

# Razlike u primeni preventivnih praksi za zaštitu reproduktivnog zdravlja žena različite životne dobi

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## APSTRAKT

**Cilj.** Očuvanje i unapređenje reproduktivnog zdravlja žena je značajan segment javnozdravstvene politike svake zemlje. Faktori koji utiču na reproduktivno zdravlje žene su brojni: socio-demografski, seksualno ponašanje i stil života, kao i činioci zdravstvene zaštite. Cilj rada je da ispita razlike u pogledu socodemografskih karakteristika, primene metoda kontracepcije i preventivnih praksi od značaja za zaštitu reproduktivnog zdravlja žena kod mladih žena od 20 do 29 godina i žena srednje dobi 30 do 49 godina.

**Metode.** Istraživanje predstavlja sekundarnu analizu Nacionalnog istraživanja zdravlja stanovništva Srbije iz 2006. godine, koje je sprovedeno po tipu studije preseka, na reprezentativnom uzorku populacije. U ovom radu analizirane su karakteristike ukupno 3575 žena starosti od 20 do 49 godina.

**Rezultati.** Našom studijom smo pokazali da postoje značajne razlike, kako u primeni metoda kontracepcije, tako i u preventivnih ginekoloških praksi u cilju zaštite reproduktivnog zdravlja žena mlađe i srednje životne dobi. Ispitanice srednje dobi, kao metod kontracepcije češće primenjuju IUU (OR=3,56, 95%CI 2,02-6,28) i metod plodnih dana (OR=1,48, 95%CI 1,17-1,87); ređe koriste kondom (OR=0,36, 95%CI 0,30-0,45). U pogledu preventivnih ginekoloških praksi, ispitanice srednje dobi, u odnosu na mlađe, ređe odlaze na kontrolne ginekološke preglede (OR=2,13, 95%CI 1,78-2,54); samopregled dojki rade češće (OR=1,23, 95%CI 1,05-1,45), PAPA test najčešće rade na period od preko tri godine (OR=7,27, 95%CI 3,34-15,84).

**Zaključak.** Naša studija je pokazala da žene fertlilne dobi nedovoljn brinu o zaštiti svog reproduktivnog zdravlja, što rezultuje i niskom stopom fertiliteta.

**Cljučne reči:** žene; reproduktivno zdravlje; preventivne zdravstvene usluge; politika planiranja porodice; edukacija pacijenta kao tema.

## Differences in the implementation of preventive services for reproductive health protection of women of different ages

### ABSTRACT

**Objective.** The preservation and improvement of reproductive health of women is a significant segment of public health policy in each country. Factors affecting the reproductive health of women are numerous: the sociodemographic, sexual behavior and life-style, and health care factors. The aim of this study was to examine differences in socodemographic characteristics, application of methods of contraception and prevention practices are important to protect reproductive health of women of different age.

**Methods.** This study represents a secondary data analysis of the 2006 National Health Survey of the population of Serbia (without data about Kosovo-Metohija), which was performed as a cross-sectional study on a randomly selected representative population sample of 14,522 people aged 20 and more. In this study, we focused on the characteristics of 3,575 women aged 20 to 49.

**Results.** With our study we have shown that there are significant differences both in the application of methods of contraception, as well as preventive gynecological practice in order to protect the reproductive health of women young and middle age. The subjects mean age, as a method of contraception more frequently applied IUU (OR=3,56, 95% CI 2,02 - 6,28) and the method of the fertile days (OR=1,48, 95% CI 1,17 - 1,87); less likely to use condoms (OR=0,36, 95% CI 0,30- 0,45). In terms of preventive gynecological practice, middle-aged respondents, compared to younger, less likely to leave the control gynecological examinations (OR=2,13, 95% CI 1,78-2,54) more likely to do breast self-examination (OR=1,23, 95% CI 1,05-1,45), Pap test usually work for a period of over three years (OR=7,27, 95% CI 3,34 to 15,84).

**Conclusion.** Our study showed that women of different ages not sufficiently concerned about protecting their reproductive health, resulting in the low fertility rate.

