

Fertility and Family Surveys in Countries of the ECE Region

Project N 60

**REPRODUCTIVE BEHAVIOR IN WOMEN AFTER INDUCED
ABORTION AND LABOUR - A COMPARISON OF
RUSSIAN COHORT DATA WITH FFS DATA FOR POLAND,
LATVIA & HUNGARY**

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ABSTRACT

The aim of the study was to investigate the main determinants of the reproductive behavior of women – inhabitants of the Central part of the European region of Russian Federation - in comparison with the FFS data for East European countries - Poland, Latvia and Hungary. *Study design*: two in-hospital populations in 6 experimental territories were included in this multicenter epidemiological study - 1087 respondents tested with a special questionnaire after induced abortion and 1200 - after labor.

Results: Presented predominantly in comparison with the FFS data the main determinants of reproductive behavior of the Russian cohort of respondents are: an earlier debut of sexual activity - first cohabitation at the age of 13-19 years (71.7%); 2+ sexual partners in reproductive history (51.4%), marriage in 18-24 years (82.4%) with childbirth at first pregnancy (75.7%) and dominating motivation for having one-child family. The unmet need for contraceptive information established in the study served a base for implementing the post-delivery and post-abortion counseling directly to the maternity hospitals. The subsequent longitudinal monitoring in the Family planning centers proved some real efficacy of the undertaken measures.

Introduction

For the last decade the attention of multiple governmental and nongovernmental organizations of the Russian Federation (RF) has been drawn to family planning in a general sense of the problem and to the implementation of modern contraceptive technologies. One of the main arguments for such activities was the problem of induced abortions which are still one of the main methods of family planning and birth regulation in the country. That problem have been the subject to a thorough attention of family planning and reproductive health providers from middle 80-90-ies. Some studies initiated by investigators both from inside the country (Popov A.A.,Lukina A.V.,1995; Katkova I.P., Gavrilova L.V., Zubkova N.Z. et al.,1996; Vikhlyaeva E.M., Nikolaeva E.I.,1996), and abroad (Visser A., Pavlenko I., Remennick L. et al.,1993; Entwisle B., Kozyreva P.,1997) were mainly focused on the evaluation of abortions rate and introduction of different measures directed at their reducing . Significant efforts undertaken for implementing of modern methods of contraception (Spira A., 1994; Burkman R., 1999) and reducing the number of unplanned pregnancies and abortions have produced some positive effect and caused a clear tendency to the decrease of a total number of induced abortions in the country. According to the official statistical data the total number of induced abortion performed in medical settings of the RF decreased from 100.3 per 1000 women of fertile age in 1991 to 60.5 in 1998 (Gavrilova L.V., Frolova O.G., Tokova Z.Z, et al.,1997). Nevertheless, these achievements do not decrease an exclusive priority of the problem in a whole that is proved by the remaining high level of unsafe abortion density in the structure of maternal mortality. The search for further ways how to influence the population attitude towards induced abortions demands a thorough attention under the conditions of permanent demographic crisis and depopulation growth. Birth index per 1000 population testifies of that tendency during the last years: it made up 8.6% in 1997 and 8.8% in 1998. According to the long-term

forecast this tendency will remain for the nearest 2-3 decades. Although much progress has been made in family planning program in RF during the last decade with economic reforms and rapid social changes, unmet need especially of postpartum and postabortion contraceptive information and family planning still remain (Kulakov V.I., Vikhlyaeva E.M., Nikolaeva E.I., 1998). Coming to the new millenium a special priority has been obtained by the problem of the search for additional reserves for improvement of the quality of reproductive health care. Moreover, along with the events on reducing the abortions rate an important role is played by a target investigation of the peculiarities of reproductive behavior and forming the partnership (David H., Rademakers J., 1996; Zvidrins P., Ezers L., Greutance A.,1998; Klijzing E., 1999).

