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# ASSOCIATION OF ACCESS TO FAMILY PLANNING INFORMATION AND UNWANTED PREGNANCY

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#### **ABSTRACT**

Unwanted Pregnancy (UP) is a condition in which a partner or the opposite sex does not want a pregnancy or birth between partners. The incidence of Unwanted Pregnancy in Indonesia is still high (17.5%). Unwanted Pregnancy has an impact on the health of the mother, infant, and family problems. The study aimed to determine the relationship between access to information about family planning and Unwanted Pregnancy in Indonesia. This type of research is quantitative with a cross-sectional design using Program Performance and Accountability Survey 2019 secondary data. The independent variable is access to information about family planning with the dependent variable being Unwanted Pregnancy. Confounding variables are predisposing factors (age, education, occupation, parity, and marital status), enabling factors (area of residence, socioeconomic status, family planning needs), and reinforcing factors (support from health workers). The sample of this study were women of childbearing age 15-49 years who were recorded as pregnant. Multivariate analysis using multivariate logistic regression. Results of this study show that there is a significant relationship between access to family planning information and UP in Indonesia, after controlling for confounding variables (p-value 0.001) (OR=1.964;95%CI:1.334-2.893). Health promotion efforts are needed through communication, information, and health education regarding the importance of access to information about family planning and UP so that it can influence the behavior of women of childbearing age in Indonesia.

**Keywords:** unwanted pregnancy, family planning, acces information, program performance and accountability survey

# **ABSTRAK**

Kehamilan Tidak Diinginkan (KTD) adalah kondisi di mana pasangan atau lawan jenis tidak menginginkan kehamilan atau kelahiran di antara pasangan. Kejadian KTD di Indonesia masih tinggi (17,5%). KTD berdampak pada kesehatan ibu, janin/bayi dan masalah keluarga. Tujuan dari penelitian ini adalah untuk mengetahui hubungan antara akses informasi tentang keluarga berencana dengan Kehamilan Tidak Diinginkan di Indonesia. Jenis penelitian ini bersifat kuantitatif dengan desain cross sectional menggunakan data sekunder Survei Kinerja dan Akuntabilitas Program (SKAP) 2019 modul wanita. Variabel independen adalah akses informasi tentang keluarga berencana dengan variabel dependen adalah Kehamilan Tidak Diinginkan. Variabel potensial confounding adalah faktor predisposisi (usia, pendidikan, pekerjaan, paritas, dan status perkawinan), faktor pendukung (area tempat tinggal, status sosial ekonomi, kebutuhan keluarga berencana), dan faktor penguat (dukungan dari tenaga kesehatan). Sampel penelitian ini adalah wanita usia subur 15-49 tahun yang tercatat hamil. Analisis multivariat menggunakan regresi logistik multivariat. Hasil penelitian menunjukkan ada hubungan yang signifikan antara akses informasi keluarga berencana dengan KTD di Indonesia, setelah dikontrol faktor confounding (p-value 0,001) (OR=1,964;95%CI:1,334-2,893). Upaya promosi kesehatan diperlukan melalui komunikasi, informasi, dan edukasi kesehatan mengenai pentingnya akses informasi tentang keluarga berencana dan KTD sehingga dapat mempengaruhi perilaku perempuan usia subur di Indonesia.

**Kata Kunci:** Kehamilan Tidak Diinginkan; Keluarga Berencana, Akses Informasi; Survei Kinerja dan Akuntabilitas Program

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#### Introduction

Unwanted Pregnancy (UP) is a condition in which a couple does not want to get pregnant or have a baby. The incidence of UP in Indonesia is still high (17.5%). The annual UP rate occurs in 80 million women which has a direct impact on maternal mortality. has an impact on psychosocial problems (rejection of pregnancy, lack of pregnancy care, mothers who try to avoid their responsibilities or continue to force pregnancy, abortion, poor parenting), physical problems (abortion that harms the mother and fetus), social problems (ridicule or ostracized by the community in the environment where they live).

