



United Nations Population Fund



RoA Ministry of Health



RoA National Statistical Service



The Republican Institute of  
Reproductive Health, Perinatology,  
Obstetrics and Gynecology

# REPORT

## PREVALENCE OF AND REASONS FOR SEX-SELECTIVE ABORTIONS IN ARMENIA

YEREVAN 2012

This study has been conducted within the framework of the *Strengthening Sexual and Reproductive Health Services* project implemented through the cooperation of the United Nations Population Fund Armenia Country Office, the Republic of Armenia (RoA) Ministry of Health and the Republican Institute of Reproductive Health, Perinatology, Obstetrics and Gynecology.

The sample, final database and fieldwork were conducted and created by the RoA National Statistical Service.

The opinions expressed in this report are solely of the authors and do not necessarily reflect those of the United Nations Population Fund.

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## CONTENTS

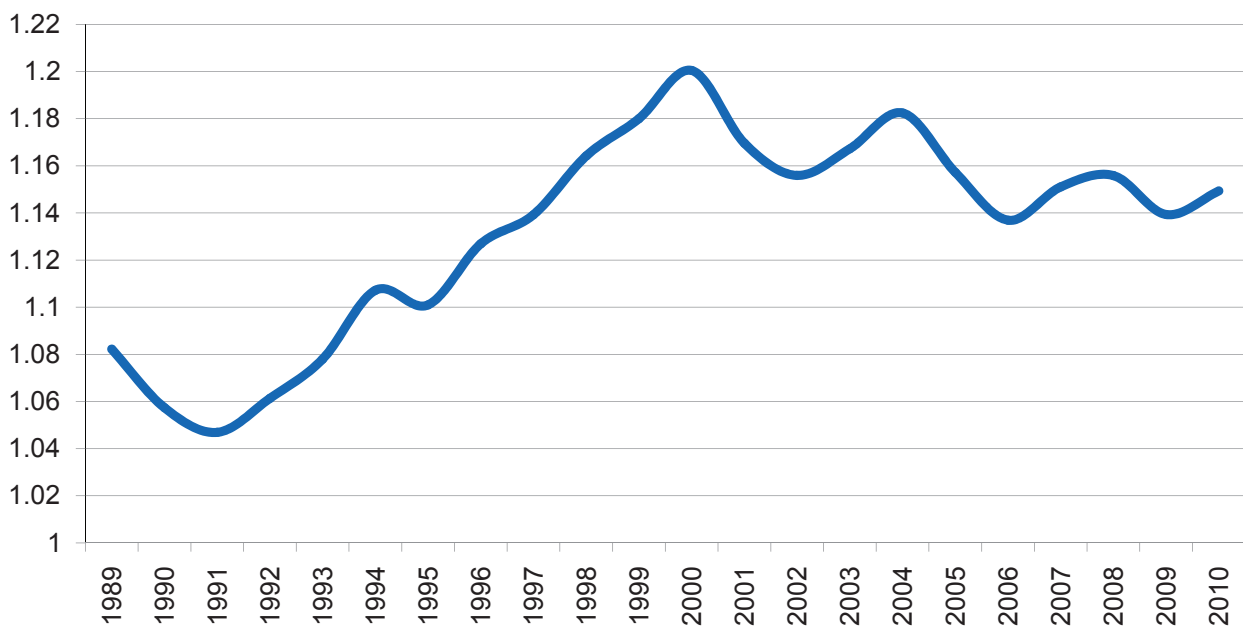
Introduction. Background to the study: research design and methodology.....	4
Chapter 1. Socio-demographic characteristics of surveyed women and of their husbands/partners .....	9
Chapter 2. Respondents' reproductive history specifics and pregnancy history and outcomes .....	15
Chapter 3. Survey data on women who underwent induced abortion.....	24
Chapter 4. Factors that affect prenatal sex selection .....	28
Conclusions .....	40
Annex 1. ....	42
Annex 2. ....	43
Annex 3. ....	58

## INTRODUCTION. BACKGROUND TO THE STUDY: RESEARCH DESIGN AND METHODOLOGY

The political and socioeconomic changes in Armenia over the last 20 years have made an impact on the reproductive behavior of the population resulting in a dramatic decline in the fertility rate (total fertility rate) from 2.62 children per woman of childbearing age in 1990 to 1.56 in 2010.

In Armenian society, preference toward a son is traditional: even though daughters are also desirable in families but only after there are already sons. It is noteworthy that, given the fact that males are biogenetically weaker than females, there has been an observable pattern of a certain predominance of boys in births, i.e. slightly more boys are born than girls, in order to maintain a demographic balance (102-106 boys are born per 100 girls, i.e. the ratio is 1.02-1.06). However, owing to a higher mortality rate of males, the gender composition of the population becomes almost balanced in the generational cohorts from the time of reaching majority through mature years, while women predominate numerically in the cohorts of 65 years of age and above. According to the official statistical data on civic status registration in the Republic of Armenia, from 1993 on, the sex ratio at birth has been significantly higher (*viz.* 110-120 boys per 100 girls) than the average that is seen as a biological norm.

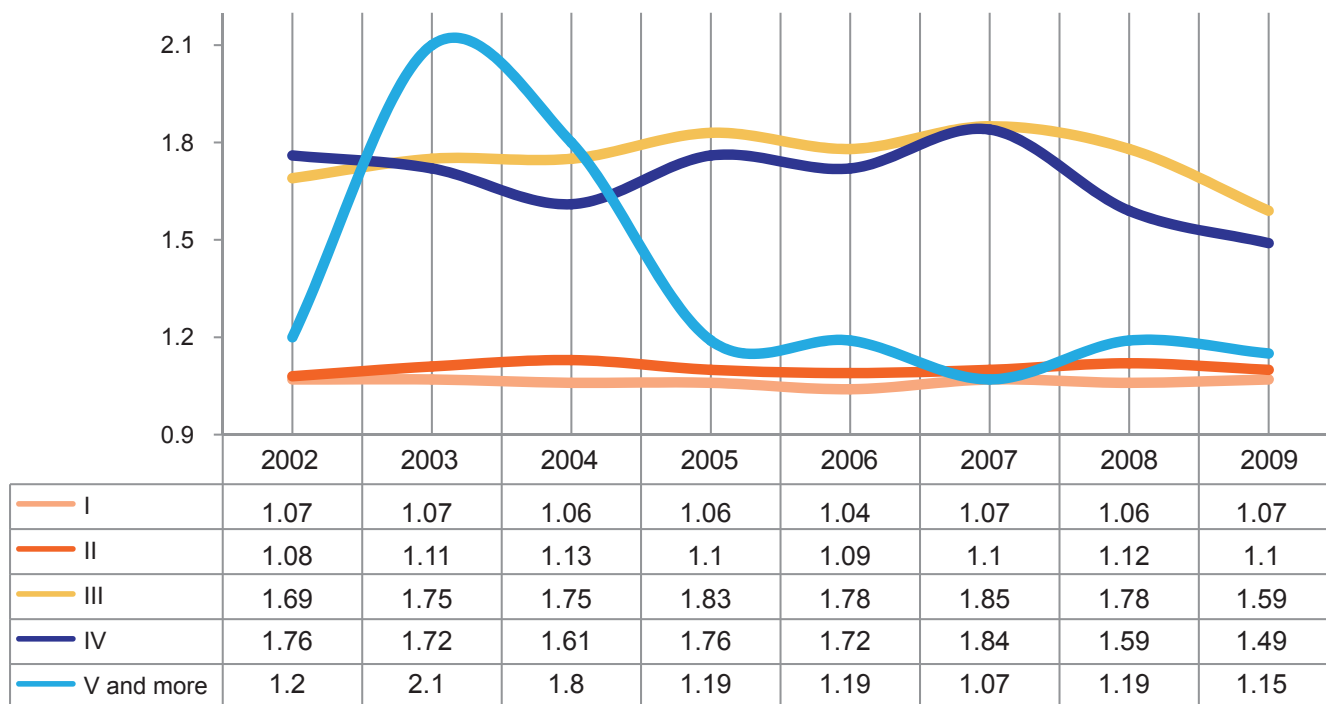
**Figure 1. Sex ratio at birth, 1989-2010**



The analysis of the statistical data for recent years has shown that in the case of the first child, the sex ratio at birth has been 1.04-1.07, which is in line with the biologically set statistical average of 1.02-1.06. This indicates that in Armenia in the case of a first child there is neither prenatal sex determination nor sex-selective abortion, which pose serious problems in many other countries. From the second child on, the ratio tends to increase (to 1.08-1.13).

However, there is cause for concern in the cases of the third and fourth children with the ratio increasing to 1.6 and 1.7 respectively, thereby giving grounds to assume that there is a possibility that the desired regulation of the child's gender is done through an induced abortion. Naturally, this poses a potential threat in terms of giving rise to demographic imbalance.

**Figure 2. Sex ratio at birth, by birth order**



Source: RoA NSS

Like the RoA NSS (National Statistical Service) data, the findings of the study demonstrate a specific sex-ratio imbalance in the cases of the third and particularly fourth births, thereby giving grounds to assume that sex-selective abortions are used in planning a child’s gender and in securing the desired gender.

**THE STUDY GOAL AND OBJECTIVES**

The Study’s goal is to ascertain the prevalence of and to identify and analyze the main reasons for sex-selective abortions in Armenia, including public perceptions of the issue.

The main objective of the Study is to ascertain the reasons for the sex-ratio imbalance by exploring:

- the range of reasons for son or daughter preference;
- pregnancy history and outcome; and
- prenatal sex determination tests and their outcomes.

**DATA COLLECTION METHODOLOGY**

- The principal data collection method was a survey of ever-pregnant women aged 15-49 residing in households randomly selected from throughout the country. The survey was conducted from 15 July to 15 August, 2011.
- A survey of pregnant women who visited medical institutions during the same period of time (July-August) with a view to getting an induced abortion was also conducted.
- Express qualitative assessment was undertaken in focus groups conducted in July 2011 for men and women as well as for obstetrician-gynecologists with a view toward developing a more comprehensive and reliable toolkit for a quantitative survey and toward ensuring a more in-depth analysis of the reasons for sex-selective abortions.

## SAMPLING METHODOLOGY

**Construction of the quantitative sample:** The sample was drawn from the database of addresses of all RoA households, which was created by the RoA NSS on the basis of the results of the 2001 Census with technical assistance from the World Bank.

Taking into consideration the study's goal and objectives, a stratified random sample was used. The distribution of the entire sampling frame by strata was done according to the proportions of women aged 15-49 ascertained by the results of the sample which the Demographic and Health Survey conducted in Armenia in 2010. In order to design the sample, the database of addresses of all country's households was divided into 48 strata, 12 of which are administrative districts of Yerevan.

At a regional (*marz*) level, all households were distributed into three categories: big towns and cities with a population of 15,000 or more (with exception of the Vayots Dzor region) and villages and other towns with a population under 15,000. Big towns and cities comprised 16 strata, while villages and other towns comprised 10 strata in each category.

Based on that distribution, a two-stage random sample stratified by region was constructed. All regions, as well as rural and urban communities, were included in the sampling frame in direct proportion to the region's/community's households share in the total number of the country's households. Thirty-four towns and cities and 56 villages were included in the sample.

In the first stage, communities were selected as primary sampling units. In the second stage, 2,830 households were selected (of which 2,046 were urban and 784 rural).

**Construction of the qualitative sample:** The focus groups' participants were selected on the basis of the principle of a purposive sample, relying on a social network and ensuring type representativeness.

Age and level of education were regarded as dominant sampling factors in conjunction with the group participants' gender as a third factor (See Annex 1 for a more detailed description of the sample).

## DESCRIPTION OF THE SAMPLING FRAME

A team of interviewers and quality control personnel was set up to carry out the survey. Training on the sample and on the procedure for filling out the questionnaire was provided to interviewers and fieldwork supervisors during the pre-survey period.

As the possibility could not be ruled out that some questionnaires may end up not being filled out because of respondents' absence, refusal to take part in the survey or of other reasons, a reserve sample was envisaged for such an eventuality so as to ensure sufficient representativeness of the study results.

The fieldwork was done in July-August 2011. While submitting completed questionnaires, each interviewer also presented a report on the sample.

After the quantitative data from these questionnaires was entered, the survey database was finalized. The data was converted into the SPSS format and all working files were aggregated into a single database. The data on the number and structure of surveyed households broken down by regions is presented in Table 1 (Yerevan has the largest share at 30.2%).

**Table 1. The number and distribution of surveyed households broken down by regions**

Region	Number of households	Percentage of the sample(%)
Yerevan	854	30.2
Aragatsotn	154	5.4
Ararat	222	7.8
Armavir	236	8.3
Gegharkunik	208	7.4
Lori	236	8.3
Kotayk	292	10.3
Shirak	222	7.9
Syunik	182	6.4
Vayots Dzor	84	3.0
Tavush	140	5.0
<b>Total</b>	<b>2,830</b>	<b>100</b>

## MAIN CONCEPTS

**Sex ratio** is the ratio of males to females in a population, which is calculated as a number of men per 100 women.

**Sex ratio at birth** refers to the number of male live births per 100 female live births

**Total fertility rate** (or fertility rate) is the average number of children that would be born to a woman over her lifetime if she were to experience the exact current age-specific fertility rates throughout her lifetime.

**Artificial termination of pregnancy (induced abortion)** is the termination of pregnancy using medications or surgical procedures from the time of conception up to the 22<sup>nd</sup> week of gestation.

**Spontaneous abortion (miscarriage)** is the spontaneous end of a pregnancy from the time of conception up to the 22<sup>nd</sup> week of gestation.

**Live birth** is the complete extraction or expulsion of a fetus, irrespective of the duration of pregnancy, from the maternal body, which breathes or shows any other sign of life.

**Stillbirth** is the complete extraction or expulsion of a fetus, whatever its gestational age, from the maternal body, which does not breathe or show any other sign of life.

**Selective abortion** is defined as intervention to terminate an unwanted pregnancy for some specific reason, for example, based upon the sex of the baby.

**Birth** is the complete expulsion of a live or dead fetus, whose weight is over 500 grams, from the maternal body from the 22<sup>nd</sup> week of gestation on.

**Desired pregnancy** is a pregnancy that is expected or planned.

**Reproductive history** is a history of the number, process and outcome of pregnancies and births in a woman's life.

## **CONTENT OF THE QUESTIONNAIRE**

The h/h (household) survey questionnaire (Annex 2) consists of seven sections. Questions in Sections 1 and 2 primarily deal with the surveyed women's and their husbands'/partners' socio-demographic characteristics and with the h/h's main facilities and amenities. Questions in Sections 3 and 4 deal with the women's pregnancy histories, pregnancy periods and outcomes. Questions in Sections 5 and 6 are given to women who have a son or daughter preference respectively. Questions in Section 7 deal with prenatal sex determination tests and their outcomes.



## CHAPTER 1. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF SURVEYED WOMEN AND OF THEIR HUSBANDS/PARTNERS

### DISTRIBUTION OF WOMEN BY AGE GROUP

In the 2,830 households covered by the survey there were 2,925 women aged 15-49, with ever-pregnant women constituting 64.9% of them (1,899). The youngest among them was 17 years old, while the oldest was 49 years old. The average age was 35.8.

**Table 1.1 Distribution of women by age groups**

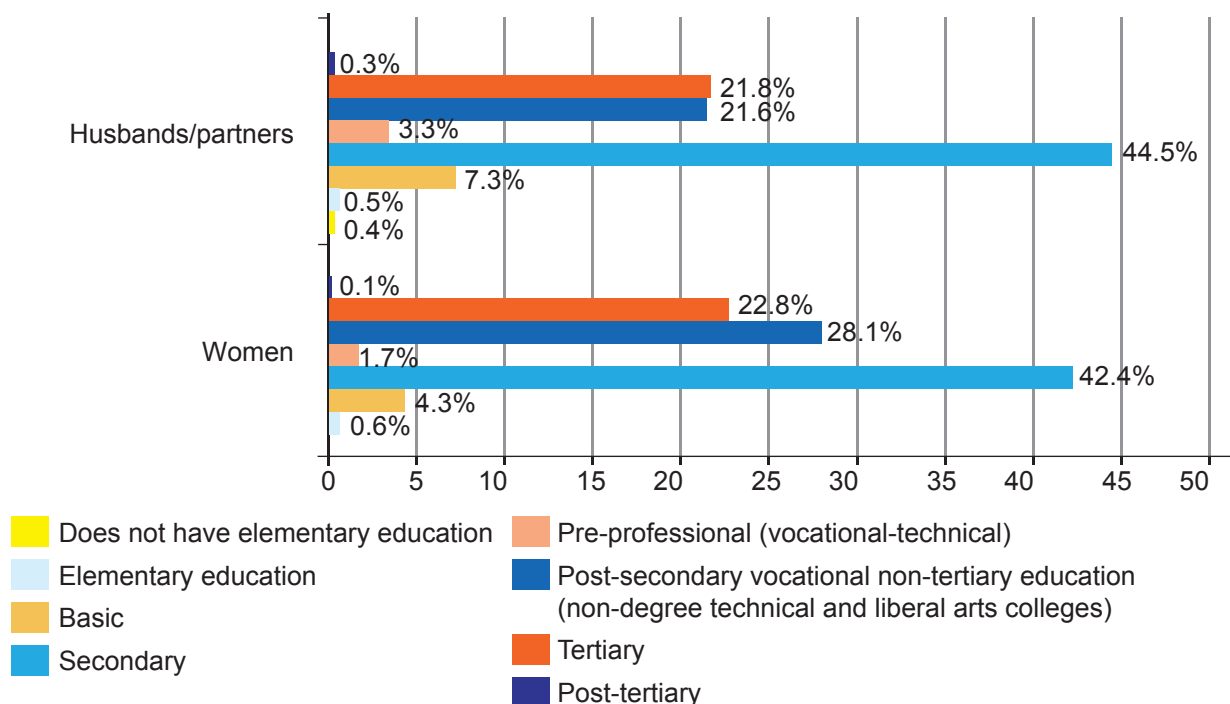
Age group	Number of women	Percentage (%)
15-19	12	0.7
20-24	171	9.0
25-29	326	17.2
30-34	336	17.7
35-39	347	18.3
40-44	260	13.7
45 and older	448	23.6
<b>Total</b>	<b>1,899</b>	<b>100.0</b>

368 women age 15-49, whose average age was 29.6, were surveyed in medical institutions.

### DISTRIBUTION OF WOMEN AND OF THEIR HUSBANDS/PARTNERS BY LEVEL OF EDUCATION

42.4% of interviewed women have secondary general education, 4.9% basic education or lower, 29.9% pre-professional vocational-technical and post-secondary vocational non-tertiary education and 22.9% tertiary and post-tertiary education.

**Figure 1.1. Percent distribution of women and of their husbands by level of education**



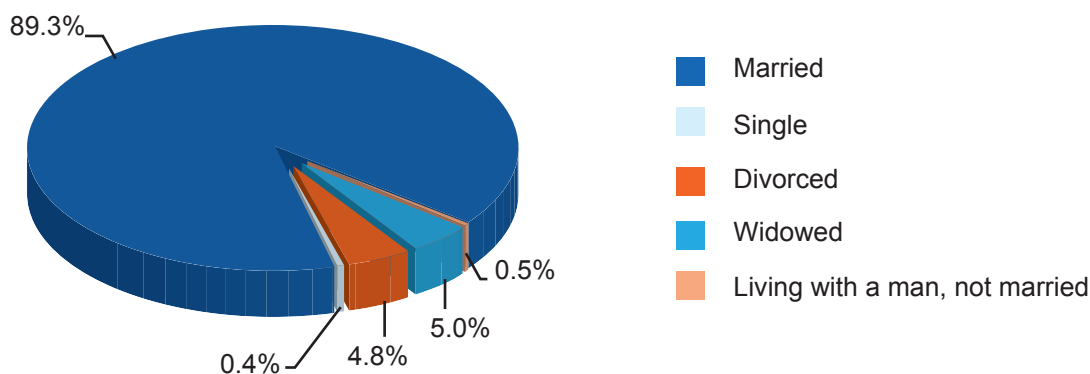
It is noteworthy that an overwhelming majority (74.9%) of women with tertiary education completed a 5-year course of study in universities, i.e. they spent 15 years of their lives studying in educational institutions, 16.8% completed a 4-year (bachelor’s degree) course of studies, thus spending 14 years of their lives studying, 4.4% completed a 6-year course (including a master’s degree), thus studying for 16 years in educational institutions and 3.9% spent 7 years in universities, consequently spending 17 years in educational institutions.

