

**FACTORS INFLUENCING UNINTENDED PREGNANCY AND ABORTION AMONG
UNMARRIED YOUTH IN VIETNAM:**

A LITERATURE REVIEW

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Vietnam

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FACTORS INFLUENCING UNINTENDED PREGNANCY AND ABORTION AMONG UNMARRIED YOUTH IN VIETNAM: A LITERATURE REVIEW

A thesis submitted in partial fulfilment of the requirement for the degree of Master of Public Health

By

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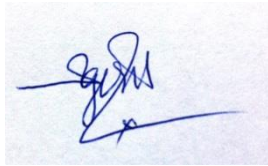
Vietnam

Declaration:

Where other people's work has been used (either from a printed source, internet or any other source) this has been carefully acknowledged and referenced in accordance with departmental requirements.

The thesis Factors influencing unintended pregnancy and abortion among unmarried youth in Vietnam is my own work.

Signature:

A handwritten signature in blue ink, appearing to be 'Nguyen Thi Vinh', written over a light blue background.

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LIST OF ABBREVIATIONS

ACASI	Audio Computer-Assisted Self Interview
ASRH	Adolescent Sexual and Reproductive Health
CCIHP	Centre for Creative Initiatives in Health and Population
CGFED	Centre for Gender, Family and Environment in Development
FP	Family Planning
FSW	Female Sex Worker
GDP	Gross Domestic Product
GQS	Green Question Service
IEC	Information Education Communication
IUD	Intrauterine Device
LIGHT	Institute for Development and Community Health
MDG	Millennium Development Goals
MOET	Ministry of Education and Training
MOH	Ministry of Health
NGO	Non-Governmental Organization
PWD	People living With Disabilities
RH	Reproductive Health
RHP	Reproductive Health Project
RHIYA	Reproductive Health Initiative for Youth in Asia
RTI	Reproductive Tract Infection
SAVY	Survey Assessments on Vietnamese Youth
STI	Sexually Transmitted Infection
SRH	Sexual and reproductive Health
WHO	World Health Organization
YFS	Youth-Friendly Service
YFSRHS	Youth-Friendly Sexual and Reproductive Health service

GLOSSARY

Youth: The terms “youth,” “adolescents,” and “young people” are all used to describe people in the stage of life that marks the transition from childhood to adulthood. The World Health Organization (WHO) defines “adolescents” as people age 10-19; “youth” as those aged 15-24; and “young people” as those aged 10-24 [1]. Defining this stage by age has several advantages; chief among these is that indicators based on age can be compared across countries and cultures. However, the definitions are limited in that the transition to adulthood can continue well past aged 24 years [1]. Throughout this thesis, the WHO’s definition of “youth,” as those aged 15-24, is used.

Unintended pregnancy: Pregnancies that, at the time of conception, are either mistimed (the mother wanted the pregnancy to occur at a later time) or unwanted (mother did not want it to occur at that time or any time in the future) [2].

Abortion: In Vietnam, the term menstrual regulation often refers to abortions done at less than or equal to six gestational weeks while the term induced abortion is often used to refer only to those procedures performed at more than six weeks of gestation [3]. In this thesis, the term abortion is used to refer to the voluntary termination of pregnancy at any gestational week.

Abortion rate: The estimated number of abortions per 1000 women aged 15-44 years in a given year [4].

Gestational age: The duration of pregnancy from the first day of the last normal menstrual period. Gestational age is expressed in complete days or weeks [4]

ABSTRACT

Background: Unintended pregnancy and abortion among unmarried youth are public health problems in Vietnam. Existing studies on unintended pregnancy and abortion mainly focus on married women and are limited for unmarried youth.

Objectives: To analyse factors influencing unintended pregnancy and abortion and prevention interventions in order to make recommendations to reduce unintended pregnancies and abortions among unmarried youth in Vietnam.

Methods: This thesis is based on the review of published and unpublished literature. An ecological model is used as the conceptual framework to guide the analysis.

Findings: Unintended pregnancy and abortion among unmarried youth are influenced by five levels of factors. The intrapersonal factors include increasing permissive attitudes and practices of premarital sex, lack of knowledge on contraception, and low self-efficacy among females. The interpersonal factors include poor communication among partners and between parents and youth on sexuality-related issues, and peer-influence. The organizational factors include inadequate sexuality education and sexual and reproductive health (SRH) services for youth. The contextual factors include gender inequality, cultural norms, and migrations. The final level is lack of separate policy on youth SRH.

Conclusions: The findings point out four major determinants of unintended pregnancy and abortion among unmarried youth, including: 1) cultural norms which consider premarital sex is a taboo; 2) lack and inadequate quality of sexuality education in the schools; 3) lack of youth-friendly SRH services; and 4) no separate policy addressing youth SRH.

Recommendations: There should be a separate policy addressing youth SRH. The quality and national coverage of sexuality education and youth-friendly SRH services should be improved. Data reporting system and studies on unintended pregnancy and abortion of unmarried youth should be conducted.

Key words: Unintended pregnancy, abortion, unmarried youth, sexual and reproductive health, developing countries, Vietnam.

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INTRODUCTION

Since I was a student in Hanoi School of Public Health, I was involved in two researches on sexual and reproductive health (SRH) of adolescents which were conducted by my school, with me in the role of an investigator and data collection supervisor. Those experiences partly shaped my understanding of SRH and encouraged me to seek change in the way SRH is socially constructed.

After my graduation, I worked for the Centre for Creative Initiatives in Health and Population (CCIHP), a non-governmental organization with 8-year experience in the field of gender, sexuality and health at that time. I have participated in many tasks relating to SRH of young people such as research, training, and co-ordinating workshops. These works have provided opportunities for me to witness real-life stories and experiences of young people when they are dealing with their SRH issues such as unintended pregnancy and abortion.

In 2008 and 2009, I was a researcher for two studies on decision of women in using contraceptives after their abortion and on knowledge, attitude, and practices on emergency contraceptive pills of women seeking abortion in four provinces. I interviewed many unmarried youth seeking abortion. A concern was raised in my mind was that why they had abortions, why they got unintended pregnancies, and why they did not use contraceptives. I could not forget a case of a young girl who was only 19 years-old seeking to terminate her 15-gestational-week pregnancy. She cried because of feeling of guilty due to killing her foetus and fear that she will be infertile after the abortion. She wished she did do something to prevent the pregnancy. Her tears and sad eyes move me. Her story and many other stories from women seeking abortion in those studies have given me a strong motivation to improve SRH of young people in general and prevent unintended pregnancy among them in particular.

Contraceptives are widely available in Vietnam. However, many young people cannot access contraceptives or do not use them to prevent unintended pregnancy. Researches and data of national surveys on unintended pregnancy and abortion mainly focus on married couples and neglect unmarried young women. Therefore, I am aware of the importance of understanding factors influencing unintended pregnancy and abortion among young women.

This thesis is to review the factors influencing unintended pregnancy and abortion among youth 15-24 years-of-age in Vietnam. The findings will hopefully contribute to reduce unintended pregnancy and abortion incidence and then improve SRH of young people. The thesis includes 5 chapters: Chapter 1 is background information of Vietnam; Chapter 2 presents the problem statement, justifications, objectives and methodology of the thesis; Chapter 3 analyses factors influencing unintended pregnancy and abortion among unmarried youth; Chapter 4 analyses interventions to prevent unintended pregnancy for youth; and Chapter 5 presents discussion on the findings, conclusions and recommendations.

CHAPTER 1: BACKGROUND

1.1. General information

Vietnam (officially the Socialist Republic of Vietnam) is located in Southeast Asia, bordered by China to the North, Cambodia to the Southwest, Lao PDR to the Northwest, and the East Sea to the East. It has a total land area of 330,957 km² and a population of nearly 88 million in 2011. Women accounts for 49.5% of the population and there are 70% of the population living in rural areas. Vietnam is divided into 63 provinces with Hanoi city as the capital [5].

The annual population growth rate of Vietnam was 1.04% in 2011 [5]. The average household size is 3.8 persons and a small family size (households with 4 or fewer members) is very common in Vietnam (73%) [6].

There are 54 ethnic groups in Vietnam and the majority of people (86.2%) belong to the Kinh group. The official language is Vietnamese. The adult (aged 15 and over) literacy rate in 2011 was 94.2% [6]. Table 1 shows some demographic and economic indicators for Vietnam.

Table 1: Demographic and economic indicators for Vietnam:

No.	Indicators	
1	Gross national income per capita (\$) *	1375
2	Life expectance at birth (male/female) (year) *	70/75
3	Total expenditure on health per capita (\$) *	264
4	Total expenditure on health as % of GDP (%) *	6.9
5	Sex ratio at birth (male/female) *	111.9/100
6	Human Development Index (rank 113 in 169 countries) **	0.728
7	Poverty rate (Population below poverty line) (%) *	14.5

Source: * Statistical Yearbook 2011 [5]

** Vietnam Human Development Report 2011 [7]

1.2. Health situation and health system

The morbidity pattern of Vietnam is dramatically shifting from communicable diseases toward non-communicable diseases with the share of non-communicable diseases tending to increase continuously. More specifically, it accounted for only 39% in 1986, rose to 50% in 1996, to 62% in 2006 and its share rose to 72% in 2010 of all hospital visits [8].

A similar trend is also observed in the mortality pattern with a remarkable increase in deaths in hospital due to non-communicable diseases and the gradual decrease in deaths in hospital due to communicable disease [8].

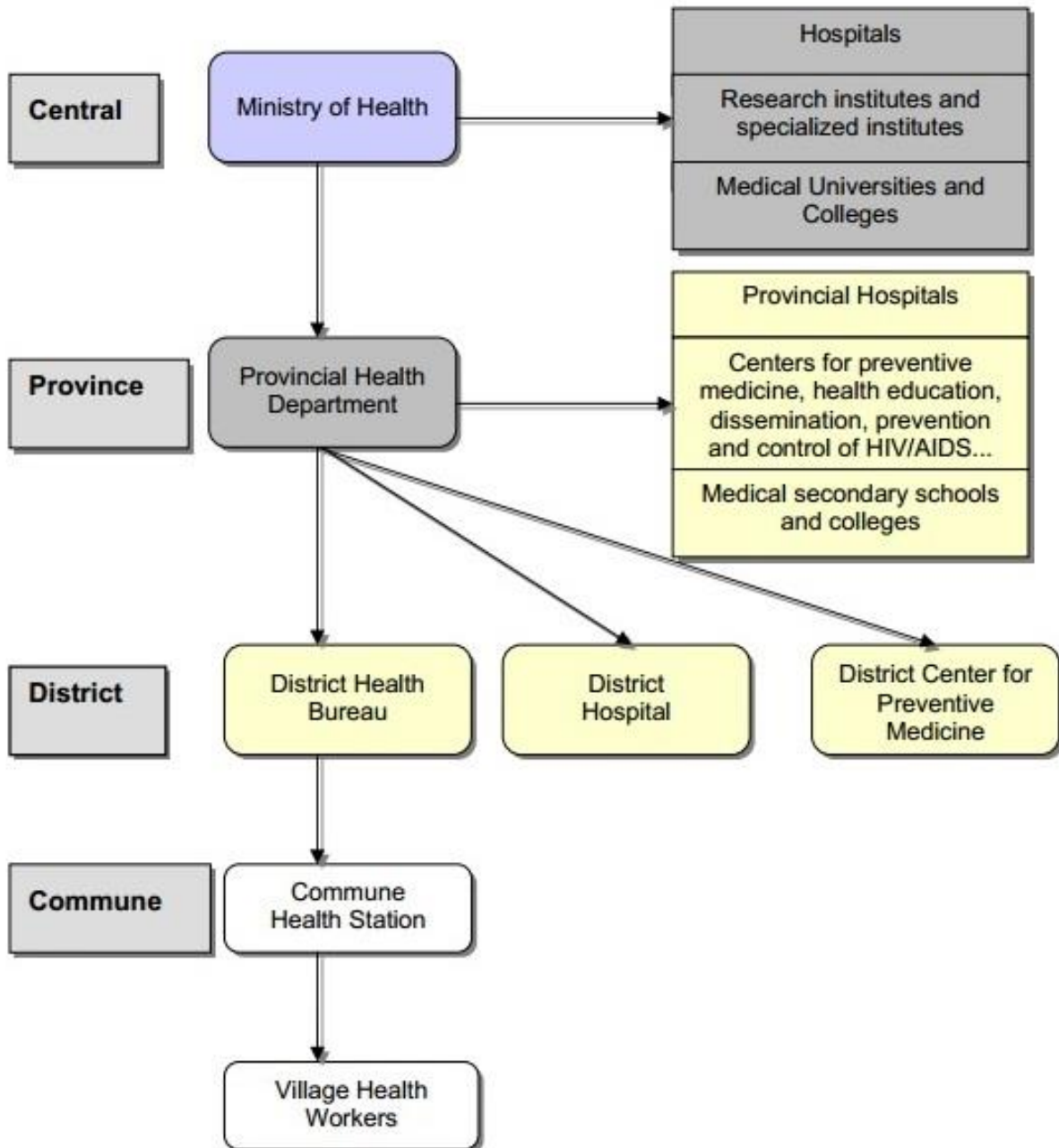
Among children under 5 years-of-age, over 50% of mortality is due to communicable diseases, one-third due to non-communicable diseases and 13-14% due to accidents or injuries [8].

In Vietnam, total expenditures on health accounted for 6.9% of gross domestic product (GDP) and the percentage of general government expenditure on health accounted for 37.5% of the total expenditures on health in 2010 [9]. Despite the increase of the state budget allocation to health over time, the proportion of health expenses was only 9.1% of total state budget in 2010 [8]. Since out-of-pocket

payments is still dominant in Vietnam at 58% for health expenditures, illness and injury put a heavy burden on families and society [9].

The health system structure in Vietnam is divided into four levels which parallel the state administration system: Central, Provincial, District and Communal (figure 1). The facilitation of direction and action in health system is consistent from the central to local level and reports and feedbacks from bottom up [10].

Figure 1: Vietnam health system structure



Source: Joint Annual Health Review 2007 [10]

1.3. Reproductive health

Safe motherhood

The maternal mortality ratio has decreased gradually in recent years in Vietnam from 130/100,000 live births in 2001 to 75/100,000 in 2007 and 64/100,000 in 2012 [11, 12]. The infant mortality rate is 15.5/1000 live births and under-five mortality rate is 23.3/1000 in 2012 [6].