Aim of the study:

The investigation of the main determinants of reproductive behavior of russian women interviewed after induced abortions at gestational age up to 12 weeks (1 group) and after labor (2 group) in comparison with the Fertility and Family Surveys (FFS) data for the countries of Eastern Europe: Poland, Latvia and Hungary.

Study design, methods and materials

The study was accomplished in six territories of the towns of Kursk, Kolomna, Rjazan, Tula, Ivanovo and Tver which are representative for the central region of the European part of Russia. The general data about the territories are presented in Table 1 in comparison with the mean data of the annual official statistics for RF (in the brackets). Within the framework of the objectives of the study there was initiated a continuos interviewing of two in-hospital cohorts of women. In years 1996-97 1087 women were interviewed after induced abortions and in year 1998 -1200 mothers on

days 3 – 5 after labor with individual counseling and following monitoring in Family Planning Centers (FPC).

Table 1. General Information of the Experimental Territories (1998)

Variables	Min-Max	Mean/ (RF)
1. Birth rate / 1000 population	6.7-7.9	7.1 (8.6)
2. Maternal mortality / 100000 livebirths	22.7-66.3	46.7 (50.2)
3. Perinatal mortality / 1000	14.6-18.9	16.4 (15.8)
4. % of fertile age women to total population	20.1-27.1	22.8 (26.2)
5. Number of abortions / 1000 women of fertile age	45.6-60.8	53.2 (60.5)
6. Pill , % fertile age women	4.6-12.2	7.6 (6.8)
7. IUD, % fertile age women	8.9-19.2	14.2 (17.8)

In every of the cohorts there were evaluated such factors as age, parity, education, employment, partnership and other main determinants of reproductive behavior. Out of the whole cohort there were identified 149 primigravida women in the first group (1A) and 590 women in the second - after labor (2A). The respondents were mainly urban inhabitants, and only a small portion was rural. Due to the absence of any significant differences between them in respect of the above mentioned background factors including the sphere of inhabitation of one and the same territories the data are presented for every cohort in a whole.

Results

Russian cohort data. Age distribution of the respondents of both groups turned out to be rather homogenous with a relative prevalence of women from 20 to 24 years of age in the 1st group (73.8%) and 20 – 29 (76.2%) in the 2nd group (Table 1). The similar

correlation according to the age factor was noted among the primigravida women. The majority of respondents had secondary or special secondary education (75.5% and 66.0%, respectively); they were mainly employees (70%), the portion of workers made up 15.8%, housewives - 8.6%, students - 5.6%. Among the fathers/partners there were more workers (51.7%) than employees (44.6%), students 3.0%; unemployed were 0.7%.

As far as marital status was concerned 85.7% women of the 2nd group were married, 11.9% were in consensual union, and 1.2% single; the same distribution was discovered among the primigravida women of this group (85.8%, 10.9% and 2.5%, correspondingly). Another distribution took place in the marital status of respondents, interviewed after induced abortion. If for the whole 1st group the corresponding data were 67.3%, 19.1% and 4.9%, then among the primigravida only 9.4% were married, 65.0% in consensual union and 22.1% - single. Thus, married women (85.8%) prevailed in the population of primigravida mothers and ~ 10% were in a consensual union. At the same time out of those interviewed after induced abortions 2/3 were (85.8%) in consensual union, and in every fifth case that pregnancy occurred after an accidental sexual experience.

In the process of the study of the dominating determinants of reproductive behavior the age of respondents who had entered any partnership was made clear and cumulative percentage (C.P.) of respondents in two age groups - by 15 and 20 years - was compared. The obtained data testify of an early start of partnership. Thus, according to the results of investigation any partnership at the age of 15 years was established in 7.0% respondents of the 1st group (16.9% in 1A) and in 7.5% in group 2 (8.9% in 2A), while the mean age in both groups was the same - 18.5 years. To the age of 20 the corresponding data were 82.8% and 83.3%. By the moment of the start of any first cohabitation the husbands/partners were on 4- 6 years older than the respondents.

