DISPARITIES OF THE USE OF HORMONAL AND NON-HORMONAL CONTRACEPTIVE DRUGS IN URBAN AND RURAL AREAS IN INDONESIA AND THE WORLD

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ABSTRACT

Hacyl Indonesia Demographic and Health Survey (IDHS) in 2017 showed that 40% of married women (15-49) using a tool or means of family planning (KB). The use of contraceptive has also increased from 62% (2012 IDHS) to 64% (2017 IDHS). This study aimed to examine the use of contraceptive in urban and rural areas in Indonesia. Methods: The secondary data analysis in this study sourced from secondary data of IDHS in 2017 with a cross-sectional approach. The research instrument was structured questionnaires that had been tested for validity and reliability. Data analysis used Binner SPSS 22 Logistic Regression for windows. The results of this study indicated that women of childbearing age in urban areas (OR 0.988; 95% CI: 0.955-1.023), women of childbearing age 20-24 years (OR 0.741; 95% CI: 0.591-0.929), working women (OR 1.195 95% CI: 1.158-1.233), secondary educational level (OR 2.172 95% CI: 1.992-2,369), married/living with partner (OR 32,995; 95% CI: 29,247-37,223), richest (OR 1,487; 95% CI: 1,405-1,574), health insurance (OR 1,049; 95% CI: 1,016-1,083), and multiparous (OR 3.5117; 95% CI: 2,946-3,297) were variables that influenced women of childbearing age in using contraceptives at home in Indonesia.

There was no difference between urban and rural areas in the use of hormonal and non-hormonal contraceptive drugs in Indonesia by women of childbearing age (15-49 years). Recommendations are addressed to policymakers in Indonesia to improve family planning services both in rural areas, in densely populated and slum areas.

Keywords: Women of childbearing age, contraceptive use, Urban-Rural, Indonesia, Demographic Health Survey

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INTRODUCTION

Contraception is defined as the deliberate prevention of conception during sexual activity, through man-made means such as the use of various tools, agents, drugs, sexual practices, or procedures surgery[1]. High contraceptive prevalence rates are always expected to control births for countries experiencing high population growth rates. *Total Fertility Rate* (TFR) is an important and strategic indicator to determine the success of a country or an entire country in controlling its population through the family planning (KB) program[2].

The large population in Indonesia is indicated by the stagnant TFR based on 2002-2003, 2007, and 2012 IDHS results, namely 2.6 children per woman of childbearing age 15-49 years[2,3]. Furthermore, the results of the 2017 IDHS showed that the use of contraceptive has increased from 62% (2012 IDHS) to 64% in the IDHS (2017) and 57% use modern contraception and 6% use traditional contraception. Besides the TFR decreased from 2.6 in 2012 to 2.4 in 2017, but there is a striking difference, where the TFR for urban areas is 2.3 while the TFR for rural areas is still 2.6, per woman of childbearing age in Indonesia[2] (BKKBN, Badan Statistics Center, Ministry of Health RI & USAID, 2018). Indonesia has made great progress in controlling the population through the family planning program, namely a decline in the

population growth rate from 1.49 in 2010 to 1.39 in 2015. However, Indonesia's population has recorded an increase from 237.6 million in 2010 to 255 million in 2015 If you look at the distribution, the proportion of the population in urban areas was slightly larger, namely 135 million compared to rural areas, which was 119 million people.[2,3]

The use of contraceptive tools or drugs are important components affecting fertility in Indonesia. The use of contraception can reduce birth rates (Ananta, Lim, Molyneaux & Kantner, 1992). Previous research has shown that the residence area has a significant effect on desire to use contraception[5]. The opportunity to use contraceptives for women living in urban areas is higher than in rural areas because in urban areas is easier to access information and family planning services. In urban areas are easier to find private health clinics, government hospitals, pharmacies, and drug stores, thus providing convenience in family planning services and increasing the use of contraception for women or couples of childbearing age. On the other hand, in rural areas, government hospitals and other health facilities are rarely available and it makes women with low economic status can't easily reach health facilities, thus affecting the continuity of contraceptive used. Furthermore, limited access to get transportation means that women with low economic

status is only rely on public transportation, which will add extra cost if they want to reach health facilities[6].

