# Faktor-Faktor yang Memengaruhi Kehamilan Tidak Diinginkan di Indonesia

## *FACTORS INFLUENCING UNINTENDED PREGNANCIES IN INDONESIA*

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### *Abstract*

*Unintended pregnancy can cause pregnancy termination, which leads to safety risks. This study analyzed factors affecting unintended pregnancy in Indonesia. The analysis units were women aged 15-49 who gave birth in the past five years. The sample size was 36,472 women. The research variable was unintended pregnancy, residence, age, education, husbands/partners, employment, wealth, parity, pregnancy termination, decision-maker in woman's access to health care, access to family planning information on radio, television, and newspapers/magazines. The final stage analysis used binary logistic regression. Women in urban were 1.834 times more likely to experience an unintended pregnancy than women in rural. The 20-24 age group was 0.202 times more likely to experience an unintended pregnancy than the 15-19 age group. Women with secondary education were 1.447 times more likely to experience an unintended pregnancy than no education women. The poorer were 1.190 times more likely to experience an unintended pregnancy than the poorest. Multiparity was a strong determinant of unintended pregnancy. History of pregnancy, a decision by husbands, and access to family planning information on radio and television in the last few months were risk factors for unintended pregnancies. The study concluded that eight variables affected unintended pregnancies.*

*Keywords: unintended pregnancy, women of childbearing age, contraceptive use, family planning, maternal health.*

### Abstrak

Kehamilan yang tidak diinginkan dapat menyebabkan terminasi kehamilan, yang berujung pada risiko. Studi menganalisis faktor yang mempengaruhi kehamilan tidak diinginkan di Indonesia. Unit analisis wanita usia 15-49 tahun yang melahirkan dalam lima tahun terakhir. Besar sampel 36.472 responden. Variabel penelitian adalah kehamilan tidak diinginkan, tempat tinggal, usia, pendidikan, pasangan, pekerjaan, kekayaan, paritas, terminasi kehamilan, pengambil keputusan akses perempuan terhadap pelayanan kesehatan, akses informasi KB di radio, televisi, dan surat kabar/majalah. Analisis tahap akhir menggunakan regresi logistik biner. Hasil penelitian menunjukkan bahwa perempuan di perkotaan 1,834 kali lebih mungkin mengalami kehamilan yang tidak diinginkan dibandingkan perempuan di perdesaan. Usia 20-24 tahun 0,202 kali lebih mungkin mengalami kehamilan yang tidak diinginkan dibandingkan kelompok 15-19 tahun. Wanita dengan pendidikan menengah 1,447 kali lebih mungkin mengalami kehamilan yang tidak diinginkan daripada yang tidak berpendidikan. Kelompok yang lebih miskin 1,190 kali lebih mungkin mengalami kehamilan yang tidak diinginkan daripada yang paling miskin. Multiparitas adalah determinan kuat dari kehamilan yang tidak diinginkan. Riwayat kehamilan, keputusan suami, dan akses informasi KB di radio/televisi merupakan faktor risiko terjadinya kehamilan yang tidak diinginkan. Studi menyimpulkan delapan variabel yang mempengaruhi kehamilan yang tidak diinginkan.

Kata kunci: kehamilan tidak diinginkan, wanita usia subur, penggunaan kontrasepsi, keluarga berencana, kesehatan ibu

**INTRODUCTION**

Unintended pregnancy can lead to pregnancy termination. It increases the risk of death.[1,2] A study estimated that 85 million women worldwide dead due to unintended pregnancy.[3] While the United Nations launched the 2019 report, it states that unintended pregnancies caused significant global public health problems. In low and middle-income countries worldwide, 74 million women had unintended pregnancies each year. Women with unintended pregnancies have done 25 million unsafe abortions. These have further contributed to 47,000 maternal deaths each year.[4]

