



SOSIODEMOGRAPHIC FACTORS ON CONTRACEPTIVE USE AMONG MARRIED WOMAN: EVIDENCE FROM THREE INDONESIA DEMOGRAPHIC AND HEALTH SURVEY (IDHS)

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Abstract

Background: Data on contraceptive use are needed to evaluate contraceptive use and plan for future needs. Changes in contraceptive method use and the factors that influence contraceptive method use are serious matters that need to be considered. **Methods:** This study used secondary data from the Indonesian Demographic and Health Survey (IDHS) in 2007, 2012, and 2017. The research design used was cross-sectional. Researchers used descriptive analysis to determine the characteristics of married women who use contraception. Inferential analysis was used to see the relationship between sociodemographic factors and the use of contraceptive method types. **Results:** The results of the analysis showed that the most widely used type of contraception from 2007-2017 was injectable contraception. Most married women who used contraceptives were in the age group of 30-39 years, had only 1-2 children, had a high school education and below, and worked as housewives. Women living in rural and urban areas have equal opportunities to obtain contraceptive services. Even women with the lowest wealth index still have access to contraceptives. The chi-square test results of age, education, occupation, residence, and wealth index variables with $p = 0.000$ ($p < 0.005$) from 2007-2017, as well as the variable number of children with $p = 0.000$ ($p < 0.005$) in 2007, $p = 0.002$ ($p < 0.005$) in 2012 and $p = 0.000$ ($p < 0.005$) in 2017. **Conclusion:** This study found a positive association between contraceptive method use and the variables of age, education, occupation, number of children, place of residence, and wealth index.

Keywords : contraceptive methods, married woman, IDHS

INTRODUCTION

The problem of rapid population growth which is not accompanied by an increase in the quality of human resources both in terms of education and health

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can be a disaster for Indonesia, such as poverty, crime, environmental damage, increasing food needs and global warming can occur as a result of this problem. Therefore, the government created the Family Planning (KB) program to overcome the problem of uncontrolled population growth (Rahmi and Hadi, 2020).

According to WHO (World Health Organization), family planning is an action that helps married couples to avoid unwanted births, regulate birth spacing, and determine the number of children in the family. The aim of the family planning program is to form small families according to socio-economic strengths. The use of contraceptives is one of the important variables that play a role in reducing the birth rate. (Agustin et al, 2023).

Indonesia is the fourth most populous country in the world with 264 million people. Indonesia's total fertility rate (TFR) in 2017 was 2.4, which means it was still higher than the target (2.1). Several provinces with the highest fertility rates in 2017 were Maluku (3.3), Papua (3.3), and West Papua (3.2). The rate of contraceptive use in Indonesia in 2017 among married women aged 15-49 years is also still low at 61%. Based on this, intervention from the Population and Family Planning Agency or Badan Kependudukan dan Keluarga Berencana (BKKBN) is needed to reduce the birth rate and increase contraceptive use through the implementation of the family planning program (Filmirah & Fatah, 2020).

Bertand (1980) stated that sociodemographic factors are one of the main factors that influence women in choosing contraceptive methods. The purpose of this study was to determine the proportion of contraceptive use among married women in Indonesia in 2007-2017 according to socio-demographic characteristics by looking at variables of age group, education level, occupation, number of children, place of residence, and wealth index. The goal of this study is to provide an overview to the government regarding the need for contraceptives needed by women in Indonesia.

METHOD

The data source used in this study is secondary data sourced from the Indonesian Demographic and Health Survey (IDHS) in 2007, 2012 and 2017. The design of this study was cross sectional with a study population of married women

aged 15-49 years who obtained family planning services. This study used a purposive sampling technique with the inclusion criteria of married women aged 15-49 years who obtained family planning services and completely filled in the data on the questionnaire needed to analyze each variable. The sample size in this study was 16,611 women in 2007, 18,008 women in 2012, and 20,765 women in 2017. Variables based on objectives include age, education, occupation, number of children, place of residence, and wealth index on the use of contraceptive method types. The following is the operational definition of the research.