A special comparison was made up concerning the time/age factors of the first cohabitation and marriage. It was found that out of all respondents of the 1st group 39.8% of women entered first partnership that were marriages not preceded by cohabitation, among those interviewed after labor their number was to some extent lower and made up 26.0%. Comparing the age factors the C.P. of women which were married to the age of 18 were similar in both groups (30.1% in the 1st and 30.6% in the 2nd), but to the age of 20 years the data were twice higher - 67% and 54.2%, although different in primigravida groups (83.9% in 1A and 54.5% in 2A).

While comparing the C.P. of first partnership that were from start of cohabitation a consensual union converted later to marriages the data were as follows. Up to the end of the first year 50.2% in 1st group (47.3% in 1A) and 26.5% in the second (23.9% in 2A) were already married. After the period of 3 years the corresponding C.P. made up 89.2% and 77.6%.

The data testify of the distinct time gap between the debut of cohabitation and marriage in reproductive history of most of the subjects that in its turn was connected with the number of sexual partners in their reproductive background before marriage and recent pregnancy. At the same time some identity was revealed in the reproductive behavior of the respondents of both groups. Less than a half of the respondents pointed out at one partner (45.9% and 48.5%), every fourth-fifth – at two (21.3% and 23.4%), and 19.9%-19.7% mentioned in their background 3 – 4 sexual partners. Out of the primigravida women 36.2% pointed out at only one partner in the first and 47.6% in the second group; two partners were indicated in 18.1% and 19.7%, 3 – 4 in 20.1% and 14.9% and 5+ - in 15.4% and 12.4%, correspondingly.

Description of reproductive function, time of the onset and outcome especially of the first pregnancy are among the most important determinants of reproductive behavior. At the age under 20 the first pregnancy occurred in 43% of women of the 1st

group and in 34% of the second one, most of the respondents were pregnant at the age of 20-24. Moreover, there were no differences found in the attitudes of women of both cohorts to the first pregnancy with a strong wish for childbearing. The first pregnancy was terminated with livebirth in 65.3% of women of the first group and in 71.2% cases in the second and was interrupted via induced abortion up to 12 weeks in 28.7% and in 17.2% of cases, correspondingly. At the same time differences in the attitudes to the first pregnancy were depended on the age factor. Thus, the first pregnancy in the respondents of the 1st group aged 15-17 outcome with induced abortions in 88.2 – 80.4% , at the age of 18-19 in 80.4%, comparing with 51.4% in those aged 20-24 , and with 71.6% of livebirths in the age group of 25-29. But, taking in mind the general data most of the interviewed women in both cohorts were lead by similar motivations to the childbirth in case of the first pregnancy in 65.3 – 71.2% of cases.

As to the number of following pregnancies our groups of respondents were not similar. Among those interviewed after induced abortion only 14% had had up to the time of investigation one (just interrupted) pregnancy, 11% - 2, 3-4 – 37% and 5+ - 38%. Their attitude to childbearing could be demonstrated by the number of children in their families: 43.8% families had one child, 28.4% - two children. Only 4.8% of women of this group had three-four and 0.2% - 5+ children. While analyzing the reproductive function in the background of the respondents of the 2nd group we met another situation: 48% of those were interviewed after recent pregnancy that was the first one, 24% were pregnant two times, 19% had had 3 and 9% - 5+ pregnancies..

The data of the age of the youngest child were obtained in 839 subjects of the 1st group and in 338 mothers: 45.5% of the 1st group and 37.0% of the second had had children under four years old.