The WHO report states that women did between 2010-2014 an annual average of 56 million induced abortions, which ended safely and unsafe with unintended pregnancies. In other words, there were 35 induced abortions per 1000 women aged between 15-44 years. WHO estimated about 25% of all pregnancies ended in induced abortion. Abortion rates are higher in developing countries than in developed countries. Meanwhile, WHO estimated 25 million unsafe abortions were conducted each year in the world. The WHO states that almost all unsafe abortions occur in developing countries.[5]

Several previous studies identified the risks that could accompany unintended pregnancy. This risk extends not only to pregnant mothers but also to the infants they bear. There is a chance of reduced physical activity, general health, vitality, and social function for women who undergo unintended pregnancy. Women who experience unintended pregnancy are more likely to decline mental well-being than women with the desired pregnancy. Women with unwanted pregnancies, depression, and parental pressure are at risk of developing poor mental health in the future.[6–8] Besides, other hazards that may occur a rise in body weight during insufficient pregnancy, an increased risk of birth by Caesarea, a shorter breastfeeding time, and a low developmental score for children born from accidental pregnancy age of under five.[9–11] The effects of unintended pregnancy can endanger women's health during pregnancy and childbirth and affect the child's growth to be born.

In Indonesia, a previous study analyzing the 2012 Indonesia Demographic and Health Survey informs that the prevalence of women experiencing unintended pregnancies was 8%. The highest majority occurs in the province of Central Sulawesi (11.9%), and the lowest occurs in Papua (2.9%). The analysis shows a significant relationship of economic level, education level, place of residence, marital status, parity, birth spacing, and age with an unintended pregnancy. Further, the multivariate analysis indicates that marital status was the most dominant factor for unintended pregnancy.[12] Another study discovers that there were around 37,000 unintended pregnancies in nine major cities in Indonesia. Approximately 27% of the respondents were unmarried couples, and 12.5% were junior or senior high school students.[13]

Further studies on unintended pregnancies are vital to analyzing the safety aspect for women in Indonesia. Information in this study provides clear and targeted goals for policymakers to strive for preventing unsafe abortion for unintended pregnancies. Based on the background, the study aimed to analyze factors that influence unintended pregnancies among women of childbearing age in Indonesia.

**METHODS**
**Data Source**

This study utilized the 2017 Indonesia Demographic Data Survey (IDHS) as data for analysis. In this study, the analysis units were women aged 15-49 years old who had given birth in the last five years. The sample size amounted to 36,472 respondents.

**Variables**

The dependent variable in this study was unintended pregnancy. The study defines unintended pregnancy as either an unwanted or mistimed pregnancy. An unwanted pregnancy occurred to women once they did not want to be pregnant or have any children. In contrast, a mistimed pregnancy happened when a woman did not want to be pregnant at this time but later.[14]

The independent variables included the type of residence, age group, education level, marital status, employment status, wealth status, parity, history of pregnancy termination,

decision-makers for woman's access to health care, exposure to family planning information on radio, television, and newspaper or magazines.

Place of residence consists of urban and rural areas, as suggested by the Central Bureau of Statistics. Age groups consist of seven groups on a 5-year basis, according to the data set provided by the 2017 IDHS:15-19, 20-24, 25-29, 30-34, 35-39, 40-44, and 45-49  age groups.[15] Additionally, the education level was the latest education level that the respondents had attended. The education level consists of four categories: no education, primary, secondary, and higher education. Marital status consists of two categories: married (living with a spouse or partner) and unmarried (never in a relationship, widowed, divorced, or no longer living together or separated). Employment status consists of unemployed and employed.

