Contraceptive Use among the Poor in Indonesia

IDHS 2007

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July 2010

DECLARATION

I certify that this thesis does not incorporate, without acknowledgment, any material previously submitted for a degree or diploma in any educational institution; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due to reference is made in the text.

Adelaide, July 2010

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ACKNOWLEDGEMENT

First of all, I want to express my special thanks to the National Family Planning and Coordinating Board (BKKBN) for their sponsorhip of this scholarship and the opportunity to learn at the Flinders University of South Australia.

Secondly, I would like to gratefully express my deep appreciation to my Course Coordinator, Dr. Gour Dasvarma, for his encouragement, support and patience in assisting me during my learning process at Flinders University. I also wish to express my sincere thanks to my supervisor, Dr. Udoy Sankar Saikia, for his assistance in the completion of this thesis.

I want to express my special gratitude to Mr. Robert Keane of the School of Geography, Population and Environmental Management, Flinders University, for his assistance in analysing the data used in my thesis. My genuine thanks to Dr. Denise MacLeod for her contribution in editing the English language in each chapter of this thesis.

Thirdly, I would warmly like to thank all my friends from the first to the last batch for their friendship during my studies in Adelaide. I would like to express my gratitude to Maria (second batch) for sharing her knowledge, support and for being the sweetest sister during my studies in Adelaide. I am heartily thankful to the family members of the *Indonesian Community Choir (ICC*) for the memorable experience of Praising The Lord

through singing. Moreover, I want to express my sincere gratitude to Nanda and Nia for their warm and memorable friendship during my last semester. Special thanks to Lina who has taught me how to use SPSS and also for sharing her opinion. I also want to express my sincere thanks to Juleha for teaching me how to interpret the results of the multivariate analysis.

Lastly, my warmest affection and all my gratitude must go to my parents Hendrikus Rambing and Angelina Lay Shio Nhu who have always prayed, supported, loved and motivated me to do things that I thought were impossible for me to do. I want to express my warm thanks to my sister (Desy) and brother (Deny) for their love and support. Also, to my special friend *Alie* who has always been around me to encourage, support, love and pray for all the best for me. To them I dedicate this thesis.

ABSTRACT

This study examines several demographic, socioeconomic, and programmatic characteristics or factors that influence the current contraceptive use among the poor (lowest level of economic condition as expressed through wealth index) in four provinces of Indonesia, Bangka Belitung, Papua, West Papua, and Maluku. It uses secondary data obtained from the 2007 Indonesia Demographic Health Survey (IDHS). The bivariate and multivariate regression techniques were used to analyse the data.

The bivariate analysis demonstrated that demographic, socioeconomic, and programmatic factors which have influenced the use of contraceptive among women with low income were: the number of living children; women's desire for more children; their husbands' desire for more children; exposure to mass media; husbands' occupation; husbands' education; women's education,; knowledge about methods of contraception; husband approval for family planning; and access to health facilities. However, the results of the multivariate regression showed that among those ten factors found significant in bivariate analysis, there were only four variables that had an effect on low income women's current use of contraceptive methods. These variables included: the number of living children; women's desire for more children; husbands' occupation; exposure to mass media (television); and husbands' approval.

Based on the findings this research recommends that the family planning programs' effort should further encourage small family norms in low income families. There is an urgent need for the family planning programs to give special emphasis to strengthening information, education, and communication (IEC), through the mass media, such as television. This would encourage and motivate not only the women's, but also the

husbands' acceptance of contraceptive methods and would increase their practice of contraceptive methods.

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CHAPTER I

INTRODUCTION

1.1. BACKGROUND OF THE STUDY

In the second half of the twentieth century most developing countries experienced a widespread increase in the use of contraception (Gakidou & Vayena 2007, p. 0382). The increases in use of contraception in less develop countries were due to several factors such as access to modern contraception. The better access on contraceptive use was related to both the micro and macro economic factors such as women's education, income of the families, and government and other providers' involvement in making contraceptive services available (Gakidou & Vayena 2007, p. 0382). In the 1960s, approximately nine percent of married women in the developing world practiced several forms of family planning. In recent years however, 62% of married women worldwide use contraceptive methods, but in developing countries only 43% of women use modern contraceptive methods (Creanga et. al., p. 3). Furthermore, this latter figure in developing countries declined to 35% between the poorest quintile and increased to 52% among the wealthiest quintiles (Creanga et. al., p. 3). The differences in contraceptive use between these two groups occurred even when economic conditions globally increased and family planning service expanded (Gakidou & Vayena 2007, p. 0386).

In Indonesia, efforts to make modern contraception accessible to all Indonesian families have been promoted since the National Family Planning Coordinating Board (NFPCB) was established in the 1970s (Schoemaker 2005, p. 106). Moreover, the NFPCB program has contributed to a rapid rise in the Contraceptive Prevalence Rate (CPR) from 26% in 1976 to 60% in 2002. However in a five year period between 2002 to 2007 the CPR in Indonesia only increased from 60% to 61% and the Total Fertility Rate remained stagnant at 2.6% (CBS & Macro, 2007).

In urban areas in Indonesia the Total Fertility Rate is lower than their rural counterparts at 2.3 and 2.9% respectively per lifetime births (CBS & Macro 2007, p. 51). Also, contraceptive use is higher in urban areas (63%) than it is in rural areas (61%) (CBS & Macro 2007, p. 74). The same conditions also appear in the highest and lowest quintile of wealth index, where 64% of currently married women in the highest quintile of wealth index practice contraceptive use compared to the lowest quintile of wealth (53%) (CBS & Macro 2007, p. 75). On the other hand, in the 2002-2003 IDHS (Indonesia Demographic Health Survey), the corresponding proportion of contraceptive use of currently married women among the lowest and highest quintile were 52 and 64% respectively. The IDHS states that generally, 'contraceptive use of family planning increases with increasing wealth quintile, but the gap seems to be narrowing' (CBS & Macro 2007, p. 75). On the contrary, in several provinces in Indonesia the gap in contraceptive use among different strata of society is still significant (Table 1.1).

Table. 1.1: Wealth index in 3 groups * using not using Cross tabulation

Area No	Provinces	Poor	Middle	Rich	GAP between rich and poor in use of contraception
		Use	Use	Use	
11	Aceh	45.2%	51.2%	51.0%	5.8%
12	North Sumatera	46.1%	58.8%	61.3%	15.2%
13	West Sumatera	64.4%	49.1%	60.1%	-4.3%
14	Riau	60.2%	54.7%	53.9%	-6.3%
15	Jambi	61.9%	60.8%	73.3%	11.4%
16	South Sumatera	61.7%	72.6%	64.0%	2.3%
17	Bengkulu	75.7%	77.8%	69.5%	-6.2%
18	Lampung	68.7%	71.6%	74.7%	6.0%
19	Bangka Belitung	74.6%	63.4%	64.6%	-10.0%
21	Kep, Bangka Belitung	60.0%	59.3%	55.6%	-4.4%
31	DKI Jakarta	66.7%	62.8%	59.5%	-7.2%
32	West Java	57.3%	61.0%	62.6%	5.3%
33	Central Java	59.7%	65.5%	66.2%	6.5%
34	DI Jogya	68.9%	65.2%	67.0%	-1.9%
35	East Java	66.8%	64.1%	66.5%	-0.3%
36	Banten	51.5%	51.2%	62.7%	11.2%
51	Bali	72.4%	70.0%	68.3%	-4.1%
52	West Nusa Tenggara	53.5%	54.6%	57.5%	4.0%
53	East Nusa Tenggara	39.4%	52.5%	56.0%	16.6%
61	West Kalimantan	62.0%	68.5%	60.8%	-1.2%
62	Central Kalimantan	66.3%	75.8%	59.5%	-6.8%
63	South Kalimantan	65.4%	58.1%	68.0%	2.6%
64	East Kalimantan	57.0%	59.8%	61.6%	4.6%
71	North Sulawesi	67.6%	74.4%	67.6%	0.0%
72	Central Sulawesi	65.5%	59.6%	58.3%	-7.2%
73	South Sulawesi	49.8%	56.7%	60.4%	10.6%
74	South East Sulawesi	49.7%	44.4%	60.5%	10.8%
75	Gorontalo	59.2%	64.7%	59.4%	0.2%
76	West Sulawesi	43.5%	52.6%	47.4%	3.9%

81	Maluku	27.5%	45.0%	48.6%	21.1%
82	North Maluku	46.4%	48.0%	55.6%	9.2%
91	West Papua	28.6%	46.7%	53.8%	25.2%
94	Papua	30.6%	58.8%	57.1%	26.5%
Indonesia		58.40%	62.40%	63.70%	5.30%

Source: CBS & Macro 2007

Based on the table above, it can be seen that the use of contraception by the poor remains low. For instance, in Papua the gap between the poor and better off in terms of contraceptive use is greater (26.5%). Moreover, West Papua and Maluku also show the same situation where the better off women tend to practice using contraceptives as opposed to the poor. However, Bangka Belitung offered a unique case where 75% of poor women used contraception compared with 65% in their better off counterparts. This study will discuss these selected provinces, Papua, West Papua, Maluku, and Bangka Belitung rather than Indonesia as a whole.

The awareness regarding the importance of contraception in Indonesia today still needs to be considered as a priority to prevent a population explosion in Indonesia in 2015. Currently, a population explosion is one of the global problems that have arisen in the world, in addition to several other issues such as global warming, the economic downturn, the problem of food and declining levels of the population's health. Fears of a population boom in 2015 have pushed the Indonesian government into formulating several important policies. A large population without adequate quality becomes a burden for the government to develop nationally and improve economic growth. In Indonesia, the national development program,

Family Planning (KB), has a very important meaning in the realization of a prosperous Indonesian population, in addition to education and health programs. Based on quantity, the Indonesian population is classified as very large; in terms of quality, however, it still lags behind other countries.

Most demographic studies in less developed countries found that the socioeconomic status and contraceptive use have always had a strong correlation to each other (Schoemaker 2005, p. 107). One explanation for this is that people on a low income are less likely to have lower contraceptive use because of their economic conditions and geographic isolation which makes it difficult to practice contraceptive use (Schoemaker 2005, p. 107). For instance, in an urban Moroccan slum, the husband's income becomes the most important influence in the wife's attitudes towards fertility and pregnancy (Mamdani et al. 1993, p. 8). Moreover, low income women tend to have low contraceptive use because they consider children as the most valuable asset and they value large families (Schoemaker 2005, p. 107). For instance, in outer Indonesia which is characterized by agricultural areas, a large number of children are desired to help with work in the fields. This becomes one reason for lower contraceptive use in these areas (Bonaparte 2009, p. 23). In addition, a financial limitation would have a direct effect on the ability of the poor to obtain contraceptives because most family planning services were provided at a cost by private sources (Mamdani et al. 1993, p. 8).

1.2 SIGNIFICANCE OF THE STUDY

For this study poverty has been conceptualized in terms of income, and below poverty line is defined as anyone who is living below a daily consumption of US$ 1 (World Health Organization 2002, p. 1). Poverty line indicates the cost of satisfying the daily basic per capita food and nonfood items (Asra et. al., 2001, p. 1). Poverty line is the starting point of poverty analysis and serves as a standard to differentiate between poor and the wealthier (Asra et. al., 2001, p. 1).

The number of poor people in Indonesia in March 2008 was 34.96 million people (15.42%). If this is compared with the poor population in March 2007, which amounted to 37.17 million people (16.58%), it means that the number of poor declined by 2.21million people (Badan Pusat Statistik 2008, p. 1). Based on the March 2008 poverty rate by province (Table 2), there are nine provinces which have a percentage of poor people that are relatively lower (the numbers below 10 per cent) than the national average. The nine provinces are: Jambi, Bangka Belitung, Kepulauan Riau, DKI Jakarta, Banten, Bali, Central Kalimantan, South Kalimantan and East Kalimantan (Badan Pusat Statistik 2008, p.3). The two provinces which, in March 2008, had the largest percentage of poor residents are Papua (37.08%) and West Papua (35.12%) (Badan Pusat Statistik 2008, p. 4).

Table 1.2: Percentage of Population Below the Poverty Line by Province, 2006-2008

	Province	2007	2008
1	Nanggroe Aceh Darussalam	26.65	23.53

2	North Sumatera	13.90	12.55
3	West Sumatera	11.90	10.67
4	Riau	11.20	10.63
5	Jambi	10.27	9.32
6	South Sumatera	19.15	17.73
7	Bengkulu	22.13	20.64
8	Lampung	22.19	20.98
9	Bangka Belitung	9.54	8.58
10	Kep. Riau	9.54	8.58
11	DKI Jakarta	10.30	9.18
12	West Java	4.61	13.01
13	Central Java	20.43	19.23
14	DI Yogyakarta	18.99	18.32
15	East Java	19.98	18.51
16	Banten	9.07	8.15
17	Bali	6.63	6.17
18	West Nusa Tenggara	24.99	23.81
19	East Nusa Tenggara	27.51	25.65
20	West Kalimantan	12.91	11.07
21	Central Kalimantan	9.38	8.71
22	South Kalimantan	7.01	6.48
23	East Kalimantan	11.04	9.51
24	North Sulawesi	11.42	10.10
25	Central Sulawesi	22.42	20.75
26	South Sulawesi	14.11	13.34
27	Southeast Sulawesi	21.33	19.53
28	Gorontalo	27.35	24.88

29	West Sulawesi	19.03	16.73
30	Maluku	31.14	29.66
31	North Maluku	11.97	11.28
32	West Papua	39.31	35.12
33	Papua	40.78	37.08
	Indonesia	16.58	15.42

Source: Badan Pusat Statistik, 2008.

