FACTORS INFLUENCING SEXUALLY TRANSMITTED INFECTIONS (STIs), INCLUDING HIV AMONG INTERNAL FEMALE MIGRANTS IN VIETNAM:

A LITERATURE REVIEW

Dang Thi Hong Linh
Vietnam

51st International Course in Health Development/Master of Public Health (ICHD/MPH)
September 22, 2014 – September 11, 2015

KIT (ROYAL TROPICAL INSTITUTE)
Vrije Universiteit Amsterdam
Amsterdam, The Netherlands

Factors influencing Sexually Transmitted Infections (STIs), including HIV among internal female migrants in Vietnam: A Literature Review

A thesis submitted in partial fulfillment of the requirement for the degree of

Master of Public Health

by

Dang Thi Hong Linh

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 Sexually Transmitted Infections (STIs), including HIV among internal female migrants in Vietnam: A literature review** is my own work.

Signature: 

51st International Course in Health Development (ICHD)
September 22, 2014 – September 11, 2015
KIT (Royal Tropical Institute)/ Vrije Universiteit Amsterdam
Amsterdam, The Netherlands
September 2015

Organised by:
KIT (Royal Tropical Institute) Health Unit
Amsterdam, The Netherlands

In co-operation with:

Vrije Universiteit Amsterdam/ Free University of Amsterdam (VU)
Amsterdam, The Netherlands

Table of Contents

List of Figures

List of Tables

List of Abbreviations

CCIHP	Centre for Creative Initiatives in Health and Population
CHS	Commune Health Station
EFSW	Establishment-based Female Sex Worker
EPZ	Economic Processing Zone
FP	Family Planning
FSW	Female Sex Worker
GDP	Gross Domestic Product
GSO	General Statistics Office
HCMC	Ho Chi Minh city
HI	Health Insurance
HIV	Human Immunodeficiency Virus
IBBS	HIV/STI Integrated Biological and Behavioral Surveillance
IDU	Injecting Drug User
IEC	Information, Education and Communication
IOM	International Organization for Migration
IP	Industrial Parks
IUD	Intra-Uterine Device
KT	***K****hu vuc thuong* ***T****ru* in Vietnamese
M&E	Monitoring and Evaluation
MMR	Maternal Mortality Rate
MOET	Ministry of Education and Training
MoH	Ministry of Health
MOLISA	Ministry of Labour, Invalids and Social Affairs
MSM	Men who have Sex with Men
NGO	Non-Governmental Organization
PEPFAR	United States President's Emergency Plan for AIDS Relief
RTIs	Reproductive tract infections
SAVY	Survey and Assessment of Vietnamese Youth
SEM	Social-Ecological Model
SFSW	Street-based Female Sex Worker
SRH	Sexual and Reproductive Health
STIs	Sexually transmitted infections
UN Women	United Nations Entity for Gender Equality and the Empowerment of Women
UNFPA	United Nations Population Fund
VHW	Village Health Worker
WHO	World Health Organization

Glossary

Migrants: The International Organization for Migration (IOM) mentions in their publication "Glossary on Migration" that there is no universally accepted definition of the term "migrants". It states that "the term migrant is usually understood to cover all cases where the decision to migrate is taken freely by the individual concerned for reasons of 'personal convenience' and without intervention of an external compelling factor; it therefore applies to persons, and family members, moving to another country or region to better their material or social conditions and improve the prospect for themselves or their family." (1)

The Vietnam Migration Survey (2) defined migrants as "people whose previous places of residence five years prior to the time of the census was different from their present place of residence" and only discussed about "internal migration" within the country. The cross-border migrants are not discussed in this thesis and only internal migrants are mentioned.

Sexually transmitted infections (STIs): According to the definition of the World Health Organization (WHO), "Sexually transmitted infections (STIs) are infections that are spread primarily through person-to-person sexual contact" (3). Most STIs are included in Reproductive tract infections (RTIs) but STIs may have more severe health consequences than other RTIs (4). Thus, this paper will mostly discuss about STIs within RTIs, including Human Immunodeficiency Virus (HIV).

Acknowledgements

First of all, I would like to give my special acknowledgement to the Netherlands Fellowship Programmes of the government of the Netherlands for their financial support to enable me participating in the course in the Royal Tropical Institute (KIT) in Amsterdam, without which my studies and thesis would not have been possible.

I also would like to express my gratitude to my advisor and backstopper for their valuable advice, continuing support and encouragement to keep me going on my thesis.

My heartfelt thanks and appreciation go to the course coordinators, the course administration officers at KIT and all the facilitators for their teaching, sharing experience and support that made me more self-confident.

I would like to give special thanks to my friends and colleagues at the Centre for Creative Initiatives in Health and Population (CCIHP) for sharing with me their valuable information for my thesis and taking over my work when I am absent for my training. My gratitude also goes to Kelsey Salazar for her generous help editing the English for my thesis.

I am grateful to all my classmates at the 51st International Course in Health Development for sharing various aspects of their experiences and grateful encouragement that made the course a memorable time.

Last but not least, I dedicate my deepest gratitude for my beloved family, my parents for taking care of my little son, and their never-ending encouragement when I am away from home. For my dear husband – my best friend, I am thankful for his love, sympathy, understanding and sharing the housework to help me focus fully on my studying and thesis.

Thanks to all!

Abstract

Background: STIs/HIV are public health problems in the world and Vietnam. Existing studies show that female migrants are vulnerable on Sexual and Reproductive Health (SRH), particularly STIs/HIV.

Objectives: To analyse factors influencing STIs/HIV and programs/interventions in order to make recommendations to reduce STIs/HIV among internal female migrants in Vietnam.

Methods: This thesis used literature review method and Social Ecological Model was used as a key conceptual framework for analysing.

Findings: Female migrants are at risks of getting STIs/HIV and these infections are influenced by five levels of factors. Intrapersonal factors include misconceptions towards STIs/HIV, low utilization of condoms among this group. Interpersonal factors comprise poor communication with sexual partners, peer-influence on seeking health services. Organizational factors contain barriers in accessibility, affordability and acceptability of health services among female migrants. Community factors include traditional values towards STIs/HIV, gender inequality. There is no separate policy on SRH for (female) migrants. Most interventions on SRH for female migrants were small-scale, unsustainable while programs for female sex workers only focus on HIV and ignored other STIs.

Conclusions: This thesis highlights some determinants of STIs/HIV among female migrants: 1) Lack of national data on STIs/HIV among female migrants; 2) Lack of a separate policy on SRH for (female) migrants; 3) Stigma towards STIs/HIV; 4) Unsustainable interventions; 5) Inadequate health system in destination areas.

Recommendations: There should be a coordinating organization/committee for migrants and interventions on SRH for them should introduce a participatory approach. Reporting system and research on STIs/HIV among female migrants should be conducted.

Key words: Sexually Transmitted Infections (STIs), HIV, sexual and reproductive health, (internal) female migrants, Vietnam.

Word count: 13,074

Introduction

I graduated from the Hanoi School of Public Health in Vietnam with a bachelor degree in 2007, then I worked for an anemia prevention project for children and women at the National Institute of Nutrition, a government agency. Although I enjoyed my work there, handling the monitoring and evaluation component for one and a half years, my dynamic spirit pushed me to apply for a position in a local Non-Governmental Organization (NGO) called the Centre for Creative Initiatives in Health and Population (CCIHP) in Hanoi as a project officer cum researcher.

The "renovation policy" (*Doi Moi* in Vietnamese) was introduced in 1986, which changed Vietnam from a centrally planned economy to an open market economy allowing private trading without restriction. I grew up during that "transition period" and experienced as well as heard quite a lot about the changes in Vietnamese society. Together with rapid economic growth, the "open-door" policy also led to changes in social norms, lifestyles of the people and an increase in urbanization and migration.

Since the first HIV case reported in Vietnam in 1990, the number of HIV infections has been increasing rapidly. Despite the fact that HIV is concentrated in high-risk groups (injecting drug users - IDUs, men who have sex with men - MSM, female sex workers - FSWs), there was a concern that migration might be a "bridge" that brings HIV to the general population.

Working in an organization specialized in sexual and reproductive health (SRH), I had opportunities to work with women in both rural and urban areas and I found that they were afraid of HIV but not of other STIs, because HIV is considered "a disease of century" and involved in "social evils". During my visit to an industrial park (IP) that gathered internal migrant workers, they reported that "gynecological diseases" (the general term for RTIs/STIs in the community) were quite common among them. Their knowledge about STIs including HIV seemed very limited even though they are susceptible to obtaining these infections. I wondered whether the problem was severe or not? If yes, why? What should be done to help them reducing this "silent epidemic"?

I hope that this research can contribute to understand the status of STIs including HIV among internal female migrants in Vietnam and their related factors as well as make appropriate recommendations to relevant organizations to combat this problem in my country.