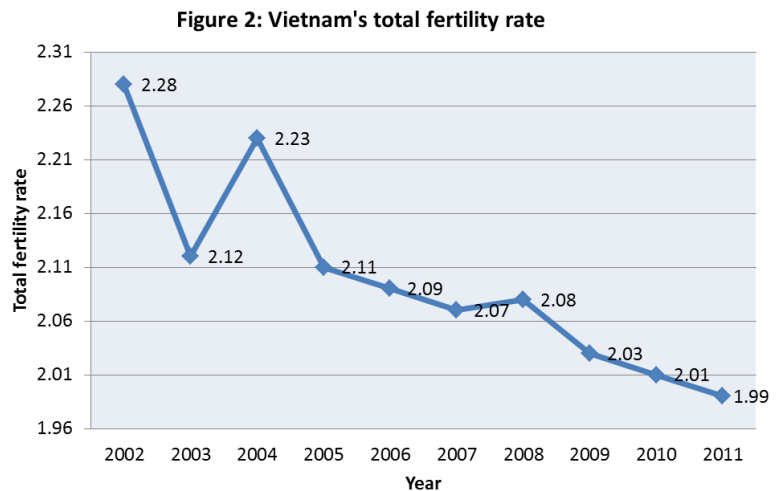
The proportion of pregnant women receiving more than three prenatal check-ups has increased over recent years. This proportion rose from 84.3% in 2005 to 86.4% in 2008 and 87.4% in 2012. This proportion varied region by region with the highest percentage in the Red River Delta (98.5%) and the lowest in Northwest (68%) [11, 12].

The proportion of births attended by trained health workers has been high in Vietnam, 97.7% in 2012. There has been a difference in this proportion between regions with the highest being in the Red River Delta (100%) and lowest being in Northwest (79.2%). Rate of obstetric complications was 2.8/1000 live births [11, 12].

Total fertility rate (TFR) and Family planning (FP)

Vietnam has witnessed a sustained decrease in TFR over the past four decades. TFR reduced from 6.4 in 1960, to 2.28 in 2002, and 1.99 in 2011 [6].

Contraceptive prevalence rate (CPR) also increased from 73.9% in 2001 to 78.2% in 2011 with the rate of modern contraceptives rising from 61.1% in 2001 to 68.6% in 2011 [6]. IUD was the most common used method in Vietnam, accounting for 53.1%, followed by oral pill (15.7%) and condoms (13.6%). The percentage of women using traditional methods (withdrawal and periodic abstinence) is quite high (12.1%) in 2011 [6].



Source: Survey on population change and FP 2011

Reproductive tract infections (RTIs), including sexually transmitted infections (STIs) and HIV/AIDS

There is no national official data on RTIs and STIs in Vietnam. A population-based study on RTIs/STIs with 1,012 women of reproductive age in a rural district in Vietnam showed that 37% of the women participants were clinically diagnosis with RTIs/STIs (6% with STIs) [13].

STIs were higher among high-risk groups such as female sex workers (FSW) and STI-clinic patients. For example, the HIV/STI Integrated Biological and Behavioral

Surveillance (IBBS) in ten provinces in Vietnam showed that the proportion of STIs among STI-clinic patients was 17.8% and among FSWs was 12.6% [14].

By the end of 2012, the number of people living with HIV in Vietnam was 208,866. The prevalence of HIV in the population is 0.27%. HIV-infected cases have been detected in 100% of provinces/cities. The 2012 is the first year when sexual intercourse has trans-passed transmission injecting drug use (45.5% compared to 42.1%)[11].

1.4. Abortion policy and services

Abortion has been legal in Vietnam since the 1960s. In 1989, Law of People's Health Protection stressed that: "*A woman has the rights to undertake abortion as her request.*" [15].

In the same year (1989) private health care was officially allowed to perform abortion procedures for less than 6 gestational weeks by a trained health worker who has the permission from Ministry of Health (MOH). Since then, abortion services have increasingly shifted to the private sector which is not covered by the public health reporting system. Recently, abortion services provided by semi-private health care providers are common. Those providers are working at public health facilities (especially in provincial and district hospitals) and they also have their own clinics at home. The number of private health staff who are providing abortion services is not well documented [3].

Currently, abortion services are widely available and easily accessible at different levels of public health facilities from central to local and private clinics. In Vietnam, abortion is legal up to 22 gestational weeks. It is regulated that first-trimester abortions are performed at all levels of the public health system while second-trimester abortions are provided only at central and provincial level [16].

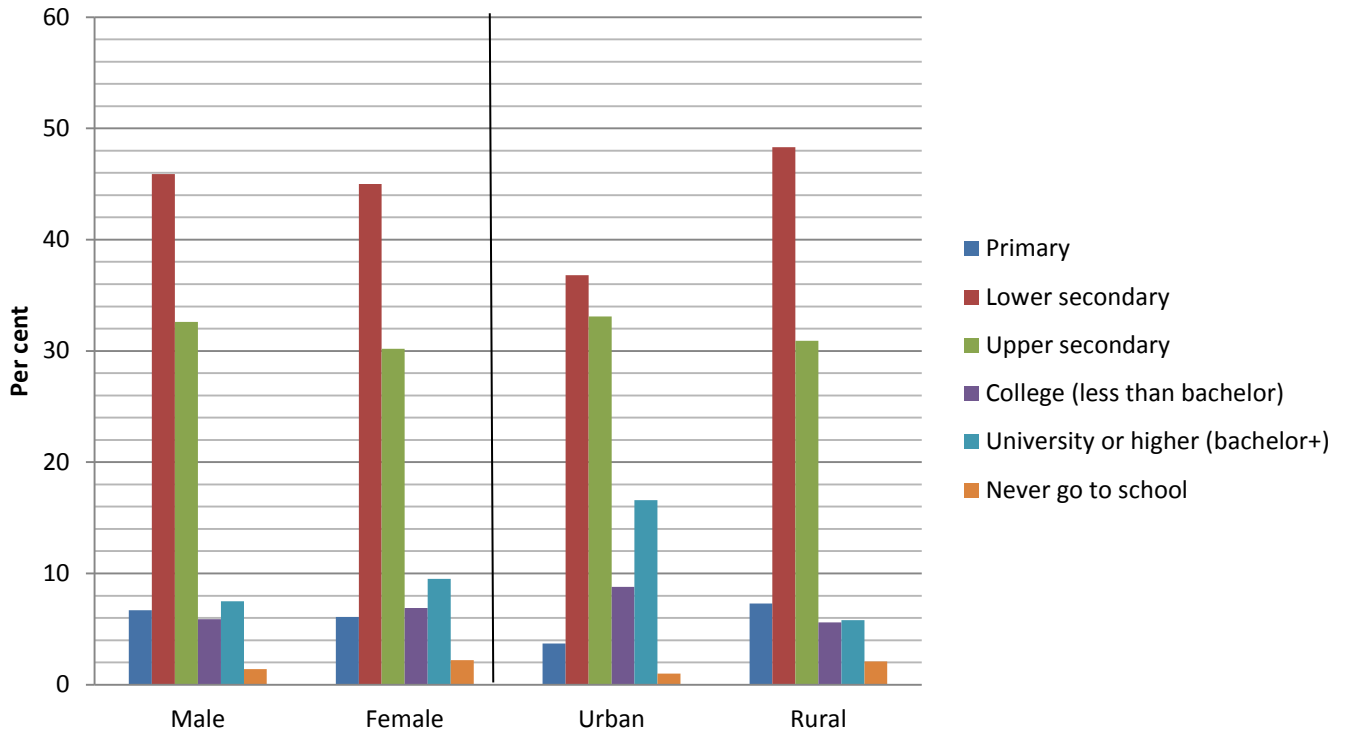
1.5. The youth situation in Vietnam

In Vietnam, in 2011, youth accounted for 17.7% of the population with 15,507,137 people. Of which, 49.1% are female [6].

The percentage of unmarried among male and female youth 15-19 years-of-age is 97.7% and 91.4% respectively and the percentage of unmarried among male and female youth 20-24 years-of-age is 76.3% and 51.3% respectively [6]. Mean age at first marriage among male youth is 22 and among female youth is 21 [17], while this mean age among general population is 26.4 and 22.8 for males and females respectively[6].

In 2009, the literacy rate among youth was 97.1%. Youth 15-19 are encouraged to attend upper-secondary school and youth 20-24 are encouraged to continue to tertiary level at vocational institutions, colleges or universities. However, nearly half of youth 15-19 do not pursue higher education after their completion of lower-or upper-secondary education [18]. Figure 3 shows that the highest level of education is more or less the same between males and females and urban youth generally have higher level of education than rural youth [17].

Figure 3: Highest level of education attained of youth by gender and area



Source: Survey Assessment of Vietnamese Youth 2 in 2009

Youth accounts for a large share of the labour force. According to the 2009 Census, over 40% of youth 15-19 and approximately 80% of youth 20-24 participate in the employment sector. The proportion of female youth in the labour force is slightly lower than that of male youth [18].

CHAPTER 2: STUDY OVERVIEW

2.1. Problem statement and justifications

Since Doimoi (Renovation) in 1986, many social changes have taken place in Vietnam, such as people are freer to make their own choices, and there are more contacts with Western culture. This renovation has led to changes in family relations and in sexual relations among young people in Vietnam [19]. Many research results indicated that pre-marital sex among young people has been increasing in Vietnam in recent years [20, 21]. The two national Survey Assessments on Vietnamese Youth (SAVY1 in 2003 and SAVY2 in 2009) which are the largest surveys on youth 14-25 years-of-age in Vietnam showed that the percentage of pre-marital sex among youth increased from 7.6% in 2003 to 9.5% in 2009, in which, this percentage among female youth increased from 4% (2003) to 5.2% (2009) [17]. Meanwhile, contraceptive use among young people is low. For example, in SAVY2, half of youth did not use contraception at first sex [22]. Another research in 2012 revealed that just over half (54.6%) of youth used a contraceptive method at their first sex [23]. Having sex without contraceptive use places youth at the increased risk for unintended pregnancy [24].

Vietnam had ever been one of countries with the highest abortion rate in the world in 1996 [25]. Although the statistics showed that there was a decrease in abortion rate, it has still remained high (table 2). During 7 years from 2002 to 2009, the abortion rate gradually reduced from 28.5 to 13.2. However, this rate rose to 19 and 18.4 in 2010 and 2011, respectively. Moreover, this data only expressed the top of "iceberg" of abortions which were performed in public health facilities while it is estimated that another one-third to one-half of abortions taken place in private facilities which have grown in recent years, where abortions are undocumented well. Therefore, it is difficult to confirm the decrease trends in the abortion rate in Vietnam [25, 26].

Table 2: Abortion rate in Vietnam during period 2002-2011

Year	Total Population*	Female population*	Percentage of women 15-44 years old/female population*	Women 15-44 years old***	Number of reported abortions* *	Abortion rate (number of abortion/ 1000 women 15-44 years old)***
2002	79,537,700	40,425,500	49.68	20,083,388	572,425	28.5
2003	80,467,400	40,932,400	49.47	20,249,258	540,400	26.7
2004	81,436,400	41,394,400	49.85	20,635,108	590,630	28.6
2005	82,392,100	41,870,600	52.75	22,086,742	539,720	24.4
2006	83,311,200	42,312,200	49.4	20,902,227	489,076	23.4
2007	84,218,500	42,771,200	49.09	20,996,382	372,502	17.7
2008	85,118,700	43,162,600	48.63	20,989,972	332,200	15.8
2009	86,024,600	43,427,400	50.1	21,757,127	287,073	13.2
2010	86,927,700	43,937,000	48.9	21,485,193	407,898	19
2011	87,610,947	44,263,216	48.3	21,379,133	393,609	18.4

Source: * Survey on Population change and FP 2002-2011

** Annual health statistical yearbook in Vietnam from 2002-2011.

*** Calculated by the author

Although there is no official data on unintended pregnancy and abortion among young women, especially unmarried youth in Vietnam, many researches showed that unintended pregnancy and abortion among unmarried young women is not uncommon [27-30]. In Hoang's research in 2012, over 10% of unmarried girls 15-24 who are sexually active had an unintended pregnancy [23]. Abortion among young unmarried women accounted for 22% of 1233 abortions in Ngo's research and it is estimated that abortions by unmarried women accounted for one-third of all abortions performed in Vietnam [27, 28]. Moreover, it is said that many unmarried young women seek abortions at private clinics through which there is no mechanism for data reporting. In Ha's research in three private abortion clinics, 36% of women seeking abortion is unmarried youth [30]. Many unmarried youth come to private facilities because those clinics have flexible working hours and give women a better anonymity [31]. Additionally, Goodkind suggests that in Vietnam, abortions are underreported among unmarried youth because of the longstanding taboo on premarital sex. He argues that unmarried youth misreport their age and marital status at the time they undergo the abortion procedure [32]. An overview of unmarried youth seeking abortion is presented in annex 1.

The unintended pregnancy and abortion among unmarried young women is a public health problem in Vietnam [28, 33]. The national report "Vietnam: 2/3 of the way achieving the MDGs and towards 2015" in 2010 stressed that "*An emerging issue is the recent alarming rise in abortions among young people. Vietnam has a high abortion rate, with 20% of these being teenagers, not even accounting for abortions at private clinics which are outside of our control and thus cannot be estimated*" [34]. The concern is not only because abortion among young unmarried women is common, but also because of SRH and rights of young women [35].

It is clear that unintended pregnancy and abortion have significant consequences on women in terms of their physical and mental health and pregnancy outcomes. Women having an abortion had a higher rate of mental health disorders than women never seeking abortion, including depression, anxiety disorders, substance abuse and suicidal behaviors [36, 37]. Some studies showed that abortion is associated with preterm birth and low birth weight [38] and fetal loss in subsequent pregnancy [39]. Although in Vietnam, abortions are mainly provided in safe conditions, there is still a certain proportion of complications. It is estimated that about 5% of maternal deaths is related to abortion in Vietnam [40]. Two longitudinal studies to identify abortion complications in two Northern provinces showed that the proportion of complications during abortion is 2.1%, including incomplete abortion, infection, shock and hemorrhage. One month after the abortion, the percentage of abortion complications is 10%, including infection, bleeding, and menstrual disorder [41, 42]. Although there is no separate information on abortion complications for unmarried youth, it is predicted that abortion complications among them can be more serious because their reproductive organs, especially for youth 15-19 years-of-age are not fully developed; they are likely to seek private abortion clinics, the quality of many of which are low; and younger women are likely to have a late abortion [16]. Moreover, unmarried youth having abortion might feel guilt, sorrow, worries and many of them fear about whether anybody might discover and even reveal their secret [43].

Other people may question that if unmarried youth carry the unintended pregnancy to term, there will be more severe consequences for the women and unwanted child. There is no need to compare the women's choice between abortion and keeping the

unintended pregnancy to term because this thesis only wants to show that unintended pregnancies can be prevented to avoid the consequences of abortion and unwanted children rather than arguing that young unmarried women should carry an unintended pregnancy to term.

Currently, studies on abortion in Vietnam mainly focus on married women. Due to the sensitivity of this topic, national surveys such as the annual survey on population change and FP only collect data on contraceptive use and abortion among married women [6]. Moreover, reducing unintended pregnancies and abortion and improving youth SRH are set as a target in the National Strategy on Population and RH care 2011-2020 by Vietnam government [44]. Identifying factors contributing to unintended pregnancies and abortions among unmarried youth in Vietnam, therefore, are very essential to reduce unintended pregnancy and abortion among unmarried youth in Vietnam.