Besides, wealth status was the wealth quintile based on in the respondents' households based on the ownership index. The study assesses wealth from types of furniture and their prices. These counted a television, a bicycle or a car, and household goods, such as drinking water sources, bathroom amenities, and flooring materials in the main building-the assessment of this variable calculate with the principal component analysis. National wealth quintiles were arranged based on household scores for each person and then divided into the same five categories, each of which contributed to 20% of the population based on the distribution-the wealth status consists of five classes: poorest, poorer, middle, richer, and richest.[16]

Parity was the frequency of giving birth to a live baby. The parity consists of two categories, primiparous (<2) and multiparous (≥2). The study determines the history of pregnancy termination based on the respondent's recognition. Pregnancy termination consists of two categories: experiencing and not experiencing pregnancy termination. Decision-makers for women's healthcare access consists of four choices  : respondents alone, respondent and husband or partner, husband or partner only, and someone else. Finally, the study assesses exposure to family planning information on radio, television, and newspapers or magazines in two scales: never exposed or ever exposed to family planning information.

**Data Analysis**

The first step, the analysis, used Chi-square for bivariate analysis. Due to the dependent variable's nature, the authors employed a Binary Logistic Regression for the final multivariate determination. This study performed statistical analyses using the SPSS 22 software.

Moreover, the research used ArcGIS 10.3 (ESRI Inc., Redlands, CA, USA) to create a distribution map of unintended pregnancy among childbearing age women by the province in Indonesia. The study issued a shapefile of administrative boundary polygons by the Indonesian Bureau of Statistics for the task.

**Ethics approval consent to participate**

The study used secondary data from the 2017 IDHS as a materials analysis. The survey remove all respondents' identities from the dataset. Respondents have provided written approval forms for their involvement in this study, and parents or guardians give child respondents consent (under 16 years). The author has obtained permission for the use of data for this study through the website https://dhsprogram.com.

The 2017 IDHS did not apply for ethical clearance from the Ethics Commission in Indonesia. The 2017 Indonesia DHS follows the Standard DHS survey protocol under The Demographic and Health Surveys (DHS) Program (DHS-7) approved by The Institutional Review Board of Inner City Fund (ICF) International, which was previously reviewed  and approved by the ORC Macro IRB in 2002. DHS surveys that follow the Standard are categorized under the approval of the DHS-7 Program, and the approval document is attached. The Institutional Review Board of ICF International complied with the United States Department of Health and Human Services requirements for the "Protection of Human Subjects" (45 CFR 46).

**RESULTS**

This study presents the distribution map of unintended pregnancies among women of childbearing age by provinces in Indonesia in Figure 1. Distribution map spread regions with a low prevalence of unintended pregnancies in the East, Central, and West. At the same time, the

majority of high unintended pregnancies tend to occur in the middle region.

Figure 2 explains a distribution diagram of unintended pregnancies among women of childbearing age by place of residence and parity. It appears that the prevalence of unintended pregnancies had no difference between primiparous women living in urban and rural areas. Simultaneously, the bulk of unintended pregnancies in multiparous tends to be higher in urban areas.
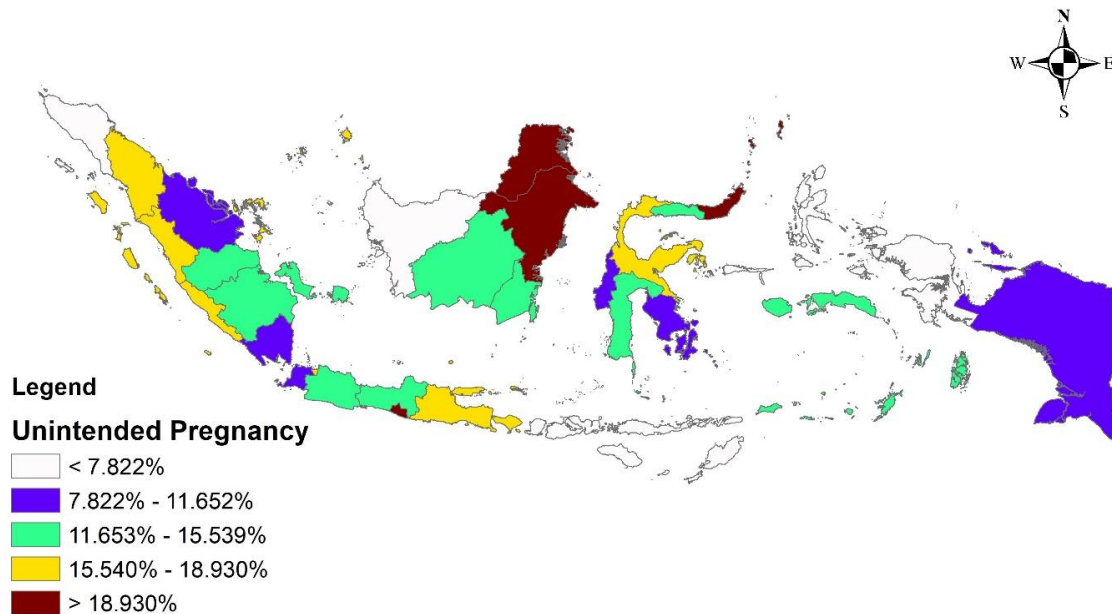