With regard to their husbands/partners, the highest level of educational attainment for 44.5% of those was secondary education, for 21.8% post-secondary vocational non-tertiary education, for 21.6% tertiary and for 0.3% post-tertiary education. The educational level of 8.2% was lower than secondary.

**DISTRIBUTION OF WOMEN BY MARITAL STATUS AND BY THE AVERAGE AGE AT MARRIAGE AND OF FIRST PREGNANCY**

Married women accounted for 89%, while divorced or widowed women for 10% of interviewed women.

**Figure 1.2. Percent distribution of interviewed women by marital status**



The average age at marriage or at the age of cohabitating with a man (while not being formally married) was 20.9%, with the minimum age of 14 and maximum of 40. The average age at first pregnancy was 21.6.

**Table 1.2. Percent distribution of women by marital status and by the average age at marriage and at first pregnancy**

Age	Age at marriage/cohabitation with a man	Age at first pregnancy
14-16	2.2	1.2
17-18	20.4	14.4
19-25	69.2	72.6
26-35	7.4	11.0
36 or older	0.7	0.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

**DISTRIBUTION OF WOMEN BY RELIGION**

92% of surveyed women regarded themselves as belonging to some religious denomination, with an overwhelming majority identifying themselves as members of the Armenian Apostolic Church, whereas 8% did not regard themselves as belonging to any religious denomination.

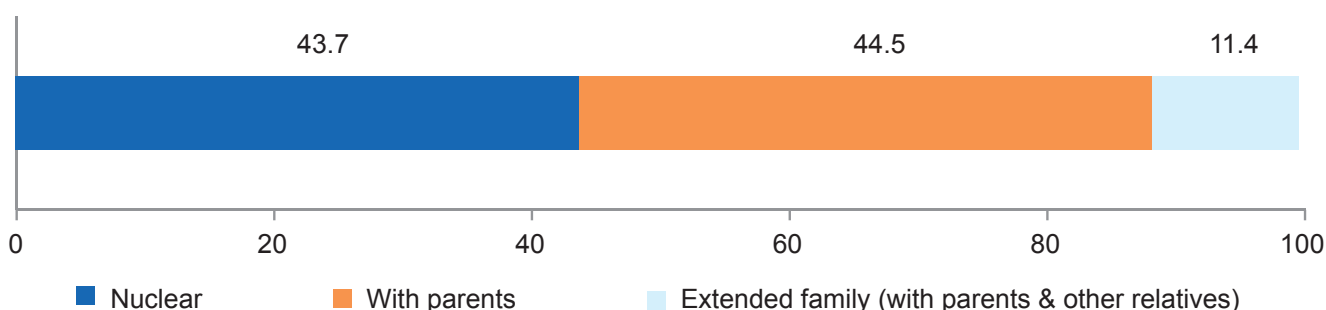
**Table 1.3. Distribution of women by religion**

Religious denomination	Number of women	Percentage (%)
Armenian Apostolic	1,689	88.9
Armenian Catholic	21	1.1
Armenian Evangelical	11	0.6
Shar-fardi (Yezidi)	11	0.6
Other	19	1
No religion	149	7.9
<b>Total</b>	<b>1,899</b>	<b>100.0</b>

**DISTRIBUTION OF FAMILIES BY COMPOSITION AND TYPE**

43.7% of women live in nuclear families, 44.5% live with parents and only 11.4% live in extended families, i.e. with parents and other relatives.

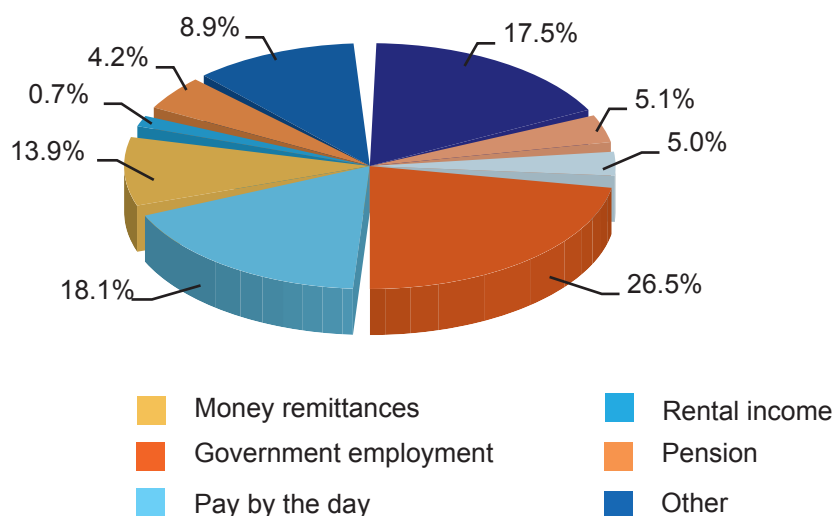
**Figure 1.3. Percent distribution of interviewed women by type of family**



The average number of members in households covered by the survey was 4.99 and the maximum number was 16, while the average number of family members was 3.82 and the maximum number was 8.

The main source of income for families of the women interviewed was employment in a State institution (over 25%), pay by the day (18.1%), agriculture (17.5%) and money remittances from abroad (13.9%).

**Figure 1.4. Percent distribution of interviewed women by source of income**



## WOMAN'S AND HER HUSBAND/PARTNER'S PRINCIPAL OCCUPATION AND INCOME SOURCE AND SIZE

18.6% of surveyed women (and over 20% of their husbands/partners) were employees of State-run institutions and 18.8% of women (and 15.4% of their husbands/partners) were employed in agriculture. 4.99% of women (and 22.7% of their husbands/partners) did work that was paid by the day.

**Table 1.4. Distribution of women and of their husbands/partners by principal occupation/ source of income**

Occupation / source of income	Husbands/partners		Women	
	Number of men	Percentage (%)	Number of women	Percentage (%)
Agriculture	292	15.4	356	18.8
Commerce (wholesale, other)	105	5.5	26	1.4
One's own business	95	5.0	20	1.1
Government employee	397	20.9	354	18.6
Work paid by the day	432	22.7	94	4.9
Money remittances from abroad	22	1.1	3	0.1
Rental income	97	5.1	156	8.2
Pension/allowance	40	2.1	25	1.3
Other	266	14.0	824	43.4
Homemaker	-	-	41	2.2
<b>Total</b>	<b>1,746*</b>	<b>100.0*</b>	<b>1,899</b>	<b>100.0</b>

\*153 (or 8.1% of the respondents) did not provide an answer to the question about their husbands/partners' occupation

Over half of the interviewed women (53.9%) stated that they did not have a stable monthly income, while the average monthly income of 9.1% was 30,000 AMD or less. 15.8% of women earned 30,001-50,000 AMD and 16.6% 50,001-100,000 AMD.

**Table 1.5. Distribution of women by average monthly income (AMD)**

Monthly income	Number of women	Percentage (%)
0	1,023	53.9
Less than 29,999 AMD	172	9.1
30,000 – 50,000 AMD	300	15.8
50,001 – 100,000 AMD	316	16.6
100,001 AMD and up	87	4.6
<b>Total</b>	<b>1,899</b>	<b>100.0</b>

However, 44.4% of the surveyed women noted that decisions regarding how the money that they earned should be spent was made jointly with their husbands/partners and 20.5% said that they made that decision themselves. In the case of 12.7%, the decision was made by husbands and in 7.3% by mothers-in-law.

**Table 1.6. Woman’s role in making decisions about how and for what money that she earns should be spent**

The decision is made by	Number of women	Percentage (%)
Self	390	20.5
Husband/partner	212	11.2
Jointly with husband/partner	842	44.4
Father-in-law	72	3.8
Mother-in-law	139	7.3
Other	242	12.7
<b>Total</b>	<b>1,897</b>	<b>99.9</b>

The study revealed that in the month preceding the survey the plurality (28.2%) of families earned on average 50,0001-100,000 AMD, while the income of every fifth family (21.2% of families) was 100,000-150,000 AMD. The income of over a quarter of the families exceeded 150,000 AMD, while that of 7.7% of families was less than 50,000 AMD.

**Table 1.7. Distribution of families by average monthly income (AMD)**

Monthly income	Number of women	Percentage (%)	Average income
Less than 30,000	26	1.4	24,377
30,000-50,000	119	6.3	43,946
50,001-10,0000	536	28.2	80,996
100,001-150,000	402	21.2	134,746
150,001-200,000	293	15.4	190,380
200,001-300,000	169	8.9	265,472
300001 and more	38	2.0	417,883
<b>Total</b>	<b>1,899*</b>	<b>100</b>	<b>x</b>

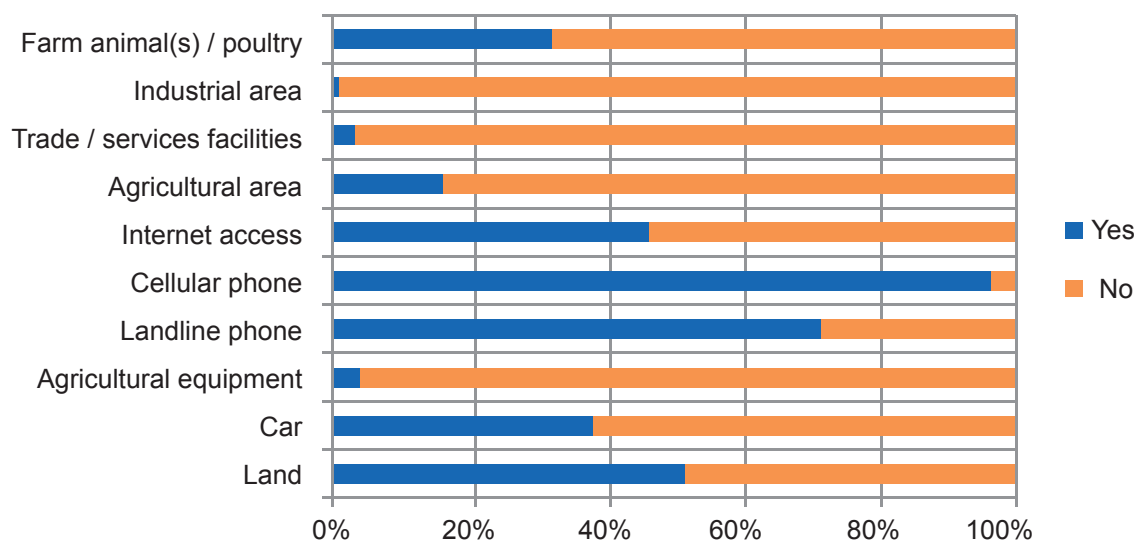
\* 316 women (or 16.6% of the respondents) did not answer that question

In the interviewed women’s families, the greatest portion of the money earned was spent on food which was followed by such budgetary items as utilities and paying off debts/loans. It is worthy to note that the average monthly expenses for food account for over a half (52%) of the families average monthly expenses.

**Table 1.8. Families’ average expenses in the month preceding the survey, by budget line (AMD)**

Type of expenses	Maximum	Average
Food	1,000,000	67,524
Transportation	240,000	8,548
Education	400,000	4,075
Clothes/household goods	200,000	13,760
Utilities	200,000	15,146
Entertainment	100,000	4,063
Loan/Debt	3,000,000	15,005
Other	400,000	2,275

**Figure 1.5. Distribution of households by availability of facilities and amenities**



Within the context of the study it is also important to discover the extent of women’s interest in public-life, political, cultural or other news and information and of the availability of the latter. Therefore, questions were included in the questionnaire in order to ascertain whether or not respondents make use of radio, TV and the internet and whether or not they read newspapers to get news and information, and if yes, how often.

**Table 1.9. Percent distribution of households by availability of information sources**

	Almost daily	Sometimes (3-4 times a week)	Rarely (once or twice a week)	Never	Total
How often do you listen to the radio?	10.5	6.1	13.2	70.1	100
How often do you watch TV?	96.7	2.5	0.7	0.2	100
How often do you read newspapers?	11.8	19.8	34.9	33.6	100
How often do you read information/news on the internet?	13.4	10.2	12.6	63.7	100

70% of the women interviewed never listen to the radio and 33.6% never read newspapers, while 34.9% rarely read newspapers. 13.4% of women interviewed read information or news on the internet on almost a daily basis, 10.2% read sometimes, whereas 63.7% never read information or news on the internet. 96.7% of women watch TV daily.

## CHAPTER 2. RESPONDENTS' REPRODUCTIVE HISTORY SPECIFICS AND PREGNANCY HISTORY AND OUTCOMES

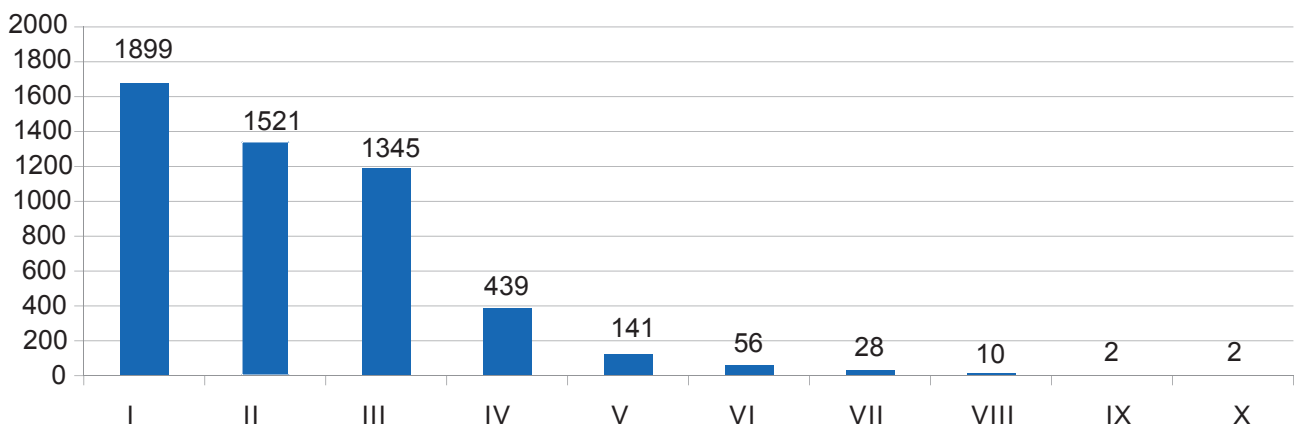
The overwhelming majority (76.6%, or 1,455 women) of the surveyed 1,899 women started sexual life when they reached mature reproductive age, 20.4% started when they were 17-18 years old and only 2.2% when they were minors (14-16 years old).

It is noteworthy that an overwhelming majority (83.6%, or 1,587 women) of surveyed women had their first pregnancy at the optimal reproductive age (when they were 19-35 years old), while the percentage of those who had their first pregnancy before they came of age was low, viz. 14.4% and 1.2% in the case of 17-18 and 14-16 years old, respectively.

The distribution of surveyed women by the number of pregnancies is presented in Figure 2.1.

Considering the fact that the seventh and subsequent pregnancies are too small in number and thus do not ensure the reliability of statistical data, the analysis of reproductive histories will hereinafter deal only with data regarding the first through sixth pregnancies.

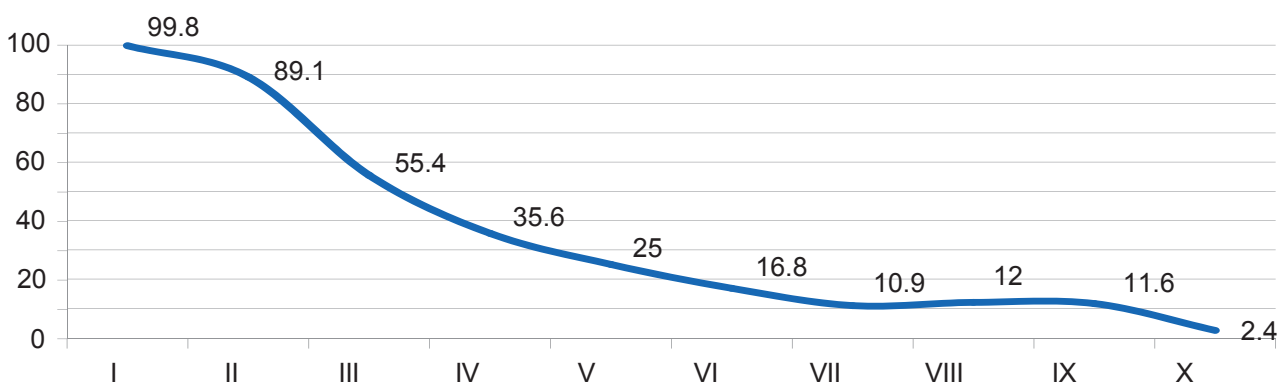
**Figure 2.1. Distribution of surveyed women by the number of pregnancies**



**The examination of the respondents' reproductive history and pregnancy outcome by pregnancy order has shown** that an increase in the number of pregnancies the woman has is accompanied by significant qualitative changes.

While in the case of first pregnancy, the pregnancy was wanted 99.8% of the time and in the case of second and third pregnancies 89.1% and 55.4% respectively. However, at the time of the 6<sup>th</sup> pregnancy there is almost a 6-fold decline in the percentage (16.8%) of wanted pregnancy (See Figure 2.2).

**Figure 2.2. Percentage distribution of wanted pregnancies by pregnancy order**

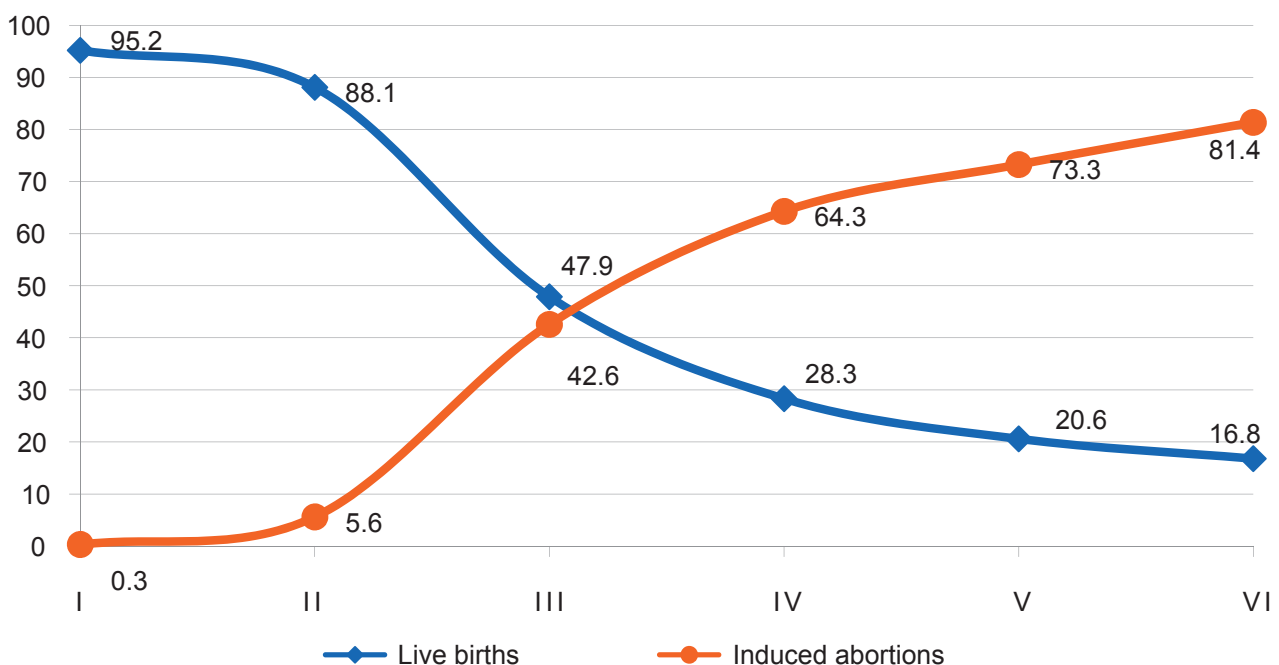


The same pattern was identified later in the study regarding the issue of the desire to have a child: the more pregnancies the woman has had the less she wants to have another child. Thus, while at the time of the first pregnancy all respondents and at the time of second pregnancy 90.1% of the respondents noted that they wanted to have a child, in the case of third and subsequent pregnancies the percentage of interviewed women who wanted to have a child goes down from 68.8% to 19.8% in the case of sixth pregnancy.