2.2. General and specific objectives

General objective: To analyse factors influencing unintended pregnancy and abortion among unmarried youth and current prevention interventions in Vietnam and to analyse best practices worldwide in order to make recommendations for policy makers and program managers in reducing unintended pregnancies and abortions among unmarried youth in Vietnam

Specific objectives:

- a. To identify intrapersonal, interpersonal, organizational, contextual and public policy factors influencing the high incidence of unintended pregnancies and abortion among unmarried youth in Vietnam
- b. To assess interventions to prevent unintended pregnancies and abortions among unmarried youth in Vietnam
- c. To analyse best practices in preventing unintended pregnancies and abortion among unmarried youth in the world
- d. To make recommendations for policy makers and program managers in reducing unintended pregnancies and abortions among unmarried youth in Vietnam

2.3. Methodology

2.3.1. Conceptual framework:

The literature suggests that a variety of inter-related factors determines sexual behavior, contraceptive use and ultimately unintended pregnancy and abortion. The framework in this thesis is adapted and modified from the ecological model which was developed by McLeroy (1988) [45]. The ecological model was chosen for this thesis because it is comprehensive, and includes all possible factors that influence on unmarried youth's sexual behavior, contraceptive use and unintended pregnancy. It recognizes the interactive relationship existing between an individual and its environment. It conceptualizes that individual behavior affects and is affected by the social environment. Moreover, the ecological model is also appropriate to analyse health promotion interventions which prevent unintended pregnancy by addressing five levels of factors in the ecological model [45].

The ecological model has been used effectively in many researches on sexual behavior and unintended pregnancy [46-49]. For example, Kavanaugh used the ecological

model to identify determinants of unintended pregnancy in women 15-44 years old in the US [49]; Raneri determines predictors of repeat pregnancy within 24 months among American adolescents, using ecological theory as a guide [46], and McQuaid used the ecological model to analyse the facilitators and barriers to the promotion of healthy sexuality for adolescents [48]. In Vietnam, the ecological model was used in a research on perception and practice of SRH of adolescents [50].

Before the ecological model was adopted, two other models, including health belief model and theory of reasoned action, were taken into consideration because these models are used to explore sexual risk behaviors and risk of adolescent pregnancy. The health belief model is a psychological model which explains and predicts individual behaviors by concentrating on their attitudes and beliefs. The theory of reasoned action explains and predicts individual behaviors based on the premise that humans are rational and that their behaviors are under volitional control. However, both models focus on individual factors and do not sufficiently take into account the environment such as socio-economic, and cultural factors which are essential to consider when working with youth on SRH issues [51].

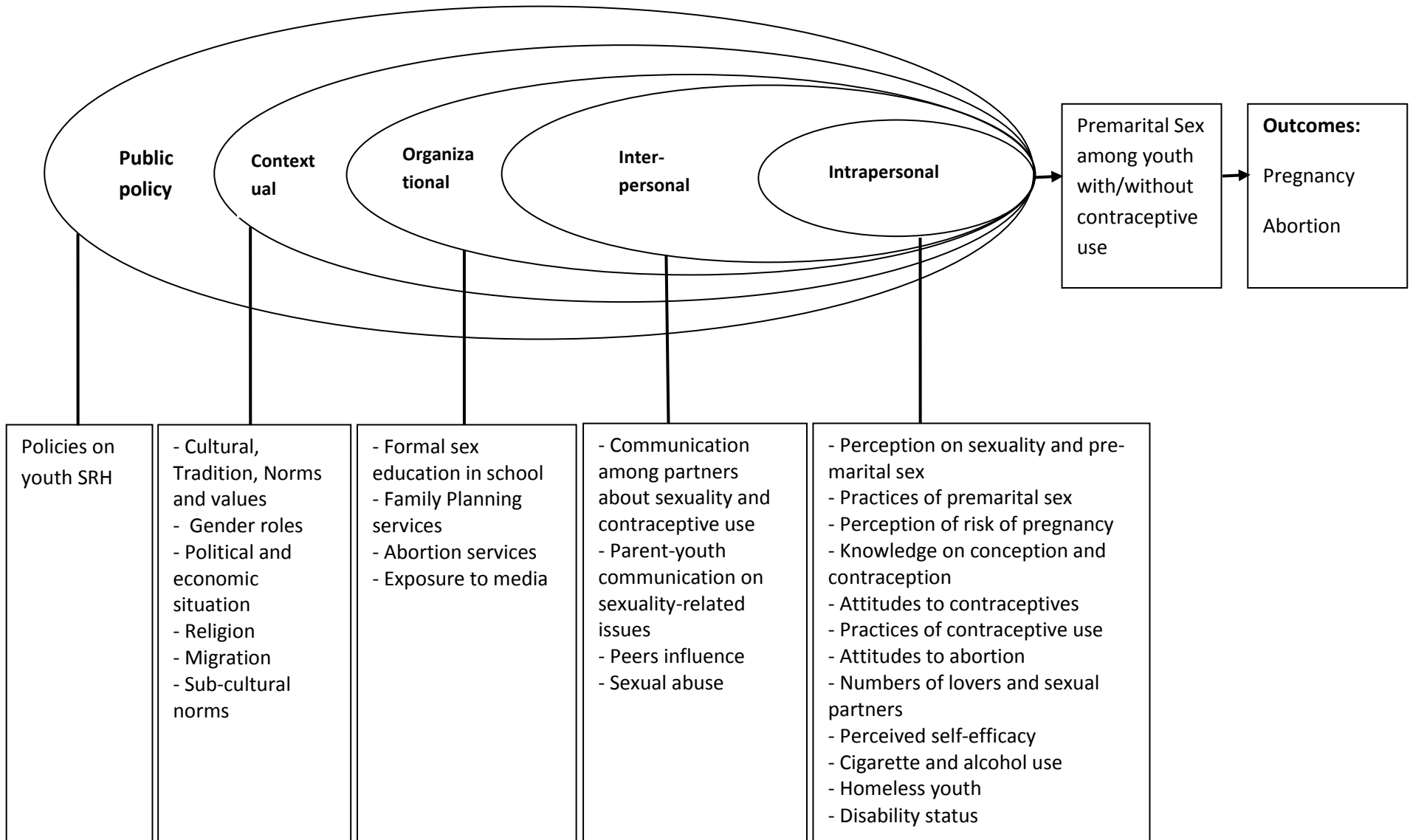
The five levels of influences on health behavior according to the ecological model are: intrapersonal, interpersonal, institutional/organizational, contextual and public policy factors [45]. These levels can be linked to multiple factors influencing sexual behavior resulting in unintended pregnancy.

Table 3: Ecological factors

Ecological Factors	Definitions
Intrapersonal	Individual characteristics that influence behavior, such as knowledge, attitudes, beliefs, and personality traits
Interpersonal	Interpersonal processes and primary groups, including family and friends that provide social identity, support, and role definition
Institutional/ Organizational	Rules, regulations, policies, and informal structures, which may constrain or promote recommended behaviors
Contextual	Norms, standards, culture, religion in society enabling or serving as a barrier for healthy behavior
Public Policy	Local or national policies and laws that regulate or support actions and practices

During the adaptation of the framework, some modifications were done on the basis of literature review to make the model more specific and suitable for Vietnam. In particular, each level in the model will include the variables which are described in the figure 5. From the original model with five levels in the oval shape, boxes are added with the specific factors influencing unintended pregnancy and abortion among unmarried youth in Vietnam.

Figure 4: Conceptual framework



2.3.2. Research design

2.3.2.1. Search strategy

This research was based on the review of published and unpublished scientific studies on sexual behaviours, contraceptive use, unintended pregnancy and abortion and interventions to prevent unintended pregnancies and abortions among unmarried youth. Documents written in English and Vietnamese were included in the review.

The articles on sexual behaviours, contraceptive use, unintended pregnancy and abortion among youth were searched using search engines Pubmed, Science Direct, Scopus, and Google Scholar. Key words were used in combination to obtain journal articles and other relevant documents: abortion, unintended pregnancy, contraceptive, family planning, premarital sex, sexuality education, sexual and reproductive health, parent-youth communication, peer influence, gender roles, cultural norms, migration, youth, adolescent, Vietnam, developing countries.

In addition, some scientific journals in Vietnamese were accessed and searched for the related articles. Those journals include Vietnam Journal of Public Health, Vietnam Journal of Gender and Family, Vietnam Journal of Practical Medicine, Journal of Population and Development, and Journal of Gynecology and Obstetric.

Moreover, the national data on sexual behaviour, contraceptive use, unintended pregnancy and abortion was searched from websites and library databases of MOH, MOET, General Statistical Office, Vietnam FP Association, and non-governmental organizations working in SRH in Vietnam such as Ipas, FHI, and Pathfinder International, etc.

Internationally, data were collected from websites and library databases of Guttmacher Institute, United Nations Population Fund and WHO. Books and articles were also collected from the library of the Royal Tropical Institute (KIT) and Vrije Universiteit Amsterdam (VU).

For the intervention programs/projects, the direct contacts with organizations and individuals working in the field of SRH were made based on the list of contact of CCIHP because most of program reports and evaluations are not published and shared through the Internet.

Finally, list of references in the materials found were looked up and searched for other materials which are relevant.

2.3.2.2. Limitations of the thesis:

Only literature in English and Vietnamese was reviewed. Although youth are not homogeneous group, this thesis mostly focus on general population of youth and some special groups such as ethnic minority, PWD and migrant were mentioned. Moreover, there is lack of data and information relating unintended pregnancy and abortion in Vietnam. Finally, Although a substantial effort were made to collect intervention programs by contacting organizations and individuals working in SRH in Vietnam, there are not many interventions collected.

CHAPTER 3: FACTORS INFLUENCING UNINTENDED PREGNANCIES AND ABORTIONS AMONG UNMARRIED YOUTH IN VIETNAM

This chapter will analyse the factors influencing premarital sex, contraceptive use, unintended pregnancy and abortion among unmarried youth in Vietnam. These factors are divided into five levels: intrapersonal, interpersonal, organizational/institutional, contextual and public policy following the conceptual framework in the chapter 2.

3.1. Intrapersonal factors

+ Perception and attitude towards sexuality and premarital sex

Young women do not need a marriage plan before having their sexual intercourse. Rather, a desire to express their love and commitment motivated their first sex. These women supposed that love and sex went hand in hand and sex was the ultimate pledge of love, regardless of marital status [52, 53]. Sexual intercourse was the union of body and mind, to get closer and become more intimate [19, 53]. Additionally, unmarried youth considered having sex as a way of holding on their boyfriends and girlfriends so they want to have sex or avoid refusing sex although some young women described that she never really enjoyed their sexual ventures and being too scared of being found out [54].

The percentage of youth having permissive attitudes towards premarital sex is increasing in Vietnam, from 36% in SAVY1 (2003) to 44% in SAVY2 (2009) [17]. More men have a permissive attitude than women and more urban youth have a permissive attitude than rural youth [17]. Having permissive attitudes toward premarital sex makes youth more likely to initiate premarital sex [50, 55, 56].

+ Practices of premarital sex:

There is an increase in the percentage of youth having premarital sex in Vietnam [17, 20]. This prevalence rose from 7.6% in SAVY1 to 9.5% in SAVY2 [17]. Some authors stated that due to the sensitivity of sexuality topic, this percentage might be underreported, especially among girls because they are bashful to report their sexual experiences in a face-to-face interview [17, 23]. In a research which compared two types of data collection: face-to-face interview and Audio Computer-Assisted Self Interview (ACASI), the results showed that the percentage of youth reported premarital sex in the ACASI group was much higher than that reported in face-to-face group, 20.4% and 11.1% respectively [57]. Meanwhile, in Hoang's research using online questionnaire in 2012, 36.3% among 758 youth 15-24 years-of-age reported having premarital sex [23].

The percentage of unmarried youth having premarital sex is different by gender, age groups, and urban/rural areas. This percentage among male youth (13.6%) is higher than that of females (5.2%). This percentage in urban youth is higher than that of rural peers. The proportion of unmarried youth having premarital sex increases with age. Only few youth 14-17 reported having sex while 14.8% male and 2.1% female youth 18-21 and 29.8% male and 6.1% female youth 22-25 reported having sex [17].

Moreover, youth have a tendency to be sexually active earlier. Specifically, the average age at first sex among sexually active youth is 18.1 in SAVY2, reducing 1.5

years from 19.6 in SAVY1 [17]. Earlier sexual activeness is associated with more sexual partners and more unprotected intercourse which lead to unintended pregnancy [58, 59].

+ Perception of risk of pregnancy:

Youth are aware of the risk of pregnancy when practicing unprotected sex and clearly not want to get pregnant [23, 52]. Concerns regarding being pregnant are high among unmarried youth in Hoang's research which 82% among sexually active girls and 56% among sexually active boys have concerns about pregnancy when having sex [23]. However, youth are still uncertain about the likelihood of being pregnant and it might make them use contraceptives inconsistently [23].

Other studies revealed that although youth acutely fear of having unintended pregnancy and abortion, they still engaged in unprotected sexual intercourse and few had attempted to prevent pregnancy [19, 52]. They explained that their sexual intercourse happened "suddenly" or "spontaneously" and that they did not plan to have sex or that they simply had not thought about contraception [19].

+ Knowledge on conception and contraception:

Knowledge on conception and contraception plays a vital role in contraceptive use. Although the majority of Vietnamese youth know at least one contraceptive method (95% youth know about condom and 92% know about oral contraceptive pill in SAVY2), they just "heard about" rather than "learn about" it [17, 23]. Some studies showed that few youth actually know how to use contraceptives [23, 60, 61]. For example, in Hoang's research, 27.6% of youth thought that condom should be put on right before the ejaculation [23]. In another research, nearly half of youth do not know how to use condom and 42.6% youth do not know how to use contraceptive pill [61].

Moreover, the knowledge on conception of youth is limited. Only 71% of youth in SAVY2 know that a girl can get pregnant at first sex. Especially, only 13% of youth in SAVY1 and 17% in SAVY2 correctly answered the question regarding woman's most conceivable time during the menstrual circle [17].

Additionally, there are many confusing beliefs and fears of side effects relating to contraceptives among youth. For example, they thought that contraceptives make them weak, hot, unable to work, forgetful, stupid or unfeminine, or even cause infertility or cancer [15, 52, 62]. Youth think that traditional contraception pose less risks to their health than modern contraceptive methods [63].

+ Attitude towards contraceptives:

There is a common misconception among youth that contraceptive methods are only for married couples [52, 64]. Some youth have a negative attitude towards contraceptives, for example, they thought that condoms were disgusting and they felt uncomfortable with it [62].