The attitude of women to contraception is paid a special attention to in the characteristics of reproductive behavior. Below are the data about the methods of

contraception which had been most frequently used during the last 12 months prior the recent pregnancy. According to the data of the questionnaire the attitude of the respondents of both groups to some methods of contraception turned out to be absolutely and surprisingly identical. Vaginal methods: barrier and/or spermicides (19.3% and 17.2%) and withdrawal (19.4% and 17.2%) were used with equal frequency. Every fourth woman did not use contraceptives at all (26.9% in the 1st and 25.7% in the 2nd group), IUDs were used by 6.3% and 5.6%, OC by 10.4% and 11.3%. Speaking of the reliability and preference of this or that method every third interviewed after induced abortions woman said that she would not use any contraception. The attitudes to the reliability of the rest methods were distributed in diminishing sequence: withdrawal (17%), vaginal methods (15.3%), IUDs (11.7%) and OC(10.1%) . Out of the interviewed after labor every fourth woman (25.7%) did not use any contraception during the last years before the pregnancy that might be connected with the aim to childbearing. The rate of the used methods was as follows: withdrawal (17.0%), barrier methods (16.2%), pills (11.3%), and IUDs (5.6%). Nevertheless, when the respondent were interviewed after labor they reported on quite different attitudes of the priority of this or that method: IUDs 23.1%. barrier 20.4%, OC 19.2%. and 13.2% still preferred not to use any contraception. The attitude to contraception of primigravida women was characterized by the fact that every third women had not used any contraceptives (31.3%) in the year before the pregnancy as well as the respondents of the 1st group (38.3%), OCs were used by every tenth, withdrawal by 16-17% of the respondents, vaginal methods were preferred by 24.2% in the 1st group and 13.9% in the 2nd group. It is of importance to stress that while interviewed after first labor a significant part of women gave arguments in favour of modern contraceptive technologies.

Comparing the above mentioned data of contraceptive status of the respondents and their compliance to modern contraceptive technologies we could reveal a high level

of unmet need in adequate information about the subject. The main sources of information were mass media and medical personnel: mass media in 41.4% in 1st and 25.0% in the 2nd group, medical personnel in 41.% and 21.7%. Twelve and a half per cent and 8.7% of respondents, correspondingly, got information from their friends. Moreover, an adequate information was obtained from the parents in families only in 9.1% and 7.4%, from the husbands/partners in 2.6% and 4.1%, and at schools in 1.9% and 2.1%. Only 20.3% of the respondents got consultation about contraception before the start of sexual activities and 43-45% after the first labor. While making more clear the attitudes of patients interviewed after labor it was found that only 8.5% of them planned more labors, 68.7% would have preferred induced abortions, and 22.8% did not have any distinct opinion.

Having analyzed the main determinants of reproductive behavior of two sexually active cohorts of women – inhabitants of the central part of the European region of RF - interviewed after induced abortions and after labor it may be concluded that in spite of the revealed differences they are characterized by a number of distinct common tendencies. The latter include: an early start of sexual life (at 13-19 years – 71.7%), two and more sexual partners before marriage (51.4%), relatively early marriage (18-24 years – 82.4%), first pregnancy within the limited time after the marriage (at 18-24 years in 76.1%) terminated with livebirth (75.7%) and following use of induced abortion as a one of methods of birth regulation. At the same time there existed still enough space for substitution of the unmet need in corresponding information and adequate counseling.

Comparison with FFS data. As already mentioned one of the main objectives of the study was to compare the peculiarities of reproductive behavior of women living in the European region of RF with those of the countries of Eastern Europe: Poland, Latvia

and Hungary which are known to experience similar transformations in a state of economical transition. In this series of our survey we focused our efforts predominantly on such important determinants of reproductive behavior as partnership and family formation.

The first step of analyses included a comparison of age of respondents who entered any partnership. Therefore we presented for comparison the corresponding C.P. of respondents who entered any partnership in two age groups - up to 15 years and up to 20 years of old. In our cohort any partnership at the age of 15 years was established in 7.0% of respondents of the 1st group (16.9% in 1A) and in 7.5% in group 2 (8.9% in 2A).in comparison with FFS data: 0.2% in Poland, 0.4% in Latvia and 0.9% in Hungary. Sexually active to the age of 20 years in our cohorts were 82.8% (95.5% in 1A group) and 83.0% (82.3% in 2A group) of respondents but in Poland – 34.7%, in Latvia – 43.8% and in Hungary 57.5% of general population, correspondingly. both our groups

As to the respondents, who entered the first partnership that were marriages not preceded by cohabitation, among them the C.P. to the age of 18 was 30.1 – 30.6 in russian cohorts, 10.1% in Poland, 8.2% in Latvia and 28.1% in Hungary population. But to the age of 20 years the data were almost twice higher: 67% in our 1st group, 54.2% in the second one, but different in primigravida women (83.9% in 1A and 54.5% in 2A). At the same time to the age of 20 the rate of married women was lower in Poland (32.9%) and Latvia (26%) and much alike as in RF in Hungary – 54.5%.