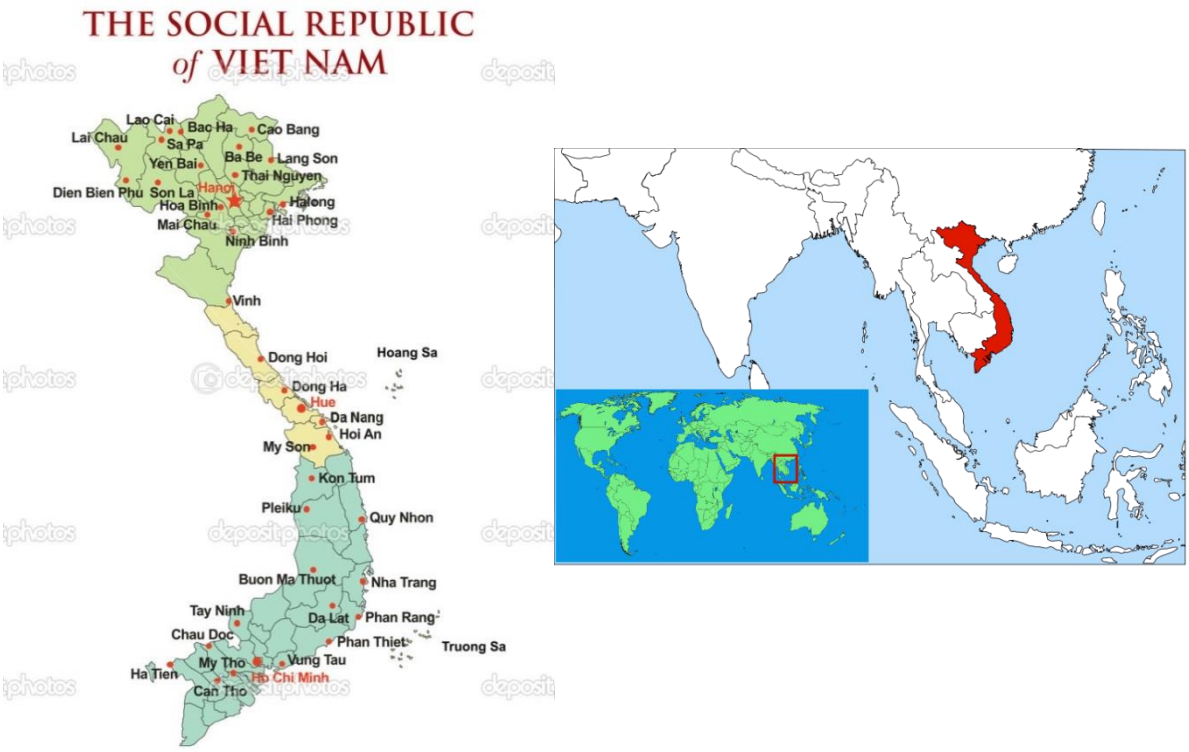
CHAPTER 1: BACKGROUND

1.1 Country description

Population

The Socialist Republic of Vietnam (hereafter Vietnam) is located in Southeast Asia and borders with China, Laos and Cambodia. The country is divided in 63 provinces and has a population of about 90 million people, and nearly 30% of the population lives in the urban areas (5). According to the latest census in 2009 (6), people of working age (15-60 years of age) accounted for 66% of the population, while the percentage of people below 15 and above 60 were 24.7% and 9.3% respectively. With a general population density of 274 persons/km^2, Vietnam is one of the most populous countries in Asia (7). The most densely populated cities are Hanoi, the capital city, and Ho Chi Minh (HCMC), the biggest city located in the South with 2,100 persons/km^2 and 3,800 persons/km^2 respectively (5). The country has been re-unified since 1975 after a long period of war. Figure 1 shows the location of Vietnam in the world and map of Vietnam with its provinces.

Figure 1. Map of Vietnam



Source: Vietnam Publishing House of Natural Resources Environment and Cartography (8) and website of Maps of the world (9)

Religion

According to the latest Population and Housing Census in 2009 (6), Vietnam is one of the least religious countries with nearly 15.6 million people (about 17.3% of total population) stated they follow recognized religions in Vietnam and 45.3% people stating they practice traditional folk religions (worship of ancestors and God). There are three dominant religions in Vietnam including Buddists, Christians and Hoahaoish, which account for 43.5%, 41% and 8.9% among religious population. There is no difference between number of male and female who follow religions.

Ethnicity

There are 54 recognized ethnic groups in Vietnam with the majority of people (85.7%) belonging to Kinh (Viet) group. Vietnamese is the official language in the country (6).

Some featured indicators

According to the World Bank classification, the country has joined the group of lower-middle income countries since 2010 (10).
There are some important figures presented in the table 1 below.

Table 1: Basic data about Vietnam

No.	Indicators	Value
1	Gross Domestic Population (GDP)*	$171.4 billions
2	Population growth rate*	1.07%
3	GDP per capita*	$5,293 (in Purchasing Power Parity)
4	Total health expenditure as % of GDP (in 2012)**	5.97%
5	Literacy rate (% of literate population at 15 years of age and above)*	94.8%
6	Human Development Index (at 121 out of 187 countries and territories) (11)	109.1
7	% households living under poverty line*	9.8%
8	Proportion of female population*	50.7%
9	Average years of schooling*	8.6

*Source: * Statistical Handbook of Vietnam, 2014 (5)*
***Joint Annual Health Review (JAHR), 2014* (12)

1.2 Health system and health policy in Vietnam

Health status

In recent years, the health status of people in Vietnam has considerably improved in comparison with neighboring countries. According to the 2013 statistics (5), life expectancy in Vietnam reached 70.5 and 75.9 years of age for males and females

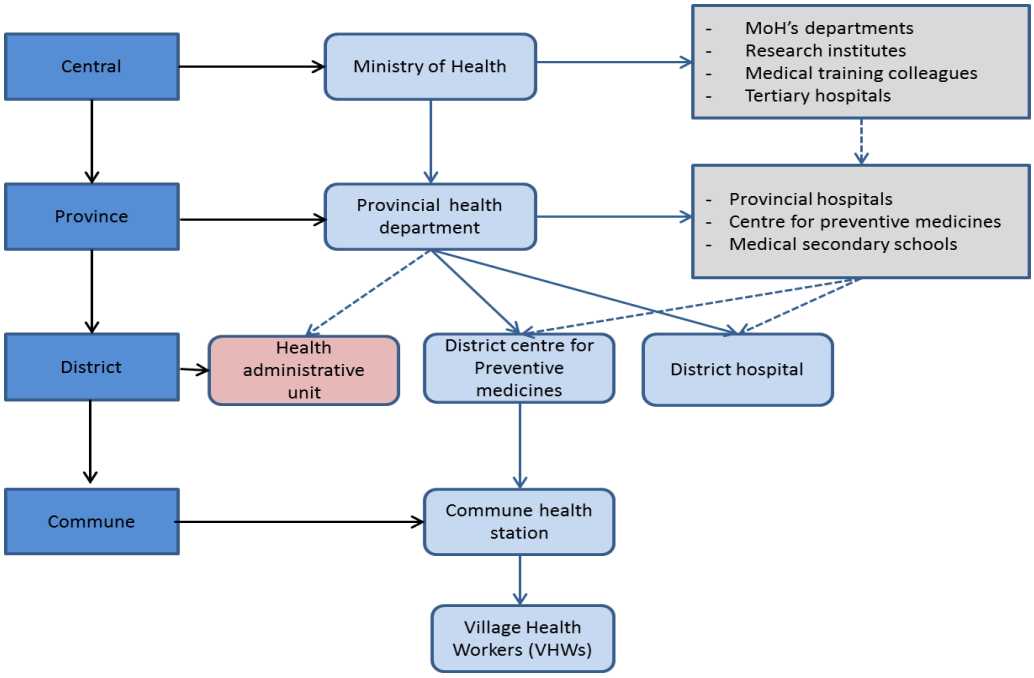
respectively, which are considered the highest among developing Asian countries (13). In addition, during 13 years from 1990 to 2013, the Maternal Mortality Rate (MMR) was significantly reduced from 140 deaths per 100,000 live births to 49 deaths per 100,000 live births. This number is higher than the MMR in China (32/100,000) and Thailand (26/100,000), but notably lower than that of Laos (220/100,000), Myanmar (200/100,000), Indonesia (190/100,000) and a higher income country like the Philippines (120/100,000) (14).

Moreover, the under-five mortality rate of Vietnam is estimated to be 23.1 deaths per 1,000 live births, which is less than that of most developing Asian countries. Regarding HIV, even though the HIV prevalence in the general population was only 0.26% in 2014 (15), the prevalence among adults is relatively high (0.4%) in comparison with Laos, Bhutan and India, but lower than Cambodia and Thailand (16).