**Key words:** women; reproductive health; preventive health services; family planning policy; patient education as topic.

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## INTRODUCTION

Maintaining and improving the reproductive health of women is a significant segment of public health policy in each country. Factors affecting the reproductive health of women are numerous: the socio-demographic, sexual behavior and lifestyle, and health care factors.<sup>1</sup> Low socio-economic and educational status of rural women, inadequate personal hygiene, early sexual activity, promiscuity, sexual relations without protection, pregnancy and childbirth in adolescence are risk factors for their reproductive health.<sup>2,3</sup> Sexually transmitted diseases (STDs) and enforcing methods of contraception are key growth factor of risk.<sup>4</sup> The basic form of reproductive health in developing countries is the use of modern contraceptive methods.<sup>5</sup> German authors have investigated the effects of natural methods of contraception-use of abstinence during the fertile days, which are determined by measuring the respondents basal temperature and cervical mucus changes, came to the conclusion that the method of fertile days very effective method of family planning, provided that appropriate guidelines are consistently observed (the rate was 0,6 pregnancies per 100 women in 13 cycles).<sup>6</sup>

Family planning is an important part of the overall demographic and population policy of each country. For Serbia, a country in transition, this question has a specific connotation, since the late 20 years, the number of induced abortions was around 150 to 200,000 per annum.<sup>7</sup> Numerous studies indicate that in Serbia, a traditional birth control / coitus interruptus / and abortion, the most common form of family planning among young people.<sup>8</sup>

A large number of youth sexual activity begins at the age of 16 have more than one sex partner at a time.<sup>9</sup> Young people in Serbia start to have sexual intercourses early in life, (84%) of boys and 65% of girls aged 13 to 25 years were sexually active.<sup>10</sup> In the Republic of Serbian, 11,8% of adolescents aged 16 to 18, had sexual relations, of which 4,9% with multiple partners.<sup>11</sup> The results of the National Population Health Survey in Serbia (2006), one in three young people (33,6%), aged from 15 to 19, applied unreliable methods of contraception, such as infertile days and ended the relationship.<sup>12</sup> Sedlecki et al. found that more than half of young women (54,3%) rely on traditional forms of contraception (coitus interruptus).<sup>8</sup> Contraception by girls from Serbia used the longest, most had been interrupted intercourse (54,3%), a condom was used by 34,3% longer than girls, hormonal contraception 10,7%, and at least the girls applied spermicide, only 0,7%.<sup>13</sup> A condom is the most commonly used contraceptive method among young Balkan countries (34,3%), which is similar in the former Yugoslavia.<sup>14</sup> In the study, Radulovic et al, modern means of con-

traception used 72% of respondents younger than 20 years and 41% of women aged 20 -49 years. Women older than 20 years (58%) more likely to choose traditional methods of contraception.<sup>15</sup>

An increasing percentage of young people of both sexes who delay parenthood for late 30's or early 40's age, how fertility declines significantly after the 35th age women, and increases the risk for fetal genetic diseases, an increasing percentage of couples who have difficulty conceiving. The phenomenon of delay childbirth in all European countries, including Serbia is the main cause of the extremely low level of total fertility rate.<sup>16</sup> Sedlecki et al study shows that students of Belgrade University, as professionals, who will deal with education and counseling in the field of contraception, or will be involved in developing a national framework for family planning in Serbia is unlikely to have many different views of academics that are currently active.<sup>17</sup> Republic of Serbian records the lowest total fertility rate in the region, which, according to estimates ranging from 1,08 in 2002. year to 0,9 in 2007. year.<sup>11</sup>

In addition to depopulation, a significant problem related to women's reproductive health is a high incidence of malignant diseases. Cervical cancer is the second most common malignancy of women in Serbia, after breast cancer, the standardized rate of 27,2 per 100, 000 women.<sup>18</sup> When it comes to mortality from cervical cancer, Serbia is the standardized mortality rate of 10,1 in the second place, after Romania with 13,0.<sup>19</sup> Cervical cancer and breast cancer, the preventable and can be effectively treated provided it is diagnosed early. The problem of high incidence and mortality in Serbia, can be partially attributed to the lack of awareness about health, but also problems in accessing health care, and lack of prevention programs. Lack of effective screening programs aimed at detecting and treating precancerous conditions is a key reason for the much higher incidence of cervical cancer in developing countries.<sup>20</sup>

This study was designed to complement previous studies and indicate that differences relating to the protection of reproductive health of young women from 20 to 29 years old and middle-aged women 30 to 49 years.