While comparing data of first partnership that were at first a consensual union from start of cohabitation converted later to marriages the data were as follows. Up to the end of the first year of partnership the C.P.of married already women was 50.2% in our 1st group (47.3% in 1A) and 26.5% in the second (23.9% in 2A) and very much alike in other countries: 34.4% in Poland, 51.0% in Latvia and 30.4% in Hungary. Just

more agreement of the data from different countries under comparison was established to the period of 3 years. Up to this time in Russian cohort were married already 89.2% (89.4% in 1A) and 77.6% (77.9% in 2A), in Poland 59.4%, in Latvia 71.2% and in Hungary 69.6%.

The next determinant of reproductive behavior that we focused our attention at was the number of live births to the time of interview presented in Table 2. While comparing that data one has to take in mind some slight age differences between the cohort of women interviewed in different countries. In Russian cohorts the age limit of respondents was in the 1st group 14-49 years, in the 2nd – 16-38 years, in Poland 20-49 years, in Latvia – 18-49 years and in Hungary – 18–41 years.

Table 2. Number of livebirths: Percentage distribution of respondents

Number of livebirth	RF 1st group	RF 2nd group	Poland	Latvia	Hungary
0	23.4	0	18.2	20.6	5.4
1	43.8%	71.2%	22.8	32.2	22.4
2	28.4%	25.2%	35.7	34.3	55.9
3-4	4.8%	3.5%	20.0	11.4	18.4
5+	0.2%	0.2%	3.3	1.5	0.9
Total	100	100	100	100	100
Base	1087	1200	3902	2699	3554
Average	1.2	1.3	1.8	1.5	1.9

The timing of fertility in our cohorts was younger than in comparable ones. In our observations C.P. of women having first livebirth up to the age of 20 years in the 1st group was 54.4%, to 25 years – 93.8%; the corresponding data for Poland were 23.2% and 67.6%, for Latvia 25.0% and 72.8% and for Hungary – 38.1 and 78.9%.

As to the general data about the partnership at first birth in the female samples of inhabitants of all 4 countries they were rather similar. There were 84.8-93.1% of married women, but the number of those in consensual union fluctuated from 1.7% in Poland to 13.6% in Russian 2nd group, making up 6.2% for our 1st group and 7.4% for Latvia and 4.3% for Hungary. In association with that the largest portion of those being single at first livebirth was in Poland (11.4%) and the smallest one in the cohort of respondents from Russia (0.7-1.6%). The number of women those data were derived from was 839 and 855 in Russia, 2143 in Latvia and 2668 in Hungary. The average number of livebirth according to the age of respondents to the time of interview is presented in Table 3.

Table 3. Number of livebirth according to the country data

Age at interview	14-19	18-19	20-24	25-29	30-34	35-39	40-49	Total
RF(1)	0.2		0.7	1.2	1.6	1.8	1.9	1.2
RF(2)	1.0-		1.1	1.4	1.8	2.1	2.2	1.3
Poland	-		0.6	1.5	2.0	2.1	2.2	1.8
Latvia	-	0.2	0.5	1.2	1.7	1.9	1.8	1.5
Hungary	-	0.2-	0.5	1.4	1.8	1.9	1.9	

Our next aim was to compare the attitude of respondents from different countries to contraception in the whole. To answer this question we had had an opportunity to compare our data concerning the use of contraception for a period of 12 months before the recent pregnancy, including data of postdelivery 6 month monitoring of the 2nd group of our respondents, with contraception most frequently used, according to the FFS data, in Poland, Latvia, Hungary (Table 4).