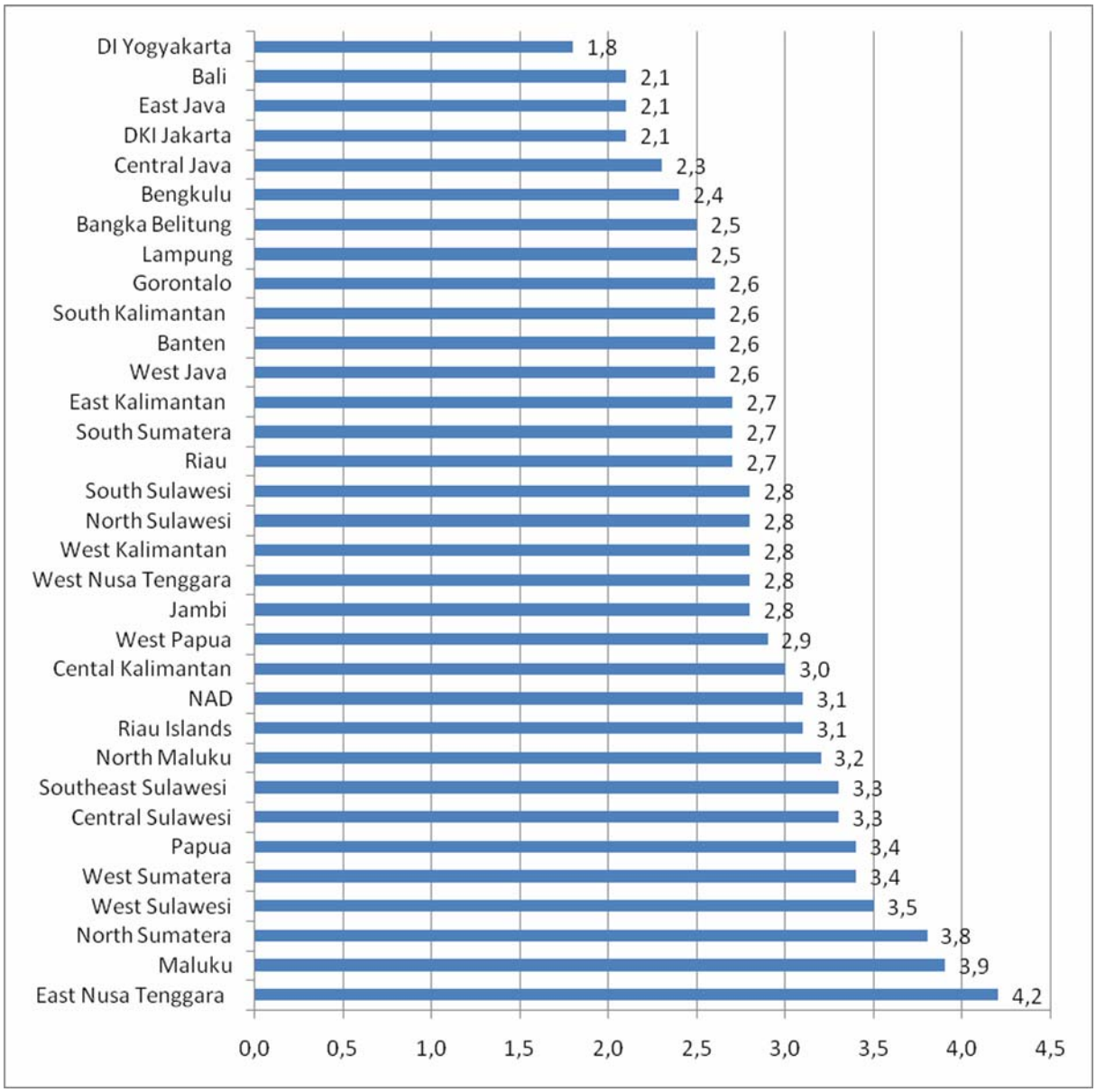
Poverty is always associated with the question of equity, access and quality of family planning and reproductive health services. This is due to several reasons. First of all, family planning and reproductive health services, especially the availability of contraception in poor areas, are often not widely available. Secondly, it is difficult for family planning services in reaching remote areas or isolated islands. Thirdly, there are inadequate trained personnel. Fourthly, there is a lack of both funds and equipment. Lastly, there is the issue of transportation costs to the services that are not affordable for the poor.

The first point of Policy Direction of the National Family Planning Program is to broaden the access to services to meet client needs, especially the poor, the provision of free contraception for poor families are still the responsibility of the government (National Family Planning Coordinating Board), whereas for the better-off society it is expected for them to obtain the contraceptives independently. However, in reality many poor people still have to pay for the contraception, 95% of the of the poorest women paid for their short term hormonal methods and 60% paid for their long term methods (Schoemaker 2005, p. 112). Moreover, poor women

paid as nearly as much as wealthier women for short term hormonal methods (Schoemaker, 2005).

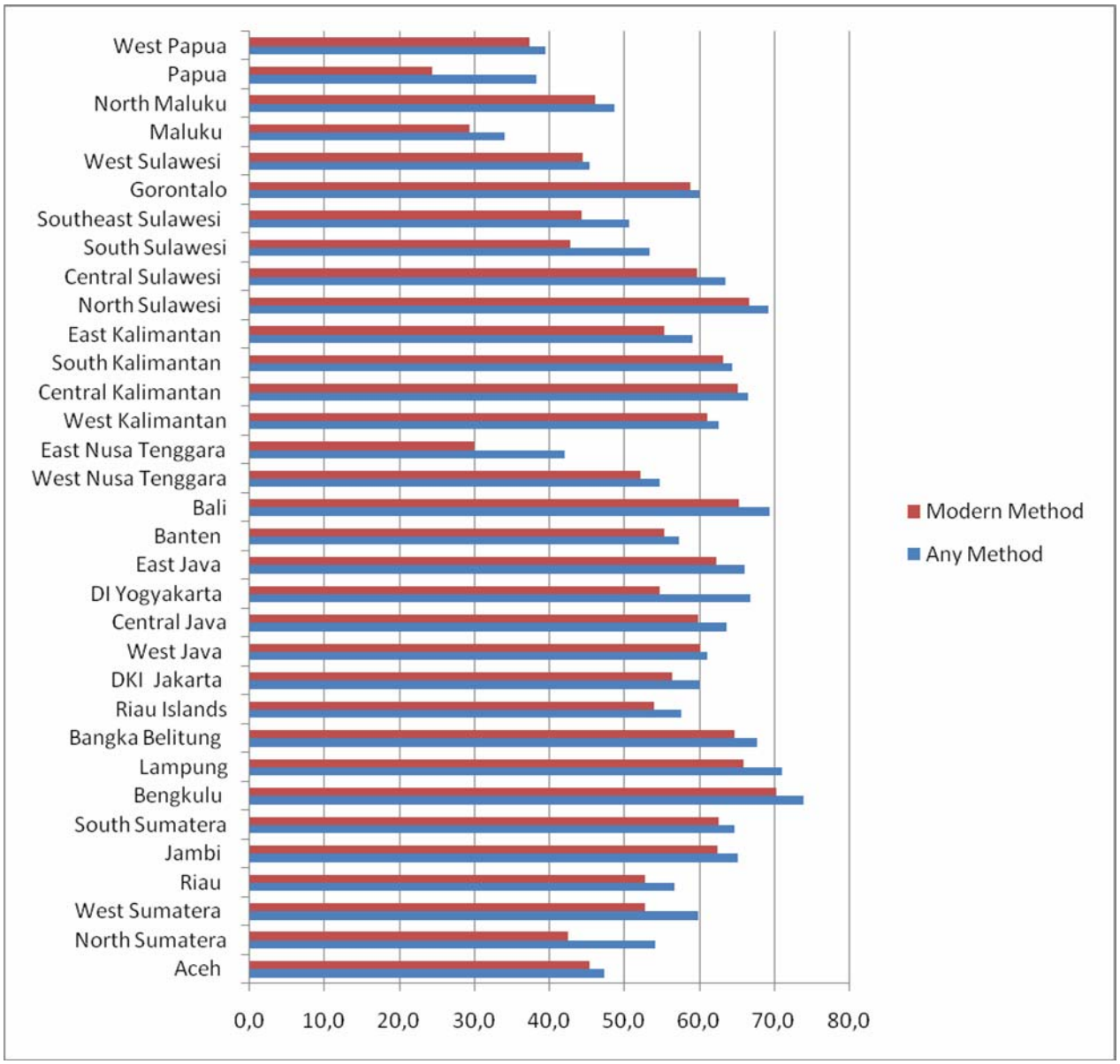
Although TFR trend in Indonesia has shown overall decline (though shown some stagnancy in recent years) however, the ideal objective of TFR which is 2.1, has not been yet reached. In addition TFR varies greatly among regions, according to the social and economic status. IDHS 2007 results (figure 1.1) show that Yogyakarta province had the lowest TFR (TFR=1.5) in and East Nusa Tenggara had the highest TFR (TFR=4.2) and Maluku (3.9 per lifetime births). While, the TFR of Papua (3.4) and West Papua (2.9) is consider higher than the National TFR (2.6). On the other hand, the total fertility rate in Bangka Belitung is lower than the National TFR, 2.5 per lifetime births respectively. The average number of children of poor women is higher (4.2 per lifetime births) than wealthier women (3.0 per lifetime births) (CBS & Macro 2007, p. 51). Furthermore, the average number of children of women with low education is higher (4.1 per lifetime births) than women with higher education (2.7 per lifetime births).

Figure 1.1 Total fertility Rate (TFR) by Province



Source: CBS & Macro 2007, p. 50

Figure.1.2 Contraceptive Prevalence Rate (CPR) By Province



Source: CBS & Macro 2007, p. 266.

The contraceptive use prevalence (CPR) in provincial level remains low and varies between each province and between social status. Based on data of IDHS 2007, the lower CPR for any method of contraceptive use (Figure 1.2) are Maluku (34%), West Papua (40%), and Papua

(38%). On the other hand, the highest CPR is in five provinces namely Bengkulu (74%), Lampung (71%), Bali (69%), North Sulawesi (69%), and Bangka Belitung (68%). The contraceptive prevalence rate for modern method also higher among those five provinces and lower in Maluku, West Papua and Papua (figure 1.2). The differences or gap of CPR that occurs in provincial level indicate less uneven coverage of family planning programs throughout the regions. Efforts to improve equality in family planning and access to service in provincial level with high TFR, low CPR and the provision of free services of family planning for poor people is a challenge faced by National Family Planning and Coordinating Board. This study will contribute further to the research on the impact of in economic status of individual household (wealth index) on contraception. Moreover the analysis of the unique observation from Bangka Belitung (where the use of contraception among poor is higher than the rich) will strengthen the understanding of the relationship between economic status and contraceptive use. The findings of this study will be useful for policy makers, researchers, providers, and field workers in developing and implementing future research and policy.

1.3 THE RESEARCH QUESTION

The questions that would be addressed in this research is what factors influence the use of contraceptive methods among the poor women in Bangka Belitung, Papua, West Papua, and Maluku?

1.4 HYPOTHESES

1. The use of contraception is lower among the low income women.

2 The better levels of contraceptive use among the low income women are depend on several factors.

1.5 OBJECTIVES OF THE STUDY

The objective of this study is to examine several demographic, socioeconomic, and programmatic factors that have effect on the current contraceptive use of the poor income women's in Bangka Belitung, Papua, West Papua, and Maluku.

1.6 METHODOLOGY

1.6.1. Data source

The data for this study were taken from the 2007 Indonesia Demographic Health Survey (IDHS 2007). There were four types of questionnaire used by the IDHS: the Household Questionnaire; Women's Questionnaire; Men's Questionnaire; and the Young Adult Questionnaire (IDHS 2007). In this study, the only two questionnaires that will be utilized are the Household Questionnaire and the Women's Questionnaire.

The basic information presented in the Household Questionnaire concerned the characteristics of selected households (age, sex, education, and occupation). On the other hand, the questions included in the Women's Questionnaire dealt with the respondents'

backgrounds, reproduction, knowledge and use of contraception, pregnancy, postnatal care and breastfeeding, marriage and sexual activity, fertility preferences, husbands' backgrounds, women's work, Human Immunodeficiency Virus /Acquired Immunodeficiency Syndrome (HIV/AIDS), and maternal mortality.

1.6.2. Data Analysis

(a) Units of analysis

The unit of analysis for this study is currently married women aged between 15 and 49 who were not pregnant and did not use modern methods or traditional methods of contraception.

(b) 1. Dependent Variables: Current use of contraception which is using and not using contraceptive methods.