Youth, especially female, feel uncomfortable to buy contraceptive methods because according to them buying contraceptive methods means to confess that they have sex [23, 52]. Going to a pharmacy to buy contraceptives could cause fear in a young woman because they are afraid of meeting an acquaintance [52]. In SAVY2,

the most frequently mentioned barriers (65%) for a youth to use condoms are feeling of shyness or embarrassment and fear of being seen by somebody when buying condoms [17].

Moreover, youth often feel reluctant to bring contraceptives with them because they are afraid that people will think badly about them and that they will be in trouble if their parents or teachers find out about this [23, 52].

+ Practices of contraceptive use:

The percentage of unmarried youth using contraceptive methods at first sex and last sex is quite low (table 4). This percentage at first sex is around 50% and at last sex is 60% [22, 23]. The percentage of youth using condom in first sex is very low, for example, only 20.7% in Duong’s research [65] and 32.4% in Bui’s research [66].

Table 4: Contraception use at first and last sex, in four studies

Studies	Contraceptive use at first sex	Contraceptive use at last sex
SAVY2, 2009 [22]	50%	No information
Hoang et al. 2012 [23]	54.6%	60%
Duong et al. 2008 [65] (using condom)	20.7%	No information
Bui et al. 2008 [66] (using condom)	32.4%	No information

Some studies with unmarried youth seeking abortion also showed that contraceptives were used infrequently and inconsistently and many of them relied on traditional contraceptive methods [19, 62, 63]. Particularly, in Gammeltoft’s research with 100 unmarried youth seeking abortion in Hanoi, only 15% of participants reported having ever used any kind of modern contraceptives, and hardly used contraceptives on a regular basis, 45% of participants had used withdrawal, 35% of participants had used periodic abstinence, and 37% had never used any type of contraceptives [19]. For people who had ever used a condom, some used it only on the days they thought as fertile [63].

+ Attitude towards abortion:

Most of youth thought that abortion is very dangerous for their health although they could not describe any specific harm related to abortion, just said “abortion made our health weak...” [60].

Women view the experience of abortion with considerable worry and fear, for example, more than half of women stated that they had been feared to have an abortion [15]. For them, contraception is the best and abortion must be avoided as much as possible. Yet many people also agreed that abortion is a necessary back-up option and is used only when contraception fails, especially for women who use traditional contraceptive methods [33].

+ Number of sexual partners:

A research showed that among unmarried sexually active youth, multiple sexual partners are not infrequent. Specifically, in Hoang’s research, among 275 unmarried sexually active youth, the average number of sexual partners is 2.8.

Almost half of them (47.4%) have 2 sexual partners or more [23]. The average number of sexual partners among boys is higher than that of girls, 2.9 and 2.0 respectively [67]. However, this might be because men often over-report their sexual experience while women under-report it.

+ Perceived self-efficacy to avoid unwanted sex and to use contraceptives

Studies in developing countries concluded that woman's lack of confidence and power to negotiate contraceptive use is one risk factor for not using contraceptives [68-70]. In Vietnam, girls have a low self-efficacy in refusing unwanted sex and requesting a contraceptive use, especially for those who agreed with the traditionally unequal gender roles [66]. Girls who perceived that women are subordinate to men had lower sexual communication self-efficacy which relates to the frequency of discussion on safer sex and the frequency of asking their boyfriends to use condoms [66].

Other intrapersonal factors:

+ Cigarette and alcohol use:

Some studies in the world [71-74] and the research with unmarried youth 15-24 in Hanoi, Shanghai and Taipei showed that youth who smoke and use alcohol are more likely to have unprotected sex and have multiple sexual partners than those who not [75].

+ Living on the street (Homelessness):

In Vietnam, there is about 21,000 street-living children and adolescents [76]. Youth living on the street often have early debuts, multiple and high-risk partners, high rate of unprotected sexual intercourse, being sexually abused and lack of information and services on SRH, and ultimately place them at risks of unwanted pregnancies and STIs [77, 78]. In Tam's research with female homeless youth, half of interviewees (8/15) had an unintended pregnancy and most of participants in this qualitative research reported being sexually abused [79].

+ People living with disabilities (PWD):

There are about 6.1 million PWD more than 5 years-old in Vietnam, and youth account for 6% among them [80]. SRH needs of PWD have long been neglected in Vietnam [81]. The social discrimination against PWD in the combination with the lack of SRH information and services for them makes them vulnerable to SRH problems such as unintended pregnancies, STIs and sexual abuse [82, 83]. A research on SRH and rights of PWD in Vietnam showed that 6.5% of 192 of young PWD (mobility, hearing and visual) was sexually abused and among 10 unmarried sexually active women, 5 have ever got unintended pregnancy and 3 among them had an abortion [84].

3.2. Interpersonal factors

+ Communication among partners about sexuality-related issues:

There was poor communication between youth and their sexual partners on sexuality and contraceptive use. Female youth are passive in initiating the communication and using contraceptives [52, 62, 85]. Most of them thought that men are responsible to initiate the discussion because men initiated sexual

intercourse. Moreover, the desire to pretend to be virgin and inexperienced made them hesitant to talk about the risk of pregnancy and ways to prevent it [52].

Furthermore, the role and involvement of men in contraceptive use are limited because it is said that contraceptive use is a women's responsibility [60]. In many cases, when the boyfriends refuse, girls do not dare to use contraceptives [35, 66].

+ Parent-youth communication on sexuality-related issues:

Several studies showed that parent-youth communication on sexuality-related issues delayed sexual initiation and led to more contraceptive use and fewer unintended pregnancy among youth [86-89]. However, a poor communication between parents and their children on sexuality-related issues was indicated in many studies in Vietnam [17, 23, 35, 54, 62, 90]. For example, in SAVY2, only 5% of male youth and 19% of female youth have ever talked with their parents about sexuality [17]. In the case when parents talked with their children about sexuality, the talks were more 'threatening' and 'warning' rather than a friendly and open discussion [23, 62, 90]. Parents had not mentioned the methods to prevent unintended pregnancy. For them, abstinence is the only way to prevent pregnancy among youth [90].

Moreover, many parents hold the belief that information about sexuality and contraception is not appropriate for unmarried young people. They thought that sexuality education will encourage youth to have sex [23, 35, 90, 91]. Additionally, parents have some common barriers to communicate with their children on sexuality-related issues, including their embarrassment and in-confidence to discuss sexual matters and lack of knowledge and communication skills on this sensitive topic [62, 90, 91].

+ Peers influence:

Peers play an important role in youth's attitudes and behaviours relating to sexuality through passing their norms and attitudes on sexuality [92, 93]. A research in Vietnam showed that unmarried adolescents who have close friends who are sexually active before marriage are 24 times more likely to be sexually active compared to those who do not have such friends [50]. Other research showed that unmarried female youth are under peer pressure to have sex. If youth do not have sex with their lover, their friends will think that they do not love seriously [53].

Moreover, peers also have influence on youth by sharing SRH knowledge. In Hoang's research, all youth have ever talked about sexuality with their friends. However, the majority of them talked as a joke and only 40% considered this talk as serious [23].

+ Sexual abuse:

A history of forced sex has increased the risk of pregnancy in adolescents. For example, a study in South Africa found that adolescents who were pregnant under the age of 19 were over 2 times more likely to have a history of forced sex than non-pregnant adolescents [94].

In Vietnam, there is no research exploring sexual abuse among youth. In SAVY2, 21 youth admitted ever having been forced to have sex [17]. Being sexual abused is one of factor of unintended pregnancy among this group.

3.3. Institutional/Organizational Factors

+ Formal sexuality education in school:

School-based sexuality education can reach a large number of young people and influence their knowledge, values and skills related to sexuality [95]. In Vietnam, there is no formal subject of sexuality in the schools. Basic sexuality education is integrated within the subject of biology, literature, civic education, geography and extra-curricular activities from 8th grade on, but the program focuses primarily on the 10th-12th grades [31, 96, 97]. Adolescents are given basic information about the body, love, friendship, FP and population. More sensitive topics such as STIs, pregnancy and abortion have not been included in the curriculum.

Teachers often feel uncomfortable and embarrassed when talking about SRH with their students. Many teachers think that schools are not appropriate to talk about sexuality and prefer parents to take responsibility to discuss it with their children [31, 64, 96]. Additionally, teachers also recognized that they do not have sufficient knowledge and teaching methods to teach about sexuality properly [23].

+ Family planning services:

Access to contraceptive methods remains difficult for unmarried youth [15]. In Vietnam, FP services are provided free of charge by two main sectors: health and population. While health sector provides contraceptive methods in commune health centres, population sector provides un-clinical contraceptive methods, including condom and pills through its population volunteers at communal level [98]. However, the target group of FP services is always married couples only. Unmarried people are neglected by subsidized programs [33, 60, 99].

Healthcare providers have negative attitudes and stigmatize towards youth sexuality. Therefore, unmarried youth are reluctant to access public health services because they concern about the way they are treated, privacy and confidentiality [15]. Furthermore, although contraceptives are widely available at pharmacies without a prescription, unmarried youth, especially for girls, are still embarrassed to buy contraceptive methods due to the stigma with premarital sex of pharmacist [23, 35].

+ Abortion services

Post-abortion counselling which provide tailored information regarding contraception has an important role in promoting safe sex practices and in preventing repeat unintended pregnancies among women seeking abortion [100, 101]. However, post-abortion counselling in Vietnam is inadequate. Contraceptive counselling was provided for only nearly half of women seeking abortion [102, 103]. The content of contraceptive counselling mainly focused on pills and condom and key contents were missed: side-effects, alternative contraceptive methods, negotiation with partners; and counsellors do not ensure clients fully understand the information [102, 104].

Moreover, abortion providers have a strong disapproving attitude to premarital sex and abortion. Therefore, instead of providing information on contraceptive use, they threaten youth the danger of both pre-marital sex and abortion. They thought that “no sex is the best contraceptive” for unmarried youth [105].

+ Exposure to media:

In today information technology era, access to media gradually becomes prevalent in youth’s life. The media messages particularly those from the West, are believed to substantially change youth’s attitudes and practices on sexuality in Vietnam. Through media, youth are exposed to more permissive attitudes, values and norms on premarital sex. By this way, media contribute to a more permissive attitude and practice of premarital sex [20, 29, 106].

Moreover, media is a source of SRH information which is easily accessible, safe and minimally embarrassing for youth, especially in the Asian countries where talking about sexuality is still uncomfortable for teachers and parents [107]. SAVY2 showed that the main sources that youth learn about pregnancy and FP from are media, particularly television (65%) and newspaper/magazines (47%) [17]. However, media bring overwhelming knowledge and conflicting messages on sexuality which lead youth to be difficult in access proper and accurate information.

Additionally, youth are often blamed for their sexual behaviour and their sexual and reproductive rights are not recognized in the media in Vietnam [108]. This will reinforce the stigma towards premarital sex in the society.

3.4. Contextual factors

+ Gender roles:

Vietnam has been strongly influenced by the Confucianism in which the guiding principle of gender relations is “male as superior and female as subordinate” [109]. The research with unmarried youth in three Asian countries showed that youth from Hanoi hold the most traditional attitudes to gender roles [109]. In sexual relations, men are supposed to initiate sexual activity and women should keep passive and sexually innocent. Chastity is particularly required for women while premarital sexual experiences for boys are socially accepted and even encouraged [109]. To give the impression of being innocent, many girls do not discuss contraceptive use with their partners. Men were often the decision-makers for which method to use, although few appeared to care. They often practiced contraception irregularly and thus risked unintended pregnancies [52, 109].

+ Cultural tradition, norms and values

In Vietnamese culture, a woman is required to keep her virginity until marriage. Premarital sex is strongly condemned, stigmatized and even considered as a degradation of Vietnamese culture [105, 110]. Therefore, unmarried youth keep their sexual activity in highly secret from adults and express that they are in accordance with the social expectation placed on them. This makes it difficult not only for youth to acknowledge their SRH needs, but also for policy-makers and program managers to respond to youth’s needs [19].

Moreover, Gammeltoft's research with unmarried youth seeking abortion revealed that girls try to defend their identities from social and moral condemnation by expressing that their premarital sex is uncontrollable, unplanned and expression of love rather than lustful act. Therefore, although they are well aware of the risk of pregnancy, they still do not initiate contraceptive use [19, 31].

Additionally, the Confucianism sees sexuality is taboo and forbidden topic for discussion. This restricted meaningful parent-child communication on sexuality. Youth keep secret their sexual experiences from their parents, and parents adopt a "silencing" approach to sex-talk [111].

+ Religions

Thang's research showed that the Catholicism in Vietnam affects modern contraceptive use. The percentage of Catholic women using modern contraceptives was lower than that of non-religious women (49.2% and 57.6%) [112]. This might be explained by the fact that the Catholicism opposes contraceptive use to control reproduction. Women following Buddhism are also less likely to use modern contraceptives, but it is not statistically significant [112].

For Buddhist followers, abortion is morally wrong because of killing a human life, especially for late abortions. The later an abortion happens, the more morally wrong women feel because early abortion means that the fetus is not yet formed and is considered to be "a clot of blood" while a later abortion considered as destroying a human [105].

+ Sub-cultural customs:

Each among 54 ethnic minority groups in Vietnam has their own culture which might influence on sexual behavior and SRH of youth. For example, H'mong ethnic youth often engage in sexual relations at the "love market" where they can hide their behaviours from their parents [113]. Paco and Vankieu ethnic groups have the custom of "Di Sim" for seeking lover which means that two different-sex individuals could hangout whenever and do whatever they want throughout the night. "Di Sim" practice often involves sexual intimacy and female youth often agree to have sex quickly once they are treated nicely with gifts [114].

+ Migration

After the Renovation in 1986, the internal migration has increased as people have moved to other destinations for economic opportunities. 6.6 million people changed their place of residence in 2009, a significant increase from the 4.45 million in 1999 [115]. In SAVY2, 38% of youth have ever been living away from home continuously for more than a month (30% in SAVY1). Most of them did so "to earn living" (41%) and "to study" (37%). In general, males migrate more than females, and rural youth migrate more than urban peers [17].

Being far from home, migrants experience a freedom from family control, as well as a difference in community's culture. This independence can lead youth to participate in premarital sex [116]. Moreover, Gammeltoft's research indicated that sexuality is also used as one strategy aiming to create a stable foundation for future marriage and family building of youth in the city [54].

Moreover, the frequency of unprotected sex among migrants was higher than that of non-migrant counterparts [117]. They are also highly susceptible to sexual exploitation and abuse [118]. Being new to their place of destination, they often lack access to SRH information and services and SRH programs also are ineffective in reaching migrants due to their long work hours and mobile status [115, 119]. These factors make migrants are vulnerable to unintended pregnancy and STIs/HIV.

