JURNAL BIOMETRIKA DAN KEPENDUDUKAN
(Journal of Biometrics and Population)

# FERTILITY BASED ON DEMOGRAPHIC AND SOCIAL ECONOMIC FACTORS IN WOMEN OF REPRODUCTIVE AGE IN BENGKULU PROVINCE (SECONDARY DATA ANALYSIS 2017 IDHS)

***Bintang Agustina Pratiwi[1], Nopia Wati[1], Oktarianita[1], Wulan Angraini[1], Mugia Bayu Rahardja[2]**

[1]Faculty of Health Sciences, Universitas of Muhammadiyah Bengkulu, 38119 Kota Bengkulu, Bengkulu Province, Indonesia
[2] National Research and Innovation Agency , 13650 East Jakarta, Jakarta, Indonesia
***Corresponding Author**: Bintang Agustina Pratiwi ; Email: bintangagustinap@umb.ac.id

**Published by** *Fakultas Kesehatan Masyarakat Universitas Airlangga*

**Keywords:**
fertility,
education,
age,
Women of Reproductive Age

**ABSTRACT**

The Total Fertility Rate (TFR) of Bengkulu Province is still at 2.31, meaning that there are still Women of Reproductive Age who have children >2. This condition affects the non-fulfillment of basic family needs. The purpose of this study was to determine the factors causing fertility based on demographic, social, and economic factors in Women of Reproductive Age in Bengkulu Province. This study is a study that uses secondary data from the Indonesian Demographic Health Survey (IDHS) in 2017. The population in this study is 49,250 households nationally. The number of households that were successfully interviewed in Bengkulu Province was 850. Ever married women aged 15-49 years were 809 people. Furthermore, the weighted sample was 364 people, from the weighted sample 274 samples met the criteria. The data analysis used in this study consisted of 3 types of data analysis, that is univariate analysis, bivariate and multivariate analysis. The results showed that there was a relationship between demographic factors, namely maternal age (p = 0.000), and husband's age (p = 0.000) with Women of Reproductive Age fertility. There is a relationship between socioeconomic factors, that is maternal education (0.026) with Women of Reproductive Age fertility in Bengkulu Province. The dominant factor causing fertility was age at marriage (p = 0.019 and OR = 1.911).

***Kata Kunci:***
*fertilitas,*
*pendidikan,*
*umur,*
*Wanita Usia Subur*

***ABSTRAK***

*Total Fertility Rate (TFR) Provinsi Bengkulu masih berada pada angka 2,3, artinya masih ada Wanita Usia Subur (WUS) yang memiliki anak >2. Kondisi ini berpengaruh terhadap tidak terpenuhinya kebutuhan dasar keluarga. Tujuan dari penelitian ini adalah untuk mengetahui faktor penyebab fertilitas berdasarkan faktor demografi, sosial dan ekonomi pada WUS di Provinsi Bengkulu. Penelitian ini merupakan penelitian yang menggunakan data sekunder dari Survei Demografi Kesehatan Indonesia (SDKI) tahun 2017. Populasi pada penelitian ini adalah rumah tangga secara nasional sebanyak 49.250 rumah tangga. Rumah tangga yang berhasil diwawancarai di Provinsi Bengkulu sebanyak 850. Wanita pernah kawin usia 15-49 tahun berjumlah 809 orang. Selanjutnya sampel yang tertimbang sebanyak 364 orang, dari sampel yang tertimbang terdapat 274 sampel yang memenuhi kriteria. Analisis data yang digunakan dalam penelitian terdiri dari 3 macam analisis data, yaitu analisis univariabel, analisis bivariabel dan multivariabel. Hasil penelitian didapatkan ada hubungan faktor demografi, yaitu umur ibu (p = 0.000), umur suami (p = 0.000) dengan fertilitas WUS. Terdapat hubungan faktor sosial ekonomi, yaitu pendidikan ibu (0.026) dengan ferlitias WUS di Provinsi Bengkulu. Faktor dominan penyebab fertilitas adalah umur menikah (p = 0.019 dan OR = 1.911).*

## INTRODUCTION

*Worldometers* 2020 recorded a world population of 7.7 billion as of July 1, 2020. This number continues to increase compared to the previous year. Over the last decade, the world population has increased annually by 1-1.2%. By area, the largest population is in the Asian continent.

**Received** in 25 December 2021**; Reviewed** in 22 April 2022 **; Accepted** in 19 September 2022 **; p-ISSN** 2302–707X - **e-ISSN** 2540–8828 ; **DOI:** https://doi.org/10.20473/jbk.v12i1.2023.41-51 **; Cite this as :** Pratiwi BA, Wati N, Oktarianita O, Angraini W, Rahardja MB. Fertility Based on Demographic and Social Economic Factors in Women of Reproductive Age in Bengkulu Province (Secondary Data Analysis 2017 IDHS). J Biometrika dan Kependud [Internet]. 2023;12(1):41–51. Available from: https://doi.org/10.20473/jbk.v12i1.2023.41-51

The population in Asia is 4,641,054,775 people. Indonesia's population ranks fourth highest in the world after China, India, and the United States. The impact of an increase in population is the low quality of life in the community (1). The increase in population has an impact on increasingly dense settlements, traffic jams, competition in the world of work, social vulnerability, and exploitation of nature and the environment (2).

