WILLINGNESS TO USE CONTRACEPTIVE METHODS AMONG UNMARRIED YOUTH IN INDONESIA

ROSSI YANNE

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Thesis
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……..…….
Miss. Rossi Yanne
Candidate

……..
Prof. Pramote Prasartkul, Ph.D.
Major advisor

……..…….
Lect. Manasigan Kanchanachitra, Ph.D.
Co-advisor

……
Prof. Banchong Mahaisavariya,
M.D., Dip Thai Board of Orthopedics
Dean
Faculty of Graduate Studies
Mahidol University

……..…….
Emeritus. Prof. Aphicat Chamratirithirong,
Ph.D.
Program Director
Master of Arts Program in Population and
Reproductive Health Research
Institute for Population and Social Research
Mahidol University

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on
August 15, 2012

……....
Miss. Rossi Yanne
Candidate

…….
Asst. Prof. Pimonpan Isarabhakdi, Ph.D.
Chair

……
Prof. Pramote Prasartkul, Ph.D.
Member

……...
Asst. Prof.Suvinee Wivatvanit, Ph.D
Member

……
Lect. Manasigan Kanchanachitra, Ph.D.
Member

……
Prof. Banchong Mahaisavariya,
M.D., Dip Thai Board of Orthopedics
Dean
Faculty of Graduate Studies
Mahidol University

……
Assoc. Prof. Sureeporn Punpuing, Ph.D.
Director
Institute for Population and Social Research
Mahidol University

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Rossi Yanne

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ROSSIYANNE 5438708 PRRH/M

M.A. (POPULATION AND REPRODUCTIVE HEALTH RESEARCH)

THESIS ADVISORY COMMITTEE : PRAMOTE PRASARTKUL, Ph.D., MANASIGAN KANCHANACHITRA, Ph.D.

ABSTRACT

The objectives of this study are to explore the level of willingness to use contraceptive methods and to investigate the factors affecting the willingness to use contraceptive methods among unmarried youths in Indonesia. There are many youths in Indonesia who have had sex before marriage and most of them did not use contraception in their first sexual experience. The number of abortions in Indonesia has been increasing every year. Lack of knowledge and information about sexual and reproductive health among youth put them at a disadvantage.

This study uses secondary data derived from quantitative research of Indonesian Young Adults Reproductive Health Research Survey (IYARHS) 2007. The total respondents of this study is 19,311 unmarried youths aged 15 – 24 years old, consisting of 10,830 males and 8,481 females. The data illustrates that only approximately 47 percent of unmarried youths in Indonesia were willing to use contraceptive methods. Male youths have a higher proportion of willingness to use contraceptive methods compared to female youths. Multivariate analysis using binary logistic demonstrates that knowledge about reproductive health and media exposure had a significant effect on the willingness to use contraceptive methods among unmarried youths. Socio-demographic factors, knowledge about reproductive health, media exposure, and sexual behavior in this study were good predictors for the willingness to use contraceptive methods among unmarried youths by having a statistically significant relationship.

The enhancement of program and access that are related to knowledge about sexuality, reproductive health, and family planning should be implemented in Indonesia especially for unmarried youths. Mass media plays an important role in increasing youth knowledge about reproductive health. Therefore, the government should improve IEC using the media for youths to raise awareness on contraceptive use among the young.

KEY WORDS : WILLINGNESS / CONTRACEPTIVE METHODS / UNMARRIED YOUTH/INDONESIA

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LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
BKKBN	Badan Kependudukan dan Keluarga Berencana Nasional
BPS	Badan Pusat Statistik
FP	Family Planning
HIV	Human Immuno-deficiency Virus
IDHS	Indonesia Demographic Health Survey
IYARHS	Indonesia Young Adult Reproductive Health Survey
LD-FEUI	Lembaga Demografi-Fakultas Ekonomi Universitas Indonesia
PBT	Planned Behavior Theory
PKBI	Persatuan Keluarga Berencana Indonesia
PKBR	Penyiapan Kehidupan Berkeluarga bagi Remaja
RH	Reproductive Health
SCT	Social Cognitive Theory
SRH	Sexuality and Reproductive Health
STD	Sexually Transmitted Diseases
STI	Sexually Transmitted Infections
UNFPA	United Nations Fund for Population Activities
WHO	World Health Organisation

CHAPTER I
INTRODUCTION

1.1 Background

Youth is a period in life between childhood and adulthood; they are neither children nor adults. There are many definitions of youth based on law and sociocultural context around the world, but generally, youth is defined as young people. The United Nations Fund for Population Activities (UNFPA) defines youth as people who are between 15 – 24 years old. Similarly, the World Bank also defines youth as people aged between 15 and 24 years, eventhough World Health Organization defines youth as any member in the society who are between 15 and 34 years old.

The youth population is noted as 1.2 billion worldwide, and one in every five people in the world is considered a youth. Around 1.1 billion young people live in Asia Pacific and youth constitute 18-25 percent of the population in member countries of South East Asia Region (WHO, 2011). In Indonesia more than 30 percent of the population, or around 65 million people from 237.6 million population are youth (BPS, 2010).

Nowadays, many controversial issues of youth sexual and reproductive health (SRH) evolve, and it is complicated because of the sensitivity towards the subject, particularly in a Muslim country such as Indonesia. Lack of knowledge on sexual and reproductive health (SRH) and access to services, less life experience and sexual exploitation, are all important factors that cause the youth to be more vulnerable to sexual risk behavior than those who are more mature (Situmorang, 2011). The United Nations Fund for Population Activities (UNFPA) has noted that the time between puberty and marriage is increasing in all regions of the world (UNFPA, 2009; Situmorang, 2011). Moreover, the World Health Organization (WHO) has reported that about 16 million girls aged 15-19 years old give birth every year-roughly

11 % of all births worldwide (WHO, 2011). Almost 40 percent of 6,800 new HIV infections each day among young people in 2009, and everyday 2,400 more young people get infected. Globally there are more than 5 million young people living with HIV/AIDS (UNFPA, 2011; WHO, 2011).

Furthermore, many young people are involved in premarital sexual activity and experience unwanted pregnancy. More than 50 percent of young people who experience unwanted pregnancies choose to abort it and they tend to involve in unsafe abortions. Adolescents are highly vulnerable to exposure to various risks and health risks in particular, especially those related to sex and reproduction (Utomo, 2003). In China, only about one-fifth of youth who are sexually active used a contraceptive method when they had sexual intercourse (Wang, et al, 2007).

1.2 Problem Identification

Youth is a part of the human life phase which has special characteristics. The age range of youth varies according to cultures and purpose for which they are used. In Indonesia the period of youth spans different years. National Family Planning Coordination Board (BKKBN) of Indonesia defines adolescents as those aged 10-24 years which cover the age range as defined by the UNFPA and the World Bank and includes the children aged 10-14 years.

Young people are potentially vulnerable to coercion, abuse, exploitation, unwanted pregnancy, and sexually transmitted infection (STI) including HIV/AIDS, because nowadays a few young people receive adequate information and education about sexuality. Many young people received conflicting and confusing messages about sexuality and gender when they approach adulthood (UNFPA, 2011). Indonesia made a significant progress on health and family planning programmes. However, improvement on program of adolescents reproductive health is needed. The number of unwanted pregnancy among adolescents in Indonesia is still high (Hambali, 2002).

Most of Indonesian societies consider puberty as a maturity of an individual and readiness for marriage and sexual activity. Marriage soon after menarche is common in the rural areas in Indonesia (Hanum, 1997; Utomo, 2003). In terms of socio-cultural, speaking about reproductive health and sexuality publicly is

taboo, because it is regarded as a purely biological matter (Hambali, 2002). Generally, young female received information about sexual matter from their mother when they reach menarche, but there is no discussion regarding sex after that. For young male, mostly they receive information and knowledge about sexuality from informal sources such as peers, mass media, and pornography. Almost no communication between young male and their parents on sexuality matters (Utomo, 2003).

Engaging in any premarital sexual activities is considered sinful in the Muslim world and therefore the subject matter is rarely discussed, if not entirely ignored. Society expects unmarried people, especially youth, to abstain from sex and schools refrain from educating their students about safe sex. Nevertheless, about 62.7 percent Indonesian youth engaged in premarital sexual intercourse (KOMPAS, 2010). There are indications among adolescents both urban and rural areas that show increased premarital sexual behavior. Based on a study in three cities in West Java (2009) female adolescents are most afraid of social risk (among other things, such as fear of losing virginity, fear of unwanted pregnancy because rumors were subject to the public) than the risk of sexual, particularly regarding reproductive health and sexual health.

Association of Indonesia Family Planning (PKBI), United Nations Fund for Population Activities (UNFPA), National Family Planning Coordination Boards (BKKBN) conduct a study and reveal that about 15 percent of adolescents aged 10-24 years have been having sex before marriage. Most of the youth in Indonesia did not use contraception when they first had sex, such as condom or other contraception method. A study noted that many youth used no contraceptive method at their first sexual intercourse (Manning, et al, 2000). Many young people in Indonesia have had sex for the first time at age 13 – 18 years old and 60 percent did not use contraceptive (PKBI, 2006). A study in 2008 shows that there are 405 unwanted pregnancies in Jakarta and about 95 percent of which is from adolescents aged 15-25 years old.

The lack of information and knowledge about sexual and reproductive health among adolescence put young men and young women at a disadvantage (Hambali, 2002). Many good sources of information and knowledge can give advantages to the youth to improve their knowledge about sexuality and reproductive

health. This can influence the willingness to use contraceptive method among unmarried youths in Indonesia.

