

ORIGINAL ARTICLE

CONTRACEPTIVE USE AND ITS ASSOCIATED FACTORS AMONG POOR WOMEN IN INDONESIA: A COMMUNITY-BASED CROSS-SECTIONAL STUDY

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ABSTRACT

Government funding for contraceptive services is decreasing, which results in increasingly limited community access to contraception, especially to the poor. The aim of this study is to determine contraceptive use and assess its association with sociodemographic factors, socioeconomic status, the source of obtaining contraception and type of contraception among poor women in Indonesia. This study is a cross-sectional study using the 2017 Indonesian National Socio-Economic Survey. The sample in this study was women who had been married aged 15-49 years in urban and rural communities. The total sample is 20,642 women. Socioeconomic status is measured based on the international poverty line (IPL) set by the World Bank, which is US\$ 1.9/day/capita in purchasing power parity (PPP). CPR in poor women was 52.5%. They prefer to use short-acting reversible contraceptives (SARCs) rather than long-acting reversible contraceptives (LARCs). The use of SARCs in urban areas was 76.0% and in rural areas was 78.3%. The results of multivariate logistic regression analysis found a significant positive relationship between socioeconomic status and contraceptive use with modern methods among urban and rural communities with OR = 0.92 (0.85-0.99). A significant positive relationship was also found between working poor women and the use of contraception with the modern method in urban communities with OR = 1.14 (1.01-1.28). It is necessary to increase funding for contraception by the government and to socialize the use of LARCs so that birth control can be realized in poor women.

Keywords: Contraceptive use, LARCs, poor women, urban communities, rural communities, Indonesia

INTRODUCTION

Indonesia is one of the countries with the largest population in the world that succeeded in suppressing the birth rate during the 1971-2000 period¹⁻². Data from the Indonesian Central Statistics Agency stated that the total fertility rate (TFR) in 1971 was 5.61, whereas in 2000 it decreased to 2.27. However, the TFR increased to 2.60 in 2012³. The reason was the slow increase in contraceptive use during 2000-2012 and the high cessation of contraceptive use by fertile age couples in Indonesia⁴⁻⁵.

Changes in policy in the management of family planning programs in Indonesia is one of the factors that influence the increase in birth rates. Since 2001, the authority in managing family planning programs has been handed over to regional governments, in accordance with the decentralized system implemented by the Indonesian government⁶. With geographical, socio-economic and political conditions varying between regions, this program is not a priority in many areas. In fact, before decentralization, this program was always a national priority program. As a result, the level of contraceptive use has

decreased, so the fertility rate has risen⁷. The high fertility rate will change the population structure in Indonesia⁸. The number of family members will increase so that the economic burden in the household will also increase⁹. If these changes occur in the poor, then the risk of poor households becoming poorer will be high¹⁰. The government's efforts to overcome the problem of poverty are also getting tougher.

Government funding for contraceptive services is decreasing, which results in increasingly limited community access to contraception, especially to the poor, who so far have been very dependent on contraceptive services provided by the government¹¹⁻¹². The result is a contraceptive prevalence rate (CPR) in poor women low¹³⁻¹⁴ and an explosion of birth rates is inevitable¹⁵⁻¹⁶. Based on data from the Indonesian Demographic and Health Survey in 2017, CPR in poor women was 60.7%, lower than rich women at 62.1%¹⁷. There are several factors that affect women of childbearing age using contraception, such as reasons for fertility, health problems, availability of health facilities, knowledge, place of residence and household economic conditions¹⁸.

This study examines the use of contraception among poor women in Indonesia and its associated

factors, such as sociodemographic factors, socioeconomic status, the source of obtaining contraception and type of contraception. This study analyzes the condition comprehensively by taking into account changes in the social, economic and cultural aspects of poor women towards contraceptive use in urban and rural communities in Indonesia.