The analysis of data on **pregnancy outcome** has shown that while first and second pregnancies ended for the most part in (live) births (95.2% and 88.1% respectively), in the case of fifth and sixth pregnancies the number of births decreases almost 5-fold (20.6% and 16.8% respectively).

In terms of the artificial termination of pregnancy, it was discovered that the higher the number of pregnancies, the higher the frequency of induced abortions (See Figure 2.3). While in the case of first and second pregnancies induced abortions constituted only 0.3% and 5.6% respectively, in the case of fifth and sixth pregnancies 73.3% and 81.4% of them, respectively, ended in induced abortion.

**Figure 2.3. Percentage distribution of pregnancy outcome by pregnancy order**

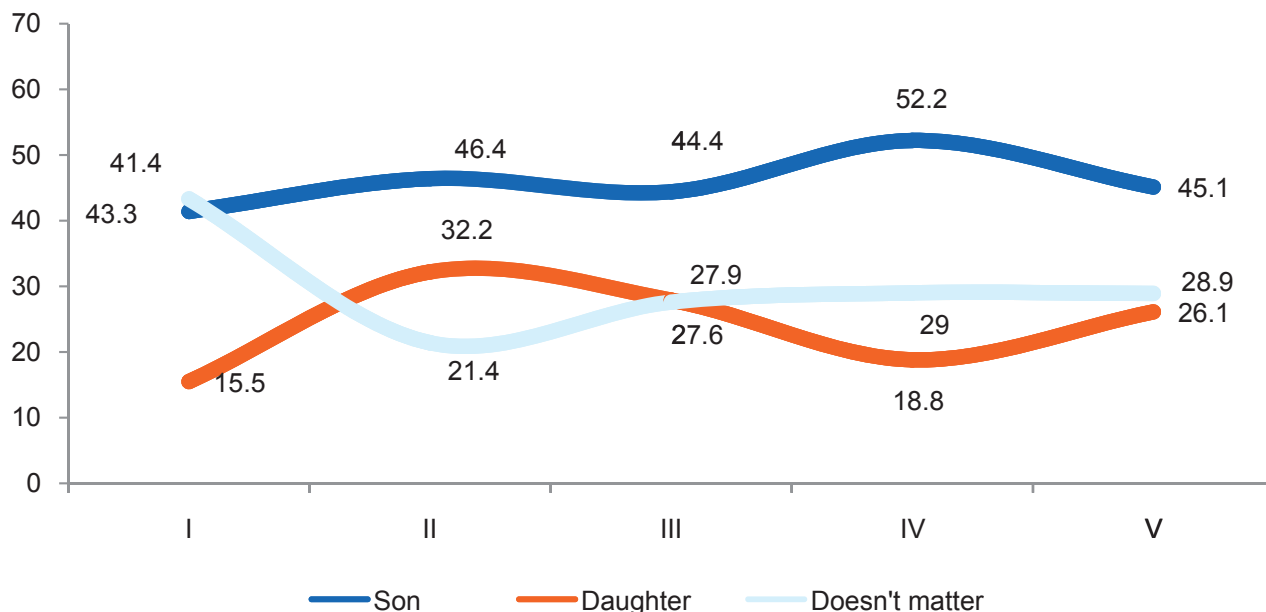


The study of son or daughter preference merits special attention. Judging by the survey data, the number of women who prefer sons is nearly 2.7 times bigger than that of women who prefer daughters (41.4% and 15.5%, respectively) regardless of the pregnancy order, even in the case of first pregnancy, while every second respondent (43.1%) did not have any particular preference in terms of the child's gender.

It is noteworthy that even though at the time of second pregnancy preference was again given to boys, the number of women who prefer daughters grew almost 2-fold and constituted 32.2%. That can be accounted for by nearly a 2-fold decrease in the percentage of women did not have any particular gender preference (21.4%) and probably by the fact that there was already a male child in their family (See Figure 2.4).

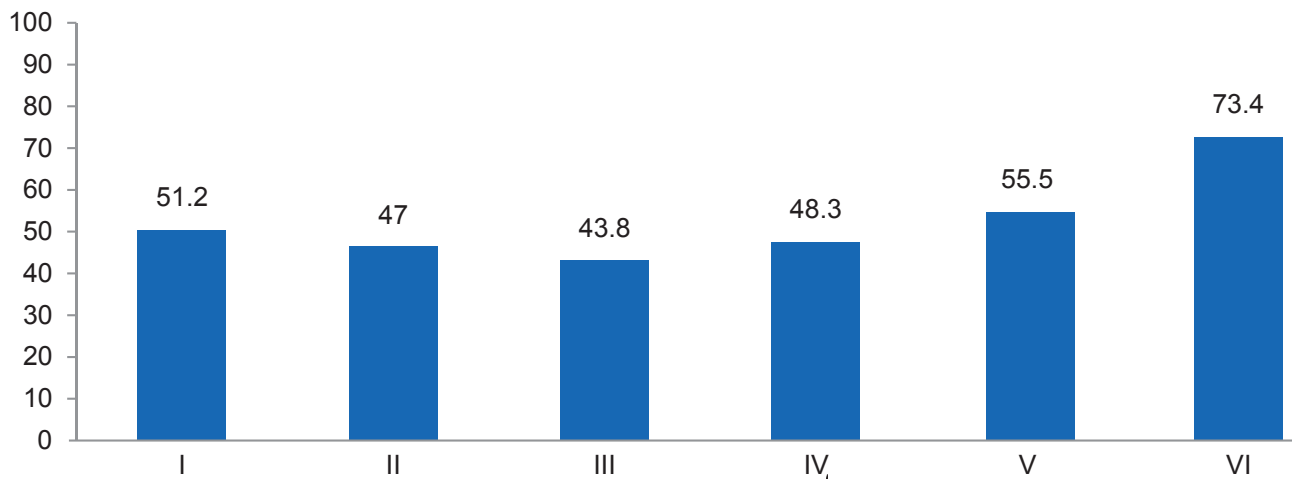


**Figure 2.4. Percentage distribution of interviewed women's gender preference by pregnancy order**



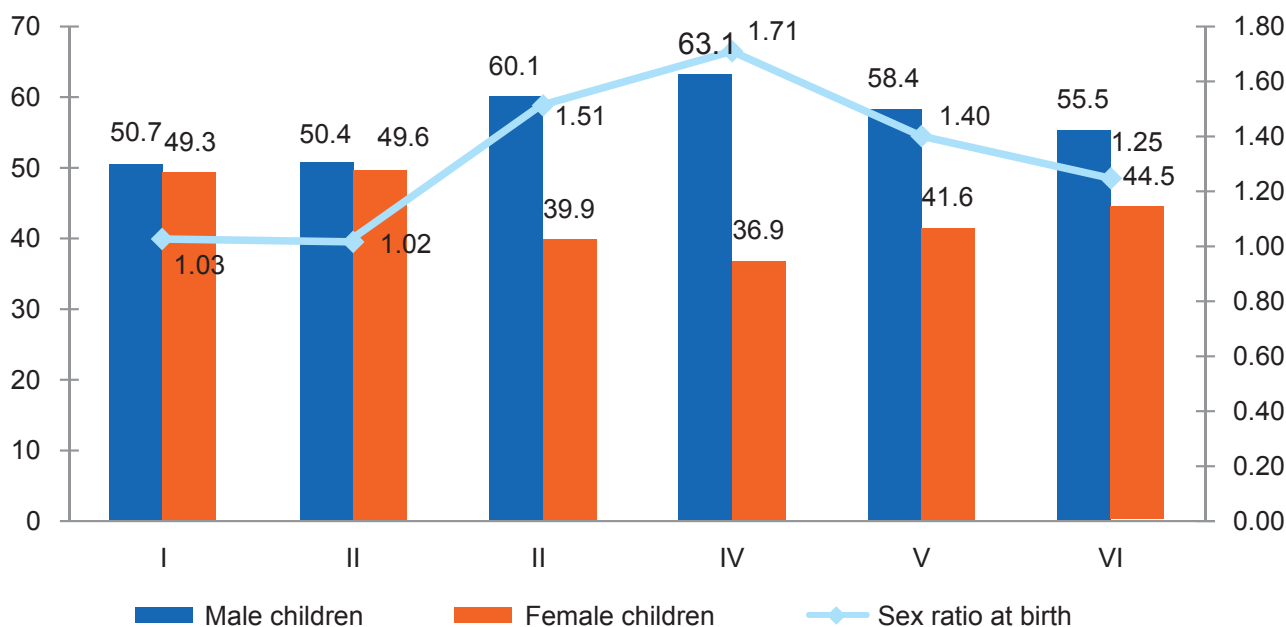
Despite the decision made in recent years by the Government of the Republic of Armenia that pregnant women can receive an ultrasound three times throughout the pregnancy without cost (as costs of the testing are covered by the State), only every second respondent underwent ultrasonic testing in the case of the first through fifth pregnancies. The percentage goes up to 73.4% only in the case of 6<sup>th</sup> pregnancy (See Figure 2.5).

**Figure 2.5. Percentage of women undergoing ultrasonic testing, by pregnancy order**



The analysis has revealed that sex ratio at birth is 1.03 and 1.02 in the case of first and second children, i.e. the frequency of birth of boys and girls was typical of the natural sex ratio among newborns. A particularly significant imbalance of the sex ratio at birth was found in the case of third and especially fourth child. This trend is almost in line with the RoA NSS official statistical data.

**Figure 2.6. Percentage distribution of births of male and female children, by birth order**

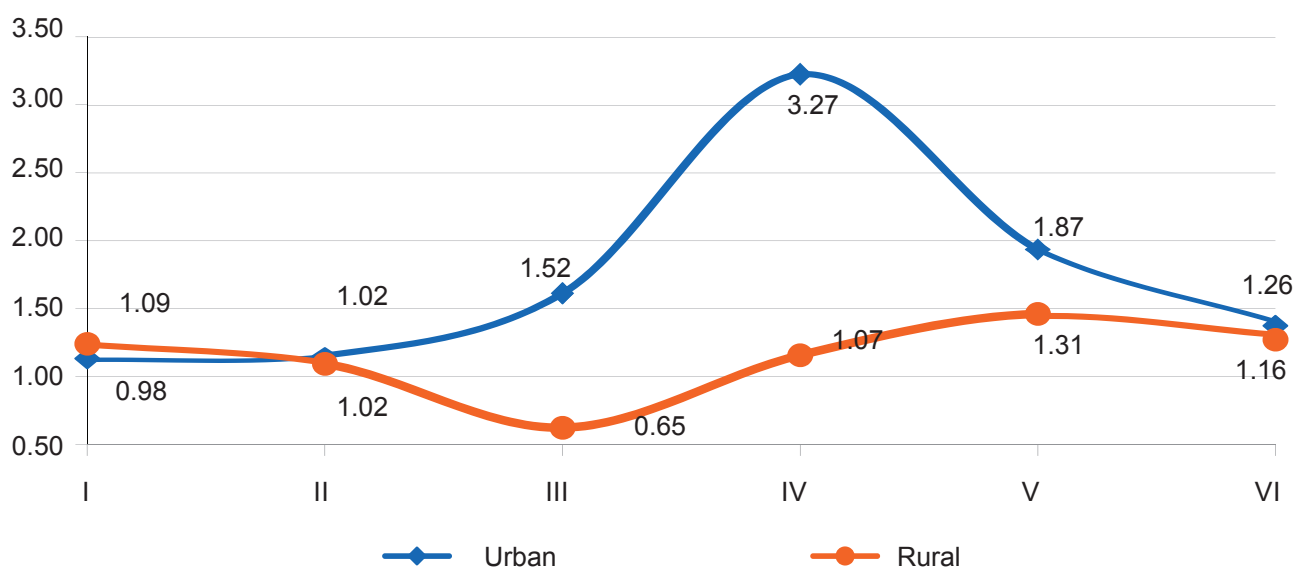


From the fifth child on, the sex ratio at birth tends to decrease gradually (1.4), while in the case of the sixth child the ratio is 1.2, which indirectly indicates that families having many children do not particularly have a gender preference, when they already have both daughters and sons.

**Also examined were correlations between sex ratio at birth** and women’s (urban/rural) place of residence and possible correlations between sex ratio at birth and the women’s level of educational attainment. It was indeed found that sex ratio at birth depends on the (urban/rural) locality and level of education (See Figures 2.7 and 2.8).

For urban women, from the third child on, the sex ratio at birth tends to increase and peaks in the case of the fourth child (3.3), and then decreases. In rural areas, the sex ratio at birth in the case of the first through fourth child is close to a natural sex ratio (1.1 and 1.0); the ratio tends to decrease somewhat in case of the third child (0.7) and to increase slightly in case of the fifth child (1.3).

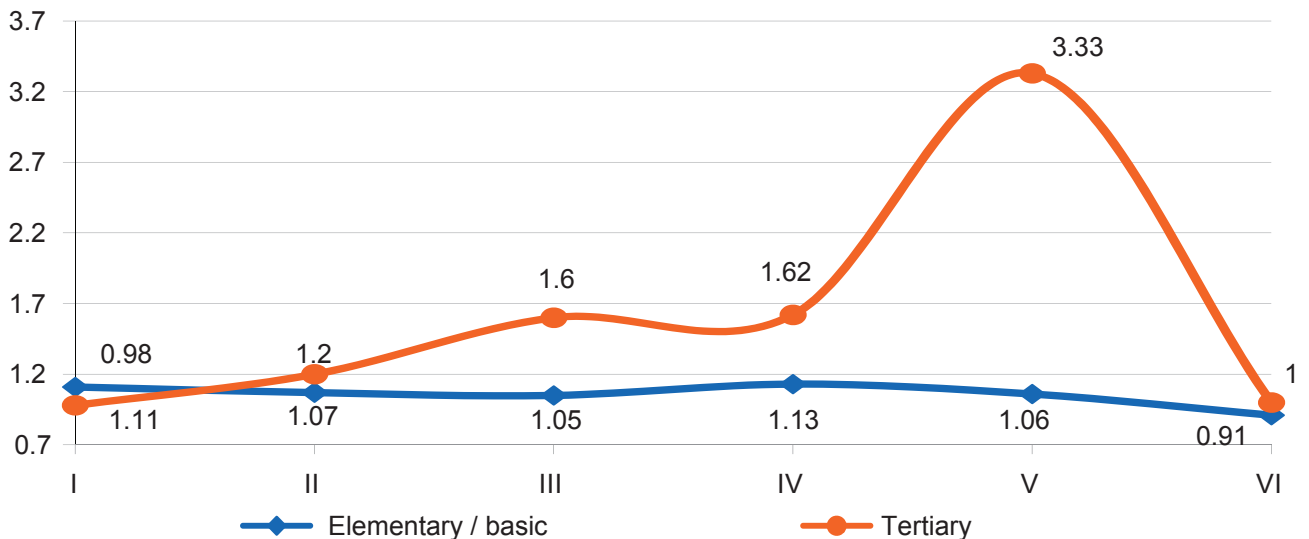
**Figure 2.7. Correlation between sex ratio at birth and birth order and (urban/rural) locality**



With regard to **the correlation between sex ratio at birth** and respondents’ level of education, for women with tertiary education the sex ratio at birth in the case of the second through fifth child

tends to increase (1.2-1.6), reaching an unprecedented high value of 3.2 in the case of fifth birth. From second birth on, the sex ratio at birth is higher for women with tertiary education as compared to women with an elementary/basic education (See Figure 2.8).

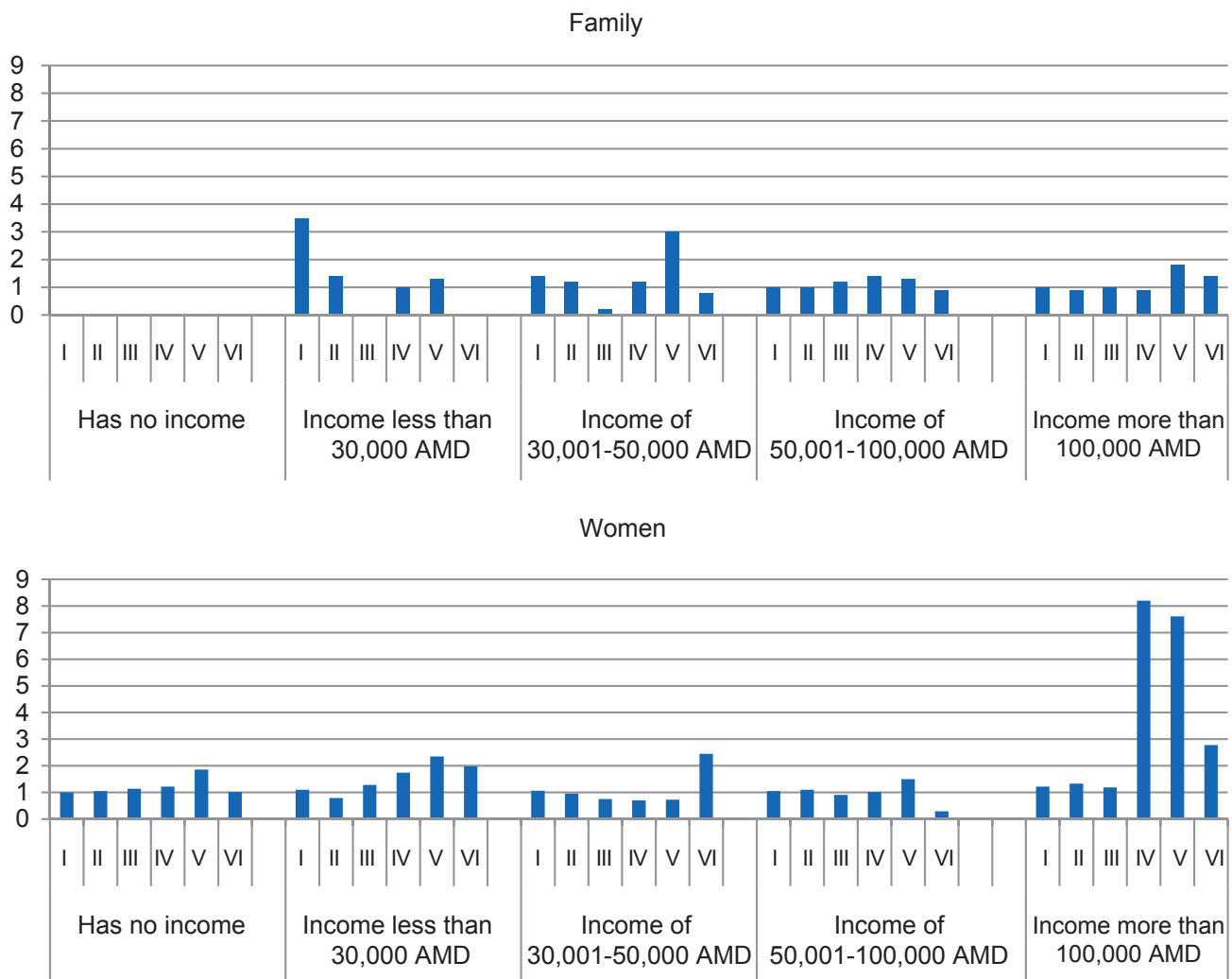
**Figure 2.8. Correlation between sex ratio at birth and birth order and level of education (basic, tertiary education)**



The analysis made from the perspective of **the family's current income** has revealed that there is no direct correlation between family income and sex ratio at birth.

There is a certain correlation observed between women's income and greater predominance of boys. In particular, in comparison with low-income women, in the case of women with a monthly income of 100,000 AMD or more the sex ratio at birth among the first and second children is 1.22 and 1.33 respectively, while among the fourth and fifth children the predominance of boys becomes unprecedented, with the sex ratio being 8.2 and 7.6 respectively (See Figure 2.9).