1.3 Research Question

What are the factors that affect the willingness of youth to use contraceptive methods in Indonesia?

1.4 Scope of Research

This research focuses on factors that influence the willingness to use contraceptive methods among unmarried youth in Indonesia. The population being studied are both male and female aged 15 – 24 years old living in rural and urban areas from 33 provinces in Indonesia.

1.5 Research Objective

1. To explore the level of willingness to use contraceptive methods among unmarried youth in Indonesia.
2. To investigate the factors affecting the willingness to use contraceptive methods among unmarried youth in Indonesia.

1.6 Definition of Key Words

1. Willingness

This term refers to the youth awareness and their desire to use contraceptive method when they have sex with their partner. In this study, it refers to currently or in the future when they get married.

2. Contraceptive methods

This term refers to any methods of contraceptive that they use currently or will use in the future when they get married.

3. Unmarried youth

This term refers to the youth currently at age 15-24 years old in Indonesia who are not married yet.

CHAPTER II
LITERATURE REVIEW

2.1 General Review

The purpose of this study is to analyze factors affecting willingness to use contraceptive method among unmarried youth in Indonesia by describing the way of knowledge, media exposure and behaviors. Social Demographics factors also can influence youth behavior as individual characteristics. Two theories that can link those components are Social Cognitive Theory (SCT) and Planned Behavior Theory (PBT). These two theories thus can be applied in this study on the relationship of willingness to use contraceptive method among unmarried youth in Indonesia.

Nowadays, most of youth get information about sexuality and reproductive health issues from their peers. In Indonesia, generally knowledge and information relating to human reproduction give by school through the biology lesson. However, it is not cover all the knowledge and information that youth needs relating to reproductive health. Therefore, to cover this situation the government through Ministry of Health (MoH) and BKKBN provide youth centre program. The program that develop by National Population and Family Planning Board (BKKBN) called *Preparation for the Youth to Family Life* (PKBR). This program develop in schools and universities among Indonesia, but not included in the curriculum of education.

2.1.1 Social Cognitive Theory

Social Cognitive Theory (SCT) describes learning in terms of the interrelationship between behavior, environmental factors, and personal factors. It also provides the theoretical framework for interactive learning used to develop both Constructivism and Cooperative Learning (Bandura, 1986; www.idea.org, 2006). In addition, personal factors that have been influenced by environments will affect someone's behavior or vice versa (Baranowski, et al, Situmorang, 2011).

The inversions of personal factors of cognitive, affective and biological events in behavior influence someone thinking and practicing. The stage of self control, observational learning, reinforcement, self-efficacy and emotional coping responses of person lead them to outcomes of behavior. Environmental factors, such as family members, friends, and mass media can affect individual behavior and create person perception (Baranowski, et al, 2006, Situmorang, 2011).

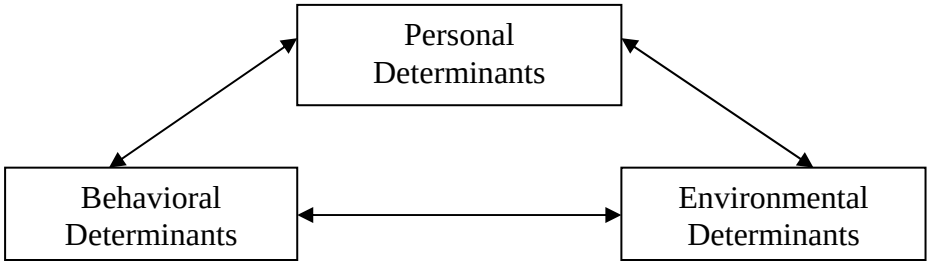

Figure 2.1 Social Cognitive Theory (Bandura, 1986)

In this study, Indonesian unmarried youth knowledge and sexual behavior are defined as personal determinants that can influence them on willingness to use contraceptive methods. Furthermore, environmental determinants are individual characteristics and media exposure that can control them.

2.1.2 Planned Behavior Theory

Planned Behavior Theory (PBT) provides a framework to study attitude toward behavior. Base on this theory, the most important determinant on a person's behavior is the intention to behave. Individual intention to perform a behavior is a combination of attitude and subjective norms. Individual attitude toward the behavior includes beliefs about a behavior, an evaluation of the behavior, subjective norm, normative beliefs and motivation to comply (Ajzen, 2006).

According to Planned Behavior Theory (PBT) human is a rational beings and use all the information systematically. An individual will think of the implication of the behavior before it is performed, and the behavior will be displayed when it is considered positive. Attitude determined by individual beliefs of consequences of a

behavior (behavioral beliefs), considered base on consequences of the evaluation (outcome evaluation). These attitudes have a direct influence on intentions to behave with subjective norm and perceived behavioral control. A person's behavior will be performed when the behavior is approved by norms (normative beliefs). Generally, if these three beliefs are positive, the more likely an individual will perform the behavior (Ajzen, 2006).

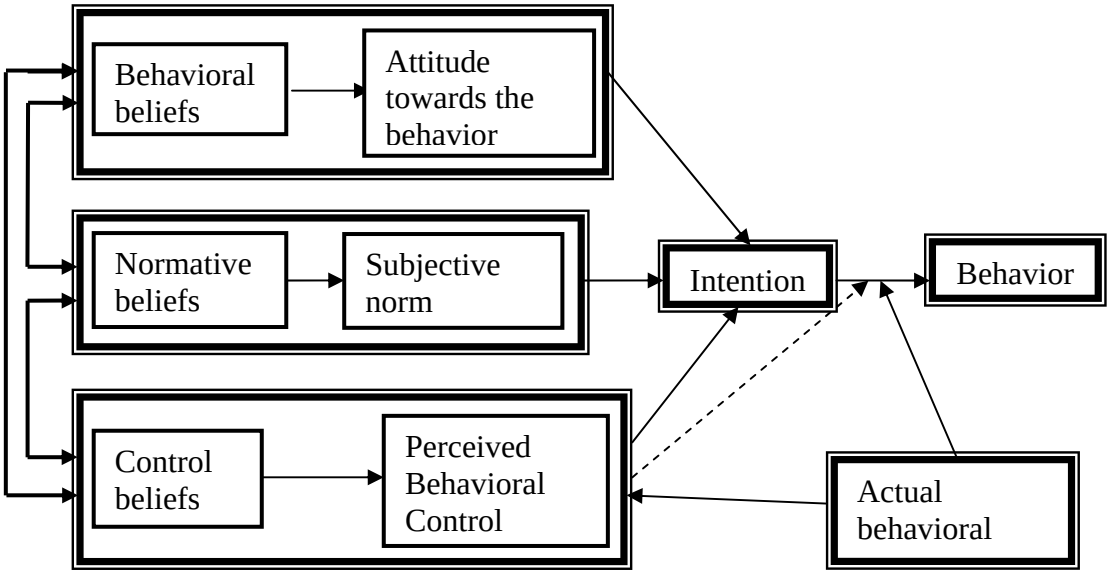

Figure 2.2 Planned Behavior Theory (Ajzen, 2006)

2.2 Socio-demographic Factors

In this section, I review previous studies that attempt to explore the relationship between characteristics including age, sex, place of residence, education, and religion and contraceptive use behavior in Indonesia as well as other countries.

2.2.1 Age

Some studies revealed that many young people engage in premarital sexual intercourse and their first sexual intercourse is when they are in the junior high school or when their age is 15 years old. Many of young people in this age were less likely to use contraceptive method in their first sexual intercourse. The most common

contraceptive method among young men is condom use, and greater condom use among young men who age 17-22 years when they have first sexual intercourse with their girlfriend (Manning, et al, 2000,Wang, et al, 2007).

Condom use among sexually active youth declines because of age and relationship status (Everett, et al, 1999). Women choices of contraceptive method were strongly influenced by age (Kann, et al, 1997). A study in Nepal showed that about 20 percent and 16 percent rural and urban married women aged 15-49 years old reported the failure of contraceptive method as the reason for their unplanned pregnancy (Adhikari, et al, 2002).

2.2.2 Sex

Globally there is no equality between men and women in the responsibility for fertility regulation and family planning methods. There are only a few countries that have fertility regulation that is shared equally between men and women. Many men have expressed the belief that they should share the responsibility for family planning with their wives, but in fact the proportion of men participation in family planning is still small (Ringheim, 1993). In Indonesia as well, men's participation in the family planning is very low (IDHS, 2007).

In the developing countries, talking about family planning refers to the women's responsibility of the fertility regulation in the modern era. The family planning policy in Indonesia still focuses on achieving the targets of family planning through female participants. Women remain to be the main targets of family planning socialization in Indonesia, and it is hoped that the women will communicate and negotiate the use of contraceptive methods with their partner (UGM, 2012).

2.2.3 Place of Residence

Indonesia is a huge country with 33 provinces and every province has many rural areas. In Indonesia, the access for family planning services in the rural area is not easy like in the urban area where people can get contraceptives easily. Compared with the urban area, people in the rural area are more likely to use traditional family planning methods.

Using contraceptive method is influenced strongly by attitudes of village leaders toward family planning in rural India (Ringheim, 1993). Moreover, Ringheim described that the WHO study of initial preference among women in developing countries concluded that the most important determinants of method preference is the local factors, such as cultural differences and urban or rural residence. In the Philippines, female in the urban area more likely to use contraception compared to women in the rural area. Contrary with the female, male in the urban area are less likely to use contraception than male in the rural area (Jaime, 2006).