The aim of this paper is to examine differences in sociodemographic characteristics, application of methods of contraception and prevention practices are important to protect reproductive health of women of different age.

## METHOD

This study represents a secondary data analysis of the 2006 National Health Survey of the population of Serbia

(without data about Kosovo and Metohia), which was performed as a cross-sectional study on a randomly selected representative population sample of 14,522 people aged 20 and more.<sup>20</sup> In this study, we focused on the characteristics of 3,575 women aged 20 to 49. The instrument applied in this research is the questionnaire.<sup>12</sup> According to the WHO, adolescents are considered a person aged 10 to 19 years, and the young are grouped in age from 15 to 24 years of age. The National Youth Strategy, young people between fifteen of the thirty years of age. [Official Gazette 101/07. The National Strategy for Youth Development and Health in the Republic of Serbia] The results of the National Health Survey (2006), the largest% of girls begin sexual activity for a period of 17 to 19 years. From for these reasons, this paper analyzed the characteristics of a total of 3575 women aged 20 to 49 years (1,126 women aged 20 years and -29 years and 2,449 women aged 30 to 49 years).

In this paper we analyzed the three data sets relevant to the protection of the reproductive health of women: (1) socio-demographic characteristics, (2) methods of contraception, and (3) ) the use of preventive gynecological practices.

In the group of socio-demographic characteristics, the following were analyzed: education (elementary school, high school, and college or university); socio-economic status measured by the wealth index, region (Vojvodina, Belgrade, Central Serbia), type of settlement (urban, rural / rural and suburban), the number of children (0, 1, 2, 3 or more) and the number of abortions (0, 1, 2, 3 or more).

Variables regarding the use of contraceptive methods are analyzed: use of the pill (OC): (no, yes-occasionally, always), use of condoms: (no, yes- occasionally, always), use of IUD: (no, yes-occasionally, always), application of the method of fertile days: (no, yes occasionally, always), use of coitus interruptus (CI): (no, yes- occasionally, always).

Variables regarding the implementation of preventive practices relevant to the protection of reproductive health, were analyzed: frequency of regular gynaecological examination (once a year, less than once a year); undertaking PAPA test once a year (during the last 12 months, 1-3 years ago, more than 3 years ago, more than 5 years, I do not remember, never, I don't know what that is); and breast self-examination (no, yes, on the advise of doctors, yes, self-initiative).

Data were analysed according to methods of descriptive statistics. The frequency of distribution of selected variables are shown in relation to age category (younger age is high). The significance of difference is tested by the chi square test. For the minimal level of the statistical significance the

$p < 0.05$  was used, where  $p < 0.01$  was taken as the statistically high significance. The variables which proved to be a statistically associated with the to age category on a  $p < 0.10$  level were additionally tested by the univariate and multivariate logical regression, and the association was expressed by the odds ratio (OR) and 95% confidence interval (95% CI).

The analyzes were performed using the software SPSS pack (version 19).

## RESULTS

We analysed characteristics of 3,575 women aged 20 to 49 years, mean age 34,8 years ( $sd=8,755$ ). Average number of children you have our respondents was 1,76 ( $sd = 1.754$ ), and the average number of abortions was 0,94 ( $sd = 1,139$ ).