Health system

The health system in Vietnam is organized in four levels: central, provincial, district and communal level (figure 2). The National Institute of Dermato-Venereology, a research institute under the Ministry of Health (MoH), is responsible for STI treatment and management. The Institute, in collaboration with the Administration of HIV/AIDS Control Department, has established a STI subcommittee for planning and supporting the lower levels in carrying out studies and interventions on STIs for the community (17).

Figure 2. Health system structure in Vietnam



Source: A health financing review of Vietnam, Tien T Van et. al., 2011 (18)

Vietnam changed from a centrally-planned and subsidized economy to a market-oriented system in 1986. Following this reform, people have started paying fees for health services and drug sales have been privatized. The private sector in Vietnam was

officially legalized in 1989 (19). The first social health insurance (HI) program was piloted in that year to increase the economic resources for the health system and promote accessibility to health services of people who cannot pay user fees. Currently, there are three sub-schemes of HI in Vietnam, including compulsory HI, voluntary HI and HI for the poor. However, out-of-pocket expenditure for health is more than 50%, which is relatively higher than neighboring countries (18).

1.3 Reproductive health services

Pre-marital sexual behaviour is taboo in Vietnam, so the National Family Planning Survey (20) which is implemented annually, only includes currently married couples from 15-49 years of age. Statistics show that over a decade from 2002 to 2013, the utilization of contraceptives in Vietnam was at high level with more than 75% of married couples using contraception (table 2). Among those couples using contraception, the most common method in 2013 was Intra-uterine devices (IUDs) at 53.1%, followed by oral pills and condoms at 15.7% and 14.7% respectively. This is one important reason that helped to reduce the total fertility rate from 2.28 children per woman in 2002 to 1.99 in 2011.

Table 2. Contraceptive prevalence rate in the 2002-2013 period

Unit: Percentage

Survey Year	Total		Urban		Rural	
	Any method	Modern method	Any method	Modern method	Any method	Modern method
2002	76.8	64.7	76.7	59.3	76.9	66.5
2003	75.0	63.3	72.5	56.4	75.8	65.6
2004	75.7	64.6	73.5	58.3	76.4	66.9
2005	76.9	65.8	74.9	59.7	77.6	67.9
2006	78.1	67.2	76.1	61.3	78.8	69.4
2007	79.0	68.2	77.3	62.9	79.6	70.1
2008	79.5	68.8	76.2	62.1	80.8	71.4
2010	78.0	67.5	76.0	63.3	78.8	69.2
2011	78.2	68.6	75.2	63.8	79.5	70.6
2012	76.2	66.6	74.2	63.0	77.2	68.2
2013	77.2	67.0	75.5	64.2	78.0	68.3

Source: The April 1, 2013 time-point Population Change and Family Planning Survey, General Statistics Office (GSO), 2013 (20)

In Vietnam, the lowest level of the health system is the commune health station (CHSs), which are in charge of providing basic care. Each CHS has at least one midwife, who is responsible for RH services, including antenatal care, postnatal care, normal delivery, family planning (FP) services, gynecological examination and treatment (21). In addition, CHSs are supported by a network of voluntary village health workers (VHWs), who are trained about basic health information (22). Those people have played important roles in counseling about FP, distribution of condoms, contraception pills and encouraging women to go to CHSs for health services. There are also two bi-annual FP

campaigns in all CHSs that aim to provide contraception to those people who are afraid of going to the CHSs, since these campaigns can be organized at community locations such as village's communal houses. Moreover, basic STIs/RTIs are also screened and treated during these campaigns as required from women (23). Services which are provided in CHSs are free of charge for people who have HI registered in these health facilities, while condoms and contraceptive pills at CHSs and services at the campaigns are free of charge for everyone (24,25).

According to the inter-circular No. 01/2011/TTLT-BLDTBXH-BYT dated January 10, 2011 of the Ministry of Labour, Invalids and Social Affairs (MOLISA) and MoH (26), enterprises which have 500 workers and above need to have on-site clinics (factory clinics) to provide basic care for their employees. Basic RH information and services could be also provided in these factory clinics.

RH services can be also accessed at private clinics and drug stores, which are flexible in working hours and widely available. Research used data from the Vietnam Demographic and Health Survey (27) on more than 5,000 married women showed that 47% respondents got contraception from drug stores. Since there is no reporting mechanism from the private sector to the public health system, information about RH services offered by private clinics is not well documented (28).

1.4 General information on the female migrant population.

Migrant population

The definition of the Vietnam Migration Survey (2) has excluded short-term and seasonal migrants, who often work in an informal sector, which limits access to health services and social support including HI, since they do not have adequate formal registration papers. Because sex work is illegal in Vietnam, even though most FSWs are migrants, they are often categorized as a "high-risk population" instead of migrants in health programs. *(See "appendix 1. Migrant population" for more detail)*

Female migrant population

The migration survey (2) provided evidence about a so-called phenomenon of "feminization of migration", which was demonstrated by two indicators: i) female migrants account for half of migrant population and ii) the proportion of female migrants keeps growing in the last two decades. During the period of 1984-1989, more than half of the migrants among districts and inter-districts were women (29). According to the latest Population Change and FP survey in 2013 (20), female migrants were dominated in every migration flow as shown in table 3.

Table 3: Migration flow by sex in Vietnam, 2013

Migration flow	Number of migrants		Percentage of migrants (%)	
	Male	Female	Male	Female
Rural-Urban	170,039	220,575	43.5	56.5
Urban-urban	230,391	273,427	45.7	54.3
Rural-rural	230,454	415,361	35.7	64.3
Urban-rural	122,400	127,727	48.9	51.1
Total	**753,284**	**1,037,090**	**42.1**	**57.9**

Source: The April 1, 2013 time-point Population Change and FP survey, GSO, 2013 (20)

Statistics from the Population Change and FP Survey (20) also showed that most internal female migrants were very young with the highest rate among women ages 20-24 (36.3%), followed by women ages 25-29 and 14-19 with 22.4% and 20% respectively. This result revealed that most female migrants are at reproductive age, so their SRH issues merit attention.

Regarding educational level, both the Vietnam Migration Survey in 2004 (30) and the Population Change and FP survey (20) show the high rate of female migrants who completed high school and technical qualification (table 4 and figure 3). This can be justified since most colleges, universities and vocational/technical schools are located in urban areas. In addition, most female migrants are young, so they have chances to be educated at higher levels than their older colleagues.

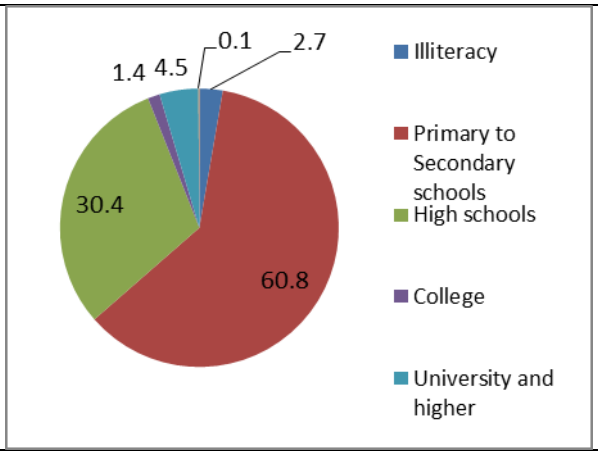
Table 4. Migration rate of female population aged 5 and above by educational level, 2013

Unit: Per thousand

Education level	Rate
Never attended	3.3
Not completed primary	3.8
Completed primary	6.2
Completed secondary school	10
Completed high school	20.5
Technical qualification	17.2

Source: Population change & FP survey, 2013 (20)

Figure 3. Percentage of highest educational level among female migrant population, 2004



Source: Vietnam migration survey, 2004 (30)

Results from the Population Change and FP survey (20) also indicated that nearly half of female migrants (46.8%) were categorized as never-married, followed by currently married (19.9%) and the rest were widowed and divorced/separated.

Some studies showed a pattern of gendered participation in occupation of migrants in urban areas. Women often take part in the jobs related to garment and shoes making industry (formal sector) and informal sectors (working in the restaurants, household helpers/domestic workers, street trading etc.) while men are mainly involved in construction and transportation activities (31,32). According to the HIV/STI Integrated Biological and Behavioral Surveillance (IBBS) in Vietnam in 2009 (33), it was estimated that there are 72,000 FSWs in Vietnam (range from 36,000-108,000).

CHAPTER 2: STUDY OVERVIEW

2.1 Problem statement and Justification

As mentioned above, a high proportion of the internal migrant population in Vietnam is young and female, since job opportunities in both formal and informal sectors which involve "nimble-fingered labourers" have been increasing in urban areas (2,28). Young migrant women tend to go to big cities for work more than older women, since older women have to take more responsibility for their own families and parents in their hometown (34). Research in four provinces in Vietnam (35) also shows that manual labourers, particularly women who migrate from rural to urban areas, often have service jobs or work in small-scale factories on short-term contracts, which involve limited social welfare support. They also have little contact with local people at their workplaces due to long working hours and negative attitudes towards migration status, resulting in constraints regarding support networks in their lives (36).