METHODS

This study is a cross-sectional study using the 2017 Indonesian National Socio-Economic Survey. The Indonesian National Socio-Economic Survey is a survey designed to collect population social data with a relatively wide coverage. The survey has been carried out every year with two implementations, namely March and September. The survey area covers all districts and cities in Indonesia.

The sample in this study is women who have been married aged 15-49 years in urban and rural communities that are classified as poor. The total sample of 20,642 women. The sample is grouped according to the community and socioeconomic status.

Socioeconomic status is measured based on the international poverty line (IPL) set by the World Bank, which is US\$ 1.9/day/capita in purchasing power parity (PPP). Someone whose income is less than US\$ 1.9/day/capita is categorized as poor¹⁹. Furthermore, this study classifies poor women by quartile and establishes the lowest quartile as "extremely poor", the second lowest quartile as "moderately poor" and the top two quartiles referred to as "better off". We use the IPL, not the national poverty line, because it is relevant to global efforts in overcoming the problem of poverty and achieving the Sustainable Development Goals (SDGs) targets²⁰.

The variables used in this study include; contraceptive use, type of contraception, sources of obtaining contraception, reason for not using contraception, socioeconomic status, community, age, education, employment status, and number of children. An explanation of these variables can be seen in Table 1.

This study uses univariate and multivariate analysis. Multivariate analysis is used to see the relationship between the use of modern contrast and various characteristics. In the multivariate analysis, we have used the multivariate logistic regression test. Where the independent variable in this study is the type of contraception used, while the dependent variable is socioeconomic status, age, education, occupation, and number of children. The analysis tool uses multivariate logistic regression test with a significant level at $p \leq 0.05$. This study has been approved by Ethic

Committee of Universitas Pembangunan Nasional (UPN) Veteran Jakarta (No. 2730/VII/2020/KEPK).

RESULTS

Respondent characteristics

Around 73.3% of the extremely poor women are in rural communities, compared to 67.5% of moderately poor women and 62.8% of women with better socioeconomic status (table 2). By age, 53.1% were women aged 35-49 years, around 41.9% were aged 22-34 years and only 5.0% were aged 15-21 years.

There are still many women who have low education, both in the lowest socioeconomic groups and better. Extremely poor women who did not complete primary school were 16.4% and those who graduated from elementary school were 41.8%. Moderately poor women who did not complete primary school were 12.6% and those who graduated from elementary school were 38.5%. Meanwhile, women with better socioeconomic conditions who did not complete primary school were 10.7% and those who graduated from elementary school were 34.9%. Of these women, 36.4% worked and 63.6% worked with different variations based on socioeconomic status.

Most poor women have children less than 3 people (83.3%), 13.6% have children 3-5 people and 3.1% have children more than 5 people. The rate of use of contraception in poor women reaches 52.5%, most using modern methods of contraception. As many as 47.5% of all poor women not use contraception (see Table 2).

Contraceptive use and method

The use of traditional methods is minimal, only 2.5% of total poor women use it in urban communities and 2.9% in rural communities. Overall, three-quarters of total poor women in both urban and rural communities use SARCs (injectable, pill, and condom). The most used type is injection, in urban communities at 56.2% and in rural communities at 54.2%. At a glance, the data indicate that among the SARCs' methods, the use of injectable is higher in urban than rural areas, while the use of pills is higher in rural than urban areas. Meanwhile, the use of condom is similarly very low in both areas.

The share of poor women who use LARCs (female sterilization, male sterilization, IUD, and implant) is 21.6% in urban communities and 18.9% in rural communities. There are different types of LARCs used by poor women between urban communities and rural communities. Urban poor women prefer IUDs (8.3%) while rural poor women choose implants (8.7%). However, the use of implants in the extreme poor group in urban communities is 0.7 percentage point higher, at 9.7%, compared to 9.0% in the extreme poor group in rural communities.