In Table 1 shows the results of descriptive statistics related to socio-demographic characteristics of respondents. Of the total 3,575 respondents, 31,5% were younger (20 to 29 years), and 68,5% were middle-aged (30 to 49 years). The results show that significant differences in terms of education and marital status of women and children and the number of abortions, only primary education, has 13,5% of young women, and 24,7% of middle-aged women, the marital was 45,4 % of young women and 83,5% of women of middle age. According to the number of children, there are significant differences among respondents: the respondents from any other group does not have any younger children (48,9%), while in the respondents from the middle age group, 9,5% of them have children. Two children is only 17,9% and 58,7% of younger middle-aged women. With regard to abortion, no abortion had 2 / 3 of young women and every other middle-aged women, 81% of middle-aged women had at least one abortion, and 18,5% of young women, 8,3% of young women is to its 30-e has had three or more abortions. No difference in terms of socio-economic status, wealth index, measured, and differences by regions (Vojvodina, Belgrade and Central Serbia), respondents do not differ by type of settlement or in type of settlement (urban, rural), which explains that the rural category, covered by suburban and rural settlements.

**Table 1.** The frequencies for socio-demographics characteristics women, of different ages

Variables	Total N (%)	Yang n (%)	Medium ages n (%)	P value
	3575 (100)	1126 (31.5)	2449 (68.5)	
<b>Education</b>	3575 (100)	1126 (100.0)	2449 (100.0)	<0.000
Primary school	757 (21.2)	152 (13.5)	605 (24.7)	
Secondary school	2247 (62.9)	806 (71.6)	1441 (58.8)	
University	571 (16.0)	168 (14.9)	403 (16.5)	
<b>Marital status</b>	3575 (100)	1126 (31.5)	2449 (68.5)	<0.000
Marital	2557 (71.5)	511 (45.4)	2046 (83.5)	
Living with a partner	67 (1.9)	23 (2.0)	44 (1.8)	
Living alone	741 (20.7)	565 (50.2)	176 (7.2)	
Divorced	135 (3.8)	22 (2.2)	113 (4.6)	
Widow	61 (1.7)	1 (0.1)	60 (2.4)	
<b>Wealth index</b>	3837 (100)	1262 (32.9)	2575 (67.1)	0.676
The poorest	589 (15.4)	182 (14.4)	407 (15.8)	
Poor	801 (20.9)	256 (20.3)	545 (21.2)	
Average	800 (20.8)	264 (20.9)	536 (20.8)	
Moderately rich	846 (22.0)	286 (22.7)	560 (21.7)	
The richest	801 (20.9)	274 (21.7)	527 (20.5)	
<b>Abortion</b>	2712 (100)	503 (18.5)	2209 (81.5)	0.000
No	1420 (52.4)	387 (76.9)	1033 (46.8)	
Once	462 (17.0)	55 (10.9)	407 (18.4)	
Twice	403 (14.9)	19 (3.8)	384 (17.4)	
Three and more	427 (15.7)	42 (8.3)	385 (17.4)	
<b>Children</b>	3575 (100)	1126 (31.5)	2449 (68.5)	<0,000
0	784 (21.9)	551 (48.9)	233 (9.5)	
1	657 (18.4)	234 (0.8)	423 (17.3)	
2	1639 (45.8)	201 (17.9)	1438 (58.7)	
>3	351 (9.8)	39 (3.5)	312 (12.7)	
<b>Region</b>	3837 (100)	1262 (32.9)	2575 (67.1)	0.780
Vojvodina	941 (24.5)	311 (24.5)	630 (24.5)	
Belgrade	732 (19.1)	248 (19.7)	484 (18.8)	
Central Serbia	2164 (56.4)	703 (55.7)	1461 (56.7)	
<b>Type of settlement</b>	3837 (100)	1262 (32.9)	2575 (67.1)	0.814
urban	2121 (55.3)	701 (55.5)	1420(55.1)	
rural	1716 (44.7)	561 (44.5)	1155 (44.9)	

Table 2 shows the results of descriptive statistics related to use of contraception. The results show that significant differences in abortion rates in respect of application of IUU, condoms and methods infertile days. No differences in application OC and CI. IUU cartridge as a method of contraception was used by 9,0% in middle-aged women and 2,7% of young women. The method applies the fertile days 22,1% and 26,1% of younger middle-aged women.