2. Independent Variables: The independent variable that will be use in this study are: Women's age, place of residence, number of living children, women's desire for more children, women's occupation, women's education, husband's occupation, husbands' education, husbands' preffered number of children, exposure to mass media, decision-making in family planning that correlated with husband approval, access to family planning services that related to whether the women access the health facilities in 6 months and knowledge about any methods of contraception.

The single age variable was replaced by two age groups: 15-34 and 35-49. The majority of the women in the first group (15-34 years old) were likely to be more sexually active. The respondent's place of residence was either urban or rural. The number of living children was divided into three categories: two or fewer children; three or four; five or more. The women's and husbands' educational level was divided into two categories: no education, and primary or above. The women's desire for children was related to whether they wanted more children or not. These variable have five categories: If they want children within 2 years, they were coded 1, wants children after 2 years coded 2, wants children but unsure timing coded 3, undecided coded 4, and wants no more coded 5. While, husbands' desire for more children were categories into four: both want same, husband wants more, husband wants fewer, and don't know. Exposure to family planning is included in this study because many studies show that the message itself is strongly associated with contraceptive use. Respondents who recalled having seen or heard family planning messages in various electronic media sources during the last six months were considered to have been exposed to such messages. To assess the question of mass media, the respondent will be classified into two categories: not exposed, and exposed. The husband's view on family planning was based on his whether he approved or did not approve of contraceptive. Husbands' occupation were categories into three; not working, unskilled manual, and skilled manual. While women's occupation were replace by two categories: not working, and working. Access to health facilties were categories into yes or no answer.

c. Analysis

This study will use the Chi-Square Test (bivariate), Binary logistic regression (multivariate), and the odds ratio from multivariate logistic regression analyses to analyses of the dependent and independent variabels. Bivariate analysis is used to determine the correlation between two variables such as women's occupation with the percentage of current use of contraception through the use of the Chi-Square analysis. Moreover, this analysis will be used to determine the relationship between distant factors such as demographic, socioeconomic factors, and the family planning program with the proximate determinants such as knowledge about, and access to, family planning. Binary logistic regression analysis is used because dependent variables consist of two categories: women who are using and not using contraception. In addition, multivariate analysis examines a depth relationship between all demographic, socioeconomic and family planning variables and the percentage of current use of contraceptive methods.

1.7 ORGANIZATION OF THE STUDY

This study is divided into four chapters. The first chapter presents a brief introduction which covers the backgrounds, significance, research questions, objectives of the study and its methodology. The methodology comprises data sources, units of analysis and method of analysis. The second chapter reviews some of the literature and previous studies concerning the contraceptive use among the poor. The third chapter will present the results of the analysis in four provinces, Papua, West Papua, Maluku and Bangka Belitung. This chapter

will also present the result of the analysis using the multivariate logistic regression. Chapter four provides the conclusion of the study and contains the summary of major findings and the implications of those findings for future research and policy.

CHAPTER II

A REVIEW OF SELECTED LITERATURE ON

CONTRACEPTIVE USE

2.1 Introduction

Contraception is one method of birth control that can save women from experiencing unplanned pregnancy which may have serious consequences for women's reproductive health. Contraception can also play a significant role in terms of limiting, spacing and controlling fertility. Through contraception a women can increase the control of not only her fertility, but also of her pregnancies which allow women to have a better health care.

Several factors such as socieoeconomic, behavioural, cultural, programmatic and demographic factors may affect the decision of women to practice the use of contraceptive methods. Many studies have found that contraceptive behaviour is influenced by those factors. For instance, a recent study of an update of 1987 survey on the use of contraceptives in Sri Lanka strengthen the earlier finding that the demographic and socioeconomic characteristics were important factors in distinguishing both the users and non users of methods: those who use several type of contraceptive method were urban, Sinhalese, and better educated (Jayaraman 1995, p. 11). An overview of the previous studies related to the topic of contraceptive use among the poor in some developing countries will be discussed in this chapter.

2.2 Poverty and contraceptive knowledge and use

In many developing countries, the economic conditions of the poor have become one of the barriers in the adoption and practice of family planning programs. For example, the distance to the health facilities create a burden for the poor because it cost them some money to pay the transportation and not all of the contraceptive methods are free of charge which give an impact to the lower use of contraceptive methods. However, different countries have different variations in the relationship between socioeconomic conditions and contraceptive use. Also, the use of contraceptive methods varies from one country to another country. For instance, a study by Reddy (1984) in Hyderabad, India shows that contraceptive behaviour between the wealthier and poor women is determined by their socioeconomic position. This study found that the use of contraceptive methods was higher in wealthier groups (non-slum dwellers) than in lower income groups (slum dwellers). About 65% of the non-slum dwellers currently used a method of contraception compared with 32% of the slum dwellers. Moreover, the birth control method that was commonly used by both groups, but particularly for the slum dwellers, was tubectomy. Thus, as shown in Table 2.1, the adoption of bilateral tube ocllusion (tubectomy) as opposed to that of vasectomy by the poor (82%) was higher than for the non-poor (38%). The reason for the higher adoption of sterlization may be due to the existing rumour that vasectomy would cause impotency and affect the physical health of both the man (Reddy 1984, p. 119). On the other hand, vasectomy was the second most significant of contraceptive methods used by the non-slum dwellers. On the contrary, only condoms and the Intra-Uterine Device (IUD) were the temporary methods

used as birth control by slum dwellers (13%) and non-slum dwellers (16%). The lower usage of these temporary methods by the slum dwellers can be attributed to both lack of privacy and lack of knowledge of those methods. Also, there are fewer incentives given by the goverment for the use of temporary methods compared to those offered for the use of permanent methods. The traditional methods, especially herbal methods, were mostly used by the slum dwellers rather than the non-slum dwellers. In addition, this study also reveals that factors such as women's age, duration of marriage, and the number of living male children have a positive association with contraceptive use.

Table 2.1

Percentage distribution of current contraceptive users classified by contraceptive methods use (Hyderbad, India)

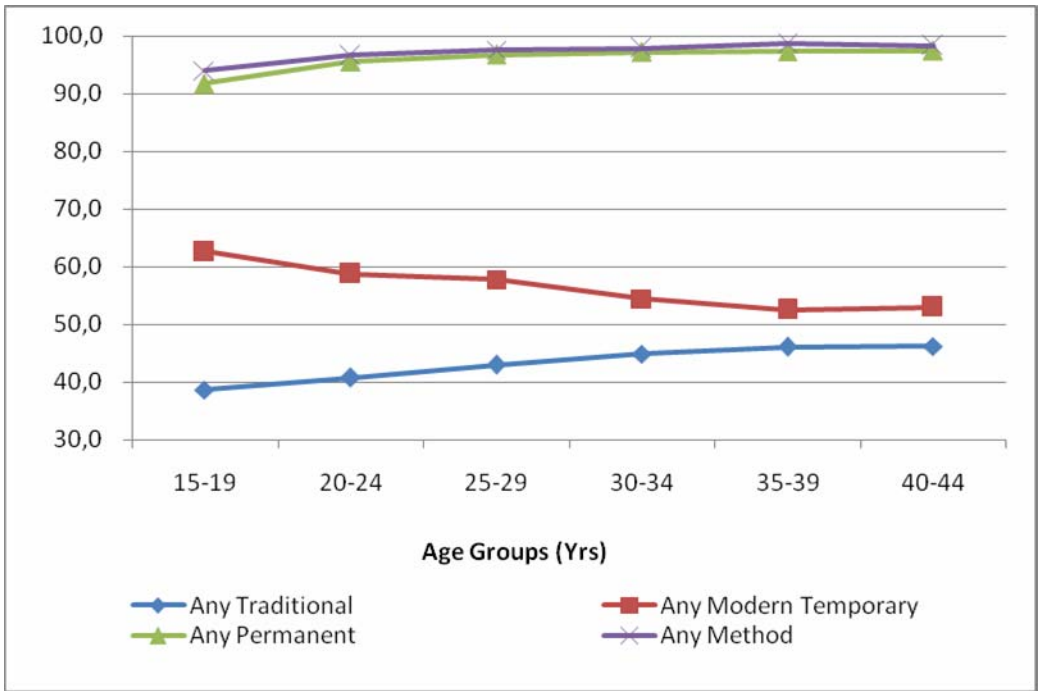
Contraceptive methods used	Percentage	
	Slum	Non-slum
Tubectomy	71.40	51.62
Vasectomy	13.00	32.25
Condom	1.30	10.97
IUD	1.30	4.52
Herbal methods	13.0	-
Safe Period	-	0.64

Source: Reddy 1984, p. 118

A study conducted by Sharma and Rani (2009) shows findings similar to the above studies. At least one method of contraception, specifically the sterilization method, was widely known among the tribal women, while, the knowledge about temporary methods of contraception was lower among tribal women (56.6%) compared to non-tribal women

(80.3%). The most well known temporary method of contraception of the tribal women was the pill (52.5%), followed by the condom (34.1 %) and the IUD (28.4%). Awareness of traditional methods, particulary herbs, was higher among tribal women (28.7%) than among non-tribal women (20.2%). The knowledge of birth control methods varied with the age of women. Also, the the knowledge regarding contraceptive methods was higher between the older age groups. For instance, about 94 % of women aged between 15 and19 and 98.3 % of women aged between 40 and 44 years years know of at least one method of contraception. Similarly the knowledge of permanent methods was higher in the older age group (97%) than it was in the younger age group (91.7%) (shown in Figure 2.1). The higher use of the sterilization method by tribal women was due to their poor economic conditions and the monetary incentives related to the sterilization. Another reason for the heavy reliance of tribal women on sterilization methods was that there was less motivation or attention for spacing methods given by the health workers to the clients. There was also a lack of knowledge regarding different kinds of birth control methods (Sharma & Rani 2009, p. 62).

Fig. 2.1: Knowledge of contraceptive methods by age of tribal women



Source Sharma & Rani 2009, p. 50

A study by Leon and Hernandez (1984) in rural Mexico is similar to both of the studies above in that 52% of poor people compared to 38% of non poor people have used a definitive contraceptive method such as tubectomy (Table 2.2). The most common temporary methods used by poor women were IUD (19%), pills (13%), and condoms (4%). However, the use of these temporary methods by poor women was lower than that of the wealthier women. The conditions where poor women had a higher use of these permanent methods were due to the lack of opportunity to practice using contraception at an earlier stage of their life. About 80% of poor women who underwent sterilization did so after they had had more than four children. In other words, poor women underwent sterilization after they had completed their

family size. In addition, the economic conditions of the poor, the low educational level and low parity were significantly associated with the absence of contraceptive use. More than 60% of rural women who were married and fertile met the abovementioned conditions.

Table 2.2

Percentage distribution of contraceptive users according to method use and poverty status

Method	Poor	Non-Poor	Total
Pills	12.7	12.8	12.7
IUD	18.7	23.0	21.9
Bilateral tube occlusion	51.7	38.0	41.3
Vasectomy	0.1	1.2	0.9
Injections	4.1	4.8	4.6
Condoms and spermicides	3.3	5.6	5.1
Traditional methods	13.4	14.6	13.4
Total	100	100	100

Source: Leon and Hernandez 1984, p. 307

Research by Onwzurike and Uzochukwu (1998) shows that of 334 Nigerian women, 98% were literate. They have a higher level of knowledge about (82%) and approval (86%) of

contraceptive methods, but their practice toward the use of them was low. More than 80% of these women knew one method of contraception, but only 20% practised family planning methods. The most common contraceptive method that had ever been used or was currently in use was safe period, followed by condoms, IUDs, and injections. Health workers were the familiar source of family planning information. In spite of their higher level of literacy, knowledge and approval of contraceptive methods, the lack of attention of their husbands toward family planning prevented them from practising use of contraception. This situation is the evidence of one important reason for the lower usage of modern contraceptive methods by those women.

According to Agha (2000), the delivery of different kinds of contraceptive methods through the public and private sectors will determine whether income has an important effect on the use of those methods. The current findings for condom and injection methods were consistent with the intrepretion mention earlier. For instance, an income of 2000–3999 rupees and an income higher than 3999 rupees triples the likelihood of current condom use if compared with an income of less than 2000 rupees. On the other hand, there was no association expected between income and use of the IUD. This is because the IUD was supplied through government sectors. Similiar to the case of IUD, there was no association among income and oral contraceptive methods because previously the oral contraceptive methods were mainly delivered by goverment sector, but nowdays they are sold by the private sectors. However for oral contraceptive methods the only factors that affect the

current use of the methods are the desire to not continue childbearing. To sum up, income is one factor that influences the deliverance of contraceptive methods.

2.3 Contraceptive Use in Indonesia

The increased use of family planning methods in Indonesia seems to be one of the determinants that influence the decrease of fertility. This condition reflects the success of the family planning program that was implemented by the National Family Planning Coordinating Board (BKKBN) (Rahayu et al. 2009, p. 1).

