

# What Predicts Modern Contraception Use?: A Study on Married Couples of Reproductive Ages in Indonesia

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## ABSTRACT

**Background:** Health, specifically reproductive health, is everyone's right. Reproductive health can be achieved in several ways, such as family planning through modern contraception used by married couples. Modern contraception brings a positive impact on couples' and families' health and wellbeing. However, the prevalence of modern contraception use among couples in Indonesia is still low. This study aimed to determine factors that predict the modern contraception use by married couples of reproductive ages in Indonesia.

**Method:** This study is a quantitative study with a cross-sectional approach. It used secondary data of a family survey taken from 21,897,849 married couples of reproductive ages across 34 provinces of Indonesia. They were selected through saturated sampling. The research dependent variable is modern contraception use, and its independent variables are women's ideal marriage age, women's early marriage age, and ideal number of children. Data analysis was conducted using a multiple linear regression test.

**Results:** Variables significantly related to modern contraception use were women's ideal marriage age, women's early marriage age, and ideal number of children ( $p < 0.001$ ). There were significant relationships between each women's ideal marriage age ( $p < 0.001$ ), their early marriage age ( $p < 0.001$ ), and ideal number of children ( $p < 0.001$ ) with modern contraception use. They could predict that, both simultaneously and individually. Based on the results, couples of reproductive age need to consider their age for marriage, and they have to receive good information and understanding about a desired number of children. Therefore, these efforts might increase their interest in modern contraception use.

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## INTRODUCTION

Being healthy is everyone's right.<sup>1,2,3,4</sup> Health is one of the important indicators for ensuring a high human development index and determining quality of human resources.<sup>5</sup> It has various aspects, one of which is reproductive health.<sup>6</sup> Reproductive health is one of the Sustainable Development Growth (SDG) goals, ensuring a healthy life and prosperity for people of all ages. There are 38 SDGs targets in the health sector, one of which is related to access to reproductive health services such as contraception.<sup>7</sup> Reproductive health can be achieved in several ways, such as family planning.<sup>8</sup>

Family planning is a conscious effort to limit the number of children through the use of contraceptive methods.<sup>9</sup> It is also referred to control population growth.<sup>10</sup> It gives several benefits, such as preventing unintended pregnancies, reducing unsafe abortions, maternal

morbidity, and poverty, increasing economic growth, women's productivity, weakening fertility, and preventing maternal mortality up to 20-35%.<sup>10</sup> Besides, it can reduce the rate of population growth, balance the distribution and age structure of the population, and help couples maintain optimal reproductive health.<sup>11</sup> It also helps couples attain psychological well-being. Couples who plan their family life tend to flourish their psychological wellbeing. This is beneficial for couples and families to have a better life in the midst of challenges.<sup>12</sup>

Family planning can be done by married couples using modern contraception. Contraception utilization will enable couples to control their fertility and population growth.<sup>10</sup> Modern contraception is a method to prevent pregnancy by inhibiting the normal process of ovulation, fertilisation and implantations.<sup>13</sup> There are various modern contraception methods such as male and female condoms,

oral hormonal pills, intrauterine device, implants, male and female sterilisation, injectable, vaginal barriers and emergency contraception.<sup>14</sup> Modern contraceptive methods are considered the most accountable contraception worldwide.<sup>8</sup> By using the methods, maternal and child mortality and reproductive health costs can be decreased, thereby improving maternal and child health.<sup>15</sup> Modern contraception also protect couples from sexually transmitted diseases,<sup>10</sup> improve health and quality of life, and ensure economic efficiency among families.<sup>16</sup>