Many factors cause contraceptive use in both urban and rural areas. Several studies in developing countries have shown a strong correlation between socioeconomic status and contraceptive use[7]. The analysis conducted by Davis & Blake stated that one of the intermediate variables that affect fertility is the use of contraception which is heavily influenced by social, economic, and cultural factors. The pattern of contraceptive use and choice of married couples in Asian countries depends on local socio-economic and cultural conditions. Women's perceptions about contraception are closely related to several factors, such as adequate information, women's education, and women's knowledge.[8]

Contraceptive use in Indonesia differs in every social aspect, for example, education is more important than income or other economic variables. Education is a factor that influences contraceptive use through women's access to get information and the choice of family planning methods[8]. Education is associated with choosing the preferred family planning method[9] and a significant increase in contraceptive use, an increase in age at first marriage, as well as several socio-economic and cultural factors that affect the decline of fertility in Indonesia during 1977 to 1986[9,10]. The results of research conducted in Indonesia showed that residence (urban or rural), education, access to mass media, and visits of officers influence women in choosing family planning services[10]

Most urban areas in developing countries are often associated with more educated communities, better access to medical services such as family planning and other social services. Therefore, contraceptive use rates are usually higher in urban areas than in rural areas. Besides, the chances of becoming contraceptive user for women living in urban areas are almost one and a half times higher than women in rural areas[11]. The chances of women aged 17-47 who live in urban areas to use family planning are 1.4 times greater than group of women in the same age in rural areas. The different picture of contraceptive used between these two regional typologies affects are lower birth rate in urban areas generally [12]

Survey data *Performance Monitoring and Accountability 2020 (PMA2020)* in 2015 showed an inverse relationship between the total *fertility rate*(TFR) and contraceptive *prevalence rates (CPR)* among in rural and urban areas. Generally, the survey results showed that an increase in contraceptive use affects the decrease in fertility rate[13]. However, the survey results also showed that the TFR figure (2.4) and the proportion of family planning use for all types of methods (62%) in rural areas was greater than the TFR (2.2) and the proportion of family planning use (59%) in the regions urban. Likewise, the proportion used of modern family planning in rural areas (61.9%) was greater than in urban areas (57.4%). Interestingly, the use of traditional family planning in urban areas (2.2%) was greater than in rural areas (1%).[13,14]

This study aimed to analyze the urban-rural disparity in contraceptive use by women of childbearing ages in Indonesia. By looking further at the differences in the performance of family planning service systems as outputs, it can be a consideration for policymakers to make better policies from the family planning service system[14], as well as budgeting policies to strengthen outputs that are less important[15]. Based on previous research, there was a trend that was different from the results of the previous survey so that it required an analysis of whether the use of contraception in urban areas was better than rural areas especially analysis which was done among female prostitutes in Indonesia. It would be as secondary data analysis of the 2017 IDHS between urban and rural areas.

RESEARCH METHODS

This study used secondary data from 2017 IDHS. The population in this study were women (15-49 years old) in Indonesia, involving samples of 86,149 women of childbearing age . The sampling technique in this study was stratified cluster-random sampling[2]. The use of contraception in women of childbearing age in order to delay, regulate distance, or end a pregnancy. In this study, the use of contraceptives were both modern and traditional family planning, including the use of the IUD, implant, and MOW methods, as well as the discontinuation of use. The IDHS is part of a Demographic Health Survey (DHS) designed to collect data on fertility, family planning, maternal and child health. The 2017 IDHS was implemented jointly with BPS, BKKBN, and the Ministry of Health. The survey used a structured questionnaires. The questionnaires have been tested for the validity and reliability of the instrument.