Several previous studies conducted by different scholars at the early stage of the expansion of the family planning program have focussed their attention at the provincial level especially in the Java and Bali region. The reason for selecting these two provinces may be due to the high use of contraceptive methods in both regions (Ross & Poedjastoeti 1983, p. 68). The other reason may be because the community based information and distribution systems function has successfully operated in both provinces (Lerman et al. 1989, p. 35). In the outer islands of Indonesia, however, the village administrative bonds are weaker which make the program design not easily reproduced (Lerman et al 1989, p. 35). Studies in those two regencies have explicitly examined the continuation and effectiveness of contraceptive methods in assessing the client's needs especially related to women's needs. For instance, a study conducted by Ross and Poedjastoeti (1983) found that East Java, Bali and other parts of Java had been affected by the revolution of modern contraception (supplied by a government program) than other outer provinces in Indonesia had been. Balinese women

continued to depend more on using the program methods of IUD (77%), while in Central and West Java, a sharp increase of the new clients chose injectables as their contraceptive method. However, in Kalimantan, Sulawesi and other outer island provinces they relied on the pill and only a few women on these islands used IUD methods.

Another study that covers six provinces in Java and Bali by Teachman and Rahardjo (1979) showed that women who received contraceptive methods through the village distibution system were more likely to continue as a clients than those who got their contraceptive methods through clinics. Most of the sample of this study were women who used IUDs, pills, and condoms as their contraceptive methods. Moreover, the result of a study by Pariani et al. (1991) that covers East Java provinces implies that the continuation of contraceptive methods can be improved if the family planning workers take more interest in the stated continued desires of their clients and the policy is instituted in allowing clients to use their choice of contraceptive methods.

A study by Sullivan et al (1976) found that the contraceptive performance after a year of the acceptance of IUD and pills methods of contraception were significantly difference from one another. The contraceptive continuation rate for IUD clients in the regular and special drive program was very high (90% respectively for both programs). Conversely, the continuation rate for pills acceptors or clients was lower for regular and special drive programs: 66% and 53 % respectively. Moreover, the pregnancy rate was lower for IUD clients in regular (6%) and special drive program (8%). For pills, the prevalence of pregnant women was higher in

both programs. These findings suggested that the contraceptive continuation rate was successful for IUD acceptors in both programs, while the contraceptive continuation rate for pills clients was less successful particularly in the special drive program.

The evidence of a few studies related to contraceptive use in Indonesia has relied on the socioeconomic and demographic factors of women's position. The reason behind this may be because of the simplicity measurement of each variable and the availability of the data sets. The intervening variables that are used to study the socioeconomic and demographic factors of women's position consist of age, education, employment status, husband's views of contraceptive use, place of residence (urban and rural), household wealth status, number of living children, desire for more children, religion, exposure to family planning messages, and so forth. However, only a few of those variables mentioned above have the most significant influence on the practice of contraceptive use. For example, a previous study by Joesoef et. al (1988) shows that husband approval of contraceptive use was the most important factor, followed by number of living children and level of education. Based on the findings of this study, husband approval played a crucial role in the use of contraceptives in Indonesia. Most of the Indonesian population is Muslim and under the Islamic Law consultation with the husband is essential). The removal of husband approval will offend a cultural norm (Cook & Maine 1987, p. 343). Therefore, the husband's permission is vital in Indonesia.

Another study related to contraceptive use conducted by Rahayu et al. (2009), found that several characteristics such as women's age, religion, number of living children, occupation,

desire for more children, household wealth index, and husband's views on family planning had a significant relationship with contraceptive use. Howewer, the result also indicated that women's educational attainment was one of the most important factors that related to contraceptive use. Other significant factor were women's occupation and husband's views on family planning methods.

However, a study conducted by Schoemaker (2005) offered a different perspective as this study viewed the use of contraceptive methods by poor people. This study found that the variation in the adoption and use of modern contraceptive methods was wider between the extremely poor and moderately poor than among the moderately poor and the wealthier women. For instance, the proportion of extremely poor women who relied on traditional methods was higher than the moderately poor and wealthier women (11% versus 5-6% respectively). On the other hand, almost a quarter of these three users (extremely poor, moderately poor and wealthier women) relied on modern contraceptive methods (IUD, implant and sterilization). The extremely poor women were unlikely to approve the use of family planning methods compared with the moderately poor and wealthier women (87-91% versus 93%). In addition, the cost and access to family planning methods should be the major reason for the low use of contraceptive methods. However, the result of the multivariate analysis in these studies suggested that the strongest association for not using contraceptive methods by poor women was ideal and actual family size rather than financial constraint.

2.4. General factors which influence contraceptive use

The focus of most studies regarding the use of reproductive health services was categorized into three factors: demographic, socioeconomic and cultural factors (Stephenson & Hennink 2004, p. 5). Moreover, there are several numbers of demographic, socioeconomic, and programmatic variables that may influence the use and not use of contraceptiv by the low income women's. These variables consist of women age, place of residence, number of living children, desire for more children, women's occupation, women's education, husbands education, husbands occupation, husband preffered number of living children, exposure to family planning message, decision-making in family planning, access to family planning services and knowledge of any methods of contraception.

2.4.1 Women's Age

Age was curvilinearly correlated to current contraceptive use (Leoprapai &Thongthai 1989 p. 31). In practising contraception, younger age groups tended not to delay or prevent future births; similarly the older age groups thought that there may be less need to practise contraceptive methods (Sulistyawati 2001, p. 19). The low proportion of contraceptive use in the younger age group (15-29 years old) could be because these women were at the beginning of their childbearing which made them limit the use of contraceptive methods (Rahayu et al. 2009, p. 12). On the other hand, the older age group (40-49 years old) also experienced the low proportion of contraceptive use because they thought that they were in fecund or less fertile (Rahayu et al. 2009, p. 12).

In low income household, status is a factor that related only with age and family planning practice. The power of stratification in the household play a significant role in the use of contraceptive methods. Both the economic and social vulnerability of young women act a strong obstacles to practice contraceptive use. While, the older women are more actively involved in decision making and have a greater degree of personal freedom and more likely to practice contraceptive methods. A study of women's use of contraception in rural India: a village level study reveals that in the case of Kultali status accrues mainly with age. Older women, even those of reproductive age, are less likely to be restricted not only in their movements but also have a more previleged position in the household and more likely to use contraception then the younger women (Chacko 2001, p. 204).

2.4.2 Place of Residence

The place of residence had a significant relationship with the current use of contraception (Ullah & Chakraborty, 1993). Most of the urban areas in developing countries are oftenly correlated with more educated people, better access to medical care such as family planning and other social services. Therefore, the rates of contraceptive use are normally higher in urban than in rural areas. Moreover, the oppurtunities for urban women being users of contraception were almost one and a half times higher than that of rural women (Ullah & Chakraborty, 1993).

Moreover, place of residence have an impact on the use of contraceptive methods of poor. For instance, typically in the urban areas more small private health clinics, goverment

hospital, and pharmacies are available throughout the cities which give an advantages in terms of health care services and increase the practice of contraceptive methods for the poor. On the other hand, in rural areas the government hospital and other health facilities are oftenly not available throughout the city and the roads not as good as the roads in urban areas give a disadvantages for the low income women to access the health facilities which might effect their use of contraceptive methods. Also, in order to access the health facilities in rural areas, the low income women's have to use public transportation that might cost much money.

2.4.3 Number of living children

The contraceptive behaviour of women depended more on the number of surviving children a women had (Choe & Tsuya 1991, p. 41). The probability of a subsequent birth increases significantly following the death of the last child or earlier child death experience (Tawiah 1997, p. 147). In most of societies, both the middle and upper income families tend to have less number of living children than low income families. For the poor families the benefits of children are arise based on their children contribution to supplement or support the family income. These condition were child bearing as an economic decision has several impacts which have been empirically tested and of the impact is that fertility rate would be higher if children at a young age looked upon as contributors to family incomes (Jayaraman 1995, p. 8). It suggested that when a fertility rate higher the more likely the use of contraceptive is

lower. It also indicated that the the total number of living children the low income families are a measure of family size which associated with the use of contraception.

2.4.4 Desire for more children

A woman's desire to have one or more than one additional child still has a significant influence on contraceptive use. A study of contraceptive practice of Thai women revealed that around 61% of women who wanted one more child were most likely to practice contraceptive methods, whereas the corresponding percentage for women who wanted two or more additional children declined to 42% and 25% respectively (Leoprapai & Thongthai 1989, p. 34). A study in Pakistan indicated that there was a significant demand for more children between women who had two children. Around one in three women did not desire another children when they already had three children (Thou 2008, p. 7). In addition, desire for more children have an impact on the use of contraceptive methods of the poor because the low income women's tend to practice contraceptive methods when they have more children. It means that if they have fewer children, they are less likely to use contraceptive methods until their desire for children is achieve.

2.4.5 Women's occupation

The work status of women or women's employment is expected to influence not only the number of children they desire but also their contraceptive behaviour (Shapiro & Tambashe 1994, p. 98). Working women were more likely to choose long term effective modern

contraceptive methods because they had more autonomy to decide their own fertility choice (Rahayu et al. 2009, p. 25). Moreover, women who worked in the formal sector had to deal with the high demand of child care which made them tend to have the lowest demand for a larger number of children and, therefore, be more motivated to practice contraceptive use (Shaphiro and Tambashe 1994, p.100). Women's cash earnings as a whole were associated with lower desires for additional children and more contraceptive use (Moursund & Kravdal 2003, p. 299). In addition, the lowest contraceptive use prevalence was found between women who were not working and housewives (Leoprapai, B & Thongthai V 1987, p. 33).

Poor women who work outside the home due to their economic necessity, were mainly employed in unskilled manual work and paid in minimum wage payments and more likely to practice contraceptive methods than women who not working. These condition where the low income women work outside the house indicated that there is no restriction to the home and have more freedom of movements and autonomy to decide their contraceptive behaviour. Poor women who not working were more likely to be dependable on their husbands' and have limited movement which lower their practice of contraceptive methods.

2.4.6 Women's education

Education is related to a woman's choices of contraceptive methods (Frankenberg et al. 2003, p.111). For instance, women with six to nine years of education were most likely practising other modern contraceptive methods aside from injection than women with five or fewer years of education (Frankenberg et al. 2003, p.111). Furthermore, a higher level of education

may control the timing of childbearing but women who lacked any schooling at all were less likely to practice family planning and contraceptive use (Sulistyawati 2001, p. 26). In addition the evidence showed that a higher level of women's educational attainment was recognized as a major factor that contributed to the increases in contraceptive use and to the beginning of fertility decline in most countries (Gage 1995, p. 265).

The educational level attainment of the poor is lower than wealthier women's which will give an impact on their (poor) prevelance of contraceptive use. Women's with no education tend to have lower use of contraceptive methods. The increased of educational attainment of the low income women not only will lead to increased in decision making power but also increase the health service may result in high use of contraceptive methods.

2.4.7 Exposure to mass media

The mass IEC (information, education, and communication) is the dissemination of family program information that managed by a program administrator (CBS & Macro, p. 62). Moreover, the mass IEC uses several kind of media such as print (newspaper or magazine), electronic (radio, tv and family planning information mobile unit) and traditional media to spread the family planning message (CBS & Macro, p. 62). Women who heard a message regarding family planning were consistently more likely to increase their usage of contraception and use various kinds of contraceptive methods but not traditional methods (Cochrane and Guilkey 1992 p. 24).

Exposure to mass media give an impact on current contraceptive use among the poor. The more likely the low income women exposed to mass media whether electronic or print there is a possibilty that their knowlegde of contraceptive methods will increase and more motivated to participate in the practice of family planning programs.

2.4.8 Decision making in family planning

The amount of communication among husband and wife was less likely to be decisive in determining the contraceptive behavior than the power of husband and wife in the process of decision making in family planning (Biddlecom et. al., 1996, p. 13). Several studies have shown that the more unequal husband and wife are in terms of decision making authority in the household, the more differences will result in their reports of both contraceptive use and fertility preferences (Biddlecom et. al., 1996, p. 12). Wives who believed that their husbands approved of family planning had a higher chance of using contraception than wives who felt that their husband disapproved of family planning (Salway 1994, p. 46). Moreover, the contraceptive use was unaffected by husband and wives' disagreement if neither of them had exclusive decision making power that related to contraception (Biddlecom et.al., 1996, p. 24).

The economic and low social position of poor women act as a strong barriers to practice contraceptive methods. In low income households, the strong influence of husbands' is crucial for women to utilize family planning service. Generally, poor income women have restricted personal mobility because the decision making usually authorized by their

husband or elder members in the household influence the ability of women to be actively involved in decision making regarding the practice of contraceptive methods.

2.4.9 Access to family planning services

Several studies regarding the effects of the family planning program have concentrated on the accessibility of family planning services through examining the proximity (accessibility) of health facilities. Thus, the proximity was measured not only as both distance and time but also the availability of transportion as well (Mroz et. al 1999, p. 23). For instance, between the Mayang's women in Guatemala, access had an influence on contraceptive use. Mayang's women who lived ten minutes from the family planning facility were more likely to practice contraceptive use than those who lived far away (Seiber & Bertrand, 2002 p. 167). Furthermore, Pullum (1991) and Tsui & Ochoa (1992) concluded that geographic accessibility was an important determinant of contraceptive use but the effects were small in some context (Seiber & Bertrand, 2002, p. 168). For example, a study investigating the causes of unmet need and the social content of services mentioned that the contraceptive prevalence rate decreased as the distance of family planning services lengthened (Bongaarts & Bruce 1995, p. 61). However, the difference in the prevalence rate between those who lived close to and far from family planning services was only five percentage points (Bongaarts & Bruce 1995, p. 61). Furthermore, access to type three clinics had a positive effect on current use in urban areas, but in rural areas the access to those clinics decreased the use of IUDs (Cochrane & Guilkey 1992, p. 23 & 24.).