The high incidence of unwanted pregnancies is influenced by various, such as parity, marital status, region of residence, socio-economic<sup>5</sup>, free sex behavior before marriage, lack of knowledge about sex education, easy access to pornographic media, influence of close friends and parenting patterns that are less caring, access to media information about family planning<sup>6</sup>, pregnancy history, husband's decision, and access to family planning information on radio/television, activeness in the Family Planning program.<sup>7,8</sup>

The 2017 Indonesia Demographic and Health Survey (IDHS) report shows that in Indonesia the activity of Family Planning participants was only 63.6%, the highest in Bengkulu (71.4%) and the lowest in West Papua (25.4%). Family access to information about family planning is highest obtained through mass media, especially television 79% and followed by outdoor media, such as banners 47%, posters 43%, billboards 21%, and banners 22%. The lowest sources of information from the mass media include newspapers, radio, turning sheets, magazines, and exhibitions each below 11%. Activity in family planning programs will be related to exposure to information about family planning. The exposure and sources of family planning development information that has heard/viewed/read family planning information are 89%. Family planning programs are one of the efforts to reduce the rate of unwanted pregnancies.

Research on factors associated with the occurrence of unwanted pregnancies has been widely conducted, but there are still limited research results that explain how access to information about family planning with unwanted pregnancies is related. The purpose of this study is to determine the relationship between access to information about family planning and unwanted pregnancy.

# **Methods**

The study used secondary data from Program Performance and Accountability Survey (PPAS) 2019 with a cross-sectional method. The population of this study was all respondents from the 2019 PPAS data covering 67,725 census blocks covering urban and rural residential areas. The

Sampling design used in PPAS 2019 was a stratified multistage sampling design. This survey was conducted with a cluster approach as an enumeration area. Each cluster were selected by systematic random sampling of 35 households so that the estimated number of households is estimated at 67,725 households. The sample was women of childbearing age 15-49 years who were pregnant at the time of the survey recorded in Program Performance and Accountability Survey 2019 (n=2.027).

The inclusion criteria in this study were women of childbearing age 15-49 years and in a state of pregnancy there was a 2019 Program Performance and Accountability Survey data collection. The variables of this study included independent variables Access to Family Planning Information, dependent variables were Unwanted Pregnancy, and confounding variables are predisposing factors (Age, Education, Employment, Parity, Marital Status), supporting factors (Area of Residence, Socioeconomic Status, Unmet need for Family Planning), and strengthening factors (support for health workers). Program Performance and Accountability Survey 2019 data were obtained using questionnaires. The questionnaire had been tested to know the extent to which the list of questions (questionnaires) can be answered by respondents including the suitability of the questions in the Open Data Kit (ODK). The Program Performance and Accountability Survey 2019 questionnaire consists of a list of households, and family questions and a list of Childbearing Age Women questions. The data collection method used an observation method carried out on the variables studied. Data analysis used univariate, bivariate used Chi-Square test, and multivariate analysis used multivariate logistic regression test.

# Results

Table 1 shows that of the 2,027 pregnant women respondents, almost all (86.3%) had access to family planning information and a small proportion had never accessed family planning

information. The results of the frequency distribution of family planning information explain the description of access to family planning information in Indonesia.

Table 1. Frequency Distribution of Access to Family Planning Information and Unwanted Pregnancy in Indonesia

regnancy in magnesia						
	Frequency (n= 2.027)	Percentage				
Access to Family Planning Information						
Access	1,750	86.3				
Not Access	277	13.7				
Unwanted Pregnancy						
Wanted	1,802	88.9				
Unwanted	225	11.1				

Based on Table 2, it can be concluded that from 2,027 pregnant women respondents obtained information media sources based on the amount of information that had been accessed by respondents who had access to family planning information sources, namely a small portion (5.6%) of pregnant women with radio access, most (72.1%)) access to television, a small portion (10.9%) access newspapers, a small portion (7.4%) access magazines, a small portion (15.9%) access leaflets, a small portion (7.1%) access flipcharts, almost (38.7%) access to posters, almost half (45.9%) access to banners, some (17.0%) access to banners, some (22.4) access to billboards, some (3.3) to access exhibitions, almost some (29.2%) access the website, a small part (18.1%) access family planning Car Lighting Unit, a small part (10.2%) access murals and a small part (4.3%) do not access any family information media sources planned.