**Figure 1.** Distribution map of unintended pregnancy among childbearing age women by the province in Indonesia, 2017 (n=36,472).
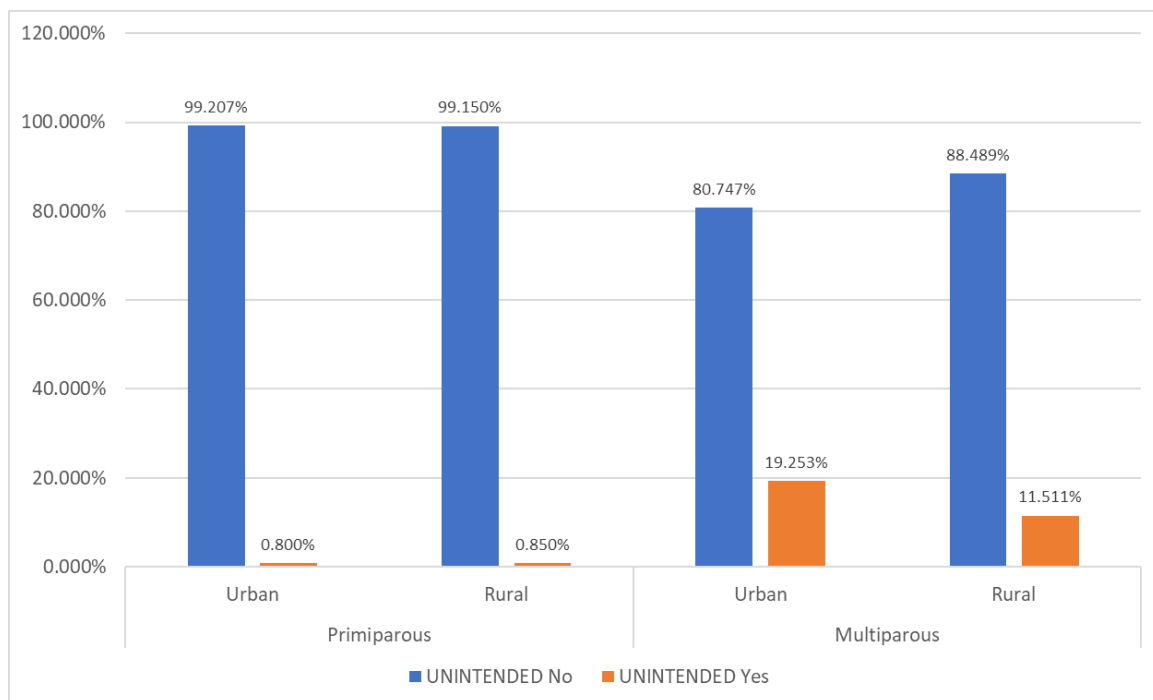


**Figure 2.** Distribution of unintended pregnancy among childbearing age women by type of residence and parity in Indonesia, 2017 (n=36,472).