The economic condition of low income household also effect their ability to access to family planning services. In order to access family planning service distance or geographic accessibility becomes burden for the low income household because to reach the health facilities they have to spent some amount of money for the transportation. Eventhough, the place of family planning service is close to their house, they preffered not to visit it because sometimes they have to pay for the services. These situation decreased the probability for low income women's to use contraceptive methods.

2.4.10 Knowledge about any method of contraception

Knowledge about the most popular modern birth control was considered as universal. Moreover, the patterns of contraceptive knowledge were similiar in Bangkok and the South. The percentage of the respondents who knew both the natural and convententional methods were higher than in other regions (Leoprapai, B & Thongthai V 1987, p. 15). Most of the studies suggested that young women had limited knowledge of how the hormonal contraceptives methods work and how to use them properly, although they were aware of these methods (Williamson, et. al 2008, p. 5). In India, knowledge of at least one modern method of contraception was nearly universal, except in the Nagaland region where only 44% of women reported knowledge of a modern contraceptive method, whereas, the temporary methods were less well known (Ramesh et. al 1996, p. 102).

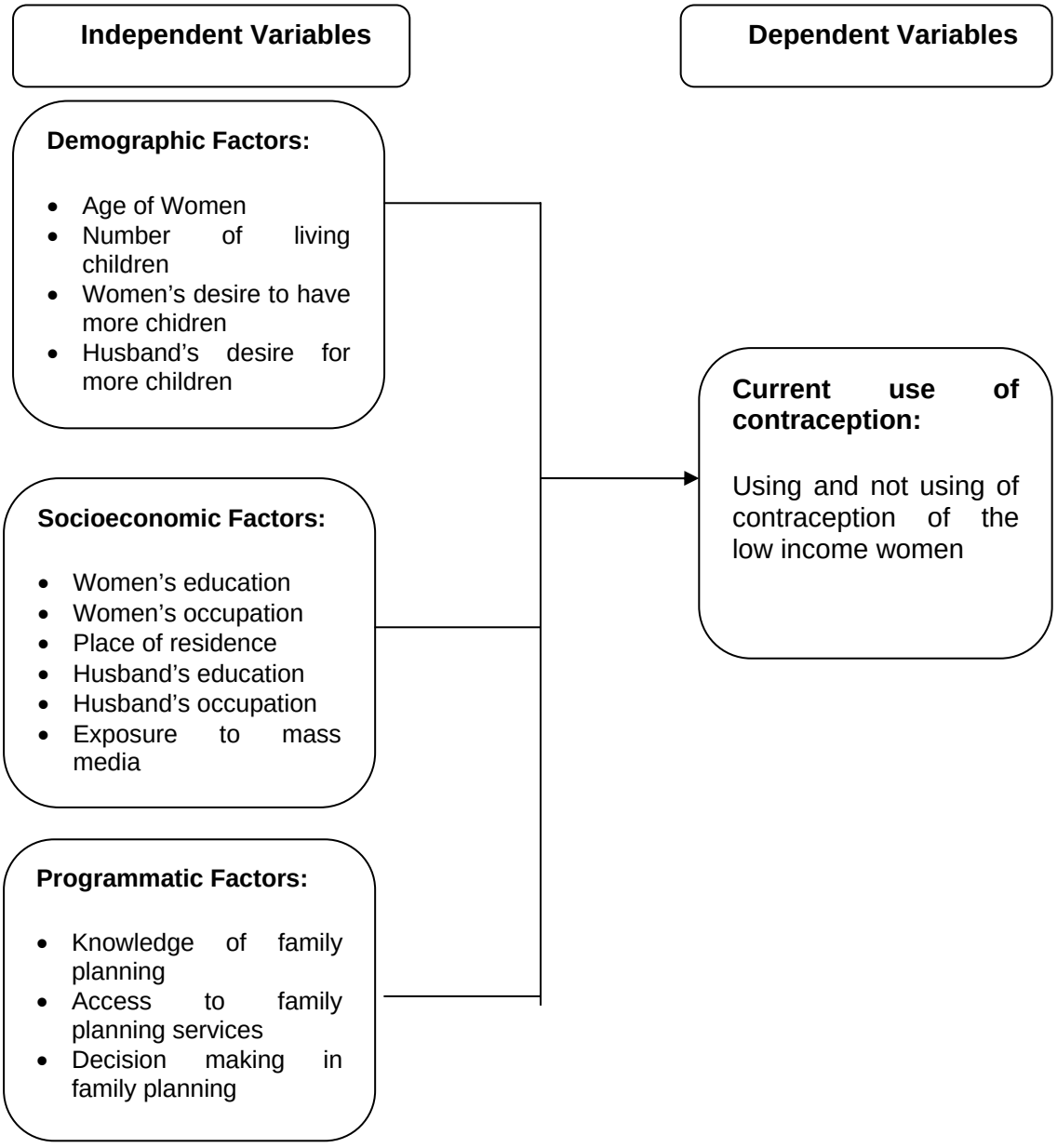
Poor knowledge of contraceptive methods however was correlated with low prevalence of contraceptive use (Bongaarts & Bruce 1995, p. 67). These explanation given by Bongaarts and

Bruce above illustrates the condition of the poor in which their lack of knowledge regarding contraceptive methods due to lower educational attainment, not exposed to mass media, poor family planning service, and lack of information regarding contraceptive methods by the family planning provider resulted in lower prevalence of current contraceptive use.

2.5 Conceptual Framework

Several articles related to contraceptive use have been reviewed above. Based on the information from the above literature review , a conceptual framework has been be proposed for this study. The factors considered in the framework for this study include women's age, place of residence, number of living children, wealth index, desire for more children, occupation, education, exposure to family planning message, decision-making in family planning, access to family planning services and knowledge of methods of contraception. Moreover, this conceptual framework is a modification framework (Fig. 2.2) that is based on that of Islam et. al, 1998.

Figure 2.2 Modified Framework to study contraceptive use



CHAPTER III

CONTRACEPTIVE USE AMONG THE POOR IN INDONESIA:

AN ANALYSIS OF THE 2007 INDONESIA DEMOGRAPHIC AND HEALTH SURVEY DATA

3.1 Introduction

In this chapter, several demographic, socioeconomic, and programmatic variables which influence the current contraceptive use of the poor in Papua, West Papua, Maluku, and Bangka Belitung will be examined. Those variables pertaining to demographic factors are: women's age; the husbands' desire for more children; the number of living children; and women's desire for more children. Variables relating to socioeconomic factors include:, women's education; women's occupations; place of residence; exposure to mass media; husbands' occupations; and husbands' education. The programmatic factors include variables of decision making in family planning, knowledge about methods of contraception, and access to family planning services. However, this chapter only discusses the variables that are significant with the current use of contraception of the low income women; it does not take into account the wealth status of the middle and rich women as the focus of this analysis is that of the poor. The analytical approaches employed to examine the effects of several above-mentioned variables include bivariate analysis (Chi-Square test), multivariate logistic regression analysis, and the odds ratio of multivariate regression.

3.2 Bivariate Analysis of Demographic Factors in Papua, West Papua, Maluku, and Bangka Belitung

Table 3.1: Current contraceptive use of wealth index (poor) by number of living children, desire for more children, and husbands' desire for more children

Demographic characteristic	Current contraceptive use		$\chi 2$	P	Phi coefficient
	Not using %	Using %			value
Number of living children:					
Two or fewer	65.6	34.4			
Three or four	54.6	45.4	6.590	.037	.132
Five or more	72.3	27.7			
Women desire for more children:					
Wants within 2 years	85.5	14.5			
Wants after 2 years	41.8	58.2			
Wants, unsure timing	72.2	27.8	30.686	.000	
Undecided	71.4	28.6			
Wants no more	59.9	40.1			
Husbands' desire for more children:					
Both want same	56.8	43.2			
Husband wants more	71.7	28.3	13.927	.003	.195
Husband wants fewer	50.0	50.0			
DK	76.8	23.2			

In the table above, the pearson chisquare value for the number of living children is 6.590 (labelled as $\chi 2$), with an associated significance level of .037 (labelled as p Asymp. Sig. 2-sided). According to Jullie Pallant 2001, p. 259 stated that to be significance the Sig. value needs to be .05 or smaller. Therefore, in this

value of .05. This mean that the number of living children is significant variable that related to the use of contraceptive methods. Moreover, the significancy level for the variables of women desire for more children and husband desire for more children also shows significance value. The pearson chisquare value for women desire for more children is 30.686, with an associated significance level of .000. This result indicated that women desire for more children have a strong influence on the practice of contraceptive use. Furthermore, the pearson chisquare for husband desire for more children is 13.927 with an associated level of signicancy of .000. In this situation the value of .000 is smaller than the alpha value of .05 which suggested that husband desire for more children is also one variable that have a strong association with the current use of contraceptive methods.

According to Pallant 2007, p. 217 stated that Phi coefficient is a correlation coefficient that can range from 0 to 1, with higher values indicating a stronger association between the two variables. The Phi coefficient for the number of living children and husband desire for more children are .132 and .195 which shown that the Phi coefficient values are higher than 0.1. These result indicated that the number of living children and husband desire for more children has strong correlation with the use of contraceptive methods. However, the phi coefficient of women desire for more children did not mention in the table above because the P value (.000) have shown a strong correlation with the practice of contraceptive methods. However, the P coeffiecient values of women desire for more children not take into account because the pearson chisquare for this variabel is 30.686.

3.2.1 Number of Living Children

According to the results of bivariate analysis as shown in Table 3.1, the number of living children seemed to be one of the demographic factors that influenced the use of contraceptive methods of the poor. The results showed that poor women who had three or four living children (45%) were most likely to use contraception than those women who had two or fewer (34%), and five or more living children (28%). In other words with the increase in family size, women tend to use more contraception. In many societies, women are considered to be mainly playing the role of wives and mothers it is considered as the duty of women to produce children for her husband and families. Traditionally, large families are highly valued by poor people in Indonesia (reference needed). This is because their economic conditions create a situation where children are expected to make a significant economic contribution to family income. In traditional societies, children help their parents on the farms and in household activity. In poor families with no assets or land property, the greater the number of children, the more wages earned outside the home, and the more money they will bring in. Moreover, in developing countries children provide a form of social security for their parents in their old age because developing countries do not have any institutional arrangements for providing social security benefits for the elderly. A study in Kultali, India, showed that the total number of living children was positively associated with the use of contraceptives: women who were in favour of permanent methods had 4.22 living children (Chacko 2001, p. 205). In addition, the situation where the poor valued more number of living children suggested that, when they have achieve the high family size they feel that

they have achieve economic assurance because more children give significant contribution for family income.

3.2.2. Women's Desire to Have More Children

The desire for more children is strongly associated with the current use of contraceptive methods of the poor. This can be seen from the results in Table 3.1 indicating that women who wanted more children after two years were more likely to practice contraceptive methods (58%) than women who did not want more children (40%); those who were undecided (27%); those who wanted more children but were unsure of the timing (28%); and those who wanted more within two years (15%). This result suggests that low income women who desired more children after two years usually used contraceptive methods to space their births. It also implies that poor women often received advice about methods for birth spacing which made them to desire longer birth intervals. On the other hand, in reality women who do want no more children should be more practice the contraceptive methods but in this case they are less likely to use contraceptive methods. the most plausible explanation for these condition could be that they have achieve the ideal family size that they expected. Another explanation could be because the contraception methods that they use previously has an effect on their health so they decide to stop to use contraceptive methods.

3.2.3 Husbands' Desired for Children

Based on the output of the Pearson Chi-square above, it can be seen that the husbands' desired for children is highly correlated or significant with the use of contraceptives by low income women. From the output, it can also be seen that women whose husbands wanted fewer children (50%) tended to practice contraceptive more. Moreover, women whose husbands desired the same number of children (43.2%) as they did were likely to use more contraceptives compared with those women whose husbands desired more children (28.3%), and those whose husbands were not sure (23.2) whether they wanted the same number, more, or fewer children. These result implies that husbands is more likely desire fewer children than their wife's maybe because they have better knowledge of contrapceptive methods, have more education, and exposed to mass media which make them wanted fewer children.