Table 2. Frequency Distribution of Family Planning Information Media Sources in Indonesia

muonesia				
Courses of Femily Diaming Information	Y	es	No	
Sources of Family Planning Information	N	%	n	%
Radio	113	5.6	1,914	94.4
Television	1,461	72.1	566	27.9
Newspaper	220	10.9	1,807	89.1
Magazine	150	7.4	1,877	92.6
Pamphlet	322	15.9	1,705	84.1
Flipchart	143	7.1	1,884	92.9
Poster	785	38.7	1,242	61.3
Banners	931	45.9	1,096	54.1
Banner	345	17.0	1,682	83.0
Billboard	455	22.4	1,572	77.6
Exhibition	66	3.3	1,961	96.7
Website	592	29.2	1,435	70.8
Car Lighting Unit	366	18.1	1,661	81.9
Mural	207	10.2	1,820	89.8
None	88	4.3	1,939	95.7

Based on Table 3 shows the results of the bivariate analysis of the relationship between access to family planning information and Unwanted Pregnancy. In the variable of access to family planning information, almost all pregnant women who had access to information received family planning information as much as (86.3%) with a p-value of 0.012 indicating a relationship between access to information about family planning and Unwanted Pregnancy.

Table 3. The Characteristics of Respondents and Bivariate Analysis of Access to Family Planning Information with Unwanted Pregnancy

		Pregnancy			- Total		OR (95% CI)	P value
Characteristics	Wanted		Unwanted					
	n	%	n	%	n	%	(93 /0 C1)	
Access to Family Planning Information								
Access	1,568	77.4	182	9.0	1,750	86.3	-	0.012*
Not Access	234	11.5	43	2.1	277	13.7	1.583 (1.105-2.268)	
Mother's Age								
>35 Year	232	11.4	68	3.4	300	14.8	-	
<20 Year	114	5.6	8	0.4	122	6.0	2,864 (2,083-3,939)	0.0001*
20 – 35 Year	1,456	71.8	149	7.4	1,605	79.2	0,686 (0,328-1,432)	0,315
Mother's Education							, , , , , ,	
Higher Education	330	16.3	38	1.9	368	18.2	-	-
Middle Education	1,094	54.0	132	6.5	1,226	60.5	0.791 (0.510-1.228)	0.294
Low Education	378	18.6	55	2.7	433	21.4	0 .829 (0. 593-1.160)	0,274
Mother's Job							,	
Working	456	22.5	60	3.0	516	25.5	_	0.658
Doesn't Work	1,346	66.4	165	8.1	1,511	74.5	0.932 (0.681-1.275)	
Parity	,						,	
2 more Children	1,593	78.6	149	7.4	1.742	85.9	_	0.0001
> 2 Child	209	10.3	76	3.7	285	141	2.888 (2.847-5.309)	
Marital Status							,	
Married	1,798	88.7	223	11.0	2.021	99.7	_	
Not Married	4	0,2	2	0,1	6	0.3	4.031 (0.734-22.136)	0.083*
Mother's Residence	•	٥,2	_	0,1	Ü	0.0		0.000
Rural	1,113	54.9	118	5.8	1,231	60.7		0.007*
Urban	689	34.0	107	5.3	796	39.3	1.465 (1.109-1.935)	0.007
	009	34.0	107	5.5	790	37.3	1.403 (1.109-1.933)	
Socio Economic Status	520	26.1	70	2.0	600	20.0		
Hight	530	26.1	79	3.9	609	30.0	1 205 (0 000 1 0 15)	0.1544
Intermediate	742	36.6	85	4.2	827	40.8	1.295 (0.908-1.847)	0.154*
Low	530	26.1	61	3.0	591	29.2	0.995 (0.703-1.409)	0.976
Family Planning Needs	7.7	27.0	41	2.0	000	20.0		0.0001
Unmet needs	767	37.8	41	2.0	808	39.9		0.0001
Med need	1,035	51.1	184	9.1	1,219	60.1	3.326 (2.341-4.725)	
Health Officer Support	500	26.5	50	2.0	505	20.5		0.200**
Non Health Workers	539	26.6	58	2.9	597	29.5	-	0.200*
Health Workers	1,263	62.3	167	8.2	1,430	70.5	1.229 (0.896-1.684)	