**Figure 2.9. Correlation between sex ratio at birth and women’s and family income**



**PRENATAL SEX DETERMINATION TESTS AND THEIR OUTCOME**

The overwhelming majority (91.7%, or 1,742) of the 1,899 women surveyed pointed out that they were aware that is possible to determine the sex of the fetus during the pre-natal period.

**When asked about the determination methods that they were aware of**, 88.9% of the respondents referenced ultrasound testing, 1.5% amniocentesis and 15.9% traditional methods.

**It is noteworthy** that medical institutions were a source of information only for 45.2% of the 1,742 women **who answered the question about the source of information regarding methods of sex determination**. The remaining 54.8% received information from various sources, in particular, from friends (36.8%), parents (10.0%) and mass media (4.7%). The percentage of women who mentioned their mother-in-law or husband was small (2.3% and 0.8% respectively).

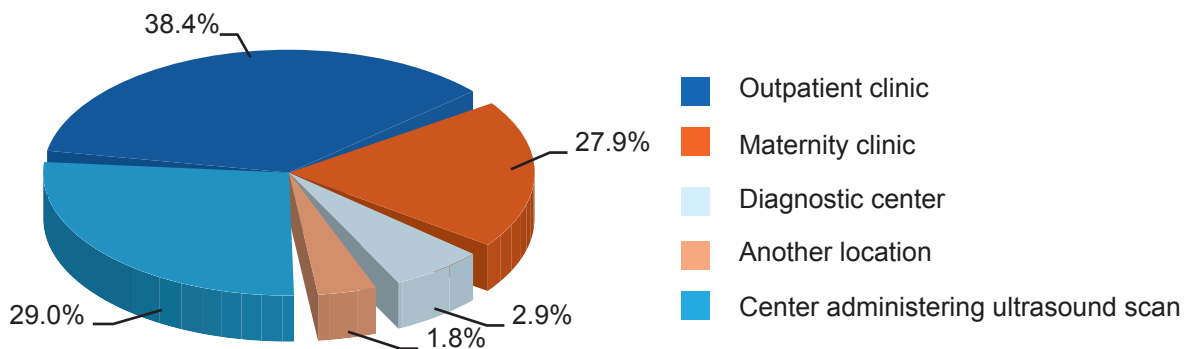
**Almost all of the respondents were sufficiently informed where they could get receive this type of testing**. 34.3% of interviewed women cited an outpatient clinic, 32.5% medical rooms where ultrasound scan services are provided, 28.1% a maternity hospital and 5.2% another venue where the fetus’ gender can be determined.

**When asked about the accessibility of the venue for pre-natal determination of the child’s sex**, the majority (66.9%) of women said that it was accessible and 7.4% said that it was not, whereas every fourth respondent (25.7%) did not have information adequate information.

The high level of awareness notwithstanding, within the last 5 years only 420 (22.1%) of interviewed women have made use of the various methods of determining the sex of the baby before birth, while the overwhelming majority (77.9%) of respondents have not.

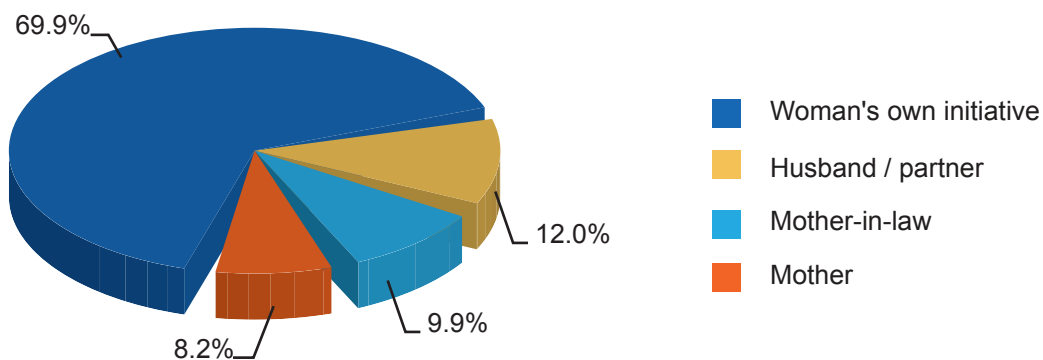
To determine the sex of the baby before birth 38.4% of surveyed women went to an outpatient clinic for ultrasound testing and 27.9% went to a maternity hospital. The percentage of women who went to a diagnostic center or to another venue was very low, viz. 2.9% and 1.8% respectively (See Figure 2.10).

**Figure 2.10. Percentage distribution of women who underwent testing for prenatal determination of the child's sex, by location of the test**



The analysis of the data on decision-making regarding their own person- and health-related issues are encouraging in the sense that the overwhelming majority (69.9%) of the women who took the test made that decision themselves and on their own initiative. The relative weight of each of the other three decision-makers is almost the same, viz. respondents' husband/partner (12.0%), mother-in-law (9.9%) and mother (8.2%) (See Figure 2.11).

**Figure 2.11. Percentage distribution of persons who made a decision to seek prenatal determination of the child's sex**



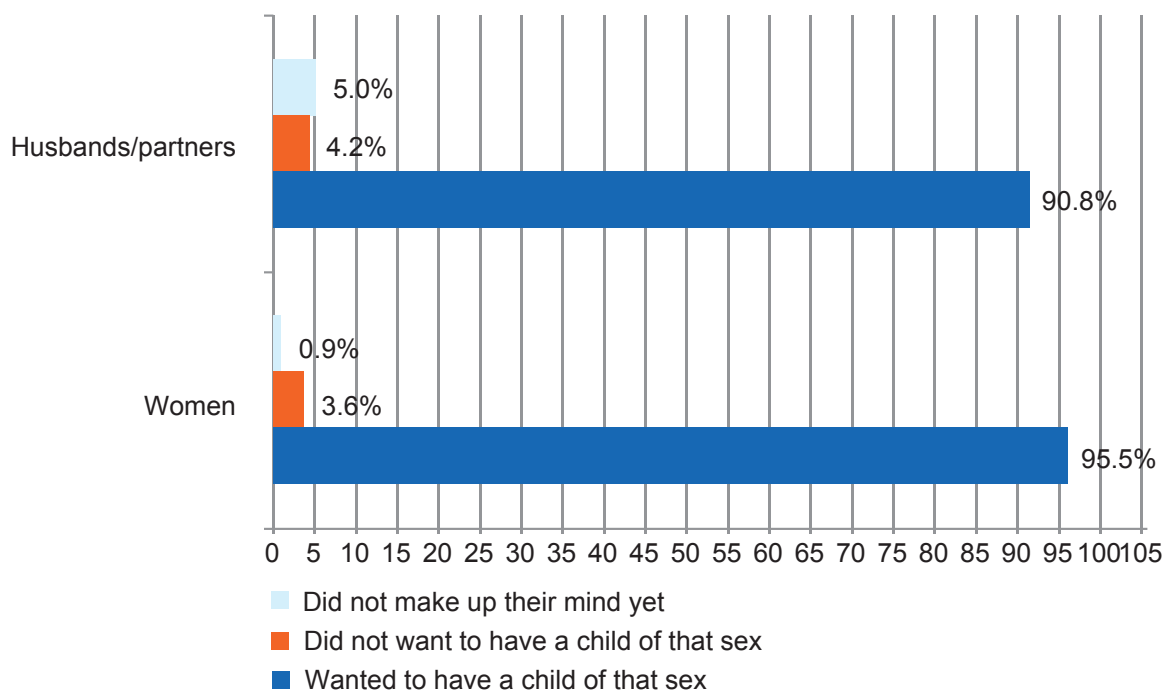
According to the survey data, the point of time during pregnancy when an ultrasound testing was performed for prenatal determination of the child's sex varied widely, viz. from 2 to 36 weeks, with the average being 14.93 weeks. Incidentally, the earliest period of time when the child's sex can be determined is at 13-14 weeks of gestation.

As to the survey data, a half of the pregnant woman (48.5%) who underwent testing for prenatal determination of the child's sex were pregnant with a boy and 38.8% a girl, while in the case of 53 women (12.7%) the testing did not determine the child's sex unambiguously.

There were no significant differences of opinion between pregnant women and their husbands regarding the continuation of pregnancy once the sex of the baby had been determined. The overwhelming majority of women and of their husbands/partners (95.5% and 90.8% respectively)

wanted to have a child of that sex and only 3.6% of women and 4.2% of men did not, while 0.9% of women and 5.0% of men did not make up their mind (See Figure 2.12).

**Figure 2.12. Women’s and their husbands’ decisions after the sex of the baby was determined**

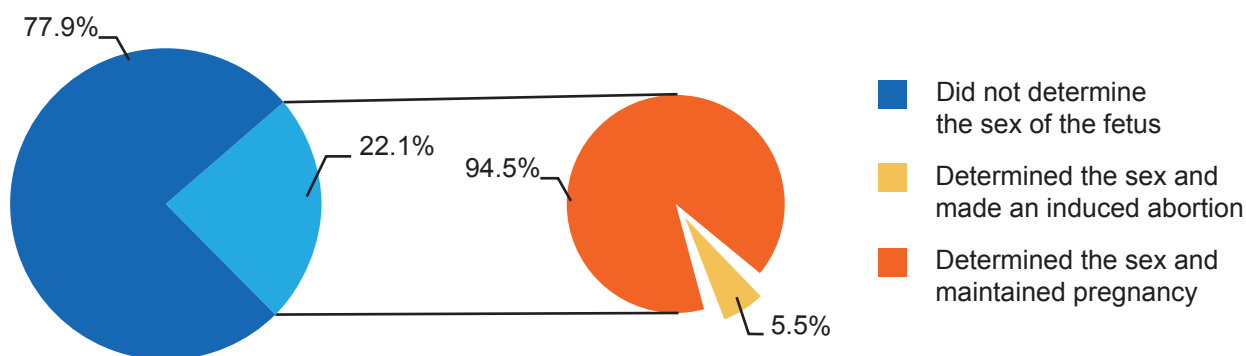


The woman’s family’s decision was closer to her husband’s/partner’s opinion. In 333 cases (90.9%) families wanted and in 13 cases (3.4%) did not want to have a child of that sex, whereas in 18 cases (5.0%) families had not decided.

**PREGNANCY OUTCOME AFTER THE SEX OF THE BABY WAS DETERMINED**

After the sex of the fetus had been determined, the overwhelming majority (397, or 94.5%) of 420 women maintained their pregnancy, whereas 23 women (or 5.5%) had induced abortion (See Figure 2.13). Thus, the survey results indicate that within the last 5 years 0.8% of 2,925 women of reproductive age (15-49 year-olds) in 2,830 households covered by the survey had a sex-selective abortion. Since the survey sample is representative of the entire country, the data gives grounds to assume that 0.8% of about 900,000 women of reproductive age in Armenia made a sex-selective abortion within the past 5 years.

**Figure 2.13. Pregnancy outcome after prenatal sex determination**

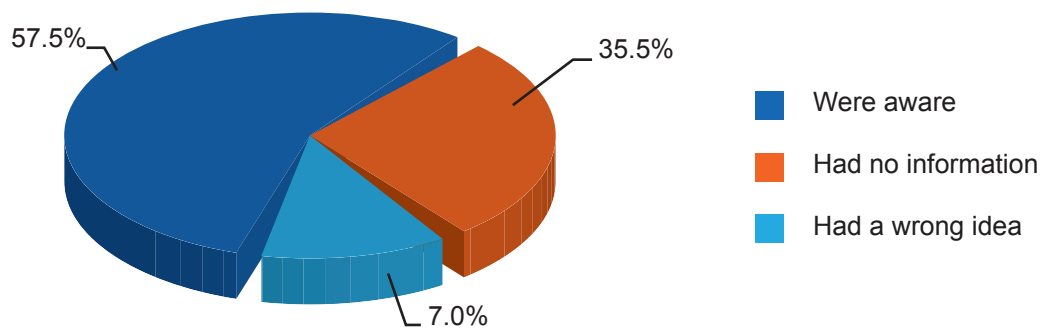


**19 (or 82.6%) out of 23 women who made a decision to have an abortion** made that decision themselves. The decision was made by husbands/partners in 18.4% of cases.

The analysis of responses concerning **the venue where the abortion was performed** has revealed that the overwhelming majority (83.7%) of women who had an induced abortion had it in a maternity hospital. The fact that four women terminated their pregnancies through drug-induced abortions without doctor involvement cannot but cause concern.

**Women’s awareness of the legality of induced abortions in Armenia was at quite a low level. Only 57.4% of interviewed 1,899 women** knew that abortions are legal in the RoA. Every third respondent (675 women, or 35.5%) did not have enough information to answer the question, while 133 respondents (or 7.0%) were of the opinion that abortion is illegal in Armenia (See Figure 2.14).

**Figure 2.14. Surveyed women’s awareness of legality of induced abortions**



1,804 (or 99.8%) of born children were living at the time of the interview, while four (or 0.2%) of the children were no longer living. The average age of the children was 13.78, with the maximum being 32.

The analysis of the survey data clearly indicates that even though son preference in the respondents’ families is six times higher than daughter preference, when born, female children are cared for and treated equally. This is the conclusion drawn from the sex-disaggregated data on surviving children and on their age (See Table 2.1).

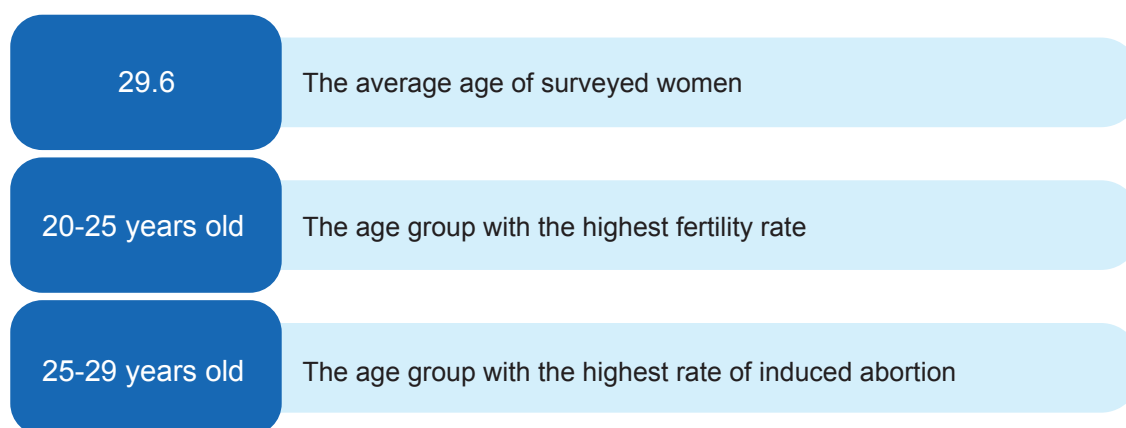
**Table 2.1 Average age of surviving children, by birth order**

Births	Percentage of surviving sons	Percentage of surviving daughters	Average age of sons	Average age of daughters
I	99.8	99.9	13.7	14.2
II	99.2	99.4	13.5	13.6
III	98.9	99.1	13.1	13.2
IV	98.5	98.7	12.7	12.9
V	96.3	97.6	12.4	12.7
VI	95.5	96.9	9.5	9.9

## CHAPTER 3. SURVEY DATA ON WOMEN WHO UNDERWENT INDUCED ABORTION

A quantitative survey of women who went to medical institutions to terminate a pregnancy was conducted with a view toward identifying reasons for resorting to an induced abortion, including sex-selective abortions, and to studying the decision-making process with regard to abortion, specifics of reproductive history, the number of male and female children in the family and reproductive behavior. Those surveyed were women who went to maternity institutions in July-August 2011 in all of the country's regions and in the city of Yerevan with the purpose of undergoing an induced abortion procedure and who consented to take part in the survey. 368 women aged 15-49, whose average age was 29.6, were interviewed.

According to the *Armenia Demographic and Health Survey* data (ADHS 2010), the highest fertility rate is among women in the age group 20-25 and the highest rate of induced abortion is among women in the age group 25-29. The ADHS 2010 states that women in Armenia do not have induced abortions until they have had 1 or 2 children. The present study tends to confirm those findings.



The distribution of women who had an induced abortions (by their locality) is presented in Table 3.1.

**Table 3.1. Distribution of women who had an induced abortion, by their locality**

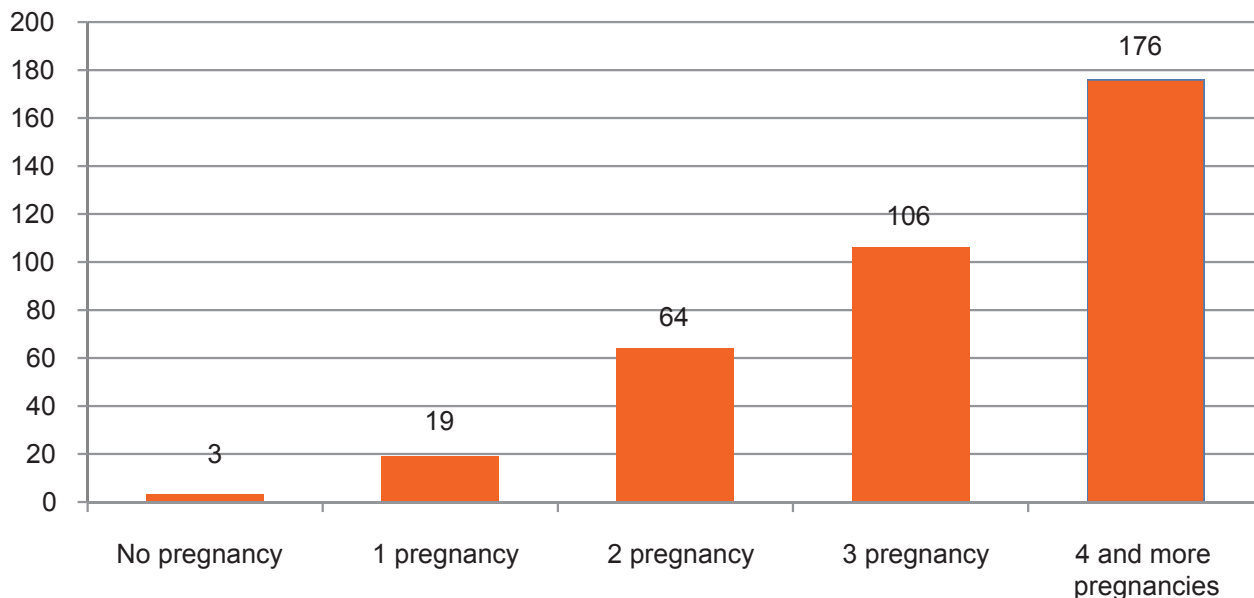
Name of locality	Number of women who had an induced abortion	Percentage
Yerevan	129	35.1
Aragatsotn	9	2.4
Ararat	22	5.9
Armavir	24	6.5
Gegharkunik	29	7.9
Lori	41	11.1
Kotayk	31	8.4
Shirak	38	10.3
Syunik	21	5.7
Vayots Dzor	9	2.4
Tavush	15	4.1
<b>Total</b>	<b>368</b>	<b>100</b>



**An examination of the surveyed women’s reproductive histories has revealed** that only 19 of the interviewed women (or 5.2%) had had one pregnancy.

The overwhelming majority (47.8% of, or 176) women had had four or more pregnancies. 17.4% and 28.8% of women had had two or three pregnancies respectively, and only three women had never been pregnant (See Figure 3.1).