Salah One of the contributors to the increasing population in Indonesia is the increasing Total Fertility Rate (TFR) each period. Based on data from the 2017 IDHS, Indonesia's TFR has fallen by 0.2 from the 2012 IDHS. Even though it looks small, this decline has had a huge impact on program sustainability. In addition, this figure still does not meet the target of the 2015-2019 BKKBN RENSTRA. Based on SKAP 2019 data, the total fertility rate is 2.45 per woman. This means that Indonesian women gave birth to an average of 2.45 children during their reproductive period during 2017-2019. The 2019 SKAP TFR increased by 3.38 from the 2018 SKAP TFR, but this number has not yet reached the target of the 2019 KKBPK program, namely 2.28 children per woman. Like the previous year, fertility occurred in the 25-29 year age group.

The total fertility rate in rural areas is 18% higher than in urban areas. Based on education level, the highest TFR was in the group with primary school education, namely 2.9 and the lowest TFR was in the tertiary group. When viewed from the wealth index, it is clear that the lower the income, the higher the TFR, and vice versa (3). The results of previous research in Bengkulu revealed that, for 40 years (1979-2010), the population of Bengkulu has increased quite significantly, up to three times (4). The TFR in Bengkulu Province in 2017, namely 2.31, is below the national fertility rate. However, this figure has not yet reached the target of the 2019 Population, Family Planning and Family Development or *Kependudukan, Keluarga Berencana dan Pembangunan Keluarga* (KKBPK) program. The percentage of women of childbearing age or *Wanita Usia Subur* (WUS) who have children >3 is 8.3%, 30.7% of WUS still think that the ideal number of children is ≥3. The largest percentage of the age at first marriage for WUS was at 15-19 years. The sooner a person gets married, the longer the reproductive period will be (3). Women of the same age (less than 18 years) were found to have greater positive motivation regarding fertility when compared to respondents who had negative motivation (5), so that it has the opportunity to add more offspring and have an impact on the rate of population growth (6), and ultimately affect the basic needs of the family.

Based on the results of previous studies, there are several factors related to fertility, namely education, employment, family economic status, area of residence, age at first marriage, contraceptive methods, and the number of children desired (7). There are several variables related to fertility, namely age, education level, occupation, income, the total number of child deaths, use of contraception, and age at first birth (8). However, in other studies, it was found that education is a factor associated with decreased fertility in women. It found that women with higher education had lower fertility, even though these women had experienced previous child deaths (9).

A number of factors influence a person's fertility in West Java Province, namely the higher education of the head of the household and the total number of members in the household. Apart from that, on the other hand, there is a negative influence from the work of the head of the household and expenses in the house. Women who live in urban areas tend to use short-term contraception; the most widely used type of contraception is the condom (10).

## METHODS

A cross-sectional approach was used as the research design. The data are sourced from 2017 Indonesian Demographic and Health Survey (IDHS) conducted jointly by the Central Statistics Agency or *Badan Pusat Statistik* (BPS), the National Population and Family Planning Agency or *Badan Kependudukan dan Keluarga Berencana Nasional* (BKKBN), and the Ministry of Health. The implementation of the 2017 IDHS was carried out in collaboration between BKKBN and universities in their respective provinces. The field team consists of interviewers, supervisors, facilitators, and field coordinators. The place for further analysis

research is Bengkulu Province. Bengkulu Province has 10 cities/regencies, that are Bengkulu City, Centre of Bengkulu, Kepahiang, Rejang Lebong, Lebong, Seluma, South Bengkulu, Kaur, North Bengkulu, and Muko-muko.

The variable studied was the dependent variable fertility status and independent variables include the mother's age, husband's age, marriage age, marriage frequency, mother's occupation, husband's occupation, mother's education, husband's education, living with husband, place of residence, and wealth index. Data were collected from July 24 to September 30, 2017. further analysis will be carried out during July-December 2021. The population in this study is households nationally, totaling 49,250 households of which 1,970 census blocks consist of cities and villages. A total of 364 ever-married women aged 15-49 years in Bengkulu Province were weighted, and only 274 WUS met the study criteria. Data analysis in this study consisted of univariate, bivariate (Chi-Square Test), and multivariate (Multiple Regression Logistic) analysis.

## RESULT

The 2017 IDHS data analysis regarding "Factors that Causes of Fertility of Women of Reproductive Age in Bengkulu Province" which is seen from demographic factors and socioeconomic factors obtained the following results:

### Univariate Analysis

*Fertility Variable*

The table below shows that of the 274 WUS, most of them had children less than or equal to two (65.6%). Based on demographic factors, 274 WUS respondents were mostly 242 people (88.3%) for mothers aged 25-29 years, 261 people (95.4%) for husbands aged 25-49 years, 192 people living in villages (70 .1%), married at the age <21 years as many as 168 people (61.2%) and had a frequency of marriage only once as many as 254 people (92.9%).

