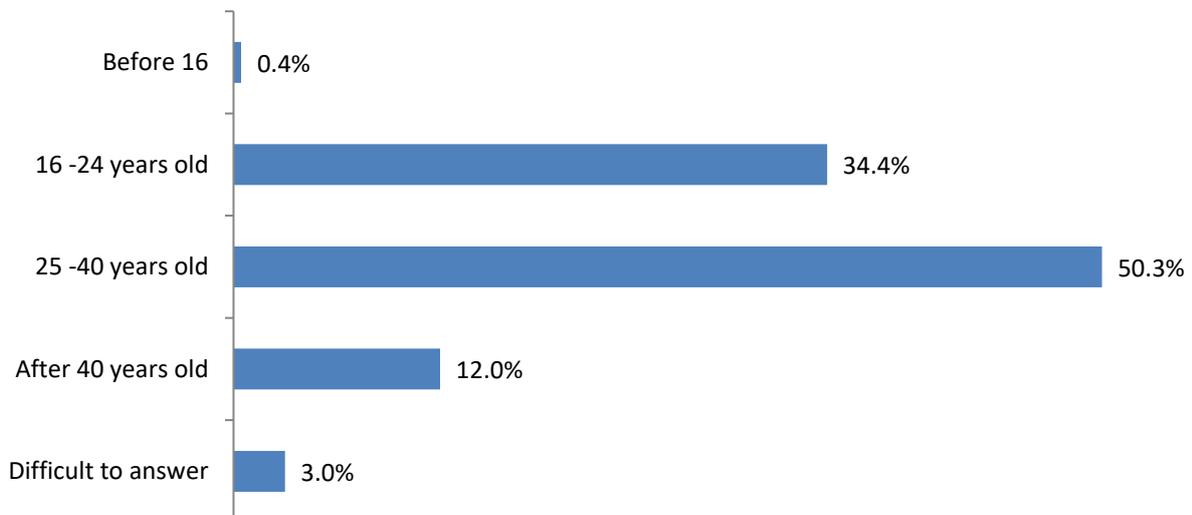


Chart 42: Approximately how old were you, when you noticed hair loss for the first time?



About 22% of female respondents experienced problems with breast (Table 49). They were able to mention more than 1 problem. As a result problems are connected with pains before menstruation, neoplasms, pains etc.

Table 49: What kind of breast related problems do you have?	Percent
No problem	77,9%
Pains before menstruation	15,4%
Neoplasms	5,1%
Frequent pains independent of menstruation	2,3%
Mastopathy	2,0%
Milk-white discharge from nipples	0,4%
Cyst	0,4%
Other kind of discharge from nipples	0,2%
Other	0,6%
Difficult to answer	0,2%

Section 10. Health Condition, Symptoms and History of Diseases

Note: this section summarizes data of respondents that have ever had sexual relations (married, those in civil union, single mother/father, widow, divorced) and doesn't include respondents who mentioned that have never been in marriage and/or sexual relations (1146 female and 909 male respondents).

Majority of female respondents consider their husbands healthy. The same is true also for male respondents. It's interesting that male respondents who consider themselves and their wives healthy outnumber female respondents (Chart 43, Chart 44).

Chart 43: Do you consider yourself/your husband healthy?

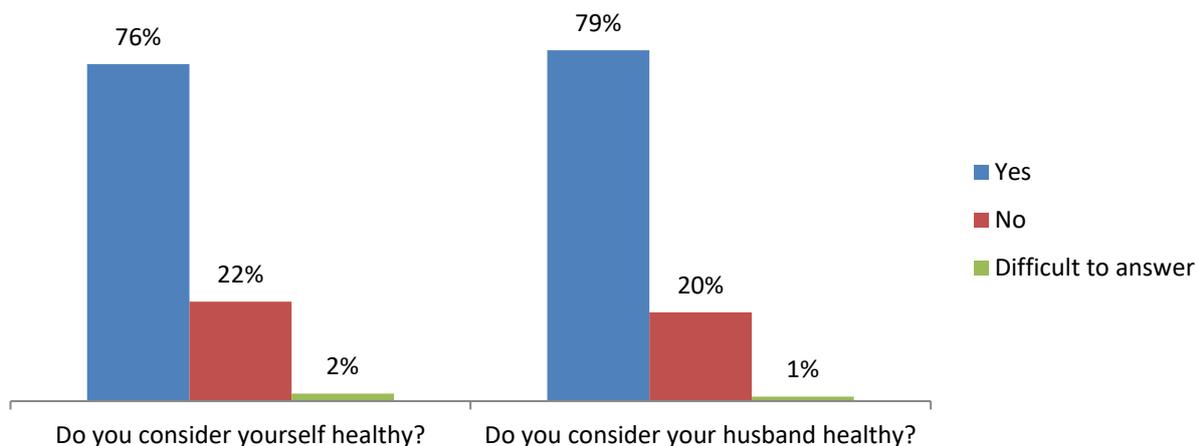
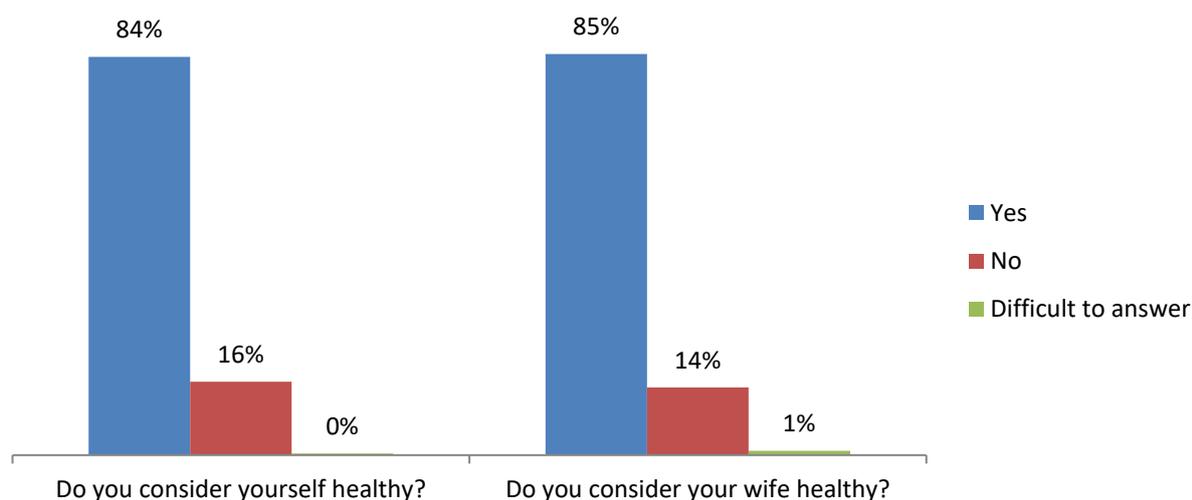


Chart 44: Do you consider yourself/your wife healthy?



Female respondents had more problems related to genitourinary and endocrine system than their husbands. According to women their husbands have more genitourinary than endocrine problems (Table 50).

Table 50: Have you/your husband ever had genitourinary or endocrine system related health problems?	Genitourinary (female respondents)	Endocrine (female respondents)	Genitourinary (husband)	Endocrine (husband)
Don't/haven't had such problem	67%	82%	90%	94%
Was treated and recovered	23%	5%	5%	2%
Wasn't treated, didn't recover	4%	4%	2%	1%
Was treated but didn't recover	3%	1%	1%	1%
Wasn't treated but the condition has improved	2%	0%	1%	0%
I'm currently being treated	1%	6%	1%	1%
Difficult to answer	0%	2%	1%	1%

Majority of male respondents, as well as wives of married men don't have any health problems related to genitourinary and endocrine system, but both man and women have more genitourinary than endocrine problems. Moreover these problems are more common for women than men (Table 51).

Table 51: Have you/your wife ever had genitourinary or endocrine system related health problems?	Genitourinary (male respondents)	Endocrine (male respondents)	Genitourinary (wife)	Endocrine (wife)
Don't/haven't had such problem	88%	93%	83%	89%
Was treated and recovered	7%	3%	10%	3%
Wasn't treated but the condition has improved	2%	0%	1%	0%
Wasn't treated, didn't recover	2%	1%	1%	1%
Was treated but didn't recover	1%	1%	2%	1%
I'm currently being treated	1%	2%	1%	3%
Difficult to answer	0%	0%	2%	2%

Among female respondents the most widespread problem is itching or unpleasant discharge (45%), followed by inflammatory diseases of sexual organs (25%).

Table 52: Have you had/Do you have any of following problems related to sexual organs?	Itching or unpleasant discharge around genitals	Sores or warts on genitals	Inflammatory diseases on genitals
Don't/haven't had such problem	54,9%	97,4%	74,6%
Was treated and recovered	33,6%	1,0%	18,9%
Wasn't treated but the condition has improved	4,1%	0,5%	1,1%
Wasn't treated, didn't recover	3,3%	0,3%	2,3%
Was treated but didn't recover	2,8%	0,1%	1,9%
I'm currently being treated	1,2%	0,2%	0,4%
Difficult/refuse to answer	0,1%	0,5%	0,9%

Majority of male respondents hasn't had or doesn't have any problems related to sexual organs, however among those who have such problems, the most common are itching or unpleasant discharge (11%) followed by inflammatory diseases of sexual organs (4.5%) (Table 53).

Table 53: Have you had/Do you have any of following problems related to sexual organs?	Itching or unpleasant discharge around genitals	Sores or warts on genitals	Inflammatory diseases on genitals
Don't/haven't had such problem	88,8%	98,7%	95,5%
Was treated and recovered	8,5%	0,4%	0,1%
Wasn't treated, didn't recover	0,4%	0,2%	0,3%
Wasn't treated but the condition has improved	2,0%	0,1%	0,1%
I'm currently being treated	0,1%	0%	3,8%
Difficult to answer	0,1%	2,0%	0,1%

In the Table 54 below the research team tried to clarify from female respondents whether they have been treated or not for the specified diseases. As a result, majority didn't have listed diseases, however the most common among those who have such problems are fungal infection of genital skin (14.2%), followed by gardenereliosis (4.3%) and others vary between 1-2%.

Table 54: Diseases	Don't have/hasn't had such problem	Was treated and recovered	Was treated but didn't recover	Wasn't treated but condition has improved	I'm currently being treated	Wasn't treated and didn't recover	Difficult to answer
Gonorrhea (blennurethria)	99,1%	0,2%			0,1%		0,5%
Syphilis	99,8%				0,2%		
Chlamydia	98,6%	1,1%				0,1%	0,2%
Trichomatosis	98,5%	1,1%		0,1%			0,3%
Fungal infection of the genital skin	85,8%	13,3%	0,4%	0,2%	0,1%	0,1%	
Gardenereliosis	95,7%	3,5%			0,2%		0,7%

Brucellosis	99,8%	0,1%					0,1%
Tuberculosis	99,8%	0,1%					0,1%

In case of husbands of female respondents the majority doesn't have any of listed diseases, however the most common among those who have such problems are fungal infection of genital skin (9.5%), gardenereliosis (3%) etc. (Table 55).

Table 55: Diseases	Don't have/hasn't had such problem	Was treated and recovered	I'm currently being treated	Wasn't treated and didn't recover	Wasn't treated but condition has improved	Was treated but didn't recover	Difficult to answer
Fungal infection of the genital skin	91,5%	7,3%	0,3%	0,1%	0,1%	0,1%	0,5%
Gonorrhea (blennurethria)	98,6%	0,3%	0,3%				0,8%
Syphilis	99,1%		0,2%				0,7%
Chlamydia	98,3%	0,7%	0,2%				0,9%
Trichomatosis	98,0%	1,0%	0,2%				0,9%
Gardenereliosis	97,0%	2,1%	0,2%				0,7%
Brucellosis	99,6%						0,4%
Tuberculosis	99,0%	0,7%	0,2%				0,9%

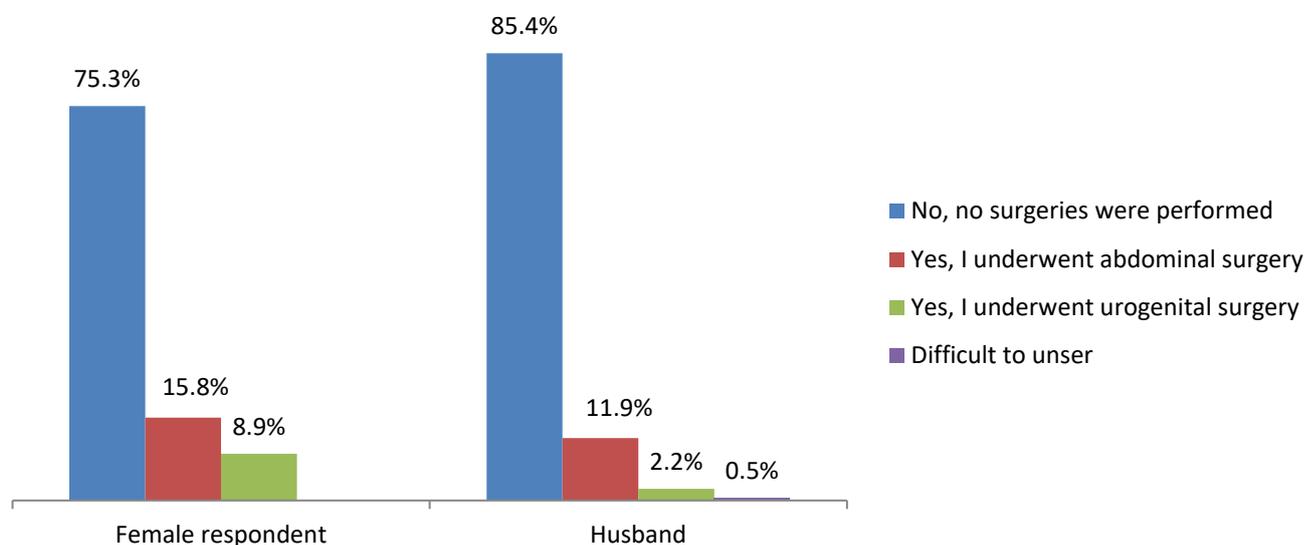
Majority of male respondents doesn't have any of listed problems, but the most common among those who have such problems are fungal inflammation of genital skin (5.4%), hepatitis (3.4%) etc. (Table 56). According to male respondents, majority of their wives didn't have any of these problems, however 5.4% experienced fungal inflammation of genital skin (Table 57).

Table 56: Diseases	Don't have/hasn't had such problem	Was treated and recovered	Wasn't treated and didn't recover	Wasn't treated but condition has improved	Was treated but didn't recover	I'm currently being treated	Difficult to answer
Fungal infection of the genital skin	94,6%	4,6%	0,1%	0,1%			0,4%
HIV/AIDS	99,9%						0,1%
Hepatitis	96,6%	2,5%			0,1%	0,1%	0,6%
Gonorrhea (blennurethria)	99,1%	0,7%					0,1%
Syphilis	99,9%			0,1%			
Chlamydia	99,7%	0,1%					0,1%
Trichomatosis	98,0%	1,6%		0,1%			0,3%
Gardenereliosis	99,1%	0,3%					0,7%
Brucellosis	99,6%	0,2%	0,2%				
Tuberculosis	99,4%	0,3%				0,1%	0,1%

Table 57: Diseases	Don't have/hasn't had such problem	Was treated and recovered	I'm currently being treated	Wasn't treated but condition has improved	Wasn't treated and didn't recover	Difficult/ Refuse to answer
Fungal infection of the genital skin	94,6%	3,8%	0,3%	0,2%		1,1%
HIV/AIDS	99,60%					0,40%
Hepatitis	98,60%	0,60%			0,10%	0,80%
Gonorrhea (blennurethria)	99,10%	0,20%				0,70%
Syphilis	99,40%					0,60%
Chlamydia	99,10%	0,20%				0,70%
Trichomatosis	98,90%	0,30%				0,70%
Gardenereliosis	99,10%	0,30%				0,60%
Brucellosis	99,60%					0,40%
Tuberculosis	99,60%					0,40%

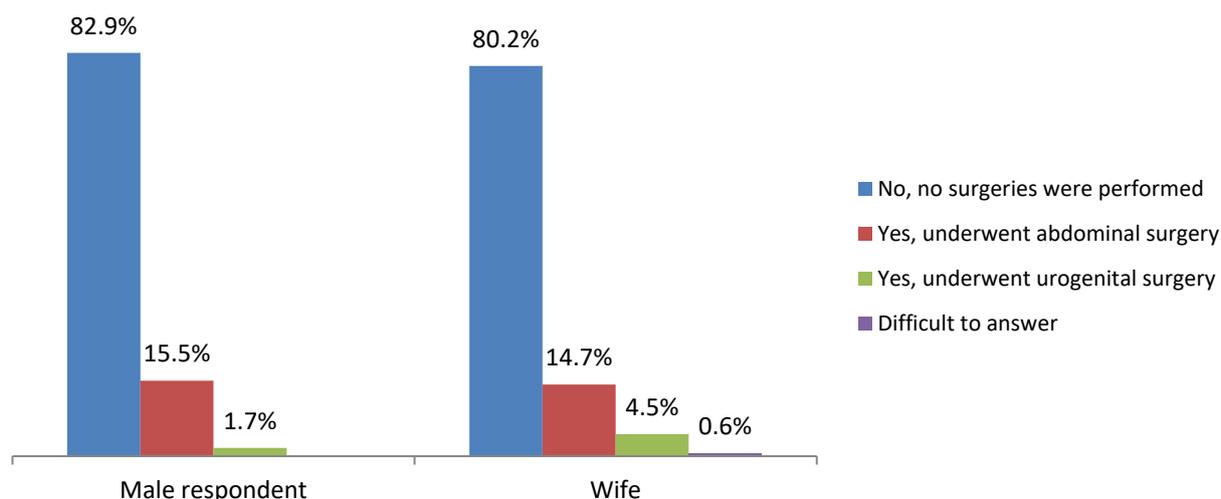
15.8% of female respondents had abdominal and 8.9% had surgeries of urogenital organs. Post-surgical complications occurred in case of 20% of abdominal and 14% of urogenital surgeries. In case of husband, about 12% had abdominal surgeries out of which 15% had post-surgical complications.