The SRH of female migrants has been recognized as a problem, especially the transmission of STIs, including HIV. Globally, STIs/RTIs have become a major public health concern that significantly affect women's health, since STIs are one of the main causes of life lost in women in general. They may also result in infertility, pelvic inflammatory infections, and maternal infections. Unfortunately, there are many STI/RTI cases with no symptoms until they become severe (37,38). In Vietnam, research (36) conducted among young female migrant workers reported that this group had very limited knowledge on HIV and STI prevention. In addition, young female migrants are sexually active but they also are at risk of sexual abuse/harassment from their managers or partners (39).

Data about the migrant population from the Government's 2009 Population and Household Census (2) also showed that the proportion of female migrants who self-treated sexual health problems was 76%. Furthermore, contraceptive use among the migrant population (65%) was also lower than the non-migrant group (71.7%).

As mentioned above, young women make up the highest proportion of migrant population and many of them are involved in romantic and sexual relationships. Although female migrants are sexually active, their application of safe sex methods is limited. Even the National FP Survey in 2009 (20) did not specify SRH status based on migration status of respondents, research conducted among female migrant workers (36) found that few respondents used condoms due to their unsatisfied feeling or their failure rate. Many female migrants were using ineffective, traditional methods of FP such as periodic abstinence and withdrawal. These practices could lead to high risks of getting STIs, including HIV/AIDS as well as other RH issues due to unsafe sex.

Women migrate from rural to urban areas to become domestic workers or small street traders, or to work in IPs or small companies with their dreams of "changing their lives". Economic motivation played the most important role for young people to migrate, aiming to support their families and sometimes leaving their husbands, children and families behind (40,41), for example, income in Hanoi and HCMC can be five-seven times higher than the income from doing farming in rural areas (42). There are a number of studies about female migrant groups describing the changes of relationships between migrants and the "left-behind" people as well as changing living conditions and economic impacts. The Law on HIV/AIDS Prevention and Control (43) and the HIV/AIDS response progress report in 2014 (15) did not consider migrants/mobile populations as vulnerable groups in HIV programs in the country. In

addition, there is a shortage of research on factors influencing STIs, including HIV among this group. Thus, this study aims to explore factors influencing STIs including HIV/AIDS status among female migrants in Vietnam and discuss interventions for this group using a literature review method.

2.2 Objectives

General objective: To analyse factors influencing STIs including HIV among internal female migrants in Vietnam and describe programs and interventions for this group in order to make recommendations for SRH interventions and strategies to reduce STIs in this group in Vietnam.

Specific objectives:

1. To describe the magnitude of STIs including HIV among internal female migrant population in Vietnam and its social and health consequences.
2. To critically analyse factors contributing to the incidence of STIs including HIV among internal female migrants in Vietnam.
3. To analyse effectiveness of programs and interventions on SRH information and services for the female migrant population in Vietnam and international best practices.
4. To make recommendations on appropriate interventions/solutions to relevant organizations to improve SRH information and services for internal female migrants in Vietnam.

2.3 Methodology

A literature review was conducted to give an overall picture of the magnitude and factors influencing STIs/HIV as well as national and international interventions for internal female migrants in Vietnam. The Social Ecological Model (SEM) has been used as a key conceptual framework on factors that could influence STIs/HIV among female migrants.

2.3.1 Conceptual framework: The Social-Ecological Model (SEM)

A literature review showed that the female migrant population is at risk for problems related to SRH and there could be various influencing factors. The SEM proposed originally by McLeroy et al. (1988) (44) was chosen as the principal framework for this paper since this model is comprehensive and considers possible factors influencing female migrants' actual and preventive sexual and reproductive behaviors of internal female migrants in Vietnam. It also considers different layers from the individual to a societal level. The SEM also includes both social relations of gender-related causes, as well as other risk factors. It is appropriate to analyse health promotion interventions, which prevent SRH negative outcomes by addressing different levels of factors.

The SEM was used in a number of studies to understand different factors associated with STIs/HIV risks (45–48). Yorghos used the SEM to explore the contextual factors influencing STIs/HIV risks behaviours among Mexican migrant labours (46). Wirtz discussed implications for prevention from analysing social and structural risks for HIV among migrants and immigrants in Moscow based on different layers of the SEM (47).

Specifically, one research study in Vietnam about STIs/RTIs among female migrants working in IPs also used this model to explore their perceptions and practices of health service utilization (48).

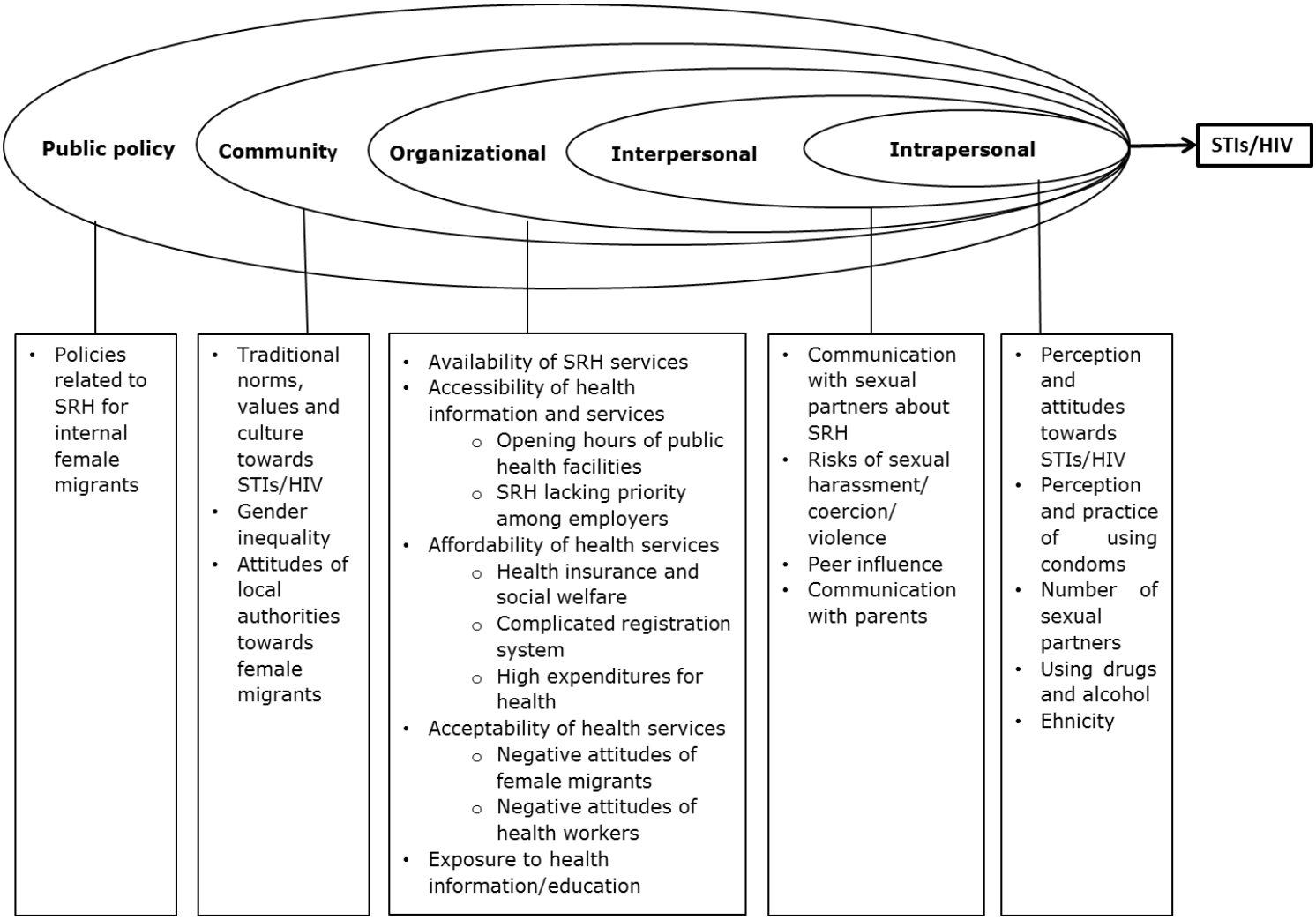
There are five levels of influence on people's behaviours in the SEM, including intrapersonal, interpersonal, organizational, community and public policies (table 5). These factors are inter-related to each other and promote or restrict migrants' healthy behaviors. SEM was adapted to understand factors influencing STIs/HIV among female migrants as in figure 4.