Frequency distribution of WUS socioeconomic actors in Bengkulu Province from 274 respondents, most of the WUS worked, as many as 177 people (64.5%), husbands worked as many as 272 people (99.5%), mother's education was high, as many as 194 people (70.8%), 193 people (70.4%) have higher education husbands, 260 people live with their husbands (95%) and

**Table 1**. Distribution of WUS Fertility Frequency in Bengkulu Province

| Variable | N | % |
|---|---|---|
| **Fertility** | | |
| >2 children | 94 | 34.4 |
| ≤2 children | 180 | 65.6 |
| **Demographic Factors** | | |
| **Mother's age** | | |
| 15-24 years | 32 | 11.7 |
| 25-29 years | 242 | 88.3 |
| **Husband's age** | | |
| 15-24 years | 12 | 4.4 |
| 25-49 years | 261 | 95.5 |
| **Residence** | | |
| Village | 192 | 70.1 |
| City | 82 | 29.9 |
| **Married Age** | | |
| <21 years | 168 | 61.2 |
| >=21 years | 106 | 38.8 |
| **Marriage Frequency** | | |
| more than 1 time | 19 | 7.1 |
| only 1 time | 254 | 92.9 |
| **Socioeconomic Factors** | | |
| **Mother's job** | | |
| Doesn't work | 97 | 35.5 |
| Work | 177 | 64.5 |
| **Husband's Occupation** | | |
| Doesn't work | 1 | 0.5 |
| Work | 272 | 99.5 |
| **Mother's Education** | | |
| Low | 80 | 29.2 |
| Tall | 194 | 70.8 |
| **Husband's Education** | | |
| Low | 81 | 29.6 |
| Tall | 193 | 70.4 |
| **Living with Husband** | | |
| Yes, Live Together | 260 | 95.0 |
| Don't Live Anywhere Else | 13 | 4.8 |
| Missing System | 1 | .2 |
| **Family Wealth Index** | | |
| Bottom | 70 | 25.4 |
| Middle-Lower | 79 | 28.8 |
| Intermediate | 51 | 18.8 |
| Upper-Intermediate | 38 | 13.9 |
| Top | 36 | 13.1 |

most of the family wealth index is 79 people (28.8%), the bottom is 70 people (25.4%).

**Bivariate Analysis**

Based on bivariate data analysis from factors that cause fertility in WUS in Bengkulu Province, the following results are obtained:
*Relationship between Demographic Factors and WUS Fertility.*

There are several demographic variables related to fertility, these variables can be seen in Table 2. Table 2 shows demographic factors, that out of 32 mothers aged 15-24 years all had good fertility ≤2 children, and out of 242 mothers aged 25-29 years, 148 (61.2) had good fertility (≤2 children). There were 12 husbands aged 15-24 years (4.4%) who had good fertility (≤2 children), and of husbands aged 25-49 years 167 had good fertility (≤2 children). Most of the WUS living in the village of 192 people who have good fertility (≤2 children) are 129 people (67.2%). WUS who were married at <21 years had good fertility (≤2 children) for 104 people (61.9%) and married aged ≥21 years had good fertility for 76 people (71.7%). The frequency of marrying WUS more than once with good fertility (≤2 children) was 11 people (57.9%) and those who were married only once with good fertility (≤2 children) were 168 people (66.1%).

The results of the analysis showed demographic factors and there was a relationship between the mother's age and p value (0.000), husband's age (0.010), and WUS fertility in Bengkulu Province and there was no significant relationship between place of residence (0.510), age at marriage (0.125), and frequency of marriage (0.632) with WUS fertility in Bengkulu Province.

**Table 2**. Relationship between Demographic Factors (Age of Mother, Age of Husband, Place of Residence, Age of Marriage, and Frequency of Marriage) with Fertility of WUS in Bengkulu Province

| Demographic Factors | Total | | Fertility | | | | *p value* |
|---|---|---|---|---|---|---|---|
| | | | Not enough (>2 children) | | Good (≤2 children) | | |
| | n | % | N | % | n | % | |
| **Mother's age** | | | | | | | |
| 15-24 years | 32 | 11.7 | 0 | 0 | 32 | 100 | 0.000 |
| 25-29 years | 242 | 88.3 | 94 | 38.8 | 148 | 61.2 | |
| **Husband Age** | | | | | | | |
| 15-24 years | 12 | 4.4 | 0 | 0 | 12 | 100 | 0.010 |
| 25-49 years | 261 | 95.5 | 100 | 36 | 167 | 64 | |
| **Residence** | | | | | | | |
| Village | 192 | 70.1 | 63 | 32.8 | 129 | 67.2 | 0.510 |
| City | 82 | 29.9 | 31 | 37.8 | 51 | 62.2 | |
| **Married Age** | | | | | | | |
| <21 years | 168 | 61.2 | 64 | 38.1 | 104 | 61.9 | 0.125 |
| ≥21 years old | 106 | 38.8 | 30 | 28,3 | 76 | 71.7 | |
| **Marriage Frequency** | | | | | | | |
| more than 1 time | 19 | 7.1 | 8 | 42,1 | 11 | 57,9 | 0.632 |
| only 1 time | 254 | 92.9 | 86 | 33,9 | 168 | 66,1 | |