Chart 45: Have you/your husband undergone abdominal or urogenital surgeries?



15.5% of male respondents had abdominal and 1.7% had urogenital surgeries. 14.7% of their wives had abdominal and 4.5% had urogenital surgeries. Post-surgical complications occurred in case of 12% of male abdominal surgeries. As for their wives, 6% of abdominal and 36% of urogenital surgeries had post-surgical complications.

Chart 46: Have you/your wife ever undergo abdominal or urogenital surgeries?



Section 11: Availability of Primary Healthcare, Information and Modern Reproductive Technologies

Note: This section summarizes information collected from respondents who have ever had sexual relations (married, in civil union, single mother/father, widow, divorced) and doesn't include respondents that have never had sexual relations or been married. (female respondents -1146, male respondents - 909).

About 87% of respondents of reproductive age who have ever had sexual relations or been married states that they have never had any challenges with having a baby, 6.4% previously had problems with infertility but overcame that and currently has children and 6.4% had problems.

Table 58: Have you ever had problems with having a baby?	Female respondents Quantity	Female respondents Percent	Male respondents Quantity	Male respondents Percent	Total Percent
No	976	85%	804	88%	87%
Yes	84	7%	48	5%	6%
Previously had infertility problem, but we overcame and have child/children	81	7%	51	6%	6%
Difficult to answer	2	0%	5	1%	0%
Refuse to answer	3	0%	1	0,1%	0%
Total	1146	85%	909	100%	87%

To the question “Have you ever tried traditional remedies with the help of folk healers?” majority of 264 respondents that ever had problems with having a baby – 83% - answered that they haven't tried, 12% tried but failed and 5% tried and succeeded.

Table 59: Have you ever tried traditional remedies with the help of folk healers?	Quantity	Percent
We haven't tried	219	83%
We tried but didn't achieve any result	31	12%

We tried and succeeded	14	5%
Total	264	100%

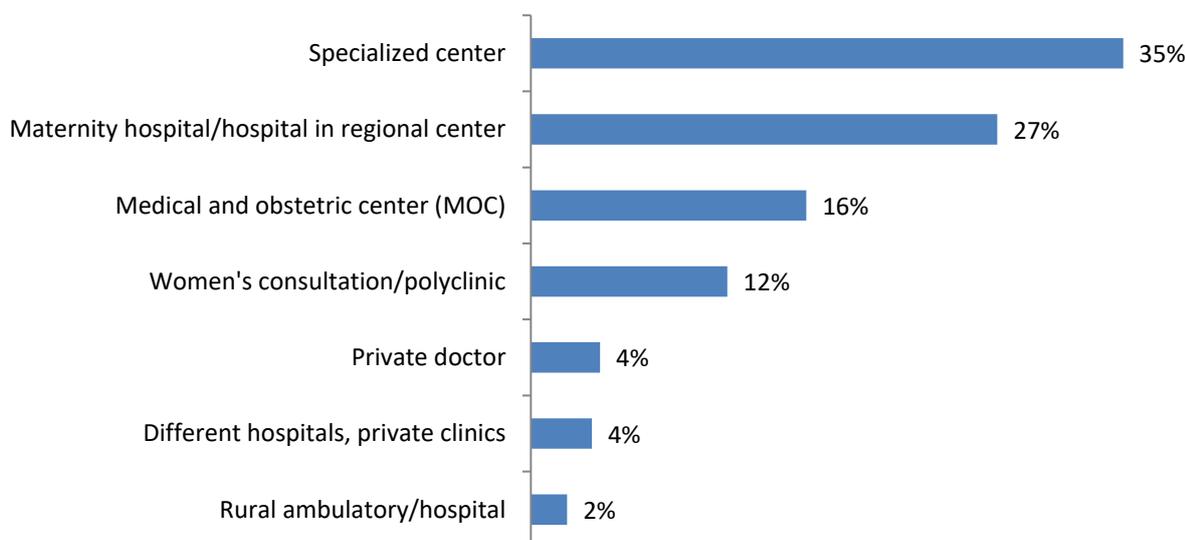
Majority of the same 264 respondents – 74% - has visited a doctor with his/her wife/husband, in case of 11% only wives consulted a doctor and in case of 15% no one consulted a doctor.

Table 60: Have you and your husband/wife consulted a doctor to find out infertility causes?	Quantity	Percent
Both have consulted	196	74%
No one has consulted	40	15%
Only wife has consulted, but not husband	28	11%
Total	264	100%

In case of respondents main reasons for not consulting a doctor were: had to wait a bit more, so pregnancy may be possible without treatment (39%), husband has no problems (12%), financial difficulties (12%), avoidance by husband (9%), lack of trust in doctors (1%) etc.

More than half of respondents that have consulted on infertility or visited doctor for treatment – 62% - has mostly visited specialized centers (35%) and maternity hospitals in provincial centers (27%).

Chart 47: Where have you consulted a doctor on issues related to infertility or medical care?



In medical centers the majority of female respondents has undergone all examinations listed in the Table 61.

Table 61: Have you undergone following examinations?	Yes	No	Difficult to answer
Gynecological examination	99%	1%	
Echography	94%	5%	2%
Examination of quantity of hormones in blood	85%	9%	6%
Pathological scraping of mucous membrane of uterine cavity	71%	27%	2%

Examination on sexual infections	67%	32%	2%
Examination of uterine cavity (Hysteroscopy)	62%	33%	4%
Examination of abdominal cavity (Laparoscopy)	53%	46%	1%
X-ray of uterus and tubes (Hysterosalpingography)	52%	44%	4%

More than half of husbands of female respondents – 74.8% - underwent sperm tests.

Table 62: Have your husband undergone following tests?	Yes	No	Difficult to answer
Sperm test	74,8%	25,2%	
Examination of quantity of hormones in blood	46,2%	94,7%	
Genitourinary or proctological (rectal) examination	43,9%	50,5%	5,6%
Examination of testicular tissues (biopsy)	33,8%	58,8%	7,4%
Doppler echography	20,7%	70,7%	8,6%
Thermography of scrotum vessels	19,9%	69,4%	10,7%

According to female respondents, as a result of consulting doctor, more than half of causes related to women. The hidden reason for the later could be the fact that men don't consult a doctor frequently.

Table 63: Whom were detected infertility reasons related to?	Percent
The cause related only to me	56%
The cause related to my husband/partner	12%
The cause related to both of us	15%
The cause is unknown	17%

More than half of male respondents who have consulted a doctor on infertility issues or received treatment has undergone sperm test and examination of quantity of hormones in blood. Examinations of their wives is presented in the Table 65.

Table 64: Have you undergone any of the following examinations?	Yes	No	Difficult to answer
Sperm test	79%	21%	
Examination of quantity of hormones in blood	52%	43%	5%
Examination of testicular tissues (biopsy)	43%	52%	5%
Genitourinary or proctological (rectal) examination	31%	55%	13%
Thermography of scrotum vessels	30%	56%	14%
Doppler echography	24%	67%	8%

Table 65: Has your wife undergone any of the following examinations?	Yes	No	Difficult to answer
Gynecological examination	95%	2%	4%
Echography	89%	4%	6%
Examination of quantity of hormones in blood	76%	11%	13%

Pathological scraping of mucous membrane of uterine cavity	65%	15%	20%
Examination for sexual infections	63%	25%	17%
Examination of uterine cavity (Hysteroscopy)	60%	16%	24%
X-ray of uterus and tubes (Hysterosalpingography)	46%	28%	26%
Examination of abdominal organs (Laparoscopy)	44%	28%	28%

According to male respondents the cause of infertility related only to women (37%), only to men (21%) and cause was unknown (21%).

Table 66: Whom has the detected cause of infertility related to?	Percent
The cause related only my wife	37%
The cause related only to me	21%
The cause remained unknown	21%
The cause related to both of us	19%
Difficult to answer	2%

So let's compare the data in Table 63 and Table 66. According to 56% of female and 37% of male respondents infertility causes related only to women. According to 12% of female and 21% of male respondents the cause related to men, causes related to both men and women according to 15% of female and 19% of male respondents, and 17% of female and 21% of male respondents thinks that the cause remained unknown.

The next 4 table present diseases that were detected among respondents and their wives/husbands.

Table 67: Have you been diagnosed with any of following issues (female respondents)?	Yes	No	Difficult to answer
Ovulation disorder	45%	53%	2%
High level of prolactin in blood	23%	69%	8%
Hormonal issues with thyroid, adrenal and other endocrine glands	22%	77%	1%
Cervical erosion, cervicitis, tube narrowing and other pathologies	19%	81%	
Uterine myoma, polyps of mucous membrane and other pathology	17%	83%	
Ovarian cysts/cystomas and other pathology	17%	82%	1%
Unilateral or bilateral obstruction of fallopian tubes	14%	84%	1%
Congenital pathology of the genital system (absence of the uterus, child's uterus)	7%	92%	1%
Sexual infections	3%	97%	
Endometriosis	6%	87%	7%
Adhesions in the small pelvis	4%	94%	2%

Table 68: Have you been diagnosed with any of following issues (female respondents)?	Yes	No	Difficult to answer
Endocrine disorders	96%	4%	
Absence of mobile spermatozooids	20%	76%	4%
Incomplete sperm	16%	82%	3%
Inflammation of prostate or other sexual glands (STIs)	9%	88%	3%
Weakness/absence of sexual activity (impotence)	7%	91%	2%
Sexually transmitted infections	5%	91%	4%
Scrotum vasodilation (Varicocele)	3%	88%	9%
Congenital pathology of sexual system	2%	95%	3%

Table 69: Have you been diagnosed with any of following issues (male respondents)?	Yes	No	Difficult to answer
Congenital pathology of sexual system	1%	99%	
Incomplete sperm	25%	75%	
Absence of mobile spermatozooids	15%	78%	8%
Weakness/absence of sexual activity (impotency)	14%	86%	
Sexual infections	11%	89%	
Inflammation of prostate or other sex glands (STIs)	9%	89%	2%
Endocrine disorder	4%	96%	
Varicocele	3%	94%	2%

Table 70: Has your wife been diagnosed with any of following issues (male respondents)?	Yes	No	Difficult to answer	Refuse to answer
Ovulation disorder	30%	56%	13%	1%
Hormonal issues with thyroid, adrenal and other endocrine glands	19%	72%	8%	1%
Cervical erosion, cervicitis, tube narrowing and other pathologies	15%	75%	8%	1%
High level of prolactin in blood	13%	75%	10%	1%
Unilateral or bilateral obstruction of fallopian tubes	12%	82%	5%	1%
Ovarian cysts/cystomas and other pathology	12%	81%	6%	1%
Uterine myoma, polyps of mucous membrane and other pathology	12%	79%	8%	1%
Sexually transmitted infection	10%	86%	4%	1%
Endometriosis	3%	84%	11%	1%
Adhesions in the small pelvis	3%	87%	8%	1%
Congenital pathology of the genital system (absence of the uterus, child's uterus)	2%	92%	4%	1%

10% of female respondents states that they underwent surgery to recover fertility and/or because of issues with genital organs (Chart 48) and only 5% of male respondents mentions about surgery. Moreover 13% of male respondents states that their wives have been operated, thus women are operated more frequently than men.

Chart 48: Have you ever undergone surgery to recover fertility and/or related to genital problems (female respondents)?

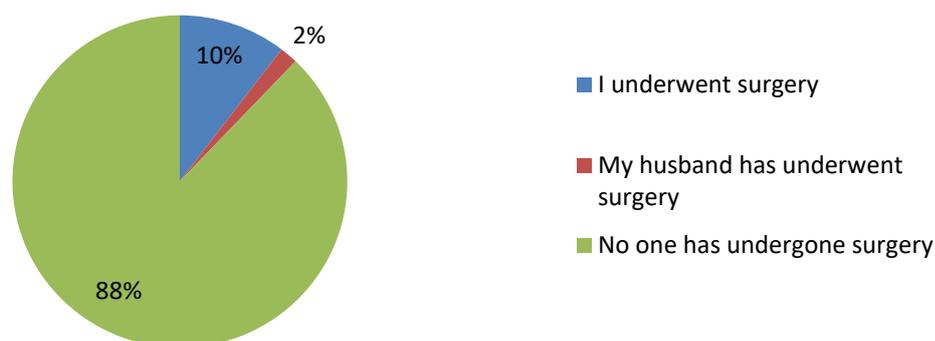


Chart 49: Have you ever undergone surgery to recover fertility and/or related to genital problems (male respondents)?

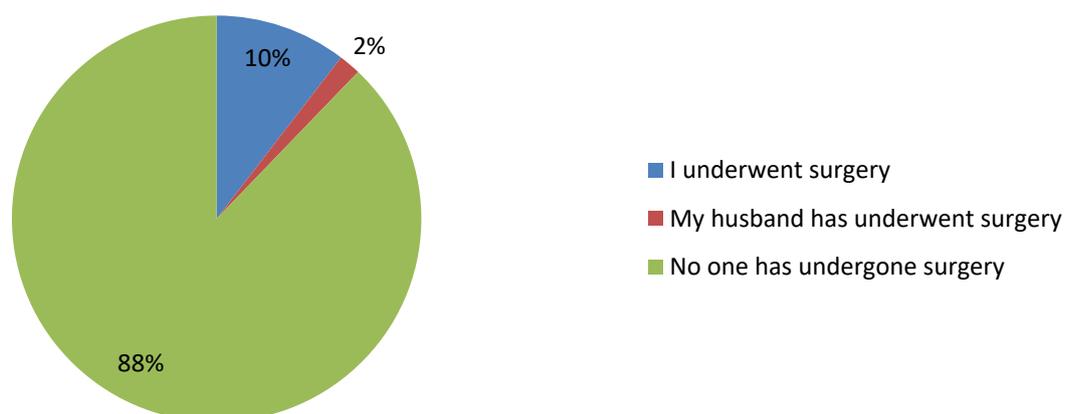


Table 71 describes to what extent all female respondents are aware of modern reproductive technologies to recover fertility, whether they have applied those technologies and are happy with it or no. The vast majority has only heard about that. 6% has undergone invitro/extracorporeal fertilization and artificial insemination with husband's sperm, but hasn't achieved any result.

Name	I have a good idea of what it is but haven't used it	I've only heard, but don't know what it is and haven't used	I've never heard about that and haven't used	I've applied those technologies but didn't achieve any results	I've used those technologies and am satisfied	Difficult to answer	I intend to use that technology
Artificial insemination with donor sperm	62%	31%	5%		1%	1%	
Ovum donation	57%	32%	11%				
Invitro/extracorporeal fertilization	58%	31%	3%	6%	1%		2%
Artificial insemination with husband's sperms	58%	28%	6%	6%	3%		
Surrogacy	65%	30%	4%		1%		1%

In case of male respondents the majority hasn't used modern reproductive technologies either. Some male respondents mentioned that they underwent extracorporeal/invitro fertilization (IVF) (6%), artificial insemination with husband's sperms (4%) but didn't achieve any results, but less number of respondents mentioned that they used the same technology and were satisfied.

Name	I've only heard, but don't know what it is and haven't used	I have a good idea of what it is but haven't used	I've never heard about that and	I have used those technologies but didn't achieve any results	I've used those technologies and am satisfied	Difficult to answer

			haven't used			
Artificial insemination with husband's sperms	44%	42%	8%	4%	2%	
Artificial insemination with donor sperms	42%	50%	7%	1%		
Ovum donation	31%	46%	21%			2%
Extracorporeal/in vitro fertilization (IVF)	35%	41%	12%	6%	5%	1%
Surrogacy	43%	52%	5%			

Respondents were provided with certain statements⁸ and were asked to tell to what extent they agree with them. As a result, majority of female respondents mostly agreed with the statement that "if couples are not able to have a baby, they should use modern reproductive technologies" (96%) and about half mostly agrees that "If a woman wants to have a baby and doesn't have a partner, she should have a baby naturally from a man" (54%).

