

ORIGINAL ARTICLE

FACTORS INFLUENCING CONTRACEPTIVE USE AMONG MARRIED WOMEN OF PRODUCTIVE AGE IN INDONESIA

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ABSTRACT

Indonesia is facing a serious health issue as the total fertility rate (TFR) has significantly increased in the period of 2000-2017. Contraceptive Prevalence Rate (CPR) is stagnant in the same period. This study aims to assess the use of contraception in reproductive age-married women in Indonesia focusing on Contraceptive Use Mix (CUM) and other related factors. This cross-sectional study used raw data from the Indonesian National Socio-Economic Survey (INSES). The sample was 15-49 years married women with contraceptive use in 34 provinces in Indonesia. Total sample were 19,991 women. The results show that modern contraceptive use was 97.2% as opposed to traditional methods (2.8%). The Short-Acting Reversible Contraceptive (SARC) preferred was injectable methods (55.2%) and pills (21.0%). Factors influenced the use of modern contraceptive use was the number of children with OR = 1.864 (50%CI: 1.534-2.266). This research argues that contraceptive use among married women of productive age is still low in Indonesia, especially rural areas. Therefore, government must increase contraceptive financing and the village midwife program.

Keywords: Contraceptive prevalence rate, contraceptive use mix, married women of productive age, contraceptive financing, Indonesia

INTRODUCTION

During periods of 1970-2000, Indonesia has succeeded to attenuate the population growth rate from 2.31 (1970-1980) to 1.19 (1990-2000)¹, as a result of massive promotion of the family planning program by the government^{2,3}. Nonetheless, this downward rate was also due to the use of contraceptive methods by the reproductive age women that contributed in the decrease in total fertility rate (TFR) from 5.6 in 1997 to 2.2 in 2000⁴. However, this situation has changed from 2000 to 2017. TFR has dramatically increased to 2.4 in 2017. Contraceptive prevalence rate (CPR) rose only by 2% in the period of 2000-2017. Meanwhile, the rate of contraception dropped-out increased to 34% in 2017. There was also 11% rate of the unmet need for contraception of married women of reproductive age⁵.

One of the reasons for increased TFR in Indonesia was the decentralization system of family planning program. Many local governments in Indonesia did not put the family planning program as their priority program⁶. As a result, the rate of contraceptive use reached plateau and fertility rate markedly increased⁷. There were several factors that hampered the use of contraceptive in married women of reproductive age, such as socio-economic condition. The high cost of

contraception have limited the access of women from lower income families to contraception^{8,9}. This phenomenon also happened in the low to middle income countries. This explains the high fertility rate in lower income families^{10,11}.

One of the factors that influence the use of contraception in married women of reproductive age is the number of children in a family. More children in a family would likely to add some financial burdens and as a result, this escalates the contraceptive practice¹². Especially for the working mothers, they are likely to use of contraception¹³. Level of education and the age of the spouse also affect the use of contraception^{14,15}.

This study examines factors that influence contraceptive use among married women of productive age. This study important to analyze the practice of contraceptive use among married women of productive age in Indonesia, because there has been a decline in the trend of contraceptive use since the authority to administer the program has been devolved to local government. This change has caused community access to contraceptive service to decline, because the family planning program is not a priority for local governments⁶. So, we need to analyze the condition that occur in contraceptive use in Indonesia.

METHODS

Study Design

This cross-sectional study evaluated raw data from the Indonesian National Socio-Economic Survey (INSES) in 2017 released by the Indonesian Central Statistics Bureau. We analyzed the use of contraception in reproductive age married women (15-49 years) in urban and rural in Indonesia. We have obtained a data use permit from Indonesian Central Statistics Bureau.

Sample of Study

The study sample was 15-49 years married women with contraceptive use in urban and rural in 34 provinces in Indonesia. The total number of samples were 19,991 women that consisted of 8,390 women from urban areas and 11,601 women

from rural areas. The method for selecting samples can be seen in figure 1.

Method of Measurement and Analysis

CUM is calculated as number of married women of reproductive age using certain contraceptive methods divided by the number of all married women of reproductive age using contraception. The study is analyzed by univariate, bivariate and multivariate models. Multivariate regression logistic model is used to evaluate factors that influence the use of contraceptive at level $p < 0.05$ considered significance.