The use of modern contraception is nowadays very important for married couples of reproductive ages. However, the prevalence of modern contraception utilization among couples is still low, especially in developing countries including Indonesia.<sup>17</sup> There are several problems and challenges related to the implementation of family planning through modern contraception. Biased concerns from couples of reproductive ages about the side effects of contraceptives, difficulties in maintaining contraceptive use, myths about contraceptive use, limited access to health facilities that provide contraceptive services, cultural and social barriers, trigger reluctance to carry out family planning and use modern contraception.<sup>9,14,18</sup> There are 59.3% modern contraception users (implants, tubectomy, vasectomy, intrauterine devices, condoms, injections, and pills), 0.4% traditional contraception users (lactation amenorrhea methods, periodic abstinence, and withdrawal method), 24.7% single-use contraception, and 15.5% non-contraception users in Indonesia.<sup>9</sup> Overall, there is a decrease in the percentage of contraception users in Indonesia by almost 1% from 56.04% in 2020 to 55.06% in 2021.<sup>19</sup> The National Board of Population and Family Planning released data in 2021 in which there were 21,897,849 couples of reproductive ages who used modern contraception at a prevalence of 57.01%. It was further known that the province that had the highest number of modern contraception users amounting to 4,606,815 couples of reproductive ages was West Java, while the province that had the least number of modern contraceptive users as many as 13,913 couples of reproductive ages was West Papua.<sup>20</sup>

It is necessary to understand the prevalence of modern contraception use among couples of reproductive age to seek for a strategy, policy, or program for overcoming the challenges. Besides, it is important to analyze factors associated with modern contraception use. Some of them include demographic factors such as age, residence, and region, education level, the number of living children and desire to have children.<sup>21</sup> In addition, husbands' perception towards modern contraception, a desired number of children,<sup>22</sup> exposure to sensitizing medias including newspaper, radio and television,<sup>23</sup> are

also related to modern contraception use among couples of reproductive ages. Besides, women's ideal marriage age, women's early marriage age, and ideal number of children are considered affecting the prevalence of modern contraception use. Women who marry at the ideal age tend to have adequate access, resources, bargaining power, and independence to make decisions about their reproductive health. One example is that they can decide whether they want to use modern contraception and participate in family planning.<sup>24</sup> Early marriage also affects contraception use by women. Women who get married early tend not to have access, knowledge, resources, awareness, and empowerment over their reproductive health.<sup>25</sup> The use of modern contraception is also related to the ideal number of children. Couples who want to have an ideal number of children tend to choose and implement certain strategies to make space on pregnancies by using modern contraceptive methods.<sup>26</sup>

Several previous studies examine factors related to the use of modern contraception. Research conducted by Lasong et al. address determinants of modern contraception use, namely sociodemographic, socioeconomic and sociocultural factors which include education level, income, mass media exposure, women empowerment, high parity, knowledge about contraception, woman's age, partner's age, area of residence, working status, desire to have more children, ethnicity, number of living children, health worker visit, health access, health policy, and age at the first birth.<sup>14</sup> Other research conducted by Abate and Tareke also mentions factors related to modern contraception use that include women's current age, age at the first marriage, education, religious affiliation, media exposure about family planning, wealth index, occupation, husband's occupation, place of residence, and husbands approval couple's discussion. In addition, Abate and Tareke also concluded that community-level factors influenced modern contraception use. These include access to family panning in a health facility, women autonomy, women education, religion, place of residence, proportions of polygynous marriages and community media exposure.<sup>15</sup> A study conducted by Abdulahi et al. on factors related to modern contraceptive use, specifically in adolescent girls. They are access to service delivery points, inadequate knowledge about different contraception methods, fear of side effects and religious and cultural barriers.<sup>18</sup> However, limited studies focus on factors related to the use of modern contraception, namely women's ideal marriage age, women's early marriage age, and ideal number of children. Therefore, this paper will map whether these factors are related to the use of modern contraception among married couples of reproductive ages in Indonesia.

**METHOD**

This study is a quantitative study with a cross-sectional design. It used secondary data gathered from a family survey taken by the Indonesian National Population and Family Planning Board in 2021. This survey involved 21,897,849 married couples of reproductive ages across 34 provinces of Indonesia. They were selected through saturated sampling. The research dependent variable is modern contraception use, and the independent variables are women's ideal marriage age, women's early marriage age, and ideal number of children. Data were analyzed using a multiple linear regression test and partial correlation test. Univariate data analysis was conducted to present the frequency distribution of variables, and bivariate data analysis was performed to determine an association between each predictor and modern contraception use among married couples of reproductive ages; in addition, multivariate data analysis was conducted to determine the predictors of the dependent variable among independent variables in this study.