Table 73: To what extent do you agree with following statements? (female respondents)	Fully agree, partly agree	Don't agree that much, don't agree at all	Difficult to answer, refuse to answer
If couples are not able to have a baby they should use modern reproductive technologies	96%	3%	1%
If a man has health problems, it's normal for his wife to get pregnant and have a baby with donor sperm	79%	16%	5%
If necessary and I have an opportunity, I'll certainly use modern reproductive technologies to have a baby	76%	21%	3%
If a woman wants to have a baby and doesn't have a partner, she should have a baby using modern reproductive technologies (IVF)	74%	22%	4%
If a woman doesn't have a partner and has health problems, it's normal for her to apply for surrogacy and have a baby	71%	25%	4%
If a woman wants to have a baby but doesn't have a partner should have a baby naturally form a man	54%	41%	5%

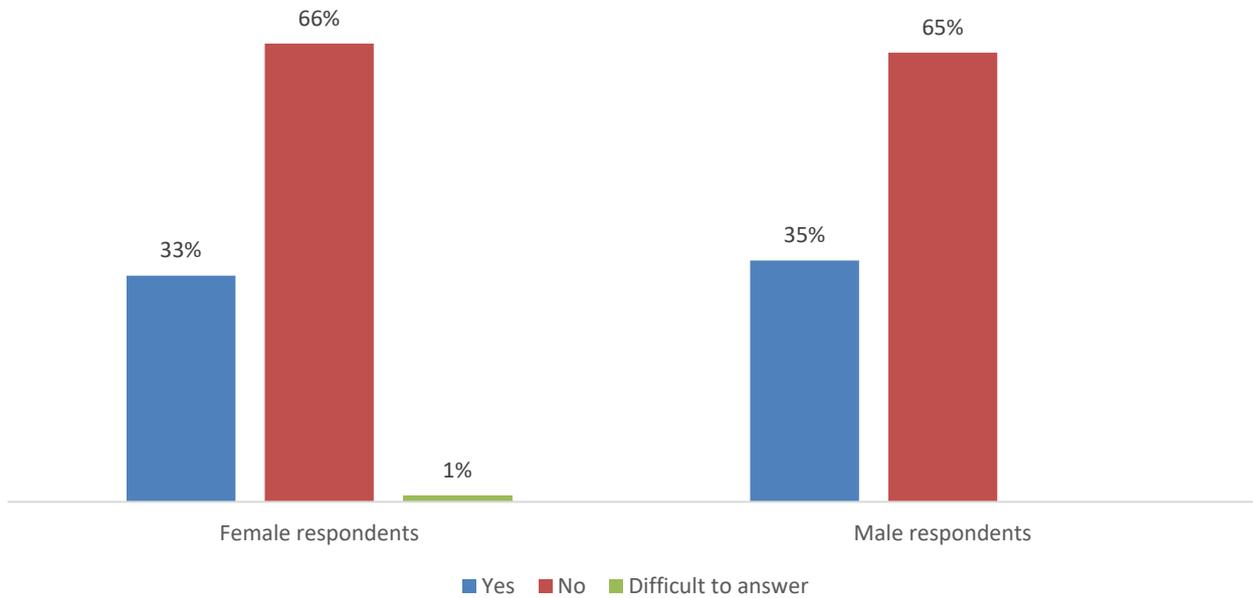
Majority of male respondents mostly agrees with the statement that "If couples are not able to have a baby they should use modern reproductive technologies" (79%), about 55-56% of male respondents agree with other statements and 51% doesn't agree that much with the statement that "If a woman wants to have a baby but doesn't have a partner, she should have a baby naturally from a man".

Table 74: To what extent do you agree with following statements (male respondents)?	Fully agree, partly agree	Don't agree that much, don't agree at all	DA
If couples are not able to have a baby they should use modern reproductive methods	79%	16%	5%
If necessary and if I have an opportunity I'll use modern reproductive technologies to have a baby	58%	32%	10%
If a woman wants to have a baby and doesn't have a partner, she should have a baby through modern reproductive methods (IVF)	56%	37%	7%
If a man has health problem, it's normal for his wife to get pregnant and have a baby with donor's support	56%	37%	7%
If a woman doesn't have a partner and has health problems, it's normal for her to apply for surrogacy and have a baby	55%	36%	10%
If a woman wants to have a baby and doesn't have a partner she should have a baby naturally from a man	41%	51%	8%

⁸ All respondents answered questions on statements.

During the survey respondents were asked: “Would you like to get a free of charge consultations to clarify causes of infertility and recover fertility?” and 1/3 of both men and women who have health problems answered “yes”. They were provided with telephone numbers of doctors/experts engaged in the project. As a result many of them got in touch and received answers to their questions.

Chart 50: Would you like to receive free of charge specialized consultancy on reasons of infertility and recovery of fertility?



PART 3

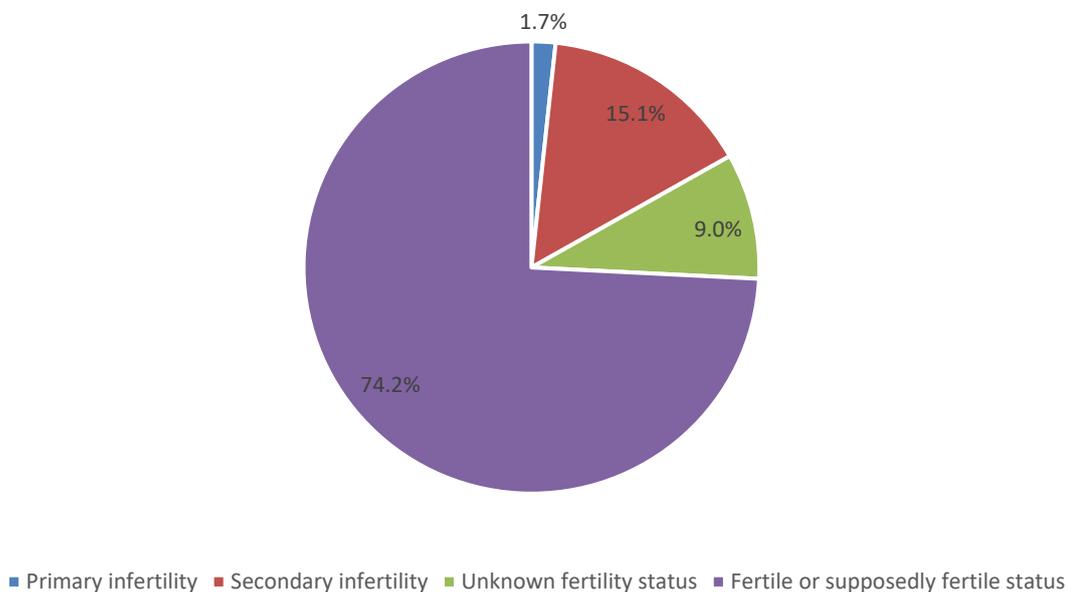
Section 12. Prevalence of Infertility

Note: This section summarizes data on respondents of reproductive age who are married or are in civil union and live together.

To define the prevalence of infertility following groups have been distinguished: people with primary infertility, people with secondary infertility, fertile and supposedly fertile people, as well as people with unknown fertility status.

According to survey results the prevalence of infertility among couples of reproductive age (in total 1845) makes up 16.8% and people with fertile and supposedly fertile status make up 74.2% (Chart 51).

Chart 51: Prevalence of infertility

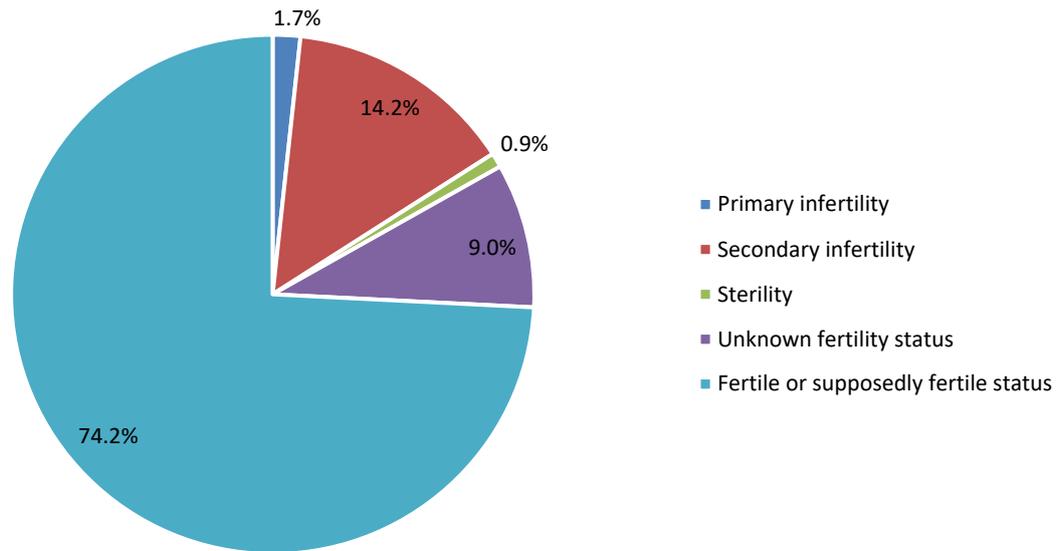


Thus, the study found out that 1.7% of respondents has **primary infertility**. Those are couples who have had regular sexual relations for 12 or more months, haven't used contraceptive means but the woman couldn't get pregnant.

15.1% of respondents has **secondary infertility**. Those are couples who previously had at least 1 baby, but couldn't get pregnant as a result of regular sexual relations during last 12 months and more without use of any contraceptives. This group also includes couples that were unable to have a viable fetus as a result of regular sexual relations during last 12 months or more and without use of contraceptives, conditioned with miscarriage, non-developing pregnancy and other reasons. This group was named people with sterility who made up 0.9% (Chart 52).

When looking at the relevant groups of infertility, the following picture is obtained.

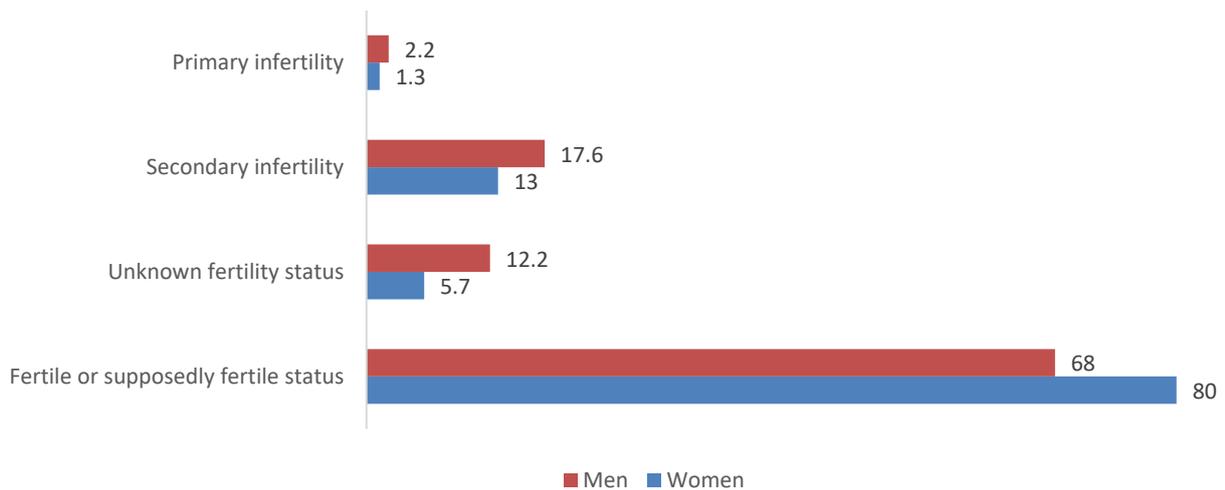
Chart 52: Prevalence of infertility (detailed)



12.1. Social-Demographic Characteristics and Livelihood Conditions of Fertility Groups among Men and Women

From gender perspective primary infertility among female respondents⁹ (n=1146) makes up 1.3% and secondary infertility is 13%. Primary infertility among male respondents (n=909) is 2.2% and secondary infertility – 17.6% (Chart 53).

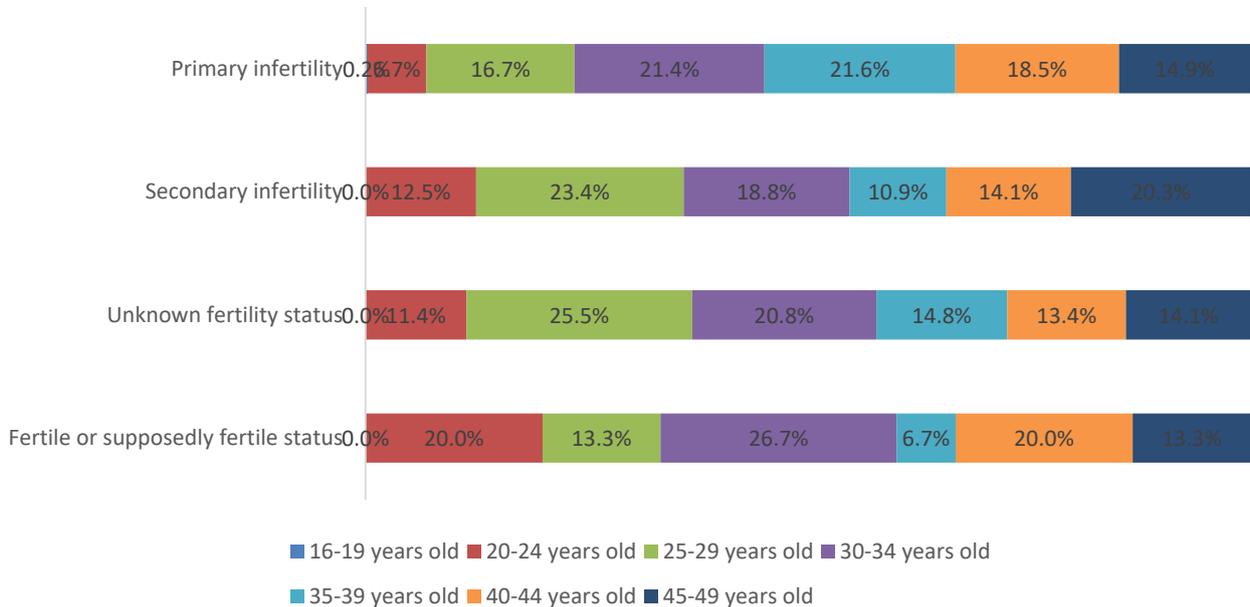
Chart 53: Fertility groups among men and women



⁹ “Among female respondents” and “among male respondents” terms in this section are used taking into account information on partners provided by male and female respondents.

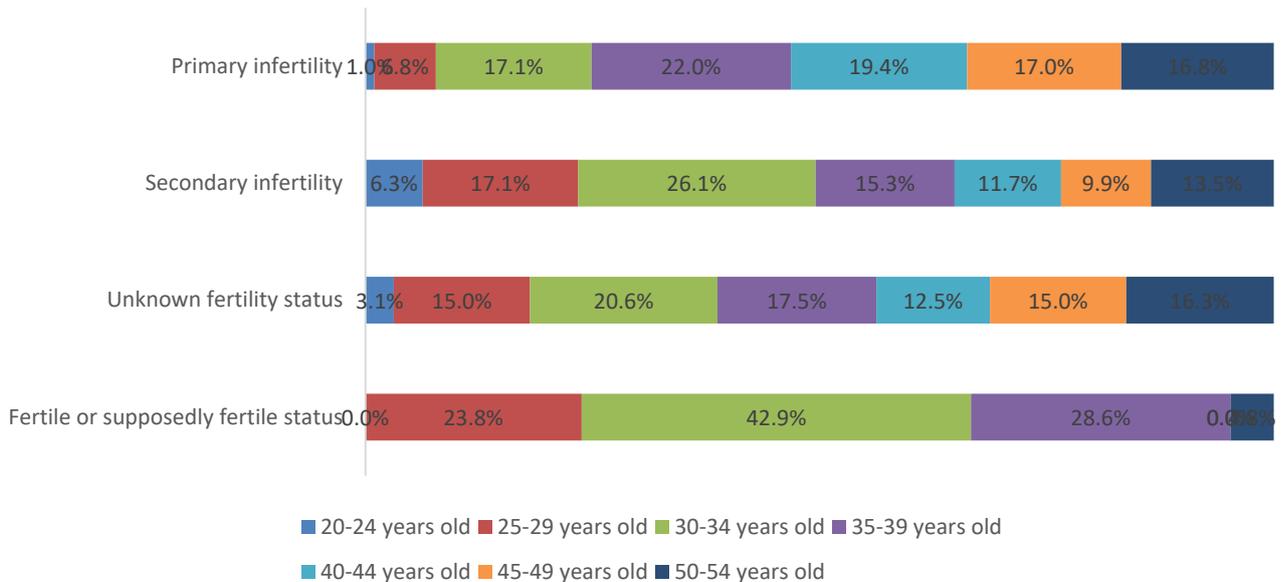
In the group of primary infertility 23.4% of women are 20-29 years old, 43% - 30-39 years old and 33.4% - 40-49 years old. In the secondary infertility group 35.9% of women are 20-29 years old, 29.7% - 30-39 years old and 34.4% - 40-49 years old (Chart 54).

Chart 54: Groups according to age intervals (female respondents)



In the primary infertility group 7.8% of men are 20-29 years old, 39.1% - 30-39 years old and 53.2% - 40-54 years old. In the secondary infertility group 23.4% of men are 20-29 years old, 41.4% - 30-39 years old and 35.1% - 40-54 years old (Chart 55).