Ethical Consideration

This study has been approved by Ethic Committee of Universitas Pembangunan Nasional (UPN) Veteran Jakarta (No. 2730/VII/2020/KEPK).

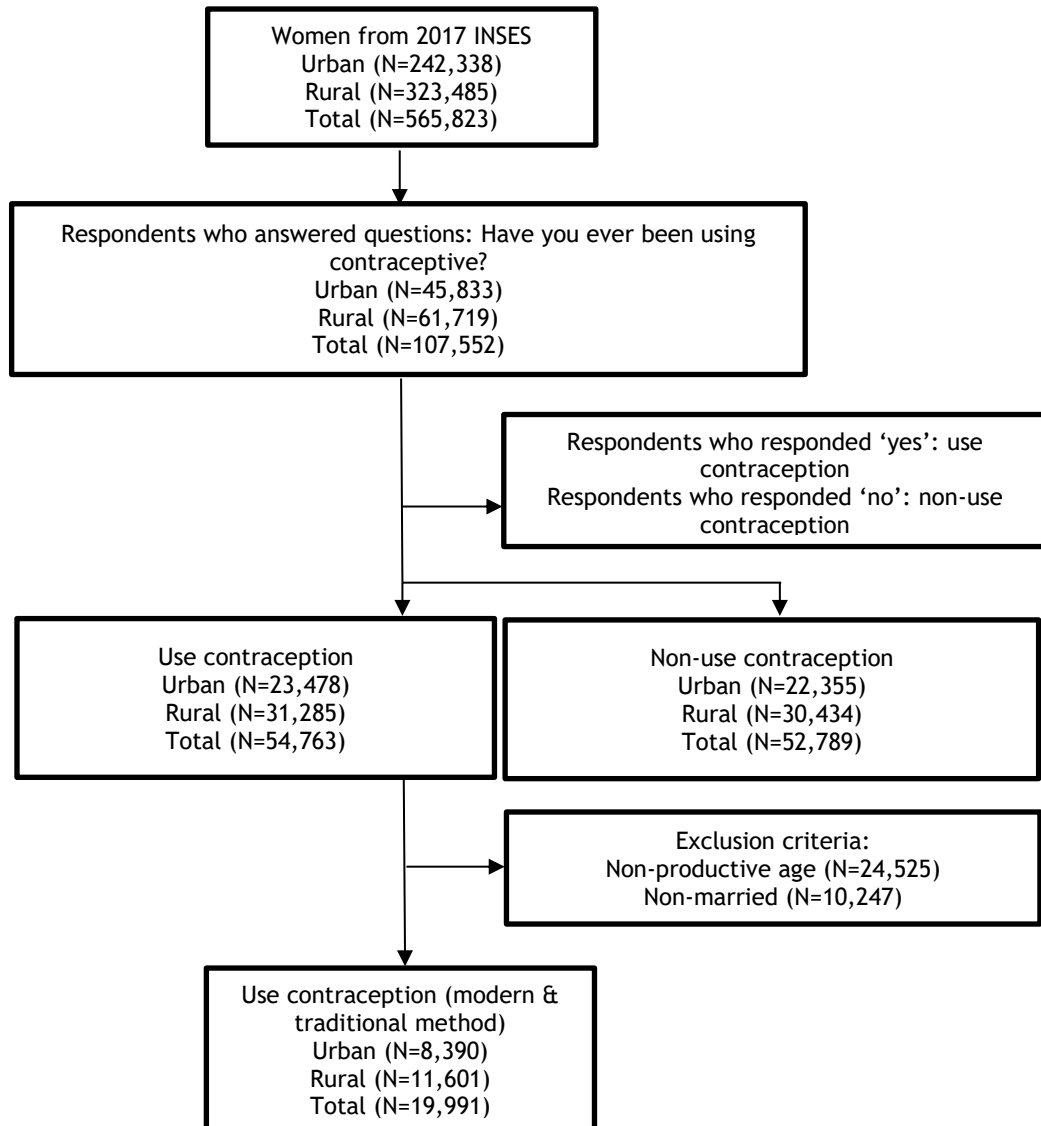


Figure 1: Flow chart of study population selection

RESULTS

Table 1 shows the socio-demographic characteristics of respondents in this study. Univariate analysis resulted in proportion of respondents in urban areas (42.0%) as opposed to ones in rural areas (58.0%). The majority of respondents are 35-49 years old (55.1%), respondents aged 22-34 years old (40.8%) and the small proportion of respondents aged 15-21 years old (4.1%). Based on level of education, 61.3% of respondents have finished their secondary school and 29.6% of respondents have only finished basic school.