**RESULTS AND DISCUSSION**

Table 1 shows that most of the respondents are parents with two children (46.07%). Despite that most of

the respondents had children, ranging in one to more than two children, 0.77% respondents did not have children. Based on the types of modern contraception, most of respondents used injection as their contraception (59.91%). Respondents were least likely to use a lactational amenorrhea method as their contraception (0.05%). Some health care facilities could accommodate respondents' needs of contraception services. Mostly respondents got contraception services from health care facilities such as private midwives (33.06%), local health care practices (28.33%), and primary healthcare centers (12.63%). Respondents had the lowest preference for using others local health facilities (0.64%) to accommodate their need of contraception.

Table 2 shows that based on partial correlation analysis results, three variables had significant relationships with modern contraception use since each variable was controlled or made constant. Women's ideal marriage age ( $R = 0.714$ ;  $p < 0.001$ ), women's early marriage age ( $R = 0.887$ ;  $p < 0.001$ ), and ideal number of children ( $R = 0.861$ ;  $p < 0.001$ ) had significant levels less than 0.05.

**Table 1.** Characteristics of respondents

| Characteristic                        | n ( 21,897,849) | %     |
|---------------------------------------|-----------------|-------|
| <b>Number of children</b>             |                 |       |
| Couples with no children              | 169,149         | 0.77  |
| One child                             | 5,207,682       | 23.78 |
| Two children                          | 10,088,436      | 46.07 |
| More than two children                | 6,432,582       | 29.38 |
| <b>Type of contraception</b>          |                 |       |
| Tubectomy                             | 916,575         | 4.19  |
| Vasectomy                             | 49,208          | 0.22  |
| IUD                                   | 1,750,257       | 7.99  |
| Implant                               | 2,190,740       | 10.00 |
| Injection                             | 13,119,689      | 59.91 |
| Pill                                  | 3,458,659       | 15.79 |
| Condom                                | 402,321         | 1.84  |
| Lactational amenorrhea method         | 10,400          | 0.05  |
| <b>Contraception service facility</b> |                 |       |
| State hospital                        | 950,324         | 4.34  |
| Private hospital                      | 851,029         | 3.89  |
| Public health center                  | 2,766,626       | 12.63 |
| Private clinic                        | 1,184,275       | 5.41  |
| Local health care practices           | 6,203,403       | 28.33 |
| Drugstore                             | 1,925,798       | 8.79  |
| Contraception service car             | 178,219         | 0.81  |
| Private doctor                        | 459,106         | 2.10  |
| Private midwife                       | 7,240,013       | 33.06 |
| Others local health facilities        | 139,056         | 0.64  |

**Table 2.** Bivariate analysis results

| Variable  | Control Variable   | Sig.   | R     |
|---|--|--------|-------|
| Women's ideal marriage age * Modern contraception use           | Women's early marriage age; ideal number of children             | <0.001 | 0.714 |
| Women's early marriage age * Modern contraception use           | Women's ideal marriage age; ideal number of children preferences | <0.001 | 0.887 |
| Ideal number of children preferences * Modern contraception use | Women's early marriage age; women's ideal marriage age           | <0.001 | 0.861 |

\* relationship between two stated variables

**Table 3.** Cross-tabulation analysis results

| Variable                          | Modern Contraception Use |   |          |    |      |   |
|-----------------------------------|--------------------------|---|----------|----|------|---|
|                                   | Low                      |   | Moderate |    | High |   |
|                                   | n                        | % | n        | %  | n    | % |
| <b>Women's ideal marriage age</b> |                          |   |          |    |      |   |
| Low                               | 0                        | 0 | 0        | 0  | 0    | 0 |
| Moderate                          | 0                        | 0 | 27       | 82 | 3    | 9 |
| High                              | 0                        | 0 | 0        | 0  | 3    | 9 |
| <b>Women's early marriage age</b> |                          |   |          |    |      |   |
| Low                               | 0                        | 0 | 0        | 0  | 0    | 0 |
| Moderate                          | 0                        | 0 | 27       | 82 | 3    | 9 |
| High                              | 0                        | 0 | 0        | 0  | 3    | 9 |
| <b>Ideal number of children</b>   |                          |   |          |    |      |   |
| Low                               | 0                        | 0 | 0        | 0  | 0    | 0 |
| Moderate                          | 0                        | 0 | 27       | 82 | 3    | 9 |
| High                              | 0                        | 0 | 0        | 0  | 3    | 9 |