**Tabel 1. Statistic description of respondents of unintended pregnancy among childbearing age women in Indonesia, 2017**

| Variables | Unintended Pregnancy (n=36,472) | | | | p-value |
|---|---|---|---|---|---|
| | No | | Yes | | |
| | n | % | n | % | |
| Type of place of residence | | | | | ***0.000 |
| • Urban | 14356 | 45.4% | 2875 | 59.4% | |
| • Rural | 17277 | 54.6% | 1964 | 40.6% | |
| Age group | | | | | ***0.000 |
| • 15-19 | 421 | 1.3% | 22 | 0.5% | |
| • 20-24 | 3013 | 9.5% | 84 | 1.7% | |
| • 25-29 | 6480 | 20.5% | 289 | 6.0% | |
| • 30-34 | 8933 | 28.2% | 792 | 16.4% | |
| • 35-39 | 8004 | 25.3% | 1722 | 35.6% | |
| • 40-44 | 3888 | 12.3% | 1451 | 30.0% | |
| • 45-49 | 894 | 2.8% | 479 | 9.9% | |
| Education level | | | | | ***0.000 |
| • No education | 725 | 2.3% | 103 | 2.1% | |
| • Primary | 16982 | 53.7% | 2706 | 55.9% | |
| • Secondary | 9222 | 29.2% | 1556 | 32.2% | |
| • Higher | 4704 | 14.9% | 474 | 9.8% | |
| Have a husband/partner | | | | | *0.029 |
| • No | 887 | 2.8% | 163 | 3.4% | |
| • Yes | 30746 | 97.2% | 4676 | 96.6% | |
| Employment status | | | | | ***0.000 |
| • No | 16112 | 50.9% | 2317 | 47.9% | |
| • Yes | 15521 | 49.1% | 2522 | 52.1% | |
| Wealth status | | | | | ***0.000 |
| • Poorest | 9993 | 31.6% | 1274 | 26.3% | |
| • Poorer | 6094 | 19.3% | 1003 | 20.7% | |
| • Middle | 5558 | 17.6% | 854 | 17.6% | |
| • Richer | 5115 | 16.2% | 840 | 17.4% | |
| • Richest | 4873 | 15.4% | 868 | 17.9% | |
| Parity | | | | | ***0.000 |
| • Primiparous | 4711 | 14.9% | 39 | 0.8% | |
| • Multiparous | 26922 | 85.1% | 4800 | 99.2% | |
| History of pregnancy termination | | | | | ***0.000 |
| • No | 26214 | 82.9% | 3721 | 76.9% | |
| • Yes | 5419 | 17.1% | 1118 | 23.1% | |
| Person deciding woman's access to healthcare | | | | | **0.007 |
| • Respondent alone | 13169 | 41.6% | 2052 | 42.4% | |
| • Respondent and husband/partner | 14347 | 45.4% | 2087 | 43.1% | |
| • Husband/partner only | 3135 | 9.9% | 530 | 11.0% | |
| • Someone else | 982 | 3.1% | 170 | 3.5% | |
| Participants heard about FP messages on the radio in the last few months | | | | | ***0.000 |
| • No | 29263 | 92.5% | 4380 | 90.5% | |
| • Yes | 2370 | 7.5% | 459 | 9.5% | |
| Participants heard about FP messages on television in the last few months | | | | | **0.005 |
| • No | 15358 | 48.6% | 2245 | 46.4% | |
| • Yes | 16275 | 51.4% | 2594 | 53.6% | |
| Participants heard about FP messages in newspaper/ magazines in the last few months | | | | | 0.721 |
| • No | 28061 | 88.7% | 4301 | 88.9% | |
| • Yes | 3572 | 11.3% | 538 | 11.1% | |