+ Political and Economic context

Vietnam's Renovation in 1986 have brought many economic and social transformations which shifted from a socialist centrally planned economy towards a free-market economy and an "open door" to the surrounding world. It has resulted in a greater exposure to Western culture, which leads to changes in Vietnamese lifestyle, values and perception about sexuality [21]. Economic development has created better education and employment opportunities for young people and then in turn helped them reduce the dependence on their parents. This has gradually loosened the family's control and monitor over the social and sexual contacts of their children [120]. Goodkind suggested that the increase in pregnancies among unmarried youth is a result of the changing social and economic climate together with the government's unwillingness to provide SRH information and services to young people [121].

3.5. Public policies

Vietnamese government is willing to address SRH issues of youth and adolescents in general and unintended pregnancy and abortion in particular [28]. Improving youth and adolescent SRH is integrated in numerous policies in Vietnam (table 5 in next page). However, there is no separate policy addressing youth and adolescent SRH. This creates great difficulties for planning, implementation, monitoring and evaluation (M&E) of youth and adolescent SRH services and programs. It also limits the budget and resources for those programs.

Table 5: public policies on SRH of youth and adolescents

Policies	Key pertinent issues
Youth Law in 2005 [122]	The Youth Law includes 5 chapters and 36 articles. SRH issues were not set priority in the law. They were mentioned in only two articles (Article 22 on marriage and family life and Article 28 to protect young people 16-18 years-old from sexual abuse). The youth law put FP services in the context of marriage, not for unmarried youth.
National strategy on RH 2001-2010 (2000) [123]	The strategy indicates the orientation, objectives and activities to improve RH quality and better meet the needs of the population. ASRH is identified as second among seven outstanding problems that SRH program must address. This document addresses for the first time ASRH in Vietnam.
Vietnam Population and FP Strategy 2001-2010 [124]	The strategy aims to reduce the fertility rate and improve population's quality. ASRH is included in IEC programming that focuses on promoting behavior change communication and services. The strategy also mentions minimizing unwanted pregnancies and strongly reducing the abortion rate, especially teenage abortion as a solution to obtain the objectives.
National strategy on population and RH 2011-2020 (2011) [125]	This strategy incorporates population and RH into one single strategy. Improving SRH of youth and adolescent is one among 11 objectives with two indicators: increased YFS sites and reduced unintended pregnancy incidence.
National standards and guidelines for RH care services (2003) [126]	The guidelines constitute the legal foundation for delivering SRH services and is a manual for health professionals in delivery services as well as a basis for developing training materials for health professionals and supervising and monitoring the quality of service in the health facilities. It underlines the importance of providing adolescents with supportive and non-judgmental RH and abortion counselling.

CHAPTER 4: INTERVENTIONS AND BEST PRACTICES TO REDUCE UNINTENDED PREGNANCY AND ABORTION AMONG UNMARRIED YOUTH

This chapter gives an overview on the interventions implemented by the governmental and non-governmental organizations to prevent unintended pregnancies and abortions among unmarried youth in Vietnam. After that, best practices suggested by some international expert organizations are analysed.

4.1. Prevention interventions in Vietnam

In this part, the ecological model will be employed to analyse the interventions to prevent unintended pregnancies addressing five levels of factors among youth. There are 24 SRH programs/projects included in the review (see list of programs in annex 2). There are some programs which address multi-level factors will be used more than once.

4.1.1. Interventions addressing intrapersonal factors:

There are many interventions which address intrapersonal factors of unintended pregnancy among youth in Vietnam. Existing documents reveal two groups of interventions, including: school-based and community-based.

4.1.1.1. School-based interventions:

Eight school-based programs (code P1 to P8 in annex 2) which address intrapersonal factors of unintended pregnancy among adolescents and youth are analysed. Those programs are implemented by MOET, Provincial Department of Education and Training and some international and local NGOs.

Settings: No program covers the whole country. The program by UNFPA covers the largest number of provinces (11 provinces). Some programs cover only one to two schools because they are pilot initiatives for special groups such as ethnic minority or PWD.

Time of intervention: Programs last 1-5 year.

Target groups: Apart from two programs for special groups, other programs mainly focus on upper-secondary school students (grade 10-12); three programs are for lower-secondary school students.

Activities: All programs provide SRH knowledge as lectures with three types of provision: 1) Integrate SRH in the other subjects, 2) SRH as a separate subject 3) SRH as extra-class sessions. Each program developed their curriculum. Many SRH topics were included: puberty, contraception, unwanted pregnancy, STI/HIV, sexual abuse. However, the topics on negotiation and communication skills, sexual and reproductive rights, gender and self-efficacy were only mentioned in one or two programs. In addition, peer education, IEC development and distribution, and face-to-face counselling in friendly corner were also employed in some programs. There is no program providing contraceptive methods and SRH clinical services in the schools. In the programs which provide sexuality education for students, teachers who involved in teaching sexuality were trained on sexuality and teaching methods.

Results: No outcome on target groups was reported in two programs. For 6 programs, mostly the change in SRH knowledge was measured as an outcome. In those programs, SRH knowledge of target groups was increased after the

interventions. Two projects showed that the confidence level in condom use increased. Other outcomes such as delay in sex initiation, contraceptive use, intended pregnancy incidence, and abortion incidence were not measured in those programs.

4.1.1.2 Community-based interventions:

There are 13 community-based interventions analysed (code P1,P8,P9-P19 in annex 2). Those interventions are conducted by mass organizations (Vietnam women union, Youth union) or international and local NGOs such as LIGHT, CCIHP, Save the children, Marie Stopes International, CGFED, etc.

Settings: Community-based interventions were mainly implemented in small scale areas such as communes, wards, factories, café shop, etc.

Time of intervention: Programs last 10 weeks to 4 years.

Target groups: Most of programs mentioned target groups as adolescents and youth without an age-range definition. Most of programs targeted both sexes, and one program targeted female only.

Activities: A wide range of activities were included in community-based programs, including sexuality education in the community, clubs, IEC development and distribution, community libraries offering SRH resources, participatory theatre and plays, face-to-face counselling, peer education, and condom distribution. Due to word-count restriction, the descriptions of each activity are provided in the annex 3.

Results: No outcome for target groups was measured in 5 programs. For 8 programs, knowledge on SRH was measured in most of programs with an increase of knowledge. Only one project measured the intention to have sex in next three months and self-efficacy for condom use and abstinence with a positive result. Similar to school-based interventions, other outcomes such as delay in sex initiation, using contraceptive methods when having sex, unintended pregnancy incidence, abortion incidence were not measured in those programs.

Intrapersonal factors of unintended pregnancy that were addressed: Many intrapersonal factors of unintended pregnancy were addressed in those programs such as perception of risk of pregnancy; knowledge and attitudes on conception and contraception and attitudes to abortion. However, there are still many factors were inadequately addressed in those programs, including practice of premarital sex, practices on consistent and proper contraceptive use, numbers of lovers and sexual partners; and perceived self-efficacy to avoid unwanted sex and contraceptive use.

4.1.2. Interventions addressing interpersonal factors

+ Communication among partners about sexual issues:

Communication among partners about sexuality issues were not paid much attention to. This factor is address in two programs by having the topic on negotiation and communication skills for sexuality in the lecture (code P3 and P9).

+ Parent-youth communication about sexuality issues:

Parent-youth communication about sexuality issues was addressed in 4 programs (code P8, P9, P10, P13 in annex 2) and all of the programs address this factor by

providing knowledge on sexuality for parents and parent-youth club activity [127-130]. The evaluation of those programs showed that knowledge on youth's sexuality of parents improved significantly; parents became more open to youth sexuality; and there was positive changes in communication on sexuality issues between parents and youth [128-130].

+ Peers:

There are 3 out of 8 school-based programs (code P2, P5, P8 in annex 2) and 4 out of 13 community-based programs (code P14, P15, P17, P18 in annex 2) employed peer education activity. Most programs combined peer education with other activities so it is difficult to assess the impact of peer education separately. There is only one program uses peer education as a key activity in the program [131]. In that program, 1,443 trained peer educators (grade 8-10) at 25 schools conducted many activities such as extra-curricular sessions for the whole schools, class discussion, individual counselling, etc. to improve knowledge on sexuality for the students. The program results showed that knowledge on SRH was improved, confidence level in condom use was increased among students and many students quitted smoking [131].

+ Sexual abuse:

There is no separate program addressing sexual abuse for youth. Preventions of sexual abuse were integrated in sexuality education curriculum in some programs, particularly for some vulnerable groups such as disability, ethnic minority and migrant. However, this topic was provided as the lectures and there was a lack of provision on coping and problem solving skills to prevent sexual abuse in specific scenarios.

4.1.3. Interventions addressing organizational/institutional factors:

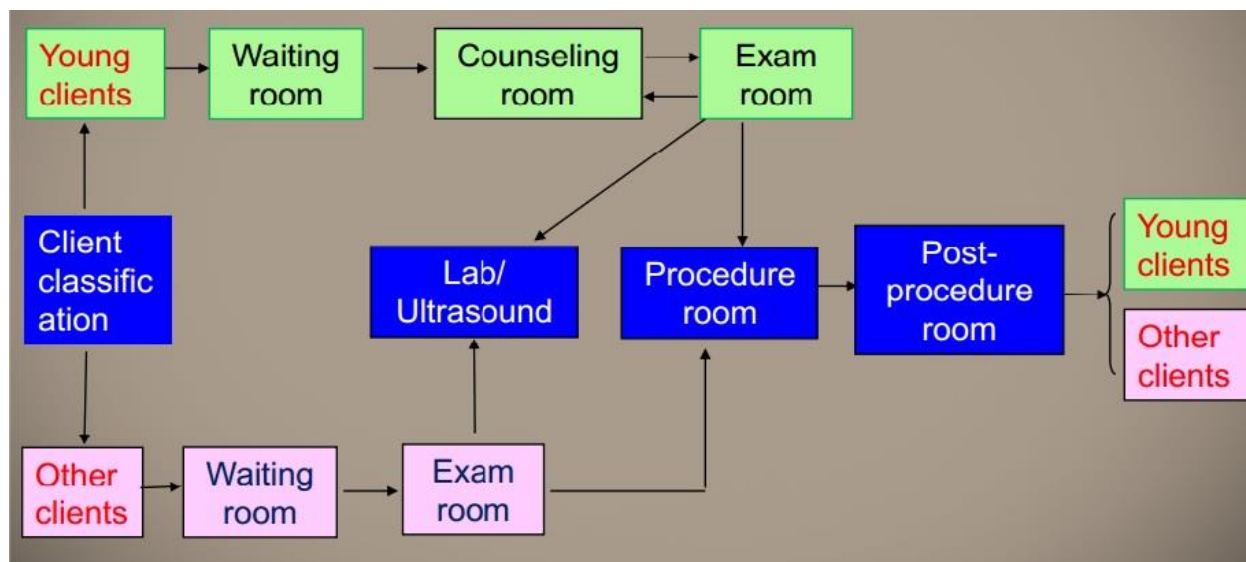
+ Sexuality education in school: see 4.1.1.1

+ Youth-friendly RH services (FP and abortion services):

There are two programs that provide youth-friendly SRH services (YFSRHS) in Vietnam. One is Reproductive Health Project (RHP) conducted by the collaboration of three international non-governmental organizations (Pathfinder International, Ipas and Engenderhealth) and MOH and one is Reproductive Health Initiative for Youth in Asia (RHIYA) project conducted by UNFPA in the collaboration with European Community (code P8 and P20 in the annex 2).

In 2004, the RHP pioneered YFSRHS in Vietnam. New services called "Green Question Service" (GQS) were established in six clinical sites in three provinces. The GQS included a waiting area, a separate counselling room and examination room for young clients (figure 4). Facilities were renovated to enhance privacy and training and post-training supervision were provided to health workers who involved in the provision of YFSRHS [132]. By the end of 2010, YFSRHS was expanded to 29 sites in 17 provinces [133]. The project report showed that YFSRHS sites serve an average of 2,300 youth per year per site [133].

Figure 5: Green Question Service for youth in SRH facilities



RHIYA program which is conducted from 2004-2007 includes the provision of YFSRHS. Twenty-two Youth-Friendly Corners (YFC) were established in rural commune health centres and some private and NGO-based health facilities in 7 provinces [129]. During RHIYA period, 71,397 youth received information, counselling and clinical services at 22 YFC in 7 provinces. Among those, 33,940 youth were provided clinical services [129].

+ Media:

There are 4 programs address media factors. Among them, two programs (code P21, P22 in annex 2) are Internet-based interventions with their own websites (tamsubantre.org and www.tuvantuoihoa.org.vn). Both programs provide updated information and counselling online and via emails on youth SRH. The results from one program showed that from 2004 to 2012, there were 47,630,047 hits accessing to the website tamsubantre.org, 20,000 articles posted to the website, 17,000 online counselling cases and 51,000 email counselling cases [134, 135]. Another Internet-based program (code P24 in annex 2) is a Facebook fanpage named "Why not?" aimed to raise awareness on the risk of unintended pregnancy among Vietnamese youth established in 2011. The fanpage initiated with a video clip contest focusing on unintended pregnancy and abortion among youth. Currently, the fanpage is the place to discuss youth's SRH issues [136].

"Window of Love" (code P23 in annex 2) is a Vietnamese radio program that aims to provide youth with SRH education. During the 45-minute broadcast every Sunday, listeners ask questions and get answer on SRH topics. Another radio counselling (code P22 in annex 2) shows broadcast in four languages (Vietnamese and three ethnic minority languages). Cumulatively in one year from 2008 to 2009, 264 counselling shows were broadcast, which meets 100% of the expected target.

4.1.4. Interventions address contextual factors:

+ Cultural tradition, norms and values:

There are some programs addressing stigma towards premarital sex and pregnancy by creating an enabling environment for open discussion about sexuality issues and promoting sexual and reproductive rights of young people. The programs which address parents-youth communication on sexuality-related issues which were presented in paragraph 4.1.2 also address stigma towards youth sexuality in the family. In the community, there are three projects (code P1, P8 and P10 in annex 2) which aimed to create enabling environment by the provision of training on SRH for and the involvement of key persons including local authorities, mass organisations, mass media practitioners, and health service providers in SRH activities; advocacy, and IEC campaign.

+ Gender roles and power relations

Gender issues and communication skills were mentioned in some sexuality education curricula and club session themes for youth and adolescents (code P9, P10 and P12 in annex 2). However, there is no program to empower unmarried female youth.

+ Migration:

Four SRH programs for migrants which conducted in the industrial factories (2 programs-code P12 and P15 in annex 2) and in the community where migrants are living (2 programs-codes P16 and P17 in annex 2) are reviewed. Almost all programs included peer education and provision of knowledge and life-based skills on SRH. Some projects provided counselling and clinical services in the industrial factories or a referral to district health clinics. All projects conducted in the destination places and neglected the areas from which migrants originated.