The variables for this study were age, education, marital status, wealth status, health insurance, and parity. The age group was categorized into seven groups, with the youngest age group (15-19 years). Education used was the last education of childbearing age women had when the survey was conducted. Marital status was categorized into 2 groups, namely married/living with a partner and widowed/divorced. Wealth status consisted of the poorest, poor, middle, rich, and richest. Health insurance was about an insurance participant and not an insurance participant of childbearing age women, as the reference was not being an insurance participant. Parity is divided into 3, namely primiparous (having children less than 2 kids), multiparous (having children 2-3 kids), and grand multipara (having children more than 3 kids) with the primiparous group being the reference.

Bivariate analysis with Chi-Square to test and determine whether the use of contraception in urban and rural areas by women of childbearing age is significantly different or not. The variables analyzed were contraceptive use, age, education, marital status, wealth status, health insurance, and parity. While the Binary Logistic Regression analysis aims to identify the factors that were significantly involved in contraceptive use in rural women. All used IBM SPSS 22.0 windows software.

RESULTS AND DISCUSSION

Tables 1 and 2 describe contraceptive use in urban and rural areas. Table 1 illustrates that there was no difference in contraceptive use in urban and rural areas. Women of childbearing aged 35 and over dominated the use of contraception in both rural and urban areas, although this had decreased in women aged 45-49 years (Table 1). The results of the analysis in Table 2 found that the age of women of childbearing age in the two regions using contraception and in the two regions showed no difference.

Based on table 1, Women of childbearing age in both regions was dominated by working groups, while Women of childbearing age in terms of education, Women of childbearing age in urban areas had secondary education and used contraception more than rural areas were more dominant rather than women of childbearing age with primary education. Although the proportions were different, the education variable of women of childbearing age did not show any difference in contraceptive use[16,17].

Table 1 showed that two regions were dominated by those who were married/living partners. Table 1 also illustrates the differences in the characteristics of women of childbearing age welfare status in Indonesia. In urban areas, the larger

group of women of childbearing age were richest group (29.5%), meanwhile in rural areas, it was dominated by the poorest group (44.7%). Statistically, although the proportions were far different, the welfare status variables do not differ significantly in using contraception. Based on membership insurance, women of childbearing age in both regions, most of them have insurance[17,18]. Meanwhile, based on the parity category, the two regions were dominated by the multipara group women of childbearing age.

Table 1. Descriptive Statistics of Contraceptive Use in Indonesia (n = 86,149)

CHARACTERISTICS	TYPE OF PLACE		ALL	P
	Urban	Rural		
Contraceptive use				0.000 ***
No (ref.)	15099 (36.6%)	17583 (39.2%)	32682 (37.9%)	
Yes	26197 (63.4%)	27270 (60.8%)	53467 (62.1%)	
Age group				0.000 ***
15-19 (ref.)	178 (0.4%)	256 (0, 6%)	434 (0.5%)	
20-24	1369 (3.3%)	1972 (4.4%)	3341 (3.9%)	
25-29	3814 (9.2%)	4566 (10.2%)	8380 (9.7%)	
30-34	6801 (16.5%)	7630 (17.0%)	14431 (16.8%)	
35 -39	9611 (23.3%)	9756 (21.8%)	19367 (22.5%)	
40-44	10073 (24.4%)	10402 (23.2%)	20475 (23.8%)	
45-49	9450 (22.9%)	10271 (22.9%)	19721 (22.9%)	
Work status				0.000 ***
No (ref.)	16952 (41.0%)	17410 (38.8%)	34362 (39.9%)	
Yes	24344 (59.0%)	27443 (61.2%)	51787 (60.1%)	
Education				0.000 ***
No education (ref.)	575 (1.4%)	2325 (5.2%)	2900 (3.4%)	
Primary	11225 (27.2%)	21415 (47.7%)	32640 (37.9%)	
Secondary	23201 (56.2%)	17994 (40.1%)	41195 (47.8%)	
Higher	6295 (15.2%)	3119 (7.0%)	9414 (10.9%)	
Marital status				0.000 ***
Married/living with partner	38425 (93.0%)	42307 (94.3%)	80732 (93.7%)	
Widowed/divorced (ref.)	287 1 (7.0%)	2546 (5.7%)	5417 (6.3%)	
Wealth status				0.000 ***
Poorest (ref.)	3909 (9.5%)	20037 (44.7%)	23 946 (27, 8%)	
Poor	6492 (15.7%)	10 333 (23.0%)	16 825 (19.5%)	
Middle	8471 (20.5%)	7087 (15.8%)	15 558 (18.1%)	
Rich	10247 (24.8%)	4904 (10.9%)	15151 (17.6%)	
Richest	12177 (29.5%)	2492 (5.6%)	14669 (17.0%)	
Health Insurance				0.000 ***
No (ref.)	13872 (33.6%)	17339 (38.7%)	31211 (36.2%)	
Yes	27424 (66.4%)	27514 (61.3%)	54938 (63.8%)	
Parity				0.000 ***
Primipara (ref.)	4469 (10.8%)	4144 (9.2%)	8613 (10.0%)	
Multipara	30545 (74.0 %) 28	807 (64.2%)	59352 (68.9%)	
Grandemultipara	6282 (15.2%)	11902 (26.5%) 18	184 (21.1%)	