3.3 Bivariate Analysis of Socioeconomic Factors

Table 3.2: Current contraceptive use of wealth index (poor) by exposure to mass media, husband education, husband occupation and women's education

Socioeconomic characteristic	Current contraceptive use		$\chi 2$	P	Phi coefficient
	Not using %	Using %			Value
Exposure to mass media:					
Television : Not Exposed	76.2	23.8	17.269	.000	.214

Exposed	55.0	45.0			
Newspaper : Not Exposed	65.9	34.1	4.323	.038	.107
Exposed	52.8	47.2			
Husbands' Education:					
No Education	74.3	25.7	4.739	.029	.112
Have Education	60.7	39.3			
Husbands' Occupation:					
Not Working	79.2	20.8			
Unskilled Manual	51.1	48.9	8.940	.011	.154
Skilled Manual	65.6	34.4			
Women's Education:					
No Education	71.6	28.4	4.637	.031	.110
Have Education	59.8	40.2			

Although, the pearson chisquare value (labelled as $\chi 2$) for exposure to mass media (tv and newspaper), husband's occupation, husband's education, and women's education is less than 30 but the P value for each of these variabel shows significant correlation (.05 or smaller) with the current use of contraceptive methods. Moreover, the Phi coffiecient for each categories of the socioeconomic characteristic have higher values of 0.1 which indicated that each of the categories have contribution to the use of contraceptive methods.

3.3.1. Exposure to Mass Media (Television and Newspaper)

As can be seen from the P value in table 3.2 that exposure to media such as television and newspapers seemed to be one of the factors which influenced the current use of contraceptives in low income women. However, of the two types of media (television and newspaper), exposure to television, rather than any other media source, was the strongest factor influencing the current use of contraceptives by the poor. This indicated that the

greater the exposure to the mass media, especially television, the more likely poorer women were to be motivated to use contraceptives. Moreover, the promotion of family planning through television and newspapers played an important role in improving and motivating them to practice contraceptive use. According to Chourn Thou (2007, p. 10), a study on mass media promotion in three cities in Nigeria showed that television played an significant role in increasing the number of new users of family planning.

3.3.2 Husbands' Education

The husbands' level of education is another factor that influences contraceptive use among the poor. Based on the table 3.2 that more women used contraceptive methods when their husbands had some level of education (39%), compared with those women whose husbands did not have any education (26%). Furthermore, in this case, husbands who seemed to be educated, empowered, allowed, and were more likely to share, and discuss contraceptive methods which affected not only their own attitude, but also their wives' attitude toward the family planning programs.

In another case, a study regarding obstacles to the use of family planning services among the urban poor in Pakistan suggested that administrative barriers to using family planning services declined with the husbands' level of education. Women whose husbands had some level of education were less likely to report barriers to using family planning services compared to women whose husbands had no education.

3.3.3 Husbands' Occupation

The occupations of husbands are significantly related to the current use of contraceptive of among the poor. The result in the table 3.2 shows that more women tended to use contraceptive methods when their husbands worked as unskilled manual workers (49%). A small proportion of women (34%), were less likely to be current contraceptive users when their husbands worked as skilled manual workers compared to women whose husbands did not work (21%). These situation where husbands occupation as unskilled manual labourers practice more of contraceptive methods probably because the economic burden of having more or additional children is more for the unskilled labour as they tend to get less and unsteady income compared to their skilled counterpart. Furthermore, a study by Ullah et al. (1993, nd) in Bangladesh found that the husbands' occupation had a significant net affect on the current use of contraceptives.

3.3.4. Women's Education

The education level of women, as well as that of their husbands mention in table 3.2 above, also had a significant influence on the use of contraceptive methods in the low income household. Of women who have some education, 40% seemed to practice contraceptive use in comparison with 28% of women who had no education at all. Based on that result it can be stated that in a low income household, small improvements in female education are sometimes related to a higher use of contraceptive methods. Women with some education tended to have fewer children and practiced using contraceptive methods than did those

women who had no education. This is consistent with many other findings in different regions of the world and according to Mamdani et al. (1993, p. 9), urban Nigerian women who had a higher level of education were more likely to be practising contraception.

3.4 Bivariate of Programmatic Factors

Table 3.3: Current contraceptive use of wealth index (poor) by husband approval, knowledge about any methods, and access to health facilities

Programmatic characteristic	Current contraceptive use		$\chi 2$	P	Phi coefficient
	Not using %	Using %			Value
Husbands' approval of family planning:					
Husbands approve	53.3	46.7	30.908	.000	
Husbands disapprove	82.3	17.7			
Knowledge of any methods of contraception :					
<5	71.0	29.0	21.486	.000	.238
>5	46.2	53.8			
Access to health facilities last 6 months:					
No	67.0	33.0	4.882	.027	.114
Yes	55.2	44.8			

As mention previously that to be significance the Sig. value needs to be .05 or smaller so in this case the p value (labelled as Asymp. Sig. 2-sided) of husband's approval of family planning (.000), knowledge of any methods (.000) and access to health facilities last 6 months are smaller than .05. It mean that this three factors shows significant correlation with the use of contraceptive although the pearson chisquare for knowledge of any methods of

contraception (21.486) and access to health facilities 4.882) are less than 30. Moreover, the phi coefficient for knowledge of any methods of contraception (.238) and access to health facilities last 6 months (.114) shows significant association with the current use of contraceptive methods because the phi coefficient values range more than 0.1.

3.4.1 Knowledge about any methods of contraception

Knowledge about any methods of contraception is one of the programmatic factors that have a significant relationship with the current use of contraceptives. The result of the bivariate test in table 3.3 suggested that in this analysis the women in low income households used contraception when they knew of more than five contraceptive methods, while, poor women who knew of fewer than five methods were commonly not contraceptive users. A study on contraceptive use in Nepal revealed that knowledge about various methods of contraception was positively associated with its use (Jayaraman 1995, p. 12).

3.4.2 Access to Family Planning Services

The access to family planning service in this context relates to whether women of reproductive age have visited health facilities in the previous six months. The result in table 3.3 shows that 45% of women report that they had visited health facilities in the last six months. Conversely, 33% of women said that they had not visited any health facilities. This suggested that poorer women were aware of the methods available, how much the different methods cost, and where supplies of the methods could be obtained. However, the distance

to the health facilities and the cost of obtaining the contraceptives have become problematic for the poor populations trying to obtain low-cost, high quality family planning contraception.

3.4.3 Husbands' Approval of Family Planning

The husbands' approval of family planning practice is another factor which is significantly correlated with the use of contraceptive methods among the low income populations. As can be seen from the results in table 3.3, the husbands' approval of family planning impacts on whether their wives use contraceptives. Approximately 47% of the women whose husbands approved of family planning tended to use contraception. On the other hand, 18% of women from low income households did not practice contraceptive use. The husbands' approval of the practice of contraceptive methods suggested that low income women were not afraid to discuss family planning methods with their husbands. It also implies that husband approval is a reflection of his fertility preferences and other feelings regarding contraception. An empirical research study conducted during the 1990s in several countries such as Egypt, Guatemala, the Philippines, and Nepal makes evident the fact that women's perception about their husbands' opposition to family planning is a dominant factor which discourages the contraceptive practice (Casterline et al., 2001, p. 98).

3.5 Multivariate Analysis

A simple bivariate analysis of the correlation between current contraceptive use among the poor, and demographic, socioeconomic, and demographic factors has been presented above. However, the combined effects of other variables cannot be taken into account when only the bivariate correlation is considered. Therefore, the aim of this multivariate analysis is to investigate how the differentials of current contraceptive use are changed when the analyses are adjusted for the simultaneous effect of demographic, socioeconomic, and programmatic characteristics. Binary logistic regression procedures were used in the analyses. The dependent variables that use in this analyses where consist of the two categories (using not using contraceptive methods) to the model that have an effects on several demographic, socioeconomic, and programmatic characteristics. Moreover, variables or factors that had no significance in the bivariate analysis were not taken into account in this analysis.

3.5.1 Multivariate Analysis of Demographic, Socioeconomic, and Programmatic Factors on Current Contraceptive Use of the Low Income Status (Poor)

Binary logistic regression has been adopted for the multivariate logistic regression analysis. The dependent for the binary is: 0 equals not using, and 1 is equal to using. The independent for the binary consists of the following demographic factors: the husbands' desire for more children; the number of living children; and the women's desire for more children. The socioeconomic factors include: women's education; their exposure to the mass media; the husbands' occupation; and the husbands' level of education. The decision making in family

planning related to whether the husbands approved or disapproved of family planning and whether there was any knowledge about any methods of contraception. Access to family planning services related to whether currently married women aged between 15 and 49 had visited health facilities in the last six months. These were all programmatic factors.

The model of the binary logistic regression analysis revealed that the demographic factors, such as the husbands' desire for more children, did not have any statistical effect on current contraceptive use of the poor. Women's desire for more children, especially for women who desired more children after two years, was strongly significant (P=.000) with the use of contraceptive methods. The odds ratio for women who desired having more children after 2 years was 5,8 times more likely to practice contraceptive methods than women who wants children within 2 years. This result means that women's who wants children within 2 years or more tend to use contraceptive methods. Another category of women's desire for more children such as undecided (.002) and wants no more children (.000) are also significant with the practice of contraceptive methods. The probability for women's who desire for more children but undecided is 3,6 times more likely to use contraceptive methods compare to women's who wants children within 2 years. These means that women's who wants more children but undecided is tend to practice contraceptive methods than women who wants children within 2 years. On the other hand, the odd ratios for women who wants no more children is 3,7 times more likely to use contraception than women's who desire for more children within two years. It means that women's who want no more children have higher probability to practice contraceptive methods.

The socioeconomic factors of women's education, exposure to mass media (print media), and husbands' level of education did not have any significance or statistical effect on current contraceptive use of low income women. While the exposure to mass media (tv) and husbands' occupation shows positive correlation with the use of contraceptive methods. The odd ratios for women's who exposed to mass media such as tv are 1,8 times more likely to use contraceptive methods than women's who not exposed to these electronic media. These result implies that women's who frequently exposed or watch tv programs have higher chances to practice contraceptive methods. Furthermore, women's whose husbands' who work as proffesional worker (skilled manual) are 2,9 times tend to use contraceptive methods than women's whose husband did not work. It suggested that women's whose husbands' has skilled manual profession will practice contraceptive methods. On the other hand, the probability of women's whose husband's occupation is unskilled manual is 3 times more likely to practice contraceptive methods. These result implies that women's whose husbands' did not have skilled manual have higher probabilty of using contraceptive methods.

While, only one programmatic characteristic which is decision making in family planning that related to husband approval toward the wives' contraceptive use had a significant correlation with the use of contraception. Women's whose husbands'approved of family planning had a higher chance of using contraception than did those women whose husbands disapproved. The B values for these factors however, showed a negative relationship. According to Pallant (2007, p. 175), the positive or negative B values are able to report the

direction of the relationship of which factors increase the likelihood of a yes answer, and which factors decrease it. The negative B values indicate that an increase in the independent variable score will result in a decreased probability of the case recording a score of 1 in the dependent variable (Pallant 2007, p. 176). Therefore, the probability of women's whose husbands' disapprove is 0,3 times more likely to practice contraceptive methods than women's whose husbands' approve. It means that women's whose husband approve the use of contraceptive methods are tend to use contraceptive methods than women's whose husband disapprove of family planning methods. In addition, factors such as women's desire for more children, number of living children, exposure to mass media (tv), husbands' occupation, and husband approval of family planning methods shows consistencies with the hypothesis mention in the first chapter that better levels of contraceptive use among the low income women are depend on several factors and the use of contraception is lower among the low income women's.

Table 3.5.1: The effect of demographic, socioeconomic, and programmatic factors on current contraceptive use (using contraception) of low income status

Characteristics	Logistic coefficient (B)	Odds ratio	Significance (p)
Demographic factors :			
Number of living children (three or four)	.436	1.547	.049
Desire for more children : wants after 2 years	1.763	5.829	.000
undecided	1.276	3.581	.002
wants no more	1.309	3.701	.000
Socioeconomic factors:			

Exposure to mass media (TV)	.596	1.814	.032
Husband occupation: skilled manual	1.062	2.893	.025
unskilled manual	1.085	2.960	.020
Programmatic factors:			
Decision making on family planning (Husbands' approval)	-1.130	.323	.000

3.5.2 Limitation

Firstly, since the data used in this analysis is secondary data based on the 2007 IDHS, the are some limitations in selecting the variables that have an effect on the current contraceptive use among the poor in Papua, West Papua, Maluku, and Bangka Belitung. Secondly, due to the small sample size of 665 respondents, which consisted of currently married women from the low income status in the four provinces (Papua, West Papua, Maluku, and Bangka Belitung), the analyses did not take into account those women belonging to the middle and rich wealth indexes.

CHAPTER IV

CONCLUSION

4.1 Introduction

This chapter will summarise and discuss the findings of the study on contraceptive use among the poor in Indonesia, based on the data collected at the 2007 Indonesia Demographic and Health Survey (2007 IDHS). Moreover, this chapter will also identify the implications for policies for the future of the family planning program in Indonesia, and will provide recommendations for further research into the area of contraceptive use by low income families.

The aim of this studies was to examine the factors that influence the use of contraceptive methods among the poor women in Bangka Belitung, Papua, West Papua, and Maluku. There are a number of reasons for choosing these four provinces (Bangka Belitung, Papua, West Papua, and Maluku). First of all, in Papua, West Papua, and Maluku province the current use of contraceptive is lower among the poor. While, in Bangka Belitung the use of contraceptives is higher among the women's in low income status. Secondly, the contraceptive prevalance rate (CPR) of any methods and modern methods are lower in Papua, West Papua, and Maluku compared to the CPR of any methods and modern methods of contraception in Bangka Belitung province and Indonesia as a whole.

