Determinant Use of Long-Term Contraceptive Methods in Sangurara Community Health Center Area Palu City

Rosmala Nur¹, Rahman Bonda², Abd. Rahman³, Diah Ayu Hartini⁴, Ummu Aiman⁵, Herman⁶, Nurhaya S Patui*⁴,⁷

¹Biostatistic, Family Planning and Demography Department
²Biostatistic, Family Planning and Demography Department
³Biostatistic, Family Planning and Demography Department
⁴Nutrition Science Department
⁵Nutrition Science Department
⁶Health Promotion Department
⁷¹Biostatistic, Family Planning and Demography Department Public Health Faculty Tadulako University, Palu City Indonesia

ABSTRACT
Long-term contraceptive method is contraception that is used to delay pregnancy, birth spacing, stop fertility for a long period of time and even it can last a lifetime and is very effective in preventing unwanted pregnancies and also more cost-effective, but it does not provide protection against Sexually Transmitted Infection (STI). The long-term contraceptive method consists of an IUD, Implants and sterilization. Study aims is to determine the relationship between economic status, the role of health officers, and partner support on the use of the long-term contraceptive method in the working area of Sangurara Community Health Center, Tatanga Subdistrict, Palu. The type of this research was quantitative with a cross-sectional study approach. The sample in this study were active Family Planning acceptors in the working area of Sangurara Community Health Center, Tatanga Subdistrict, Palu, as many as 100 people. The sampling technique used was a simple random sampling. Data analysis was performed using the chi-square test. The results showed that there was a relationship between economic status and the use of Long-term contraceptive method ($\chi^2 = 0,000$), there was a relationship between the role of the health officers and the use of Long-term contraceptive method ($\chi^2 = 0,001$), and there was a relationship between partner support and the use of Long-term contraceptive method ($\chi^2 = 0,001$). Counseling or complete information on contraceptive methods was needed for family planning acceptors in order to be able to choose and use the qualified long-term contraceptive method in terms of their effectiveness.

Key words: Determinant–Long-term contraceptive method–IUD

1 INTRODUCTION:
The high rate of population growth is one of the problems that still occur in Indonesia. In terms of quantity, Indonesia’s population is quite large, but in terms of quality according to the Human Development Index (HDI), Indonesia’s condition is still alarming because from 117 countries, Indonesia is in the 108th place. The high rate of growth that is not accompanied by an increase in the quality of the population will affect the level of life and welfare of the population [1].

The government launched a family planning (KB) program to reduce the rate of population growth. In addition, family planning (KB) programs are also expected to be able to reduce maternal mortality ratio (MMR) by 2-3 times. Therefore, with family planning, there will be a new paradigm in managing population problems and the rights of the community in choosing contraceptive methods will be in accordance with the expectations. One of the
activity to control and reduce the increase in population is by family planning that is integrated into services for the Long-Term Contraception Method (long-term contraceptive method) [2]

According to the IDHS in 2012, the Total Fertility Rate (TFR) is 2.6 and Contraceptive Prevalence Rate (CPR) is 61.9% while the targets of the National Medium-Term Development Plan (RPJMN) in 2015-2019 for TFR and CPR are 2.3 and 66.0%, respectively. It means that at least 66% of all reproductive-age couples in Indonesia use modern contraception (IUDs, implants, mow (tubectomy for women), mop (tubectomy for men), injections, pills and condoms) to regulate birth and every woman aged 15-45 years has 2 or at most 3 children [1]

The data obtained from Sangurara Community Health Center, Tatanga Subdistrict, Palu, in November 2016, recorded the number of active family planning acceptors in the working area of Sangurara Community Health Center, Tatanga Subdistrict, Palu, as many as 3.663 (44.38%) with details of the long-term contraceptive method contraceptive method as follows, participants of family planning using IUD as many as 301 (8.21%) acceptors, participants of family planning using Implant as many as 312 (8.51%) acceptors, participants of family planning using Tubectomy for Women as many as 19 (0.51%) acceptors, participants of family planning using (Vacektomi for Man) as many as 10 (0.27%) acceptors. In addition, the details of non-Long-term contraceptive method were as follow, participants of family planning using Pills were 1193 (32.56%) acceptors, participants of family planning using Injection were 1662 (45.37%) acceptors, participants of family planning using Condom were 166 (4.53%) acceptors. Based on these data, the proportion of the use of the Long-term contraceptive method is lower than the proportion of the use of the non-Long-term contraceptive method [3]