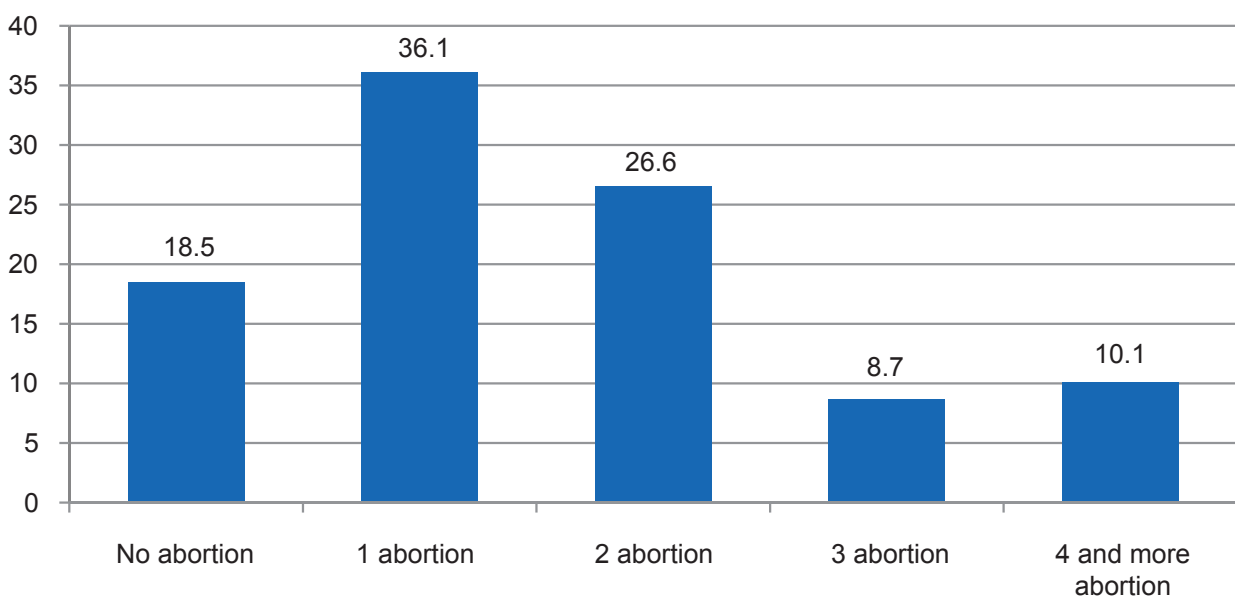
**Figure 3.1. Number of pregnancies: women who underwent an induced abortion**



**The analysis of data on previous abortions has found** that every 5<sup>th</sup> surveyed pregnant woman did not have an induced abortion.

On the whole the frequency of abortions as measured by the number of abortions tends to decrease. Thus, while every third interviewed woman (or 36.1%) mentioned one induced abortion in her reproductive history, 98 women (or 26.6%) two abortions and 32 women (or 8.7%) three abortions, only 37 women (or 10.1%) had had four or more abortions (See Figure 3.2).

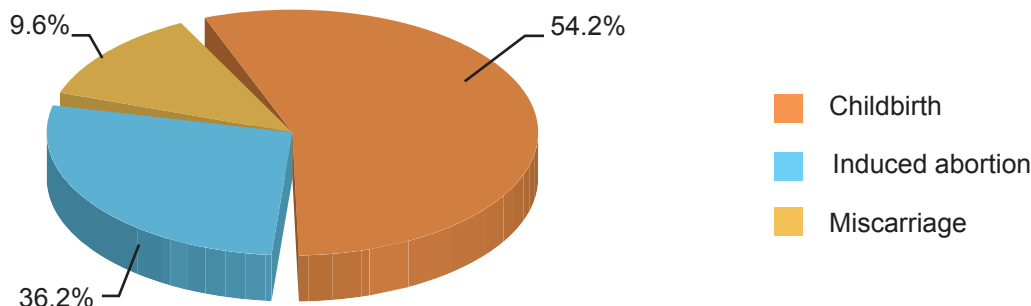
**Figure 3.2. Percentage distribution of respondents by number of abortions**



The examination of the sex ratio at first birth in the case of women who had an induced abortion has shown that the sex ratio at birth is close to a natural ratio at 1.04 (51% to 49%), whereas in the case of later born children, the number of boys is slightly higher (51.7% to 48.3%). However, the ratio of 1.07 is still close to the natural ratio.

The examination of the outcome of previous pregnancies has revealed that over a half of pregnancies (54.2%) ended in childbirth, in the case of each tenth woman pregnancy ended in miscarriage and in the case of 36.2% of women it ended in an induced abortion (See Figure 3.3).

**Figure 3.3. Pregnancy outcomes in previous pregnancies**



The analysis of the reasons for induced abortions has revealed that in 46.2% of main cases the reasons were undesired and unplanned pregnancies.

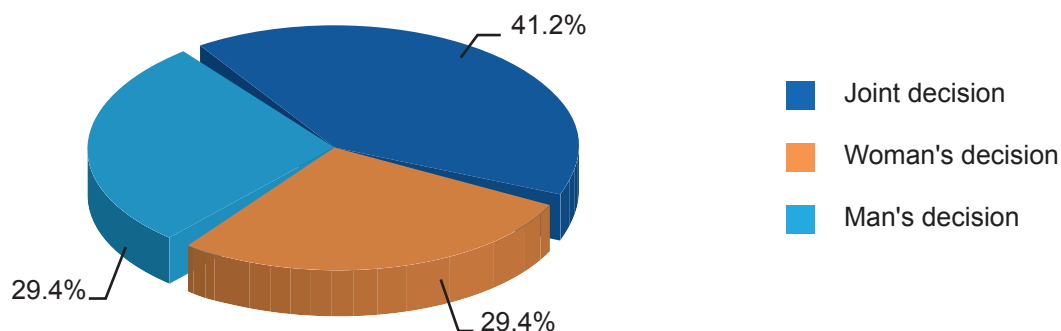
Nevertheless, the number of induced abortions for socioeconomic reasons is not small, as evidenced by responses of every third interviewed woman (or 39.1%).

27 (or 7.3%) of women had an induced abortion for medical reasons, which is an indication of the problematic health status of pregnant women.

In order to have a sex-selective induced abortion 17 (or 4.6% of) women went to stationary medical institutions that provide obstetrical services.

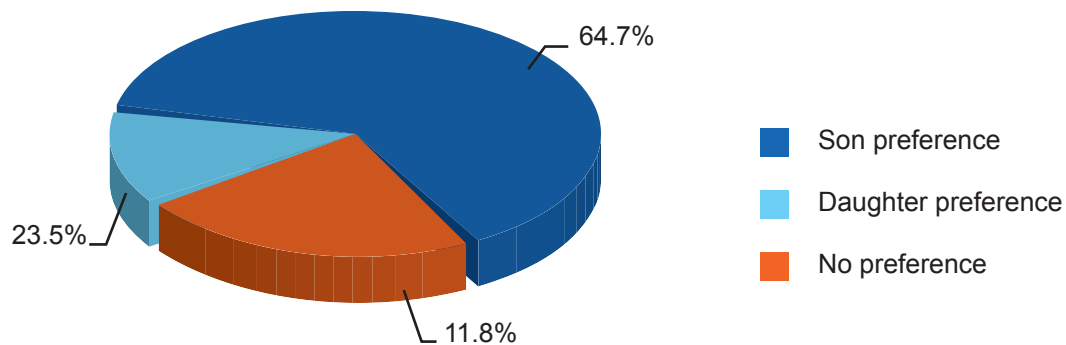
It is noteworthy that the decision-making power as to how many children of one or the other gender the family should have rested primarily with women. Suffice it to say that according to the data provided by the 17 women who answered that question, in 29.4% of cases it was a woman herself who made the decision on the number of children of one and/or the other gender, in 41.2% of cases that decision was made jointly by the woman and her husband/partner, and only in 29.4% of cases that decision was made by the woman's husband/partner. The data clearly indicates that women have significant leverage in terms of decision-making in their families (70.6%) (See Figure 3.4).

**Figure 3.4. The person making a decision as to the number and gender of children to be had by the family**



The analysis of data on women who answered the question of son or daughter preference in the family has revealed that son preference in the respondents' families is six times higher than daughter preference (64.7% and 11.8% respectively) and 23.5% of the respondents mentioned no preference with regard to child's gender (See Figure 3.5).

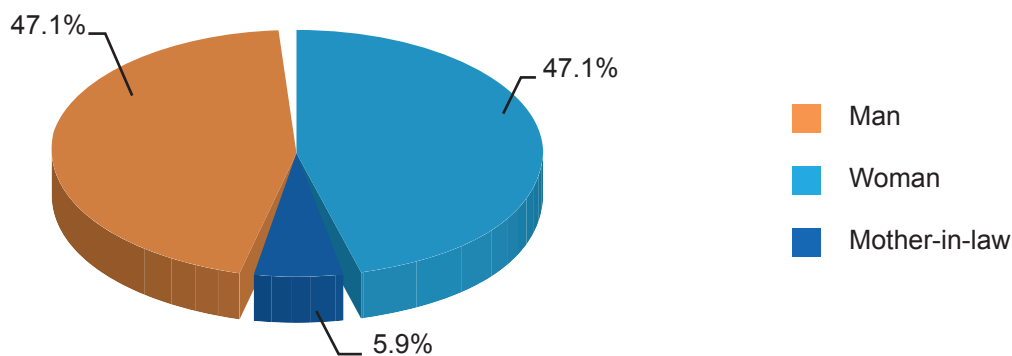
**Figure 3.5. Son or daughter preference in the family**



Only a few women who underwent an induced abortion answered the question of reason **as being a son preference in the family**. 6 (or 54.5%) of those, 11 women believe that the reason is that sons continue the family lineage, while five women (or 45.5%) believe that the reason is that sons are inheritors of property.

The next question dealt with **who made a decision to terminate the current pregnancy**. As to the data on the 17 women who answered, in eight cases (47.1%) the decision was made by the woman and in eight other cases (47.1%) by her husband and only in one case (5.9%) that decision was made by the mother-in-law (See Figure 3.6).

**Figure 3.6. The person making a decision to terminate current pregnancy**

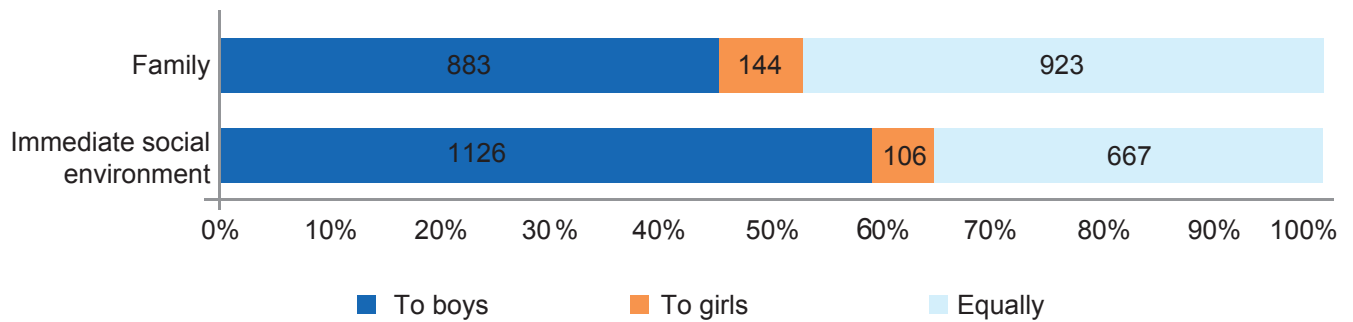


The overwhelming majority of women (88.2%) who answered the question of whether any pressure was brought to bear on them that the next child should be male and if yes, who brought that pressure on, said that there was no pressure and only two women (or 11.8%) said that there was pressure. In one case the pressure was brought to bear by women's husband and in the other by woman's mother-in-law.

### SON PREFERENCE

On the whole, the respondents in the quantitative survey state that, in regard to gender preferences for children, there is a differentiated approach both in their families and in their immediate social environment.

**Figure 4.1. In your immediate social environment/family, is preference given more to boys or to girls?**



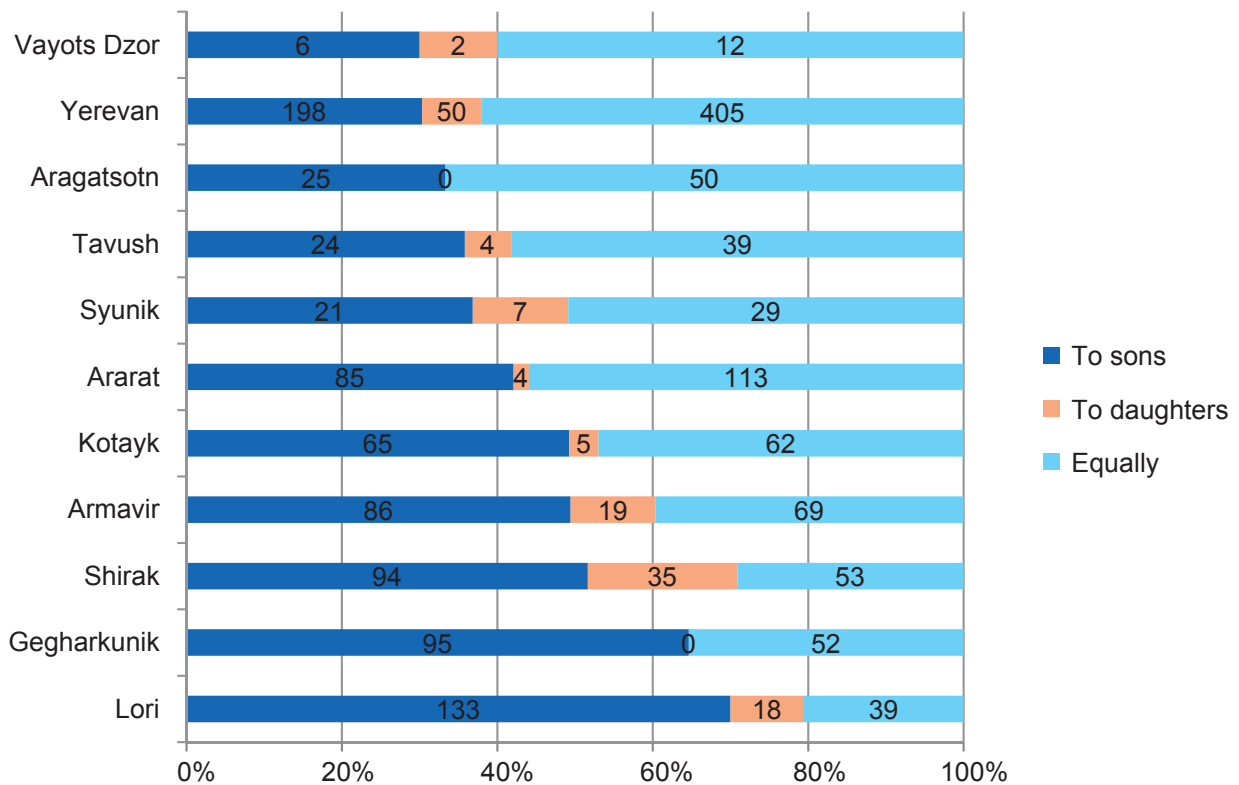
According to the survey results, in the interviewed women's immediate social environment the number of persons who have a son preference (59.3%) is about ten times greater than the number of persons who have a daughter preference (5.6%). 35.1% of the respondents note that the child's gender did not matter to people in their immediate environment.

In the opinion of the majority of interviewed women from rural areas (70.4%), preference in their immediate social environment is given to sons; only 1.6% believe that in their immediate social environment preference is given to daughters (in the opinion of 28% of the respondents, people in their immediate environment do not have a preference for one gender or the other). In urban communities, the picture is as follows: in the opinion of 50.5% of the respondents, preference in their immediate social environment is given to sons, while in the opinion of 8.8% of the respondents to daughters.

The next question dealt with family preferences. Son preference was prevalent there as well. On the whole, the number of families with a son preference is about six times greater than that of families with a daughter preference (43.8% and 7.6%, respectively). In rural areas the former number exceeds the latter by almost tenfold (51.8% and 4.5%, respectively), while in urban areas the difference is about fourfold (37.6% and 10%, respectively).

Family preferences of a child's gender broken down by region are presented in Figure 4.2.

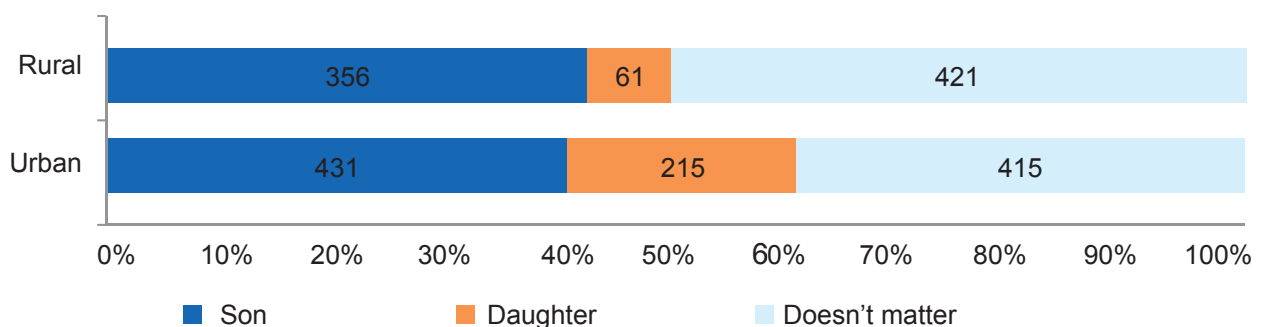
**Figure 4.2. In your family, is preference given more to sons or to daughters?**



41.5% of the women participating in the quantitative survey pointed out that during their first pregnancy they wanted to have a son, while only every seventh respondent (15.5%) noted that she wanted to have a daughter. It is noteworthy that for about a half of the respondents (43.1%) the child’s gender did not matter during their first pregnancy (See Figure 4.5).

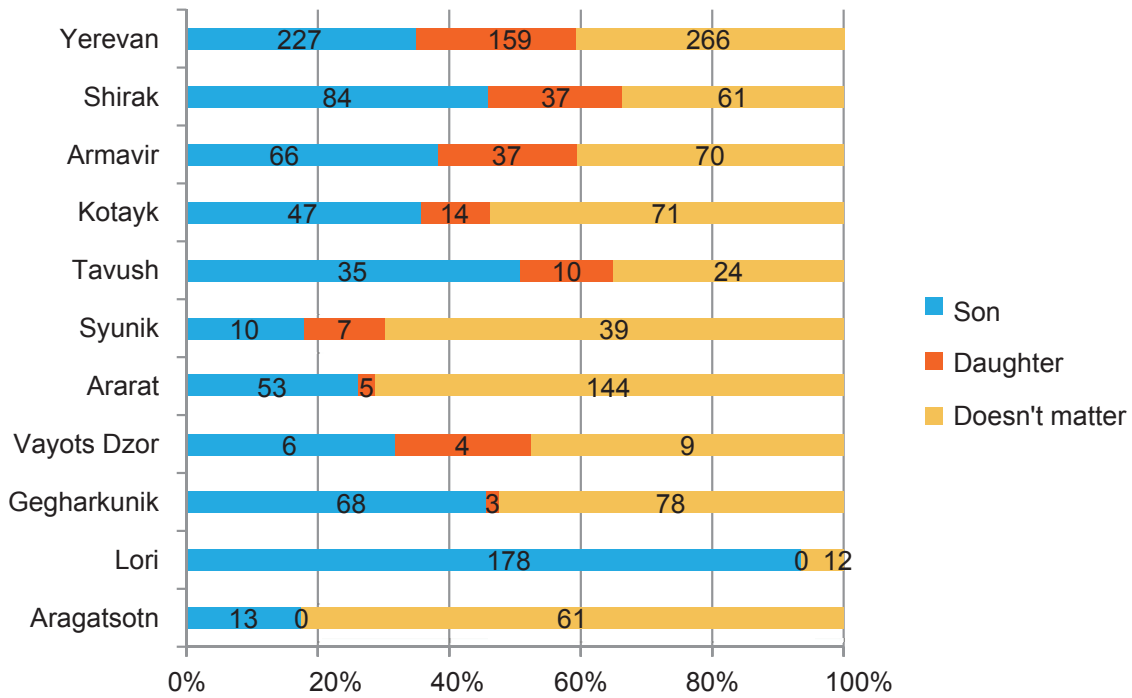
There is a marked difference in the interviewed women’s preferences depending on whether they were from rural or urban communities. The number of respondents with a daughter preference is about three times greater in urban communities than in rural communities (20.3% in urban and 7.3% in rural communities). In the case of a son preference the difference is merely 1.9 percentage point (40.6% in urban and 42.5% in rural communities).