Note: ∗ p <0.05; ∗∗ p <0.01; ∗∗∗p <0.001.

Table 2 described the results of the binary logical regression test for contraceptive use. This test was conducted to detect disparities in contraceptive use in women of childbearing age among urban and rural areas in Indonesia. Reference in this study was women who did not use contraception. Table 2 showed that there was no difference in contraceptive use by women of childbearing age in the two regions (p> 0.05). The findings of this study indicated that there was no significant difference in the use of contraction by women of childbearing age in rural and urban areas in Indonesia. Thus, the findings showed that the women of childbearing age use contraceptive in two regions were relatively same. In terms of educational level, women of childbearing age in rural areas were dominated by a lower level (*primary*) than those in urban areas. The same applies to the aspect of wealth status, the majority of women of childbearing age in rural areas had health status of the *poorest* than those in urban areas (*richest*). However, this condition did not differentiate the use of contraception either in the two areas. Thus, overall in both regions, women of childbearing age had awareness and willingness to use contraception.[19]

Table 2 showed that the age of childbearing age women affects contraceptive use. The category of women of childbearing age in between 20-24 year age group had a probability of 0.741 times compared to the 15-19 year age group (OR 0.741; 95% CI 0.591-0.929). Based on Table 2, the level of education also affects contraceptive use. Women of childbearing age with primary education were 2,108 times more likely to use contraception than those with a higher educational level (OR 2,108; 95% CI 1,936-2,294). when someone is getting older, then they will be more inevitably suffer from illness. These conditions allowed them to take advantage of higher health facility[20]. Elderly with lower levels of education used more outpatient services, and the likelihood of elderly morbidity based on education was higher. Table 2 also indicates categories of women of reproductive age in 20-24 years age group had a probability of 0.741 times compared to 15-19 years age group (OR 0.741; 95% CI 0.591-0.929). Women of childbearing age in 25-29 year age group were 0.468 times more likely to use contraception than 15-19 year age group (OR 0.468; 95% CI 0.375-0.583). Women of reproductive age in 30-34 year age