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

**Tabel 2. Result of binary logistic regression of unintended pregnancy among childbearing age women in Indonesia, 2017**

| Predictors | Unintended Pregnancy (n=36,472) | | | |
|---|---|---|---|---|
| | OR | 95% CI | | p-value |
| | | LB | UP | |
| Type of place of residence: Urban | 1.834 | 1.704 | 1.975 | ***0.000 |
| Type of place of residence: Rural (ref.) | - | - | - | - |
| Age group: 15-19 (ref.) | - | - | - | - |
| Age group: 20-24 | 0.202 | 0.120 | 0.341 | ***0.000 |
| Age group: 25-29 | 0.189 | 0.115 | 0.312 | ***0.000 |
| Age group: 30-34 | 0.307 | 0.187 | 0.502 | ***0.000 |
| Age group: 35-39 | 0.712 | 0.435 | 1.163 | 0.175 |
| Age group: 40-44 | 1.249 | 0.764 | 2.045 | 0.375 |
| Age group: 45-49 | 1.916 | 1.160 | 3.164 | *0.011 |
| Education level: No education (ref.) | - | - | - | - |
| Education level: Primary | 1.314 | 1.053 | 1.638 | *0.015 |
| Education level: Secondary | 1.447 | 1.150 | 1.820 | **0.002 |
| Education level: Higher | 0.866 | 0.676 | 1.108 | 0.253 |
| Have a husband/partner: No (ref.) | - | - | - | - |
| Have a husband/partner: Yes | 0.692 | 0.301 | 1.591 | 0.386 |
| Employment status: No (ref.) | - | - | - | - |
| Employment status: Yes | 1.004 | 0.940 | 1.072 | 0.913 |
| Wealth status: Poorest (ref.) | - | - | - | - |
| Wealth status: Poorer | 1.190 | 1.080 | 1.310 | ***0.000 |
| Wealth status: Middle | 0.999 | 0.900 | 1.110 | 0.987 |
| Wealth status: Richer | 1.040 | 0.931 | 1.161 | 0.487 |
| Wealth status: Richest | 1.021 | 0.906 | 1.151 | 0.734 |
| Parity: Primiparous (ref.) | - | - | - | - |
| Parity: Multiparous | 12.220 | 8.630 | 17.304 | ***0.000 |
| History of pregnancy termination: No (ref.) | - | - | - | - |
| History of pregnancy termination: Yes | 1.092 | 1.011 | 1.180 | *0.025 |
| Person deciding woman's access to healthcare: Respondent alone (ref.) | - | - | - | - |
| The person deciding a woman's access to healthcare: Respondent and husband/partner | 0.949 | 0.886 | 10.017 | 0.140 |
| The person deciding a woman's access to healthcare: Husband/partner only | 1.172 | 1.050 | 1.307 | **0.005 |
| Person deciding woman's access to healthcare: Someone else | 0.886 | 0.392 | 2.000 | 0.771 |
| Participants heard about FP messages on the radio in the last few months: No (ref.) | - | - | - | - |
| Participants heard about FP messages on the radio in the last few months: Yes | 1.336 | 1.191 | 1.498 | ***0.000 |
| Participants heard about FP messages on television in the last few months: No (ref.) | - | - | - | - |
| Participants heard about FP messages on television in the last few months: Yes | 1.120 | 1.046 | 1.200 | ***0.000 |

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

Moreover, this study elaborates respondents' statistical description of unintended pregnancies among women of childbearing age in Table 1. Table 1 informs that the prevalence of unintended pregnancies was more dominant in urban areas. Based on age groups, although all age groups experienced an unintended pregnancy, women in the 35-39 age group were more dominant to have unintended pregnancies.

Regarding education level, Table 1 shows women with unintended pregnancies mostly had secondary education. Those with unintended pregnancies had husbands or partners, worked, had the most impoverished economic status, and had multiparity status.

Based on the history of pregnancy termination, the study reveals unintended pregnancies mostly occurred to women who never had a pregnancy termination to the one who decided women's access to health care was women themselves and husbands or partners.