Table 5: The Social-Ecological Model, McLeroy, 1988

Level of influence	Description
Intrapersonal	Individual characteristics influencing people's behaviors: Knowledge, attitudes, skills, risk perception, self-efficacy
Interpersonal	Interpersonal processes and groups (families, friends, peers) providing identity and support
Organizational	Rules, regulation, available structures constraining or promoting behaviors
Community	Community norms/regulations, social network
Public Policy	Policies, regulations (local, state) that regulate or support healthy practices/actions

Source: An ecological perspective on health promotion programs, McLeroy et. al, 1988 (44)

Figure 4. Social-Ecological Model adaptation



2.3.2 Research design

Search strategy

Available literature about SRH among internal female migrants was reviewed to identify the factors contributing to the incidence of STIs including HIV/AIDS of migrants in Vietnam, barriers and enabling factors in utilization of SRH information and services among this group, and SRH interventions/programs for them. Literature that related to the topic was collected by accessing databases from different sources (see table 6 for more detail).

Key words: Sexual reproductive health, (internal) migrants, Sexually Transmitted Infections (STIs), Reproductive Tract Infections (RTIs), HIV, HIV/AIDS, gynecological diseases, prevalence, incidence, determinants, risk factors, vulnerability, barriers, enabling factors, gender, social norms, sex education, social/health insurance, health policy, Vietnam, Asia, Developing countries.

Due to the scarcity of literature on this topic, no time limit was set. However, since the renovation policy in 1986, when it "*liberalized the circulation of cultural products from Asian and Western countries and brought about a relaxation of the State's efforts to promote traditional norms regarding sexuality, marriage and the family*" (49), almost all literature was found from the two most recent decades. Both the English and Vietnamese languages were used for searching. An Excel spreadsheet was used for keeping records of the literature during the review process.

Limitations of the thesis

Only documents, which are available in English and Vietnamese either in published or "grey" literature, were searched to include in this paper, so some key literature in other languages might have been missed. In addition, some literature did not specify women by their migration status, which can influence interpretation of data.

Table 6: Search strategy

Step	Objective	Source	Excluded criteria
1	**Objectives 1&2:** Magnitude and factors contributing to the incidence of STIs including HIV/AIDS of internal female migrants in Vietnam	Peer-reviewed literature about Vietnam and neighbouring countries (China, Laos, Cambodia, Myanmar), which share some aspects of culture and economic status related to people's income and urbanization was reviewed by accessing Pubmed, Vrije Universiteit library, and search engine Google scholar: - Documents related to SRH, STIs, HIV status, barriers, enabling factors, and interventions were selected after reviewing title and abstracts - Peer-reviewed paper was included after reviewing contents	Documents were excluded due to lack of relevance: - Only mention about economic life change of female migrants - Only mention about cross-border female migrants - Only mention about a specific contraceptive method (for example: IUDs, contraceptive implant)
2	**Objectives 1, 2 and 3** (programs/ interventions related to female migrants)	Literature was accessed through: - Websites of local organizations (MOLISA, MoH, Ministry of Education and Training – MOET, General Statistics Office of Vietnam, local NGOs, Vietnam Family Planning Association) and international organizations (United Nations Development Programme – UNDP, WHO, International Organization for Migration – IOM, United Nations Population Fund – UNFPA, PLAN international) working in the field of migrant people and SRH issues. - Vietnamese scientific journals: the Vietnam Journal of Public Health, the Journal of Practical Medicine and the Vietnam Journal of Obstetrics and Gynecology.	
3	**Objectives 1, 2 and 3**	- Contacts by phone and emails with organizations working on projects about migrant people in Vietnam (Centre for Creative Initiatives In Health and Population - CCIHP, the Institute for Social Development Studies – ISDS, Institute of Population, Health and Development - PHAD, Centres For Reproductive Health Prevention of Hanoi and Ho Chi Minh city – the two biggest cities with the highest influx of migrants) to collect their reports, working papers, information on their intervention models, and Information, Education and Communication (IEC) materials for migrants, since they were not published on the internet. - For the interventions, the website http://healthmarketinnovations.org that documents good health models in Vietnam and in other countries was explored.	

CHAPTER 3: MAGNITUDE OF STIs/HIV STATUS AMONG INTERNAL FEMALE MIGRANTS IN VIETNAM

STIs including HIV have been recognized as a public health problem with an estimation of more than 340 million new cases of STIs among people ages 15-49 throughout the world annually (38). The regions of South and South-East Asia accounted for the largest proportion with 43.4% (37). Considering the demographic and migration movement, the number of people suffering from STIs might increase dramatically, especially among women. The burden of disease and consequences are very large with regard to morbidity and mortality as well as social consequences, such as sexual abuse or intimate partner violence and stigma, discrimination towards women suffering from STIs. In addition to health consequences, STIs/HIV also lead to 17% economic loss due to ill health in low-income countries. Given the effect of other STIs on HIV transmission, the cost of STIs goes even further, since acquiring certain specific STIs will significantly increase the risks of getting HIV (38).

In Vietnam, a number of studies showed that STIs/RTIs are "prevalent diseases" in women (36,50,51). In a population-based study of more than 1,000 women in a rural district in Vietnam (52), 37% were clinically diagnosed as having STIs/RTIs. Among STI cases, more than half of the women were asymptomatic. P.Anh (53) conducted a study in maternal and child health/FP clinics and found that the prevalence of any single STI/RTI was 18.7% (95%CI=16.2-21.1%) among 1,000 women 18-44 years old in Hanoi. Among them, 10.9% were migrants. In another population-based survey among women of childbearing age (51), 507/1163 research participants (43.6%) had at least one STI/RTI symptom in the past six months. However, 24.8% of them self-treated or did nothing.

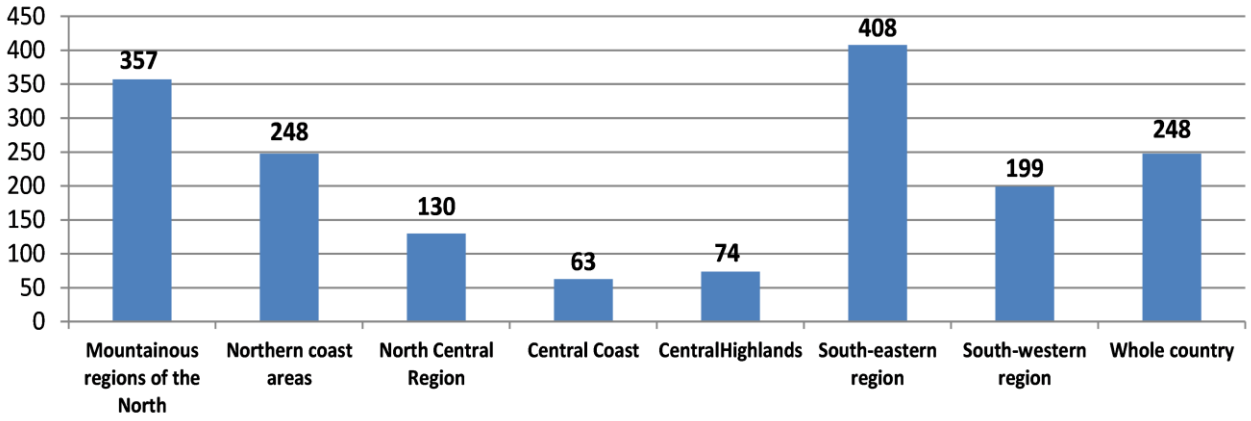
Research in inequalities in health (54) has been performed on the connection between migration and health and found a so-called "healthy migrant syndrome," which implied that the migrant population has a better health status than general population. This is explained by migrants need to have good health for moving and working in new places. However, L.Anh (55) pointed out a reverse direction that migrants are less healthy than non-migrants due to limitations on health accessibility and less social support from their families and familiar community at their destination areas. In a WHO study in 2010 (56), similar findings were reported: migrants were more vulnerable, because health services were not available or affordable for them.

It was difficult to find data about SRH among female migrants. For example, data from those women who got gynecological examinations at the public health facilities are not available for migrants, because the facilities do not record their clients separately as local versus migrant women. Moreover, the FP campaigns organized by CHSs bi-annually also include gynecological examinations for women, and all women of childbearing age living in the area can participate regardless of migration status. However, there were very few female migrants participating in these events (36). Therefore, there was very limited data on STI status of female migrants from these campaigns as well. Although these health examination campaigns just applied clinical examination rather than testing, the detection rate through clinical examination could give an indication of STI rates, since the campaigns are regularly organized in the local areas, and thus can access more women.

In a research study conducted in an IP in Hanoi among female migrant workers (57), the proportion of respondents reported to have symptoms of RTIs/STIs was as high as 25.4%, but the proportion people who went to health facilities for treatment was only 21.6% while 37.8% chose self-treatment or ignored the symptoms (16.2%).