Based on the results of a preliminary study that was obtained, the Sangurara Community Health Center, Tatanga Subdistrict is one of the Community Health Center in Palu which has a large working area since it covers three sub-districts consisting of Nunu, Duyu, Boyaoge, Balaroa and Donggala Kodi villages. Sangurara Community Health Center has a lower proportion of the use of the Long-term contraceptive method (17.5%) compared to the non-long-term contraceptive method (82.46%). The low use of the Long-term contraceptive method is one of the problems that the Sangurara Community Health Center has, this is influenced by the economic status of the community which is below the provincial minimum wage, which is < IDR 1.807.775. This study wanted to find out the determinants of the use of Long-term contraceptive method in the working area of Sangurara Community Health Center, Tatanga Subdistrict, Palu.

2 METHODS:
The type of this research was quantitative research with a cross-sectional study approach, carried out on February 4 to March 4, 2017. This research was conducted in the working area of the Sangurara Community Health Center, Tatanga Subdistrict, Palu. The population of this research was 3.663 people with and the sample was 100 respondents selected using Proportionate Stratified Random Sampling.

Operational Definition and Objective Criteria

1. Economic status is the position, the socio-economic level of a person in terms of employment, education level and economic conditions or economic income in a group and society with objective criteria of low and high economic levels.

2. The role of health officers is the role of health officers in providing services for family planning (KB) to patients in the working area of Sangurara Community Health Center, Tatanga Subdistrict, Palu with objective criteria of not playing a role and playing a role.

3. Partner support is the assistance provided by partners in the use of long-term contraceptive methods with objective criteria of not supportive and supportive.

Data collection

1. Primary data is data obtained directly from the source, observed and recorded for the first time. Primary data in the study were obtained from the responses or answers of respondents on the identity and questions listed in the questionnaire regarding the variables of economic status, role of health officers, partner support and the use long-term contraceptive method by the long-term contraceptive method acceptor in the working area of Sangurara Community Health Center, Tatanga Subdistrict, Palu.

2. Secondary data were obtained from literature searches that were closely related to this research and data of the long-term contraceptive method acceptor in the working area of Sangurara Community Health Center, Tatanga Subdistrict, Palu.

3 RESULTS
Relationship Between Economic Status and Use of Long-Term Contraceptive Method

Relationship between economic status, which is low economic status and high economic status, and the use of long-term contraceptive method according to the respondent is shown in the following table.

In Table 1, economic status was categorized into two, namely low economic status and high economic status. The results obtained from 100 respondents showed that 66 respondents had low economic status and 34 respondents had high economic status.

In this study, it was shown that respondents with low economic status were more likely not using long-term contraceptive method of 93.9% compared to those using long-
term contraceptive method which was 6.1%. While respondents with high economic status were more likely using long-term contraceptive method of more than 79.4% compared to those who did not use long-term contraceptive method which was 20.6%.

Based on the results of the analysis of the economic status and the use of long-term contraceptive method using Chi-Square, it was obtained the value of p (0,000) < α (0,05) so that Ho in this study was rejected which means there was a relationship between economic status and the use of long-term contraceptive method.

**Relationship Between The Role Of Health Officers and The Use Of Long-Term Contraceptive Method**

The relationship between the role of health officers, which is playing a role and not playing a role, and the use of long-term contraceptive method according to the respondent is shown in the following table.

In Table 2, the role of health officers was categorized into two, namely not playing a role and playing a role. The results obtained from 100 respondents found that 34% of the respondents stated that health officers did not play a role in the use of long-term contraceptive method and 66% of the respondents stated that health officers played a role in the use of long-term contraceptive method.

In this study, the respondents stated that many health officers did not play a role on respondents who did not use the long-term contraceptive method of 91.2% compared to those who used long-term contraceptive method which was 8.8%. While health officers who played a role in the use of long-term contraceptive method played a greater role on respondents who did not use the long-term contraceptive method, which was 57.6% compared to those who used the long-term contraceptive method which was 42.4%.

Based on the results of the analysis of the role of health officers with the use of long-term contraceptive method using Chi-Square, it was obtained the value of p (0,001) < α (0,05) so that Ho in this study was rejected, which means there was a relationship between the role of health officers and the use of long-term contraceptive method.