**Table 2.** The frequencies for use of contraception of women of different ages

Varijables	Total N (%)	Yang n (%)	Medium ages n (%)	P value
<b>Contraception</b>				
<b>Pills</b>	2343 (100)	676 (28.9)	1667 (71.1)	0.201
No	2187 (93.3)	624 (92.3)	1563 (93.8)	
Yes	156 (6.7)	52 (7.7)	104 (6.2)	
<b>IUU</b>	2323 (100)	673 (29.0)	1650 (71.0)	0.000
No	2156 (92.8)	655 (97.3)	1501 (91.0)	
Yes	167 (7.2)	18 (2.7)	149 (9.0)	
<b>Condom</b>	2414 (100)	713 (29.5)	1701 (70.5)	0.000
No	1679 (69.6)	394 (55.3)	1285 (75.5)	
Yes	735 (30.4)	319 (44.7)	416 (24.5)	
<b>Method of fertile days</b>	2348 (100)	674 (28.7)	1674 (71.3)	0.043
No	1762 (75.0)	525 (77.9)	1237 (73.9)	
Yes	586 (25.0)	149 (22.1)	437 (26.1)	
<b>Coitus interruptus</b>	2368 (100)	682 (28.8)	1686 (71.2)	0.483
No	1536 (64.9)	435 (63.8)	1101 (65.3)	
Yes	832 (35.1)	247 (36.2)	585 (34.7)	

Table 3 presents the results of descriptive statistics relating to the use of health care related to reproductive health. Significant difference between young and middle-aged respondents in the application of preventive gynecological practice (gynecological control, Pap test, breast self-examination). Any other subjects (54,5%) from the group once a year younger for regular gynecological control, a group of middle-aged women, makes them 39,3%. During the last 12 months of the examination, Pap test is done under the age of respondents was 22,6% and 23,8% of middle-aged women, a Pap test has ever done 54,4% and 35,9% of younger middle-aged women, 5,0 % and 4,3% of younger middle-aged women do not know what that is. Breast self-examination once a month does not work 63,4% and 57,5% of younger middle-aged women, both groups of women to make their self- initiative more often, rather than on the advice of doctors.



**Table 3.** Frequencies for preventive gynecological practice of women of different ages

Varijables	Total N (%)	Yang n (%)	Medium ages n (%)	P value
<b>Attending gynaecological visits regularly</b>	3370 (100.0)	961 (28.5)	2409 (71.5)	0.000
Once a year	1471 (43.6)	524 (54.5)	947 (39.3)	
Less than once a year	1899 (56.4)	437 (45.5)	1462 (60.7)	
<b>Undertaking PAPA test once a year</b>	3575 (100.0)	1126 (31.5)	2449 (68.5)	0.000
During the last 12 months	838 (23.4)	255 (22.6)	583 (23.8)	
1 – 3 years ago	592 (16.6)	149 (13.2)	443 (18.1)	
More than 3 years ago	174 (4.9)	22 (2.0)	152 (6.2)	
More than 5 years	186 (5.2)	7 (0.6)	179 (7.3)	
I do not remember	114 (3.2)	18 (1.6)	96 (3.9)	
Never	1492 (41.7)	612 (54.4)	880 (35.9)	
I don't know what that is	162 (4.5)	56 (5.0)	105 (4.3)	
<b>Breast self-examination</b>	3575 (100)	1126 (31.5)	2449 (68.5)	0.001
No	2122 (59.4)	714 (63.4)	1408 (57.5)	
Yes, on the advice of doctors	276 (7.7)	63 (5.6)	213 (8.7)	
Yes, self-initiative	1142 (31.9)	339 (30.1)	803 (32.8)	

Tables 4 a, b and c shows the results of univariate and multivariate regression analysis for socio-demographic characteristics, the use of methods of contraception and prevention of gynecological practice in order to protect the reproductive health of women.

The results of univariate regression analysis showed a significant difference between young women and middle-aged women in terms of socio-demographic characteristics: education, number of children (except for three or more), in the number of abortions and marital status. The differences are significant for the application of methods of contraception: the IUU (OR = 3,62, 95% CI 2,02 -5,95) for condom use (OR = 0,40, 95% CI 0,33- 0,48 ) method for the fertile days (OR= 1,25, 95% CI 1,01-1,54), as well as regarding the application of preventive practices: regular gynecological examinations (OR = 1,86, 95% CI 1,60- 2,16), breast self-examination (OR = 1,27, 95% CI 1,10 -1,47). In terms of Pap test, women middle-aged, mostly working on the Pap test over a period of three years (OR = 11,25, 95% CI 5,21-24,28).