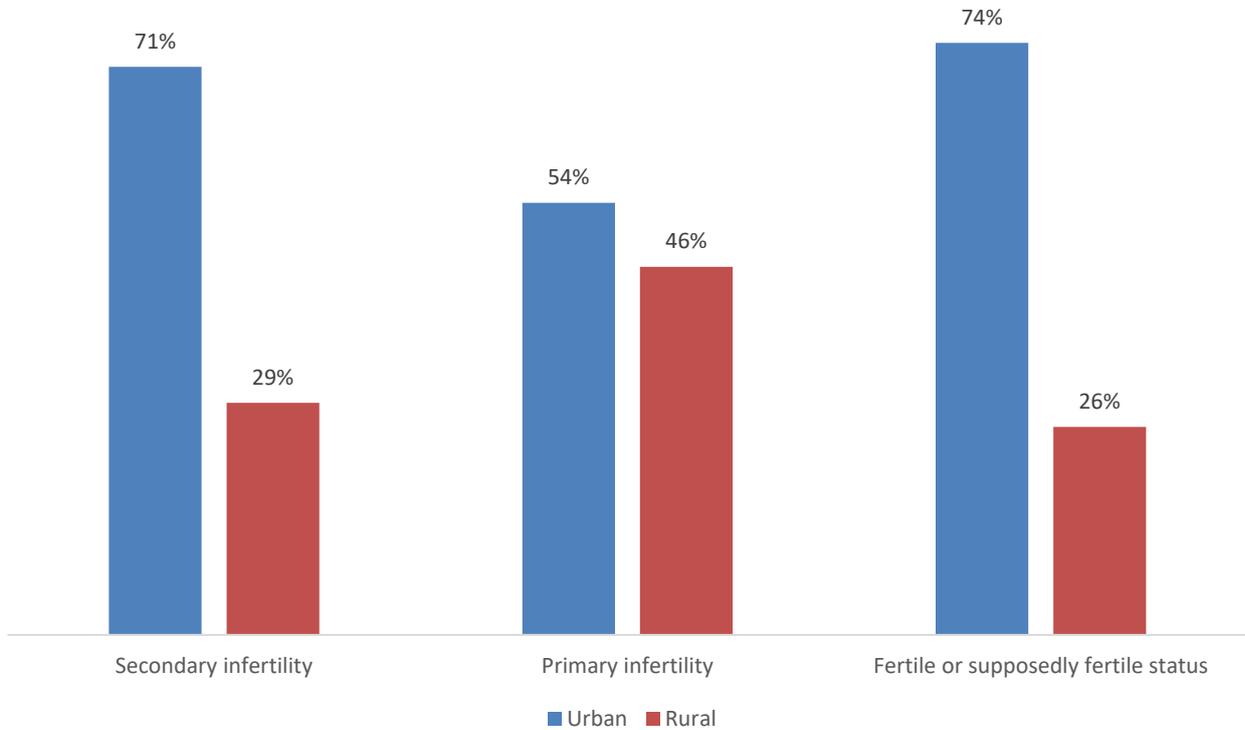
Chart 55: Fertility groups according to age intervals (male respondents)



From the perspective of the average age of couples with primary infertility, the average age of women is 30.6 and 35.5 for men and for couples with secondary infertility, the average age of women is 33.8, and 37.8 for men.

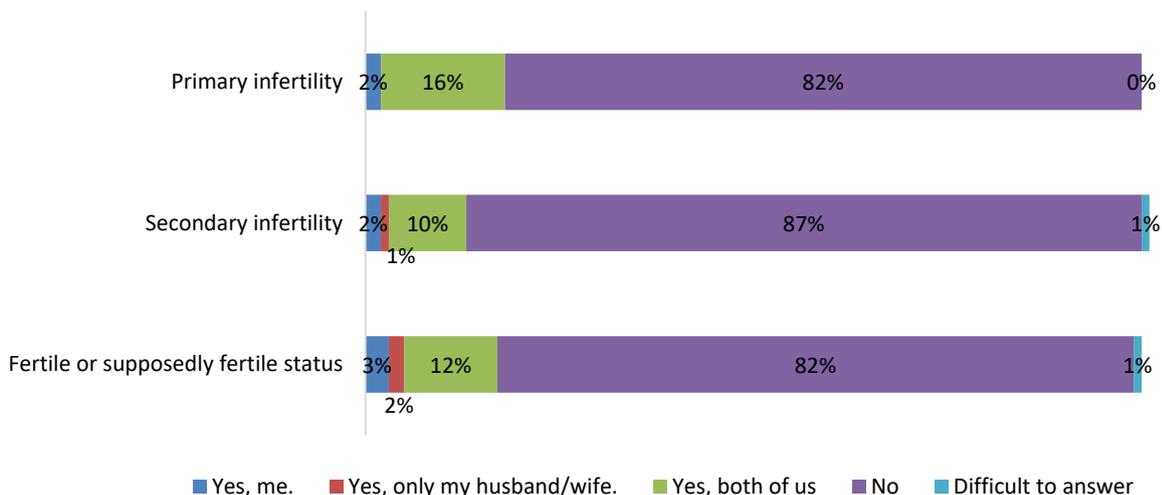
54% of couples with primary infertility are from urban settlements, and 46% - rural. 71% of couples with secondary infertility are from urban and 29% from rural settlement. 74% of people with fertile and supposedly fertile status are from urban and 26% from rural settlements (Chart 56).

Chart 56: Distribution of fertility groups according to settlement type



16% of couples with primary infertility and 10% with secondary infertility state that both husband and wife have been living for over 5 years in a settlement that was close to mines, chemical plants or tailings. Only one out of 2% of couples with primary infertility lives in such communities and 3% of couples with secondary infertility (Chart 57).

Chart 57: Have you or your husband/wife lived in any settlement over 5 years, that has mines, chemical plants or tailings located nearby?



14.7% of **couples** with primary infertility are coming from Yerevan, Ararat and Armavir, 11.8% - from Syunik, 8.8% from Aragatsotn, Gegharkunik and Shirak and 5.9% from Lori, Kotayk and Vayots Dzor. 39.2% of couples with secondary infertility are from Yerevan, 10.7% - from Ararat, 10% - from Armavir, 9.4% - Shirak, 7.4% - from Lori. Numbers in other provinces are comparably lower. 34.2% fertile couples live in Yerevan, 9.6% - in Kotayk and 9.3% - in Armavir. The lowest number – 1.2% - live in Vayots Dzor. Moreover, from provincial perspective primary infertility has the highest rate in Vayots Dzor and Syunik provinces, and secondary infertility – in Vayots Dzor, Ararat and Shirak provinces and Yerevan.

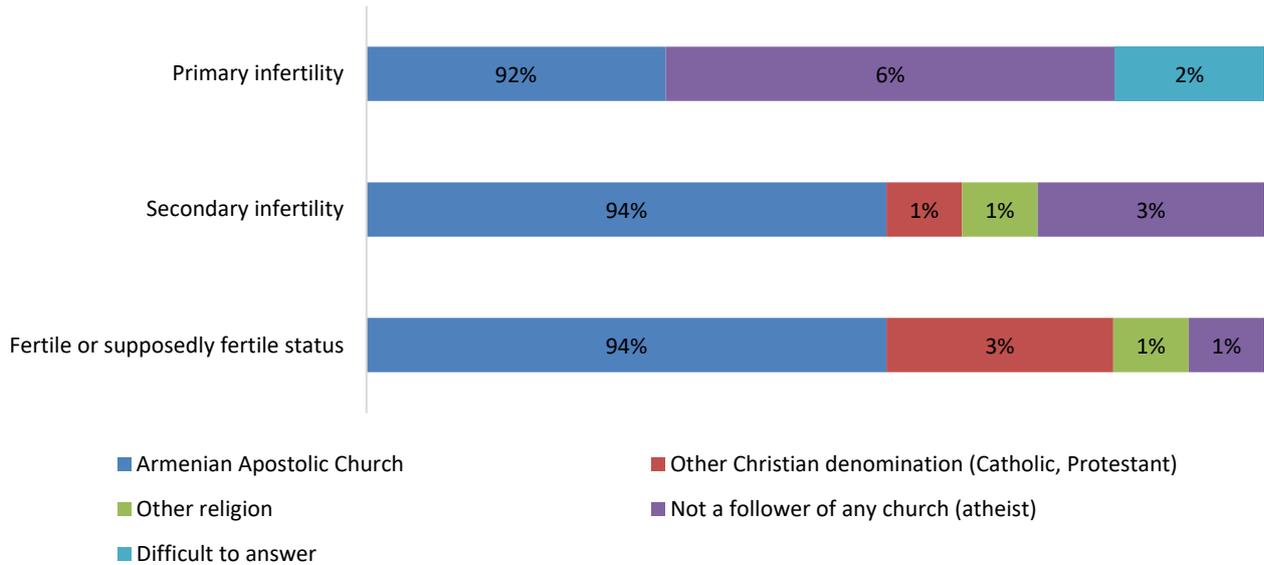
Table 75 and 76 below present the distribution of these groups according to provinces (among male and female respondents).

Table 75: Provincial distribution of fertility groups: female respondents					
	Primary infertility	Secondary infertility	Unknown fertility status	Fertile and supposedly fertile status	Total
Yerevan	1,0%	16,7%	4,4%	77,9%	100,0%
Aragatsotn	0,0%	12,5%	6,3%	81,3%	100,0%
Ararat	1,0%	14,0%	6,0%	79,0%	100,0%
Armavir	2,8%	10,2%	4,6%	82,4%	100,0%
Gegharkunik	0,0%	7,5%	5,4%	87,1%	100,0%
Lori	1,2%	11,0%	7,3%	80,5%	100,0%
Kotayk	2,1%	10,5%	2,1%	85,3%	100,0%
Shirak	1,1%	12,5%	13,6%	72,7%	100,0%
Syunik	3,8%	13,5%	3,8%	78,8%	100,0%
Vayots Dzor	0,0%	23,5%	11,8%	64,7%	100,0%
Tavush	0,0%	4,0%	4,0%	92,0%	100,0%

Table 76: Provincial distribution of fertility groups: Male respondents					
	Primary infertility	Secondary infertility	Unknown fertility status	Fertile and supposedly fertile status	Total
Yerevan	0,3%	17,3%	14,7%	67,8%	100,0%
Aragatsotn	8,8%	17,6%	8,8%	64,7%	100,0%
Ararat	4,8%	22,9%	14,5%	57,8%	100,0%
Armavir	2,2%	22,0%	16,5%	59,3%	100,0%
Gegharkunik	4,0%	18,7%	6,7%	70,7%	100,0%
Lori	1,7%	23,3%	15,0%	60,0%	100,0%
Kotayk	0,0%	10,5%	2,6%	86,8%	100,0%
Shirak	2,6%	23,1%	7,7%	66,7%	100,0%
Syunik	4,7%	4,7%	16,3%	74,4%	100,0%
Vayots Dzor	12,5%	12,5%	25,0%	50,0%	100,0%
Tavush	0,0%	8,7%	4,3%	87,0%	100,0%

Vast majority of respondents with primary and secondary infertility are followers of the Armenian Apostolic Church (Chart 58). Atheists made up 6% of respondents in the primary infertility and 3% of secondary infertility group. 1% of respondents with secondary infertility and fertile and supposedly fertile status are followers of other religions, and followers of other Christian confessions make up 1% of the secondary infertility group and respondents with fertile and supposedly fertile status.

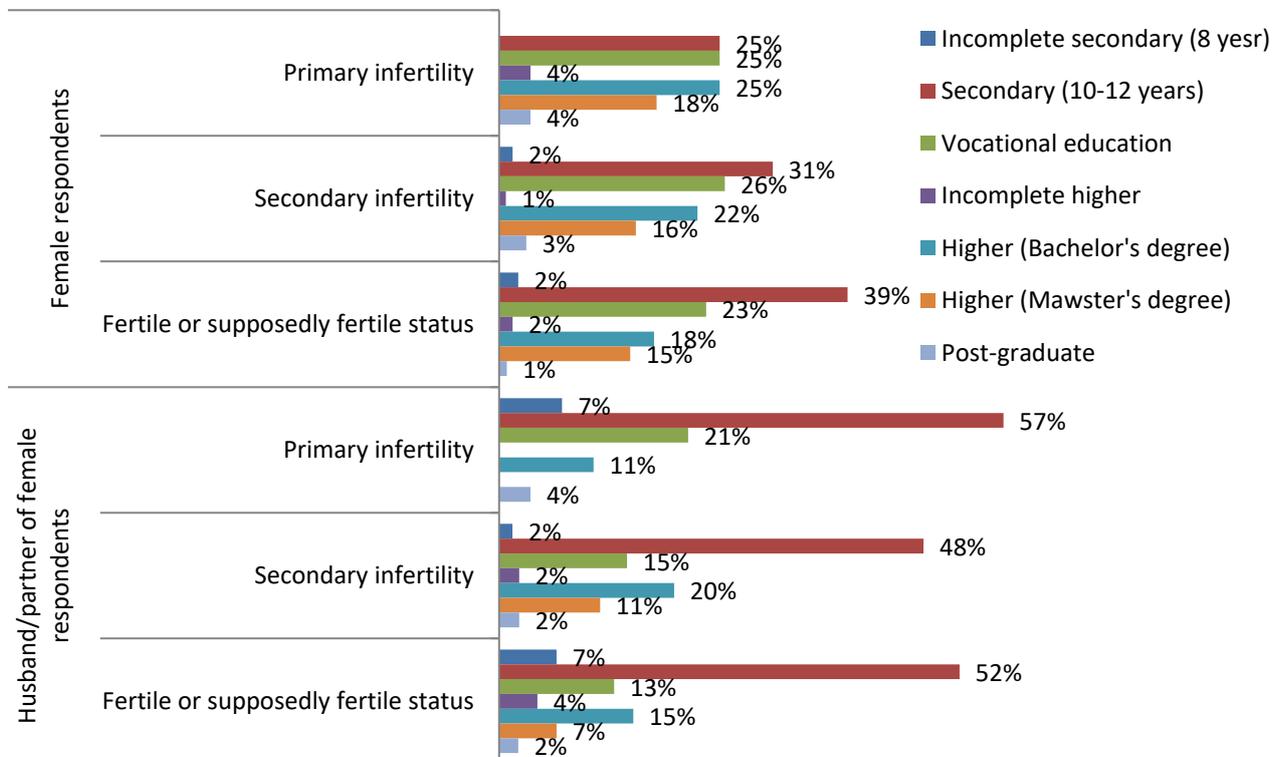
Chart 58: Which church do you follow?



About the half of female respondents in the primary infertility group – 50% - has incomplete higher and high school education, while only 14% of husbands of female respondents have higher and high school education.

42% of female respondents in the secondary infertility group have incomplete higher and high school educations (Chart 59).

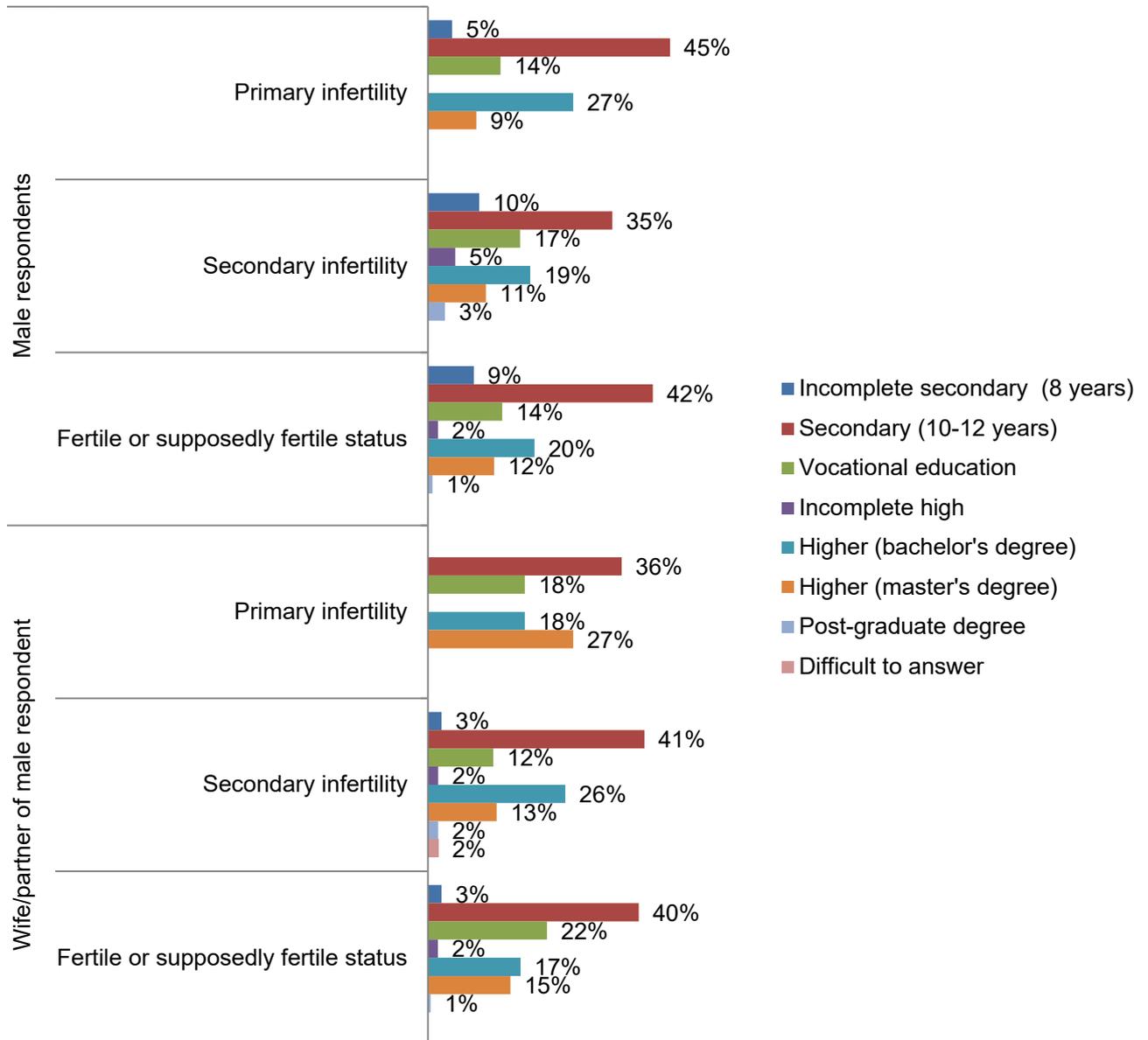
Chart 59: Level of education among female respondents and their husbands



36% of male respondents in the primary infertility group has higher and high school education, 45% of wives of male respondents has higher and high school education.