While in the variable of mothers' work, mothers who do not work more are (74.5%). In the parity variable, the frequency was higher in mothers who had 2 live birth children, namely (85.9%), indicating that there was a relationship between mothers' work and unwanted pregnancies (p-value 0,0001). Variable marital status, the frequency of pregnant women who have a higher marital status is (99.7%) indicating there is no relationship between marital status and unwanted pregnancies (p-value 0,083). In the area of residence variable, the mother lives in a rural area, namely (60.7%), indicating there is a relationship between the area of residence and unwanted pregnancy (p-value 0,007). Variable socio-economic status, pregnant women with a medium socioeconomic status higher than is (40.8%), indicating that there is a relationship between family planning needs and unwanted pregnancies (p-value 0.0213). In the variable of family planning needs pregnant women have more than (60.1%) of their family planning needs to fulfilled, indicating that there is a relationship between family planning needs and unwanted pregnancies (p-value 0,0001). While the support variable for health workers, pregnant women received more support from health workers, namely (70.5%), indicating that there is no relationship between Health Officer Support and unwanted pregnancies (p-value 0.2).

Table 4. The Relationship between Access to Family Planning Information and Unwanted Pregnancy in Indonesia

Pregnancy in Indonesia				
Variabel	В	p-value	OR (95% CI)	
<b>Access of Family Planning Information</b>				
Access	-	-	1	
Not Access	0.675	0.001	1.964(1.334-2.893)	
Mother's Age				
>35 Year	-	0.040	1	
<20 Year	0.466	0.012	0.663(1.109-2.291)	
20 – 35 Year	0.173	0.663	1.189(0.545-2.593)	
Parity				
2 more Children	-	-	1	
> 2 Child	1.026	0.0001	2.789(10.958-30.972)	
Marital Status				
Merry	-	-	1	
Not Married	2.694	0.003	14.796(2.554-85.724)	
Mother's Residence				
Rural	-	-	1	
Urban	0.485	0.001	1.624(1.208-2.184)	
Family Planning Needs				
Unmet needs	-	-	1	
Med need	1.137	0.0001	3.116(2.138-4.543)	
Constant	-3.534			

Results of multivariate logistic regression on Table 4 shows that a relationship between access to information about family planning and unwanted pregnancy after controlling for confounding variables Results of multivariate logistic regression in Table 4 show a relationship between access to information about family planning and unwanted pregnancy after controlling for confounding variables (mother's age, parity, marital status, mother's place of residence, and family planning needs) access to family planning information in women. pregnant women who did not access information had a risk of 1.964 times (OR=1.964;95%CI:1.334-2.893) of unwanted pregnancies compared to pregnant women who had access to information. Mothers aged 20-35 years had a risk of 1.189 times (OR=1.189; 95%CI:0.545-2.593) the occurrence of unwanted pregnancies compared to pregnant women aged <20 years and >35 years. The parity of pregnant women who have >2 children is at risk of 2.789 times (OR=2.789;95%CI:10.958-30.972) ) of having unwanted pregnancies compared to pregnant women who have 2 children. Marital status of pregnant women who have unmarried status has a risk of 14.796 times (OR=14.796;95% CI: 2.554-85.724) of unwanted pregnancies compared to pregnant women who are married. Pregnant women living in urban areas are at risk of 1.624 times (OR=1.624;95%CI:1.208-2.184) of unwanted pregnancy compared to pregnant women in rural areas. Unwanted compared to pregnant women who do not fulfill family planning.

#### **Discussion**

Access to family planning information is a source of health information in improving family planning, especially reducing the number of unwanted pregnancies, namely by increasing family planning acceptors, becoming members who follow the family planning movement by using and implementing the use of contraceptives to increase the speed of achieving family planning success. Women of childbearing age who have never heard of family planning information are more at risk of experiencing adverse events, compared to those who have heard of it because exposure to family planning information can increase the knowledge and behavior of women of childbearing age during pregnancy and have children that do not lead to unwanted pregnancies. <sup>14</sup>