+ Sub-cultural customs: Two programs (code P4 and P18 in annex 2) that focus on ethnic minority youth and adolescents are reviewed. These two programs provide knowledge and skills on SRH for adolescents and youth through community campaign, extra-class sessions and bookshelf. However, no program addressed specific sub-cultural norms of ethnic minority groups.

4.1.5. Interventions address policies on SRH of youth and adolescents and implementation:

Only RHIYA project (code P8 in annex 2) made great efforts to advocate for integration of youth SRH into public policies, particularly in youth law. RHIYA contributed financial and technical support for the law composing board in the integration of youth SRH. In youth law approved in 2005, SRH integrated in some articles such as article 28 (protection youth from sexual abuse) and articles 22 on marriage and family life (including FP) [122, 137].

General remarks on intervention programs:

+ The programs mainly address intrapersonal factors with the focus on IEC activities while other factors (interpersonal, organizational, contextual and policy) are not significantly paid attention to.

- + Many interventions were implemented, but most of them were pilot activities and small in scale. Programs addressing youth SRH have not been institutionalized yet.
- + All programs depend largely on international donors, which can impact on the sustainability and ability to replicate the successful models.
- + There is no coordination organization to coordinate the SRH programs among and between government and non-governmental organizations. Therefore, there is a risk to duplicate and inefficient use of resources.
- + There is a lack of participation of youth in designing programs for them: Youth was mainly involved in IEC work and awareness raising activities. They do not have any role in decision-making during the design, implementation, and M&E of the programs.
- + Programs often operate with lack clearly outlined plans and lack project M&E guidelines and indicators. Therefore, it is difficult to evaluate the success and effectiveness of programs.

4.2. International best practices

In this part, best practices from some international expert organizations will be analysed. Because recommendations from expert organizations were compiled based on the experiences from many countries in the world, there is no need to analyse best practices in separate countries.

The combined international experiences from the partnership of WHO, UNFPA and UNICEF revealed three key strategic areas to prevent unintended pregnancy and improve SRH of young people in East-Asia and Pacific region [138]. Those strategic areas are summed up based on the literature and project review. Following are best practices in these strategic areas.

1) Promoting healthy sexual behaviour through life-skills based information and education

This approach equips young people with information and skills for decision-making in sexual behaviour (such as delay first sex, refuse sex and practice safe sex), including values clarification, relationships, decision-making and negotiation skills, planning for the future, and assessing reliable sources of SRH information and services.

Life-skills based education on sexuality should be provided for all young people through in-school and out-of-school activities. In the schools, it should be included in the curricula and taught in an age-appropriate manner so that the content of learning is appropriate with the developmental phases of young people and reinforces information and skills throughout the development stages of young people. Teachers need to be trained and equipped with skills to deliver sexuality education in an age-appropriate, gender sensitive and youth-friendly manner. For out-of-school youth, programs should be conducted within the community; workplace, and using media. Out-of-school programs should include peer education, life-skills training, parent-youth clubs, and community outreach using drama and entertainment, and workplace outreach programs. Out-of-school programs need to

pay attention to groups of disadvantaged youth such as street children, those with disabilities, migrants and ethnic minorities, etc. [138].

Two other groups of international experts have also provided extensive advices on how to develop good-quality sexuality education programs, and on what to include in the curricula of sexuality education. Firstly UNESCO produced two volumes on international technical guidance on sexuality education in 2009. This documents provides technical advice on characteristics of effective programs (annex 4) and the topics and learning objectives should be included in sexuality education for young people at different ages from 5 to 18+ [95, 139]. The second is "It's All One Curriculum" which developed by an international expert group based on global research on SRH risks. This document is useful for guiding the sexuality curriculum design for young people in a diverse and rapidly changing world. It enables to address not only the individual determinants but also the social determinants of young people's SRH [140].

2) Access to youth-friendly SRH services

Youth-friendly SRH services (YFSRHS) are "those that attract young people, respond to their needs, and retain young clients for continuing care" [141]. Youth's preferences on SRH services vary, depending on socio-economic and cultural backgrounds. Therefore, the essential package of YFSRHS cannot be fixed and should be developed based on youth's backgrounds. Despite its flexibility, YFSRHS must be available, accessible, acceptable and affordable for youth [142]. An extensive list of the characteristics of YFSRHS developed by WHO is included in annex 5 [142]. Following are some activities to improve the effectiveness of YFSRHS [138]:

+ Coverage and availability:

- Integrate YFSRHS into suitable existing facilities
- Develop clear policies and guidelines for health workers in providing YFSRHS
- Review staff and time management of facilities to permit health workers to spend enough time on counselling for youth
- Training and refresh training for healthcare providers
- Integrate SRH services in schools or through mobile services

+ Service utilization:

- Standardize guidelines in the provision of SRH for youth
- Integrate YFSRHS into training programs for service providers, with the focus on communication skills, privacy, and confidentiality
- Develop YFSRHS with the considerations of convenience, affordability, confidentiality and privacy for young people
- Establish links with other service delivery points and schools.

+ Service sustainability:

- Ensure a reliable supply of SRH materials: contraceptives and IEC materials
- Adopt sector-wide approaches to gain financial resources from other sectors.
- Strengthen documentation for M&E, as well as scaling up of successful models.

- Develop professional requirements and qualifications for the delivery of SRH services
- Work with existing professional bodies and NGOs to integrate and institutionalize adolescent SRH services

3) Creating a supportive and enabling environment

Many factors which affect youth's SRH are from the socio-economic and cultural environment. Therefore, the programs which improve youth's SRH must create an environment that promotes open discussion on sexuality issues of young people. It is essential to create a supportive and enabling environment where families, communities, the media and others can communicate positively to promote healthy behaviour among young people. Following are some activities to create a supportive and enabling environment [138]:

+ Work within societal norms and bridge the gender gap

- Orient parents and the community to become reliable and accurate sources of information for young people
- Support young people's rights to access contraceptives and information
- Promote and support programs address gender inequality
- Create safe public spaces for youth

+ Forge partnerships through the following mechanisms:

- Reach out to parents and community to encourage open discussion between youth and their parents and other adults on sexuality
- Ensure the involvement of youth in planning, implementation, and M&E of SRH programs
- Promote the involvement of influential religious, community and political leaders in SRH programs
- Develop networks with NGOs and engage private sector
- Promote the media in the provision of accurate information and positive role models on SRH issues to youth

+ Support and promote the efforts in poverty reducing and economic development for young people as a means to protect their health.

CHAPTER 5: DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1. Discussion

Unintended pregnancy is not only a matter of individual behaviour, but also a problem relating to the social environment. The unintended pregnancy and abortion are influenced by the combination of individual factors and its environments. The ecological model was used to analyse factors contributing to unintended pregnancies and interventions to prevent them among unmarried youth. The factors were grouped into five levels of influence, including intrapersonal, interpersonal, organizational, and contextual and public policy. Following is the discussion of those factors.

Intrapersonal level

The literature showed more and more young people have permissive attitudes towards premarital sex and the percentage of youth having premarital sex is increasing [17, 20]. Moreover, youth lack the knowledge on conception and contraception and have some common misconceptions relating to contraceptives. Although youth are aware of the risk of pregnancy, they are uncertain about the likelihood of being pregnant. Therefore they do not use contraceptives or use it inconsistently. Additionally, low self-efficacy in communicating on sexuality and negotiating contraceptive use make it difficult for female youth to refuse sex and practice safe sex. Having premarital sex without contraceptive use put youth at the risk of unintended pregnancy and abortion.

Interpersonal level

To preserve the impression that girls are innocent on sexuality which is expected by the society, girls do not discuss sexuality and contraceptives with their partners. Moreover, there is a power imbalance in the relationship which is in favour of men so many unmarried females lack the power to refuse sex or negotiate safe sex with their partners. Although many girls get information on sexuality and contraceptives from their teachers, parents, and media, they are lack the negotiation skills for delaying sex and for contraceptive use.

Parents play an important role in influencing youth's sexual behaviours by passing on the values, knowledge and protective skills on sexuality and contraception. However, parents in Vietnam believe that discussion on sexuality-related issues will create curiosity in adolescents, which will make them more likely to engage in sexual behaviours. Moreover, living in a society where sexuality is considered a sensitive and taboo topic, parents themselves also do not learn much about sexuality and they feel embarrassed to talk about it with their children so they also lack the knowledge and communication skills on sexuality to discuss this topic with their children.

Belonging to certain groups is important for youth. A review [143] showed that peers could influence on youth through two ways. The first one is prevailing attitude towards sex. If their friends approve and engage in premarital intercourse, it is likely that youth also engage in premarital intercourse. Youth even start to become sexually active because of peer pressure. The second way of peer influence is

information sharing. Although the information from peers can be accurate or inaccurate, it may become a guide in decision-making about sex.

Organizational/institutional level

Delivering sexuality education in the schools is essential because it reaches a large number of young people. However, sexuality education is inadequate. Sexuality education is not a formal and compulsory subject in the schools in Vietnam. It is integrated in others subjects and provided depending on the will and ability of the teachers. In the places where sexuality is taught, it is in the form of moralistic lectures and with a bio-medical focus while youth really need practical information and skills for their decision-making on sexual issues. Four shortcomings in the implementation of sexuality education in Vietnam are recognized, including the lack of policy and enabling mechanisms for sexuality education; the lack of official teaching manual; insufficient knowledge and teaching skills among teachers; and lack of qualified educational managers [144].

Guaranteeing the availability and accessibility of contraceptives is very important for youth in preventing unintended pregnancy. SRH services in Vietnam mainly target married couples and limit for unmarried youth [33, 60, 99]. Moreover, the negative attitudes from health providers and pharmacists towards unmarried youth sexuality, the lack of confidentiality and privacy prevent youth from accessing contraceptives and SRH services.

Living in a society where sexuality-related materials and images are visible, youth can learn about expression of love and sexual behaviours from films, magazines, novels, the Internet and even advertisements on televisions. These sources portrays sexual practices which can be a model for youth, including both positive and negative models, for example, preparing contraceptives when having sex rarely included. Moreover, these sources of information are normally products of market and for profit, they do not provide youth with necessary knowledge and skills that they need to make choices in their sexual relationship.

Contextual level

Premarital sex, pregnancy and abortion among youth are condemned and stigmatized in Vietnamese society. This makes it difficult not only for youth to acknowledge their own sexuality, but also for policy-makers and program managers to respond to their needs. Migration put young female migrants at risks of unintended pregnancy due to sexual exploitation and abuse and lack of access to SRH services. The Political and economic renovation in Vietnam have brought young people more freedom and changes in values and perception on sexuality.

Public policy

Youth SRH is integrated in some policies such as the youth law and national strategy on RH and population. Those policies recognize SRH needs of youth and promote the provision of SRH information and services to meet their needs. However, there is no separate policy targeting youth SRH in Vietnam. This creates great difficulties for planning and implementation as well as M&E of SRH services and programs.

Interventions to prevent unintended pregnancies among unmarried youth

There have been many interventions that address the factors relating to unintended pregnancies in Vietnam. Most of those programs address intrapersonal factors with primarily focus on IEC activities and other factor levels are not much paid attention to. All programs were conducted in certain and small scale areas and no program covers the whole country.

For almost all programs, only knowledge on SRH is measured as the result of the programs. No programs measure the impact on delaying sexual initiation, actual contraceptive use, incidence of unintended pregnancies and incidence of abortion. Therefore, it is difficult to evaluate the effectiveness of those programs in reducing unintended pregnancy and abortion. This, in turn, makes it difficult to replicate the programs in other settings.

Moreover, all programs depend largely on international resources and the majority of them are small in scale. This affects their sustainability and ability to replicate the successful models.

Conceptual framework

The conceptual framework used to analyse influencing factors and interventions for unintended pregnancy and abortion in this review has an advantage that it is comprehensive with five levels of factors and permits to analyse these factors in a changing environment. The factors influencing unintended pregnancies combined of five levels of factors and all five levels of factors interacts each other. Furthermore, this framework is effective in analysing the interventions and activities to prevent unintended pregnancy among unmarried youth by addressing each level of factor. The thesis showed that this framework allows researchers to have a comprehensive understanding on influencing factors and solutions of unintended pregnancy and abortion among unmarried youth. This model is effective in exploring unintended pregnancy and abortion among unmarried youth in Vietnam.

5.2. Conclusions

In Vietnam, although there is no national data on unintended pregnancy and abortion among unmarried youth, existing studies indicate that the unintended pregnancy and abortion incidence among this group is likely to be high.

Unintended pregnancy and abortion among unmarried youth is socially constructed. The intrapersonal, interpersonal, organizational, contextual and public policy factors of unintended pregnancy interact, influence and are influenced by each other. All of them influence sexual behaviours and contraceptive use and ultimately influences on the risk of unintended pregnancy. However, all the correlations found point out some major determinants which can be perceived as the common denominators of many of the factors mentioned in the conceptual framework. Those common denominators are particularly:

Youth sexuality is a taboo issue

Vietnam is still a society where sexuality of unmarried youth is a sensitive and taboo issue. This makes youth shy when access to sexuality information and contraceptives, prevent them to have open discussion on sexuality topic with their

friends, parents, and teachers, and prevent them to express their SRH needs. Due to the stigma towards pre-marital sex, youth try to perceive their sexual intercourse as out-of-control events to protect them from social judgment. However, it prevents youth from having proper preparation for their safe sex. Moreover, it also makes the SRH services and policy fail in meeting youth's needs.

Holistic sexuality education

The school is a potential setting to provide sexuality education for a large number of youth and adolescents. However, the lack of enabling mechanism for sexuality education, insufficient knowledge and teaching skills of teachers, lack of official teaching manual, and no M&E system make the implementation of sexuality education in the schools very challenging and not very effective. Moreover, sexuality education is framed in a bio-medical emphasis. It does not demonstrate that youth SRH is a socially constructed issue. With the moral lectured approach, it teaches young people how they are expected to act instead of focusing on their interests, their youth culture, their needs and what they can do relating to sexuality. There is vast international experience in developing and implementing good quality sexuality education programs, but that experience has as yet hardly reached Vietnam.

Youth-friendly SRH service delivery

Access to SRH services is very important for youth in having information and measures to prevent unintended pregnancies. While health care providers and pharmacists have negative attitudes towards premarital sex and the target group of SRH services is married couples, there are only a few YFSRHS in Vietnam, and hardly any of those have been made sustainable, because they are usually only piloted and not made permanent by integrating them in the system of regular health care services. It makes youth difficult to access to contraceptives and RH information which is necessary for them to prevent unintended pregnancy.

No separate policy addressing youth SRH

Although youth and adolescents SRH is recognized as important issues and is paid attention to, there is still no SRH policy separate and specialize for adolescents and youth. This creates difficulties for program managers in planning and implementing as well as M&E of SRH services for youth.