Table 1 informs those women who had unintended pregnancies primarily heard family planning information on television. While they rarely heard such news on radio and in newspapers or magazines.

Further, before carrying out binary logistic regression, a collinearity test of unintended pregnancies among women of childbearing age in Indonesia was conducted. The analysis shows that there was no co-linearity between the independent variables. The tolerance values of all variables were more significant than 0.10. At the same time, the VIF value for all variables was less than 10.00. Based on decision making in the co-linearity test, the result can be concluded that there is no symptom of a strong relationship between the independent variables of the regression model.

The results of the binary logistic regression test of the variables were available in Table 2. This study finds women who lived in urban areas were 1.834 times more likely to have unintended pregnancies than those in rural areas (OR: 1.834; 95% CI 1.704-1.975).

Table 2 shows that women in the 20-24 age group were 0.202 times more likely to experience unintended pregnancies than those in the 15-19 age group (OR: 0.202; 95% CI 0.120-0.341). Women in the 25-29 age group had 0.189 times more chances to have unintended pregnancies than women in the 15-19 age group (OR: 0.189; 95% CI 0.115-0.312). The 30-34 age group of women was 0.307 times more likely to experience unintended pregnancies than the 15-19 age group of women (OR: 0.307; 95% CI 0.187-0.502). Besides, women in the 45-49 age group were 1.916 times more likely to experience unintended pregnancies than women in the 15-19 age group (OR: 1.916; 95% CI 1.160-3.164).

Furthermore, Table 2 shows that women with primary education were 1.314 times more likely to experience unintended pregnancies than those without no education at all (OR: 1.314 95% CI 1.053-1.638). Women who had a secondary education level were 1.447 times more likely to have unintended pregnancies than those without education records (OR: 1.447; 95% CI 1.150-1.820).

This study also informs that women with lower wealth status had 1.190 times more chances to experience unintended pregnancies than the poorest women (OR: 1.190; 95% CI 1.080-1.310). The poorest women did not show a significant difference in unintended pregnancy possibility in other wealth status categories.

Table 2 shows that high parity women were 12.220 times more likely to experience unintended pregnancies than primiparous women (OR: 12.220; 95% CI 8.630-17.304). This information shows that parity was a strong determinant of the prevalence of unintended pregnancies among women of childbearing age in Indonesia.

Moreover, this study discovers that women who had a history of pregnancy termination had 1.092 times more chances for unintended pregnancies than women without a history of pregnancy termination (OR: 1.092; 95% CI 1.011-1.180). It indicates that the history of pregnancy termination was a risk factor for unintended pregnancy among women of childbearing age in Indonesia.

Seen from who decides women's access to health care, women whose husbands or partners become the only decision-makers were 1.172 times more likely to experience unintended pregnancies than women who made their own decisions (OR: 1.172; 95% CI 1.050-1.307). It shows that husbands' or partners' decision-making only was a risk factor for unintended pregnancies among women of childbearing age in Indonesia.

This study further finds exposure to family planning information on some media. Table 2 shows that women who heard about family planning information on the radio in the last few months were 1.336 times more likely to experience unintended pregnancies than women who did not hear about family planning information on the radio in the previous few months (OR: 1.336; 95% CI 1.191-1.498). Besides, women who heard about family planning information on television during the last few months were 1.120 times more likely to experience unintended pregnancies than women who did not hear about family planning information on television in the previous few months (OR: 1.120; 95% CI 1.046-1.200). This study suggests that exposure to family planning information on radio or television in the last few months was a risk factor for unintended

pregnancies among women of childbearing age in Indonesia.