group were 0.426 times more likely to use contraception than 15-19 year age group (OR 0.426; 95% CI 0.341-0.531). Women of reproductive age in the 35-39 year age group were 0.440 times more likely to use contraception than 15-19 year age group (OR 0.440; 95% CI 0.352-0.549). Women of reproductive age in the 40-44 year age group were 0.355 times more likely to use contraception than the 15-19 year age group (OR 0.355; 95% CI 0.284-0.443). Women of reproductive age in the 45-49 year age group were 0.169 times more likely to use contraception than the 15-19 year age group (OR 0.169; 95% CI 0.136-0.211). There were differences in terms of family planning between the women in urban and rural areas. However, these differences could be explained by differences in age and education[21]. Women with formal education in both settings had about one-half the fertility rate compared to women with no formal education (OR = 0.59, 95% CI = 0.45 - 0.95, p = 0.001). Similarly, women who used contraceptives in both settings had about one-twelfth fertility rate compared to women who were not using contraceptives (OR = 0.08, 95% CI = 0.06 - 0.12 and p = 0.019). It showed that awareness and use of contraceptives was higher in urban than rural respondents under study. Fertility was also higher among urban than rural women[22]. And there was small rigorous evaluation evidence of family planning programs targeting urban areas due to difficulties in identifying comparison groups. These findings, which used longitudinal data from women in 14 initial program implementation cities, were first step in informing future family planning programs in urban settings. The note was different study contexts, Several interesting and informative results about demand generation activities emerge from our analysis. First, in each countries where community outreach were measured, women who were exposed to community activities were significantly more likely to such activities to be modern method users at midterm than their counterparts who were not exposed. These findings were robust in the sense that models (ie, fixed effects) that were explicitly correct for the potential endogeneity of the program exposure (specifically, recall) offered similar results. In urban settings, it appeared that interpersonal communication activities were important strategies for encouraging family planning use. As given that there was continued to be a large percentage of women in urban settings that had myths and misconceptions about family planning, 18–20 interactions with peers and health workers may be an influential strategy to change these problematic attitudes[23,24]

Table 2 described relationship between educational level and contraceptive use in working women. Women of childbearing age who had basic education are 2,107 times more likely to use contraception than those without education (OR 2.107; 95% CI 1,935-2,293). Women of childbearing age who had secondary education were 2.169 times more likely to use contraception than those without education (OR 2.169; 95% CI 1.989-2,365). Women of childbearing age who had tertiary education were 1,965 times more likely to use contraception than those without education (OR 1,965; 95% CI 1,779-2,170). The findings from the study also found disparities in contraceptive use at provincial and district level, where prevalence was higher in districts of northern provinces and lower in districts of western provinces. The findings of this study suggested that exposure to information on contraceptive use in health centers, empowerment of women to access quality contraceptive-use services and religions to play an important role in explaining and informing their adherents about the importance of using a contraceptive method[25] . The knowledge of childbearing women in the Biyem-Assi Health District was relatively high but still unsatisfactory. The proportion of non contraceptive users who have no desire of adopting any contraceptive

method in future are still unacceptably high. Policy makers should improve on their strategies while empowering the health personnel as well as working in collaboration with the education ministries[25,26,27]

Table 2 showed that women of childbearing age who were married or living with partners were 33,034 times more likely to use contraception than childbearing age women who are widows or widowers (OR 33,034; 95% CI 29,283-37,265). In terms of welfare status, women of childbearing age with middle to lower welfare status (poor) were 1,340 times more likely to use contraception than women of childbearing age who had the lowest welfare status (OR 1,340; 95% CI 1,281-1,401). Women of childbearing age with middle welfare status were 1.429 times more likely to use contraception than women of childbearing age with the lowest welfare status (OR 1.429; 95% CI 1.363-1.498). Women of childbearing age with middle to upper welfare status were 1,430 times more likely to use contraception than women of childbearing age with the lowest welfare status (OR 1.430; 95% CI 1.362-1,502). Women of childbearing age with the highest welfare status were 1,476 times more likely to use contraception than fertile women with the lowest welfare status (OR 1.476; 95% CI 1,400-1,556). Women of reproductive age who took insurance were 1,049 times more likely to use contraception than fertile women who did not participate any insurace (OR 1,049; 95% CI 1,016-1,082). Gender emerged as a cross-cutting determinant in all issues explored. In Rome, population reproductive control and contraception remain the responsibility of women. Once family is complete, Rome women use long-term contraception due to feel fear of coping mechanisms. Both populations use health services [28,29]. Another research showed, many of the low-income women from medically underserved neighborhoods did not use contraceptives and of those who used contraceptives, the majority used at less effective methods[29]. In most countries, modern contraceptive prevalence were particularly low among married female adolescents without children, which should be considered a priority group for intervention. The findings suggest that social norms regarding marriage and fertility expectations and other cultural barriers have a role at least as relevant as contraceptive availability. All these aspects need to be considered in the design of family planning strategies to effectively increase modern contraceptive use among adolescents around the world, particularly in conservative contexts[30]. Women of childbearing age with Multipara status were 3.117 times more likely to use contraception than women of childbearing age with parity status (OR 3,117; 95% CI 2,947-3,297). Women of childbearing age with grandemultipara status were 2,247 times more likely to use of contraception than women of childbearing age with parity status (OR 2.247; 95% CI 2.102-2.403).