Table 1: Variables used in this study

Variables	Meaning	Categories
Contraceptive use	Married women from the poor group who have/currently used contraception or traditional methods to delay or prevent pregnancy	<ol style="list-style-type: none"> 1. Yes 2. No
Type of contraception	Contraceptives or traditional methods used by poor women to delay or prevent pregnancy	<ol style="list-style-type: none"> 1. Female sterilization 2. Male sterilization 3. IUD 4. Implant 5. Injectable 6. Pill 7. Condom 8. Rhythm 9. Breastfeeding pregnant 10. Other
Sources of obtaining contraception	The last place a poor women gets contraception	<ol style="list-style-type: none"> 1. Hospital (public & private) 2. Public health center 3. Doctor healthcare 4. Midwife healthcare 5. Pharmacy/drugstore 6. Other
Reason for not using contraception	Main reasons of poor women not using contraception	<ol style="list-style-type: none"> 1. Fertility-related 2. Disagree with contraception 3. Don't know how to use contraception 4. Health-related 5. Other
Socioeconomic status	Economic condition of poor women calculated based on per capita expenditure per day, which is less than US\$ 1.9	<ol style="list-style-type: none"> 1. Extremely poor 2. Moderately poor 3. Better off
Community	A poor woman's residence	<ol style="list-style-type: none"> 1. Urban 2. Rural
Age	Age of poor women (years)	<ol style="list-style-type: none"> 1. 15-21 2. 22-34 3. 35-49
Education	Education of poor women	<ol style="list-style-type: none"> 1. < Complete primary 2. Complete primary 3. > Complete primary
Employment status	Employment status of poor women	<ol style="list-style-type: none"> 1. Currently employed 2. Unemployed
Number of children	Number of children owned by poor women (people)	<ol style="list-style-type: none"> 1. < 3 2. 3-5 3. > 5

Table 2: Characteristics of respondent, and specific subgroups, by socioeconomic status

Characteristic	All (n=20,642)	Extremely Poor (n=4,816)	Moderately Poor (n=5,268)	Better off (n=10,558)
Communities n(%):				
Urban	6,936 (33.6)	1,285 (26.7)	1,712 (32.5)	3,927 (37.2)
Rural	13,706 (66.4)	3,531 (73.3)	3,556 (67.5)	6,631 (62.8)
Age (years) n(%):				
15-21	1,032 (5.0)	298 (6.2)	258 (4.9)	475 (4.5)
22-34	8,649 (41.9)	2,094 (43.5)	2,228 (42.3)	4,328 (41.0)
35-49	10,961 (53.1)	2,424 (50.3)	2,782 (52.8)	5,755 (54.5)
Education n(%):				
< Complete primary	2,580 (12.5)	790 (16.4)	663 (12.6)	1,129 (10.7)
Complete primary	7,720 (37.4)	2,013 (41.8)	2,028 (38.5)	3,684 (34.9)
> Complete primary	10,342 (50.1)	2,013 (41.8)	2,577 (48.9)	5,745 (54.4)
Work status n(%):				
Currently employed	7,513 (36.4)	1,816 (33.8)	1,875 (35.6)	4,001 (37.9)
Unemployed	13,129 (63.6)	3,000 (66.2)	3,393 (64.4)	6,557 (62.1)
Number of children born n(%):				
< 3	17,194 (83.3)	3,992 (82.9)	4,435 (84.2)	8,763 (83.0)
3-5	2,807 (13.6)	669 (13.9)	674 (12.8)	1,467 (13.9)
> 5	641 (3.1)	155 (3.2)	159 (3.0)	328 (3.1)
Contraceptive use and method n (%):				
Modern	10,642 (51.1)	2,383 (49.5)	2,702 (51.3)	5,447 (51.6)
Traditional	288 (1.4)	62 (1.3)	89 (1.7)	147 (1.4)
Nonuse	9,712 (47.5)	2,371 (49.2)	2,477 (47.0)	4,964 (47.0)

The use of male sterilization contraception is still minimal among poor women. Only 0.4% of the total poor women in urban areas and 0.3% in rural areas use this type of contraception. Compare with female sterilization, the share of male sterilization is very low, with the discrepancies of 3 percentage point in rural and 4 percentage point in urban area. This data could be an indication that gender issue still plays an important role in contraceptive use, because women are still the main actors involved in contraceptive use (see Figure 1).