**Figure 4.3. Did you want to have a daughter or a son during your first pregnancy?**



The analysis of the data broken down by region also indicates a clearly reflected attitude of son preference. Son preference is relatively greater in the Lori (93.7%), Tavush (50.7%), Shirak (46.2%) and Gegharkunik (45.6%) regions. Relatively equal attitudes in terms of the first child’s gender is in the Aragatsotn (82.4%), Ararat (71.3%) and Syunik (69.9%) regions, where the overwhelming majority of respondents pointed out that during their pregnancy the child’s gender did not matter.

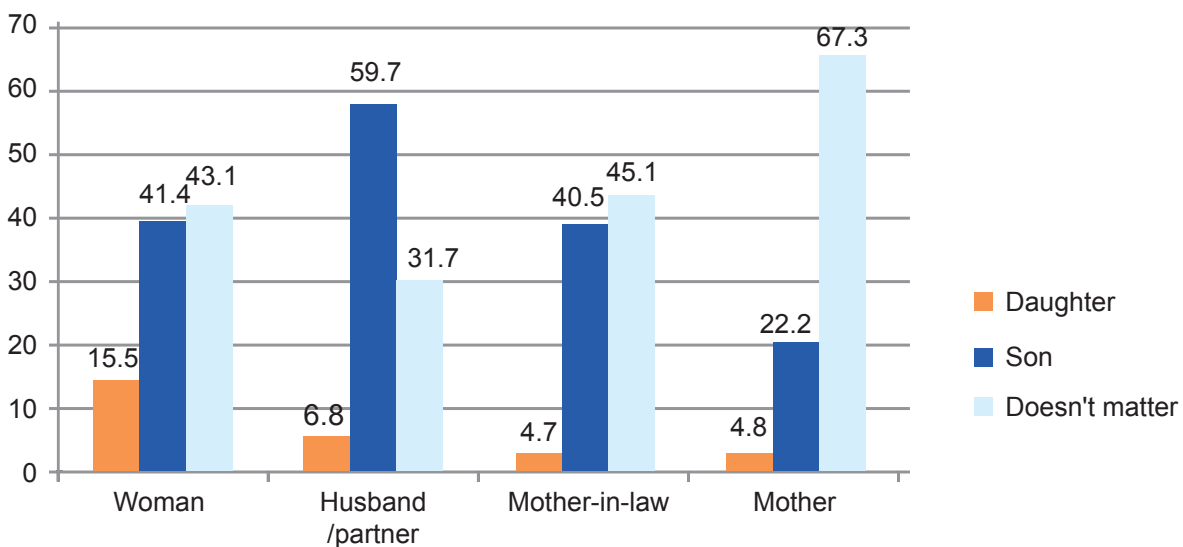
**Figure 4.4. Did you want to have a daughter or a son during your first pregnancy?**



During interviewed women’s first pregnancy the majority of their husbands/partners (59.7%) wanted to have a son (the difference between women and their husbands wishing to have a son constitutes 18.2 percentage points), while only 6.8% of husbands/partners wanted to have a daughter. The child’s gender did not matter to each third woman’s husband/partner (31.7%).

According to the women interviewed during the quantitative study, only a small percentage of mothers-in-law and mothers wanted to have a granddaughter during the woman’s first pregnancy (4.7% and 4.8%, respectively). 40.5% of respondents’ mothers-in-law and 22.2% of mothers wanted to have a grandson. The child’s gender did not matter to 45.1% of respondents’ mothers-in-law and 67.3% of respondents’ mothers.

**Figure 4.5. Did you want to have a daughter or a son during your first pregnancy?**



It is noteworthy that as to the statistical test performed (t-test), the respondents' level of education and degree of awareness do have a significant impact on child's gender preferences<sup>1</sup>.

## SOCIO-PSYCHOLOGICAL FACTORS UNDERLYING SON PREFERENCE

The participants of focus groups and in-depth interviews believe that, at present, sons are valued more in society.

The discussants find that marked son preference is purely the result of the Armenian mentality. However, in the opinion of some participants, such a differentiated attitude toward the child's gender is not justified in society. The quot

*"The phenomenon, as such, does exist in our society, I do not know why. I myself personally do not agree with the idea that sons are more valuable because I have noticed that in our society the "son phenomenon" reaches fanaticism and I would go so far as to say that not infrequently the goal of starting a family is to have a child in general and a male child in particular. This, in my view, is extremely deep-rooted and stereotypical and has to be changed."*

(Mixed focus group: women and men)

Even though many focus group participants contended that son preference has been gradually becoming less obvious with the passage of time, all of the participants in the focus groups and in-depth interviews unambiguously emphasized the importance of sons as heirs, regardless of current changes.

*"It is not important to me whether a first child is male or female. It is your child and you should love him or her regardless. Simply, as it has already been said, sons continue the family lineage, while in other respects there are daughters each of whom is worth a thousand sons".*

(Men's group)

*"In Armenian families, a man's word carries more weight with women. The man wants to have a son, therefore, the woman also wants a son because this is what the man wants. The man's opinion prevails in the family".*

(Men's group)

*"Personally, I am not of the opinion that it is more important to have a son than a daughter; however, in all families the birth of a son is valued more and is more exciting. It is this way because sons continue the family lineage; the family lineage is sustained through them".*

(First in-depth interview, 35-year-old respondent, has received higher education)

A synthetic analysis of the interviews gives grounds to conclude that son preference can, for the most part, be accounted for by the necessity to ensure the continuity of the family lineage, by a position of influence that men enjoy in families as well as by boys' greater social mobility and more active roles in society.

The focus group and in-depth interview participants were asked whether they would agree that

<sup>1</sup> The coefficient of correlation between the educational level and son preference is positive. This means that the more years of schooling that respondents' received the more preference is given to sons. The correlation, however, is weak. The average age of those who prefer daughters is very close to that of those who prefer sons. -test (1.846)< critical value of t (1.960) means that a null hypothesis is accepted, i.e. the correlation coefficient =0. Sig. (2-tailed) 0.065>0.05 means that the correlation coefficient=0 is not valid.

in Armenian families daughters are deemed less important than sons. The answers given during interviews are interesting, as the fact of the daughter's less important role in the family is not emphasized in any way.

*"In general, if there is one child in the family, it makes no difference whether it is a girl or a boy. Everything revolves around that child," said a participant in the men's focus group. "All efforts and devotion are focused on that individual. That is to say, it all depends on how many children the family has. The entire situation is predicated on that factor. It is out of the question that a daughter would be treated with indifference by her family if she is the only child. That is absolutely impossible".*

The women participating in the in-depths interviews were asked to explain the issue using their own experience as an example.

*"In my case, I did not intend to become pregnant. The family members wanted a son, when it turned out that the second child was going to be a girl, I decided to get an abortion in the expectation that the third time it would be a boy. I terminated the second pregnancy just for that reason. I will not terminate my third pregnancy, even though it is going to be a girl. We have made that decision in our family. I do not think that daughters are not important because I have one daughter. Though, it is true that I terminated my second pregnancy because of the child's gender. Now I am going to have a child, who is also a girl. I think that a daughter is more important than a son for a parent, especially for mother".*

(First in-depth interview,  
35-year-old respondent, has received higher education)

*"I have two sons. When I was expecting the first child, we found out it was going to be a girl, so I resorted to an induced abortion. My second child is also a boy. Then I did not want to have more children as I had health-related problems. But if I were fortunate enough to have another child, I would like to have yet another son. I do not agree with the idea that the society finds girls less important. Each person thinks in their own way. Each person has their own individuality, so it all depends on how that person thinks and approaches that question. I, for instance, value sons. I simply love sons. I am a woman of a romantic disposition. I think that if for some reason a daughter does not succeed in life, it is more painful for her parent than if a son fails".*

(Second in-depth interview, 40-year-old respondent,  
has received post-secondary vocational non-tertiary education)

In their turn, the participants in the focus group for single young women held that with regard to child's gender there is no significant difference in families. What is more, the majority of the participants put forward arguments that stress the decisive role women have in the family. According to the participants in the focus group for single women, an opinion offered by a male or female child is received equally in the family; simply more attention is paid to the opinion of the firstborn regardless of gender. It can be concluded from the answers given by various interviewees that there are basically no problems in families that would reflect different treatment of boys and girls. The problem is future prospects for girls in society or in life and women's more vulnerable situation.

It is noteworthy that participants in the focus group for married women pointed out that the role of women has become considerably more important in society over the past few decades.

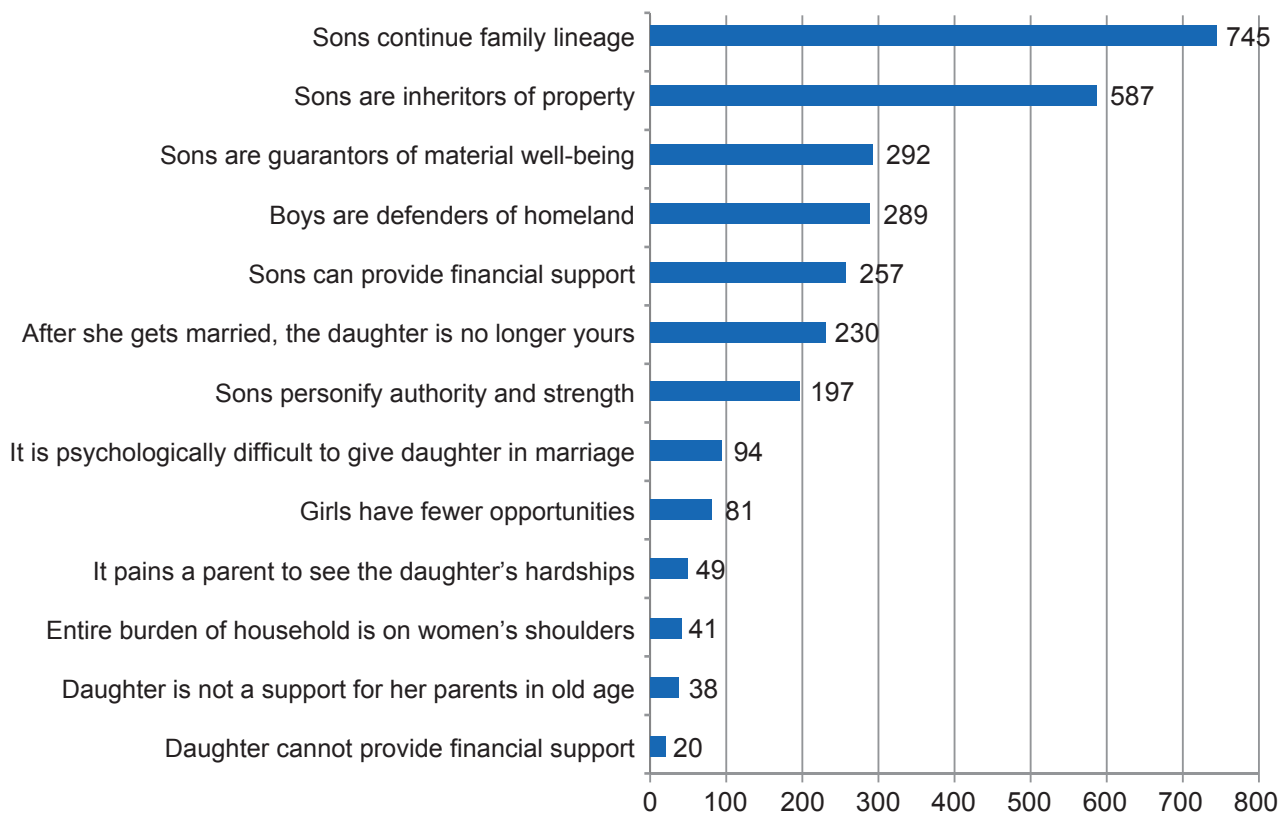
One might say that the findings of the quantitative survey are the same as the explanations provided by the focus groups and in-depth interviews. When asked why families give preference to sons rather than daughters, 39.2% of the respondents in the quantitative survey indicated that sons continue the family lineage, while 30.9% said that sons are inheritors of property. Also emphasized



were statements that sons are defenders of homeland and future guarantors of financial support and material well-being (See Figure 4.6).

Families with daughter preference emphasize the daughters' closer ties to their parents, especially their readiness to help parents (6.6%), to give them psychological support (4.8%) or to provide support in old age (3.5%).

**Figure 4.6. Why does your family give preference to sons rather than to daughters?**



As evidenced by the survey results, the gender of the firstborn child, too, has an impact on family preferences. In families with a daughter preference, the firstborn in 80.1% of cases was a girl, whereas in families with a son preference, the firstborn in 60.8% of cases was a boy.

### **SOCIO-PSYCHOLOGICAL PRESSURE**

According to the quantitative survey results, when the firstborn was a girl, in 99% of families no family member voiced discontent. It should be noted that even in families with a son preference, in the overwhelming majority of cases (88.4%) there was no pressure brought to bear after the birth of the first child so that the next child should also be a boy. In those families (which account for 11.6%) where some pressure was brought to bear, it was exerted primarily by husbands (82.6%), whereas in every fifth case the pressure was exerted by mothers-in-law (17.3%) After the birth of the most recent child there was no pressure in 89.4% of cases.

The issue of pressure was also discussed during the qualitative interviews. In particular, the focus was on pressure brought to bear on women by their families and immediate social environment. With regard to pressure exerted by their immediate social environment, the interviewees noted that it took the form of gossip and ridicule.

*“They would miss no occasion for ridicule. I can bring an example from my own experience. It does not matter to me whether the child is female or male but sometimes we ridicule a friend of ours who has two daughters”.*

(Mixed focus group: women and men)

However, according to the synthetic analysis of the interviewees’ responses, there are no grounds to contend that societal pressures are of a systemic nature. As to the focus group participants, the external pressure on families in rural communities is considerably greater than it is on families in urban communities. Families in urban communities simply continue to heed public opinion.

*“In my view, we are still at the stage when we are still concerned about what neighbors will say about us”.*

(Focus group for men)

As one participant in the focus group for married women put it, those are not manifestations of pressure but rather pieces of advice. In general, the participants in that group believe that while such incidents do indeed occur, they are not widespread. One of the in-depth interviewees brought an example from her personal experience. While what transpires cannot at first glance be called ‘pressure’, it in any case entails pity, which can also have an adverse effect on the woman.

*“When they ask me about the gender of the child to be born and I say that it is a girl (and they know that I already have a daughter), they say ‘Well, never you mind, the third child will surely be a boy’”. It seems to them that I take it hard” [that the second child is going to be a girl].*

Similar pressure can also be brought to bear in the family because there is a stereotype regarding children’s sex ratio in the family. At the same time, the participants of the focus group for married women point out that whether pressure is exerted or not depends on each family. If the climate in the family is such that other family members can influence the married couple, the idea of having a male child will simply be one topic of discussion. The same opinion was also expressed in the focus group for men, with other participants seconding it.

*“The following is quite typical of Armenian families: as soon as a young man came back from military service, he has to marry. In other words, the young man does not yet have an independent mentality, his own principles and adequate self-esteem. The breadwinner in the family is the father, who has his son marry only for the reason of ensuring the continuity of the family lineage. It should not be like that ... There are families where the son is a ‘man’ only nominally, since he has yet to prove himself a man. In such a family everyone harasses his wife”.*

The participants in the focus group for single women also held that public opinion carries a lot of weight in Armenian culture.

*“Society itself induces that. For example, I want to have a daughter very much. I absolutely do not want to have a boy. However, I doubt that in the future my husband or people in my immediate social environment will accept my position because, in families, you don’t have that child only for yourself. Since we are Armenians, the opinion of the immediate social environment, of our friends and family and of society at large is very important to us. Therefore, we put a lot of weight on their opinion. Quite a few people try to live up to public opinion and are anxious about what people around them would think about them”.*

(Focus group for single women)

*“Mothers-in-law always say, ‘It should be a son; my son must have a son,’ because they themselves had a son and they too were manipulated”.*

(Focus group for single women)

In general, the participants in the qualitative study tend to relate such pressure to prevalence of pre-modern traditions in families regardless of the financial status of the family.

*“But there are differences in our society. There are well-educated people who are well-off but there are also people who are not well-educated but who are well-off. This is something specific”.*

(Focus group for men)

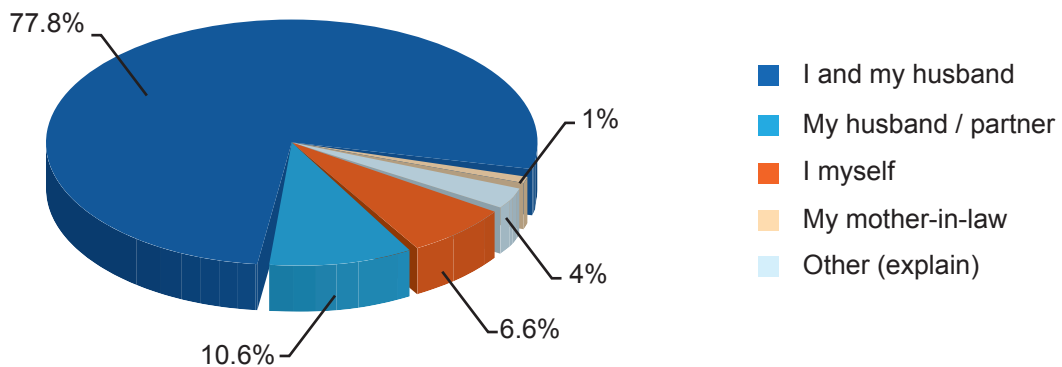
*“As a matter of fact, I know well-educated people who are not hung up on having a son. They even encourage others to have a daughter and are sincere in saying that they want to have a daughter. I welcome that very much. In any case, that can be accounted for by the high level of their education”.*

(Mixed focus group: women and men)

### FACTORS DETERMINING THE NUMBER OF CHILDREN IN THE FAMILY

When asked who in their family decides how many daughters and how many sons they should have, the overwhelming majority (77.8%) of the quantitative survey participants replied that their decision was made jointly with their spouses. Only 6.6% of surveyed women made their own decision regarding the gender of the future child, whereas in the families of 10.6% of surveyed women the decision was made exclusively by their husbands. Approximately half of the women who made decisions regarding children on their own were married (40.2%) or living with a man (4.7%).

**Figure 4.7. Who in your family decides how many daughters and how many sons you should have?**



The focus group and in-depth interview participants were asked to clarify the factors that underlie the decisions made by families about the number of children to be had. The focus group participants, as well as participants in the individual in-depth interviews, believe that at present families limit the number of children to one or two. All focus group participants noted that the small number of children can be accounted for by the country’s current socioeconomic situation. Some participants spoke about families, including poor families, in rural communities that have many children regardless of their socioeconomic situation. It was also pointed out that children in rural communities are manpower; they help their families and from that perspective it is possible to explain the difference.

With regard to urban communities, the participants said that families there have as many or as few children as they can support, give education and solve housing problems.

*“While in the past (families) wanted to have two children, now they won’t have a second child if the firstborn is a boy because they think that they should have one child so as to be able to support him or her well. They do not think, though, that when the child grows up, he or she will be alone and face difficulties”.*

(Focus group for single women)

*“In Armenian families, it is not that when they have children the parents do not care about them. It is better that there should be fewer children that are better cared for”.*

(Focus group for men)

*“For instance, I would have a son and a daughter and I would not have a third child. I can say that we don’t need the third child in every respect.”<sup>2</sup>*

(Focus group for married women)

All of the women participating in the in-depth interviews also stress, first and foremost, socio-economic factors in decisions regarding children. The participants of focus group discussions believe that, at present, families limit themselves to two children in distinction to the past, when families would go on having children until they have a son.

*“One of our close friends has been struggling for 10 years resorting, of course, to artificial termination of pregnancy. She kept having induced abortions until she was sure that the child would be male. Now she is expecting a boy. They have daughters, though”.*

(Focus group for single women)

*“I do not know about society at large but I, specifically, find that in the today’s situation it is difficult to support more than two children. Families in previous generations had three or four children. Now people are avoiding that. It seems to me that they do so because of social conditions. It is the 21<sup>st</sup> century and the child’s needs are more numerous. While in the past [parents] could have a child and raise him or her without sending them to private tutors because schools gave good and accessible knowledge, parents must now take children to private educational institutions or to private tutors and they need resources to be able to afford that. Today, not everyone can afford that.”*

(1<sup>st</sup> in-depth interview, 35-year-old respondent, has higher education)

One of the women participating in the in-depth interviews also pointed out that in today’s society some pressure is still brought to bear on girls and women, which can be accounted for by norms and values. As a result, families avoid having female children and limit the number of children to one or two.