2.2.2 Education

Most of youth who are students that are currently sexually active reported that they use condoms and pills to prevent unwanted pregnancy at last sexual intercourse. Undergraduate college students were less likely to use condoms when they were in a monogamous relationship and using some other form of contraception such as pills (Everett, et al, 1999).

A study in the United States showed that there is a perfect correlation between education and proportion of men who expressed a willingness to use contraceptive method. Women are the principal source of information about fertility regulation of their partners and also as channels of information and education in family planning methods for men (Ringheim, 1993).

2.2.3 Religion

One factor that is associated with the use of contraceptive method is religion. Studies noted that human behavior is influenced by religion/spirituality. The youth may develop their self-regulating mechanism for promotion of positive behaviors. Whitehead (2001) cited from Cerqueira-Santos, et al argues that religious communities guide and protect young during adolescence, promoting health programs for adolescent and reducing exposure to risks, including premature sexual activity. Positive aspects of religion in the individual life can develop characteristics like hope, optimism, self-esteem, and self efficacy (Cerqueira-Santos, et al, 2008).

In Muslim world, religious leaders have an important role towards using contraceptive method among men (Ringheim, 1993). A study in Thailand which compare between female Thai-Muslim and Thai-Buddhist showed that Muslim community are less likely to use any modern contraceptive methods and more likely to use ineffective method of safety period (Soonthorndhada, et al, 2012).

Furthermore, in the Philippines contraceptive use is influenced more strongly by the availability or quality of family planning services. In three rural Christian communities contraceptive use in the Philippines is strongly influenced by local religious leaders (Mason, et al, 2000).

2.3 Knowledge about Reproductive Health

2.3.1 Knowledge about Sexuality, Contraception and Family Planning

Knowledge about fertile period and risk of pregnancy is an important issue related to teenage pregnancy. Many sexually active teenagers in the United States reveal that they do not use contraception when they have sexual intercourse because they believe they are protected from the risk of pregnancy (Zelnik, 1979). Furthermore, many female youth have taken courses about sex education and reproductive health, including menstrual cycle but only a few of them that knew the period of greatest pregnancy risk.

A survey from Indonesia found that nearly a half of youth felt that a girl could not get pregnant if she only had sexual intercourse once (Hambali, 2002). In Indonesia, many young people know and can mention the name of contraceptive methods but it does not mean they know the details about the contraception (Situmorang, 2003). Unmarried young people seldom use contraception because their knowledge of contraception is limited (LD-FEUI, 1999).

Males lack the knowledge and awareness of contraceptive method more than female (Everett, 2000). A study for Asian countries found that many young people in Asia have knowledge of contraception, they know about modern contraceptive methods. In Vietnam most of the young people are aware of condoms because they know that condom is the only method that can protect them from unwanted pregnancy and STIs (Pachauri, et al, 2002).

The United Nations Fund for Population Activities (UNFPA) has noted that only 17 per cent of young people who are sexually active use contraceptives. They have limited knowledge about their bodies, they are vulnerable to sexually transmitted infection, substance abuse, exploitation, and violence (UNFPA, 2003).

Most of young adults in Indonesia have heard about HIV/AIDS, but few have heard of any other sexually transmitted infection. Very few have a good understanding of how HIV/AIDS is transmitted. Several do not realize that it is possible to contract HIV/AIDS from someone who appears healthy, and some young adults believe that HIV/AIDS is curable (Achmad, et al, 1999).

Among many older female adolescents, the use of contraceptive method is more influenced by concerns about pregnancy than STD prevention (Everett, 2000). In the United States, out-of-school youth are more likely to initiate sex earlier, to fail use contraception and they have higher frequencies of behaviors that increase risk for STI and HIV infection (Wang, B, et al, 2007). Having knowledge about HIV infection will increase the use of condoms among youth (Santelli, 1997).

2.3.2 Source of Information

Talk about sex is still considerd taboo in Indonesian society and it makes adolescents awkward to discuss about reproductive health with their family (Jameela, 2008). The survey and research in Indonesia show that about 86 percent of information on adolescents sexual and reproductive health is obtained from friends, mass media, pornographic books and the internet (Hambali, 2002). However, the mass media is the major source of information that people get if comparing with any other source of information such as family and friends or neighbors (Chanthavong, 2009; Situmorang, 2011).

Moreover, few young people discuss such topics with their parents, and even less learn about family planning and reproductive health at school (Achmad, et al, 1999). Adolescents get information on sexual behavior from their friends and the mass media because their parents are not motivated to give them information on sex and reproductive health. Parents are often afraid that this will encourage sex outside of marriage (Hambali, 2002). Furthermore, adolescents always indicate school as the

place they can get information and knowledge about sexuality and reproductive health (Saito, 1998).

2.4 Media Exposure

Media have an important role to promote contraceptive method among youth. Nowadays, many social media are being used by youth around the world, not only television, newspaper or magazine, and radio but also other social network spread such as facebook and twitter. These can give advantages to promote contraceptive use among population especially youth.

Several international studies found that exposure messages of family planning through mass media such as television, radio, or printed media can increase contraceptive use (Keller, 2002). One study in Turkey noted that using internet is a successful way to promote condom use in this country (Purdy, 2011). More media exposure about family planning messages will increase the number of contraceptive method usage (Jato, et al, 1999).

2.5 Sexual Behavior

2.5.1 Premarital Sexual Intercourse

The current trend of young people is to postpone marriage and many more are likely to engage in premarital sexual intercourse. This puts young people at a greater risk of unintended pregnancies, abortions or birth among unmarried adolescents (Hambali, 2002). Moreover a study conducted by the Centre of Health Research University of Indonesia and Ministry of Health found that age at first sex begins less than 14 years old or in junior high school. A study among adolescents age 15-24 years old from various socio-economic backgrounds in 12 cities in Indonesia reveals that about 30 per cent of youth reported having engaged in premarital sex.

In China, attitudes towards sex have been changing in the last two decades. Premarital sexual intercourse is accepted by many young people (Wang, et al, 2007). Moreover, attitude about sex among young people affects their sexual behavior. The youth are becoming more permissive and therefore are more likely to engage in earlier first sexual intercourse.

2.5.2 Approval of Multiple Sexual Partners

Having some sexual partners influences youth to not use any contraceptive methods. Many college students are more likely to have more than one sexual partner and less likely to use condoms (Wang, et al, 2007, Santelli, 1997). Young people who experience early initiation of sexual intercourse are more likely to have multiple sexual partners. Youth whose sexual debut ocurred at age less than 15 years old are more likely to have multiple sexual partner (Durbin, et al, 1993; Santelli, et al, 1998).

2.6 Willingness To Use Contraceptive Method Among Unmarried Youth in Indonesia

The main target of family planning in Indonesia is women. The assumption is that women are the key person to produce the future generation, making them have more responsibility for contraception use than men (Dzuhayatin, 2002). In Indonesia only married people can access family planning services. From Indonesian Demographic Health Survey 2007, more than 50 percent of population aged 20-24 years old who are married use any kind of contraceptive method. According to the survey, men in Indonesia have less participation in family planning programs.

2.7 Conceptual Framework

The following conceptual framework has been developed based on above review of literature, showing the causal model for this analysis. The framework consists of one dependent variable which is willingness to use contraceptive method among unmarried youth in Indonesia. The independent variables are categorized into 4 groups such as socio demographic factors, knowledge about sexuality, contraception, and family planning, media exposure, and sexual behavior. The groups of independent variables are expected to have a direct effect on the willingness to use contraceptive method among unmarried youth in Indonesia.