*Socioeconomic Relations with Fertility*

The results of the analysis of the relationship of socioeconomic factors (mother and husband's occupation, education of mother and husband, living with husband, and family wealth index) with WUS fertility in Bengkulu Province can be seen in Table 3.

**Table 3**. Socioeconomic Relationship (Age of Mother, Age of Husband, Place of Residence, Age of Marriage, and Frequency of Marriage) with Fertility of WUS in Bengkulu Province

| Socioeconomic Factors | Total | | Fertility (Children Born Alive) | | | | *p value* |
|---|---|---|---|---|---|---|---|
| | | | Not enough (>2 children) | | Good (≤ 2 children) | | |
| | n | % | N | % | n | % | |
| **Mother's job** | | | | | | | |
| Doesn't work | 97 | 35.5 | 33 | 34 | 64 | 66 | 1.000 |
| Work | 177 | 64.5 | 61 | 34.7 | 115 | 65.3 | |
| **Husband's Occupation** | | | | | | | |
| Doesn't work | 1 | .5 | 1 | 100 | 0 | 0 | 0.743 |
| Work | 272 | 99.5 | 93 | 34.2 | 179 | 65.,8 | |
| **Mother's Education** | | | | | | | |
| Low | 80 | 29.2 | 36 | 38.3 | 44 | 24.6 | 0.026 |
| Tall | 194 | 70.8 | 58 | 61.7 | 136 | 75.4 | |
| **Husband's Education** | | | | | | | |
| Low | 81 | 29.6 | 35 | 43.2 | 46 | 56.8 | 0.065 |
| Tall | 193 | 70.4 | 59 | 30.7 | 133 | 69.,3 | |
| **Living with Husband** | | | | | | | |
| Yes, Living Together | 260 | 95.0 | 91 | 34.7 | 169 | 65.3 | 1,000 |
| Not Living Together | 13 | 4.8 | 4 | 30.8 | 9 | 69.2 | |
| **Family Wealth Index** | | | | | | | |
| Bottom | 70 | 25.4 | 20 | 29 | 70 | 71 | 0.402 |
| Middle-Lower | 79 | 28.8 | 24 | 30.4 | 55 | 69.6 | |
| Intermediate | 51 | 18.8 | 22 | 43.1 | 29 | 56.9 | |
| Upper-Intermediate | 38 | 13.9 | 13 | 34.2 | 25 | 65.8 | |
| Top | 36 | 13.1 | 15 | 41.7 | 21 | 58.3 | |

Table 3 above shows that the socioeconomic factors of WUS where most working mothers have good fertility (≤2 children) in as many as 115 people (65.3%), working husbands have good fertility (≤2 children) as many as 179 people (65.8%), highly educated mothers have good fertility (≤2 children) as many as 136 people (75.4%), husbands who are highly educated have good fertility (≤2 children) as many as 133 people (69.3%), WUS who live with their husbands have good fertility (≤2 children) as many as 169 people (65.3%) and WUS with middle to bottom wealth index have good fertility (≤2 children) as many as 55 people (69.6%).

The results of statistical analysis showed that the mother's education was related to WUS fertility in Bengkulu Province with a p value (0.026 <0.05) and there was no relationship between the mother's occupation (p value 1.000), husband's occupation (p value 0.743), husband's education (p value 0.065), living with husband (p value 1.000) and wealth index (p value 0.402) with WUS fertility in Bengkulu Province.

In terms of demographic, social, and economic factors, the most dominant factors are related to fertility in Bengkulu Province. Based on the multivariate analysis above, it shows that the factor most related to the fertility of WUS in Bengkulu Province is the age at marriage (p value=0.019 and OR = 1.911) which can be seen in Table 4.