**Relationship Between Partner Support and the Use of Long-Term Contraceptive Method**

The relationship between partner support, which is supportive and not supportive, and the use of long-term contraceptive method according to the respondent is shown in the following table.

In Table 3, partner support was categorized into two, namely not supportive and supportive. The results obtained from 100 respondents showed that 24% of the respondents did not receive support from their partners and 76% of the respondents received support from their partners.

In this study, the respondents indicated that many partners did not support the respondents who did not use the long-term contraceptive method of 95.8% compared to those using long-term contraceptive method which was 4.2%. While the respondents whose partners support the use of the long-term contraceptive method played a greater role on respondents who did not support the respondents who did not use the long-term contraceptive method of 60.5% compared to those who use long-term contraceptive method which was 39.5%.

Based on the results of the analysis of partner support and the use of long-term contraceptive method using Chi-Square, it was obtained the value of p (0,001) < α (0,05) so that Ho in this study was rejected which meant that there was a relationship between partner support and the use of long-term contraceptive method.

### Table 1. The Analysis of the Relationship Between Economic Status and the Use of Long-Term Contraceptive Method in Sangurara Community Health Center Area.

| Economic Status | The Use Of Long-Term Contraceptive Method | Total | ρ |
|-----------------|------------------------------------------|-------|---|
|                 | Not Using | n | %   | Using | n | %   |       |
| Low             | 62        | 53.9 | 4  | 61    | 66 | 100 | 0.000 |
| High            | 7         | 20.6 | 27 | 79.4  | 34 | 100 |       |

*Source: Primary Data, 2017*

4 DISCUSSION:

**Relationship between Economic Status and the Use of long-term contraceptive method**

Factors that influence the economic level according to Supariasa are employment, family income, wealth, allocation/budget and food prices. Based on the Provincial Minimum Wage in 2017 in Central Sulawesi, which is IDR 1,807.775, the economic level is divided into high and low, the high level is when the income ≥ IDR 1,807.775 and the low level is when the income < IDR 1,807.775.

Based on the results of the analysis of the economic status and the use of long-term contraceptive method using Chi-Square, it was obtained the value of p (0,000) < α (0,05) so that Ho in this study was rejected which meant that there was a relationship between economic status and the use of long-term contraceptive method. The economic levels affected the choice of contraception. This was because to get contraceptive services needed, acceptors must provide the necessary funds.
The results of this study were supported by a theory that states that the need to allocate economic resources for education in the future, the economic ability to buy food, clothing, house, medical care can affect married couples in choosing the contraceptive methods and deciding whether to implement family planning programs or not. Some women want a lot of children, especially in poor families, this is because children will help and nurse their parents in the old age [5].

The results of this study were in line with the research conducted by Marikar et al. (2015). In his research, it was obtained the value of p=0.026. This p-value was smaller than α=0.05. It showed that there was a relationship between the economic status and the use of the IUD [6].

The results of this study were also in line with the research conducted by Sunarsih et al. (2013). In their research, it was obtained the value of p < α (0.00 < 0.05) which meant that there was a relationship between economic status and the use of contraceptives [7].

The results of this study were not in line with the research conducted by Bernadus et al. (2013). In their research, they obtained p-value=0.339>0.05. Therefore, there was no relationship between economic status and IUD selection for family planning acceptors [8].

**Relationship between the Role of Health Officers and the Use of long-term contraceptive method**

Health officers played a role in providing information, counseling and explaining contraceptives. Counseling from the health officers could help prospective acceptors to choose and decide what type of contraception that they wanted to use. If you used the correct counseling technique and got the right information, the prospective acceptor would be more confident and feel more satisfied in choosing the type of contraception to be used [9].

Based on the results of the analysis of the role of health workers and the use of long-term contraceptive method using Chi-Square, it was obtained the value of p (0.001) < α (0.05) so that H0 in this study was rejected, which meant that there was a relationship between the role of health officers and the use of long-term contraceptive method. This meant that the role of health officers was very influential on the use of contraception. Health officers had a role in providing information regarding routine checks and providing counseling about contraception to be chosen.