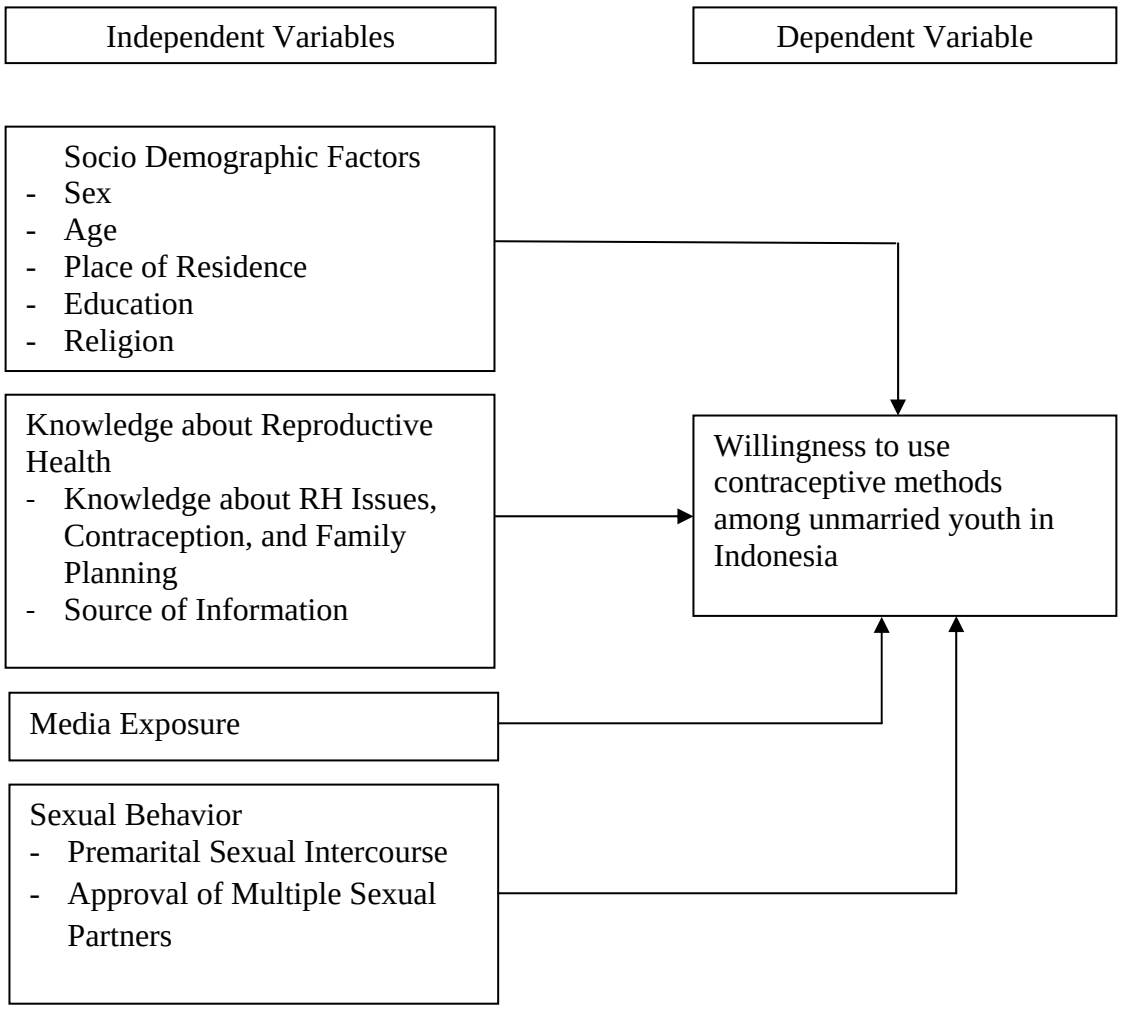

Figure 2.3 Conceptual Framework

2.8 Research Hypotheses

1. Female youth are more willing to use contraceptive methods than male youth.
2. Youth in the urban area are more willing to use contraceptive methods to prevent unwanted pregnancy.
3. Older youth are more willing to use contraceptive methods when they have sexual intercourse than the younger youth.
4. Higher educated youth are more likely to use contraceptive methods.
5. Muslim youth are more willing to use contraceptive methods than non-Muslim youth.

6. Youth who have better knowledge about reproductive health issues, contraception, and family planning will have higher willingness to use contraceptive methods.

7. Youth who have more than one source of information about sexuality and reproductive health will have higher willingness to use contraceptive methods.

8. Youth who have higher exposure to media on information and knowledge will have higher willingness to use contraceptive methods.

9. Youth who have good sexual behavior are more likely to use contraceptive methods.

10. Youth who have multiple sexual partners are less willing to use contraceptive methods.

CHAPTER III
RESEARCH METHODOLOGY

3.1 Study Population and Sample

This study uses secondary data taken from Indonesian Young Adult Reproductive Health Survey (IYARHS) 2007. This research was carried out by Indonesia statistic Bureau (BPS) and Macro International Inc at the request of the National Family Planning coordinating Board (BKKBN). The 2007 IYARHS sample was aimed to provide the reliable estimation of key characteristics for never-married Indonesian male and female young adults aged 15-24 in 33 provinces (BPS, IYARHS, 2007,2008).

The respondents of 2007 IYARHS is 19,311 unmarried youth consisting 8,481 females and 10,830 males. They were divided into two age groups; 15 – 19 years old and 20 – 24 years old. Updated from previous IYARHS (2002 – 2003), 2007 IYARHS used individual questionaire to interview the respondents. However, for respondents aged less than 18 years old, parental approval is required. Although the survey exercises private face to face interview, in fact the respondent's parents may have introduced bias due to the influence of parent approval or attendance (BPS, IYARHS 2007, 2008).

1.2 Operational Definition

1.2.1 Dependent Variable

The dependent variable in this study is the willingness to use contraceptive methods among unmarried youth in Indonesia. This variable is dichotomous comprising of two categories; yes for willing to use contraceptive method and no, for not willing to use contraceptive method, a nominal scale, 0 = No and 1 = Yes.

3.2.2 Independent Variables

The independent variables are divided into :

1. Socio-demographic Factors
   a. Sex

      Sex (Q.11) is defined as 2 categories in a nominal scale; 0 = Female and 1 = Male.

   b. Age

      Age (Q.103) is defined as how old the respondent is at his/her last birthday when the survey was held in 2007 and measured by ratio scale from 15-24 years old. It is divided into two groups, youth aged 15-19 years as the younger youth and youth aged 20-24 years as the older youth.

   c. Place of Residence

      Place of residence refers to the geographical area where the respondent lives at the time of survey in 2007 (Q.5) and it is divided into 2 groups in a nominal scale; 0 = Rural and 1 = Urban.

   d. Education

      Education refers to the level of school that the respondent attended (Q.105) and it is divided into 2 groups in a nominal scale; 1 = primary school or less, 2 = secondary school or higher.

   e. Religion

      Religion refers to the respondent belief (Q.109) and it is divided into two groups in nominal scale; 0 = Non Muslim and 1 = Muslim.

2. Knowledge about Reproductive Health
   a. Knowledge of Reproductive Health Issues, Contraception, and Family Planning

      Knowledge of RH, Contraception and FP (Q. 209, Q. 212, Q. 311, Q.605, Q. 607, Q. 615, Q. 616, Q. 617, Q. 618, Q.618A) refers to the level of respondent knowledge about women fertile period, family planning or contraceptive methods, unwanted pregnancy, and knowledge about STI and HIV/AIDS. Knowledge on each question will be made into dummy variable; 0 = No and 1

= Yes. Then, knowledge score is constructed by grouping up from 0 – 10 and divided into 3 categories such as those who get 0-3 as poor, 4-7 as average, and 8-10 as good knowledge of RH, contraception and FP.

b. Source of Information

Source of information (Q. 401) refers to whether a respondent get information about sexual matter from any source such as friends, family, or others. It is divided into 2 groups, 0 = Have no source, 1 = Have some source.

3. Media Exposure

Getting information from any kind of mass media (Q.412, Q.413, Q.414, Q.415, Q.416, Q.417) refers to whether a respondent get information from any kind of mass media such as newspaper, radio, or television or not. It is categorized into 2 groups in a nominal scale; 0 = No media and 1 = Have media

4. Sexual Behavior

a. Premarital Sexual Intercourse

Premarital Sexual Intercourse (Q. 705, Q. 708, Q. 710, Q. 712, Q. 715) refers to whether a respondent ever had sexual intercourse and did they use any thing to prevent a pregnancy or not. It will be categorized into 2 groups in a nominal scale; 0 = Never and 1 = Ever.

b. Approval Multiple Sexual Partners

Sexual partner (Q. 717) refers to whether a respondent approves or disapproves if a man or woman has many partners at the same time. It is categorized into 2 groups in a nominal scale; 0 = Disapprove and 1 = Approve.

Table 3.1 Summary of dependent variable, independent variables, and scale of measurement

Variables	Description	Scale of measurement
Dependent Variable : Willingness to use contraceptive methods among unmarried youth in Indonesia	Youth awareness and desire to use contraceptive methods when they having sexual intercourse	Nominal scale No = 0 Yes = 1
Independent variables		
Socio-Demographic Factors - Age	How old the respondents age at his/her last birthday when the survey was held in 2007	Ratio Scale 15 – 19 20 - 24
- Sex	Respondent sex	Nominal scale 0 = Female 1 = Male
- Place of Residence	Geographical area where the respondent live when the survey held in 2007	Nominal scale 0 = Rural 1 = Urban
- Education	Level of school that respondents attended	Nominal scale 0 = Primary school or less 1 = Secondary school or higher
- Religion	Refers to respondent belief	Nominal scale 0 = Non Muslim 1 = Muslim
Knowledge about Reproductive Health		
- Knowledge about Reproductive Health Issues, Contraception, and Family Planning	Refers to the level of respondents knowledge about women fertile period, unwanted pregnancy, family planning methods, and knowledge about STI and HIV/AIDS or not.	Nominal scale 0-3 = poor 4-7 = average 8-10 = good

- Source of Information	Whether the respondent gets information about sexual matter from any source, such as from friends, family, school, health provider, or religious leader.	Nominal scale 0 = Have no source 1 = Have some source
Media Exposure	Respondents gets any information from any kind of mass media such as television, radio, and newspaper.	Nominal scale 0 = No media 1 = Have media
Sexual Behavior		
- Premarital Sexual Intercourse	Whether respondent ever had sex sexual intercourse and did they use any thing to prevent unwanted pregnancy or not.	Nominal scale 0 = No 1 = Yes
- Approval Multiple Sexual Partners	Refers to whether respondent approve or disapprove if a man or woman has many partners in the same time.	Nominal scale 0 = Disapprove 1 = Approve

3.3 Method of Analysis

The data in this study will analyze by three steps. First, descriptive analysis applied to know the percentage of youth's characteristics. Second step is crosstabulation using chi square to examine the relationship between willingness to use contraceptive methods and socio-demographic factors, knowledge about reproductive health, media exposure, and sexual behavior. The third step of analyzing is multivariate analysis using binary logistic regression.

3.4 Limitation of The Study

This study uses secondary data from IYARHS 2007. Therefore, it is difficult to find the reliability since this data is based on interviewing the respondents face to face that may make some bias. The presence of the parents during interview may also influence the youth to not answering the questions truthfully about their sexual behavior or contraceptive use.