Similar to this finding, research conducted by Seran et al. also states that women's ideal age of marriage is related to the use of contraception. Women who get married at the ideal age tend to have adequate education and access to information about reproduction and contraception, stable employment and financial resources. These situations make it easier for them to access contraceptive services for themselves.<sup>27</sup> Furthermore, research conducted by Juraqulova and Henry also finds contraception use is related to women ability to make decisions about her health care, including reproductive health care by using contraception. Women who have less bargaining power, less choice and control over their own health care and financial, tend to have smaller probabilities of using contraception. Women who get married in immature age more likely face these hardships and least likely use contraception. Previous research also confirms there is a relationship between women's early marriage age and modern contraception use.<sup>28</sup> Besides, a study conducted by Samari et al. figures out that women with the highest preference for preventing pregnancies use more effective contraception methods. Their preferences for

having children are related with contraception use. If they want to have fewer children, then they will likely use contraception to prevent pregnancies.<sup>29</sup> In line with the statement, this current finding also confirms that women's ideal number of children contributes significantly to their decision on contraception use.

Table 4 describes simultaneously significant relationships between women's ideal marriage age, women's early marriage age, and ideal number of children with modern contraception use ( $p < 0.001$ ). The strength of the relationship is by 99%. These three variables give 98% prediction, and the remaining 2% is influenced by variables not examined in the current research. Based on data analysis results, a prediction regression equation resulted from the variables is  $Y = 10,213.88 + 0.227 (X1 \text{ women's ideal marriage age}) + 0.671 (X2 \text{ women's early marriage age}) + 0.386 (X3 \text{ ideal number of children preferences})$ . If women's ideal marriage age, women's early marriage age, and ideal number of children are considered constant, the state of modern contraception use will be 10,213.88.

**Table 4.** Multivariate analysis results

| <b>Independent variable</b>  | <b>P-value</b> | <b>B</b> | <b>Sig</b> | <b>R</b> | <b>R<sup>2</sup></b> |
|------------------------------|----------------|----------|------------|----------|----------------------|
| Women's ideal marriage age   | <0.001         | 0.227    |            |          |                      |
| Women's early marriage age   | <0.001         | 0.671    | <0.001     | 0.99     | 0.98                 |
| Ideal number of children     | <0.001         | 0.386    |            |          |                      |
| <b>B constant: 10,213.88</b> |                |          |            |          |                      |

From the results of study, women's ideal marriage age, women's early marriage age, and ideal number of children are related and could together predict whether a woman uses modern contraception. Women who get married at the ideal age use contraception to achieve their ideal number of children with their partner. They may avoid pregnancies by using a certain contraception method that is suitable for them. In addition, they likely have careful consideration, access, and understanding about the important role of contraception related to their reproductive health. The results of this study are in accordance with research among reproductive age women in Ghana conducted by Nyarko. It confirms modern contraception use among married couples is influenced by marital status and age, number of children, and other socioeconomics and contextual factors. Women who postpone their marriage at early age until they reach the ideal age tend to have higher educational attainment as they have knowledge, information, and awareness about contraception advantage, contraception options and how the contraception would benefit themselves. It also states that those who prefer to have a small number of children likely use contraception to control pregnancies.<sup>8</sup>

Based on the research results, it was known that women's ideal marriage age had a significant relationship with modern contraception use. Women's ideal marriage age is a predictor of modern contraception use. Women who get married at an ideal age tend to be well-informed, as well as have more awareness and well-considered plan about pregnancies and reproductive-associated risk factors. They also tend to have better awareness and understanding about types of contraception, benefits of using them, and access to get contraception services from health care facilities as a way of family planning. In addition, women who are married at an ideal age may get exposed to further reproductive health information that could empower them to make informed decisions about their reproductive health and contraceptive methods that match with them. The results in this study accord with the research conducted by Makola et al. who mention that women who get married at the ideal age use contraception to plan their family life. They grasp more understanding about maternal morbidity and mortality, unintended and unplanned pregnancies, and other issues related to their reproductive health. Knowing

such important information, women are more likely to use contraception for their own safety and health.<sup>30</sup>