Reasons for not using contraceptive

The study found that there were still around 47.5% of the total poor women who did not use contraception (see Table 2). As can be seen in Figure 2, the main reason is still wanting to have children (fertility-related). In urban communities the number reaches 33.1%, whereas in rural communities it is 30.6%. Poor women who do not use contraception are still worried about the side effects of contraception to health (health-related). They cite this as the reason. Around

17.6% of the total poor women in urban communities cite the reason for health impacts as a factor that causes them not to use contraception. The share of women who worried about health related impact of contraception is higher in rural communities (18.3%).

Sources of modern contraceptive

Access to contraceptive services is a major factor that increases contraceptive use, especially among poor women. Limited access and the inability of poor women to pay for contraception are factors that influence the level of contraceptive use. The study found that almost half of poor women who use contraception find it in midwife practice. The figure is higher in urban communities (46.8%) than in rural communities (44.1%). More than a quarter of poor women who use contraception get it at a public health center (Puskesmas). Figures in rural communities (31.7%) are higher than in urban communities (28.7%) (see Figure 3).

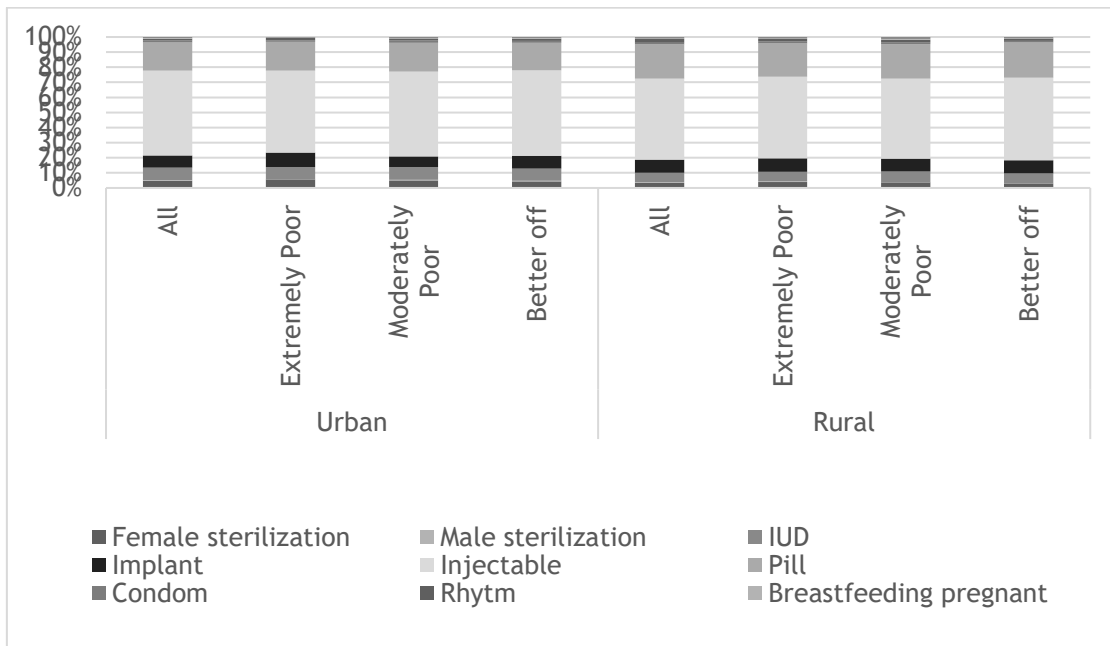


Figure 1: Distribution of currently married women using contraceptives, by type of method, according to socioeconomic status