CHAPTER IV
RESULTS

In this chapter, the results of the study on the willingness to use contraceptive methods among unmarried youth in Indonesia will be presented. There are three sections in this chapter. The first section will discuss the characteristics of unmarried youth. The second section will present crosstabulation tables to examine the relationship between willingness to use contraceptive methods among unmarried youth and socio-demographic factors, knowledge about reproductive health, media exposure, and sexual behavior.

Multivariate analysis using binary logistic regression will be presented in the last section to investigate factors affecting willingness to use contraceptive methods among unmarried youth. Three models are used in the binary logistic regression analysis of this study.

1.1 Characteristics of Unmarried Youth

1.1.1 Socio-Demographic Factors

The sample size of this study is 19,311 unmarried youth in Indonesia, taken from Indonesia Young Adults Reproductive Health Survey (IYARHS) 2007, as mentioned in chapter 3. Table 4.1 shows the proportion of the sample size of this study by age. Most of the respondents of this study are younger youth aged 15-19 years old at 64 percent. More than half of the respondents in this study were male (56 %), and the rest were female (44 %). Moreover, approximately the same proportion of respondents living in the rural area and urban area (52 % and 48 % respectively).

In general, the education level of the respondents in this study were secondary school or higher (82 %) while the rest has only primary or less than primary school (18 %). Another socio-demographic factor on this study is religion, about 78 percent of respondent were Muslim and around 22 percent were non-Muslim.

Table 4.1 Percentage distribution of socio-demographic characteristics among unmarried youth, Indonesia, 2007

Socio - Demographic Factors		Total (N = 19,311)	
		Frequency (N)	Percent (%)
Age			
	15 - 19	12,340	63.9
	20 - 24	6,971	36.1
	Mean = 18.63 , Min = 15 , Max = 24		
Sex			
	Female	8,481	43.9
	Male	10,830	56.1
Place of Residence			
	Rural	10,072	52.2
	Urban	9,239	47.8
Education			
	Primary or less	3,567	18.5
	Secondary or higher	15,744	81.5
Religion			
	Muslim	15,004	77.7
	Non-Muslim	4,307	22.3

1.1.2 Knowledge about Reproductive Health

Knowledge in this study is described as the knowledge about fertile period, knowledge about family planning methods or contraceptive methods, unwanted pregnancy, and knowledge about HIV/AIDS and STI among unmarried youth in Indonesia and the source of information.

4.1.2.1. Knowledge about reproductive health issues, contraception, and family planning

Table 4.2 presents the knowledge of respondents about reproductive health issues, contraception methods, and also knowledge about HIV/AIDS and STI. Overall, there is approximately the same proportion of respondents with different level of knowledge related to reproductive health issues,

contraception, and family planning. The proportion of respondents that has poor knowledge is about 31 percent, and 37 percent of respondents has average knowledge, while 32 percent of respondents has good knowledge about reproductive health issues, contraception, and family planning.

Table 4.2 Percentage of unmarried youth by level of knowledge about reproductive health issues, contraception, and family planning, Indonesia, 2007

Knowledge about reproductive health issues, contraception, and family planning	Total (N = 19,311)	
	Frequency (N)	Percent (%)
Poor	6,064	31.3
Average	7,032	36.4
Good	6,233	32.3
Total	19,311	100.0

4.1.2.2 Source of Information

Descriptive analysis of source of information (Table 4.3) shows that about three quarters (75%) of respondents have some source of information about reproductive health issues, such as from friends, family, school, health provider, and also religious leader. However, about one quarter (25 %) of respondents does not have any source of information.

Table 4.3 Percentage of unmarried youth by source of information, Indonesia, 2007

Source of Information	Total (N = 19,311)	
	Frequency (N)	Percent (%)
Have no source	4,886	25.3
Have some source	14,425	74.7
Total	19,311	100.0

1.1.3 Media Exposure

Table 4.4 describes unmarried youth exposure to media on information and knowledge related to reproductive health issues, postpone of marriage, HIV/AIDS and STI and information related to prevent unwanted pregnancy or about family planning. The types of media that unmarried youth are exposed to include newspaper, radio, and television. Almost all of the respondents in this study have exposure to media on information and knowledge (98 %), interestingly there are 2 percent of respondents who have no exposure to media on information and knowledge.

Table 4.4 Percentage of unmarried youth who were exposed to the media, Indonesia, 2007

Media Exposure	Total (N= 19,311)	
	Frequency (N)	Percent (%)
No media exposed	409	2.1
Have media exposed	18,902	97.9
Total	19,311	100.0

1.1.4 Sexual Behavior

Regarding sexual behavior, this part explores unmarried youth behavior relating to premarital sexual intercourse and their approval of the number of sexual partners. It describes the premarital sexual experience of unmarried youth and if they approve or disapprove of having multiple sexual partners at the same time.

4.1.4.1 Premarital Sexual Intercourse

Table 4.5 shows only 2 percent of respondents who have had sex before marriage and 98 percent have never had sex before marriage. Some of the respondents revealed that their first sexual intercourse is at an age less than 15 years old, with the youngest reported at 10 years old.

Table 4.5 Percentage of unmarried youth who had premarital sexual intercourse, Indonesia, 2007

Premarital Sexual Intercourse	Total (N= 19,311)	
	Frequency (N)	Percent (%)
No	18,890	97.8
Yes	421	2.2
Total	19,311	100.0

4.1.4.2 Approval of Multiple Sexual Partners

For the approval of the number of sexual partner, Table 4.6 shows that three quarters of the respondents do not approve having multiple sexual partners at the same time, while the rest approves of this behavior (76 % and 24 % respectively).

Table 4.6 Percentage of unmarried youth who approve multiple sexual partners, Indonesia, 2007

Approval Multiple Sexual Partners	Total (N= 19,311)	
	Frequency (N)	Percent (%)
Disapprove	14,600	75.6
Approve	4,711	24.4
Total	19,311	100.0

4.1.5 Willingness to Use Contraceptive Methods

This part provides information about the willingness to use contraceptive methods among unmarried youth in Indonesia. Figure 4.1 shows that unmarried youth who are not willing to use contraceptive methods stands at 53 percent or 10,259 respondents. Thus, about 47 percent or 9,052 of the respondents were willing to use contraceptive methods.

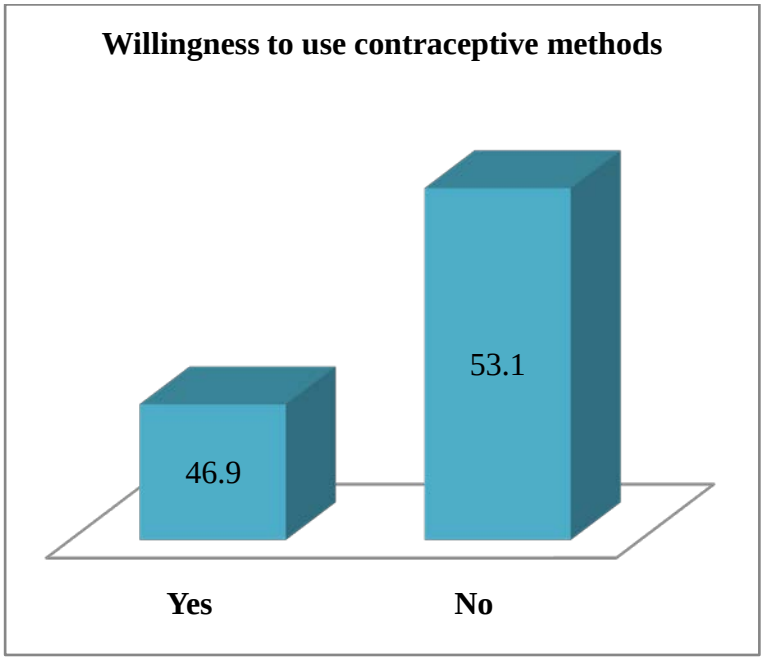

Figure 4.1 Percentage of unmarried youth who were willing to use contraceptive methods, Indonesia, 2007

1.2 The Relationship between Willingness to Use Contraceptive Methods and Socio-Demographic Factors, Knowledge about Reproductive Health, Media Exposure, and Sexual Behavior

1.2.1 Willingness to Use Contraceptive Methods and Socio Demographic Factors

In terms of age, the prevalence of willingness to use contraceptive methods among unmarried youth is higher in the older age group of 20 - 24 years old compared to the younger youth (15-19 years old). Table 4.7 shows that there is a statistically significant correlation between the willingness to use contraceptive methods and age among unmarried youth in Indonesia.

Table 4.7 Willingness to use contraceptive methods by age

Age	Willingness to Use Contraceptive Methods					
	No		Yes		Total	
	n	%	n	%	N	%
15 - 19	6,890	55.8	5,450	44.2	12,340	100.0
20 - 24	3,369	48.3	3,602	51.7	6,971	100.0
Total	10,259	53.1	9,052	46.9	19,311	100.0

Chi- square = 100.779, p < 0.001

The proportion of willingness to use contraceptive methods differs between male and female youth (Table 4.9). There is a statistically significant association between willingness to use contraceptive methods and sex. The percentage of male youth is higher (59 %) than female youth (32 %) on willingness to use contraceptive methods.