## DISCUSSION

This study reports that women who lived in urban areas had more possibilities to experience unintended pregnancies than those living in rural areas. This result contradicts previous research in Pakistan, Ethiopia, and several countries in sub-Saharan Africa. These studies inform that living in rural areas is a risk factor for unintended pregnancies in women compared to living in urban areas.[17–19] This present study corresponds to the fact that in Indonesia, health facilities' availability is better in urban areas than in rural areas, including contraceptives.[20,21]

The results show that the age group was partially a determinant of unintended pregnancies among women of childbearing age in Indonesia. Several previous studies also prove age as a determinant of unintended pregnancies.[17,22,23] Age could be related to the preparedness of women to plan pregnancies. This concern occurred mainly to adolescent women,[24–26] and age was also associated with women's ability to plan the number of children desired and ensure reproductive capacity.[27]

Moreover, this study reports that education level and wealth status were partially determinants of unintended pregnancies among women of childbearing age in Indonesia. These findings strengthen previous studies' results.[18,19,28] Several previous studies that found similar results recommended strengthening counseling efforts for low education women by increasing sex education and skill development. Counseling efforts are also encouraged to increase contraceptive use as an effort to prevent unintended pregnancy.[29–31] Furthermore, the studies also recommend increasing wider access to modern contraceptives.[32]

In this study, researchers proved that education and wealth status affects many things related to health. A person with good wealth status was often well educated and thus had sound health output.[33–36] Some systematic reviews indicate that financial incentives also were likely to increase contraceptive use by women effectively.[37]

This kind of financing intervention is required to overcome the barrier of contraceptive use among poor women to minimize unintended pregnancies.[21]

This present study highlights that parity was a strong determinant of unintended pregnancies among women of childbearing age in Indonesia. Multiparous women were more vulnerable to unintended pregnancies. This condition may be related to pregnancy planning or failure of contraception use.[18,38,39] The same reason also applies to the history of pregnancy termination. Women who experienced pregnancy termination were more likely to have a higher chance of unintended pregnancy than those who never experienced pregnancy [22,40]

The analysis shows that husbands' or partners' decision-making for women's access to health care was a risk factor for unintended pregnancies among women of childbearing age in Indonesia. This condition is related to the lack or deadlock of communication between women and their partners.[22,27,28,41,42] Several previous studies have found the same finding that states an unintended pregnancy was near related to women's independence in making decisions about their reproductive health.[43,44]

Despite decision-makers for women's access to health care, the results indicate that exposure to family planning information on radio or television in the last few months was a risk factor for unintended pregnancies among women of childbearing age in Indonesia. This information is in line with the findings of previous studies in Mozambique and Ghana.[1] At the same time, other researchers reported contrast results in another earlier study of Northwest Ethiopia, where women with no exposure to mass media had a higher risk of unintended pregnancies than those who got exposure to mass media.[45]

Moreover, the study also indicates media types that presented family planning information and women most frequently access. Women preferred media that deliver data with audio (radio) or a combination of visual and audio (television).[46–48] This information is useful for policymakers or family planning activists to better utilize the two media types for delivering messages about family planning.

**Study Limitation**

This study is considered quite strong because it involves a large number of respondents. However, because the study was conducted based on secondary data, the accepted variables were limited from the ICF's. On the other hand, this study cannot analyze other variables that have been informed in previous studies. Among them are first cohabitation in teenagers, family size, and birth order.[49–51]

**CONCLUSIONS AND RECOMMENDATION**

The study concludes eight variables affect the prevalence of unintended pregnancies in Indonesia's women of childbearing age. These variables include age group, education level, wealth status, parity, history of pregnancy termination, decision-maker for women's access to health care, and exposure to family planning information on radio and television , with multiparity as the most dominant factor.

The author recommends policymakers focus on targets based on the results of this study. Specific targets for policy targets to reduce the incidence of unintended pregnancy are women who live in urban areas, older age, low education, poor, multiparous, have a history of pregnancy termination, have no autonomy for access to healthcare, and have heard of family planning on the radio and television .

There is a need to increase health education, counseling, skill development, sex education, modern contraceptive use, and access to modern contraceptives. To minimize the rate of unplanned pregnancy in Indonesia, intervention programs and policies addressing reproductive health are required .

**ACKNOWLEDGMENTS**

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