Results of multivariate regression analysis confirmed the observed differences: university education is more middle-aged women (OR = 2,23, 95% CI 0,50- 3, 31). The subjects

middle-aged have more children, one child (OR = 6,23, 95% CI 3,51- 11,07) and two children (OR = 8,13, 95% CI 4,20-15,76) , compared to those without children, a significant difference when it comes to the number of abortions, one abortion (OR = 2,51, 95% CI 1,82 - 3,45), two abortions (OR = 6,49, 95% CI 3,98 - 10,59), and three or more abortions (OR = 2,02, 95% CI 0,66 to 6,19), middle-aged women respondents, as a method of contraception more frequently applied IUU (OR = 3,56, 95% CI 2,02 - 6,28) and the method of the fertile days (OR = 1,48, 95% CI 1,17- 1,87) and less likely to use condoms (OR = 0,36, 95 % CI 0,30 to 0,45).

In terms of preventive gynecological practice, middle-aged respondents rarely go to gynecological controls (OR = 2,13, 95% CI 1,78- 2,54) and breast self-examination more frequently than do younger women (OR = 1,23, 95% CI 0,5- 1,45). In terms of screening for cervical cancer and Pap test, women middle-aged, mostly working on the Pap test over a period of three years (OR = 7,27, 95% CI 3,34 - 15,84).

**Table 4a.** Univariate and multivariate logistic regression analysis for socio-demographics characteristics women,s of different ages

Varijables	Univariate analysis		Multivariate analysis	
	OR (95%CI)	P value	OR (95%CI)	P value
<b>Education</b>				
Primary school	1.00		1.00	
Secondary school	0.45 (0.37-0.55)	<0.000	0.95 (0.73-1.22)	0.666
University	0.60 (0.46-0.78)	<0.000	2.23 (1.50-3.31)	<0.000
<b>Marital status</b>				
Marital	1.00		1.00	
Living with a partner	0.08 (0.06-0.09)	<0.000	0.48 (0.25-0.93)	0.030
Living alone	1.29 (0.81-2.05)	0.291	2.99 (1.67-5.34)	<0.000
Divorced	15.02 (2.08-10.65)	0.007	12.8 (2.54-138.89)	0.004
Widow	0.63 (0.20-2.00)	0.430	0.68 (0.19-2.50)	0.566
<b>Children</b>				
0	1.00		1.00	
1	16.82 (13.60-20.81)	<0.000	6.23 (3.51-11.07)	<0.000
2	18.92 (13.11-27.29)	<0.000	8.13 (4.20-15.76)	<0.000
>3	1.01 (0.68-1.48)	0.973	2.02 (0.66-6.19)	0.216
<b>Abortion</b>				
No	1.00		1.00	
Once	2.78 (2.04-3.76)	<0.000	2.51 (1.82-3.45)	<0.000
Twice	7.57(4.71-12.18)	<0.000	6.49 (3.98-10.59)	<0.000
Three and more	3.35 (2.40-4.68)	<0.000	2.92 (2.05-4.17)	<0.000

**Table 4b.** Univariate and multivariate logistic regression analysis for use of contraception women of different ages

Varijables	Univariate analysis		Multivariate analysis	
	OR (95%CI)	P value	OR (95%CI)	P value
<b>Pilula</b>				
No	1.00			
Yes	0.80 (0.57-1.13)	0.206	0.74 (0.49-1.11)	0.142
<b>IUU</b>				
No	1.00		1.00	
Yes	3.62 (2.20-5.95)	<0.000	3.56 (2.02-6.28)	<0.000
<b>Kondom</b>				
No	1.00		1.00	
Yes	0.40 (0.33-0.48)	<0.000	0.36 (0.30-0.45)	<0.000
<b>Neplodni dani</b>				
No	1.00		1.00	
Yes	1.25 (1.01-1.54)	0.041	1.48 (1.17-1.87)	0.001