Table 4.8 Willingness to use contraceptive methods by sex

Sex	Willingness to Use Contraceptive Methods					
	No		Yes		Total	
	n	%	n	%	N	%
Female	5,791	68.3	2,690	31.7	8,481	100.0
Male	4,468	41.3	6,362	58.7	10,830	100.0
Total	10,259	53.1	9,052	46.9	19,311	100.0

Chi – square = 1395. 092, p < 0.001

Youth who live in the urban area reported higher percentage of willingness to use contraceptive methods than youth who live in the rural area (48 % and 46 % respectively). Table 4.8 shows a significant relationship between willingness to use contraceptive methods and place of residence among unmarried youth in Indonesia.

Table 4.9 Willingness to use contraceptive methods by place of residence

Place of Residence	Willingness to Use Contraceptive Methods					
	No		Yes		Total	
	n	%	n	%	N	%
Rural	5,479	54.4	4,593	45.6	10,072	100.0
Urban	4,780	51.7	4,459	48.3	9,239	100.0
Total	10,259	53.1	9,052	46.9	19,311	100.0

Chi-square = 13.703, p < 0.001

Furthermore, the youth who have higher education level (secondary or higher) are more willing to use contraceptive methods than the youth who have primary or less education (49 % and 39 % respectively). Table 4.10 shows there is a significant relationship between willingness to use contraceptive methods and education level of the youth.

Table 4.10 Willingness to use contraceptive methods by education attainment

Education	Willingness to Use Contraceptive Methods					
	No		Yes		Total	
	n	%	n	%	N	%
Primary or less	2,184	61.2	1,383	38.8	3,567	100.0
Secondary or higher	8,075	51.3	7,669	48.7	15,744	100.0
Total	10,259	53.1	9,052	46.9	19,311	100.0

Chi-square = 115.350, p < 0.001

The last socio-demographic factor is religion. Table 4.11 indicates that the difference of willingness to use contraceptive methods between different religions among unmarried youth are insignificant (x^2= 3.232, p = 0.072). Muslim youth and non-Muslim youth do not differ on the willingness to use contraceptive methods (47 % and 46 % respectively).

Table 4.11 Willingness to use contraceptive methods by religion

Religion	Willingness to Use Contraceptive Methods					
	No		Yes		Total	
	n	%	n	%	N	%
Muslim	7,919	52.8	7,085	47.2	15,004	100.0
Non-Muslim	2,340	54.3	1,967	45.7	4,307	100.0
Total	10,259	53.1	9,052	46.9	19,311	100.0

Chi-square = 3.232, p = 0.072

1.2.2 Willingness to Use Contraceptive Methods and Knowledge about Reproductive Health

1.2.2.1 Willingness to Use Contraceptive Methods by Knowledge about RH Issues, Contraception, and FP

Respondents who have good knowledge on reproductive health issues, contraception, and family planning have higher percentage of willingness to use contraceptive methods compared to those who have average and poor knowledge (59 %, 47 %, and 35 % respectively). A significant correlation between willingness to use contraceptive methods and knowledge among unmarried youth is shown in Table 4.12.

Table 4.12 Willingnes to use contraceptive methods by knowledge on about RH issues, contraceptive, and FP

Knowledge on RH Issues, Contraception, and FP	Willingness to Use Contraceptive Methods					
	No		Yes		Total	
	n	%	n	%	N	%
Poor	3,948	65.3	2,098	34.7	6,046	100.0
Average	3,723	52.9	3,309	47.1	7,032	100.0
Good	2,588	41.5	3,645	58.5	6,233	100.0
Total	10,259	53.1	9,052	46.9	19,311	100.0

Chi-square = 696.979, p < 0.001

1.2.2.2 Willingness to Use Contraceptive Methods by Source of Information

Approximately half of respondents (50 %) who have some source of information about sexual matters have higher proportion on willingness to use contraceptive methods than respondents who have no source of information (39 %). Table 4.13 shows a significant association between willingness to use contraceptive methods and source of information among unmarried youth at 0.001 level (x^2 = 174.552).

Table 4.13 Willingness to use contraceptive methods by source of information

Source of Information	Willingness to Use Contraceptive Methods					
	No		Yes		Total	
	n	%	n	%	N	%
Have no source	2,994	61.3	1,892	38.7	4,886	100.0
Have some source	7,265	50.4	7,16	49.6	14,425	100.0
Total	10,259	53.1	9,052	46.9	19,311	100.0

Chi-square = 174.552, p < 0.001

1.2.3 Willingness to Use Contraceptive Methods by Media Exposure

According to the media exposure (Table 4.14), a significantly higher percentage of willingness to use contraceptive methods was observed among unmarried youth with exposure to media. Nearly half of the respondents (48 %) who exposed to the media are more willing to use contraceptive methods.

Table 4.14 Willingness to use contraceptive methods by media exposure

Media Exposure	Willingness to Use Contraceptive Methods					
	No		Yes		Total	
	n	%	n	%	N	%
No media	337	82.4	72	17.6	409	100.0
Have some media	9,922	52.5	8,980	47.5	18,902	100.0
Total	10,259	53.1	9,052	46.9	19,311	100.0

Chi-square = 143.765, p < 0.001

1.2.4 Willingness to Use Contraceptive Methods and Sexual Behavior

1.2.4.1 Willingness to Use Contraceptive Methods by Premarital Sexual Intercourse

Regarding premarital sexual intercourse, Table 4.15 illustrates a higher percentage of youth who have ever had premarital sexual intercourse who are more willing to use contraceptive methods (68 %). It shows that there is a significant association between willingness to use contraceptive methods and premarital sexual intercourse at 0.001 level (x^2 = 78.382).

Table 4.15 Willingness to use contraceptive methods by experience of premarital sexual intercourse

Premarital Sexual Intercourse	Willingness to Use Contraceptive Methods					
	No		Yes		Total	
	n	%	n	%	N	%
No	10,125	53.6	8,765	46.4	18,890	100.0
Yes	134	31.8	287	68.2	421	100.0
Total	10,259	53.1	9052	46.9	19,311	100.0

Chi – square = 78.382, p < 0.001

4.2.4.2 Willingness to Use Contraceptive Methods by Approval Multiple Sexual Partners

The proportion of willingness to use contraceptive methods among youth who approve multiple sexual partners at one time is higher than those who disapprove (57 % and 44 % respectively). Moreover, the willingness to use contraceptive methods and approval of the number of sexual partner have a significant correlation at 0.001 level (x^2 = 233.130).

Table 4.16 Willingness to use contraceptive methods by approval of multiple sexual partners

Approval Multiple Sexual Partners	Willingness to Use Contraceptive Methods					
	No		Yes		Total	
	n	%	n	%	N	%
Disapprove	8,211	56.2	6,389	43.8	14,600	100.0
Approve	2,048	43.5	2,663	56.5	4,711	100.0
Total	10,259	53.1	9052	46.9	19,311	100.0

Chi-square = 233.130, p < 0.001

1.3 Binary Logistic Regression Analysis

This study uses binary logistic regression to investigate the strength of the relationship between various individual characteristics, knowledge of the respondents about reproductive health, exposure to media, respondents' sexual behavior and the willingness of unmarried youth to use contraceptive methods. The dependent variable of this study is the willingness to use contraceptive methods which is a dichotomous variable (0 = No, 1 = Yes). There are three models used in the analysis to explain factors affecting willingness to use contraceptive methods among unmarried youth in Indonesia.

In Model 1, only the socio-demographic factors such as age, sex, place of residence, education and religion are included as independent variables. Table 4.17 illustrates the influence of these socio-demographic factors on willingness to use contraceptive methods among unmarried youth in Indonesia, which is the dependent variable in this study. Socio-demographic factors have statistically significant effects on willingness to use contraceptive methods among unmarried youth.

This study found that older group of youth aged between 20 – 24 years are more willing to use contraceptive methods than the younger group aged between 15 – 19. It is statistically significant at the 0.001 level (OR = 1.24). Male youth are three times more willing to use contraceptive methods compared to female youth (OR = 3.14). Sex is statistically significant at the 0.001 level.

Meanwhile, in terms of the place of residence, the youth who live in the urban area are more likely on willingness to use contraceptive methods than youth

who live in the rural area. Place of residence is statistically significant at the 0.05 level and the odds ratio of place of residence is 1.09.

Moreover, statistically significant at the 0.001 level, youth who have higher education are two times more likely to use contraceptive methods compared to those who have lower education (OR = 1.67). There is no significant association between religion and willingness to use contraceptive methods among unmarried youth. Religion is not considered a predictor on willingness to use contraceptive methods among unmarried youth.

Model 2 further extends the binary logistic regression of Model 1 by including the knowledge on reproductive health. Knowledge about reproductive health has two variables, namely knowledge on reproductive health, contraception, and family planning and source of information. Media exposure is also included into Model 2 of binary logistic regression analysis (Table 4.17).

Regarding to the age, after inclusion of knowledge about reproductive health and media exposure this variable remain significant at the 0.001 level (OR = 1.12). Similarly, place of residence also remain significant after inclusion of knowledge about reproductive health and media exposure into the model.

However, after controlling for knowledge on reproductive health, contraception, and family planning, source of information, and media exposure direction of the effect that the place of residence has on the willingness to use contraception changed. This change is likely to be due to the confounding effect that knowledge and media exposure have in the area of residence. The reason that youth are more willing to use contraception is because they know about reproductive health, not because they live in a rural area. Knowledge and exposure can predict willingness to use contraceptive methods.