Many pilot projects, but no sustainable national program

Governmental and non-governmental organizations have implemented several initiatives in improving SRH and preventing unintended pregnancy among youth through a wide range of activities. Each of these intervention programs directly or indirectly addresses one or more of the five levels of factors contributing to unintended pregnancy among youth, but hardly any of them cover the entire range of factors. However, all programs implemented as pilot initiatives that have not been well evaluated. Moreover, those programs depend largely on international resources and the majority of them are small in scale. This affects their sustainability and ability to replicate the successful models.

Reducing unintended pregnancy will only be possible with long-term investments, because it involves a wide range of factors. The associations suggested by the thesis point towards a need for greater emphasis in SRH promotion interventions.

5.3. Recommendations

To tackle and prevent unintended pregnancy and abortion among unmarried youth in Vietnam, three groups of recommendations are developed based on the finding of this review:

5.3.1. Policy-related recommendations:

- 1) A national policy on SRH of adolescents and youth in general and tackling unintended pregnancy and abortion among this group in particular should be developed. This policy should provide procedures to address all levels of factors that influence on the risks to SRH, including unintended pregnancy and STIs, particularly address common denominators mentioned in the conclusions which are breaking the taboo of sexuality in the family, school, community and the whole society, providing holistic sexuality education in the schools, and expanding YFSRHS. It should consider in particular the following issues:

- + Target different groups of youth: in-school and out-of-school, urban, rural and mountainous areas, and vulnerable and disadvantaged groups

- + Meaningfully involving youth and adolescents in designing, implementing and managing policies and programs on SRH for youth.

- + Support for the involvement of NGOs, civil society organizations, religious institution and representatives of communities.

- 2) Once policies on youth SRH are adopted, detailed guidelines for implementation should be developed and disseminated throughout the country. The guidelines should clearly indicate important elements, such as allocation and coordination of resources, agencies responsible for program implementation, strategies and procedures to support effective implementation and management of programs.

5.3.2. Program-related recommendations

- 3) Develop sexuality education curriculum for different age ranges and deliver sexuality education for in-school and out-of school young people with a national coverage. Sexuality education should provide youth with a holistic understanding of sexuality and sufficient life skills to take responsible decisions and practice safe sexual behaviours.

- 4) Training and refresher training for teachers, pedagogy students, policy-makers, local leaders, media practitioners, health workers on sexuality of young people and necessary skills (such as communication skills, teaching skills, and etc.) to work with them should be conducted regularly.

- 5) Set up of youth-friendly services at a large scale that ensures privacy and confidentiality and youth involvement in designing and implementing of these services. Service providers at all levels are required to be trained in youth and adolescent SRH.
- 6) Use mass media (the Internet, television, radio, etc.) to provide knowledge and raise awareness on the risk of pregnancy and prevention unintended pregnancy for youth and the importance of meeting youth and adolescent SRH needs.
- 7) Conduct annually national campaigns on various aspects related to youth and adolescent sexuality, including unintended pregnancy and abortion

5.3.3. Research-related recommendations:

- 8) Improve national reporting system on unintended pregnancies and abortions, especially among unmarried youth. Data on unintended pregnancy and abortion should be included and analysed in annual national survey on population change and FP to monitor the magnitude, trends and other epidemiological characteristics. Due to the sensitivity of this topic, these types of questions should be self-administered and strictly anonymous.
- 9) Conduct further studies to explore factors influencing unintended pregnancy and abortion in youth in general and in different groups of youth in particular, such as in-school and out-of-school youth, youth living with disability, ethnic minority youth, youth living with HIV, and migrant youth.
- 10) Analyse and evaluate intervention models on SRH of youth. The studies should include cost-effectiveness analysis where possible in order to assess if the models are financially feasible for replication or expansion.

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ANNEXES

Annex 1: Epidemiological overview of unintended pregnancy and abortion among unmarried youth in Vietnam

There is a lack of data on the magnitude, trend and epidemiology of unintended pregnancy and abortion in Vietnam, especially among unmarried youth. The annual national survey on population change and FP only asks information on contraceptive use and abortion with married women 15-49 years of age and ignores this information with unmarried women [6].

Moreover, unintended pregnancy and abortion is a very sensitive topic for unmarried youth so they might refuse to answer or give untrue answers on their pregnancy and abortion history. In SAVY2, among 4084 unmarried female youth 14-25 years of age, there is only one unmarried female youth who reported her abortion [17]. Therefore, it is difficult to describe the magnitude of abortion nationwide. For this part, abortion among unmarried youth in Vietnam will be described based on some small scale studies.

Hong's research with 205 unmarried women aged 15–29 who obtained an abortion at a national obstetrics and gynaecology hospital in 3 months from October to December 2010 showed some social and demographic characteristics of participants. However, this study was conducted in the national hospital which is located in Hanoi capital. The characteristics of women seeking abortion here might be different from other settings significantly [145]. Apart from that, Ha's research with 107 unmarried adolescents and youth seeking abortion in 3 private abortion clinics in Chiling district, Haiduong province from March to June 2008 will be used to describe the demographic characteristics of women seeking abortion [30].

+ Age groups: unmarried women 22-25 years of age accounted for the highest percentage among unmarried women seeking abortion (46.34%) and women 18-21 ranked second with 43.9%. There were 5 women 15-17 years of age having an abortion (2.44%) in this period [145].

Age groups	Frequency	Percentage
15-17 years old	5	2.44
18-21 years old	90	43.9
22-25 years old	95	46.34
26-29 years old	15	7.32
Total	205	100

In Ha's research, adolescents and youth 13-18 years of age account for 19% and those 18-24 account for 81%.

+ Employment:

The number of pupil/student ranked first among unmarried women seeking abortion with 52.71%. Next was official with 29.56%. Coming third was the women working free labour (11,33%) and then was factory worker (5,32%). Farmers were rare [145].

Employment	Frequency	Percentage
Pupil/Student	107	52.71
Official	60	29.56
Free labor	23	11.33
Factory worker	11	5.32
Farmer	2	0.98
Total	205	100

Similar to Hong's research, pupil/students are the largest groups among participants in Ha's research which account for 65.45%. Other occupations such as hair-dresser and seller account for 34.55%.

These two settings are urban areas and adolescents and youth come here for studying from other areas. This explains why pupil and students account for the largest proportion while the farmer accounts for very small percentage (1%).

Annex 2: List of intervention programs

Code	Name of intervention and organizations	Setting	Time	Target group	Activities	Results/Outcomes/ Impact measured	Determinants were addressed
P1	<p>The sixth country programs of cooperation between Vietnam and UNFPA (Reproductive health sub-program)</p> <p>Implemented by: MOH, MOET, Youth Union and UNFPA</p> <p>[146, 147]</p>	11 provinces	2001-2005	<p>Grade 10-12 (School-base)</p> <p>Adolescents and youth (community base)</p>	<ul style="list-style-type: none"> > Integrate SRH in the subject of Geography , Biology, Civics and Philology > RH extra-curricular activities > developed self-study manual to assist teachers in the classroom > Mass communication > IEC development and distribution: booklets on life skills, and Question & Answer flyers > youth counseling services Center within communities on RH issues (telephone and face-to-face counseling) > advocacy activities to promote ASRH education 	<ul style="list-style-type: none"> > number of students exposed to integrated increased markedly (70-90%) > More than 60% of students in all project schools were aware of basic ARH issue > ARH awareness remained relatively low. Only 20-50% of adolescents could identify at least 4 contraceptive methods or 3 client rights related to RH 	<ul style="list-style-type: none"> > Perception of risk of pregnancy > Knowledge on conception and contraception > Attitudes to contraceptives
P2	<p>Model on peer education on RH - life skills on the school - Ready for health</p> <p>Implemented by ADRA</p> <p>Funded by AusAID</p> <p>[131]</p>	25 lower- and upper-secondary schools in Cao Bang province	2010-2013	grade 8-12	<ul style="list-style-type: none"> > Conduct school-based activities such as extra-curricular sessions on SRH > Peer education (communication in the class, face-to-face counselling and support) > IEC materials development and distribution > Topics: puberty, substance abuse, unwanted pregnancy, STDs and HIV/AIDS 	<ul style="list-style-type: none"> > Knowledge on SRH, HIV/AIDS and substance abuse was improved > Confidence level in condom use was increased > Smoking rate was reduced 	<ul style="list-style-type: none"> > Perception of risk of pregnancy; > Knowledge on conception and contraception; > Attitudes to contraceptives; > Cigarette and alcohol use;

P3	Empowering adolescents to have right decision on SRH Implemented by Da Nang Department of education and training Funded by WPF [148]	50/56 lower-secondary schools and 10/20 upper-secondary schools in Danang	2009-2012	Grade 6 and Grade 10	<ul style="list-style-type: none"> > Separate subject of SRH: "The Teenage World" for grade 6 students and "Equipped for Life" for grade 10 students: including 10 sessions (each session 90 minutes) which are provided throughout one year > Topics: emotional and physical puberty changes, relationships, sexual harassment and abuse, unwanted pregnancy, STIs and HIV/AIDS, negotiating and planning skills 	<ul style="list-style-type: none"> > Total 13,736 students (account for 47.7% lower-secondary school students and 17.4% upper-secondary school students in Danang) was taught on SRH > Knowledge on SRH of students was improved significantly 	<ul style="list-style-type: none"> > Perception of risk of pregnancy; > Knowledge on conception and contraception; > Attitudes to contraceptives; > Sexual abuse prevention > communication and negotiation skills on SRH
P4	Improving awareness on sexuality, SRH for ethnic minority adolescents Implemented by Ninh Thuan school Funded by CIHP [149]	Ninh Thuan secondary school, son La province	2010	154 ethnic minority adolescents	<ul style="list-style-type: none"> > Provide extra-class sessions on sexuality and SRH with 10 topics (90minutes/topic): Physiology and psychological changes at puberty, menstruation, sexual behaviors, contraception and contraceptive methods, pregnancy, abortion, RTI and STI, Alcohol use, gender, rights and responsibility, Projection, prevention and response to sexual harassment and sexual abuse > Contest on adolescents RH > School library on SRH resources 	Reporting only activities implemented, no outcome on students measured	<ul style="list-style-type: none"> > Perception of risk of pregnancy; > Knowledge on conception and contraception; > Attitudes to contraceptives; > Attitudes to abortion; > Cigarette and alcohol use; > Sexual abuse
P5	Sexuality and SRH education for students in re-education schools and vocational training Funded WPF [150]	4 re-education schools and 1 vocational training	2007-2010	re-education schools and vocational training students	<ul style="list-style-type: none"> > Teaching on SRH including 7 sessions (I am puberty age, other people and me, friendship, love and sexuality, sexual health, safe sex, right and responsibilities, I and the future) > Entertainment activities: games, plays,.. > Counselling > Peer education 	> Knowledge on SRH was improved	<ul style="list-style-type: none"> > Perception of risk of pregnancy; > Knowledge on conception and contraception; > Sexual abuse

P6	<p>Development of SRH for youth with disabilities - VCD "Listen to the body"</p> <p>Implemented by Xadan and Hoasua schools Funded by LIGHT [151]</p>	Xadan school and Hoasua vocational school (specialized for students with hearing-impairment)	2006	hearing-impairment students	<ul style="list-style-type: none"> > Training on SRH for hearing-impairment students > Discuss the content of the VCD, casting, testing, playing, recording and making VCD on SRH for hearing-impairment adolescents > introduce the VCD on-site to students with hearing-impairment in schools specializing for hearing-impairment students > Topics covered: growth of adolescents with hearing-impairment, physical and psychological changes during puberty, SRH issues of adolescents with hearing-impairment: pregnancy, sexual abuse, HIV/AIDS, etc. 	Reporting only activities implemented, no outcome on students measured	<ul style="list-style-type: none"> > Perception of risk of pregnancy; > Knowledge on conception and contraception; > Attitudes to contraceptives; > Sexual abuse
P7	<p>Using your hands to talk about sex</p> <p>Implemented by Xadan school Funded by WPF [152]</p>	Xadan school specialized for hearing-impairment students	2007-2009	hearing-impairment students	<ul style="list-style-type: none"> > developing an SRH curriculum in sign language for students with hearing-impairment (including 16 topics with 54 class hours that cover almost all aspects of SRH) > creating the first SRH sign language glossary in Vietnam > providing SRH knowledge and teaching skills for teachers. 	Knowledge on SRH was improved	<ul style="list-style-type: none"> > Perception of risk of pregnancy; > Knowledge on conception and contraception; > Attitudes to contraceptives; > Sexual abuse
P8	<p>EU/UNFPA RH Initiative for Youth in Asia (RHIYA Vietnam)</p> <p>Funded by EU/UNFPA [129, 137]</p>	22 communes in 7 provinces	2003-2007	10-24 years of age	<ul style="list-style-type: none"> > sexuality education in school > Peer education within and out of school > Clubs for youth and parents > Forum > Theatre > Outreach events > Youth friendly services: information, counselling and clinical services 	<ul style="list-style-type: none"> > Knowledge on SRH (pregnancy and contraception) of youth increased > Knowledge on SRH of parents increased > Communication skills of parents improved 	<ul style="list-style-type: none"> > Knowledge about pregnancy and contraceptives > Improve parents-children communication on sexuality > Stigma on sexuality > youth friendly services

P9	Evaluation of Three Adolescent Sexual Health Programs in Ha Noi and Khanh Hoa Province, Vietnam [127]	12 communes 2 provinces	10 weeks in summer 2006	15-20 years, unmarried, both male and female	<p>Compare 3 adolescents SRH programs:</p> <p>(1) Vietnamese Focus on Kids (VFOK) (standard of care control): ten two-hour Sessions, once a week. Topics includes basic knowledge about puberty, HIV, STIs, pregnancy, and contraceptives, and skills for decision making, communication, and condom use</p> <p>(2) The gender-focused Exploring the World of Adolescents curricula (EWA) with adolescents only: ten two-hour sessions, once a week composed of two separate curricula for young men and Women.</p> <p>(3) EWA with adolescents, their parents, and local healthcare providers (EWA+). Apart from the same activities as EWA, EWA+ includes parent curriculum includes six two-hour sessions and a 2-day-training workshop for providers from the public commune health centers.</p>	<p>> EWA+ participants compared to VFOK participants had a significantly greater increase in pregnancy and contraception knowledge at 3, 6, and 12 months.</p> <p>> For the intention to have sex, there are no significant differences comparing VFOK to either EWA or EWA+</p>	<p>> Knowledge about pregnancy and contraceptives</p> <p>> Self-efficacy for condom use and abstinence</p>
P 10	Ensuring young people's rights to SRH in rural areas of Vietnam Implemented by: CGFED and DFPA Funded by DANIDA [128]	Four districts in four provinces	2007 - 2011	Adolescents and youth 12-22 years of age	<p>> Clubs for adolescent and youth and clubs for parents:</p> <p>> Training for key persons</p> <p>> Community libraries offering SRH resources</p>	<p>> Knowledge on SRH and rights and gender of adolescent and youth</p> <p>> Knowledge on SRH and rights and gender of parents</p>	<p>> Perception of risk of pregnancy;</p> <p>> Knowledge on conception and contraception;</p> <p>> Attitudes to contraceptives;</p>
P 11	Model on integration sexuality education and counselling into "Love Café" at Tea Talk [153]	Hanoi and Danang provinces	5/2012-5/2013	Youth, 15-30 years of age	<p>> IEC (talk-shows, training courses at café)</p> <p>> Face-to-face counseling</p> <p>Topics: love, sexuality, SRH, marriage</p>	Reporting only activities implemented, no outcome on students measured	> Awareness on sexuality and love