**Table 4c.** Univariate and multivariate logistic regression analysis for preventive gynaecological practice women, women of different ages

Varijables	Univariate analysis		Multivariate analysis	
	OR (95%CI)	P value	OR (95%CI)	P value
<b>Attending gynaecological visits regularly</b>				
Once a year	1.00		1.00	
Less than once a year	1.86 (1.60 - 2.16)	<0.000	2.13 (1.78-2.54)	<0.000
<b>Undertaking PAPA test once a year</b>				
During the last 12 months	1.00		1.00	
1 - 3 years ago	3.02 (1.88 - 4.83)	<0.000	2.11 (1.30-3.42)	0.002
More than 3 years ago	11.25(5.21 - 24.28)	<0.000	7.27 (3.34-15.84)	<0.000
More than 5 years	2.35 (1.39-3.96)	0.001	1.51 (0.88-2.59)	0.137
I do not remember	0.63 (0.53 - 0.76)	<0.000	0.56 (0.46-0.70)	<0.000
Never	0.83 (0.58 - 1.19)	0.313	0.72 (0.47-1.08)	0.116
I don't know what that is	0.63 (0.24 - 1.67)	0.351	0.45 (0.16-1.31)	0.145
<b>Breast self-examination</b>				
No	1.00		1.00	
Yes	1.27 (1.10-1.47)	0.001	1.23 (1.05-1.45)	0.011

## DISCUSSION

In this study, a representative sample, we examined differences in socio-demographic characteristics, use of methods of contraception and prevention practices relevant to the protection of reproductive health in women of different ages. In our study, there were significant differences in socio-demographic characteristics of respondents. Younger respondents from 20 to 29 years, more likely to have primary or secondary education, fewer children, fewer abortions and more often single, a method commonly used contraception condom in terms of preventive practices, often operating control gynecological examinations and Pap test, compared the middle-aged respondents (30-49 years). The subjects mean age tend to have university education, many children, more and more abortions are married, as a method of contraception, are more frequently used method of IUU and fertile days, and in terms of preventive practices, breast self-examination more likely to work once a month.

Positive impact on the education level of contraceptive use was investigated in several studies. Women with low education, contraception apply much less than women with secondary or higher. Traditional methods of contraception were used by the largest number of respondents with lower education.<sup>21, 22, 23</sup>

There is a significant difference in the number of children among our respondents, with women from every other group does not have any younger children (48,9%), and two children is only 17,9%. Average number of children you have our respondents was 1,76 (sd = 1,754). In most developed countries, as in Serbia, the total fertility rate is below 2,1. While the population in developed low fertility whit the help of held steady immigration, the latter is part of the depopulation of Serbia, i.e. reduction in the total population.<sup>24</sup> In terms of the number of abortions, our respondents differences; no abortion had 2 / 3 of young women and every other middle-aged women, 81% of middle-aged women had at least one abortion, and 18,% young women, 8,3% of young women had to their 30-e, three or more abortions.

According to data from the National Health Survey, 2006, 3,9% of women aged 15 to 24 years, intentionally interrupted the last pregnancy, did the same 15,8% of women aged 25 to 49 years.<sup>12</sup> Observed number of women in generative period in 1989 (the last year of reliable registration), abortions were most common in central Serbia, where most rural areas (95,1 per 1000 women of generative age), 74 in Vojvodina, and in Kosovo and Metohia 24,1 per 1000 women of reproductive age. According to official data from 1996. the rate was 66,1 abortions per 100 live births. From 2000 to 2007, the number of abortions in Serbia is decreasing, from 42,322 in 2000, abortion-age, to 24,273 in 2007-age.<sup>7</sup> Abortion had the highest women aged 36-49 years (53,8%),