One more problem is open for comparison. That is the problem of the number of pregnancies including the first abortion for every age group. In our 1st group the first pregnancy outcome with labor in 75.7%, the rate of spontaneous abortions was 5.2%, induced abortion - 7.1 %, unsafe abortion - 0.2%. In the 2nd group the first pregnancy outcomes were different: labor in 47.5%, spontaneous abortion in 14.4%, induced abortion in 14.1%. For comparison according to the FFS data the C.P. of women who underwent the induced abortion in first pregnancy in Poland up to 20 years old it made up 0.5% and up to 24 years 1.2%, in Latvia it was 9.4% and 26.9%, in Hungary 7.2% and 13%. Thus the data about the rate of induced abortion in first pregnancy are both similar and variable.

Table 4. Contraceptive status of couples, % of respondents

Methods	RF 1 st group	RF 2 nd group	RF 6 months after delivery	Poland	Latvia	Hungary
Pill	10.4	11.3	20.7	4.7	14.6	21.7
IUD	6.3	5.6	14.3	11.6	36.0	29.23
Vaginal	19.3	17.2	33.1	22.2	18.5	15.5
Withdrawal	19.4	17.2	2.5	22.2	5.8	10.8
Other	17.7	23.0	28.6	24.5	10.0	5.2
None	26.9	25.7	0.8	14.8	15.1	17.6
Total	100	100	100	100	100	100
Base	1087	1196	789	1754	963	2857

Discussion

While discussing the findings of that study it is necessary first of all to take it into account that the project N60 has been included into FFS at the final stage of the latter and after finishing of our data collection. In this respect the report presents the results based on the use of original questionnaire which nevertheless had had much in common with the FFS questionnaire.

It is also necessary to take it into consideration that due to the differences in methodology of data collection (continuous epidemiological study in two cohorts in our case) the main parameters of the determinants of reproductive behavior respondents may be compared with the data of FFS Standard Country Report (SCR) of Poland, Latvia and Hungary with a known degree of relativeness.

As mentioned our data are based on a total continuous interviewing of two different from the first view cohorts of women, with an interval between those interviews of two years. But the study was accomplished in medical clinics of one and the same homogeneous in social- and economic respect and geographical location regions of the European part of Russian Federation. In spite of the differences in the attitudes to recent pregnancy by the moment of interview in most of the parameters the reproductive behavior of the respondents of both groups turned out to be as identical as it allowed to consider the obtained data representative for the main determinants in reproductive behavior of women – inhabitants of the Central regions of European part of the Russian Federation and comparison with the FFS data.

While comparing with the FFS data for Poland, Latvia and Hungary we paid attention to certain time differences in data collection within one and the same decade, some formal differences in the questionnaires and mentioned above slight deviations in age criteria for subjects enrollment in RF, Poland, Latvia and Hungary.

Taking in mind all those considerations the findings of comparison of the main determinants of reproductive behavior of respondents - inhabitants of the four countries of Eastern Europe were most interesting. The following turned out to be typical for them. First of all, it is an early start of sexual activities for the women of RF. By the age of 15 C.P. of those who entered any partnership was 7.0-7.5% for RF (for the rest countries 0.2-0.9%); by 20 years the corresponding indices were 82.8-83.0% for RF and 34.7-57.3% for the rest. Besides, the largest C.P. values for women who entered first partnership that were not preceded by cohabitation comparing with the respondents from other countries were noted by 18 – 20 years in the subjects of RF and Hungary. The data of those married within the first three years after cohabitation that was consensual union were contradictory with a relative prevalence of Russian women.