4.2. Major Findings

The results of the bivariate analysis has shown that that several of the demographic, socioeconomic, and programmatic characteristics have impacted on contraceptive use among the poor in Bangka Belitung, Papua, West Papua, and Maluku. Those factors include: women's desire for cchildren; the husbands' preferred number of children; women's and husbands' level of education; the husbands' occupation; knowledge regarding family planning methods; exposure to mass media; and access to family planning services which affect whether women have had access the health facilities within preceeding survey. Interestingly, husband's occupation variable shows that women whose husbands work as unskilled manual labourers tend to practice contraceptive compared to women whose husband work as skill manual. Although there is no definitive explanation for this finding, however the most plausible explanation for could be that the economic burden of having more/additional children is more for the unskilled labour as they tend to get less and unsteady income compared to their skilled counterpart. The results have shown that women who did not want more babies were less likely to practice contraceptive methods compared to women who desired for more children after two years. The reason of using less of contraceptive methods for women who did not want more children probably because the average age of this group of women is almost 8 years higher (29.37 years as compared to 37.37 years) than the group consists of women who still wanted children or undecided. In this regard it can be argued that in traditional societies older women tend to have less exposure to contraceptive use. Another explanation could be because the contraception

methods that they use previously had some negative impact on their health so they decide to stop to practice contraceptive methods.

In the multivariate analysis using the binary logistic regression, only those factors such as decision making regarding family planning (related to the husbands' approval of family planning methods), women's desire for more children, number of living children, husbands' occupation, and exposure to mass media (TV) affected the use of contraceptives among the poor in the provinces considered for this research. On the other hand, women's desire for more children (wants after two years, undecided, and wants no more), exposure to mass media (TV), number of living children (three or fewer), and husbands' occupation had a positive effect on the use of contraceptive methods among the poor.

This study concluded that in the bivariate analysis, the variables pertaining demographic characteristics that had an effect on current contraceptive use among the poor were the number of living children, women's desire for more children, and husbands' prefered number of children.

Among the socioeconomic variables that influenced the use of contraceptive methods were the women's exposure to mass media, husbands' occupations, and husbands' and women's level of education. Moreover, factors such as knowledge of any family planning methods, husbands' approval of family planning, and visits to health facilities within six months of preceeding survey are programmatic characteristics that significantly influence current contraceptive methods.

In terms of programmatic factors, however, the multivariate logistic regression analysis showed that only one programmatic factor namely decision making about family planning that correlated with the husbands' approval affected the use of contraceptive methods. On the other hand, demographic factors, such as, number of living children and women's desire for more children, also affected the use of the contraceptive methods of the poor. Similiarly, several of the socioeconomic variables that were used in this analysis such as exposure to mass media (tv) and husbands' occupation have an impact on the current contraceptive use. Therefore, based on these findings it can be stated that although a number of demographic, socioeconomic and programmatic characteristics had correlation with the use of contraceptive methods of the poor in Bangka Belitung, Papua, West Papua, and Maluku, five of those namely husbands' approval, women's desire for more children, number of living children, exposure to mass media (TV), and husbands' occupation had an stronger effect on the current contraceptive use of low income women.

4.3. Implications for Policies

Based on a number of findings of this study, several policy implications should be considered. As a variable, women's desire for more children and number of living children appears to have significant effect on the current contraceptive use by the poor. Several family programs such as availibility of free contraception for the low income families and counselling are not enough to motivate them to practice contraceptive methods. For instance, in reality the poor sometimes have to pay for the contraception. Moreover, the counselling

which provide by family planning service is not adequate because the counselling only given in special event or occasion such as Bulan Bhakti IBI, Harganas, etc of family planning programs. Bulan Bhakti IBI is celebration of Indonesian Midwives Association. Harganas is celebration of national families days. Therefore, a major effort should be made by the government through family planning programs to further encourage smaller family norms in low income women.

Exposure to mass media (TV) also has an influence on the use of contraceptive methods. Women who more exposed to media such as TV are more likely to practice using contraception than women who have less exposed to electronic media. Given this, it is suggested that family planning programs give special emphasis to strengthen the IEC (information, education, and communication) through the use of the mass media such as TV. These sources would be able to educate and motivate the low income families to increase not only their knowledge of contraceptive methods but also change their behaviour so that they can increase their participation in practicing contraceptive methods. However, as people are poor and can not afford a tv probably the goverment could provide free tv or accomodate each villages with one tv through the village office (kantor desa) so that they (poor) can access information anytime.

The findings of this study have revealed that the decision making of family planning related to the husbands' approval of contraceptive methods, have a positive correlation with current contraceptive use. Unfortunately in patriarchal societies, men traditionally have authority

over women. Mostly, women have to obey their husbands which causes women to have less autonomy and prevents them from making decisions. This approval from the husband to practice contraceptive methods is crucial for women. With this in mind, it is necessary for the family planning programs to actively encourage the husbands' acceptance of contraceptive methods through counselling and family planning workers' visits and also one suggestion can be to promote better husband-wife communication.

Husbands' occupation is also having signifcant effect on the current use of contraceptive use. Given this, the family planning programs should both create specific programs and be active in motivating the husbands' to practice contraceptive methods not only through fieldworkers but also through counselling and mass media.

4.4. Recommendations for future research

This study only investigated the use and non-use of contraceptive methods of the poor. It did not take into account the population in middle and the rich wealth index levels in the four provinces. Moreover, due to the non-availability of several variables in the 2007 IDHS, there were some limitations in selecting the variables that had an effect on the use of contraceptive methods. For instance, there is no variable regarding the geographic accessibility. The geographic accessibility here means whether they live near or far from the health facilities. Also, due they visit the health facilities in weekly or montly. Therefore, there remains a need to conduct further research to examine the use and non-use of methods of contraception of the poor in other provinces, and also at the national level.

Furthemore, this study did not investigate about the use and non use of traditional and modern contraceptive use. So, it need further study that investigate the use of neither traditional or modern methods by the low income status. The dependent variables of the study is current use of contraceptive use, that is way there is a need to conduct research regarding the ever use of contraceptive methods among the poor in both; provincial and national stage.

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APPENDICES

APPENDIX I

The Result of Bivariate analysis of demographic characteristics (number of living children, women's desire for more children, and husbands' desire for more children)

Crosstabs for number of living children

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
No. of living children * using not using	379.158[a]	100.0%	.000	.0%	379.158	100.0%

a. Number of valid cases is different from the total count in the crosstabulation table because the cell counts have been rounded.

No. of living children * using not using Crosstabulation

			using not using		Total
			NOT USING	USING	
No. of living children	two or fewer	Count	128	67	195
		% within no of living children	65.6%	34.4%	100.0%
	three or four	Count	65	54	119
		% within no of living children	54.6%	45.4%	100.0%
	five or more	Count	47	18	65
		% within no of living children	72.3%	27.7%	100.0%
Total		Count	240	139	379
		% within no of living children	63.3%	36.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.590[a]	2	.037
Likelihood Ratio	6.587	2	.037
Linear-by-Linear Association	.035	1	.852
N of Valid Cases	379		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 23.84.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.132	.037
	Cramer's V	.132	.037

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
No. of living children * using not using	379.158[a]	100.0%	.000	.0%	379.158	100.0%
N of Valid Cases	379					

Crosstabs for women's desire for more children

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
desire for children categories * using not using	377.169[a]	99.5%	1.989	.5%	379.158	100.0%

a. Number of valid cases is different from the total count in the crosstabulation table because the cell counts have been rounded.

desire for children categories * using not using Crosstabulation

			using not using		Total
			NOT USING	USING	
Women's desire for children categories	wants within 2 years	Count	59	10	69
		% within desire for children categories	85.5%	14.5%	100.0%
	wants after 2 years	Count	28	39	67
		% within desire for children categories	41.8%	58.2%	100.0%
	wants, unsure timing	Count	13	5	18
		% within desire for children categories	72.2%	27.8%	100.0%
	undecided	Count	30	12	42
		% within desire for children categories	71.4%	28.6%	100.0%
	wants no more	Count	109	73	182
		% within desire for children categories	59.9%	40.1%	100.0%
Total		Count	239	139	378

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
desire for children categories * using not using	377.169[a]	99.5%	1.989	.5%	379.158	100.0%

Pearson Chi-Square	30.686[a]	4	.000
Likelihood Ratio	32.411	4	.000
Linear-by-Linear Association	2.683	1	.101
N of Valid Cases	378		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.62.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.285	.000
	Cramer's V	.285	.000
N of Valid Cases		378	

Crosstabs for husband desire for more children

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Husbands desire for children * using not using	367.462[a]	96.9%	11.696	3.1%	379.158	100.0%

a. Number of valid cases is different from the total count in the crosstabulation table because the cell counts have been rounded.

Husbands desire for children * using not using Crosstabulation

			using not using		Total
			NOT USING	USING	
Husbands desire for children	Both want same	Count	113	86	199
		% within Husbands desire for children	56.8%	43.2%	100.0%
	Husband wants more	Count	43	17	60
		% within Husbands desire for children	71.7%	28.3%	100.0%
	Husband wants fewer	Count	5	5	10
		% within Husbands desire for children	50.0%	50.0%	100.0%
	DK	Count	76	23	99
		% within Husbands desire for children	76.8%	23.2%	100.0%
Total		Count	237	131	368

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Husbands desire for children * using not using	367.462[a]	96.9%	11.696	3.1%	379.158	100.0%
% within Husbands desire for children					64.4%	35.6% 100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.927[a]	3	.003
Likelihood Ratio	14.268	3	.003
Linear-by-Linear Association	9.935	1	.002
N of Valid Cases	368		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 3.56.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.195	.003
	Cramer's V	.195	.003
N of Valid Cases		368	

The Result of Bivariate analysis of socioeconomic characteristics (exposure to mass media, husband education, husband occupation and women's education)

Crosstabs for exposure to mass media (reads newspaper)

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
reads newspaper' * using not using	376.314[a]	99.2%	2.844	.8%	379.158	100.0%

a. Number of valid cases is different from the total count in the crosstabulation table because the cell counts have been rounded.

reads newspaper' * using not using Crosstabulation

			using not using		Total
			NOT USING	USING	
reads newspaper'	not exposed	Count	201	104	305
		% within reads newspaper'	65.9%	34.1%	100.0%
	exposed	Count	38	34	72
		% within reads newspaper'	52.8%	47.2%	100.0%
Total		Count	239	138	377

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
reads newspaper' * using not using	376.314[a]	99.2%	2.844	.8%	379.158	100.0%
% within reads newspaper'				63.4%	36.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.323[a]	1	.038		
Continuity Correction[b]	3.776	1	.052		
Likelihood Ratio	4.222	1	.040		
Fisher's Exact Test				.042	.027
Linear-by-Linear Association	4.312	1	.038		
N of Valid Cases	377				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 26.36.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.107	.038
	Cramer's V	.107	.038
N of Valid Cases		377	

Crosstabs for exposure to mass media (watching tv)

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
watching tv new categories * using not using	375.187[a]	99.0%	3.971	1.0%	379.158	100.0%

a. Number of valid cases is different from the total count in the crosstabulation table because the cell counts have been rounded.

watching new categories * using not using Crosstabulation

			using not using		Total
			NOT USING	USING	
Watching tv new categories	not exposed	Count	112	35	147
		% within watching new categories	76.2%	23.8%	100.0%

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
watching tv new categories * using not using	375.187[a]	99.0%	3.971	1.0%	379.158	100.0%

exposed	Count	126	103	229
	% within watching new categories	55.0%	45.0%	100.0%
Total	Count	238	138	376
	% within watching new categories	63.3%	36.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	17.269[a]	1	.000		
Continuity Correction[b]	16.370	1	.000		
Likelihood Ratio	17.812	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	17.223	1	.000		
N of Valid Cases	376				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 53.95.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.214	.000
	Cramer's V	.214	.000
N of Valid Cases		376	

Crosstabs for husbands' occupation

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Husbands' occupation two categories * using not using	376.729[a]	99.4%	2.429	.6%	379.158	100.0%

a. Number of valid cases is different from the total count in the crosstabulation table because the cell counts have been rounded.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Husbands' occupation two categories * using not using	376.729[a]	99.4%	2.429	.6%	379.158	100.0%

husband occupation new categories * using not using Crosstabulation

			using not using		Total
			NOT USING	USING	
Husbands' occupation new categories	not working	Count	19	5	24
		% within husband occupation two categories	79.2%	20.8%	100.0%
	skilled manual	Count	46	44	90
		% within husband occupation two categories	51.1%	48.9%	100.0%
	unskilled manual	Count	172	90	262
		% within husband occupation two categories	65.6%	34.4%	100.0%
Total		Count	237	139	376
		% within husband occupation two categories	63.0%	37.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.940[a]	2	.011
Likelihood Ratio	9.013	2	.011
Linear-by-Linear Association	.282	1	.596
N of Valid Cases	376		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.87.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.154	.011
	Cramer's V	.154	.011
N of Valid Cases		376	