**Table 4.** Multivariate Analysis of Demographic, Socioeconomic Factors and WUS Fertility in Bengkulu Province.

| Variable | B | OR | 95% CI | *p-value* |
|---|---|---|---|---|
| **Step 1** | | | | |
| Mother's age | -20.309 | 0.000 | 0.000-0.000 | 0.998 |
| Married Age | 0.500 | 1,648 | 0.929-0.924 | 0.088 |
| Husband Age | -17.133 | 0.000 | 0.000-0.000 | 0.999 |
| Husband's Education | 0.233 | 1,263 | 0.689-2.313 | 0.450 |
| Mother's Education | 0.354 | 1,424 | 0.763-2.658 | 0.266 |
| Constant | 37.284 | | | 0.997 |
| **Step 2** | | | | |
| Mother's age | -20.845 | 0.000 | 0.000-0.000 | 0.998 |
| Married Age | 0.491 | 1.635 | 0.922-2.899 | 0.093 |
| Husband's Education | 0.238 | 1.269 | 0.693-2.324 | 0.441 |
| Mother's Education | 0.360 | 1.433 | 0.768-2.673 | 0.258 |
| Constant | 20.682 | | | 0.998 |
| **Step 3** | | | | |
| Mother's age | -20.872 | 0.000 | 0.000-0.000 | 0.998 |
| Married Age | 0.518 | 1.678 | 0.950-2.963 | 0.074 |
| Mother's Education | 0.438 | 1.550 | 0.859-2.798 | 0.146 |
| Constant | 20.682 | | | 0.998 |
| **Step 4** | | | | |
| Mother's age | -20.812 | 0.000 | 0.000-0.000 | 0.998 |
| Married Age | 0.648 | 1.911 | 1.114-3.278 | 0.019* |
| Constant | 21.113 | | | 0.998 |

*significant value

## DISCUSSION

### Demographic Factors

*Age of Mother and Husband*

Age is very important in determining a woman's fertility rate because it is closely related to maternal and child mortality. Based on the results of the study, there is a substantial relationship between the age of the mother and husband and fertility in WUS in Bengkulu Province. The research findings of fertile age couples or *Pasangan Usia Subur* (PUS) (women) in Pekauman Village, South Banjarmasin District, revealed that the majority of the respondent's husbands were between 30-39 years old, while most of the wives were between 20-29 years old. This shows that there is an age difference between husband and wife, where the husband is older than the wife. Couples have a huge opportunity to increase the number of children they have because the majority of wives are at a productive age (11). According to the findings of this survey, the majority of mothers aged 25-29 years were 242 people (88.3%), and husbands aged 25-49 years were 261 people (95.4%). The age of a woman 25-29 years is an indicator of a woman's fertility, so it is very important to always improve contraception programs to prevent an increase in the birth rate at WUS.

One of the factors that affect fertility is the age of the couple when they have their first child. Women who marry at an early age have a higher chance of getting pregnant. As a result, in general, mothers who give birth at a young age have a large number of children and have significant health risks. An increase in the mean age at first birth indicates that the fertility rate is decreasing. Age at first birth is considered an important factor in overall fertility rates, as is the health and well-being of mother and child. Delaying the birth of the first child due to increasing age at first marriage has been shown to reduce fertility (12). The proportion of women who have 1-2 children is found to be highest in women aged 20-24 years, and this figure continues to decrease as women age. On the other hand, as women age, so do a smaller proportion of women who have more than two children. This condition indicates that people who have many children are older. The age of the

woman with p=0.001 has a significant relationship with the number of children born alive (13).

*Residence*

Place of residence is a determining factor for someone using contraception in limiting birth rates. The findings revealed that the majority of WUS who live in the village with a population of 192 people have a good fertility rate (≤2 children) as many as 129 people (67.2%). WUS in Bengkulu showed no significant relationship between the residential area and fertility. Other research states that fertility has occurred in Ghana in recent years as a consequence of the desire for small families and easy access to contraception, whereby 720 married women aged 20-44 years live in villages (14). The results of other studies show that the percentage of women who have 1-2 children who live in urban areas compared to women who live in rural areas with a value of p=0.001 means that where they live has a significant relationship with the number of children born alive (13).

Research findings in women aged 40-49 years show the desire to have children is higher in rural areas than in urban areas. Apart from housing, this is also supported by educational factors (15). Another study in India found that women in rural areas had greater fertility rates than those in cities. This can be a benchmark that place of residence is a factor that is closely related to the level of fertility of a person who has children (16).

According to research conducted in Ghana, women living in rural areas are more likely to want more children than those living in urban areas (aOR= 1.24, 95% CI 1.01-1.53). Women living in northern areas are more likely than women in other areas to want more children (17).

*Married Age*

Marriage age is one of the elements that determine a woman's fertility; The age at first marriage is closely related to the risk of a woman's early pregnancy. Women who marry at an early age are more likely to get pregnant. Women who marry at an early age have more children than women who marry at an older age. The younger the age of marriage, the longer the reproductive period. The research results show that WUS who were married at <21 years of age had good fertility (≤2 children) of 104 people (61.9%) and married age ≥21 years had good fertility of 76 people (71.7%), there was no relationship between age of marriage with the fertility of Live Born Children or *Angka Lahir Hidup* (ALH) in Bengkulu Province.

Previous studies have shown that age at marriage plays an important role in fertility (number of births). The reason is, as a woman's marriage age increases, her birth period shortens. A person's marriageable age is determined by when the couple first had sexual intercourse. Groups of people who give birth or are in the process of giving birth are legalized by marriage, but it cannot be denied that there is sex outside of marriage, whether it leads to childbirth or not. When marrying a very young woman, she will likely have several children before she reaches the age of birth. For groups of people without contraception programs, such as those in family planning programs, delaying the age at first marriage is one way to prevent childbirth (18).