Furthermore, 84.1% of respondents have less than three children, and 13.0% of respondents have 3-5 children. Based on the gross income per capita per month, respondents were classified into four spending ranges which are \geq US\$ 90, US\$ 58-89, US\$ 37-57 and \leq US\$ 37, with each category proportion is 24.7%, 25.2%, 25.1% and 25.0%. Also, 97.2% of respondents preferred modern contraceptive, 2.8% respondents preferred traditional method.

This study finds that modern method is 97.2% and traditional method is 2.8%. Modern method mostly

used by respondents is SARC (77.4%). Meanwhile, LARC is 19.8%. In the SARC group, the type of contraception most used by respondents is injectable (55.2%) and pill (21.0). In the LARC group, the type of contraception most used by respondents is implant (8.6%) and IUD (7.1%). Whereas in traditional method, the most widely used contraceptive method is rhythm (1.7%) (see table 2).

Table 3 shows bivariate analysis that correlates between contraceptive methods and six determinant factors. The result shows that the number of children in a family has a significant correlation with $p < 0.01$. and other factors did not correlate significantly.

Multivariate analyses in table 4 shows that the number of children born by reproductive women has significant influence with OR = 1.864 (50%CI: 1.534-2.266). This shows that the married women of reproductive age choosed the modern contraceptive methods and this number is accordant to the number of children in a family. Other variables did not have significant correlation at $p < 0.05$.

Table 1: Socio-demographic characteristics of the respondent (N=19,991)

Characteristics	N	%
Communities:		
Urban	8,390	42.0
Rural	11,601	58.0
Age (years):		
15-21	825	4.1
22-34	8,152	40.8
35-49	11,014	55.1
Education:		
< Complete primary	1,824	9.1
Complete primary	5,918	29.6
> Complete primary	12,249	61.3
Work status:		
Currently employed	2,508	12.5
Not currently employed	17,483	87.5
Number of children born (people):		
≤ 2	16,818	84.1
3-5	2,995	13.0
≥ 6	578	2.9
Expenditure per capita per month (US\$):		
≤ 36	4,936	24.7
37-57	5,038	25.2
58-89	5,015	25.1
≥ 90	5,002	25.0
Contraceptive use and method:		
Modern	19,429	97.2
Traditional	562	2.8

Table 2: Contraceptive use methods among married women of productive age (N=19,991)

Contraceptive Use Methods	Prevalence (%)		
	All (N=19,991)	Urban (N=8,390)	Rural (N=11,601)
A. Modern method:	97.2	40.9	56.3
1. LARC:	19.8	8.8	11.0
Female sterilization	3.8	1.8	2.0
Male sterilization	0.3	0.1	0.2
IUD	7.1	3.4	3.7
Implant	8.6	3.5	5.1
2. SARC:	77.4	32.1	45.3
Injectable	55.2	23.6	31.6
Pill	21.0	8.0	13.0
Condom	1.2	0.5	0.7
B. Traditional method:	2.8	1.7	2.1
Rhythm	1.7	0.7	1.0
Breastfeeding pregnant	0.3	0.2	0.1
Other	0.8	0.8	1.0
C. Total (A+B)	100.0	42.6	58.4

Table 3: Bivariate analysis of contraceptive use and methods by selected characteristics (N=19,991)