According to Suyanti (2016), there was a relationship between information and the use of contraceptives Implant. In her study, it was obtained an OR value of 5.5 which meant that mothers who got information had a 5.5 times more chance to use the contraceptive Implant compared to mothers who did not get the information [10].

This result was in accordance with the theory that if someone has received prior family planning information, then they would not experience difficulties in choosing contraception to be used. In addition, they could also truly understand what types of contraception would be suitable for them [11].

The results of this study were also in accordance with the theory that providing information on family planning could increase knowledge, attitudes and practices of family planning so that there was an increase in new participants. Providing complete, honest and correct information about contraceptive methods to prospective family planning clients could encourage a process of positive behavior change so that people could make family planning to become a pattern of life. It meant that people knew, understood and realized the importance of family planning and implemented it for the health and welfare of the family, society and country in general [12].

**Table 2. The Analysis Of The Relationship Between The Role Of Health Officers and The Use Of Long-Term Contraceptive Method In Sangurara Community Health Center Area**

| The Role of Health Officers | The Use Of Long-Term Contraceptive Method | Total | P   |
|-----------------------------|------------------------------------------|-------|-----|
|                             | Not Using                  | Using |     |     |
|                             | n            | %       | n   | %   | n   | %   |
| Not Playing a Role          | 31     | 91,2    | 3   | 8,8 | 34  | 100  |
| Playing a Role              | 38     | 57,6    | 28  | 42,4| 66  | 100  |

*Source: Primary Data, 2017*

**Table 3. Analysis of the Relationship Between Partner Support and the Use of long-term contraceptive method in Sangurara Community Health Center Area**

| Partner Support | The Use Of Long-Term Contraceptive Method | Total | P   |
|-----------------|------------------------------------------|-------|-----|
|                 | Not Using                  | Using |     |     |
|                 | n            | %       | n   | %   | n   | %   |
| Not Supportive  | 23     | 95,8    | 1   | 4,2 | 24  | 100  |
| Supportive      | 46     | 60,5    | 30  | 39,5| 76  | 100  |

*Source: Primary Data, 2017*
The results of this study were in line with the research conducted by Aryanti (2014). She obtained the value of \( p = 0.433 \) which meant that information by family planning officers did not have a significant relationship with contraceptive use in early marriage women [13].

**Relationship between Partner Support and Use of Long-Term Contraceptive Method**

Ideally, a couple would discuss or consider to choose the best contraceptive method together, cooperate with each other in the use of contraception and pay attention to the danger signs of contraceptive use. If the information is only for women, while husband are lack of guidance and information, husband sometimes forbid their wives because of the factor of ignorance and no communication to provide mutual knowledge [14].

The decision to seek health services is the result of complex interactions. Finding the relevant decision-making process and communication patterns is not a simple matter. The decision to seek health services can be made by the woman herself or by her husband, community leaders and/or family members or other communities [15].

Based on the results of the analysis of the partner support and the use of long-term contraceptive method using Chi-Square, it was obtained the value of \( p (0.001) < \alpha (0.05) \) so that \( H_0 \) in this study was rejected which meant that there was a relationship between partner support and the use of long-term contraceptive method. This meant that the support from partner or husbands was very influential in making decisions whether to use the long-term contraceptive method or not and what methods would be used. In addition to the role in supporting decision making, the husband’s role in providing information was also very influential for the wife. Their roles were like participating in the consultation with health officers when the wife would use the contraception, reminding the wife about the schedule and the time to take the medication.

This was in accordance with the theory which said that a wife in making decisions to use or not use the contraception required approval from her husband because her husband was seen as the head of the family, the protector of the family, the breadwinner and someone who could make decisions in a family. Adequate knowledge of contraceptive devices could motivate the husband and encourage his wife to use the contraceptive devices. Contraceptive devices cannot be used by the wife without cooperation with her husband and mutual trust. The ideal situation was that husband and wife had to choose the best contraceptive method, cooperated with each other in the use of the contraceptive devices, paid for expenses and paid attention to danger signs of contraceptive use [16].

The results of this study were in line with the research by Wijayanti & Muawaroh (2014). The results showed \( X^2 \) count \((29,894) > X^2 \) table \(3,841\) and \( p \)-value = 0.001 \(< 0.05 \) so that \( H_a \) was accepted and \( H_0 \) was rejected which meant that there was a relationship between husband’s support and the selection of MOW (Tubectomy for Women) contraception on family planning acceptors in the Working Area of Winong II Community Health Center, Winong Subdistrict, Pati Regency [17].