A systematic review study found that participants who reported the most fertile age for women were 20-24 years, ranging from 16% -89.4% (Q1); participants reported a slight decrease in female fertility at the age of 25-29 years ranging from 5.1% -83% (Q2), and those who reported a significant decrease occurred between 35-39 years(19). The younger the woman at the time of the first marriage, the longer the reproductive period and the more likely to have children.

According to survey results so far, the majority of respondents stated that the husband's age at the time of the first marriage was 2,125 years, and the wife's age at the time of the first marriage was mostly 1,720 years. When viewed from the number of children born, the age of first marriage indicates that the age of first marriage is quite young. Most of the respondents said they had three births and two births. There were two children, and the respondents who wanted to increase the number of children answered that it was not planned, and many who answered that there were many children did not plan to increase the number of children. Respondents tend to increase the number of children because the age of the first wife married is 1,720, a total of two years, and a long reproductive period (11).

Age at marriage is the factor most related to a person's fertility, while age at marriage is influenced by economic status, age at first menstruation, and exposure to the media. The factor that most influences the age of marriage is the age of the first menstruation, the earlier the menstruation, the longer the reproductive period (20). The existence of encouragement from parents is also a driving factor in making decisions to marry at an early age (21).

*Marriage Frequency*

According to research findings, the frequency of marriage has no significant relationship with fertility in WUS. This finding is supported by previous studies showing that women who have been married twice and women who have been married more than twice have economic reasons for not remarrying; if they don't remarry, their economy is insufficient; someone is considered economically sufficient if their needs are met, apart from those women who marry for reasons of social need as a life partner and build a family, as a result, women who want to build a family again do not want to have more children, and are not motivated by financial problems. The presence of the husband in the family is considered much more significant in terms of family cohesiveness (22).

**Socioeconomic Factors**

*Occupation of Mother and Husband*

Women who do not work affect births because they have more time to take care of the household and children, while respondents who work are very worried about having many children due to the lack of time they have to take care of the household and children. Mothers who have a lot of free time tend to have more children (11).

The financial situation of the family is very dependent on the income of the family itself. Changes in family income increase by one unit can affect the fertility rate of 0.734 (23).

*Mother and Husband Education*

The results showed that mothers with higher education had good fertility (≤2 children) in as many as 136 people (75.4%), husbands who are highly educated had good fertility (≤2 children) in as many as 133 people (69.3%), mother's education level and fertility have a significant relationship. Other research states that, in Central/West African countries, on average, 48% of women with tertiary education have fewer children than the ideal, compared to only 24% having more children than their ideal. Men with a higher level of education are less likely than those without formal education to want additional children [OR = 0.24, CI = 0.11-0.52] (24).

Education is a factor that can determine a person's knowledge and attitude toward acting. Education can influence a person's thinking when deciding how many children to have; Education can be seen from the last education of husband and wife. The majority of respondents stated that the husband's last education was high school and his wife's last education was junior high school. The higher the amount of education, the more children the wife or woman plans to have. This situation shows that women who have received a superior education tend to improve the quality of their children by reducing the number of children, making it easier for them to raise, lead, and provide better education to their children (12).

Women without formal education tend to want more children than women with higher education (OR = 2.16, 95% CI 1.29-3.48). The prevalence of desire for fertility in men is higher than in women. Several socioeconomic and demographic factors were found to be associated with the desire to have more children among men and women in Niger. It calls for a collective effort to educate women and men in Niger about the negative consequences of rapid population growth and large family sizes (17).

*Living with Husband*

Women who live with their partners do not have a significant relationship with fertility. According to previous research, women who are with fertile men with seven or more births tend to want more children, compared to those who have 1-3 births [aOR = 0.06, CI = 0.01–0.30] (17). Other research also states that married women living with their husbands aged 15-49 years in Sub-Saharan Africa are more

likely to use modern contraceptive methods to limit childbearing (25).

*Wealth Index*

The results of the study found that the wealth index had no relationship with WUS fertility. Other research shows that there are two kinds of determinants of reproduction: direct factors and indirect factors. Indirect factors include socioeconomic characteristics that affect fertility rates, such as education, main activity (working/not working), type of job, and wealth quintile (26). In addition, some state that the teenage household wealth index is not related to the maturity of marriage age, the family wealth index is 1.4 times low, and 1.1 times more at risk of planning to marry when women are <21 years old and men are <25 years old compared to adolescents who have a high family wealth index and a moderate family index (27). So this wealth index cannot determine the fertility level of a WUS. Age has a positive and significant effect on fertility, but other independent factors, such as the location of residence (village or city), years of schooling, and age at first birth, have a negative and significant effect. Meanwhile, household wealth and age at first marriage had a negative effect but were not statistically significant (28).

Economic conditions have a considerable impact on adolescent fertility. Adolescents with low wealth (very poor and poor) are 1.70 times more likely to have one or more children than adolescents with high incomes (29). The author explains that women with a low or poor economy can be the main factor limiting birth rates.