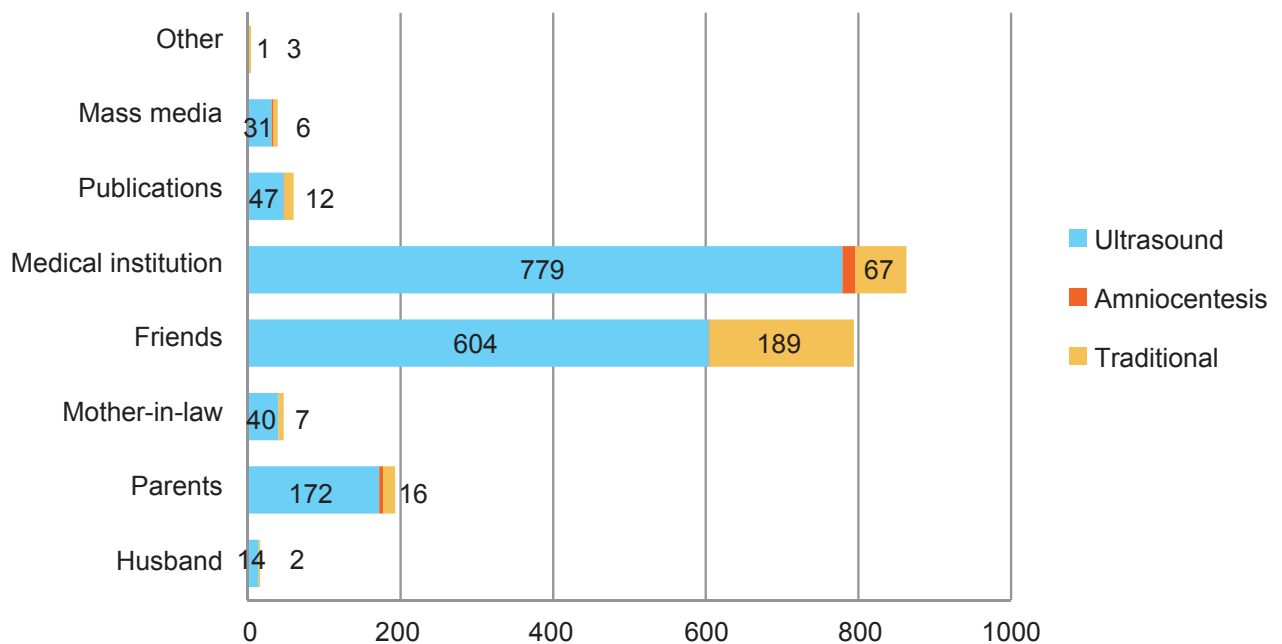
## **AWARENESS OF PRENATAL SEX DETERMINATION AND PREGNANCY TERMINATION TECHNOLOGIES (MEDICATIONS, MEDICAL INTERVENTION) AND ACCESSIBILITY OF SERVICES**

According to the quantitative survey results, 91.7% of women had heard of one or more methods of prenatal sex determination. Of those, 88.9% knew about the ultrasound method, 15.9% knew

<sup>2</sup> The first two children of this woman, who took part in the discussion, are girls and she gave birth to the third child so as to have a son.

traditional methods and 1.5% about amniocentesis. The main sources of information about those methods are the personnel of medical institutions as well as friends and relatives (See Figure 4.8).

**Figure 4.8. Sources of information about methods**



66.9% of the participants in the quantitative survey hold the opinion that these methods are accessible to them. 25.7% could not answer the question and only 7.4% said that the method was not accessible. Every fourth woman (24.1%) has availed herself of at least one of these methods within the past five years.

The results of the qualitative study also indicate that women are sufficiently informed about prenatal sex determination testing. For the most part, information is received from parents, the internet and medical personnel and in this regard there are no limitations on this information.

The issue of possibilities for prenatal sex determination was discussed in focus groups for single women and for married women, as well as in the course of individual in-depth interviews. Some participants said that there are calculation methods, which can be found on the internet or in various magazines, and traditional methods that today's women have no knowledge of. Other discussants do not trust and are not interested in those methods. On the whole, it can be concluded that such methods are not particularly widespread.

One of the topics that drew particular attention during the discussions of termination of pregnancy that were held in the course of focus groups and, particularly, in-depth interviews was a drug-induced abortion. The participants mention that today this method is quite widespread because it is very accessible. Drug "Cytotec" can be purchased in pharmacies. It is even suggested by pharmacy staff, when clients ask for advice.

*"For example, everyone knows about medication that is used by everyone. There are women who resort to induced abortions, but there are also women who are fine [with the medication] and who recommend it to others. It works in a way that women take it and there is no need for medical intervention. That depends on the organism".*

(2<sup>nd</sup> in-depth interview, 40-year-old respondent, has received post-secondary vocational non-tertiary education)

In the participants' opinion, the termination of pregnancy through medical intervention is not particularly difficult to access considering the fact that, if the woman has decided to have an abortion, money to pay for it will be found. In the participants' opinion, the problem is to find quality doctors or specialists.

*"What matters is for a person to make up their mind. To get information is so easy these days. You go to a hospital, tell them what you need and that would be it. Anyway, it is not too expensive and it is cheaper than giving birth to a child. A few years ago it was 10,000 AMD".*

(Mixed focus group: women and men)

*"A person who finds herself in that situation has no choice. She has to take that step. She thinks that it is wrong. She finds it unacceptable but since she is already in that situation she has no other way out. It is a better option than giving birth to a child but being unable to support it".*

(Focus group for married women)

### **PARENTS WITH SON PREFERENCE: CONSEQUENCES FOR THE FUTURE**

Also discussed in all of the focus groups and individual in-depth interviews were the societal consequences of the prevalence of parents with a son preference. On the whole, the discussants recognized that the phenomenon is unnatural. The opinions were voiced that, if unchecked, the trend can lead to a rise of a more aggressive society. Besides this, the number of physiological deviations will increase. The impression gained from the discussions was that some participants simply were unaware of the relevant data.

*"While a few years ago the boy to girl ratio was 1 to 3, in the future the situation will gradually be reversed to the ratio of one girl for every three boys".*

(2<sup>nd</sup> in-depth interview, 40-year-old respondent, has received post-secondary vocational non-tertiary education)

*"In the 1990s, so many boys were born that it was believed to somehow be linked to the war as, it was said, mostly boys are born in the aftermath of war".*

(Focus group for married women)

*"Nature sustains us, doesn't it? After the earthquake more boys were born. Nature itself maintains [the balance] irrespective of humans".*

(Focus group for single women)

In the opinion of many participants, the phenomenon will be self-regulated and since Armenians are a mobile nation, the number of mixed marriages will simply increase and men will find partners from other countries.

*"They will go to other countries and bring wives from there. They have to have a family. They will inter-marry with other ethnic groups".*

(Focus group for men)

The participants concur that in order to change the situation the status of women in society has to be advanced so that families will not be uncomfortable about having daughters. Furthermore, many participants find that the situation has already changed considerably.

*“The situation is already changing. In many families, it is women who are the breadwinners, while more men stay at home. For instance, when we go home, it is mostly women taking mini-buses to get home from work. Men simply do not speak openly about it, whereas women prefer to remain silent if there is a man beside them. But this is situation”.*

(Focus group for single women)

*“In the past women did not pursue education and did not work. But now they are in every sector. A few days ago, I was reading an interesting story about what the women are capable of as they move into what used to be exclusively male professions (for example, I was reading about female military pilots, about female mountain climbers and drivers)but now women and girls have reached the stage, a psychological stage, where they are second to none. Many women even became very skillful and attained spectacular success in their professions.”*

(Focus group for single women)

*“According to the law, males and females have the same rights in terms of inheriting property. Women should act in such a way that her role will be seen as important. In my view, the role of women is very important. Women should become more self-confident and more appreciative of themselves rather than wait until men do something. They should make their own decisions as women as to whether they want to limit themselves to the role of mother or to be women who work. In my opinion, the home is made by women.”*

(Mixed focus group: women and men)

## CONCLUSIONS

1. The majority of surveyed women started performing reproductive functions on average between the ages of 19-35, which is the most favorable age for reproduction.
2. Some patterns are clearly observable: the comparison between an increase in the number of births and reproductive behavior is made within the scope of the first through sixth births.
  - Pregnancy was wanted for 99.8% of the respondents at the time of the first pregnancy, for 89.1% at the time of the second pregnancy and for 16.8% at the time of the sixth pregnancy.
  - The more births the women have had, the lower the percentage of those among them who wish to have another child (the percentage goes down from almost 100% to 19.8%).
  - The more births the women have had, the lower the percentage of pregnancies resulting in live births (the percentage goes down from 95.2% to 16.8%) and the higher the percentage of pregnancies ending in induced abortions (the percentage goes up from 0.3% to 81.4%).
3. Son preference is about 2.7 times higher among surveyed women, regardless of the number of pregnancies the woman has had, even at the time of the first pregnancy.
4. The sex ratio at birth for the first and second children was 1.03 and 1.02, respectively, which virtually coincides with the natural sex ratio among newborns.
5. The sex ratio at birth for the third and especially the fourth child was 1.5 and 1.7 respectively, thereby differing considerably from the natural ratio for births of both sexes.
6. From the fifth child on, the sex ratio at birth tends to decrease gradually (1.4), while in case of the sixth child the ratio is 1.2, which indirectly indicates that families having many children have both daughters and sons.
7. In cases of urban women, from the third child on, the sex ratio at birth tends to increase and peaks in the case of the fourth child (3.3).
8. In rural areas, the sex ratio at birth in the case of the first through fourth child is close to the natural sex ratio (1.1 and 1.0); the ratio tends to decrease somewhat in the case of the third child (0.7) and to increase slightly in the case of the fifth child (1.3).
9. With regard to women with tertiary education, the sex ratio at birth in the case of the second through fifth child tends to increase (1.2-1.6), reaching an unprecedented high value of 3.2.
10. A certain correlation is observed between women's income and a greater predominance of boys. In particular, in comparison with low-income women, in the case of women with a monthly income of 100,000 AMD or more, the sex ratio at birth among the first and second children is 1.22 and 1.33 respectively, while among the fourth and fifth children the predominance of boys becomes unprecedented, with the sex ratio being 8.2 and 7.6 respectively.
11. Even though the interviewed women are well-informed about possibilities for determining the sex of the fetus in the prenatal period (91.7%), only 420 women (22.1%) underwent that procedure.
12. After the sex of the fetus had been determined, an overwhelming majority of women who had undergone that procedure maintained their pregnancy. 23 women (5.5%) had an induced abortion. Thus, the survey results indicate that within the last five years 0.8% of 2,925 women of reproductive age (15-49 year-olds) in 2,830 households covered by the survey had a sex-selective abortion.



13. The decision to have a sex-selective abortion was made primarily by the pregnant women themselves (82.6%).
14. The percentage of the interviewed women who are aware that induced abortion is legal in Armenia is relatively low (only 57.4%).
15. Even though son preference in the respondents' families is six times higher than daughter preference, when born, female children are cared for and treated equally.
16. Of the women who had an abortion (368), 4.6% had one for sex-selective reasons.
17. With regard to gender preferences for children, there is a differentiated approach in the respondents' families and immediate social environment. In the interviewed women's immediate social environment the number of persons who have a son preference (59.3%) is about ten times greater than the number of persons who have a daughter preference (5.6%). In the opinion of the majority of interviewed women from rural areas (70.4%), preference in their immediate social environment is given to sons; only 1.6% believes that in their immediate social environment preference is given to daughters.
18. On the whole, the number of families with a son preference is about six times greater than that of families with a daughter preference (43.8% and 7.6%, respectively). In rural areas the former number exceeds the latter by almost ten times (51.8% and 4.5%, respectively), while in urban areas the difference is about fourfold (37.6% and 10%, respectively).
19. 41.4% of women participating in the quantitative survey pointed out that during their first pregnancy they wanted to have a son, while only every seventh respondent (15.5%) noted that she wanted to have a daughter. It is noteworthy that for about a half of the respondents (43.1%) the child's gender did not matter during their first pregnancy.
20. The gender of the first child also has an impact on a family's preferences. In families with a daughter preference, the first child in 80.1% of cases was female, whereas in families with a son preference, the first child in 60.8% of cases was male.
21. When asked who makes a decision on how many sons and how many daughters they should have in their family, an overwhelming majority of the participants in the quantitative survey (77.8%) replied that it is a joint decision with their husbands.
22. A synthetic analysis of interviews in the qualitative study gives grounds to conclude that a son preference can, for the most part, be accounted for by the necessity of ensuring the continuity of the family lineage, by a position of influence that men enjoy in families as well as by boys' greater social mobility and more active roles in society.
23. To the question of why families have a son rather than daughter preference, 39.2% of the participants in the quantitative survey replied that sons continue the family lineage and 30.9% replied that sons are inheritors of property.
24. A conclusion can be drawn based on the interviews in the qualitative study that there are not particular problems related to a differentiated approach to daughters and sons in the families and that the problem is the prospect for women's subsequent self-realization and women's more vulnerable status in society.

FOCUS GROUP SAMPLE CONSTRUCTION MECHANISMS

Mixed-sex focus group (men/women)	Education			
	Secondary/Post-secondary vocational non-tertiary education		Tertiary education	
Age	Sex		Sex	
	Male	Female	Male	Female
18-35	1	1	1	1
36-55	1	1	1	1
56 and over	1	1	1	1
<i>Total number of participants in one focus group</i>	12			

Male focus group	Education	
	Secondary/Post-secondary vocational non-tertiary education	Tertiary education
Age	Sex	
	Male	
18-35	2	
36-55	2	
56 and over	2	
<i>Total number of participants in one focus group</i>	12	

Single female focus group	Education	
	Secondary/Post-secondary vocational non-tertiary education	Tertiary education
Age	Sex	
	Female	
18-35	4	
36-55	2	
<i>Total number of participants in one focus group</i>	12	

**RoA MINISTRY OF HEALTH  
RoA NATIONAL STATISTICAL SERVICE  
UNITED NATIONS POPULATION FUND**

*Data will be used solely for statistical analysis and are not subject to publication*

**PREVALENCE OF AND REASONS FOR SEX-SELECTIVE ABORTIONS IN ARMENIA  
(Questionnaire for Women)**

**Household identification number** \_\_\_\_\_

**Identification number of family in household** \_\_\_\_\_

Survey timeframe \_\_\_\_\_ month 2011

Locality \_\_\_\_\_  
Name Code

Region \_\_\_\_\_  
Name Code

Cluster Number \_\_\_\_\_ Code

Interviewer Number \_\_\_\_\_ Code

Interviewee's name \_\_\_\_\_

Household Head's name \_\_\_\_\_

Start of interview \_\_\_\_\_ End of interview \_\_\_\_\_

**CONSENT**

Hello, my name is \_\_\_\_\_.  
 I work with the RoA Ministry of Health, National Statistical Service and United Nations Population Fund. We are conducting a survey which we believe will be instrumental in ascertaining the prevalence and causes of sex-selective abortions in Armenia. We request your consent to take part in this important study. We guarantee that strict confidentiality regarding the information provided by you will be maintained.

1.1 How many families reside in this household?  
*("Family" is here taken to mean a nuclear family, i.e. a married couple and their unmarried children)*  
 \_\_\_\_\_ family (families)

1.2 How many women aged 15-49 live in this household?  
 \_\_\_\_\_ woman (women)

1.3 How many ever-pregnant women aged 15-49 live in this household?  
 \_\_\_\_\_ woman (women)

*Those women aged 15-49 who have never been pregnant are not eligible to be surveyed.*

2.1 Please provide information about each of those women's age (how old she was on her last birthday) and marital status

Line number	Age	Marital status*
1		
2		
3		
4		
5		
6		

**\* Marital status**

1. Currently married and lives with her husband
2. Currently married but lives separately from her husband
3. Living with a man, not married
4. Divorced
5. Widowed
6. Has never been married but has a child (children)
7. Other \_\_\_\_\_

- If women who qualify to be surveyed live in a given household, obtain permission to meet with them, introduce yourself and try to obtain her consent to participate in the survey.
- If the selected woman is not at home or if she prefers to answer the questions at a more convenient time, then put down her first name (but not her last name) and the date of your next visit.

Name \_\_\_\_\_

The date of the second visit \_\_\_\_\_ Time \_\_\_\_\_

The date of the third visit \_\_\_\_\_ Time \_\_\_\_\_

- Should you fail to meet the selected woman during your three visits, put code (4) in the "Visits registration – outcome" line and move on to another address

**Visits registration**

Visit number	1	2	3
Outcome*			

**\* Visits outcome code**

1. Interview has been conducted at home and has been successfully completed
2. Interview has been conducted at another location \_\_\_\_\_ and has been successfully completed
3. There are no women eligible for the survey
4. There is no one at home
5. The selected woman is not at home
6. Interview request rejected
7. The selected woman refused to answer the questions
8. No one resides in the house/apartment (State the reason) \_\_\_\_\_
9. The respondent is not knowledgeable \_\_\_\_\_
10. They do not want to open the door
11. Another outcome

- If you succeed in meeting with the selected woman, introduce yourself, explain the purpose of your visit and try to obtain her consent to be interviewed.

2.2 Interview is being conducted with \_\_\_\_\_ woman.

## SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS

	Questions	Coding categories	See
A.1	How old were you on your last birthday?	I was _____ years old on my last birthday	
A.2	What is the highest level of education that you achieved?	How many years did it take you to get to that level?	
	<u>Level</u> 1. Has no elementary education _____ 2. Elementary educ. (grades 1-4) _____ 3. Basic education _____ 4. Senior high school _____ 5. Pre-professional (vocational-technical) education _____ 6. Post-secondary vocational non-tertiary education (non-degree technical and liberal arts colleges) _____ 7. Tertiary education _____ 8. Post-tertiary education _____	Years 1. (0) _____ 2. (0-4) _____ 3. (0-5) _____ 4. (0-3) _____ 5 (0-2) _____ 6. (0-5) _____ 7. (0-7) _____ 8. (0-4) _____	
A.3	What is your religion?	Armenian Apostolic _____ 1 Armenian Catholic _____ 2 Armenian Evangelical _____ 3 Sectarian _____ 4 Shar-fardi (Yezidi) _____ 5 Other _____ 6 Noreligion _____ 7	
A.4	Your marital status	Married _____ 1 Single _____ 2 Divorced _____ 3 Widowed _____ 4 Living with a man, not married _____ 5	
A.5	What kind of family do you live in?	Nuclear _____ 1 Together with parents _____ 2 Extended family (with parents and other relatives) _____ 3	
A.6	How many members is your family composed of?	Number _____	
A.7	What is the main source of income in your family?	Agriculture _____ 1 Commerce (wholesale, other) _____ 2 Our own business _____ 3 Government employee _____ 4 Pay by the day _____ 5 Money remittances from abroad _____ 6 Rental income _____ 7 Pension/allowance (specify) _____ 8 Other (specify) _____ 9	
A.8	Who is the primary breadwinner in your family?	I am _____ 1 My husband/partner _____ 2 My parents _____ 3 Parents of my husband/partner _____ 4 Other (specify) _____ 5	
A.9	What is the highest level of education that your husband/partner achieved?	How many years did it take him to get to that level?	