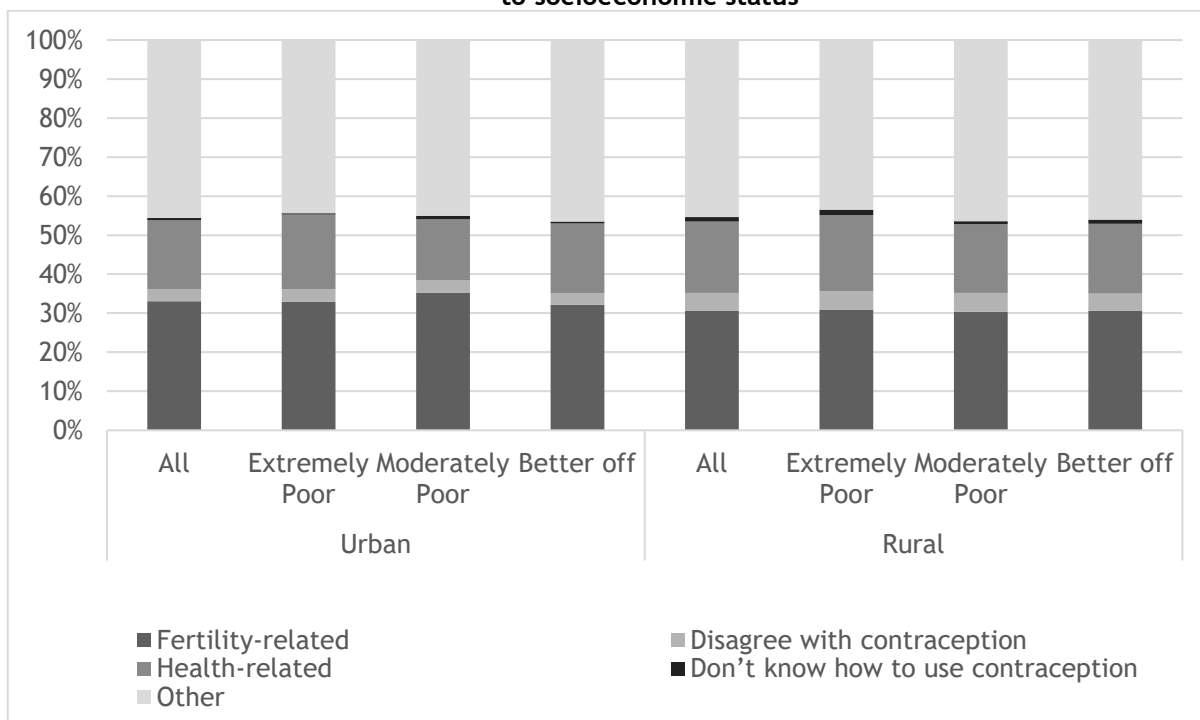


Figure 2: Percentage reporting specific reasons for not using contraceptives, according to socioeconomic status

Poor women in both urban and rural communities still rely on midwife practices and public health centers to obtain contraceptives. In Indonesia, the two health services are the easiest and

cheapest to reach by the community. Especially for poor women, contraception services at public health centers are free of charge.