Table 1 Operational definition of research

Research Variable	Operational Definition	Measuring Instrument	Measuring Scale	Result
Type of contraception used	Type of contraceptive method used by respondents when the survey was conducted	IDHS women's questionnaire: - No.311 (2007) - No.304 (2012) - No.304 (2017)	Nominal	1= Traditional method 2= Modern methods
Age group	Length of life from birth until research is carried out according to date, month and year of birth	IDHS women's questionnaire: - No.106 (2007) - No.103 (2012) - No.106 (2017)	Ordinal	1= <20 2= 20 – 29 3= 30 – 39 4= 40 – 49
Education level	The last formal education that the respondent has completed	IDHS women's questionnaire - No. 108 (2007) - No.105 (2012) - No.108 (2017)	Nominal	0= Not attending school 1= Elementary-Junior school 2= High school 3= College
Occupation	Respondent's occupation at the time of the survey	IDHS women's questionnaire: - No.710 (2007) - No. 811 (2012) - No.913 (2017)	Nominal	0= Not working 1= Professional, technical 2= Administration 3= Services 4= Operational field 5= Other
Number of living children	Number of living children the respondent had at the time of the survey	IDHS women's questionnaire: No.201–208	Ordinal	1= 0 children 2= 1-2 children 3= 3-4 children 4= >4 children
Place of residence	The area where the respondent lives at the time of the survey	IDHS data set V102 (2007-2017)	Nominal	1= Urban 2= Rural



Wealth index	Index of ownership of goods and quality of household housing owned	IDHS data set V190 (2007-2017)	Nominal	1= Bottom 2= Lower middle 3= Intermediate 4= Upper intermediate 5= Top
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Descriptive or univariate analysis was used to determine the characteristics and proportion of contraceptive use from 2007 - 2017. Inferential analysis using the Chi Square test was conducted to observe the association between sociodemographic factors and the type of contraceptive method used by respondents.

RESULT AND DISCUSSION

The percentage of women in each category of the selected variables at each survey point is shown in Table 2. With respect to the current age of the respondents, more than half of the women in all three survey years were over 30 years old. Respondents were evenly distributed in both rural and urban areas in all three survey years. Considering the educational status in the first survey, about 44.9% of the respondents in 2007 had less than a high school education. In the next two surveys, this figure decreased to 37.7% and 33.4%. This indicates that the number of women with upper secondary education in Indonesia has increased from 2007 to 2017. The proportion of women who used contraception was dominated by women who did not work, followed by those who worked in services and the field. Regarding the number of children the respondents had, the percentage of contraceptive use increased every year for those who had 1-2 children. This indicates that they are more open to contraceptive use and tend to delay their desire to have more children. In terms of household wealth quintiles, the proportion of middle-income women has increased gradually from 2007 to 2017.

Table 2 Percentage distribution of the respondents 2007, 2012 and 2017 Indonesia Demographic Health Surveys (IDHS)

Characteristics	IDHS 2007		IDHS 2012		IDHS 2017	
	No. of Women	(100%)	No. of Women	(100%)	No. of Women	(100%)
Age Group						
<20	309	1,9%	357	2,0%	281	1,4%
20-29	5.921	35,6%	5.695	31,6%	4.865	23,4%
30-39	7.022	42,3%	7.648	42,5%	8.874	42,7%
40-49	3.359	20,2%	4.308	23,9%	6.745	32,5%
Education level						
No education	631	3,8%	409	2,3%	271	1,3%
Elementary-middle school	6.819	41,1%	6.379	35,4%	6.656	32,1%
High school	7.870	47,4%	9.273	51,5%	11.092	53,4%
Bachelor	1.291	7,8%	1.947	10,8%	2.746	13,2%
Occupation						
Doesn't work	6.867	41,3%	6.841	38,0%	7.861	37,9%
Professional, technical	798	4,8%	1.167	6,5%	1.369	6,6%
Administration	428	2,6%	636	3,5%	837	4,0%
Service	3.678	22,1%	3.823	21,2%	5.817	28,0%
Field/operational	4.836	29,1%	5.235	29,1%	4.865	23,4%
Other	4	0,0%	306	1,7%	16	0,1%
Number of living children						
0 children	4.432	26,7%	4.759	26,4%	89	0,4%
1-2 children	6.283	37,8%	7.110	39,5%	12.593	60,6%
3-4 children	3.955	23,8%	4.294	23,8%	6.910	33,3%
>4 children	1.941	11,7%	1.845	10,2%	1.173	5,6%
Place of residence						
Rural	6.942	41,8%	8.538	47,4%	10.469	50,4%
Urban	9.696	58,2%	9.470	52,6%	10.296	49,6%
Wealth index						
Bottom	3.546	21,3%	3.960	22,0%	4.438	21,4%
Low middle	3.371	20,2%	3.807	21,1%	4.192	20,2%
Intermediate	3.131	18,8%	3.573	19,8%	4.165	20,1%
Upper middle	3.212	19,3%	3.418	19,0%	4.057	19,5%
Top	3.361	20,3%	3.250	18,0%	3.913	18,8%

The prevalence of contraceptive use in each category was analyzed and the results are shown in Table 3. Over the three years of the survey, all variables namely age, education, occupation, number of children, place of residence, and wealth index had a significant association ($p < 0.05$) with the type of contraceptive method use among married women in Indonesia.