## CONCLUSIONS AND SUGGESTIONS

### Conclusion

WUS fertility in Bengkulu Province is caused by factors of the mother's age, husband's age, and mother's education. Marriage age is the most dominant factor related to WUS fertility in Bengkulu Province.

### Suggestion

Marrying young will extend the reproductive period. Education needs to be done from an early age to adolescents so that it can increase one's marriage age.

## ACKNOWLEDGMENTS

The author would like to thank the Central National Population and Family Planning Agency for providing material support in carrying out this research.

## REFERENCES

1. Christiani C, Tedjo P, martono B. Analisis Dampak Kepadatan Penduduk terhadap Kualitas Hidup Masyarakat Provinsi Jawa Tengah. Serat Acitya (Jurnal Ilmiah) [Internet]. 2014;3(1):102–114. Available from: http://jurnal.untagsmg.ac.id/index.php/sa/article/view/125
2. Pancasasti R, Khaerunisa E. Analisis Dampak Laju Pertumbuhan Penduduk terhadap Aspek Kependudukan Berwawasan Gender pada Urban Area di Kota Serang. Tirtayasa Ekon [Internet]. 2018;13(1):130–145. Available from: http://dx.doi.org/10.35448/jte.v13i1.4231
3. Central Bureau of Statistics, National Population and family Planning Board, Indonesian Ministry of Health, USAID. Survei Demografi Kesehatan Indonesia. BKKBN. 2017;1–606. Available from: https://www.bps.go.id/statictable/2020/10/21/2111/laporan-survei-demografi-dan-kesehatan-indonesia.html
4. Sunaryanto H. Analisis Fertilitas Penduduk: Provinsi Bengkulu. J Kependud Indones [Internet]. 2012;VII(1):19–38. Available from: http://ejurnal.kependudukan.lipi.go.id/index.php/jki/article/download/81/73
5. Ahmed GS, Saleh L, Alareed HR, El-Shabrawy EM, Elbahrawe RS. Effects of Sociodemographic Background on Fertility Motivation Patterns in the Beni-Suef Governorate, Upper Egypt. J Taibah Univ Med Sci [Internet]. 2022;17(5):853–860. Available from: https://doi.org/10.1016/j.jtumed.2022.04.006
6. Ainy H, Nurrochmah S, Katmawanti S. Hubungan Antara Fertilitas, Mortalitas, dan Migrasi dengan Laju Pertumbuhan Penduduk. Prev Indones J Public Heal.

2019;4(1):2–9. Available from:. Available from: http://dx.doi.org/10.17977/um044v4i1p15-22

7. Kistiana S, Nasution SL, Naibaho MMP. Faktor Kontekstual dan Individual terhadap Jumlah Anak Lahir Hidup: Sebuah Analisis Multilevel. J Kependud Indones [Internet]. 2020;15(1):33–48. Available from: https://doi.org/10.14203/jki.v15i1.433
8. Jatmiko YA, Wahyuni S. Determinan Fertilitas di Indonesia Hasil SDKI 2017. Euclid [Internet]. 2019;6(1):95–106. Available from: http://dx.doi.org/10.33603/e.v6i1.1516
9. Angko W, Arthur E, Yussif HM. Fertility among Women in Ghana: Do Child Mortality and Education Matter? Sci African [Internet]. 2022;16:1–9. Available from: https://doi.org/10.1016/j.sciaf.2022.e01142
10. Hadiyanto F. Faktor-Faktor yang Mempengaruhi Fertilitas di Jawa Barat. J Bul Stud Ekon [Internet]. 2017;22(1):34–42. Available from: https://media.neliti.com/media/publications/165154-ID-faktor-faktor-yang-mempengaruhi-fertilit.pdf
11. Marlina S, Normelani E, Hastuti KP. Faktor-Faktor yang Mempengaruhi Fertilitas di Kelurahan Pekauman Kecamatan Banjarmasin Selatan. JPG (J Pend Geogr) [Internet]. 2017;4(2):35–42. Available from: https://ppjp.ulm.ac.id/journal/index.php/jpg/article/view/3031
12. Sinaga L, Hardiani H, Prihanto PH. Faktor-Faktor yang Mempengaruhi Tingkat Fertilitas di Perdesaan (Studi pada Desa Pelayangan Kecamatan Muara Tembesi Kabupaten Batanghari). J Paradig Ekon [Internet]. 2017;12(1):41–48. Available from: https://doi.org/10.22437/paradigma.v12i1.3933
13. Arsyad SS, Nurhayati S. Determinan Fertilitas di Indonesia. J Kependud Indones [Internet]. 2016;11(1):1–14. Available from: https://doi.org/10.14203/jki.v11i1.65
14. Channon MD, Harper S. Educational Differentials in The Realisation of Fertility Intentions: Is Sub-Saharan Africa Different? PLoS One [Internet]. 2019;14(7):1–14. Available from: https://doi.org/10.1371/journal.pone.0219736
15. Funlayo AK. Fertility Preference in Older Women: Effect of Place of Residence and Use of Contraceptives in Nigeria. Int J Soc Sci Perspect [Internet]. 2021;8(1):25–30. Available from: https://doi.org/10.33094/7.2017.2021.81.25.30
16. Haque I, Das D, Patel PP. Reading The Geography of India's District-Level Fertility Differentials: A Spatial Econometric Approach. J Biosoc Sci. 2019;51(5):745–774. Available from: https://doi.org/10.1017/s0021932019000087
17. Ahinkorah BO, Seidu AA, Armah-Ansah EK, Ameyaw EK, Budu E, Yaya S. Socio-Economic and Demographic Factors Associated with Fertility Preferences among Women of Reproductive Age in Ghana: Evidence from the 2014 Demographic and Health Survey. Reprod Health [Internet]. 2021;18:1–10. Available from: https://doi.org/10.1186/s12978-020-01057-9
18. Raharja MB. Fertilitas Remaja di Indonesia. Kesmas Natl Public Heal J [Internet]. 2014;9(1):6–13. Available from: http://dx.doi.org/10.21109/kesmas.v9i1.449
19. García D, Brazal S, Rodríguez A, Prat A, Vassena R. Knowledge of Age-Related Fertility Decline in Women: A Systematic Review. Eur J Obstet Gynecol Reprod Biol [Internet]. 2018;230:109–118. Available from: https://doi.org/10.1016/j.ejogrb.2018.09.030
20. Angraini W, Pratiwi BA, Febriawati H, Yanuarti R, Anita B, Oktarianita O. Factors Affecting the Occurrence of Early Marriage. J Biomet Kepend [Internet]. 2019;8(2):183–191. Available from: https://doi.org/10.20473/jbk.v8i2.2019.183-191
21. Pratiwi BP, Angraini W, Padila P, Nopiawati N, Yandrizal Y. Analisis Pernikahan Usia Dini di Kabupaten