The results of the study found that there was a significant relationship between access to information about family planning and unwanted pregnancies, where mothers who did not have access to family information were at risk of 1,964 times (95% CI: 1,334-2,893) for unwanted pregnancies. Based on the results of the family planning program, the strategy to reduce maternal mortality is that pregnant women are not in a 4T (4 Too) condition; namely too young to give birth (under the age of 20 years), giving birth too often, too close to giving birth (under 3 years), and too old to give birth (above 35 years old). The 2017 IDHS data explains that television is still the most widely accessed information medium for women to obtain family planning information sources, namely 57.1% through television, then 17.9% obtain family planning messages via the internet, 11.6% through newspapers, 9% of women married via radio and only 7% received information from family planning officers' visits. Access to information in reducing the number of unwanted pregnancies due to a lack of sources of information about the use of family planning contraceptives can be reduced by increasing accessibility and National Population and Family Planning Agency (BKKBN) services equally and with quality by using an information source approach that should be obtained in the community. The significant relationship is a significant relation and the programment of the programme

The results of the distribution of the frequency of unwanted pregnancies explain that knowing the description of unwanted pregnancies in Indonesia and based on the results of bivariate analysis, pregnant women who are wanted are more likely to want to have children as much as 88.9% compared to pregnant women who are not wanted. This usually often occurs in poor families and families with many children. Several media can be used, including print media such as posters, leaflets, brochures, magazines, flipcharts, stickers, and others.

In this study, the age at which pregnant women found the most unwanted pregnancies was that pregnant women aged 20-35 years had a 1.1 times higher risk of Unwanted Pregnancy. Age greatly influences the behavior of using contraceptives. Age at risk of pregnancy can also be prevented by using contraceptive methods, 3 stages can be used as family planning principles, namely the prevention phase, preventing and delaying pregnancy (age <20 years), the phase of

spacing out pregnancies (age 20-35 years is a productive age), and the phase of stopping fertility or pregnancy (age >35 years).<sup>20</sup>

Education level has no relationship with marriage age in Indonesia. Research is in line with research in Kenya and Nigeria showing that education is not associated with adverse events.<sup>21</sup> This is because this ability is not only related to the level of education, and area of residence but also related to other factors, such as family income or family economic conditions.<sup>22</sup>

Maternal occupation showed that there was no association with an unwanted pregnancy. Because unwanted pregnancies occur as a result of personal assumptions that influence a person through their environment and the more mothers who have an environment that has access to information about family planning, the better the knowledge of a mother. The parity of pregnant women found the most occurrence of unwanted pregnancies were pregnant women who had >2 children. The results of this study indicate a parity relationship with an unwanted pregnancy. Pregnant women who have >2 children have a 2.7 times greater risk of unwanted pregnancy. The results of Siregar's research show that social culture and media are factors that can influence a person's behavior.<sup>23</sup> This is in line with research in the United State that mothers who have children >2 children will be at risk of unwanted pregnancy because it can result in increased maternal and child mortality and decreased use of contraceptives.<sup>24</sup> The results of the study in Kenya show that the more children a woman has, the more likely she is to experience adverse events.<sup>25</sup> Mothers who have given birth to many children also feel that the number of existing children has reached the ideal number so that with another pregnancy, the possibility of an unwanted pregnancy is also greater.<sup>26</sup>

The marital status of pregnant women with the most occurrence of unwanted pregnancies is pregnant women who are not married. The results of this study indicate that there is a relationship between access to family planning information and unwanted pregnancy. Pregnant women who are not married have a 14.7 times greater risk of Unwanted Pregnancy. The results of the study are in line with<sup>26</sup>in terms of marital status, unmarried women experience the most adverse events, as divorced women and women who do not have marital status.<sup>5</sup>

The area where pregnant women live the most where unwanted pregnancies occur is pregnant women who live in urban areas. The results of this study indicate that there is a relationship between access to family planning information and unwanted pregnancies. Pregnant women who live in urban areas have a 1.6 times greater risk of experiencing adverse events. This study is in line with research in West Java Province, which found that the area of residence is one of the factors for the occurrence of marriage age, namely in urban areas (8.9%). Socio-economic status explained that there was no relationship with Unwanted Pregnancy. Socioeconomic has nothing to do with marriage age because this ability is not only related to socioeconomic factors but also to other factors such as marital status, parity, or area of residence.