In the secondary infertility group 38% of male respondents has incomplete higher and high school education, while 45% of wives of male respondents has incomplete higher and high school education (Chart 60).

Chart 60: Level of education among male respondents and their wives

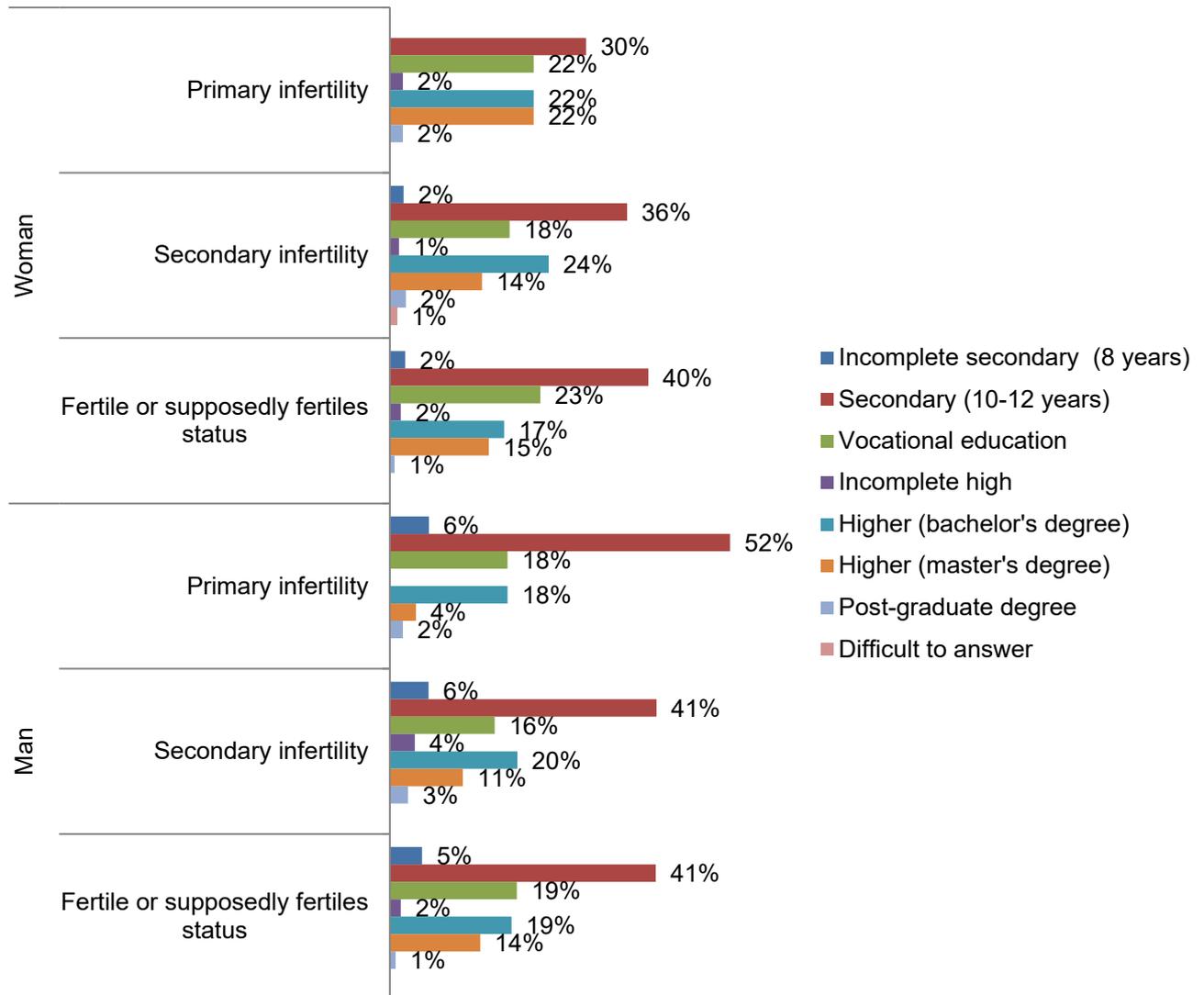


When looking at education of respondents and their husbands/wives from fertility group perspective, it becomes obvious that 48% of female representatives of couples with primary infertility has incomplete higher and high education, while 24% of male representatives of couples with primary infertility has higher and high school education (Chart 61).

43% of female representatives of couples with secondary infertility has incomplete higher and high school education, and 37% of male representatives of couples with secondary infertility has incomplete higher and high school education.

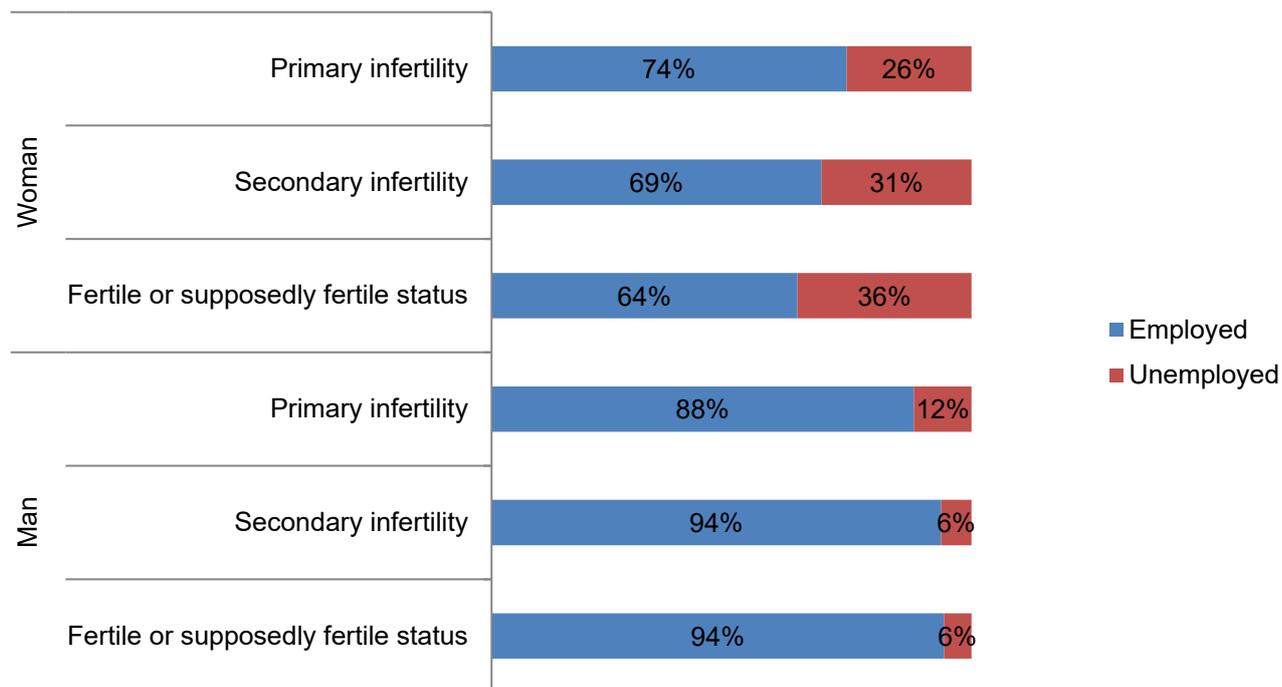
Thus, in case of infertile couples men’s educational level is lower than that of women taking into account the fact that 35% of both men and women in fertile and supposedly fertile groups have higher and high education.

Chart 61: Level of education among couples



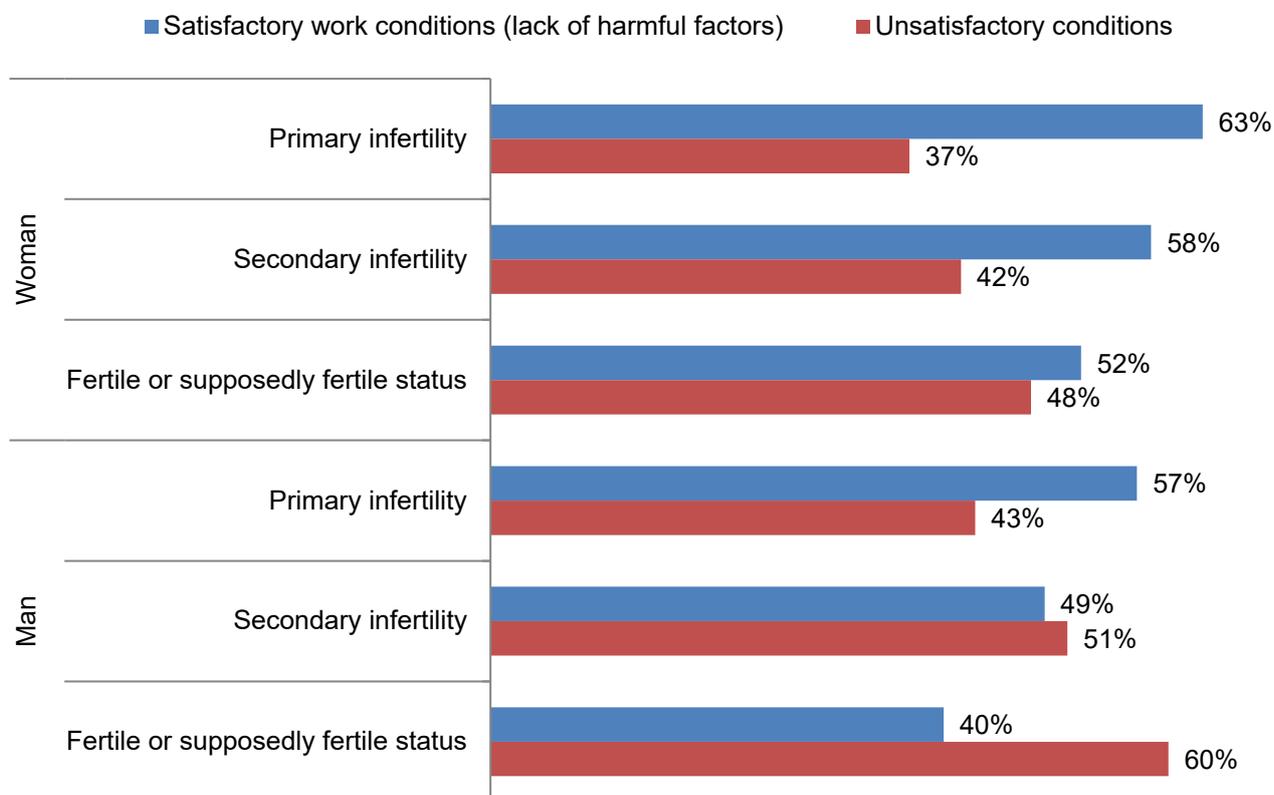
More than half in all fertility groups are employed. Employed men are more than women (Chart 62). Female employment in primary and secondary infertility groups is higher (74% and 69% accordingly), in the group of respondents with fertile and supposedly fertile status (64%). At the same time male employment in the primary infertility group is lower (88%) than in the group of respondents with fertile and supposedly fertile status (94%).

Chart 62: Employment among couples according to fertility groups



Respondents were satisfied with working conditions of majority of female employees with primary and secondary infertility. The picture is same also for male employees with primary infertility, while in case of 51% of men with secondary infertility have unsatisfactory working conditions (Chart 63). Nevertheless, working conditions of men are more unsatisfactory than that of women.

Chart 63: Work conditions of couples according to fertility groups



Respondents with unsatisfactory working conditions were able to select more than one option for unsatisfactory working conditions. As a result of analysis of responses on unsatisfactory working conditions we get a distribution described in the Table 77 below, according to which 79% of unsatisfactory working conditions of women with primary infertility relates to work in forced position (28%), mental stress (22%), physical overload (15%), work in noisy environment (14%). 70% of unsatisfactory working conditions of women with secondary infertility relates to physical overload (29%), work in forced position (24%) and mental stress (17%).

In case of responses by men with primary infertility 80% relates to physical overload (39%), work in forced position (8%), mental stress (8%), work in noisy environment (8%), contact with toxic materials (8%), work in radiated environment (8%). As for men with secondary infertility, 66% relates to physical overload (37%), mental stress (10%), work in noisy environment (10%) and work in forced position (9%).

Table 77: Prevalence of unsatisfactory work conditions among couples according to gender and fertility groups												
Unsatisfactory work conditions	Work in forced position	Mental stress	Physical overload	Contact with toxic materials	Work in noisy environment	Work in vibrating conditions	Work in radiated environment	Work in superhot environment	Work in super cold environment	Other	DA/RA	
Women	Primary infertility	28%	22%	15%	7%	14%	0%	7%	0%	0%	7%	0%
	Secondary infertility	24%	17%	29%	4%	7%	0%	7%	5%	2%	4%	0%
	Fertile and supposedly fertile status	22%	21%	22%	6%	10%	1%	5%	5%	1%	4%	1%
Men	Primary infertility	8%	8%	39%	8%	8%	7%	8%	4%	4%	6%	0%
	Secondary infertility	9%	10%	37%	6%	10%	3%	4%	7%	3%	6%	4%
	Fertile and supposedly fertile status	15%	12%	36%	8%	10%	3%	4%	5%	3%	3%	1%

From Chart 64 it becomes obvious that majority of couples lives in their own apartment. Majority considers their living conditions satisfactory (Chart 65).

Chart 64: Availability of accommodation among couples

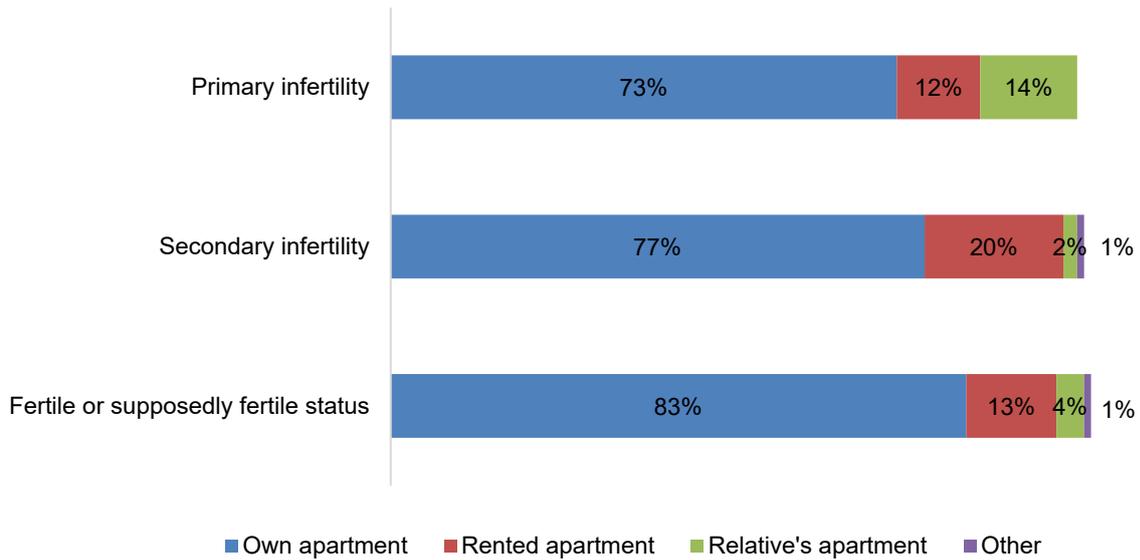
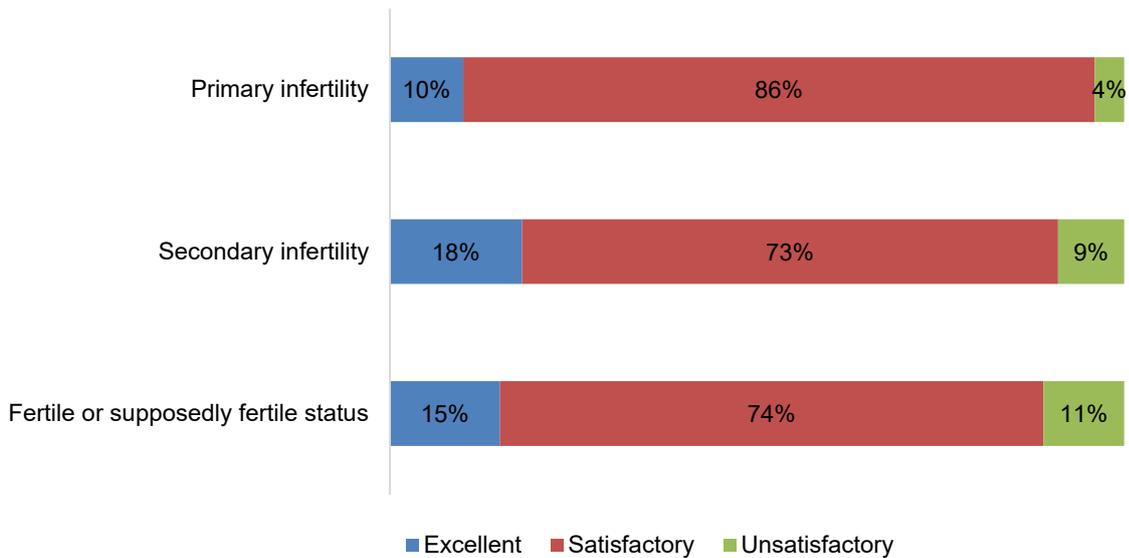
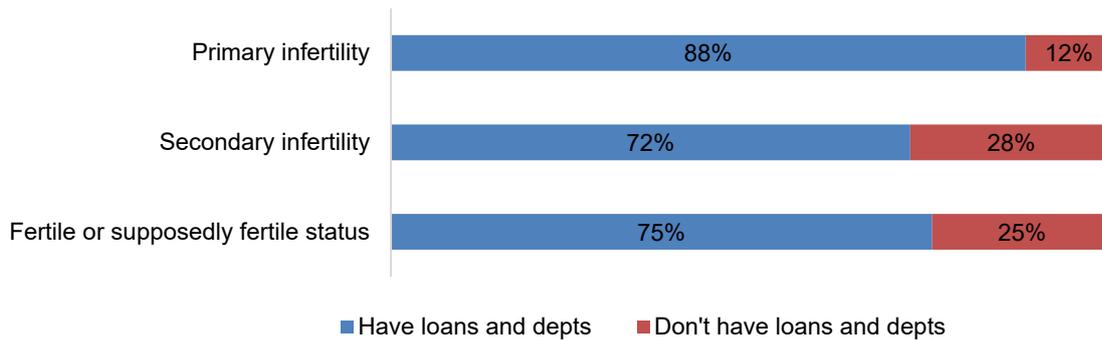


Chart 65: Apartment conditions among couples



According to Chart 66 majority of respondents from different fertility groups has loans and debts. It's interesting the percent of couples with primary infertility and with loans and debts is higher (88%) than in other groups.