three times less (17,5%) had abortions are women aged 20-35 years, and the lowest (3,6%) women aged 20 years.<sup>15</sup> The rate of abortion in Switzerland is 8,9 per thousand women and is stable over the last decade of the twentieth century, compared to Swiss women, the rate was twice as high for foreign women, especially from the former Yugoslavia and Africa.<sup>25</sup> The highest abortion rates in Eastern Europe (Romania 78/1000 women of reproductive age), and lowest in Western Europe (the Netherlands with 6,5/1,000 women of reproductive age). The disparity is explained by differences in application of effective contraceptives.<sup>26</sup> The increase in the number of unwanted pregnancies, especially among young women, from the Ministry of Health of Spain, introduced the emergency contraception (EC) to reduce the number of unwanted pregnancies; consumption EC was higher in rural areas compared to urban, which is explained by better information on the protection of the urban population of reproductive health.<sup>27</sup> Some authors believe that the major role of gynecologists and general practitioners to provide information about different methods of contraception to reduce the number of unplanned pregnancies.<sup>28, 29</sup>

Significant differences in the choice of contraceptive methods, depending on the age of respondents in our study, apply a condom more often younger respondents, aged 20 to 29 years, and IUU method applied more fertile days than respondents 30 to 49 years. The results of the National health survey (2006), 54% younger than 19 years and 32,4% aged 40 - 49 used some form of contraception, young women (aged 15- 24 years), mainly as a method of contraception, condom use, and older method of fertile days and CI.<sup>12</sup> In the study, Radulovic et al, modern means of contraception used 72% of respondents younger than 20 years and 41% of women aged 20 -49 years. Women older than 20 years (58%) more likely to choose traditional methods of contraception.<sup>15</sup> In our study, no differences in the application of CI in women of different ages, as in the study Dilbaza et al.<sup>30</sup>

In terms of preventive gynecological practice, middle-aged respondents rarely go to gynecological control, Pap tests and breast self-examination more likely to work once a month. Younger respondents more likely to work the control gynecological examinations, the interval between Pap test is shorter, and rarely do breast self-examination of women of age medium. We have not investigated the use of mammography, as in Serbia, recommendation for mammograms as screening for breast cancer, working with women from 45 to 69 years.<sup>32</sup>

A small number of studies examining the importance of regular gynecological examinations for preventive purposes, because almost all countries of the world have established National screening programs.<sup>32,33</sup> In a study of health of the Serbian population in 2006. year, on a sample of women older than 20 years, 6,3% had never visited a gynecologist.

<sup>12</sup> Over 50% of women of fertile age in B&H do not visit a gynecologist regularly, although the high incidence of gynecological infections and high incidence of breast cancer and cervical cancers.<sup>34</sup> Some studies have confirmed the importance of education as factors associated with preventive practices, to regular gynecological examinations, and screening tests.<sup>32</sup> J Pizarro and al. examined the reliability of reports of Pap testing. They came to the conclusion that women who have undergone gynecological examination only, and falsely reporting a Pap test, which was confirmed by comparing the medical records of patients with their report.<sup>35</sup>

The results of the National Health Survey in the 2006th years, Serbia has only 2% of women were enrolled in organized screening (pilot project). Independent Pap screening is done every third women, and others have done in the opportune screening. Ministry of Health has prepared the project "Support to the implementation of the National Program", "Serbia against cancer" in 2010. year, in order to implement screening programs in 2012. year. Lack of knowledge among women in Serbia on reproductive health, poor attitudes of gynecologists and personal obstacles associated with a negative experience in primary health care, conditional on a low priority preventive practice, both for women and for gynecologists.<sup>36</sup>

The significance of this study is that it is used nationally representative sample and the differences identified in the application of preventive practices among women of different age in Serbia. This study may point to factors that would constitute a barrier to the implementation of national screening and to identify categories of women who need to be animated for screening.

The study was cross sectional, so no conclusion about cause-effect relationships could be drawn. Secondly, data were based on self-reporting, which is characterized by bias and has not included medical records to validate obtained information

Women reproductive age in Serbia under the protection of his care for reproductive health, resulting in a high incidence of malignant disease and low fertility.

Our study we have shown that there are significant differences both in the application of methods of contraception, and preventive gynecological practice (control examinations, Pap tests and breast self-examination) in women of different ages.

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