Moreover, women's early marriage age had a significant relationship with modern contraception use. It is a predictor of modern contraception use, meaning that early marriage may give some negative impacts such as economic disadvantages. Some women who get married at an early age experience socially disadvantaged conditions and limited education, knowledge, information, access, social and economic resources. Therefore, they are not able to access contraception services. They also tend to experience fear and social stigma when using contraception at a young age. Because of this situation, they tend to be inconsistent and have no careful consideration about contraception use. In addition, because of limited resources and bargaining power in the family, women who get married early may have no control over their choices of reproductive health care. They may be tied submissively to the decisions of their partner or parents to determine whether they use a contraceptive or not. Women who get married at early age also are more prone to use contraceptive use. Previous research conducted by Thulaseedharan shows women's early marriage age is related to contraceptive use. Early married women are more vulnerable at giving birth at an earlier age, and they have to use contraceptive methods in early times. Women who get married early are more often forced to use the sterilization method of contraception to suppress their pregnancy and childbirth than those married at an ideal age.<sup>25</sup>

Moreover, an ideal number of children had a significant relationship with modern contraception use. It could predict modern contraception use among married couples of reproductive age. Married couples may have personal preferences about their family life or plan. One of their important personal preferences could be related to how many children they want to bear. This preference may affect their well-being and health.<sup>26</sup> Some married couples may be eager to have a small family to harmonize the rate of population growth with socioeconomic status and family welfare.<sup>31</sup> Therefore, they use contraception to achieve their plan. The use of contraception also aims to regulate the number of pregnancies and births. It is similar to research conducted by Odimegwu et al. who mention

that family size preference is related to contraception use among married couples. Couples who prefer a small family likely use contraception than couples who have a bigger family.<sup>32</sup>

## CONCLUSION

This study concluded that three variables are related to and able to predict modern contraception use among married couples of reproductive ages in Indonesia. They include women's ideal marriage age, women's early marriage age, and ideal number of children. This study suggests practical recommendations to the Indonesian National Board of Population and Family Planning and other health institutions. They have to arrange intervention programs to encourage married couples of reproductive ages to use modern contraception and consider their age of marriage and preferences for an ideal number of children.