Chart 66: Loans and other debts



The average monthly income of more than half of fertility groups makes up AMD 150,000 and more (Chart 67). Majority doesn't receive any allowances from the state (Chart 68).

Chart 67: Average monthly family income

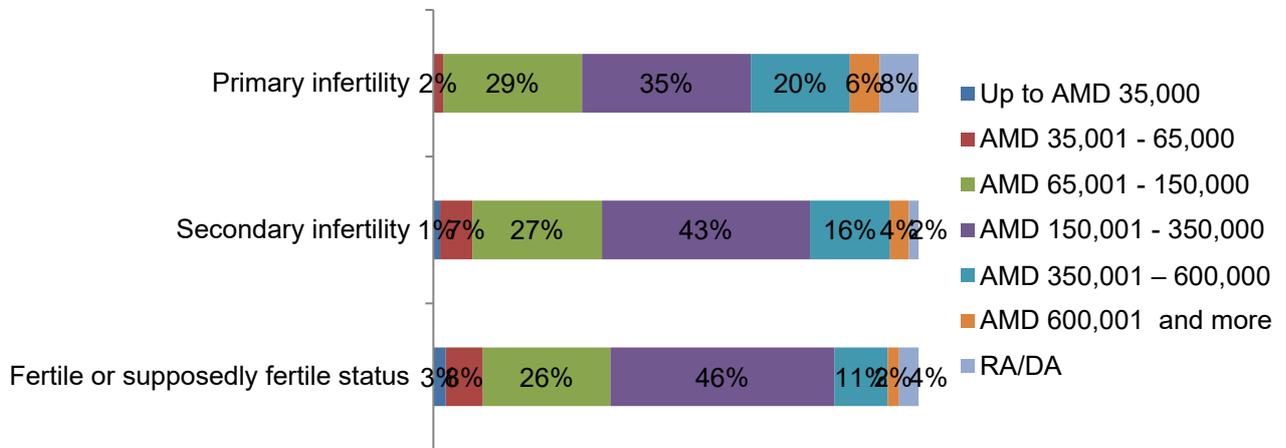
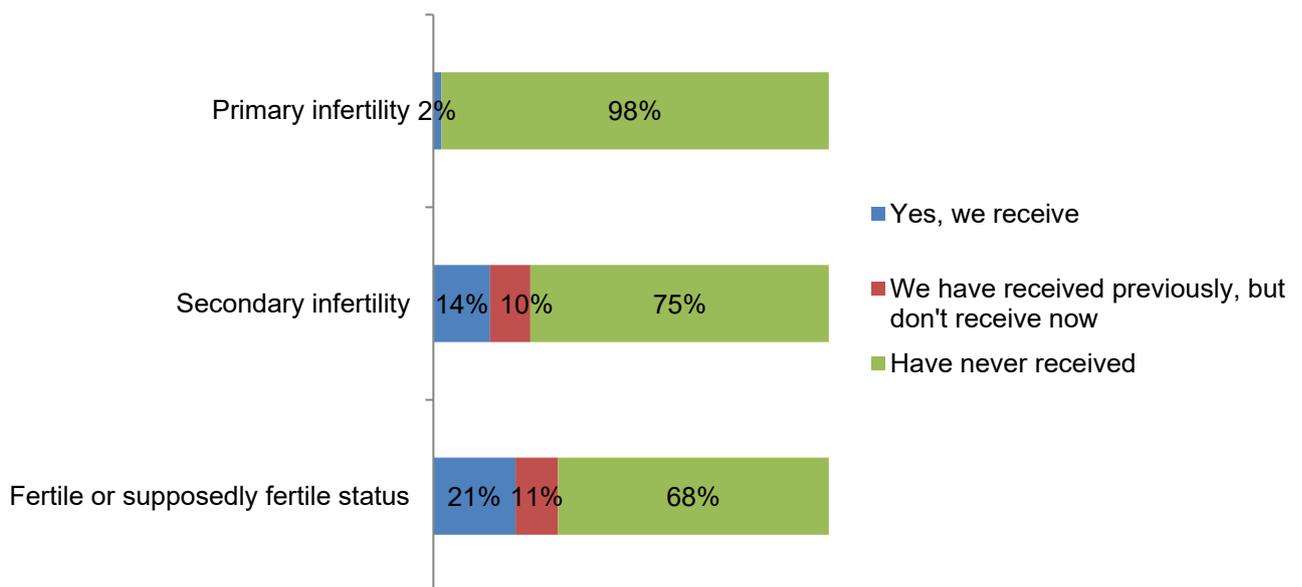


Chart 68: Do you receive allowances from state?



Thus, this section summarized the distribution of couples in RA in accordance to specific fertility groups, their social-demographic and other characteristics.

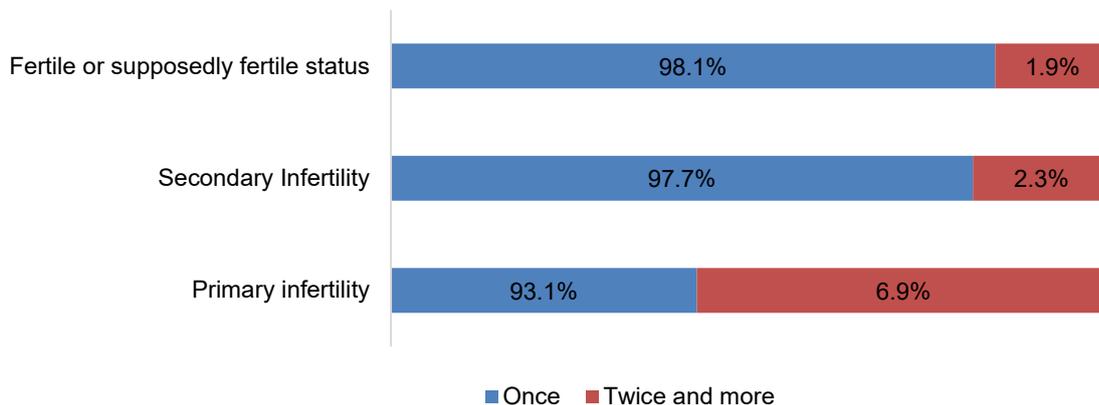
Section 13: Physiological and Other Characteristics of Infertility

The research uncovered a number of questions on respondents that are presented in the Part 1 of this research. They can become characteristics affecting the above-mentioned groups, factors affecting infertility or as a consequence of infertility. Let's look at the most important ones:

13.1. Sexual Relations

6.9% of women in the primary infertility group have been married for 2 or more times. In the secondary infertility group the number of respondents who have married for 2 or more times is lower and makes up 2.3%. This number in the group with fertile and supposedly fertile status is considerably lower – 1.9%.

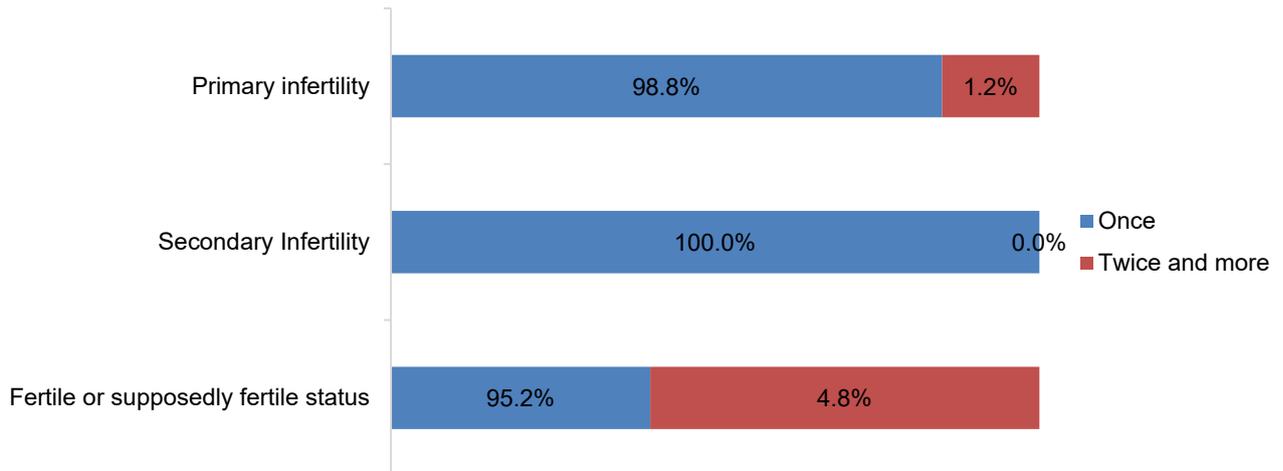
Chart 69: Number of marriages according to groups (female respondents)



The picture is also the same for the number of marriages of husbands/partners. The research revealed that 10.3% of husbands of women in the primary infertility group has been married twice, 4.6% - in the secondary infertility group and 3.2% - in the group with fertile and supposedly fertile status. From above mentioned we can assume that infertility of partner could have certain role in reasons for divorce.

4.8% of men with primary infertility has been married for 2 and more times. No one mentioned about marriages for 2 and more times from the secondary infertility group. As for the group with fertile and supposedly fertile status the number is very small and makes up 1.2%.

Chart 70: Number of marriages according to groups (male respondents)



As we see, the percent of divorces and/or double marriages is higher among women than men.

To the question whether during sexual relations women have a wish or have relations for another reasons as well, women in the primary infertility group mentioned more “I have relations to have a baby” (3.6%). For comparison, it’s worth stating that this response wasn’t mentioned by women in the secondary infertility group and was mentioned by 0.3% of women with fertile and supposedly fertile status. In contrary, “I have relations as a marital duty” option wasn’t highlighted within the primary infertility group. This response was voiced in 3.8% of cases within the secondary infertility group and 6.4% of cases in the group with fertile or supposedly fertile status.

In responses provided by male respondents “I have relations as a marital duty” is almost absent. This response was mentioned by 0.5% of male respondents with fertile status. In the male group with primary infertility “I have relations as a marital duty” option wasn’t voiced either.

Chart 71 and Chart 72 show how often women feel pain and pleasure during sexual relations.

Chart 71: Pain during sexual relations (female respondents)

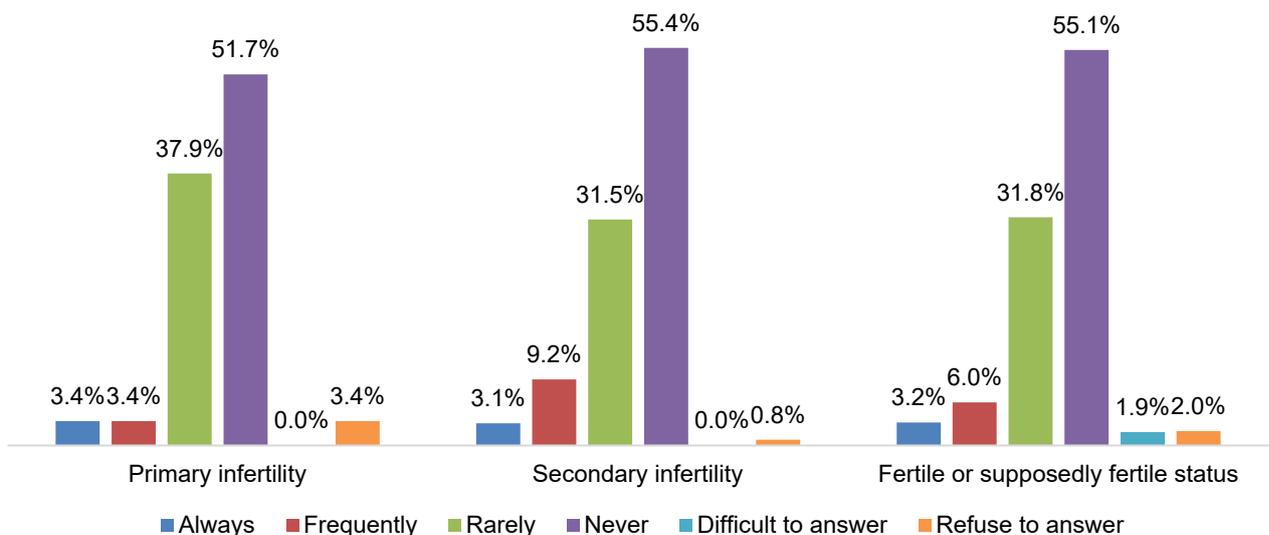


Chart 72: Pleasure during sexual relations (female respondents)

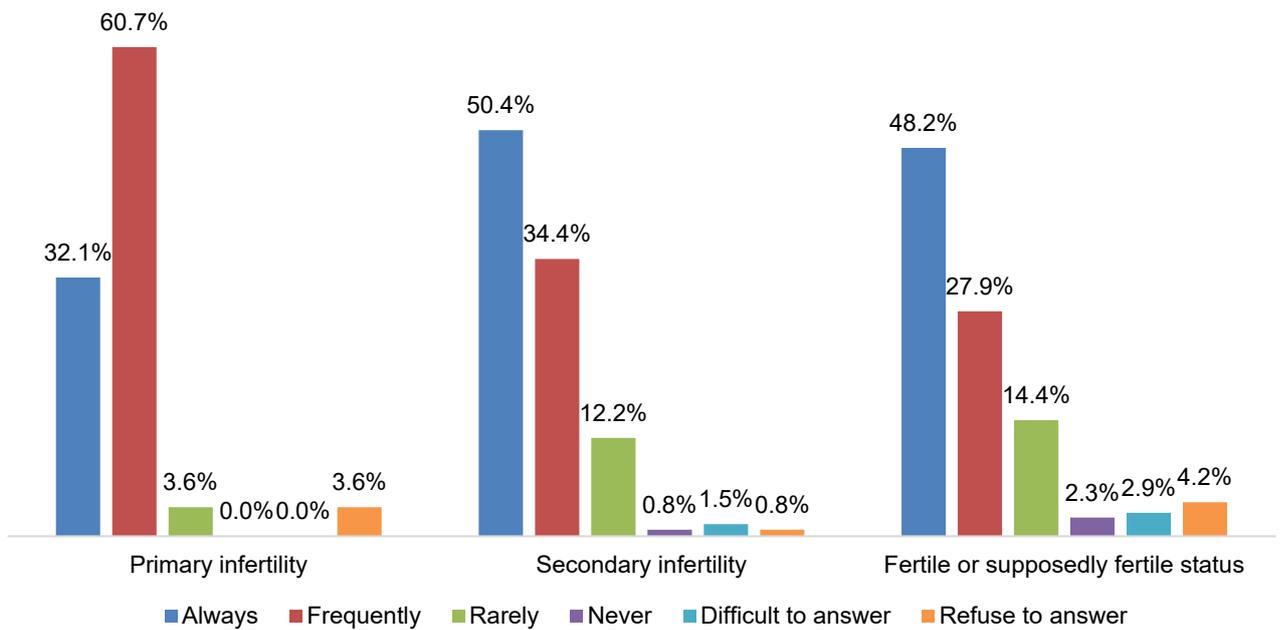


Chart 73 shows how often men feel pain during sexual relations and Chart 74 shows how often women feel pain according to men.