The lowest indices of birthrate were in RF: 2 labors in the anamnesis in 25.2% of respondents in the 1st and 28.4% in the 2nd group. Every third woman from Poland and Latvia had two children in a family. But the highest data were derived from Hungarian population - 55.9% of respondents had two-child family. The mean number of labors in Hungary and Poland was 1.9 and 1.8, less in Latvia (1.5 per woman) and the lowest - 1.2 – 1.3 in Russian Federation. Most of the women in all four countries were married by the moment of labor: from 84.8% to 93.1%.

Our next conclusion is that Russian women were younger by the moment of the first labor. By the age of 20 years C.P. for Russian women having the first labor in the anamnesis made up 54.4% , that index for Poland was 23.2%, for Latvia 25.0% and for Hungary 38.1%. The same relative distribution of the respondents remained in the age group up to 25 : 93.9%, 67.6%, 72.8%, and 78.9%, respectively.

As far as contraception is concerned the obtained data turned out to be rather different. Pills are most frequently used in Hungary (21.7%), the same indices were discovered in our cohorts only women interviewed in 6 months after labor; 14.6% used

OC in Latvia, 10-11% in RF, and 4.7% in Poland. IUDs were most popular among the women of Latvia (36.0%) and Hungary (29.2%), in Russia the use rate of IUDs was 11.6%in the 1st and 14.3% in the 2nd group. The per cent of women who did not use contraception was the highest in RF (26.9% in the 1st and 25.7% in the second group) and twice lower and similar in the rest countries : within the limits of 14.8%-17.6%.

The unmet need of information in modern contraceptive technologies revealed in most of respondents from Russian territories directed at the introduction of consultation service on postpartum contraception to maternal clinics with the following monitoring in FPC. Such measures produced a significant effect on the changes in respondent's reproductive behavior and their attitudes to contraception immediately after labor (Vikhlyaeva E.M., Nikolaeva E.I., Brandrup-Lukanow A., 1999). While considering the peculiarities of contraceptive behavior a special attention should be paid at the problem of hormonal contraceptives use which is not so popular in our country so far. At the same time multiple studies have demonstrated the safety and efficacy of progestin-only contraceptives which do not produce any negative effect on lactation (Prilepskaya V.N., Jaglov V.V., 1998). We may report on the efficacy of our organizational measures on propaganda of hormonal contraception among other contraceptive methods. It may be proved by the known changes in the respondents' attitudes to the methods of contraception in the process of monitoring after labor , and it is especially marked in the analysis according to age groups of the interviewed. On the background of the fact that vaginal methods were most popular in all age groups, women of younger age preferred to use OC and older women used IUDs or injectables more often. As to the entire cohort the rate of OC use increased from 12.5% to 20.9%. At the same time a portion of women using various combinations of contraceptive methods during 6 months after labor remained large enough. That tendency was typical for women of younger age.

The use of longitudinal approach to the investigation of female population after labor allowed to obtain a true information regarding their reproductive health in modern conditions. By the moment of the examination within three months 37.4% of women mentioned about restoration of menstrual function, while the onset of the first menstruation varied from 3 to 12 weeks. By the 6th months 70.3% of respondents had menstruations and regular breastfeeding was noted only in every third case(38.8%). These data testify once more of the priority of the problem of postpartum counseling on the problems of contraception and allow to regard about 2/3 of mothers in immediate period after labor to the high risk group for unplanned pregnancy.

We also believe that the final evaluation of the effectiveness of all measures in postdelivery counseling could be performed not less than in 2 years after labor. Some literature data point out on the advantages of the inclusion of both partners in the studies of determinants of reproductive behavior (Becker S., 1991; Burkman R., 1999) as well as in the investigation of the pre-marriage sexual relations.

It is known that one of the main criteria for the evaluation of reproductive behavior of women's population is the index of induced abortions per 1000 women of fertile age. Our scientific and practical contacts with family planning services in the experimental territories has been continued by the present moment for the last four years since the initiation of the epidemiological study of induced abortions. We are quite aware of the fact that the conducted studies are only the part of many measures existing in the territories in the field of family planning, and at the same time, we made it possible to present of the dynamics of induced abortions rate testifying of a clear tendency to their decrease (Table 5).