P 12	Promote gender equality, sexual and reproductive rights for youth factory workers in Hanoi (funded by ARROW, implemented by CCIHP) [154]	5 factories in Hanoi	2011 - 2012	single youth, 15-30 years of age, male and female	Establish 2 clubs in each factory separately for male and female workers with 220 members. Each club have 20-25 members and have 13 60-minute sessions (1-2 time a month). The facilitators of club sessions are peers who were trained in SRH issues and facilitating skills. Topics covered: Gender, Love, sexuality, love and sexuality, sexual abuse, sexual orientation, menstruation, pregnancy, contraceptive, STDs and STIs, HIV and sexual and reproductive rights	Knowledge, attitudes and problem solving skills on love, sexuality, contraception and pregnancy of youth workers were improved significantly after 13 club sessions	> Perception on sexuality and pre-marital sex > Perception of risk of pregnancy; > Knowledge on conception and contraception; > Attitudes to contraceptives; > Sexual abuse
P 13	Building positive relationships between young people and their parents by talking about love and sexual relationships Implemented by VWU Funded by Ford Foundation [130]	2 wards/communes in each among 3 provinces	July, 2007 to December 2008	Youth and Adolescent, female	> Develop manuals including 12 sessions in accordance with the targets. > Mothers / daughters clubs in 6 communes / wards (6 mother's talk clubs and 6 Girl's talk clubs) - total member 240 people 12 exclusive sessions only for mothers or girls. Contents of these sessions: according to the modules that were trained in 12 subjects	> Knowledge on SRH of adolescents and mothers was improved > Changes in communication (frequency) on SRH between mothers and daughters	> Perception on sexuality and pre-marital sex > Perception of risk of pregnancy; > Knowledge on conception and contraception; > Attitudes to contraceptives
P 14	Youth Café (Youth Union) Implementation Partner(s): Local coffee shop owners, UNFPA	Hoa Binh, Phu Tho, Tien Giang, Ninh Thuan, Ben Tre	2007 - 2009	youth	> Peer education in cafe > Communication/talks on love, marriage, life skills and SRH to prevent unwanted pregnancy and HIV/STIs > IEC materials distribution for clients > Condom distribution	Reporting only activities implemented, no outcome on students measured	> Perception of pregnancy; > Knowledge on conception and contraception; > Attitudes to contraceptives; > Practice of contraceptives
P 15	Improving the SRH among workers of Adidas supplier factories (Marie Stopes International) [155]	Ho Chi Minh city and Binh Duong province	2005 - 2009	young workers	> Peer education > Clinical service at work place (mobile medical team) > referral clinics	knowledge on reproductive and sexual health, including HIV prevention was improved	> Perception of pregnancy; > Knowledge on conception and contraception; > Attitudes to contraceptives;

P 16	RH Information and Services for Migrants Implemented by LIGHT Funded by UNFPA [156]	Ha Noi (Ba Dinh district) and Ho Chi Minh City (Go Vap district)	2007 - 2009	freelance migrants	i) provided essential information for migrants and places they could seek support; ii) producing brochures on SRH care iii) producing a referral card with the locations provide information and services for migrants; iv) awareness raising among service providers (health care workers and pharmacy staff) and migrants; and v) providing sexual and reproductive health care counselling and services.	Reporting only activities implemented, no outcome on students measured	> Perception of risk of pregnancy; > Knowledge on conception and contraception; > Attitudes to contraceptives;
P 17	A Community House for Migrant Workers in Ha Noi Implemented by LIGHT and World Concern; Funded by Teafund [157]	Ha Noi (Phuc Xa commune in Ba Dinh district)	2007 - 2010	freelance migrants	> IEC on SRH care > a library for migrants to use > peer education > providing SRH services for migrants	Reporting only activities implemented, no outcome on students measured	> Perception of pregnancy; > Knowledge on conception and contraception; > Attitudes to contraceptives
P 18	Improving knowledge on SRH of ethnic minority youth Implemented by: Youth Centre in Hue province [158]	2 communes in Thua Thien Hue	2008 - 2009	Ethnic minority Youth	> IEC activities (contest) > Peer education > bookshelf > Condom distribution	Reporting only activities implemented, no outcome on students measured	> Perception of risk of pregnancy; > Knowledge and attitudes on contraception
P 19	Discovering Sexuality and RH by Plays Implemented by: Youth Union and Vietnam Stage and Artist Association Funded by Ford Foundation and WPF [159]	3 provinces	2008 - 2011	adolescents and youth	> Train core troupes or amateur young performances on interactive theatre skills, facilitation skills, sexuality topics and life skills (9 training and refresh training) > Plays with a specific theme were performed and included an interactive session with audience. The plays pause at a dilemma and ask the audiences to offer solutions. It starts a dialogue with the audience which helps to reinforce their knowledge, challenge their attitudes and to practice their communication skills, decision making and negotiation skills.	> 693 performances > Reach about 74,770 audiences > 10,000 IEC materials distributed > knowledge on SRH increased significantly	> Perception of risk of pregnancy; > Knowledge on conception and contraception; > Attitudes to contraceptives;

P 20	Reproductive health project (Pathfinder International, Ipas, Engenderhealth) [133]	29 clinical sites in 17 provinces	2004 - 2010	Youth	<ul style="list-style-type: none"> > upgrade health facility to provide YFSRHS > training health providers > social marketing of YFS and community activities to raise community awareness and promote the YFS to young people 	Providing an average of 2,342 youth per year per site	RH services for youth
P 21	Online counselling on sexuality and RH, including HIV/AIDS for teens Implemented by CCIHP; Funded by Ford Foundation [134, 135]	Vietnam	2004 - 2007 And 2008 - 2012	Youth and Adolescent	<ul style="list-style-type: none"> > news and articles on SRH in Tamsubantre.org > Online and Email counselling > Hotline counselling (since 2010) 	47,630,047 hits accessing to the website tamsubantre.org, 20,000 articles posted to the website and 17,000 online counselling and 51,000 email counselling cases	<ul style="list-style-type: none"> > knowledge and skills on SRH > media
P 22	Confidential Hotline & Internet Counseling Service (CHIC) on SRH Implemented by ADRA [160]	Cao Bang Province	2008 - 2010	Youth and Adolescent	<ul style="list-style-type: none"> > News and articles on SRH in website tuvantuoihoa.org.vn > Internet Counseling > Hotline counseling > Radio counselling 	<ul style="list-style-type: none"> > Internet counseling: from July 2008 to September 2009: 7,217 counselling cases > Radio counseling: 264 counselling shows were broadcast 	<ul style="list-style-type: none"> > knowledge and skills on SRH > media
P 23	Window of Love Implemented by: VOV Radio Station, Youth Union, UNFPA Fundings: (DANIDA)	Vietnam	2001 - 2005	Youth and Adolescent	During the broadcast, listeners were able to call the number 04.38262625 (no fee) and ask questions about a particular issue. This was developed that individuals with similar concerns could learn from the answers.	No evaluation found	<ul style="list-style-type: none"> > knowledge and skills on SRH > media
P 24	Sub-regional campaign on access to sexuality education & reducing teen pregnancies in Mekong Region: Vietnam (funded by ARROW, implemented by CCIHP) [161]	Vietnam	2011 - 2012	Youth and Adolescent	<ul style="list-style-type: none"> > Video clip contest > National dialogue > Facebook discussion 	<ul style="list-style-type: none"> > 901 "likes", 1171 comments & 10,004 views > 28 video clips received > A youth workshop to build capacity for youth leaders on advocacy for SRH and right > A national dialogue on youth's SRH 	<ul style="list-style-type: none"> > knowledge and skills on SRH > media

Annex 3: Overview of activities in community-based programs

+ Sexuality education in the community: 4 projects provided sexuality education for youth in the community. This activity was often provided in the summer time when adolescents and youth are off from schools or in the evenings.

+ Clubs: Club for adolescents and youth was conducted in 4 programs, in which 2 programs implemented clubs for parents parallel with clubs for adolescents and youth. Clubs' members often meet once per month. Club facilitators are peers who are trained in facilitating skills and SRH knowledge through training of trainers before the club set-up. Each club meeting had specific themes of SRH topics such as Gender, Love, sexuality and violence, love and sexuality, sexual abuse, sexual orientation, menstruation, pregnancy, contraceptive, STDs and STIs, HIV and sexual and reproductive rights. Creative activities including games, dialogues, Q&A sessions, interactive sessions, performances, competitions drama mainly used in club sessions.

+ IEC development and distribution: 6 projects conduct IEC material distribution activity in which 3 projects developed their IEC materials on SRH care for adolescents and migrants. For example, in the sixth program funded by UNFPA, Vietnam Youth Union has produced and disseminated various printed IEC materials including posters, leaflets and booklets. Among these materials, a set of booklets, including "Psychology and Physiology of Adolescents", "Friends and Love", and "Things that Young people should know about HIV/AIDS" has been published for large-scale distribution to young people [146]. Other projects distributed IEC materials in cafe shop for young people and for street children.

+ Community libraries offering SRH resources: Three projects established libraries offering SRH resources for young people. Among them, one project established 8 libraries in 8 project areas, one project established library for ethnic minority youth and one project established a library for migrant workers in a community house.

+ Participatory theatre and plays: Two projects using theatre and plays as an activity of the projects. The troupes are groups of peer educators who receive basic and refresher RH training and training on theatre skills and conduct mobile performance/plays on RH related issues for youth audience. The play pauses at a dilemma and asks for audiences to offer solutions and/or come to the stage to act out. This starts a dialogue among the audience and between them and the performers, which helps to reinforce their knowledge, challenge their attitudes and to practice their communication skills, decision making and negotiation skills.

+ Counselling: Counselling was conducted in 3 projects, one is in the cafe shop (code P11 in annex 2); one for freelance migrant workers (code P16) and one is for adolescents and youth in the community by counselling centres established by Vietnam Youth Union under the sixth program funded by UNFPA (code P1 in annex 2).

+ Peer education: 6 programs used peer education. Peers are trained on communication skills and SRH topics and then they organized IEC activities for their peers.

+ Condom distribution: There are two programs distributing condom, one in cafe shop and one for ethnic minority group.

Annex 4: Characteristics of effective sexuality education programs

1. Involve experts in research on human sexuality, behaviour change and related pedagogical theory in the development of curricula.
2. Assess the RH needs and behaviours of young people in order to inform the development of the logic model.
- 3 Use a logic model approach that specifies the health goals, the types of behaviour affecting those goals, the risk and protective factors affecting those types of behaviour, and activities to change those risk and protective factors.
4. Design activities that are sensitive to community values and consistent with available resources (e.g. staff time, staff skills, facility space and supplies).
5. Pilot-test the programs and obtain on-going feedback from the learners about how the programs are meeting their needs.
6. Focus on clear goals in determining the curriculum content, approach and activities. These goals should include the prevention of HIV, other STIs and/or unintended pregnancy.
7. Focus narrowly on specific risky sexual and protective behaviours leading directly to these health goals.
8. Address specific situations that might lead to unwanted or unprotected sexual intercourse and how to avoid these and how to get out of them.
9. Give clear messages about behaviours to reduce risk of STIs or pregnancy.
10. Focus on specific risk and protective factors that affect particular sexual behaviours and that are amenable to change by the curriculum-based programs (e.g. knowledge, values, social norms, attitudes and skills).
11. Employ participatory teaching methods that actively involve students and help them internalise and integrate information.
12. Implement multiple, educationally sound activities designed to change each of the targeted risk and protective factors.
13. Provide scientifically accurate information about the risks of having unprotected sexual intercourse and the effectiveness of different methods of protection.
14. Address perceptions of risk (especially susceptibility).
15. Address personal values and perceptions of family and peer norms about engaging in sexual activity and/or having multiple partners.
16. Address individual attitudes and peer norms toward condoms and contraception.
17. Address both skills and self-efficacy to use those skills.
18. Cover topics in a logical sequence.

Annex 5: Characteristics of youth-friendly health services

These characteristics are based on the WHO Global Consultation on Adolescent Friendly Health Services, held in Stockholm, Sweden, in 2001, and discussion at a WHO expert advisory group, held in WHO Headquarters in 2002. Adolescent-friendly health services require:

1. Youth friendly policies that:

- take into account the special needs of different sectors of the population, including vulnerable and under-served groups
- do not restrict the provision of health services on grounds of gender, disability, ethnic origin, religion or (unless strictly appropriate) age,
- pay special attention to gender factors,
- guarantee privacy and confidentiality and promote autonomy so that youth can consent to their own treatment and care,
- ensure that services are either free or affordable by youth

2. Youth friendly procedures to facilitate

- easy and confidential registration of patients, and retrieval and storage of records,
- short waiting times and (where necessary) swift referral,
- Consultation with or without an appointment.

3. Adolescent friendly health care providers who

- are technically competent in adolescent specific areas, and offer health promotion, prevention, treatment and care relevant to each client's maturation and social circumstances
- have interpersonal and communication skills,
- are motivated and supported,
- are non-judgmental and considerate, easy to relate to and trustworthy,
- devote adequate time to clients or patients,
- act in the best interests of their clients,
- treat all clients with equal care and respect,
- provide information and support to enable each adolescent to make the right free choices for his or her unique needs.

4. Adolescent friendly support staff who are

- understanding and considerate, treating each youth client with equal care and respect,
- competent, motivated and well supported.

5. Youth friendly health facilities that

- provide a safe environment at a convenient location with an appealing ambience,
- have convenient working hours,
- offer privacy and avoid stigma,
- provide information and education material.

6. Youth involvement, so that they are

- well informed about services and their rights,
- encouraged to respect the rights of others,
- involved in service assessment and provision.

7. Community involvement and dialogue to

- promote the value of health services, and
- encourage parental and community support.

8. Community-based outreach and peer-to-peer services to increase coverage and accessibility.

9. Appropriate and comprehensive services that

- address each youth's physical, social and psychological health and development needs,
- provide a comprehensive package of health care and referral to other relevant services,
- do not carry out unnecessary procedures.

10. Effective health services for youth

- that are guided by evidence-based protocols and guidelines,
- having equipment, supplies and basic services necessary to deliver the essential care package,
- having a process of quality improvement to create and maintain a culture of staff support.

11. Efficient services which have

- a management information system including information on the cost of resources,
- a system to make use of this information