From the first HIV case reported in Vietnam in 1990, HIV has expanded to the whole country. Even though the HIV prevalence in the general population was as low as 0.26% in 2014, some cities/provinces have extended to the generalized level (1% prevalence) such as Quang Ninh and Hai Phong at the same prevalence of 1.15%, and HCMC with 1.25% (58). Notably, these provinces/cities also gather many IPs and economic processing zones (EPZs), thus attract huge numbers of migrants (6). Figure 5 shows that the southeastern region, which includes HCMC and other big IPs and EPZs, has the highest number of HIV cases per 100,000 people, which is nearly double compared to the average rate of the whole country.

Figure 5. Number of HIV cases per 100,000 people by geographical area



Source: Vietnam AIDS Response Progress Report 2014, National Committee for AIDS, Drug and Prostitution Prevention and Control, 2014 (58)

Data from the National Progress Report on HIV in 2014 (58) showed that the majority (79%) of PLHIV were between 20-39 years of age. This information is very important, since they are at working age and therefore they are the main labour force in Vietnam. The HIV epidemic in Vietnam was initially driven by injecting drugs, then via sex work. Nevertheless, in recent years, it is mostly transmitted through the sexual networks of IDUs and male clients of FSWs. Migrants and mobile populations were identified as vulnerable groups for HIV. It was revealed that 50% of male migrant workers never used condoms with FSWs while they were also regular sexual partners of female migrants (59).

The second round IBBS in Vietnam (33) was conducted in two year of 2009 and 2010 among high-risk population, and more than 5,000 respondents were FSWs in 12 provinces where FSWs are most prevalent. FSWs were categorized in two groups: establishment-based FSWs (EFSWs) who worked in hotels, clubs, brothels; and street-based FSWs (SFSWs) who work (meet/have sex with their clients) on the streets. HIV prevalence was higher than 10% in Hanoi, Hai Phong and HCMC. SFSWs have had

much higher HIV prevalence than the latter group. SFSWs in Hai Phong have the highest HIV prevalence in the country with 23%. In addition, HIV prevalence is also closely associated with injecting drug use among FSWs. 78% of injecting SFSWs in Can Tho province were HIV positive, in comparison with 8% of those without history of injection. Compared with the first IBBS in 2005-2006 (60), HIV prevalence among EFSWs in the second round of IBBS increased significantly in HCMC (6% vs. 16%), Hanoi (9.4% vs. 17.7%) and Hai Phong (5% vs. 11.7%) ($p<0.05$).

The first and second-round IBBS (33,60) also revealed that other STI prevalence among high-risk groups is different among provinces but is overall increasing. In HCMC, the prevalence of chlamydia infection among SFSWs was 11%, which is higher than in 2006 (6%). Although gonorrhea and syphilis prevalence were less than 3% and 2% respectively in all research areas (60), the increasing trends of drug injection, sharing needles and relatively low prevalence of condom use show this group faces multiple risks of getting STIs, including HIV.

CHAPTER 4: FACTORS INFLUENCING STIs/HIV AMONG INTERNAL FEMALE MIGRANTS IN VIETNAM

Looking at the whole population, there are multiple factors and social determinants of health, which contribute to STIs/HIV prevalence and incidence. This chapter will discuss the intrapersonal, interpersonal, organizational, community, and public policy factors influencing this issue.

4.1 Intrapersonal factors

4.1.1 Perception and attitudes towards STIs/HIV

Female migrants, especially the unmarried group underestimate the risk of getting STIs/HIV. Married people reported paying more attention to STIs/RTIs than unmarried people, so fewer unmarried female migrants went to have a gynecological examination due to shame (61). As a result, unmarried migrants delay seeking medication when they have STI/RTI symptoms. A number of migrants ignored the precautions of STIs, including HIV because of the misconception that these infections only affect "bad people" (42). They often go to drugstores/pharmacies to seek some advice from drug sellers about their RTIs/STIs, or wash their genital areas with feminine hygiene powder when having symptoms. They only came to health facilities (usually private clinics) when their RTIs/STIs status was severe (57). Many studies show that their knowledge of transmission and health consequences of these infections was very limited, and a large number of migrants could not list any symptoms of STIs. They believed that "healthy-looking people are usually free of the diseases" (36,42). Notably, among more than 1,000 respondents in a population-based research study, 78% had no idea about any symptoms of any STIs (50).

Many HIV prevention programs in Vietnam have focused on the connection between HIV and IDUs, MSM and FSWs that they consider as "social evils". This resulted in making people scared of HIV that was called "disease of the century" implying that there is no treatment for this disease, as they perceived. In a qualitative study in 2012 (36), a number of female migrants still assumed that "HIV can be transmitted through bite of mosquitoes,". They were also very scared of IDUs by or listing "addiction" as an STI. In addition, they were very scared of HIV but showed little concern about other STIs.

It can be said that lack of knowledge is one of the reasons for SRH problems among the migrant women, which leads not only to limited access to SRH services but also unhealthy behaviours. Stigma towards STIs/HIV prevents female migrants from seeking information and services about these issues.

4.1.2 Perception and practice of using condoms

Female migrants are aware of the risks of getting pregnant and they have basic knowledge about contraceptive methods, consequences of unsafe abortion but very limited understanding about STIs. Despite the fact that many of them knew about condoms, some had "never touched a condom" and did not know how to use condoms (36). In a report on migration and urbanization in Vietnam (2), which used the data from the Population and Housing Census in 2009 (6), nearly 99% of migrant workers had heard about HIV/AIDS. However, the information that they obtained was very general and some was incorrect. For example, only 37% of migrants in the Northeast

Economic Zone and 28% of migrants in the Southeast industrial zone knew that "safe sex" is a HIV prevention method.

According to R.Rushing (62), many unmarried migrants did not dare to buy condoms since they were afraid of being recognized as having pre-marital sex by people in the community. Some community members even believed that these women would "eventually become prostitutes". Among married migrants, A.Dang's research in Vietnam (42) found no respondents used condoms consistently and condoms were found to be "inappropriate for such faithful persons like us". This finding is in accordance with the National Survey Assessment of Vietnamese Youth (second round) (SAVY 2) (63), in which 30% young people thought that only "prostitutes and unfaithful people" use condoms. When compared with research in other countries, it showed a similar result of low condom utilization among migrant population. For example, only 21.7% of the migrant factory workers in a study in India always used condoms with FSWs and most of them did not use condoms with their wives (71.6%), girlfriends (81.8%) and other female sexual partners (84.4%) (59). This is very dangerous as migrants are considered a "bridge" that could potentially bring STIs/HIV from high risk populations to low risk populations (64,65). In addition, while many female migrants were sexually active and had multiple sexual partners, they only paid attention to contraception, therefore the perceived risks of STIs including HIV was indeed alarmingly low (36).

4.1.3 Number of sexual partners

It was difficult to find information about the number of sexual partners of migrants since both having sex before marriage or outside marriage are socially unacceptable, particularly among women. In a research conducted by MOLISA among 300 migrant people, 15% of the respondents reported having sex outside marriage in general, and the proportion was higher among young people ages 18-34 (31%). Men admitted to have multiple partners five times more often than female respondents (66). However, the difference might be because of over-reporting of men and under-reporting of women in accordance with the traditional norms of masculinity and femininity.

T.Nguyen (39) confirmed this finding on multiple sexual partners among female migrants in her qualitative research on female migrant workers. From in-depth interviews and focus group discussions, respondents reported a number of migrants lived together without marriage (cohabitation) or had extra-marital sexual relationships. Having extra-marital relationships or cohabitation among unmarried female migrants are taboo and even illegal according to the Law on monogamous marriage in Vietnam (67). Thus, despite the fact that multiple partners will increase risks of getting STIs/HIV, these people are less likely to seek health services for safe sex and treatment of diseases.

4.1.4 Using drugs, alcohol

In general, the prevalence of Vietnamese people using alcohol is quite high. According to SAVY 2 (63) surveying more than 10,000 (49% female) young people in the whole country, 58.6% men and 36.5% women regularly use alcohol, which indicates an increase of around 10% compared with SAVY 1 (68). Although the prevalence of women who got drunk in the recent one month before the survey was lower than men, it was estimated that 20% of women had been drunk about 1-3 times (63). It is worth noting that this trend could be a result of changing traditional norms.

A review on RH of female migrant groups found that using too much drugs and alcohol significantly increases the risks of getting STIs/HIV due to ignorance about using condoms (69). In entertainment settings, some women in sex work believed that the use of alcohol, drugs and other substances will enhance their sexual ability, and so do their male clients (42). In a study carried out in three seaports in HCMC among manual labourers (70), 4.7% reported to use drugs (heroin); among them, 32% were IDUs. The percentage of having first sexual intercourse with sex workers were 17%. In general, only 58% of the men reported using condoms when having sex with sex workers, and 45% with their other sexual partners. This finding applied for both migrants and non-migrants since the research did not specify the migration status of respondents; however, it still raises concerns about the risks of getting HIV/STIs among the migrant population, since a large number of labourers (15.7% of total population of the city – or more than 900,000 people) in HCMC are migrants (2).