Table 5. Number of abortions/ 1000 women of fertile age.

Regions	1994	1995	1996	1997	1998
Ivanovo	78.5	68.6	67.2	61.0	60.8
Kursk	73.9	59.3	60.7	60.7	58.3
Moscow	55.0	49.9	48.2	45.6	39.3
Rjazan	78.5	64.8	54.0	55.7	53.4
Tula	61.8	54.5	50.5	46.4	46.0
Tver	70.0	65.5	63.2	57.3	52.4

Conclusion

The findings of our research have proved the priority of the epidemiological approach to the investigation of reproductive behavior and health of women after pregnancy as well as they have proved the efficacy of the measures directed on prevention of unplanned pregnancies and induced abortions. A comparison of the main determinants of reproductive behavior of the two cohorts of sexually active women : inhabitants of our country with the data of FFS for Poland, Hungary, and Latvia has allowed to detect more clear the crucial points in the reproductive behavior for improving the reproductive health care services. These factors are: an early start of sexual life, early marriages with the motivation to have one-child family and the use of induced abortion as one of the methods of birth regulation. In this respect our experience of introduction the post-delivery counseling into maternal clinics is valuable for changing the women attitudes to modern contraception.

References

1. Becker S.(1991). Couples and Reproductive Health: A Review of Couple Studies. *Studies in Family Planning*, 27, 291-306.
2. Burkman R.(1999). Compliance and other Issues in Contraception. *Int.J.Fertil.*, 44, 234-240.
3. David H., Rademakers J.(1996). Lessons from the Dutch Abortion Experience. *Studies in Family Planning*, 27, 341-343.
4. Entwisle B., Kozyreva P.(1997). New Estimates of Induced Abortion in Russia. *Ibidem*, 28, 14-23.
5. Gavrilova L.V., Frolova O.G., Tokova Z.Z. et al.(1997). Kriterii ozenki katchestva akusherskoj pomotshi// *Vestnik Rossijskoj Assocoacii akusherov-gynecologov* , 2, 111-114 (rus.).
6. Katkova I.P., Gavrilova L.V., Zubkova N.Z. et al. (1996). Dinamica abortov w otdelnich regionach RF. *Problemi sozialnoj gigienj i istoria meditsinj*, 1, .9-16 (rus.).
7. Klijzing E.(1999). Unmet family planning needs in Europe? *Revue Baltique*, 13, 120-130.
8. Kulakov V.I., Vikhlyaeva E.M., Nikolaeva E.I.(1998). Induzirovannij abort i reproductivnoje povedenie zentchin. *Planirovanie semji*, 1, 4-8 (rus.).
9. Popov A.A., Lukina A.V.(1995). Planirovanie semji i iskustwennie aborti w Rossii. *Zdravoochranenie Rossijskoj Federazii*, 1, 25-30 (rus.).
10. Prilepskaja V.N., Jaglov V.V.(1998). Gormonalnaja contraceptia posle rodov. *Akusherstvo i Ginecologia*, 1, 52-56 (rus.).
11. Spira A.(1994). Contraception by the end of the 20th century. *Human Reproduction*, 9 (Suppl.2), 125-128.
12. Vikhlyaeva E.M., Nikolaeva E.I.(1996). Epidemiology of Abortions in Russia. *Entre Nous*, 34-35, 18.
13. Vikhlyaeva E.M., Nikolaeva E.I., Brandrup-Lukanow A.(1999). Epidemiologia induzirovannich abortov w Evropeiskoj tchasti Rossii. *Vestnik Rossijskoj Assocoacii akusherov-gynecologov*, 1, 16-19 (rus.).
14. Visser A., Pavlenko I., Remennick L. et al.(1993). Contraceptive practice and attitudes in former Soviet Union. *Advances in Contraception*, 9, 13-23.
15. Zvidrins P, Ezers L., Greutance A.(1998). Fertility and Family Surveys in Countries of the ECE Region. Standard Country Report, Latvia. Geneva: United Nations.