Table 3 Percentage distribution of use contraception type among married woman, by selected background characteristic, IDHS 2007, 2012 and 2017

Characteristics	IDHS 2007		IDHS 2012		IDHS 2017	
	Traditional (%)	Modern (%)	Traditional (%)	Modern (%)	Traditional (%)	Modern (%)
Age Group						
<20	0,7	2,0	0,2	2,1	0,3	1,5
20-29	23,7	36,6	18,8	32,6	19,0	24,0
30-39	44,9	42,1	45,5	42,2	39,2	43,2
40-49	30,7	19,4	35,5	23,0	4,7	31,3
	<i>p</i> = 0,000		<i>p</i> = 0,000		<i>p</i> = 0,000	
Education level						
No education	5,9	3,6	1,7	2,3	1,1	1,3
Elementary-middle school	29,6	41,9	20,3	36,6	20,1	33,6
High school	49,6	47,2	54,6	51,2	54,9	53,2
Bachelor	14,9	7,2	23,4	9,8	23,9	11,9
	<i>p</i> = 0,000		<i>p</i> = 0,000		<i>p</i> = 0,000	
Occupation						
Doesn't work	34,0	41,9	30,4	38,6	33,0	38,5
Professional, technical	8,9	4,5	14,0	5,9	11,9	5,9
Administration	0,5	2,4	6,8	3,3	6,1	3,8
Service	26,0	21,8	25,1	20,9	31,1	27,6
Field/operational	26,1	29,3	21,7	29,7	17,7	24,2
Other	0,0	0,0	2,0	1,7	0,1	0,1
	<i>p</i> = 0,000		<i>p</i> = 0,000		<i>p</i> = 0,000	
Number of living children						
0 children	21,8	27,1	22,2	26,8	0,4	0,4
1-2 children	34,8	38,1	40,2	39,4	57,7	61,0
3-4 children	28,2	23,5	26,3	23,7	33,5	33,2
>4 children	15,2	11,4	11,4	10,2	8,4	5,3
	<i>p</i> = 0,000		<i>p</i> = 0,002		<i>p</i> = 0,000	
Place of residence						
Rural	50,8	41,1	63,6	46,1	62,9	48,8
Urban	49,2	58,9	36,4	53,9	37,1	51,2
	<i>p</i> = 0,000		<i>p</i> = 0,000		<i>p</i> = 0,000	
Wealth index						
Bottom	20,0	21,5	14,4	22,6	15,5	22,1
Low middle	15,0	20,6	15,4	21,6	15,4	20,8
Intermediate	16,8	19,0	18,0	20,0	18,5	20,3
Upper middle	20,6	19,2	23,8	18,6	22,3	19,2
Top	27,6	19,7	28,4	17,2	28,3	17,6
	<i>p</i> = 0,000		<i>p</i> = 0,000		<i>p</i> = 0,000	

The findings of this study provide evidence that contraceptive use increases with age, indicating that older women, especially at the age of 30-39 years, are more likely to use contraception than younger women. This study is in line with Rizaldi, et al (2021) which states that there is a significant relationship between the age of family planning acceptors in the Madura tribe and the selection of contraceptives at the Omben Health Center, Sampang Regency with a p value of 0.043 (<0.05). Age has an influence in regulating the number of children born, meaning that as the maturity of the reproductive system or the age of the woman increases, it will also be followed by an increase in the use of long-term contraceptive methods. In line with Suryanti's research (2019), there is a significant relationship between age and the use of long-term contraceptive methods (MKJP) in women of childbearing age at the Paal V Health Center, Jambi City in 2018 with a p value of 0.000 $<\alpha$ (0.05).