Crosstabs for husbands' education

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
husband education categories * using not using	376.679[a]	99.3%	2.479	.7%	379.158	100.0%

a. Number of valid cases is different from the total count in the crosstabulation table because the cell counts have been rounded.

husband education categories * using not using Crosstabulation

			using not using		Total
			NOT USING	USING	
husband education categories	no education	Count	55	19	74
		% within husband education categories	74.3%	25.7%	100.0%
	have education	Count	184	119	303
		% within husband education categories	60.7%	39.3%	100.0%
Total		Count	239	138	377
		% within husband education categories	63.4%	36.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.739[a]	1	.029		
Continuity Correction[b]	4.171	1	.041		
Likelihood Ratio	4.941	1	.026		
Fisher's Exact Test				.032	.019
Linear-by-Linear Association	4.727	1	.030		
N of Valid Cases	377				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 27.09.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.112	.029
	Cramer's V	.112	.029
N of Valid Cases		377	

Crosstabs for women's education

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Women's education new categories * using not using	379.158[a]	100.0%	0	.0%	379.158	100.0%

a. Number of valid cases is different from the total count in the crosstabulation table because the cell counts have been rounded.

education new categories * using not using Crosstabulation

			using not using		Total
			NOT USING	USING	
Women's education new categories	no education	Count	78	31	109
		% within education new categories	71.6%	28.4%	100.0%
	have education	Count	162	109	271
		% within education new categories	59.8%	40.2%	100.0%
Total		Count	240	140	380
		% within education new categories	63.2%	36.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.637[a]	1	.031		
Continuity Correction[b]	4.144	1	.042		
Likelihood Ratio	4.750	1	.029		
Fisher's Exact Test				.035	.020
Linear-by-Linear Association	4.624	1	.032		
N of Valid Cases	380				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 40.16.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.110	.031
	Cramer's V	.110	.031
N of Valid Cases		380	

The Result of Bivariate analysis of programmatic characteristics (husband approval, knowledge about any methods, and access to health facilities)

Crosstabs for decision making in family planning

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
husband approval * using not using	376.241[a]	99.2%	2.917	.8%	379.158	100.0%

a. Number of valid cases is different from the total count in the crosstabulation table because the cell counts have been rounded.

husband approval * using not using Crosstabulation

			using not using		Total
			NOT USING	USING	
husband approval	husband approve	Count	131	115	246
		% within husband approval	53.3%	46.7%	100.0%
	husband disapprove	Count	107	23	130
		% within husband approval	82.3%	17.7%	100.0%
Total		Count	238	138	376
		% within husband approval	63.3%	36.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	30.908[a]	1	.000		
Continuity Correction[b]	29.670	1	.000		
Likelihood Ratio	33.000	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	30.826	1	.000		
N of Valid Cases	376				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 47.71.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.287	.000
	Cramer's V	.287	.000
N of Valid Cases		376	

Crosstabs for knowledge of family planning methods

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
knowlege of family planning methods * using not using	379.158[a]	100.0%	.000	.0%	379.158	100.0%

a. Number of valid cases is different from the total count in the crosstabulation table because the cell counts have been rounded.

knowlege of family planning methods * using not using Crosstabulation

			using not using		Total
			NOT USING	USING	
knowlege of family planning methods	<5	Count	186	76	262
		% within knowlege of family planning methods	71.0%	29.0%	100.0%
	>5	Count	54	63	117
		% within knowlege of family planning methods	46.2%	53.8%	100.0%
Total		Count	240	139	379
		% within knowlege of family planning methods	63.3%	36.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	21.486[a]	1	.000		
Continuity Correction[b]	20.430	1	.000		
Likelihood Ratio	21.095	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	21.429	1	.000		
N of Valid Cases	379				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 42.91.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.238	.000
	Cramer's V	.238	.000
N of Valid Cases		379	

Crosstabs for access to family planning services

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Visited health facility last 6 months * using not using	377.278[a]	99.5%	1.880	.5%	379.158	100.0%

a. Number of valid cases is different from the total count in the crosstabulation table because the cell counts have been rounded.

Visited health facility last 6 months * using not using Crosstabulation

			using not using		Total
			NOT USING	USING	
Visited health facility last 6 months	No	Count	175	86	261
		% within Visited health facility last 6 months	67.0%	33.0%	100.0%
	Yes	Count	64	52	116
		% within Visited health facility last 6 months	55.2%	44.8%	100.0%
Total		Count	239	138	377
		% within Visited health facility last 6 months	63.4%	36.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.882[a]	1	.027		
Continuity Correction[b]	4.384	1	.036		
Likelihood Ratio	4.818	1	.028		
Fisher's Exact Test				.029	.019
Linear-by-Linear Association	4.869	1	.027		
N of Valid Cases	377				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 42.46.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.114	.027
	Cramer's V	.114	.027
N of Valid Cases		377	

APPENDIX II

Multivariate and Odds Ratio Result of Demographic, Socioeconomic, and Programmatic Factors

Logistic Regression

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	2684	93.4
	Missing Cases	189	6.6
	Total	2873	100.0
Unselected Cases		0	.0
Total		2873	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
NOT USING	0
USING	1

Categorical Variables Codings

		Frequency	Parameter coding			
			(1)	(2)	(3)	(4)
women desire for children categories	wants within 2 years	499	.000	.000	.000	.000
	wants after 2 years	571	1.000	.000	.000	.000
	wants, unsure timing	112	.000	1.000	.000	.000
	undecided	272	.000	.000	1.000	.000
	wants no more	1230	.000	.000	.000	1.000
husbands desire for children	Both want same	1667	.000	.000	.000	
	Husband wants more	405	1.000	.000	.000	
	Husband wants fewer	67	.000	1.000	.000	
	DK	545	.000	.000	1.000	

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	2684	93.4
	Missing Cases	189	6.6
	Total	2873	100.0
Unselected Cases		0	.0
Total		2873	100.0

husband occupation	not working	185	.000	.000			
	skilled manual	1021	1.000	.000			
	unskilled manual	1478	.000	1.000			
no of living children	two or fewer	1532	.000	.000			
	three or four	775	1.000	.000			
	five or more	377	.000	1.000			
reads newspaper	not exposed	1638	.000				
	exposed	1046	1.000				
watching tv	not exposed	557	.000				
	exposed	2127	1.000				
husband education	no education	265	.000				
	have education	2419	1.000				
visited health facility last 6 months	No	1778	.000				
	Yes	906	1.000				
husband approval	husband approve	2088	.000				
	husband disapprove	596	1.000				
women’s education	no education	383	.000				
	have education	2301	1.000				
knowlege of family planning methods	<5	1340	.000				
	>5	1344	1.000				

Block 0: Beginning Block

Iteration History[a,b,c]

Iteration		-2 Log likelihood	Coefficients Constant
Step 0	1	859.645	-.220
	2	859.645	-.221

a. Constant is included in the model.

b. Initial -2 Log Likelihood: 859,645

c. Estimation terminated at iteration number 2 because parameter estimates changed by less than ,001.

Classification Table[a,b]

Observed			Predicted		
			using not using		Percentage Correct
			NOT USING	USING	
Step 0	using not using	NOT USING	347	0	100.0
		USING	278	0	.0
	Overall Percentage				55.5

a. Constant is included in the model.

b. The cut value is ,500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-.221	.080	7.521	1	.006	.802

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	knowledgemethods(1)	26.033	1	.000

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)
	No. of living children		11.968	2	.003	
	No. of living children(1)		8.062	1	.005	
	No. of living children(2)		6.923	1	.009	
	husband desire for children		16.986	3	.001	
	husband desire for children(1)		.743	1	.389	
	husband desire for children(2)		2.232	1	.135	
	husband desire for children(3)		13.086	1	.000	
	reads newspaper(1)		12.018	1	.001	
	watching tv (1)		30.748	1	.000	
	husband education(1)		8.508	1	.004	
	women education(1)		12.679	1	.000	
	husband approval(1)		55.904	1	.000	
	visited health facilities last 6 months (1)		9.811	1	.002	
	husband occupation		11.576	2	.003	
	husband occupation(1)		8.045	1	.005	
	husband occupation(2)		3.017	1	.082	
	women desire for children		50.875	4	.000	
	women desire for children(1)		22.329	1	.000	
	women desire for children(2)		.825	1	.364	
	women desire for children(3)		.792	1	.373	
	women desire for children (4)		2.978	1	.084	
Overall Statistics			119.236	18	.000	

Block 1: Method = Enter

Iteration History[a,b,c,d]

Iteration		-2 Log likelihood	Coefficients																	
			Constant	knowledgemethods(1)	no. of living children (1)	no. of living children (2)	Husband desire for children(1)	Husband desire for children (2)	Husband desire for children(3)	Reads newspaper(1)	Watching tv(1)	Husband education(1)	women education(1)	husband approval (1)	visited health fasilities last 6 months (1)	Husband occupation(1)	husband occupation(2)	women desire for children (1)	women desire for children (2)	women desire for children (3)	women desire for children (4)
Step 1	1	731.337	-2.055	.332	.363	-.386	-.068	.281	-.298	-.051	.447	.050	-.198	-.844	.122	.798	.808	1.412	.665	.937	.999
	2	725.798	-2.659	.387	.430	-.433	-.084	.326	-.380	-.069	.577	.068	-.223	-1.094	.128	1.032	1.053	1.723	.905	1.235	1.272
	3	725.721	-2.742	.392	.436	-.435	-.085	.329	-.389	-.071	.595	.071	-.225	-1.129	.127	1.062	1.085	1.762	.939	1.275	1.308
	4	725.721	-2.743	.392	.436	-.435	-.085	.329	-.389	-.071	.596	.071	-.225	-1.130	.127	1.062	1.085	1.763	.939	1.276	1.309
	5	725.721	-2.743	.392	.436	-.435	-.085	.329	-.389	-.071	.596	.071	-.225	-1.130	.127	1.062	1.085	1.763	.939	1.276	1.309

a. Method: Enter

b. Constant is included in the model.

c. Initial -2 Log Likelihood: 859,645

d. Estimation terminated at iteration number 5 because parameter estimates changed by less than ,001.

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	133.924	18	.000
	Block	133.924	18	.000
	Model	133.924	18	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	725.721[a]	.193	.258

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than ,001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	2.302	8	.970

Contingency Table for Hosmer and Lemeshow Test

		using not using = NOT USING		using not using = USING		Total
		Observed	Expected	Observed	Expected	
Step 1	1	58	58.035	5	4.928	63
	2	51	51.965	12	10.899	63
	3	50	47.152	14	16.478	64
	4	45	42.460	18	20.690	63
	5	36	36.098	27	26.822	63
	6	29	30.277	34	32.779	63

	7	22	25.179	41	38.428	64
	8	23	22.815	40	40.224	63
	9	18	19.117	47	45.682	65
	10	16	14.049	39	41.482	56

Classification Table[a]

Observed			Predicted		
			using not using		
			NOT USING	USING	Percentage Correct
Step 1	using not using	NOT USING	246	101	70.8
		USING	82	196	70.4
	Overall Percentage				70.6

a. The cut value is ,500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	knowledgemethods(1)	.392	.208	3.543	1	.060	1.481	.984	2.228
	no. of living children			9.374	2	.009			
	no. of living children(1)	.436	.222	3.873	1	.049	1.547	1.002	2.389
	no. of living children(2)	-.435	.305	2.038	1	.153	.647	.356	1.176
	husband desire for children			2.857	3	.414			
	husband desire for children(1)	-.085	.264	.104	1	.747	.918	.547	1.541
	husband desire for children(2)	.329	.556	.350	1	.554	1.390	.467	4.136

	husband desire for children(3)	-.389	.255	2.330	1	.127	.678	.411	1.117
	reads newspaper(1)	-.071	.214	.110	1	.740	.932	.613	1.416
	watching tv(1)	.596	.277	4.616	1	.032	1.814	1.054	3.124
	husband education(1)	.071	.399	.032	1	.858	1.074	.492	2.347
	women education(1)	-.225	.365	.378	1	.538	.799	.390	1.635
	husband approval(1)	-1.130	.262	18.601	1	.000	.323	.193	.540
	visited health facilities last 6 months(1)	.127	.193	.432	1	.511	1.136	.777	1.659
	husband occupation			5.490	2	.064			
	husband occupation(1)	1.062	.473	5.048	1	.025	2.893	1.145	7.308
	husband occupation(2)	1.085	.467	5.388	1	.020	2.960	1.184	7.400
	women desire for children			33.454	4	.000			
	women desire for children(1)	1.763	.310	32.360	1	.000	5.829	3.176	10.700
	women desire for children(2)	.939	.529	3.151	1	.076	2.559	.907	7.220
	women desire for children (3)	1.276	.402	10.052	1	.002	3.581	1.628	7.880
	women desire for children(4)	1.309	.296	19.501	1	.000	3.701	2.071	6.615
	Constant	-2.743	.613	20.004	1	.000	.064		

a. Variable(s) entered on step 1: knowledgemethods, no. of living children, husband desire for children, reads newspaper, watching tv, husband education, women education, husband approval, visited health facilities last 6 months, husband occupation, women desire for children.