4.1.5 Ethnicity

The mountainous and hilly regions account for three-fourth of the total area of Vietnam and are home to the majority of 53 ethnic minority groups, accounting for 13% of total population (5). The literature review found that minority people have significantly poorer health status compared to Kinh group, particularly with regard to some SRH problems due to the geographical locations, language barriers, and traditional customs (6). It was estimated that ethnic minority people accounted for 40% of the poor population in Vietnam (2).

In T.Nguyen's research on SRH among young ethnic minority people in Quang Ninh province (71), 12.34% of the respondents reported having at least one of the symptoms of STIs such as itching in their genital areas, painful sensation when urinating, ulceration, and discharge from their penes or vaginas. It is noteworthy that 62.88% did nothing when having these symptoms. In addition, one third of participants did not know anything about contraception, including condoms.

Findings from the Census in 2009 (6) showed that more than 120,000 female migrants were identified as ethnic minority people, which is approximately 2% of the total ethnic minority population. Unfortunately, the Census did not study SRH vulnerability of ethnic minority people to understand factors influencing their behaviours. However, taking into account the barriers on socio-economic conditions, and traditional beliefs and languages, the ethnic minority female migrants are "considered the most vulnerable among female migrant population in Vietnam" (72).

4.2 Interpersonal factors

4.2.1 Communication with sexual partners about SRH issues

The communication between female migrants and their sexual partners about SRH issues, specifically STIs/HIV, was found to be very limited. Due to shame, women who thought that STIs are stigmatized might not tell their sexual partners about their STI symptoms (51). T.Nguyen (71) pointed out in her research that among women who had STI/RTI symptoms, 62.74% did not discuss with their sexual partners, and the main reason was feeling shameful (71.9%). This can lead them to a delay in seeking health services for treatment at early stages. Although respondents in these studies were

women in general, this finding aligns with a qualitative research among female migrant workers in Hung Yen province (36).

4.2.2 Risk of sexual harassment/coercion/violence

Studies in some neighboring countries like Nepal (73) and China (74) in factories, IPs, and entertainment establishments, which gather many migrant women working in garment industries, carpet factories, and restaurants show that sexual harassment/coercion/violence are risks that female migrants face. In these studies, a combination of qualitative and quantitative methods was used and some cases of sexual harassment/sexual coercion were found. In-depth interviews were applied to learn more about these cases, so the information was quite comprehensive. In Vietnam, however, research on this topic among migrant groups that applied both these two methods is quite limited. Two qualitative studies among female migrant workers in factories and female migrants working as domestic workers revealed some sexual abuse cases from their managers/employers, leading the victims to quit their jobs (36,75). One mixed-method study conducted by ActionAid Vietnam in three provinces of Hai Phong, Quang Ninh, and HCMC among female migrants showed 0.6% and 3.4% freelance migrants were sexually abused in their work places and in their rent houses respectively. No female migrant workers reported sexual harassment/coercion (76). However, this finding still necessitates attention since women often under-reported these cases due to shame.

Sexual violence from partners (husbands or boyfriends) of female migrants is under-reported and received little attention in the literature. Moreover, since sexual harassment is a sensitive issue and the victims are often blamed for "doing something wrong" in addition to the low status of migration, very few migrants reported the case to the police or local authorities (36). Unprotected sex from these cases can increase the exposure of female migrants to STIs/HIV.

4.2.3 Peer influence

Most migrants have to work hard to ensure they can pay for their cost of living in destination places (mostly in urban areas), in addition to sending money to their families in their hometown (77). Thus, several studies showed that the most important source of information among the migrant women about both their livelihood and sexuality is from their peers in factories, shared houses, or other colleagues near their working places. This is a useful informative channel; however, misconceptions and inaccurate information are also exchanged (50). Studies indicated that female migrants often discussed and relied on information about contraception and health-seeking advice from their peers when experiencing problems with STIs (69).

4.2.4 Communication with parents

Several research studies found parents play an important role in the decision-making process for young women's migration (62,75). Vietnamese society is highly influenced by the values of Confucian philosophy, and it is the responsibility of daughters to migrate as a "panacea for family poverty". The study (62) also reflected that women felt empowered because of migration before they left their villages, but when some of them entered into sex work to earn more money, they often felt "a sense of disempowerment". It was difficult to find information about the prevalence of female migrant sex workers but it was found that female migrants are at risk of becoming sex workers while they are under pressure to earn money in the cities in order to maintain

their lives in the cities and send remittances. Notably, during the first sex act, "many young female migrants did not (or were not permitted) to use condoms as the majority of them had been bought for their virginity" (62).

Communication between parents and their daughters is seemingly poor regarding sexuality and how to deal with their new lives. According to the SAVY 2, only 5% male and 19% female young women have discussed with their parents about sexuality, love, and relationships (63). Migration without adequate knowledge and skills on sexuality might put female migrants at risk of suffering from SRH issues, including STIs/HIV.

4.3 Organizational factors

4.3.1 Availability of SRH services

SRH services are provided at all levels of the health system, starting with the grassroots level of CHSs, which are available in every commune of the country. In addition, statistics in 2013 show that nearly all CHSs (97.3%) have at least one midwife that provides SRH services, and private sector facilities (clinics, pharmacies etc) are also accessible in big cities (12). However, there are very few studies that evaluated the availability of SRH services for migrants, particularly the female migrant population.

Despite the fact that a number of factories have their own on-site clinics that can offer SRH services for their workers, research in an IP in Hanoi showed that many women (including migrant workers) did not use these services because factory health workers seemed to put them back to work as soon as possible, even if they were too ill to work (78). In addition, while factories are regularly supervised by MOLISA for food hygiene and labour safety, there are no specific requirements from the government on providing SRH information and services (36). Furthermore, very few factories organize annual health examinations for their workers although this is a requirement of the Labour Law (79). For example, it was reported that only 28 out of 2,234 enterprises (accounting for 1.2%) in the whole Binh Dinh province in 2006 conducted regular health examinations for labourers (39).

4.3.2 Accessibility of health information and services

Inappropriate opening hours of public health facilities

The literature review shows limited access to SRH services among female migrants, especially public health services. Despite the fact that CHSs provide health services with reasonable pricing, very few migrants prefer to go to CHSs for RH care. Due to low investment of the government, CHSs in Vietnam are perceived to have poor equipment and unqualified health workers (80). In addition, their opening hours overlap with the working hours of migrants in both formal and informal sectors, thereby create a barrier for them to visit those facilities (31). The study (80) compared service use between CHSs and private clinics and found women prefer to go to the latter option, perceiving private clinics to have qualified health workers with good attitudes towards their clients, updated technology, and convenient opening hours. However, the price of health services in the private sector is higher than in public facilities, thus they often delay seeking services until their symptoms are more severe. Moreover, domestic workers have to work even longer hours since this occupation is unregulated, so they can only leave their work when ill or visiting their homes on special occasions (75).

SRH issues lacking priority among employers

It is difficult for female migrants to get sick leave or leave for health check-ups, and deduction of their income due to leave is very common (36,75). For the migrant workers, most factories and enterprises have strict regulations related to their leave. Despite the purpose of leave even for sickness, their incomes would be deducted in terms of both daily wages and bonuses (36).

4.3.3 Affordability of health services

Health insurance and social welfare

Based on the Labour Law (81), employers have to sign contracts with their employees for positions from a three-month term and pay for their social and health insurance. However, the Vietnam Migration Survey (2) claimed that at least 11% of migrant workers did not have labour contracts, nearly 70% and 60% workers in the two biggest IPs in the Northeast and Southeast respectively did not obtain HI. Research in Binh Dinh province in central Vietnam (39) also showed that 70% of the enterprises in the province did not sign contracts with their labourers. To reduce the cost for social and HI for employees, they preferred to hire migrants in short-term with verbal contracts.

In some factories, which fully applied the regulations of welfare procedures for workers, not all labourers could keep their own HI cards for use by themselves. The cards were kept by the factory human resource officer or health workers, who limited the use of female migrant workers when receiving health services. Whenever workers came to ask for a HI card they had to give the reason for asking the card. It was less likely for them to disclose such a sensitive issue as SRH/STIs (36).

Complicated registration system

Vietnam has applied the household registration system (***K****hu vuc thuong* ***T****ru* in Vietnamese – KT system), which is quite complicated, to manage the migration movement. There are four categories for residents in urban or rural areas: ***KT1*** for a person whose current resident district is the same as the one he/she is registered; ***KT2*** for a person who resides in one district but is registered in a different district in the same province; ***KT3*** for a person who has a long-term registration (more than 3 months) in one province but is officially registered in another province; and ***KT4*** is similar to KT3 but for a person obtaining a short-term registration (less than 3 months) only (82). Based on this system, only people who have KT1 can fully get the state allowance and welfare. The literature review found that most migrants work for informal sectors and have KT3 or KT4, or did not even register with the local authorities at destination places (36,57). Based on the law (82), migrants who live at their destination for three months or more should register with the local police to obtain a temporary registration card at the destination. Furthermore, most female migrants rent private houses of local people. Since consumers in Vietnam have to pay progressive payments for electricity and water, they may have to pay electricity costs 3-4 times higher, or water costs 7-8 times higher than official price applied for KT1. Also, some government organizations only recruit KT1 for work (35).