Bengkulu Tengah Tahun 2017. J Kesmas Asclepius. 2019;1(1):14–24. Available from: https://doi.org/10.31539/jka.v1i1.575

22. Fauzi M, Listyaningsih U. Studi Dinamika Cerai Kawin terhadap Jumlah Anak Di Kecamatan Saptosari, Kabupaten Gunungkidul. J Bumi Indones [Internet]. 2015;4(4):1–7. Available from: https://www.neliti.com/publications/228245/studi-dinamika-cerai-kawin-terhadap-jumlah-anak-di-kecamatan-saptosari-kabupaten#cite
23. Prayanti N, Zulfanetti Z, Junaidi J, Wahyuni I. Faktor-Faktor yang Mempengaruhi Fertilitas di Kampung Keluarga Berencana (KB) di Kecamatan Muara Bulian Kabupaten Batanghari. 2021;16(3):425–436. Available from: https://online-journal.unja.ac.id/paradigma/article/view/12794/11592
24. Ahinkorah BO, Seidu AA, Budu E, Agbaglo E, Adu C, Dickson KS, Ameyaw EK, Hagan JE, Schack T. Which Factors Predict Fertility Intentions of Married Men and Women? Results from the 2012 Niger Demographic and Health Survey. PLoS ONE [Internet]. 2021;16(6):1–16. Available from: https://doi.org/10.1371/journal.pone.0252281
25. Olakunde BO, Pharr JR, Chien LC, Benfield RD, Sy FS. Individual- and Country-Level Correlates of Female Permanent Contraception Use in Sub-Saharan Africa. PLoS One [Internet]. 2020;15(12):1–15. Available from: http://dx.doi.org/10.1371/journal.pone.0243316
26. Jumliadi M, Hendarso Y, Nengyanti N. Research Gap dan Model Faktor yang Mempengaruhi Tingkat Fertilitas: Suatu Studi Literatur. JPP (J Kesehat Poltek Palembang). 2020;15(1):52–60. Available from: https://doi.org/10.36086/jpp.v15i1.467
27. Angraini W, Amrullah H, Febriawati H, Yanuarti R. Faktor Pendukung Pendewasaan Usia Perkawinan. J Bidan Cerdas [Internet]. 2021;3(4):159–167. Available from: https://doi.org/10.33860/jbc.v3i4.535
28. Zulkifli Z, Amri A, Munawar E. Analisis Fertilitas di Provinsi Aceh. J Perspekt Ekon Darussalam [Internet]. 2020;6(1):54–71. Available from: https://doi.org/10.24815/jped.v6i1.16173
29. Malinda Y. Hubungan Umur Kawin Pertama dan Penggunaan Kontrasepsi dengan Fertilitas Remaja Berstatus Kawin (Analisis Riskesdas 2010). J Kesehat Reproduksi [Internet]. 2012;3(2):69–81. Available from: http://ejournal.litbang.kemkes.go.id/index.php/kespro/article/view/3921