The results of this study confirm that women who have a high school education are less likely to use contraceptives than those who have an education above high school. Each individual has a different mindset. Rahmatiqah and Patricia (2019) stated that a person's level of knowledge is not necessarily measured through the academic results they achieve. Sometimes individuals with a low level of academic education can be more open to something than those with a high level of education, and vice versa. This was proven in his research that the number of contraceptive method users was greater than those with low levels of education with a percentage of 54.4%. The results of this study are in line with Wijayanti (2021) that there is a relationship between education and the use of traditional contraceptives with a 0.349 times greater likelihood of using traditional contraceptives in highly educated women than those with low education.

Employment was found to play an important role in contraceptive use. Regarding employment in all three survey years, women who were not working had a higher chance of using both traditional and modern contraceptives compared to those who were employed. Meanwhile, those who worked as professional/technical personnel tended to prefer traditional contraceptives compared to modern contraceptives. Formal work that mothers have is sometimes a reason for not using contraception because there is no time to come to the contraceptive service facility. In contrast to non-working mothers/ housewives who have more time to come to



contraceptive service providers. The results of this study are in line with Januarsih's research (2020) which states that maternal employment is related to the selection of the type of contraception used with a p value of $0.004 < \alpha (0.05)$.

Regarding the size of the number of children owned, women with 1-2 children have a greater chance of using contraception, especially in the type of modern contraceptive method. In line with Dewiyanti's research (2020) which states that there is a significant relationship between the number of children and the use of long-term contraception with a p value of $0.048 < \alpha (0.05)$. Parity is one of the factors that can influence respondents in determining the choice of using contraception in line with the theory that states the tendency of high-parity mothers' knowledge is better than low-parity mothers' knowledge, because they have gained experience and information. The number of children a woman has affects the choice of contraceptive methods, especially modern methods. Women who have one child are more likely to use modern contraceptives than women who do not have children (Pardosi, 2021).

Based on previous research, it is expected that contraceptive use rates would be higher in urban areas compared to rural areas (Haq et al, 2017). However, our analysis shows that the use of traditional or modern contraceptives in both urban and rural areas has almost the same proportion. This may be due to the widespread dissemination of information, especially on social media, about the importance of contraceptive use for married women to create a happy and prosperous family, as well as the equal distribution of development every year that allows the availability of contraceptive service facilities in certain areas.

In terms of household wealth quintiles, it was found that a high wealth index may increase agreement between women and their husbands on family planning. Families with a high wealth index also have easy access to using MHCP because the cost of services is higher than the cost of non-MKJP contraceptive services. Ekoariano, et al (2020) also stated that wealth quintiles have a significant influence on contraceptive use in women with a p value of $0.000 < \alpha (0.05)$ where PUS with high wealth quintiles have a 1.134 times higher chance of using contraception than PUS with low wealth quintile status. The results of this study indicate that the use of modern contraception among married women in Indonesia is dominated by those

with the lowest wealth index in each survey year with an average percentage of 22.2%. This indicates that people with the lowest wealth index still have access to contraceptive services in their neighborhood. There are limitations in the data collection process in secondary data research because researchers cannot meet directly with respondents to clarify existing data and add questions that should be needed in research so that the data used is only the data listed in the datasheet.

CONCLUSION AND SUGGESTION

Family planning acceptance among married women in Indonesia has increased in each survey year and is dominated by modern short-acting injectable methods. This contraceptive method was also the main choice for those who wanted to switch to another contraceptive method in all three survey years. The use of modern contraceptives among married women showed an increase with age, where most married women who used contraceptives were in the age group of 30-39 years and had only 1-2 children, had a high school education and below, and served as housewives. Women living in rural and urban areas have the same opportunity to obtain contraceptive services. Even women with the lowest wealth index also still have access to contraceptives. The results showed that there was a relationship between the variables of age, education, occupation, number of children, place of residence, and wealth index to the use of contraceptive methods.

It is expected that the government can maintain and even increase the promotion of the use of appropriate, effective, and quality contraceptive methods for married women in Indonesia and can ensure the availability of contraceptive methods needed by them. Future researchers are expected to examine other factors that may be associated with the use of contraceptive method types that were not examined in this study.

DECLARATION

Conflict of Interest

This study has no conflicts of interest.



Authors' Contribution

All contributors were involved in every stage of the study, from the initial concept to the drafting of the article, so collaborative efforts were required in this study.

Ethical Approval

This research received approval from the ethics committee, confirming it adheres to required ethical guidelines, with ethics number 308/EC/KEPK/FKUA/2023.