Table 2 presented information on the results of the binary logistic regression tests regarding the use of contraceptives in women of childbearing age (15-49 years) in Indonesia. Reference in this study was women of childbearing age who did not use contraceptives. The results of this study indicated that there was no statistical difference between urban and rural areas in the use of contraceptives (ρ> 0.05). This condition indicated that women of childbearing age, both in urban and rural areas, have the same opportunity to access family planning services (contraception). Table 2 also presented users of contraceptives in urban and rural areas of women of childbearing age in Indonesia. Women of childbearing age who live in urban areas were 0.988 times more likely to use contraception than women of child bearing age in rural areas (OR 0.988; 95% CI 0.955-1.023). Fertile women in 20-24 years age group were 0.741 times more likely to use contraception than 15-19 year age group (OR

0.741; 95% CI 0.591-0.929). Women of childbearing age in 25-29 year age group were 0.468 times more likely to use contraception than 15-19 year age group (OR 0.468; 95% CI 0.375-0.583). Women of reproductive age in 30-34 year age group were 0.426 times more likely to use contraception than 15-19 year age group (OR 0.426; 95% CI 0.342-0.532). Women of reproductive age in 35-39 year age group were 0.440 times more likely to use contraception than 15-19 year age group (OR 0.440; 95% CI 0.352-0.549). Women of reproductive age in 40-44 year age group were 0.355 times more likely to use contraception than 15-19 year age group (OR 0.355; 95% CI 0.284-0.443). Women of reproductive age in 45-49 age group were 0.169 times more likely to use contraception than 15-19 year age group (OR 0.169; 95% CI 0.136-0.212). This showed that the 15-19 age group had the greatest probability of using contraception. The older women of childbearing age choose to not use any contraception methods. When viewed from women of reproductive age who work have 1,195 times the likelihood of women of childbearing age in the use of contraception (OR 1.195; 95% CI 1.158-1.233). This suggests that women of childbearing age who work are more likely to use contraception than those who do not work.

Based on educational status, women of child bearing age who had basic education were 2,107 times more likely to use contraception than those without education (OR 2.107; 95% CI 1,936-2,294). Women of childbearing age who have secondary education were 2.169 times more likely to use contraception than those without education (OR 2.172; 95% CI 1.992-2,369). Women of childbearing age who have higher educational level are 1,966 times more likely to use contraception than those who had no education (OR 1,966; 95% CI 1,780-2,171). This showed that women of childbearing age with intermediate education were most likely to use contraception. The less educated women of childbearing age, the less contraception they use.

Women of childbearing age who were married or living with a partner had 32,995 times the likelihood to use contraception than women of childbearing age who were widows or widowers (OR 32,995; 95% CI 29,247-37,223). This suggested that women of childbearing age who are married or live with partners are more likely to use contraception than women of childbearing age who were widows or widowers. Meanwhile, women of childbearing age with middle to lower welfare status (poor) had 1.343 times the probability of using contraception compared to women of childbearing age who had the lowest welfare status (OR 1.343; 95% CI 1.284-1.405). Women of childbearing age with middle welfare status were 1,435 times more likely to use contraception than women of childbearing age who had lower welfare status (OR 1,435; 95% CI 1.367-1.506). Women of childbearing age with middle to upper welfare status were 1,438 times more likely to use contraception than women of childbearing age who had the lower welfare status (OR 1.438; 95% CI 1.366-1.514). Women of reproductive age with the highest welfare status were 1.487 times more likely to use contraception than women of childbearing age who had the lower welfare status (OR 1.487; 95% CI 1.405-1.574). This showed that women of childbearing age with middle socioeconomic welfare status have the greatest possibility of using contraception. Poor women of childbearing age are not using contraception and influence to self esteem because depressive symptoms would be a vulnerability factor and increased the odds that women with high violence exposure report ineffective contraceptive use and (2) self-esteem would be a resilience factor and decreased the odds that women with high violence exposure would report ineffective contraceptive use[33,34]