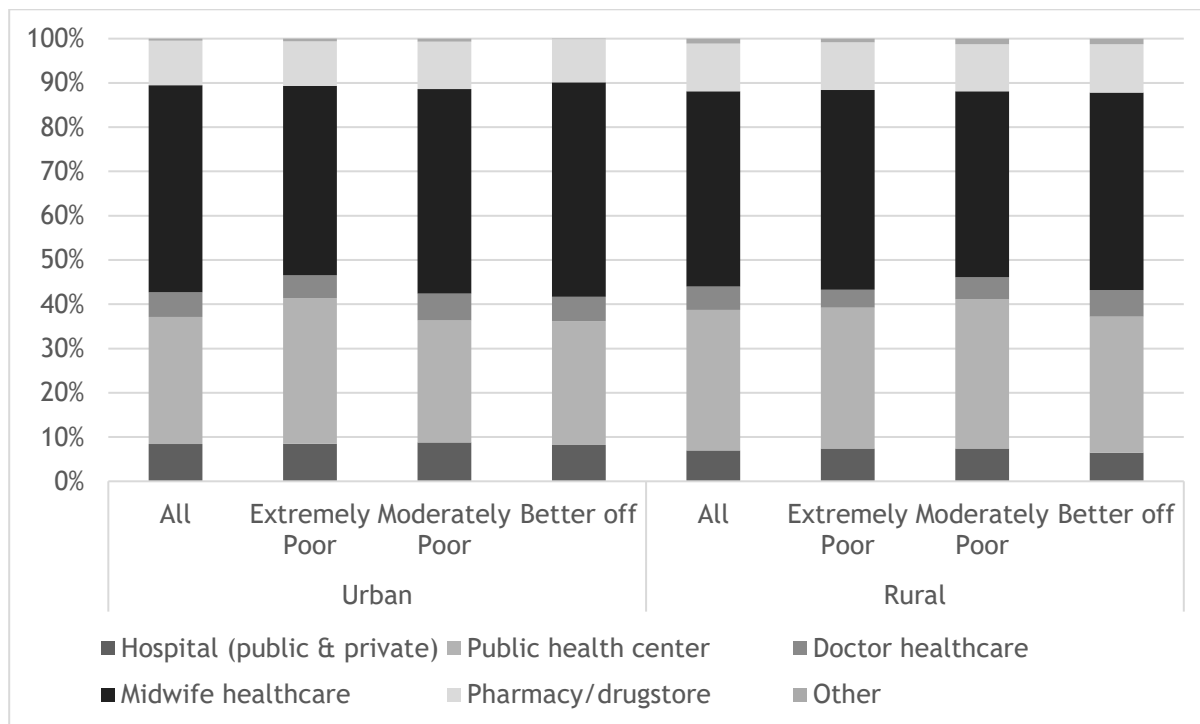


Figure 3: Percentage distribution of currently married women using modern contraceptives, by source of last method, according to socioeconomic status

Factor associated with modern method use

From the results of multivariate logistic regression analysis, a significant positive relationship between socioeconomic status and contraceptive use with modern methods among urban communities and rural areas was found, with OR = 0.92 (0.85-0.99). The extremely poor women are more likely to use modern contraception than the

moderately poor and the better off ones. A significant positive relationship was also found between working poor women and the use of contraception with the modern method in urban communities with OR = 1.14 (1.01-1.28). Poor women who work in urban areas are more likely to use modern contraception than poor women who do not work (see Table 3)

Table 3: Odds ratios from multivariate logistic regression analysis assessing the association between use of modern contraceptive methods by selected characteristics

Characteristic	Urban OR (CI 95%) (n=6,926)	Rural OR (CI 95%) (n=13,176)	Urban and Rural OR (CI 95%) (n=20,642)
Socioeconomic status			
Extremely poor (ref)	1.00	1.00	1.00
Moderately poor and better off	0.96 (0.83-1.11)	0.92 (0.84-1.01)	0.92 (0.85-0.99)*
Age			
15-21 and 35-49 (ref)	1.00	1.00	1.00
22-34	1.06 (0.95-1.19)	1.03 (0.95-1.11)	1.04 (0.98-1.12)
Education			
< Complete primary (ref)	1.00	1.00	1.00
Complete primary or above	0.912 (0.75-1.10)	0.97 (0.86-0.1.08)	0.94 (0.85-1.03)
Work status			
Not currently employed (ref)	1.00	1.00	1.00
Currently employed	1.14 (1.01-1.28)*	0.92 (0.85-1.00)	0.99 (0.93-1.06)
Number of children born			
< 3 (ref)	1.00	1.00	1.00
3 or above	0.87 (0.74-1.02)	1.09 (0.98-1.21)	1.03 (0.94-1.12)

Note: * significance at $p \leq 0.05$

DISCUSSION

Poverty is still a major problem in Indonesian development. Despite having a significant economic growth rate and being a middle-income

country, Indonesia still has a weak socioeconomic structure²¹⁻²². The proportion of people whose income is below the IPL remain high²³. Poor

people still encounter many barriers in accessing health services, including contraception services^{7,24-25}.