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Data Availability

In this part, data supporting the research findings are available upon request.

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REFERENCE

- Agustin, A. D., Rohmatin, H., & Farianingsih, F. (2023). Hubungan Usia dan Aktivitas dengan Kenaikan Berat Badan Akseptor KB Suntik 3 Bulan Di TPMB Andrini Desa Selok Awar-Awar Kecamatan Pasirian. *JURNAL ILMIAH OBSGIN: Jurnal Ilmiah Ilmu Kebidanan & Kandungan P-ISSN: 1979-3340 e-ISSN: 2685-7987*, 15(2), 127-133.
- Badan Pusat Statistik. (2007). Survei Demografi dan Kesehatan Indonesia 2007.
- Badan Pusat Statistik. (2012). Survei Demografi dan Kesehatan Indonesia 2012.
- Badan Pusat Statistik. (2017). Survei Demografi dan Kesehatan Indonesia 2017.
- Bertand, J., (1980). Audience Reasearch for Improving Family Planning Communication Program. *The Community and Family Study Centre: Chicago*.
- Dewiyanti, N. (2020). Hubungan umur dan jumlah anak terhadap penggunaan metode kontrasepsi di puskesmas Bulak Banteng Surabaya. *Medical Technology and Public Health Journal*, 4(1), 70-78.
- Ekoriano, M., Rahmadhony, A., Prihyugiaro, T. Y., & Samosir, O. B. (2020). Hubungan Pembangunan Keluarga dan Pemakaian Kontrasepsi di Indonesia (Analisis Data SRPJMN 2017). *Jurnal Keluarga Berencana*, 5(1), 1-15.
- Filmira, R. L., & Fatah, M. Z. (2020). Determinan Keinginan Penerapan Program Keluarga Berencana (KB) pada Remaja Pria Indonesia di Masa Mendatang. *Journal of Health Science and Prevention*, 4(2), 58-67.

- Haq, I., Sakib, S., & Talukder, A. (2017). Sociodemographic Factors on Contraceptive Use among Ever-Married Women of Reproductive Age: Evidence from Three Demographic and Health Surveys in Bangladesh. *Medical sciences (Basel, Switzerland)*, 5(4), 31. <https://doi.org/10.3390/medsci5040031>
- Januarsih, J. (2020). Analisis Umur dan Pekerjaan Pasangan Usia Subur pada Pemanfaatan Pelayanan Kontrasepsi di Puskesmas Karang Intan 2 Kabupaten Banjar. *Jurnal Midwifery Update (MU)*, 2(1), 31-34.
- Pardosi, M., Nababan, D., Brahmana, N. E., Ginting, D., & Sitorus, M. E. (2022). Faktor-Faktor yang Berhubungan dengan Minat Ibu Bersalin dalam Pemilihan Alat Kontrasepsi KB Pascasalin dengan Metode Kontrasepsi Jangka Panjang di Kecamatan Rantau Utara Tahun 2021. *Journal of Healthcare Technology and Medicine*, 7(2), 1470-1484.
- Rahmatiqah, C., & Patricia, H. (2019). Faktor Internal Pemilihan Kontrasepsi pada Akseptor KB Baru di Kota Padang. Prosiding Seminar Nasional Kesehatan Masyarakat Universitas Muhammadiyah Surakarta 2019.
- Rahmi, A. A., & Hadi, E. N. (2020). Determinan Pemilihan Implant Pada Pasangan Usia Subur Di Kecamatan Medan Petisah. *Perilaku Dan Promosi Kesehatan: Indonesian Journal of Health Promotion and Behavior*, 2(2), 7.
- Rizaldi, N. (2021). Hubungan Karakteristik Akseptor KK Suku Madura dengan Pemilihan Jenis Kontrasepsi di Puskesmas Omben Kabupaten Sampang. *Jurnal Sehat Mandiri*, 16(1), 58-71.
- Suryanti, Y. (2019). Fakto-faktor yang berhubungan dengan penggunaan metode kontrasepsi jangka panjang wanita usia subur. *Jambura Journal of Health Sciences and Research*, 1(1), 20-29.
- Wijayanti, U. T. (2021). Faktor-Faktor yang Berhubungan dengan Penggunaan Metode Kontrasepsi Tradisional. *Jurnal Promosi Kesehatan Indonesia*, 16(1), 14-22.