Women of childbearing age who took insurance had 1,049 times more likelihood than fertile women who did not participate in contraceptive use (OR 1.049; 95% CI 1.016-1.083). This showed that women of childbearing age who took insurance were more likely to use contraception than those who did not. Furthermore, based on parity status, women of childbearing age with multiparous status had the possibility of using contraception 3,117 times greater than women of childbearing age with primiparous status (OR 3.117: 95% CI 2,946-3,297). Women of childbearing age with grandmultipara status had 2.246 times the likelihood of using contraception compared to women with primiparous status (OR 2.246; 95% CI 2.101-2.402). This showed that women of childbearing age with multiparous status had the greatest likelihood of using contraception. Primiparous women were least likely to use contraception.

Table 2. **Binary Logistic Regression of The Contraceptive Use in Indonesia (n = 86,149)**

DETERMINANTS	CONTRACEPTIVE USE			
	Sig.	OR	Lower Bound	Upper Bound
Type of place: Urban	0.507	0.988	0.955	1.023
Age group: 20-24	0.010 *	0.741	0.591	0.929
Age group: 25-29	0.000 ***	0.468	0.375	0.583
Age group: 30-34	0.000 ***	0.426	0.342	0.532
Age group: 35-39	0.000 ***	0.440	0.352	0.549
Age group: 40-44	0.000 ***	0.355	0.284	0.443
Age group: 45-49	0.000 ***	0.169	0.136	0.212
Work status: Work	0.000 ***	1.195	1.158	1,233
Education: Primary	0,000 ***	2,107	1,936	2,294
Education: Secondary	0,000 ***	2,172	1,992	2,369
Education: Higher	0,000 ***	1,966	1,780	2,171
Marital status: Married / living with partner	0,000 ***	32,995	29,247	37,223
Wealth status: Poorer	0,000 ***	1,343	1,284	1,405
Wealth status: Middle	0,000 ***	1,435	1,367	1,506
Wealth status: Richer	0,000 ***	1,438	1,366	1,514
Wealth status: Richest	0,000 ***	1,487	1,405	1,574
Health insurance: Yes	0.003 **	1,049	1,016	1,083
Parity: Multipara	0.000 ***	3,117	2,946	3,297
Parity: Grandemultipara	0,000 ***	2,246	2,101	2,402

Note: * p <0.05; ** p <0.01; ***p <0.001.

The results of the bivariate analysis found seven independent variables related to contraceptive use by women of childbearing age in urban and rural areas in Indonesia. They are age group, work status, education, marital status, wealth status, health status, health insurance and parity. Then, all of them are significantly used in urban and rural areas by women of childbearing age in Indonesia.

CONCLUSIONS
There was no visible difference between urban and rural areas in contraceptive use in Indonesia and world. Meanwhile, other variables were found as predictors of contraceptive use in Indonesia. These variables, among others. The use of contraceptives did not show any difference between women of childbearing age (15-49 years) in urban and rural areas in Indonesia. Efforts to minimize barriers to contraceptive use in women of childbearing age in urban and rural areas in Indonesia must pay attention to the age group <20 years, women who are uneducated, widowed/divorced, poor, and primiparous. Contraceptive use among women of childbearing age in rural areas was not determined by their place of residence, but by their lower educational level and socioeconomic status. Particular attention should be paid to reducing identified discrepancies. Gynecologists or family planning service providers are working in primary health care have a major responsibility to increase the gaps identified. They should work in collaboration with educational institutions, media, and other relevant agencies involved in the domain of family planning, and promoting births.

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