The results of this study were in line with the research conducted by Liando et al. (2013), that there was a significant relationship between partner support and the use of long-term contraceptive method by showing the results of bivariate analysis using Chi-Square test for the factor of husband’s support and the use of Intra Uterine Device which showed the \(-value of 0.005 (p < 0.05) \) [18, 19].

**5 CONCLUSION:**

The conclusion of this study was that there was a relationship between economic status, the role of health officers and partner support on the use of long-term contraceptive methods (long-term contraceptive method) in the working area of Sangurara Community Health Center, Tatanga Subdistrict, Palu. Health officers were expected to be able to provide counseling or give complete information on every contraceptive method to acceptors so that it could increase the continuity of the use of the long-term contraceptive methods (long-term contraceptive method) through a good counseling process starting from when the acceptor chose the contraception and as long as the acceptor used the contraception. Family planning (KB) acceptors were also expected to choose and use the long-term contraceptive method because it was highly qualified in terms of effectiveness in delaying and spacing pregnancies so that there was no drop out in the use of long-term contraceptive methods.

**ACKNOWLEDGEMENTS:**

The authors grateful to all of those whom have had pleasure participated and supported this research

**REFERENCES**

[1] Ministry of Health of the Republic of Indonesia. 2014-2015.
[2] Assyarningsih N, Suhatrono, Suherini T. The Analysis of the Factors Affecting the Quality of Service for Family Planning Counseling using Intrauterine Device in the Womb Contraception By. Journal of Midwifery. 2014;8(7).
[3] Ministry of Health of the Republic of Indonesia. 2014-2015.
[4] Regional Technical Implementation Unit of the Sangurara Community Health Center. 2016;
[5] Governor Reguluation of Central Sulawesi. Palu; 2017.
[6] Varney. Midwifery Care Book. Jakarta: EGC; 2007.
[7] Marikar APK, Kundra R, Bataha Y. Factors Associated with Mother’s Interest to the use of Intrauterine Device (IUD) at Tuminting. Community Health Center, Manado e-Journal of Midwifery. 2015;3(2).
[8] Sumarsih E, N, Damayati R. Factors Associated with the Use of Contraceptive Devices in Women of reproductive age in Campang Raya Village, Bandar Lampung in 2014. Journal of Midwifery. 2013;1(3).
[9] Bernadus JD, Madianung A, Masi G. Factors Associated with the Selection of Intrauterine Device (IUD) for Contraception Acceptors at the. Jailolo Community Health Center E-Ners Journal. 2013;1(1).
[10] Farahan N. Description of the Level of Knowledge of the Use of Contraceptive Devices in Women of Reproductive
Age and the Support of Officers in the of Bebandem village. Medika. 2016;E-Journal;5–4.

[11] Suyanti. Determinant of the Use of Implant Contraceptive Devices in the Working Area of the Sukahaji Community Health Center, Majalengka Regency. 2016;1(4).

[12] Adhyani AR. Factors Associated with Non-IUD Contraception Selection in Female Family Planning Acceptor Aged 20-39 Years. Diponegoro University; 2011.

[13] Anggraeni Y, Martini. Family Planning Services. Yogyakarta: Rohima Press; 2011.

[14] Aryanti H. Factors Associated with Contraceptive Use in Women with Early Marriage in Aikmel Subdistrict, East Lombok Regency. Udayana University; 2014.

[15] Pinem S. Reproductive Health and Contraception. Jakarta: Trans Info Media; 2009.

[16] Manurung R. Relationship between Socio-Demographic and Socio-Cultural Factors with Use of Tubectomy Contraception in Belawan Bahagia Village, Medan Belawan Subdistrict; 2014.

[17] Hartanto H. Family Planning and Contraception. Jakarta: Pustaka Sinar Harapan; 2010.

[18] Wijayanti IT, Muawaroh S. Analysis of the Factors Related to the MOW (Tubectomy for Women) Selection on Family Planning Acceptor in Winong, II Community Health Center, Winong Subdistrict, Pati Journal of Midwifery and Health Sciences. 2014;5(1).

[19] Liando F, Runkat M, Mameke I. Factors Related to the Use of Intrauterine Device; 2013.