The family planning needs of pregnant women are found the most occurrence of unwanted pregnancies pregnant women whose family planning needs are met, pregnant women whose family planning needs are met are 3.1 times more at risk of Unwanted Pregnancy. Research such as research in India explains that there is a failure in couples who use contraception which results in higher adverse events than in couples who do not use contraception.<sup>29</sup> The results of the study in Pakistan show that women who use contraceptives experience more adverse events. The odds ratio for women with mistimed pregnancies who did not use contraception was 0.788 times. That is, the tendency of women who use contraception to have an untimely pregnancy compared to a desired pregnancy is 1.269 times that of women who do not use contraception.<sup>30</sup>

Support from health workers is not related to Unwanted Pregnancy. The results showed that the more often a mother gets family planning support from health workers, the better the information she gets. Planning to use contraceptive methods in the future is strongly influenced by counseling, namely the direct support of health workers given to mothers. Providing information, encouraging pregnant women to access information to raise awareness of pregnant women to be able to get quality antenatal care and prepare for pregnancy better, one of the information needed by a mother is television, television is useful for getting the latest information in taking the necessary steps to improve access to health services for pregnant women, childbirth, childbirth, and newborns.

Based on the various risks that may arise, women are not advised to give birth at the age of 35 and over. So most mothers aged 35 years and over prefer to use family planning to avoid unwanted pregnancies and health problems that may occur. In addition, mothers who are over 35 years of age are more likely to have the desired number of children. On the other hand, mothers aged 15-34 years still feel healthy to continue to reproduce. As well as knowledge about family planning in general is taught in formal education in schools in the subjects of health, family welfare, and population education. The higher the education level of the couple participating in the family planning program, the greater the view of the husband and wife that children are an important reason for participating in the family planning program, so the higher the education, the higher the proportion of couples of childbearing age to know and use contraception to regulate the number of children.

The limitation of this study lies in the cross-sectional design used that cannot know with certainty the time sequence of events (temporality) and whether risk factors (access to family planning information) precede the effect (unwanted pregnancy) because both variables are assessed (collected) simultaneously so that the relationship between variable cannot be fully interpreted as a causal relationship. Nevertheless, the authors attempted to analytically predict the association of family planning information access with unwanted pregnancies by performing a multivariate analysis assuming the family planning information access variable already existed or preceded the

unwanted pregnancy variable. Another limitation of the study is the possibility of selection bias. This bias occurs if independent variables affect the selection of research samples in the groups tested or analyzed. In this study, steps have been taken to minimize the occurrence of selection bias, namely through the determination of inclusion and exclusion criteria, but it is realized that there are still limitations in the selection of research subjects, the determination of research subjects is not randomized Data Type In this study using; Program Performance and Accountability Survey Indonesia secondary data in 2019, so that the variables used are limited to only those contained in PPAS data, and researchers do not know with certainty the quality of the data produced in the 2019 report on the results of the 2019 population; Program Performance and Accountability Survey. So that researchers cannot determine the variables to be selected, to determine the research variables, the researcher studies the data carefully.

#### Conclusion

Access to information on family planning and unwanted pregnancy in Indonesia has a relationship with the risk of unwanted pregnancy. There is a significant relationship after controlling predisposing and enabling factors with the following variables, namely maternal age, parity, marital status, area of residence, and family planning needs, and there is a relationship with an unwanted pregnancy. Almost all pregnant women in Indonesia have access to family planning information and a small proportion have never accessed family planning information. Almost all pregnant women in Indonesia want children and a small proportion of pregnant women do not want any more children.

Almost all pregnant women access family planning information, almost all pregnant women aged 20 to 35 years, most pregnant women get a secondary education, most pregnant women do not have jobs, and almost all pregnant women have 2 children based on the number of live births, all pregnant women have a clear and recorded marital status that is married, most pregnant women live in rural areas, almost half of the pregnant women have middle socioeconomic status, most pregnant women have family planning needs met, and almost all pregnant women receive support from health workers obtained from health workers. The need to improve health promotion programs to the community regarding the importance of accessing information about family planning with unwanted pregnancies by using media that is easily accepted by mothers, both living in urban and rural areas looking at media that following the target.

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