## REFERENCES

1. McKenzie JF, Pinger RR, Seabert DM. *Community and Public Health*. Ninth Edit. Burlington: Jones & Bartlett Learning; 2018. 1–541 p.
2. Schneider M-J, Schneider HS. *Introduction to Public Health*. Fifth Edit. Burlington: Jones & Bartlett Learning; 2017. 1–593 p.
3. Brannon L, Updegraff JA, Feist J. *Health Psychology*. Ninth Edit. Boston: Cengage Learning; 2018. 32–35 p.
4. Hayden J. *Introduction to Health Behavior Theory*. Third Edit. Massachusetts: Jones & Bartlett Learning; 2019. 1–740 p.
5. Mahendradhata Y, Trisnantoro L, Listyadewi S, Soewondo P, Marthias T, Harimurti P, et al. *The Republic of Indonesia Health System Review* [Internet]. Hort K, Patcharanarumol W, editors. Vol. 7. Yogyakarta: Asia Pacific Observatory on Health Systems and Policies; 2017. 1–328 p. Available from: <https://apps.who.int/iris/bitstream/handle/10665/254716/9789290225164-eng.pdf>
6. Putri SI, Hedo DJPK, Asiyah S. *Konseling Kesehatan Wanita*. Bandung: Media Sains Indonesia; 2021. 1–172 p.
7. BAPPENAS. *Kehidupan Sehat dan Sejahtera: Menjamin Kehidupan yang Sehat dan Meningkatkan Kesejahteraan Seluruh Penduduk Semua Usia* [Internet]. Jakarta: BAPPENAS; 2022. Available from: <https://sdgs.bappenas.go.id/tujuan-3/>
8. Nyarko SH. Spatial variations and socioeconomic determinants of modern contraceptive use in Ghana: A Bayesian multilevel analysis. *PLoS One* [Internet]. 2020;15(3):1–12. Available from: <https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0230139&type=printable>
9. Gafar A, Suza DE, Efendi F, Pramono AP, Susanti IA, Mishbahatul E. Determinants of contraceptive use among married women in Indonesia. *F1000Research* [Internet]. 2020;9(193):1–9. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7137393/>
10. Idris H. Factors Affecting the Use of Contraceptive in Indonesia: Analysis from the National Socioeconomic Survey (Susenas). *J Kesehat Masy* [Internet]. 2019;7(2):144–50. Available from: <http://journal.unnes.ac.id/nju/index.php/kemas%0>
11. Ayu SM. Sosialisasi Tentang Keluarga Berencana Dan Jenis Kontrasepsi Di Desa Jambidan Kecamatan Banguntapan, Bantul. *J Pemberdaya Publ Has Pengabdian Kpd Masy* [Internet]. 2019;3(2):251–4. Available from: <http://download.garuda.kemdikbud.go.id/article.php>
12. Hedo DJPK, Simarmata N. Perencanaan Keluarga dalam Upaya Mencapai Family Flourishing. In: Manurung RT, Mirawati M, editors. *Family Resilience dalam Menghadapi Pandemi Covid-19*. Gorontalo: Ideas Publishing; 2021. p. 245–61.
13. Festin MPR. Overview of modern contraception. *Best Pract Res Clin Obstet Gynaecol* [Internet]. 2020;66:4–14. Available from: <https://doi.org/10.1016/j.bpobgyn.2020.03.004>
14. Lasong J, Zhang Y, Gebremedhin SA, Opoku S, Abaidoo CS, Mkandawire T, et al. Determinants of modern contraceptive use among married women of reproductive age: A cross-sectional study in rural Zambia. *BMJ Open* [Internet]. 2020;10(3):1–10. Available from: <https://bmjopen.bmj.com/content/bmjopen/10/3/e030980.full.pdf>
15. Abate MG, Tareke AA. Individual and community level associates of contraceptive use in Ethiopia: A multilevel mixed effects analysis. *Arch Public Heal* [Internet]. 2019;77(1):1–12. Available from: <https://archpublichealth.biomedcentral.com/track/pdf/10.1186/s13690-019-0371-z.pdf>
16. Ridhayani F, Kristina SA. Practice of contraception use among rural women in Yogyakarta Villages. *Int Med J* [Internet]. 2020;25(04):2035–40. Available from: <https://www.researchgate.net/profile/Susi-Kristina-2/publication/340825479>
17. Nisak BA. Determinants of Unmet Needs in Married Women in Indonesia (Indonesian Dhs Analysis 2017). *J Biometrika dan Kependud*. 2021;10(1):1.