Variable		Modern method		Traditional method		P [^]
		N	%	N	%	
Communities	Rural	11,158	97.0	343	3.0	0.142
	Urban	8,171	97.4	219	2.6	
Age (years)	15-21 & 35-49	11,522	97.3	317	2.7	0.170
	22-34	7,907	97.0	245	3.0	
Education	< Complete primary & complete primary	7,536	97.3	206	2.7	0.305
	> Complete primary	11,893	97.1	356	2.9	
Work status	Not currently employed	16,982	97.1	501	2.9	0.210
	Currently employed	2,447	97.6	61	2.4	
Number of child born	3 or above	2,950	95.4	141	4.6	< 0.01
	< 3	16,400	97.5	418	2.5	
Expenditure per capita per month	< US\$ 37	4,795	97.1	141	2.9	0.825
	US\$ 37 or above	14,634	97.2	421	2.8	

Table 4: Multivariate analysis of the determinants between use of modern contraceptive methods by selected characteristics (N=19,991)

Variable	B	Wald	Sig.	OR	CI 95%	
					Lower	Upper
Community	0.139	2.350	0.125	1.149	0.962	1.373
Age of women	-0.088	0.996	0.318	0.916	0.771	1.088
Education of women	-0.100	1.151	0.283	0.905	0.754	1.086
Works status	0.142	1.064	0.302	1.153	0.880	1.511
Number of children	0.623	39.191	0.000	1.864	1.534	2.266
Expenditure per capita per month	0.028	0.079	0.779	1.029	0.844	1.254

DISCUSSION

The success of the Indonesian government to reduce TFR significantly in 1970-2000 need to be repeated. The decrease TFR has a significant impact on the proportion of productive age population now and the next 15 years^{16,17}. In the year of 2020-2030, this demographic bonus will contribute positively to the Indonesian national development^{18,19}.

However, the significant reduction of TFR has not continued since 2000. During the year 2000-2017, TFR has increased remarkably. The decentralization policies in 2001 have shifted the authority to implement the family planning program to the local government²⁰. In fact, many local governments did not consider the family planning program as their priorities and the implementation of the family planning program

tended to be less vigorous, in term of curative, preventive or promotive measures. As a result, the Indonesian TFR rose significantly¹⁰.

This recent study concludes high CPR in the rural than urban communities. The better health infrastructure have implicated better contraceptive practices in urban areas^{21,22}. Higher CPR in rural communities has an impact on higher fertility rate in those areas²³. The government should promote the villages midwifery program that has proven to be effective as the first hand in the service of contraceptive methods in the village communities^{8,24,25}. The contraception should be accessible by the low-income families especially in the rural areas.

Our recent study demonstrated that majority of the reproductive aged-woman preferred injectable contraceptive and oral contraceptive uses. These methods are considered short-acting methods, because higher chances of dropped out of the acceptors. In term of controlling fertility rate growth, LARC is more effective than SARC, such as female and male sterilization, IUD and implant method. Reproductive aged-spouse who intend for birth spacing should use LARC^{26,27}. Based on those facts, massive socialization of contraceptive methods such female and male sterilization, IUD and implant use should be carried out. The government needs to support and reinforce the service of contraception in the villages especially rural areas²⁸.

This study shows that the use of contraceptive methods have been triggered by number of children in a family. The married women of reproductive age prefer the modern contraceptive methods when they have many children²⁹. This behavior theoretically aims to limit the pregnancy, especially for those who have already had two children. This mindset corresponds to a popular slogan from the Indonesian government: "two children in a family are enough". Our result shows that majority of reproductive aged-women preferred injectable contraceptive and pills methods. This preference might increase the likelihood of unintentional pregnancy.

This study has limitations in analyzing contraceptive use in poor women. In fact, this group is the most vulnerable to not getting access to contraceptive use. We also did not analyze the health insurance program provided by government for poor women in getting contraceptive services. This factors are important in evaluating the use of health insurance programs for contraceptive services among poor women in Indonesia.

The bottom line, Indonesia needs to reprioritize the family planning program to prevent future population explosion. In 2035, it is predicted that proportion of productive age population will decline and Indonesia population will be

dominated by old population³⁰. When this TFR is not managed as an important issue, Indonesia will face the substantial demographic problems such as increasing proportion of non-productive age population that might impede Indonesian gross development^{31,32}.

CONCLUSION

Contraceptive use among married women of productive age is still low in Indonesia. It is necessary to increase access to contraceptive services for married women of productive age, especially poor women in rural areas. Therefore, government must increase contraceptive financing and the village midwife program.

CONFLICT OF INTEREST

The authors declare no potential conflict of interest.

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