Chart 73: Pain during sexual relations (male respondents)

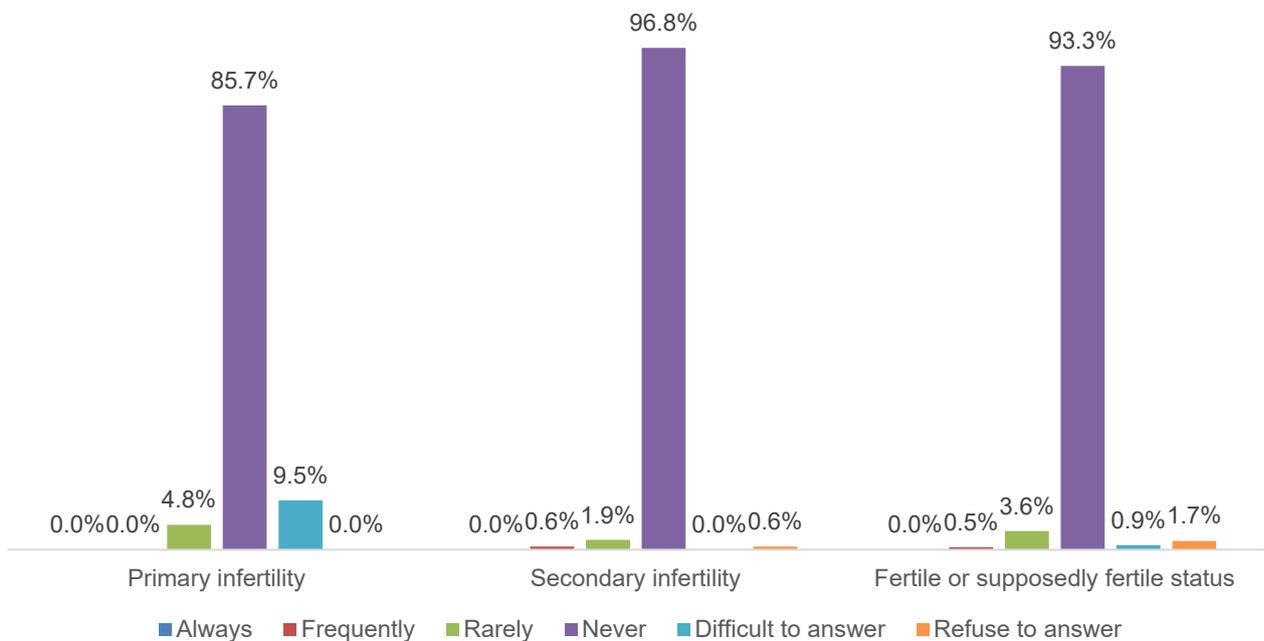
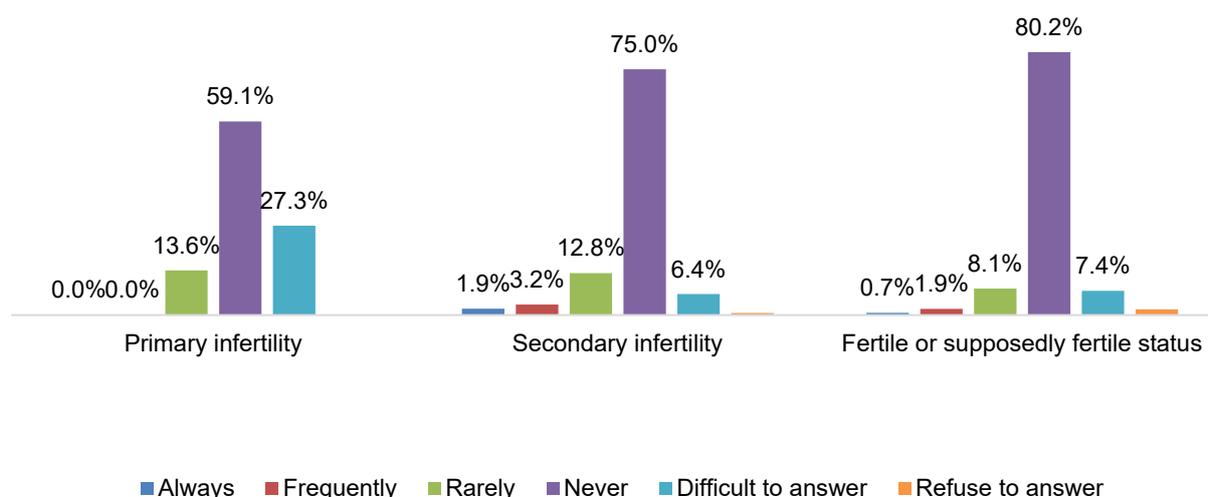


Chart 74: Pain during sexual relations by woman (male respondents)



The above mentioned shows that people with secondary infertility feel more pain than those with primary infertility. At the same time women with primary infertility feel more pain during sexual relations but men are less aware of that.

Men were asked whether they had ever had sexual frustration.

Table 78: Have you ever had sexual frustration?	Very often	Often	Rarely	Never	DA	RA
Primary infertility	0,0%	0,0%	28,6%	71,4%	0,0%	0,0%
Secondary infertility	0,6%	1,9%	13,5%	81,3%	0,0%	2,6%
Fertile and supposedly fertile status	0,2%	1,7%	11,9%	84,3%	0,5%	1,4%

From the above mentioned it can be assumed that man's role in infertility of partner is higher during secondary than primary infertility.

13.2. Menstruation and Sexual Function

Male respondents were asked whether in their view they have any disorder of sexual function. Responses by fertility groups are presented in the Table 79.

Table 79: Do you have any disorder of sexual function?	Primary infertility	Secondary infertility	Fertile or supposedly fertile status
No, my sexual function is normal	76,2%	94,8%	95,9%
I have erection rarely (penile erection)	0,0%	1,3%	0,9%
I don't have erection (impotency)	0,0%	0,0%	0,2%
Ejaculation occurs early	0,0%	0,6%	0,7%
Ejaculation occurs with difficulty	4,8%	0,6%	0,5%

DA	14,3%	1,9%	1,2%
RA	4,8%	0,6%	0,7%
Total	100%	100%	100%

Male respondents who mentioned having disorder of sexual function also answered questions on causes. Male respondents from the primary infertility group condition that mostly with psychological problems, and genital infections from the secondary infertility group.

During one month the maximum number of sexual relations of respondents from the primary infertility group made up 8, in the secondary infertility group – 6 and among people with fertile or supposedly fertile status – 4.

Women were asked a number of question to identify the state of their menstruation cycle. Thus, all women from the primary infertility group currently have menstruation and only 87.7% of women from the secondary infertility group have menstruation. As already shown above, a part of women with secondary infertility status has approached menopause age which can be seen also in the distribution of responses to the given question. Responses to the question on how many days menstruation lasts are presented in the Table 80.

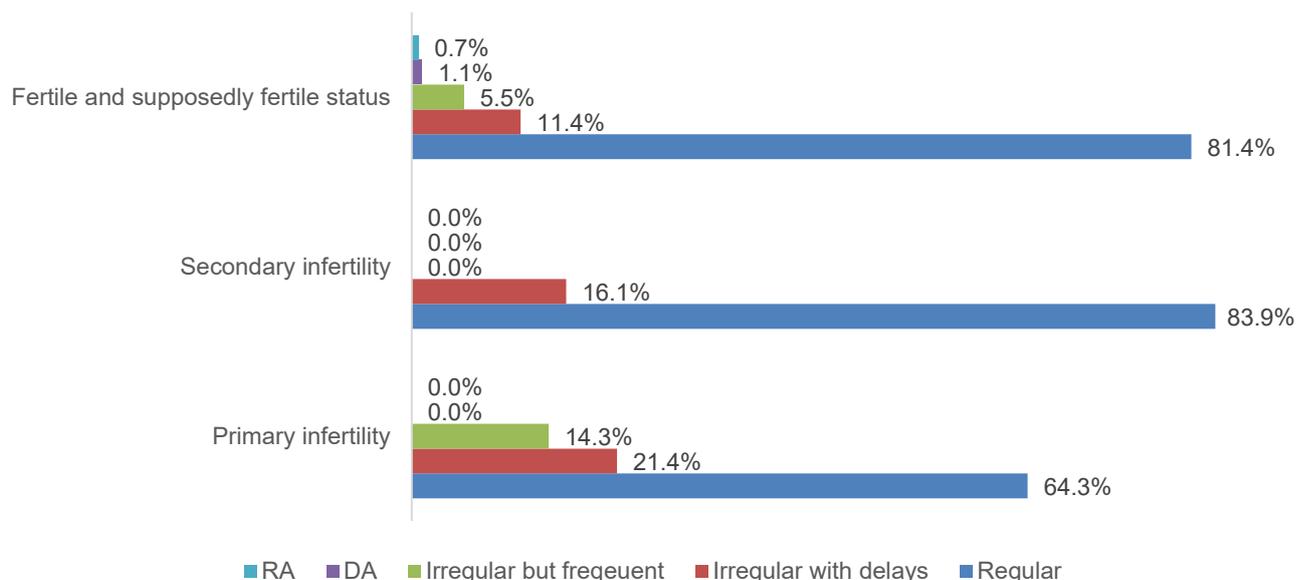
Table 80. Duration of menstruation according to groups	1-3 days	4-7 days	8-10 days	Over 11 days	DA	RA
Primary infertility	44,4%	55,6%	0,0%	0,0%	0,0%	0,0%
Secondary infertility	33,1%	62,9%	3,2%	0,8%	0,0%	0,0%
Fertile and supposedly fertile status	30,1%	65,9%	2,9%	0,0%	0,5%	0,5%

Frequency of menstruation according to groups is presented in the Table 81.

Table 81: Frequency of menstruation	Twice per month	Once per month	Once per 2-3 months	Once per 3-6 months	Once per 6-12 months	DA	RA
Primary infertility	7,4%	92,6%	0,0%	0,0%	0,0%	0,0%	0,0%
Secondary infertility	0,0%	92,7%	4,8%	0,0%	1,6%	0,0%	0,8%
Fertile and supposedly fertile status	1,9%	93,3%	3,2%	0,1%	0,1%	0,7%	0,7%

64.3% of women with primary infertility mentioned that have regular menstruation during last one year, while it is the case for 83.9% of women with secondary infertility.

Chart 75: Regularity of menstruations according to groups



Painful menstruations were outlined more by women with primary infertility. Unpainful menstruations were voiced by women with fertile and supposedly fertile status and secondary infertility.

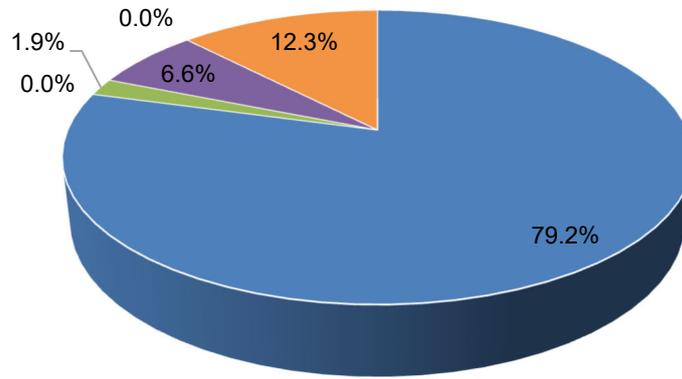
Table 82: Do women have pain during menstruation according to groups?	Yes, it's always painful (I even use pain reliever)	Yes, it's sometimes painful	No, it's not painful	DA	RA
Primary infertility	34,5%	34,5%	31,0%	0,0%	0,0%
Secondary infertility	16,9%	31,5%	51,5%	0,0%	0,0%
Fertile and supposedly fertile status	18,6%	28,5%	51,7%	0,5%	0,6%

The above mentioned proves availability of certain disorders of sexual or menstruation function among people with primary infertility. It can be assumed that primary infertility is more conditioned with health or inner and secondary infertility with external factors which includes also age, stress, infections etc.

13.3. Outcomes of Pregnancies and Cases of Termination of Pregnancy among People with Secondary Infertility

As presented in the definition, women with secondary infertility have achieved pregnancy during their life and men have impregnated women. 92.4% of respondents with secondary infertility stated that they have less children than planned and plan to have a baby in the near future. Chart 76 presents outcomes of pregnancy among women with secondary infertility.

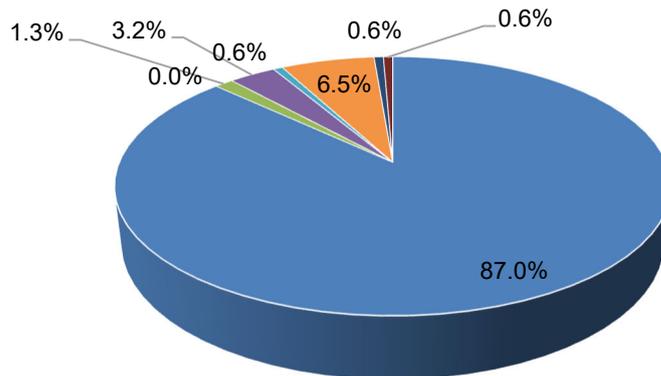
Chart 76: Outcomes of last pregnancies (female respondents)



- Live birth
- Stillbirth
- Extrauterine pregnancy
- Preferred suspension of pregnancy (spontaneous abortion)
- Suspension of non-developing pregnancy
- Abortion before the 12th week of pregnancy

Chart 77 presents outcomes of pregnancy among wives of men with secondary infertility.

Chart 77: Outcomes of last pregnancies of women (male respondents)



- Live birth
- Stillbirth
- Extrauterine pregnancy
- Preferred suspension of pregnancy (spontaneous abortion)
- Suspension of non-developing pregnancy
- Abortion before the 12th week of pregnancy
- Abortion between 12th and 22nd week of pregnancy
- RA

To the question whether any complications occurred during last pregnancy, majority of respondents mentioned that no serious complications occurred. It's interesting that 35.2% of women and 26.6% of wives of men with secondary infertility performed caesarean cessation. 2.3% of female respondents of this group stated that had babies with congenital deformities and child died. This was outlined by 2.5% of men.

In terms of termination of pregnancy, 14.1% of female respondents with secondary infertility mentioned that had such experience once, 7.8% - 2-3 times, 3.9% - over 5 times and 0.8% - 4-5 times. When speaking about their wives, 14.4% of men mentioned that they performed termination of pregnancy for 2-3 times, 7.2% - once, 1.3% - 4-5 times, 0.5% - over 5 times and 0.7% refused to answer the question. 14.7% of respondents with secondary infertility had experience in provoking self-managed abortion on their own. 84.8% of women with secondary infertility stated that before first termination they had a child.

60% of respondents with secondary infertility mentioned that after termination of pregnancy they haven't had a baby.

Thus, the above mentioned proves that outcomes of pregnancies and cases of termination of pregnancy can have considerable impact on secondary infertility.

13.4. Health Condition, Self-Assessment of External Symptoms of Diseases

To collect information on health condition, subjective assessments of respondents on their health were clarified. It's interesting that respondents with primary infertility consider themselves healthiest.

Table 83: Do you consider yourself healthy?	Female respondents			Male respondents		
	Yes	No	DA	Yes	No	DA
Primary infertility	82,1%	17,9%	0,0%	95,2%	0,0%	4,8%
Secondary infertility	75,6%	22,9%	1,5%	83,2%	16,8%	0,0%
Fertile and supposedly fertile status	75,9%	22,0%	2,0%	83,8%	16,0%	0,2%

As can be seen from the table below, respondents are more critical of themselves than of their partners considering them healthier than themselves.

Table 84: Do you consider your wife/husband healthy?	Female respondents			Male respondents		
	Yes	No	DA	Yes	No	DA
Primary infertility	89,3%	10,7%	0,0%	100,0 %	0,0%	0,0%
Secondary infertility	79,4%	19,8%	0,8%	85,2%	12,9%	1,9%
Fertile and supposedly fertile status	79,0%	19,9%	1,2%	84,5%	14,8%	0,7%

Answers to the question on whether respondents had problems with genitourinary and endocrine systems are presented in the Table 85 below.

Table 85: Problems of genitourinary and endocrine systems among respondents								
Female respondents								
		Don't / didn't have such problem	I wasn't treated and didn't recover	I wasn't treated but condition has improved	I was treated but didn't recover	I was treated and recovered	I'm currently being treated	DA
Problems of genitourinary system	Primary infertility	74,1%	0,0%	3,7%	0,0%	22,2%	0,0%	0,0%
	Secondary infertility	72,3%	2,3%	0,0%	2,3%	22,3%	0,8%	0,0%
	Fertile and supposedly fertile status	65,8%	4,9%	1,9%	3,6%	22,4%	1,2%	0,3%
Problems of endocrine system	Primary infertility	80,8%	7,7%	0,0%	0,0%	11,5%	0,0%	0,0%
	Secondary infertility	81,1%	0,8%	0,8%	0,0%	6,6%	9,8%	0,8%
	Fertile and supposedly fertile status	82,7%	3,7%	0,1%	2,1%	4,1%	5,5%	1,7%

Information on problems related to genitourinary system among male respondents is presented in the Table 86 below.