	<u>Level</u>	Years	
	1. Has no elementary education _____ 2. Elementary educ. (grades 1-4) _____ 3. Basic education _____ 4. Senior high school _____ 5. Pre-professional (vocational-technical) education _____ 6. Post-secondary vocational non-tertiary education (non-degree technical and liberal arts colleges) _____ 7. Tertiary education _____ 8. Post-tertiary education _____	1. (0) _____ 2. (0-4) _____ 3. (0-5) _____ 4. (0-3) _____ 5 (0-2) _____ 6. (0-5) _____ 7. (0-7) _____ 8. (0-4) _____	
A.10	What is your husband/partner's main occupation?	Agriculture _____ 1 Commerce (wholesale, other) _____ 2 His own business _____ 3 Government employee _____ 4 Pay by the day _____ 5 Money remittances from abroad _____ 6 Rental income _____ 7 Pension/allowance (specify) _____ 8 Other (specify) _____ 9	
A.11	What is your main occupation?	Agriculture _____ 1 Commerce (wholesale, other) _____ 2 His own business _____ 3 Government employee _____ 4 Pay by the day _____ 5 Money remittances from abroad _____ 6 Rental income _____ 7 Pension/allowance (specify) _____ 8 Homemaker _____ 9 Other (explain) _____ 10	
A.12	What are your average monthly earnings?	0 _____ 1 Less than 29,999 _____ 2 30,001 – 50,000 _____ 3 50,001 – 100,000 _____ 4 More than 100,001 _____ 5	
A.13	Who is a primary decision-maker regarding how and on what the money that you earned should be spent?	1. Myself _____ 1 2. My husband/partner _____ 2 3. I and my husband/partner _____ 3 4. My father-in-law _____ 4 5. My mother-in-law _____ 5 6. Other (explain) _____ 6	
A.14	How much money did your family spend last month on average (in AMD)?	1. Food _____ 2. Transportation _____ 3. Education _____ 4. Clothes/household goods _____ 5. Utilities _____ 6. Entertainment _____ 7. Loan/debt _____ 8. Other _____	
A.15	What is your family's average monthly income?	1. Average monthly income (in AMD) _____ 2. Refuses to answer _____ 3. 0 AMD _____	

**SECTION B: AVAILABILITY OF FACILITIES AND AMENITIES**

	Questions	Coding categories		See
		<u>YES</u>	<u>NO</u>	
B.1	Please tell whether your household has the following facilities 1. Land _____ 2. Car _____ 3. Agricultural equipment _____ 4. Landline phone _____ 5. Cellular phone _____ 6. Internet access (via computer, cellular phone) _____ 7. Agricultural area _____ 8. Trade/services facilities _____ 9. Industrial area _____ 10. Farm animal(s)/poultry _____ 11. Other (explain) _____	1 1 1 1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2	
B.2	How often do you listen to the radio?	Almost daily _____	1	
		Sometimes (3-4 times a week) _____	2	
		Rarely (once or twice a week) _____	3	
		Never _____	4	
B.3	How often do you watch TV?	Almost daily _____	1	
		Sometimes (3-4 times a week) _____	2	
		Rarely (once or twice a week) _____	3	
		Never _____	4	
B.4	How often do you read newspapers?	Almost daily _____	1	
		Sometimes (3-4 times a week) _____	2	
		Rarely (once or twice a week) _____	3	
		Never _____	4	
B.5	How often do you read information/news on the internet?	Almost daily _____	1	
		Sometimes (3-4 times a week) _____	2	
		Rarely (once or twice a week) _____	3	
		Never _____	4	

## SECTION C: PREGNANCY HISTORY, MALE CHILD PREFERENCE

	Questions	Coding categories	See
C.1	How old were you when you got married (or when you started living with your husband/partner)?	I was _____ years old	
C.2	How old were you when you got pregnant for the first time?	I was _____ years old	
C.3	When you were getting married, how many children and of which gender did you want to have?	Desired number of daughters _____ Desired number of sons _____	
C.4	Did you want to have a girl or a boy during your first pregnancy?	Girl _____ 1 Boy _____ 2 It made no difference _____ 3	
C.5	Did your husband/partner want to have a girl or a boy during your first pregnancy?	Girl _____ 1 Boy _____ 2 It made no difference _____ 3 Impossible to answer _____ 4	
C.6	Did your mother-in-law want to have a girl or a boy during your first pregnancy?	Girl _____ 1 Boy _____ 2 It made no difference _____ 3 Impossible to answer _____ 4	
C.7	Did your mother want you to have a girl or a boy during your first pregnancy?	Girl _____ 1 Boy _____ 2 It made no difference _____ 3 Impossible to answer _____ 4	
C.8	How many children did you give birth to? How many of them are girls and how many boys?	Girl(s) _____ Boy(s) _____	
C.9	Who in your family decides how many daughters and how many sons you should have?	Myself _____ 1 My husband/partner _____ 2 I and my husband _____ 3 My mother-in-law _____ 4 Other (explain) _____ 5	
C.10	To what extent are you entitled to make decisions as to how many daughters or how many sons you wish to have?	To a large extent _____ 1 To some extent _____ 2 Not entitled at all _____ 3	
C.11	In your social environment, is preference given more to boys or to girls?	To boys _____ 1 To girls _____ 2 Equally _____ 3	
C.12	Why do you think it is so?		
C.13	In your family, is preference given more to sons or to daughters?	To sons _____ 1 To daughters _____ 2 Equally _____ 3	→C.14 →C.15 →D



C.14	<p>Why does your family give preference to sons rather than to daughters?</p> <p><i>(You can give more than one answer to this question.)</i></p>	<p>Sons are guarantors of material well-being ____1</p> <p>Sons personify authority and strength _____2</p> <p>Sons can provide financial support _____3</p> <p>Sons are inheritors of property _____4</p> <p>Sons continue the family lineage _____5</p> <p>Boys are defenders of homeland _____6</p> <p>After she gets married, the daughter is no longer yours _____7</p> <p>Raising a daughter is a burden _____8</p> <p>The daughter cannot provide financial support _9</p> <p>The daughter is not a support for her parents in old age _____10</p> <p>Investment in the daughter is not justified ____11</p> <p>Girls have fewer opportunities in life/in the society _____12</p> <p>Entire burden of household chores and care is on women's shoulders _____13</p> <p>It pains a parent to see the daughter's hardships _____14</p> <p>It is psychologically difficult to give daughter in marriage _____15</p> <p>I am afraid of domestic violence _____16</p> <p>Other (Specify) _____17</p>	
C.15	<p>Why does your family give preference to daughters rather than to sons?</p> <p><i>(You can give more than one answer to this question.)</i></p>	<p>The daughter gives her parents psychological support _____1</p> <p>The daughter stands ready to help her parents _____2</p> <p>The daughter is a support for her parents in old age _____3</p> <p>Investments in the daughter are justified ____4</p> <p>Other (Specify) _____5</p>	

## SECTION D. PREGNANCY HISTORY AND OUTCOME

Now I would like to know the outcome of each of your pregnancies from the day you got married. Please start from your first pregnancy ...

D.1	Pregnancy history	First pregnancy	Second pregnancy	Third pregnancy	Fourth pregnancy	Fifth pregnancy	Sixth pregnancy	Seventh pregnancy	Eighth pregnancy	Ninth pregnancy	Tenth pregnancy
D.2	How many months has passed since your previous pregnancy/childbirth										
D.3	When you first learned that you were pregnant did you want to have a child at that time? Or did you want to have a child later or you no longer wanted to have (more) children?  <i>1. I wanted to have a child at that time</i> <i>2. I wanted to have a child later</i> <i>3. I no longer wanted to have a child</i>										
D.4	Pregnancy outcome  <i>1. Live birth</i> <i>2. Stillbirth</i> <i>3. Artificial termination of pregnancy</i> <i>4. Miscarriage</i> <i>5. Pregnancy is not over yet</i>										
D.5	At the time of pregnancy, did you want to have a son or a daughter?  <i>1=Son</i> <i>2=Daughter</i> <i>3=It made no difference</i>										
D.6	Did you undergo ultrasonic testing during pregnancy?  <i>1=Yes</i> <i>2=No</i>										
D.7	Child's sex  <i>1=Male</i> <i>2=Female</i>										
D.8	Child's name										
D.9	The date (year and month) of the child's birth (and his/her name)										
D.10	Is the child still living?  <i>1=Yes</i> <i>2=No</i>										
D.11	The child's age at this moment ( ... years' old)										

**QUESTIONS THAT REQUIRE ONLY A NUMBER IN RESPONSE**

- D.12. Total number of pregnancies \_\_\_\_\_
- D.13. Total number of interrupted pregnancies  
(Add "I wanted to postpone" or "I did not want to have") \_\_\_\_\_
- D.14. Total number of pregnancies resulted in births \_\_\_\_\_
- D.15. Total number of daughters born \_\_\_\_\_
- D.15.1. of those, the number of still living \_\_\_\_\_
- D.16. Total number of sons born \_\_\_\_\_
- D.16.1. of those, the number of still living \_\_\_\_\_
- D.17. How many times did you undergo ultrasonic testing? \_\_\_\_\_
- D.18. The number of school-age children (over six years of age) \_\_\_\_\_

## SECTION E: SON PREFERENCE - II

Fill out if the respondent selected “preference is given to SONS” answer option (if C.13=1) in question C.13

Q.No	Questions	Coding categories	See
E.1	In your family, is the firstborn female or male?	Male _____ 1 Female _____ 2	
E.2	When that child was born, did someone in your family voice his or her discontent about the child’s gender? If yes, who?  <i>(You can give more than one answer to this question.)</i>	Myself _____ 1 My husband/partner _____ 2 My mother-in-law _____ 3 My father-in-law _____ 4 My mother _____ 5 Other relatives _____ 6 No _____ 7	
E.3	Was or is any pressure brought to bear on you so that the next child should by all means be male?	Yes _____ 1 No _____ 2	
E.4	Who brought or brings pressure to bear on you most?	My husband/partner _____ 1 My mother-in-law _____ 2 My father-in-law _____ 3 My mother _____ 4 Other relatives _____ 5	
E.5	What is the reason for that pressure?		
E.6	What measures did you take to make sure your next child is male?  <i>(You can give more than one answer to this question.)</i>	I used medicinal herbs, resorted to methods of traditional medicine _____ 1 I consulted with a doctor _____ 2 I underwent ultrasonic testing _____ 3 Other (specify) _____ 4 I took no measures _____ 5	→E.8
E.7	Did (or do) those measures turn out useful?	Yes _____ 1 No _____ 2 The outcome is not known yet (pregnancy is not over yet) _____ 3	

Q.No	Questions	Coding categories	See
E.8	Was the last child born in your family female or male?	Male _____ 1 Female _____ 2	
E.9	When that child was born, did someone in your family voice his or her discontent about the child's gender? If yes, who?  (You can give more than one answer to this question.)	Myself _____ 1 My husband/partner _____ 2 My mother-in-law _____ 3 My father-in-law _____ 4 My mother _____ 5 Other relatives _____ 6 No _____ 7	
E.10	Was or is any pressure brought to bear on you so that the last child should by all means be male?	Yes _____ 1 No _____ 2	
E.11	Who brought or brings pressure to bear on you most?	My husband/partner _____ 1 My mother-in-law _____ 2 My father-in-law _____ 3 My mother _____ 4 Other relatives _____ 5	
E.12	What measures did (do) you take to make sure your last child is male?  (You can give more than one answer to this question.)	I used medicinal herbs, resorted to methods of traditional medicine _____ 1 I consulted with a doctor _____ 2 I underwent ultrasonic testing _____ 3 Other (specify) _____ 4 I took no measures _____ 5	→E.14
E.13	Did (or do) those measures turn out useful?	Yes _____ 1 No _____ 2 The outcome is not known yet (pregnancy is not over yet) _____ 3	
E.14	Since your last child is a girl, is pressure still brought to bear on you to give birth to a son?	Yes _____ 1 No _____ 2 I can't say _____ 3	

## SECTION F: DAUGHTER PREFERENCE - II

Fill out if the respondent selected “preference is given to DAUGHTER” answer option (if C.13=2) in question C.13

Q.No	Questions	Coding categories	See
F.1	In your family, is the first child male or female?	Male _____ 1 Female _____ 2	
F.2	When that child was born, did someone in your family voice his or her discontent about the child’s gender? If yes, who?  <i>(You can give more than one answer to this question.)</i>	Myself _____ 1 My husband/partner _____ 2 My mother-in-law _____ 3 My father-in-law _____ 4 My mother _____ 5 Other relatives _____ 6 No _____ 7	
F.3	Was or is any pressure brought to bear on you so that the second child should by all means be female?	Yes _____ 1 No _____ 2	
F.4	Who brought or brings pressure to bear on you most?	My husband/partner _____ 1 My mother-in-law _____ 2 My father-in-law _____ 3 My mother _____ 4 Other relatives _____ 5	
F.5	What is the reason for that pressure?		
F.6	What measures did (do) you take to make sure your second child is female?  <i>(You can give more than one answer to this question.)</i>	I used medicinal herbs, resorted to methods of traditional medicine _____ 1 I consulted with a doctor _____ 2 I underwent ultrasonic testing _____ 3 Other (specify) _____ 4 I took no measures _____ 5	→F.8
F.7	Did (or do) those measures succeed?	Yes _____ 1 No _____ 2 The outcome is not known yet (pregnancy is not over yet) _____ 3	

The following questions are given only if, while answering question D7, the respondent indicated that the first child in her family was male

Q.No	Questions	Coding categories	See
F.8	Was the last child born in your family male or female?	Male _____ 1 Female _____ 2	
F.9	When that child was born, did someone in your family voice his or her discontent about the child's gender? If yes, who?  <i>(You can give more than one answer to this question.)</i>	Myself _____ 1 My husband/partner _____ 2 My mother-in-law _____ 3 My father-in-law _____ 4 My mother _____ 5 Other relatives _____ 6 No _____ 7	
F.10	Was or is any pressure brought to bear on you so that the last child should by all means be female?	Yes _____ 1 No _____ 2	
F.11	Who brought or brings pressure to bear on you most?	My husband/partner _____ 1 My mother-in-law _____ 2 My father-in-law _____ 3 My mother _____ 4 Other relatives _____ 5	
F.12	What measures did (do) you take to make sure your last child is female?  <i>(You can give more than one answer to this question.)</i>	I used medicinal herbs, resorted to methods of traditional medicine _____ 1 I consulted with a doctor _____ 2 I underwent ultrasonic testing _____ 3 Other (specify) _____ 4 I took no measures _____ 5	→F.14
F.13	Did (or do) those measures succeed?	Yes _____ 1 No _____ 2 The outcome is not known yet (pregnancy is not over yet) _____ 3	
F.14	Since your last child was a boy, is pressure still brought to bear on you to give birth to a daughter?	Yes _____ 1 No _____ 2 I can't say _____ 3	

## SECTION G: THE PRENATAL SEX DETERMINATION TESTS AND THEIR OUTCOME

The following questions are to be given to all survey participants

Q.No	Questions	Coding categories	See
G.1	Have you ever heard of any method to determine the sex of fetus? <b>[Please check with D.6]</b>	Yes _____ 1 No _____ 2	→G.18
G.2	Can you tell me about that method? (You can give more than one answer to this question.)	Ultrasound _____ 1 Amniocentesis _____ 2 Traditional (Specify) _____ 3	
G.3	How did you first learn about this method?	From: My husband/partner _____ 1 My parents _____ 2 My mother-in-law _____ 3 Friends, relatives _____ 4 Medical institution _____ 5 Publications _____ 6 Mass media _____ 7 Other (Specify) _____ 8	
G.4	Where can you receive this type of testing?	In a maternity hospital _____ 1 In an outpatient clinic _____ 2 In a medical room where ultrasound scan is performed _____ 3 In a diagnostic center _____ 4 In another venue _____ 5	
G.5	Is that venue accessible to you (with a view to finding out the sex of the baby before birth)?	Yes _____ 1 No _____ 2 I don't know _____ 3	
G.6	Have you tried within the last five years to make use of that method to find out the sex of the baby before birth?	Yes _____ 1 No _____ 2	→G.18
G.7	Where did you go?	To a maternity hospital _____ 1 To an outpatient clinic _____ 2 To a medical room where ultrasound scan is performed _____ 3 To a diagnostic center _____ 4 To another venue _____ 5	
G.8	Who suggested that you undergo that testing?	Myself _____ 1 My husband/partner _____ 2 My mother-in-law _____ 3 My mother _____ 4 Other relatives _____ 5	
G.9	At what stage of pregnancy did you undergo the testing?	_____ weeks I do not remember _____	
G.10	What did the testing show?	Boy _____ 1 Girl _____ 2 The test failed to determine the sex _____ 3	
G.11	After the sex of the baby was determined, did you want to have a child of that sex?	Yes _____ 1 No _____ 2 I don't know _____ 3	



G.12	After the sex of the baby was determined, did your husband/partner want to have a child of that sex?	Yes _____ 1 No _____ 2 I don't know _____ 3	
G.13	After the sex of the baby was determined, did your family want to have a child of that sex?	Yes _____ 1 No _____ 2 I don't know _____ 3	
G.14	What did you do after the child's sex was determined?	I got an induced abortion _____ 1 I had a drug-induced abortion _____ 2 I terminated pregnancy using another method ___ 3 Abortion terminated through miscarriage _____ 4 I maintained pregnancy _____ 5	→G.17
G.15	Who made the decision to terminate pregnancy through induced abortion? Was it you or someone else?	Myself _____ 1 My husband/Partner _____ 2 My mother-in-law _____ 3 My mother _____ 4 Other relatives _____ 5 Doctor/Clinic _____ 6	
G.16	Where was pregnancy terminated?	At home, without seeking doctor's assistance ___ 1 In a maternity hospital _____ 2 In an outpatient clinic _____ 3 In another venue _____ 4	
G.17	What might have happened if you had given birth to a child of undesired gender?		
G.18	Is induced abortion legal in the Republic of Armenia?	Yes _____ 1 No _____ 2 I don't know _____ 3	
G.19	Until what stage of pregnancy is induced abortion legal in the Republic of Armenia?	Up to 12 weeks _____ 1 At any time _____ 2 I do not know _____ 3	

***Thank you for your time! The interview is over.***

***Do you have any questions?***

Medical institution identification number \_\_\_\_\_ Questionnaire number \_\_\_\_\_

**SECTION A**

	Questions	Coding categories
A.1	How old are you?	I am _____ years old
A.2	Date of your last menstrual period	Month _____ day _____
A.3	How many times have you been pregnant? (Specify)	1 2 3 4 times and more
A.4	How many induced abortions have you had? (Specify)	1 2 3 4 and more
A.5	How many daughters and how many sons have you had?	Daughter(s) _____ Son(s) _____
A.6	Gender of your last child	Female _____ 1 Male _____ 2
A.7	What was the outcome of your last pregnancy?	Birth _____ 1 Miscarriage _____ 2 Induced abortion _____ 3 Specify reason for it ← _____
A.8	Reason for termination of current pregnancy	Socioeconomic conditions _____ 1 Medical reasons _____ 2 Unplanned pregnancy _____ 3 Child's gender _____ 4 Other (Specify) _____ 5

If the reason for termination of pregnancy is child's gender, please fill out the following page ←

**SECTION B**

	<b>Questions</b>	<b>Coding categories</b>
B.1	Who in your family decides how many daughters and how many sons you should have?	Myself _____ 1 My husband/partner _____ 2 My husband and I _____ 3 My mother-in-law _____ 4 Other (explain) _____ 5
B.2	In your family, is preference given more to sons or to daughters?	To sons _____ 1 To daughters _____ 2 Equally _____ 3
B.3	Why does your family give preference to sons rather than to daughters?	Sons personify authority and strength _____ 1 Sons can provide financial support _____ 2 Sons are inheritors of property _____ 3 Sons continue family lineage _____ 4 Boys are defenders of homeland _____ 5 After she gets married, the daughter is no longer yours _____ 6 The daughter is not a support for her parents in old age _____ 7 Girls have fewer opportunities in life/in society _____ 8 Entire burden of household chores is on women's shoulders _____ 9 It is psychologically difficult to give daughter away in marriage _____ 10 I am afraid of domestic violence _____ 11 I can't answer _____ 12 Other (Specify) _____ 13
B.4	Who made a decision to terminate the current pregnancy through an induced abortion?	Myself _____ 1 My husband _____ 2 My mother-in-law _____ 3 My mother _____ 4 Other relatives _____ 5 Doctor/Clinic _____ 6 Other (Specify) _____ 7
B.5	Was or is any pressure brought to bear on you so that the next child should be male?	Yes _____ 1 No _____ 2  <b>End of interview</b>
B.6	Who brought or brings pressure to bear on you the most?	My husband _____ 1 My mother-in-law _____ 2 My father-in-law _____ 3 My mother _____ 4 Other relatives _____ 5

**End of interview**