After controlling for knowledge about reproductive health and media exposure, the odds ratio of the level of education is no longer significant (significant at the 0.001 level in Model 1 and not significant in Model 2 at $P < 0.06$). This change in the level of significance may be because the effects of knowledge and exposure to media on willingness to use contraceptives are confounded in education. In other words, it is not the level of education itself that predicts the willingness to use

contraceptives among unmarried youth, but rather the knowledge about reproductive health.

In Model 2 of binary logistic regression, knowledge about reproductive health is included. Youth who have average knowledge on reproductive health, contraception, and family planning are more likely to use contraceptive methods compared to the youth who have poor knowledge. The relationship is statistically significant at the 0.001 level. Youth who have good knowledge on reproductive health, contraception, and family planning are two times more willing to use contraceptive methods compared to the youth who have poor knowledge.

Source of information also has statistically significant effects on willingness to use contraceptive methods among unmarried youth at the 0.001 level. The odds ratio for youth who have some source of information is 1.47. It shows that youth who have some source of information are more willing to use contraceptive methods compared to the youth who have no source of information.

Furthermore, media exposure has statistically significant effects on willingness to use contraceptive methods among unmarried youth at the 0.001 level. The odds ratio for youth who have media exposure is 2.76. The odds ratio shows that youth who have more than one media exposure are almost three times more likely to be willing to use contraceptive methods compared to those who have no media exposure.

Table 4.17 Binary logistic regression of willingness to use contraceptive methods among unmarried youth, Indonesia, 2007

Variables	Model 1		Model 2		Model 3	
	B	OR	B	OR	B	OR
Age						
15 - 19 (ref)						
20 - 24	0.21	1.24***	0.11	1.12***	0.10	1.11**
Sex						
Female (ref)						
Male	1.15	3.14***	1.23	3.43***	1.20	3.31***
Place of Residence						
Rural (ref)						
Urban	0.09	1.09**	- 0.10	0.90**	- 0.10	0.90***
Education						
Primary or less (ref)						
Secondary or higher	0.51	1.67***	0.06	1.06	0.06	1.06
Religion						
Muslim (ref)						
Non - Muslim	- 0.04	0.96	- 0.03	0.97	- 0.03	0.97
Knowledge about RH						
Knowledge on RH Issues,						
Contraception, and FP						
Poor (ref)						
Average			0.61	1.84***	0.61	1.83***
Good			0.88	2.40***	0.86	2.36***
Source of Information						
Have no source (ref)						
Have some source			0.39	1.47***	0.38	1.46***
Media Exposure						
No media (ref)						
Have media			1.01	2.76***	1.01	2.74***
Sexual Behavior						
Premarital Sexual Intercourse						
No (ref)						
Yes					0.29	1.32***
Approval The Number						
of Sexual Partner						
Disapprove (ref)						
Approve					0.14	1.15***
- 2 Log Likelihood	25,031.934		24,282.336		24,259.671	
Cox & Snell R Square	0.083		0.117		0.118	

***= p < 0.05, **= p < 0.01, ***= p < 0.001**

Model 3 presents the final results of binary logistic regression of this study after including all independent variables. Sexual behavior is added into Model 3. Sexual behavior includes two variables namely premarital sexual intercourse and approval of multiple sexual partnes. After inclusion of sexual behavior in Model 3, some of socio-demographic variables are still significant as in Model 2.

After controlling for sexual behavior in Model 3, it affects the level of significance of age. The significant level of age is reduced in Model 3 from $P < 0.001$ to $P < 0.01$. Regarding sex, it is still significant after sexual behavior included into the last model at the 0.001 level. Male youth are still three times more willing to use contraceptive methods compared to female youth.

Moreover, after adding sexual behavior into the last model, the relationship between socio-demographic factors and willingness to use contraceptive methods among unmarried youth in Model 3 also affects the place of residence. Table 4. 17 demonstrates that in Model 3, the significant level of place of residence increased from $P < 0.01$ to $P < 0.001$.

Education and religion are still statistically insignificant after inclusion of sexual behavior. The significant level of other variables such as knowledge about reproductive health and media exposure is still the same in the last model compared to previous model (Model 2). Results from Model 3 suggest that sexual behavior is not a strong predictor of willingness to use contraceptive methods among unmarried youth.

Finally, never having premarital sexual intercourse has a statistically significant relationship in decreasing the willingness to use contraceptive methods among unmarried youth. Youth who have had premarital sexual intercourse are more likely to be willing to use contraceptive methods compared to the youth who never had sexual intercourse before married. There is a significant relationship between approval multiple sexual partners and the willingness to use contraceptive methods among unmarried youth at the 0.001 level (OR = 1.15). It is illustrated that youth who approved if a man/woman has more than one sexual partner are more likely to use contraceptive methods compared to the youth who disapproved if a man/woman has more than one sexual partner.

CHAPTER V
CONCLUSION, DISCUSSIONS, AND RECOMMENDATIONS

5.1 Conclusion

This study has two objectives. First is to explore the level of willingness to use contraceptive methods among unmarried youth in Indonesia. The second objective is to investigate the factors affecting the willingness to use contraceptive methods among unmarried youth in Indonesia. The secondary data used in this study is taken from the Indonesian Young Adults Reproductive Health Survey (IYARHS) 2007. The willingness to use contraceptive methods among unmarried youth in Indonesia is the dependent variable of this study. Moreover, four major independent variables are included to investigate their relationship with the outcome of interest. These independent variables include socio-demographic factors, knowledge about reproductive health, media exposure, and sexual behavior.

Multivariate analysis using binary logistic regression is applied in this study, and three models used in the analysis. Model 1 investigates socio-demographic factor on willingness to use contraceptive methods among unmarried youth. Model 2 further explains the willingness to use contraceptive methods among unmarried youth by adding two explanatory variables, such as knowledge about reproductive health and media exposure. In Model 3 sexual behavior variable is included to examine the willingness to use contraceptive methods among unmarried youth.

The respondents of this study are unmarried youth among Indonesia aged 15 – 24 years old. The total number of the respondents is 19,311. In terms of age, the respondents of this study are divided into two groups. The first group is youth aged 15 – 19 years old (64 %) and the second group is youth aged 20-24 years old (36 %). More than half of the respondents are male youth (56 %) and the rest is female youth (44 %). Fifty two percent of the respondents are living in the rural area and about 48 percent living in the urban area. Most of respondents have secondary or higher

education (81 %) and the rest is only primary or less education. Seventy seven percent of respondents are Muslim and about 22 percent are non-Muslim.

The findings of this study indicate that socio-demographic factors have a significant relationship on the willingness to use contraceptive methods among unmarried youth. Multivariate analysis supports these results in Model 1 of the analysis, where four out of five variables in socio-demographic factors are statistically significant on the willingness to use contraceptive methods among unmarried youth. These results show that individual characteristics influence the willingness to use contraceptive methods among unmarried youth. Religion is the only factor that has no significant relationship on willingness to use contraceptive methods among unmarried youth.

Furthermore, knowledge about reproductive health, knowledge on reproductive health issues, contraception, and family planning have statistically significant effect on willingness to use contraceptive methods among unmarried youth. Source of information is also has a statistically significant effect on unmarried youth to be willing to use contraceptive methods. Thus, knowledge about reproductive health among unmarried youth is an important factor to encourage youth to be more willing to use contraceptive methods. Therefore, the hypothesis that youth who have better knowledge about reproductive health issues, contraception, and family planning will have higher willingness to use contraceptive methods and youth who have some source of information will be more willing to use contraceptive methods are accepted.

Media exposure has a statistically significant effect on willingness to use contraceptive methods among unmarried youth. Results prove that media has an important role for the youth's information and to increase youth's knowledge about reproductive health. Improvement information about youth sexuality and reproductive health by media can influence unmarried youth to be more willing to use contraceptive methods. These results approve the hypothesis that youth who have higher exposure to media on information and knowledge will have higher willingness to use contraceptive methods.

Sexual behavior has a statistically significant relationship on willingness to use contraceptive methods among unmarried youth. However, it may not accurately reflect the willingness to use contraceptive methods among unmarried youth since

only a few cases are reported in this study. Premarital sexual intercourse and approval multiple sexual partners had a statistically significant relationship on willingness to use contraceptive methods. On the other hand, sexual behavior is not a strong predictor on willingness to use contraceptive methods among unmarried youth.

Based on the results of this study, knowledge about reproductive health and media exposure had a strong effect on willingness to use contraceptive methods among unmarried youth in Indonesia. This makes knowledge and media two important factors affecting unmarried youth to be more willingness to use contraceptive methods. Improvement on knowledge and information by media related to youth sexuality and reproductive health can encourage youth to be more willing to use contraceptive methods.

5.2 Discussions

There are many studies about youth behavior conducted in Indonesia, but studies on contraceptive use of the youth is still very rare. This may because in Indonesia contraceptive use typically refers to married people. The present study has attempted to investigate the socio-demographics factors such as age, sex, place of residence, education and religion, knowledge about reproductive health, media exposure, and sexual behavior on willingness to use contraceptive methods among unmarried youth in Indonesia.

Regarding to the findings in this study which put knowledge and media exposure to be two strong predictors on the willingness to use contraceptive methods, this can be applied to the concept of social cognitive theory. As already mentioned in Chapter II where social cognitive theory has three determinants, namely personal determinants, behavioral determinants, and environmental determinants that will affect each other. In this study knowledge and sexual behavior are defined as personal factors. Moreover, socio-demographic factors and media exposure are defined as environmental determinants. These two determinants affect the willingness to use contraceptive methods among youth. Moreover, these two determinants affect each other as we can see from multivariate analysis where knowledge and media exposure have strong effects to socio-demographic factors.