Table 86: Problems of genitourinary system among men		Didn't / don't have such problem	I wasn't treated and didn't recover	I wasn't treated but condition has improved	I was treated but didn't recover	I was treated and recovered	I'm currently being treated	DA
Problems of genitourinary system	Primary infertility	72,7%	0,0%	0,0%	4,5%	13,6%	9,1%	0,0%
	Secondary infertility	87,0%	0,6%	2,6%	0,6%	8,4%	0,6%	0,0%
	Fertile and supposedly fertile status	88,6%	1,4%	1,0%	1,2%	6,5%	1,0%	0,2%

Information on problems related to endocrine system among male respondents is presented in the Table 87.

Table 87: Problems of endocrine system among men		I don't/d didn't have such problem	I wasn't treated and didn't recover	I was treated but didn't recover	I was treated and recovered	I'm currently being treated	DA
Problems of genitourinary	Primary infertility	90,9%	0,0%	0,0%	9,1%	0,0%	0,0%
	Secondary infertility	92,9%	0,6%	2,6%	2,6%	1,3%	0,0%

	Fertile and supposedly fertile status	92,9%	0,7%	0,5%	3,1%	2,1%	0,7%
--	---------------------------------------	-------	------	------	------	------	------

Table 88 shows a number of health problems that female respondents have/had or were treated for according to fertility groups.

Table 88: Diseases among women								
Itching or unpleasant discharge around genitals								
	I don't/didn't have such problem	I wasn't treated and didn't recover	I wasn't treated but condition has improved	I was treated but didn't recover	I was treated and recovered	I'm currently being treated	DA	RA
Primary infertility	75,0%	3,6%	0,0%	0,0%	21,4%	0,0%	0,0%	
Secondary infertility	53,1%	2,3%	6,2%	0,0%	37,7%	0,8%	0,0%	
Fertile and supposedly fertile status	52,9%	3,5%	4,6%	3,0%	34,6%	1,2%	0,1%	
Sores and warts on genital organs								
Primary infertility	100,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Secondary infertility	98,5%	0,0%	0,0%	0,0%	0,8%	0,0%	0,8%	0,0%
Fertile and supposedly fertile status	97,6%	0,5%	0,5%	0,3%	0,4%	0,3%	0,4%	0,1%
Inflammatory diseases of genital organs								
Primary infertility	82,1%	0,0%	0,0%	0,0%	17,9%	0,0%	0,0%	0,0%
Secondary infertility	79,2%	4,6%	0,8%	0,8%	13,8%	0,0%	0,8%	0,0%
Fertile and supposedly fertile status	73,4%	2,3%	0,9%	2,6%	19,3%	0,4%	1,0%	0,1%
Fungal infection of genital skin								
Primary infertility	96,3%	0,0%	0,0%	0,0%	3,7%	0,0%	0,0%	
Secondary infertility	91,6%	0,0%	0,0%	0,0%	6,9%	0,0%	1,5%	
Fertile and supposedly fertile status	91,3%	0,1%	0,1%	0,1%	8,0%	0,1%	0,3%	

Male health problems are presented in the Table 89.

Table 89: Diseases among men	
Itching or unpleasant discharge on genital organs	

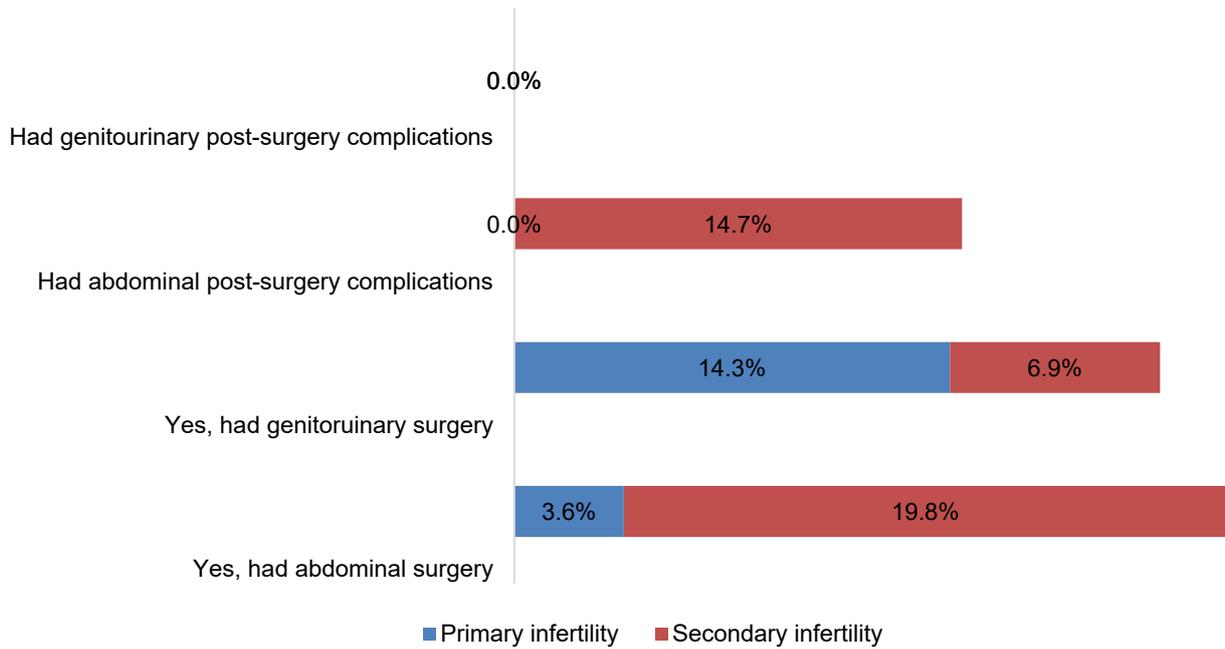
	I don't / didn't have such problem	I wasn't treated and didn't recover	I wasn't treated but condition has improved	I was treated but didn't recover	I was treated and recovered	I'm currently being treated	DA	RA
Primary infertility	95,2%	0,0%	0,0%	0,0%	4,8%	0,0%	0,0%	0,0%
Secondary infertility	89,0%	0,0%	0,6%	0,0%	10,4%	0,0%	0,0%	0,0%
Fertile and supposedly fertile status	88,6%	0,5%	2,8%	0,2%	7,7%	0,2%	0,0%	0,0%
Sores or warts on genital organs								
Primary infertility	90,9%	0,0%	0,0%	0,0%	9,1%	0,0%	0,0%	0,0%
Secondary infertility	98,1%	0,0%	0,0%	0,0%	1,9%	0,0%	0,0%	0,0%
Fertile and supposedly fertile status	98,6%	0,5%	0,2%	0,0%	0,2%	0,0%	0,5%	0,0%
Inflammatory diseases of genital organs								
Primary infertility	82,1%	0,0%	0,0%	0,0%	17,9%	0,0%	0,0%	0,0%
Secondary infertility	79,2%	4,6%	0,8%	0,8%	13,8%	0,0%	0,8%	0,0%
Fertile and supposedly fertile status	73,4%	2,3%	0,9%	2,6%	19,3%	0,4%	1,0%	0,1%
Fungal infection of genital skin								
Primary infertility	95,2%	0,0%	0,0%	0,0%	4,8%	0,0%	0,0%	0,0%
Secondary infertility	96,1%	0,0%	0,0%	0,0%	3,2%	0,0%	0,6%	0,0%
Fertile and supposedly fertile status	94,7%	0,0%	0,2%	0,0%	4,6%	0,0%	0,5%	0,0%

Female respondents were asked a number of questions on other diseases. Only a few mentioned about those diseases however they were present among respondents from different infertility groups. Thus gonorrhoea was outlined only by respondents with primary infertility, trichomoniasis – by secondary infertility group and chlamydiosis and gardenereliosis – by both primary and secondary infertility groups.

Male respondents from the primary infertility group stated only about brucellosis, hepatitis, gonorrhoea, trichomoniasis, gardenereliosis and tuberculosis were outlined by male respondents from secondary infertility group.

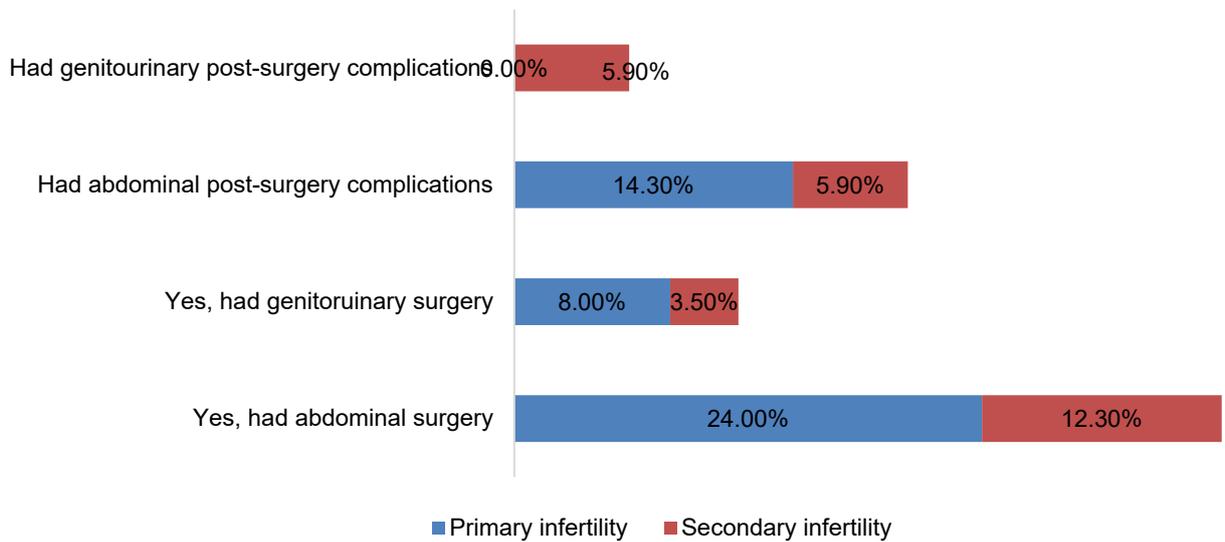
Answers to the question whether women had surgeries of abdominal or genitourinary organs and subsequent post-surgery complications are presented in the Chart 78.

Chart 78. Did you have abdominal or genitourinary surgeries and post-surgery complications?



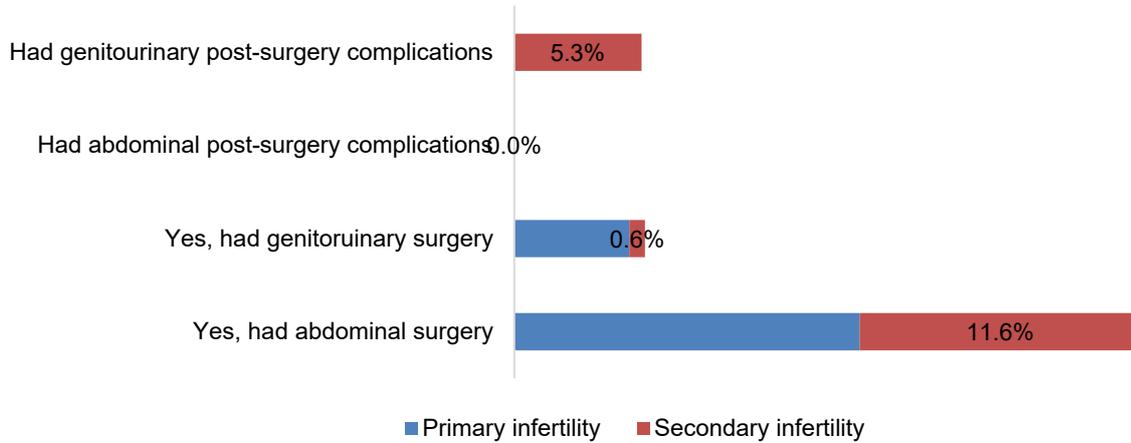
The same was clarified also for husbands. Answers are presented in the Chart 79.

Chart 79: Did your husband have abdominal or genitourinary surgeries and post-surgery complications?



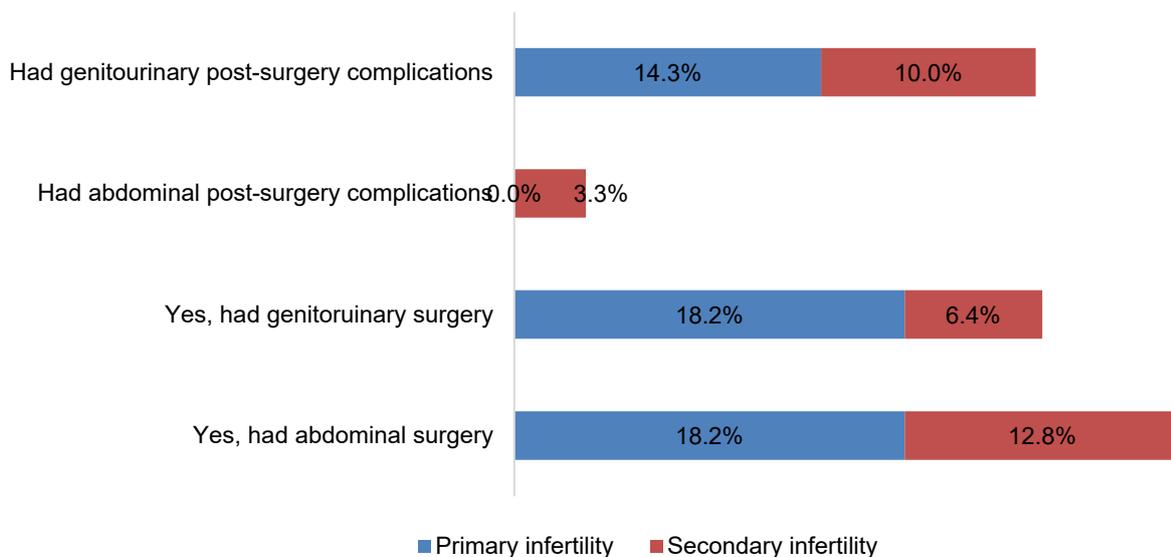
The Chart 80 shows whether men had surgery of abdominal or genitourinary organs and if yes, whether they had post-surgery complications.

Chart 80: Did you have abdominal or genitourinary surgeries and post-surgery complications (male respondents)



The same question was asked to their wives (Chart 81).

Chart 81: Did your wife had abdominal or genitourinary surgery and post-surgery complications?



Thus, secondary infertility is influenced by acquired diseases and sexually transmitted infections. They are more common in men than in women.

Although this report summarizes main parts of information collected through the sociological survey however there is a need for deeper study of information, clarification of cause-and-effect relationship and deeper analysis of information in certain directions.

Summary and Recommendations

Based on the research results following findings and main recommendations could be outlined:

- The average number of children in families is 2.5. The wish and/or intention to have more babies is considerably lower among respondents.

Develop multisectoral strategies entailing activities and steps to make having the desirable number of children in families possible.

- The prevalence of infertility among couples living together and of reproductive age makes up 16.8%, including primary infertility – 1.7% and secondary infertility – 16.8%. This rate is higher from the border rate defined by WHO and is an issue of not medical and physiological, but social and medical character.
- Infertility among female respondents makes up 14.3%, including primary infertility – 1.3% and secondary infertility – 13%. Compared to the data¹⁰ of the last research conducted in Armenia the total number of infertility among women has decreased. Previously infertility among women made up 16.8% including primary infertility – 5.4% and secondary infertility – 11.4%. Thus, **based on the data collected from female respondents, the primary infertility level has decreased and secondary infertility level has increased.**
- Primary infertility among male respondents makes up 2.2% which previously was 2.3%. The secondary infertility is 17.6% previously being 2.8%. Thus, **according to male respondents, the level of infertility and particularly secondary infertility has increased.**

Initiate state level action to improve the demographic state in Armenia.

- 37% of female respondents performed termination of pregnancy at least once during their life. Although majority of terminations occurred before the 12th month of pregnancy, there were cases when abortion was performed at a much later stage. 54.4% of women wished to have a baby after abortion however 44.2% have in fact has a baby or are currently pregnant. About 92% of abortions was performed by a doctor, in case of 5.7% women initiated self-managed abortion.
- 50% of female and 54% of male respondents has never used modern contraceptive means.

Taking into account the fact that termination of pregnancy is still used as a method for family planning, it is necessary to undertake steps to educate population and particularly youth on healthy and literate sexual behavior and avoiding undesirable pregnancies.

Improve the level of awareness of men and women on the efficiency of modern contraceptive means as well as negative consequences of self-managed abortions.

- 87% of respondents mentioned that they haven't ever had challenges with having a baby, but when infertility is calculated based on the definition, it appears that 81.7% don't have such problems. 74% of those who acknowledged the problem consulted a doctor with their husband/wife, in case of 11% only women has consulted a doctor and in case of 15% no one did. Majority of women who consult a doctor undergoes all necessary examination while in case of men examinations are mostly limited to sperm examination.

¹⁰ 2009, Institute of Perinatology, obstetrics and gynecology (R. Abrahamyan and co-authors), RA Ministry of Healthcare, with engagement of the UNFPA and RA State Statistical Service. The report was re-published in 2014.

- Vast majority of female respondents has only heard of modern reproductive technologies to recover fertility. A few of them have used modern technologies and a part of them has achieved results.

To enable man and women of reproductive age to undergo medical examinations and relevant treatment to prevent infertility under the acquisition system.

It is necessary to promote couple to apply for services restoring infertility. To improve its efficiency it is recommended to create opportunity for couple wishing to get pregnant to apply for this service under the acquisition system for more than one time.