The family planning program in Indonesia has also suffered a setback since the Indonesian government adopted a decentralized governance system⁷. The authority devolved to local governments is not implemented optimally. Many local governments do not put family planning program as a priority program²⁶. As a result, it decreases funding for contraceptive programs in the community, hence the reduction of contraceptive services provided by the government to community²⁷. This causes CPR to fall and TFR to rise after decentralization³⁻⁵.

Poor women are a high-risk group for reduced access to services and contraceptive financing.⁷ The findings of this study prove it, CPR in poor women is only 52.5%, far lower than the average CPR in Indonesia which reached 63.6%¹⁷. Where three-quarters of contraceptive users among poor women access it at midwife practice and public health centers. Both contraception services provide services at a low cost and are easily accessed by poor women²⁸⁻³⁰. However, at present, these services provide less contraceptive services and are more difficult to access than before decentralization^{7,10}.

SARCs are the type of contraception most used by poor women, especially injections and pills. This is a rational choice, because SARCs are inexpensive, have easy access, and have fewer side effects than LARCs³¹. Based on the 2017 Indonesian Demographic and Health Survey, the average cost incurred for getting injection type contraception (IDR 24,000/US\$ 1.77) and pills (IDR 10,500/US\$ 0.77) while female sterilization (IDR 2,464,500/US\$ 182.55), male sterilization (IDR 1,131,000/US\$ 83.77) and IUD (IDR 396,500/US\$ 29.37)¹⁷. SARCs have a weakness. It is easier for the users of SARCs to discontinue their contraceptive use²⁸. In fact, the number of unsustainable contraceptive use in Indonesia is increasing every year⁴.

The choice of contraceptive method is influenced by the work of poor women, particularly in urban areas. Poor women who work have a greater chance of using contraception with the modern type of method compared to poor women who do not work. The former group has access to the modern method because they are more able to pay and services and contraceptives are more available in urban areas. Thus, there are less constraints for poor women who work to access and use contraception with the modern type of method compared to poor women who do not work.

Overall, socioeconomic conditions influence the use of contraception with the modern type of method. Interestingly, women who are

categorized as extremely poor are more likely to have access to contraceptive use with the modern type of method than the moderately poor and better off women. The lack of contraceptive financing by the government make the government to prioritize contraceptive services for the poorest groups. In Indonesia, the poorest groups are provided subsidies through the national health insurance program (JKN-PBI)³². They can access health services, including contraception services by using the program. Unfortunately, this study has not yet reached the analysis of the use of JKN-PBI on contraceptive services for the poor.

This study has succeeded in providing a comprehensive analysis of the use of contraception among poor women in Indonesia, complete with its characteristics and various problems. There has not been much research like this done and we have done it well. However, we recognize that there are still many shortcomings in this study. We did not explore the research findings by directly interviewing key informants, such as poor women, health workers and policy makers. In fact, the interview is very important to strengthen the analysis in this study.

CONCLUSIONS

CPR in poor women is low because of limited access to contraceptive services. They are very dependent on the cost of cheap contraception provided by the government, especially contraception services in midwife practices and public health centers. When contraceptive services are not optimally supported by the government, the implication is that contraceptive use decreases in poor women. Three-quarters of total poor women use SARCs, because they are cheap and easy to access. However, the use of SARCs has a risk i.e. the discontinuation of contraceptive use. Government support is required to improve contraceptive services for poor women. The government should increase the financing of contraception and to socialize the use of LARCs so that more poor women can access the means for birth control.

Conflict of interest

The authors have no conflict of interest to declare for this study.

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