18. Abdulahi M, Kakaire O, Namusoke F. Determinants of modern contraceptive use among married Somali women living in Kampala; A cross sectional survey. *Reprod Health* [Internet]. 2020;17(1):1–9. Available from: <https://reproductive-health-journal.biomedcentral.com/track/pdf/10.1186/s12978-020-00922-x.pdf>
19. Badan Pusat Statistik. Persentase Wanita Berumur 15-49 Tahun dan Berstatus Kawin yang Sedang Menggunakan/Memakai Alat KB (Persen), 2019-2021 [Internet]. Jakarta; 2021. Available from: <https://www.bps.go.id/indicator/30/218/1/persentas-e-wanita-berumur-15-49-tahun-dan-berstatus-kawin-yang-sedang-menggunakan-memakai-alat-kb.html>
20. BKKBN. Jumlah PUS Peserta KB Menurut Metode Kontrasepsi Modern Pendataan Keluarga Indonesia [Internet]. Jakarta; 2021. Available from: <https://portalpk21.bkkbn.go.id/laporan/tabulasi>
21. Kistiana S, Gayatri M, Sari DP. Determinants of Modern Contraceptive Use among Young Married Women (Age 15-24) in Indonesia. *Glob J Health Sci* [Internet]. 2020;12(13):37. Available from: [https://www.researchgate.net/publication/345061026\\_Determinants\\_of\\_Modern\\_Contraceptive\\_Use\\_among\\_Young\\_Married\\_Women\\_Age\\_15-24\\_in\\_Indonesia](https://www.researchgate.net/publication/345061026_Determinants_of_Modern_Contraceptive_Use_among_Young_Married_Women_Age_15-24_in_Indonesia)
22. Tukue D, Gebremeskel TG, Gebremariam L, Aregawi B, Hagos MG, Gebremichael T, et al. Prevalence and determinants of modern contraceptive utilization among women in the reproductive age group in Edaghamus Town, Eastern zone, Tigrayregion, Ethiopia, June 2017. *PLoS One* [Internet]. 2020;15(3):1–17. Available from: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0227795>
23. Shaweno T, Kura Z. Determinants of modern contraceptive use among sexually active men in Ethiopia; using EDHS 2016 national survey. *Contracept Reprod Med*. 2020;5(1):1–10.
24. Arsyad SS, Nurhayati S. Determinan Fertilitas Di Indonesia. *J Kependud Indones* [Internet]. 2017;11(1):1. Available from: <https://ejurnal.kependudukan.lipi.go.id/index.php/jki/article/download/65/96>
25. Vinoda Thulaseedharan J. Contraceptive use and preferences of young married women in Kerala, India. *Open Access J Contracept* [Internet]. 2018;Volume 9:1–10. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5804019/pdf/oajc-9-001.pdf>
26. Shakya HB, Dasgupta A, Ghule M, Battala M, Saggurti N, Donta B, et al. Spousal discordance on reports of contraceptive communication, contraceptive use, and ideal family size in rural India: A cross-sectional study. *BMC Womens Health* [Internet]. 2018;18(1):1–14. Available from: <https://bmcwomenshealth.biomedcentral.com/track/pdf/10.1186/s12905-018-0636-7.pdf>
27. Seran AA, Laksono AD, Dewi A, Sujoso P, Ibrahim I, Baharia N. Does Contraception Used Better in Urban Areas?: An Analysis of The 2017 IDHS (Indonesia Demographic and Health Survey). *Sys Rev Pharm* [Internet]. 2020;11(11):1892–7. Available from: <http://www.sysrevpharm.org/?mno=45453>
28. Juraqulova ZH, Henry EB. Women’s bargaining power and contraception use in post-Soviet Tajikistan. *Centr Asian Surv* [Internet]. 2020;39(4):520–39. Available from: <https://doi.org/10.1080/02634937.2020.1806202>
29. Samari G, Foster DG, Ralph LJ, Rocca CH. Pregnancy preferences and contraceptive use among US women. *Contraception* [Internet]. 2020;101(2):79–85. Available from: <https://www.sciencedirect.com/science/article/abs/pii/S001078241930441X>
30. Makola L, Mlangeni L, Mabaso M, Chibi B, Sokhela Z, Silimfe Z, et al. Predictors of contraceptive use among adolescent girls and young women (AGYW) aged 15 to 24 years in South Africa: results from the 2012 national population-based household survey. *BMC Womens Health* [Internet]. 2019;19(158):1–7. Available from: <https://bmcwomenshealth.biomedcentral.com/articles/10.1186/s12905-019-0861-8>
31. Islam J. Factors Influencing Family Size: A Critical Study on Khulna District of Bangladesh. *Br J Arts Humanit* [Internet]. 2020;2(4):73–81. Available from: [https://universepg.com/public/storage/journal-pdf/Factors\\_influencing\\_family\\_size\\_a\\_critical\\_study\\_on\\_Khulna\\_district\\_of\\_Bangladesh.pdf](https://universepg.com/public/storage/journal-pdf/Factors_influencing_family_size_a_critical_study_on_Khulna_district_of_Bangladesh.pdf)
32. Odimegwu CO, Akinyemi JO, Banjo OO, Olamijuwon E, Amoo EO. Fertility, family size preference and contraceptive use in Sub-Saharan Africa: 1990-2014. *Afr J Reprod Health* [Internet]. 2018;22(4):44–53. Available from: <https://pubmed.ncbi.nlm.nih.gov/30632721/>