Descriptive statistics of this study illustrates that unmarried youth in Indonesia are less likely to use contraceptive methods. The proportion of unmarried youth who are willing to use contraceptive methods is approximately 47 percent compared to those who are not willing to use contraceptive methods at 53 percent. A study noted that many youth still lack the knowledge and information about sexual and reproductive health (Hambali, 2002).

According to multivariate analysis using binary logistic regression, in terms of age, this study has shown that the older youth are more likely to use contraceptive methods. Many youth in this age range (20 - 24 years old) are sexually active and practice sexual intercourse. The rates of older youth who practice sexual intercourse are higher than younger youth. Similarly with the previous study which noted that contraceptive usage increases with age. The increasing of youth age will influence the willingness to use contraceptive methods (Arifeen, 2002; Jaime, 2006). Age is statistically significant in every model of analysis in this study.

The findings of this study indicate that male youth have the higher proportion of willingness to use contraceptive methods than female youth. Male youth are more likely to use contraceptive methods than female youth because they are more likely to be engaged in premarital sexual intercourse than female youth (Algaa, 2000). Moreover, male youth have good knowledge on sexual and reproductive health issues, and male youth are more aware of methods of preventing pregnancy (Wang, et al, 2007). In Asian countries, there is indication that there is a sexual double standard that accepts for premarital sexual intercourse for young males, but not for young females (Ford, et al, 2007).

Previous studies show mixed results of the effect of place of residence on the willingness to use contraceptive methods. Studies that support a higher likelihood of contraceptive use in the rural area argue that because youth in the rural area are more likely to be engaged in premarital sexual intercourse, and they should be more likely to use contraceptive methods (Kusumastuti,2010). However, other studies found that because people in the urban area have better education and knowledge about sexuality and reproductive health and they also have better access to contraception, they are more likely to practice contraceptive use (Hong, et al, 2009; Chanthavong, 2009; Kusumastuti, 2010).

In this study, results from Model 1 indicate that youth in the urban area are more willing to use contraceptive methods. However, once knowledge about reproductive health and media exposure were added in Model 2, the sign of the coefficient changed; and urban youth are less willing to use contraceptive methods. This supports the reasoning that urban people are more willing to use contraceptive because they have better knowledge about sexuality and reproductive health. However, if we control for knowledge and media exposure, living in urban area actually decreases the willingness to use contraceptive.

Regarding education, this study notes that youth who have higher education are more likely to use contraceptive methods than youth who have lower education. Most of respondents in this study attain secondary school. The findings are consistent with the previous study that shows unmarried youth who have higher education are more likely to practice safe sex than their counterparts with lower level of education (Bankole, et al, 2009). On the other hand, after inclusion of knowledge and media exposure the result of this study has shown that education becomes an insignificant predictor, suggesting that level of education does not have a significant effect on willingness to use contraceptive. The significant effect observed in Model 1 is due to the confounding effect that knowledge on reproductive health and media exposure have in education.

Religion is not a significant predictor on willingness to use contraceptive methods among unmarried youth. Therefore, the hypothesis that Muslim youth are more likely to use contraceptive methods is not supported by data in this study. The similar result is found in Philippines where religion has no strong influence on willingness to use contraceptive methods (Jaime, 2006). Moreover, a study found that Muslim people tend to have higher fertility than people who are non-Muslim (Lucas and Meyer, 1994).

The percentage of unmarried youth on willingness to use contraceptive methods are higher when they have good knowledge on reproductive health issues, contraception, and family planning compared to those who have average and poor knowledge. The multivariate analysis supported this finding where unmarried youth who have good knowledge on reproductive health issues, contraception, and family planning were more likely to use contraceptive methods than youth who have poor

knowledge on reproductive health, contraception, and family planning. Young people are more likely to practice safe sex when they have good knowledge on reproductive health issues, contraception, and family planning (Kusumastuti, 2010).

Source of information is also a good predictor on willingness to use contraceptive methods, and it is statistically significant on willingness to use contraceptive methods among unmarried youth. Youth receive information about sexuality and reproductive health issues and contraceptives are mostly from their friends rather than their family or school (Delva, et al, 2007). The main source of information of unmarried youth is their friends. Lagus, et al, (2010) illustrates that youth should receive information regarding sex from their parents, teacher, health care professionals, and religious leader not from their friends. Youth who have some source information about sexuality and reproductive health are more likely to have safe sex.

Mass media play an important role in unmarried youth willingness to use contraceptive methods, because the media is a powerful tool to communicate, increase knowledge, raise the awareness of the youth and send messages about contraceptive usage. The inclusion of media exposure into the model of analysis gives a significant effect. This indicates that media exposure is another important predictor on willingness to use contraceptive methods among unmarried youth. Media is the major source of information for most youth around the world. Many youth received information about sexuality and reproductive health issues from mass media, such as television. Mass media have a strong relationship with contraceptive use (Algaa, 2000; Jaime, 2006).

In the last model of analysis in this study the sexual behavior variable is included. The variable includes premarital sexual intercourse and approval of multiple sexual partners among unmarried youth. This study reports only a few cases of unmarried youth who had experience premarital sexual intercourse. Therefore, the result of analysis in Model 3 may not accurately reflect the willingness to use contraceptive methods among unmarried youth in Indonesia. The result of the analysis show that premarital sexual intercourse is statistically significant on willingness to use contraceptive among unmarried youth, but it did not have much effects on other variables.

However, it is found that youth who have experience of premarital sexual intercourse are 1.32 times more likely to use contraceptive methods compared to those who never had experience of premarital sexual intercourse. Similar finding from a study in Central Java, Indonesia noted that most of youth disagree to have premarital sexual intercourse because it should be performed after marriage. This is related to socio-cultural and religious norms in Indonesia that premarital sexual intercourse are prohibited (Masfiah, 2011).

In terms of approval of multiple sexual partners, my study found that youth who approve if a man or woman havs more than one sexual partner are more likely to use contraceptive methods compared to those who disapprove. These findings contrast with study in Nepal where young people who have more than one sexual partners are less likely to use contraception (Adhikari, 2008).

Finally, variables that examine in this study not cover all determinants that included in Planned Behavior Theory (PBT). However, this theory still can be address to this study because variables in this study already fulfill some determinants. Premarital sexual intercourse variable defined as attitude toward the behavior, approval of multiple sexual partners defined as perceived behavioral control, and religion defined as subjective norm. These determinants can influence individual intention to perform a behavior, that is willingness to use contraceptive methods.

5.3 Policy Recommendations

Findings from this research suggest that knowledge and media are two main factors that affect willingness to use contraceptive methods among unmarried youth in Indonesia. Recommendations for further better behavior of unmarried youth in order to encourage them to be more willing to use contraception are as follow :

1. This study illustrates that knowledge about reproductive health is one of the main factors which affects the willingness of unmarried youth to use contraceptive methods. Based on the data taken from IYARHS 2007, the proportion of unmarried youth who are willing to use contraceptive methods is less than youth who are unwilling to use contraceptive methods. This situation might be due to the knowledge about sexuality and reproductive health among unmarried youth in Indonesia is still low. Thus, enhancement and improvement on program related to the knowledge about sexuality

and reproductive health among youth should be implemented in Indonesia. The cooperation between government agencies is the good strategy. Includes life skill education related to reproductive health knowledge into intracurricula in schools is should be consider.

2. The government should provide program that can give access to the youth who are sexually active to get information about sexuality, reproductive health, and family planning from health provider.

3. This study shows that media is also the strong factor that influence unmarried youth to be more willing to use contraceptive methods. Media is a good strategy to improve information and knowledge about reproductive health among unmarried youth. Messages from media, such as advertisement in television and radio which promote contraceptive use will encourage unmarried youth to be more willing to use contraception.

5.4 Recommendation for Further Research

This study uses secondary data taken from Indonesian Young Adults Reproductive Health Survey (IYARHS) 2007, which explored unmarried youth knowledge, perception, and behavior. The limitations of variables make this study can not explore more about youth willingness to use contraceptive methods. Therefore, in the future research should be consider to address more variables such as respondents beliefs related to behavior, norms.

Furthermore, there are many limitations on data relating sexual intercourse among unmarried youth. As we can see from this survey that only a few cases reporting their premarital sex. Thus, if we want the data on this issue, method other than the interview survey should be considered. The qualitative method such as a confidential in-depth interview may be an option to collect the data of this type.

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BIOGRAPHY

NAME	Rossi Yanne
DATE OF BIRTH	August 20, 1985
PLACE OF BIRTH	Jambi, Indonesia
INSTITUTIONS ATTENDED	Bachelor of Psychology, 2003-2007, Islamic University of Indonesia, Indonesia Master of Arts (Population and Reproductive Health), Institute for Population and Social Research, 2011-2011, Mahidol University, Thailand.
SCHOLARSHIP	Government of Indonesia, National Population and Family Planning Board of Indonesia
HOME ADDRESS	Perumahan Anggrek Mas Blok F No. 27, Batam Island, Kepulauan Riau, Indonesia Tel: +6281 3282 71985 Email: rossi.bkkbn@gmail.com
OFFICE OF POSITION	REPRESENTATIVE OF NATIONAL POPULATION AND FAMILY PLANNING BOARD (BKKBN), AT KEPULAUAN RIAU PROVINCE Family Planning and Reproductive Health Departement