The registration system is a starting point related to the health facilities when registering for the voluntary HI. Migrants who have household registration in rural areas and live in urban areas still need to register their HI at their hometown, and cannot use HI in the urban areas without referral documents. Thus, although HI coverage in Vietnam is quite high (68.5% of the population by the end of 2013) (83),

its utilization is still limited. The complicated HI system is one of barriers for migrant health accessibility (12).

High expenditures for health

When health problems occur, health expenditures would be a big concern for migrants since their income is often not only used for their basic living expenses, but also to support their families at home (41,62). In Webber's research in accessing RH for internal migrant beer promoters in four countries (Laos, Thailand, Cambodia and Vietnam) (84), one third to one half of the respondents reported that they could not go to the preferred RH health facilities due to money shortages.

According to the government's Vietnam Migration Survey in 2004 (30), 84% of domestic workers reported paying for themselves the full payment in case of illness, only 12% of respondents were paid health expenditures by their employers and the rest was paid by their relatives or used free services. No domestic worker respondent claimed to have HI (30). Low income is a big challenge for female migrants accessing health services, especially in urban areas. For example, some female migrants in big cities such as Hanoi and HCMC reported that their health expenditures were double their monthly salary (85).

4.3.4 Acceptability of health services

Negative attitudes of female migrants towards public healthcare services

When needing to access SRH care, most of female migrants self-treated by buying drugs from stores or doing nothing. In case of more severe problems, they chose to access private services instead of going to public health facilities. Even among female migrants who can use their HI at destination places, they were still afraid of public health facilities' requirement to do testing and treatments that would not be covered by HI (41). They also feared the "under-the-table payment" for health workers at public health institutions, as it is believed that money is guarantee for quality of services (80).

Due to shame, lacking time and money, many SRH treatments, including STIs took place outside public health facilities. Female migrants usually exchanged information on private clinics around their areas and went there at weekends or in the evening after working hours. One noteworthy point is that not all private health clinics providing SRH services have registration permits and they often practice at private houses with limited hygienic conditions and inadequate equipment. However, although some women could be aware of the risk of unregistered private services, they still chose this type of service because it was fast and did not require a lot of paperwork, as well as to ensure confidentiality (39).

Negative attitudes of health workers towards female migrants

One of other crucial barriers of female migrants in accessing STIs/RTIs services in public health facilities is health staff's negative attitudes towards their migration status. The bi-annual RH campaigns of CHSs are often publicized widely to all local women in the areas by the network of VHWs, but female migrants are often excluded from these events. As stated by a health officer at a CHS "we are too busy taking care of 'our people', they [female migrants] have to take care of themselves" (36). In addition, stigma of health workers towards unmarried women who access SRH services with STIs/RTIs symptoms when "they shout at them and scold them" was also one of the

factors that made female migrants feel ashamed. It also made them try to find unregistered private health providers to deal with their problems (50).

4.3.5 Exposure to health information/education

In addition to SRH services at public health facilities, information on SRH care is distributed via loudspeakers, resident group meetings, and free dissemination of leaflets, condoms and oral contraceptives through VHWs and gynecological examinations. According to the current regulations (86), these campaigns and services at CHSs, such as fitting an IUD, contraception pills, and condoms, are free of charge, independent of the migrant status of the clients. However, very few migrants knew about this information and accessed these services (36). Furthermore, female migrants have to work long hours (12 hours/day), so their chances of getting information about STIs/HIV were very limited (39). Due to often being in the workplace, female migrants also miss opportunities to access SRH information from the local broadcasting system, or announcements for gynecological checkup campaigns or SRH education sessions in the community (51).

Interestingly, research on health information provision at CHSs (50) shows that women who experienced induced abortion got information from the health officers on preventing unwanted pregnancy in combination with STIs/RTIs, but those who went to the health facilities for childbirth may not have received any information about these issues. This might be explained by health officers underestimating the risks of getting STIs/RTIs among this population.

4.4 Community factors

4.4.1 Traditional norms, values and culture towards STIs/HIV

Previous studies indicated that in Vietnam, traditional norms and beliefs strongly affected health-seeking behaviours of people, especially SRH issues. Many women in TL.Nguyen's research (50) believed that STIs came from women due to their bad hygiene in genital areas when having sex, having sex too soon after delivery, or having sex during their period. In Vietnamese culture, pre-marital sex is taboo and women are expected to be sexually innocent. Having one's hymen is evidence of a "good girl" before marriage. Thus, seeking contraception or looking for information on STIs/SRH might cause people to think they have already had sex (49). Traditional norms indicate that men should initiate sex and women are responsible for "serving" their husbands. Any sexual behaviour from female migrants that deviate from the norms, such as asking to use condoms, suggesting to change sex positions, or discussing information about STIs/HIV might be interpreted by their husbands as evidence of extra-marital relationships in the cities. It can lead to anger, abandonment, or domestic violence (87).

As mentioned before, Vietnam is one of the least religious countries in the world. There are very few studies on the connection between religion and SRH in the general population or a specific group. One study in HCMC revealed that among women who asked for emergency contraception pills from nurses/midwives, most people did not follow any religion or were Buddhist followers. However, the statistical testing found no significant correlation between religion and usage of emergency contraception (88).

4.4.2 Gender inequality

In Vietnamese culture, the norm is that men should control female sexuality. Available research showed that women should be in a passive position when discussing about SRH issues. This hampers their negotiation possibilities for safe sex with their sexual partners (49). To maintain femininity, female migrants could not ask their "left-behind" husbands at home to use condoms when having sex, because they considered this to be an expression of an unfaithful wife (36).

Gender inequality plays an important role in limited accessibility of SRH services among women in Vietnam. It related to educational opportunities and income of women, as well as strongly influenced by decision-making power in sexual relationship. The increasing sex ratio at birth might be a good example of son-preference attitude of Vietnamese society, with an increase from 105 males/100 females at births in 1999 to 110.5 in 2009 and 113.8 in 2013 (while the natural ratio is 104-106/100) (20). Sex-selective abortion is illegal in Vietnam (89). Although it is difficult to determine if an abortion is due to sex selection, given that abortion is legal in Vietnam and widely practiced in both public and private health institutions from the CHS level at a reasonable price, sex-selective abortion does exist in Vietnam (28).

4.4.3 Attitudes of local authorities towards female migrants

As mentioned earlier, most health and education programs and services in destination areas are for local people, and migrants have very few chances of getting SRH information from the local system (90). In addition, migrants are often perceived to be associated with "social evils" such as crimes, gambling, and prostitution, so local people and authorities treat them as untrustworthy and with reluctance (85). This prejudice limits migrants from seeking help from the local government and local health workers when needed. In T.Hoang's research (76) among female migrants in three provinces, 64% of respondents have never participated in community meetings or events in their destination places like the monthly resident meetings, women's union and youth's union.

4.5 Public Policies

Improving SRH, including STIs/HIV for female migrants has been integrated in some policy and strategy documents (Table 7). However, there is no separate policy on SRH for migrants, particularly for the female migrant population. In addition, the MoH is responsible for providing health information and services in its system in collaboration with MOET in health education while migrants have to follow working regulations of MOLISA and registration of local authorities and police. There is no coordinating organization, which takes responsibility of SRH care for female migrants. Therefore, it creates difficulties in developing programs and interventions for SRH, particularly STIs/HIV among this group, and limits resources and budget allocation from the government for these issues.

From the literature, migrant FSWs are recognized as one of the most vulnerable groups among the migrant population. Even though they are one of target groups in HIV prevention programs, sex work is still illegal under current regulations (91) and they can be arrested by the police and sent to rehabilitation centres. Thus, migrant FSWs might not access STIs/HIV prevention programs or practice safe sex due to fear of being recognized as sex workers.

Table 7: Public policies on STIs/HIV for female migrants in Vietnam

Policies	Key related issues
National strategy on Population and RH 2011–2020 (86)	The strategy aims to provide universal access to SRH, reduce the fertility rate, and improve maternal and child health as well as RH among vulnerable population. Improving RH for the migrant population is one of 11 objectives of the strategy with one indicator: Increase the access of vulnerable population (including migrants, people with disabilities, people living with HIV) to 20% in 2015 and 50% in 2020. In addition, reduction in RTIs/STIs was also mentioned in another objective with the indicator of "reduce by 10% STIs cases by 2015 and 20% in 2020". This indicator is used for both women and men. However, the strategy focuses its solutions on married couples and ignores unmarried women.
National Strategy on Gender Equality for the 2011-2020 period (92)	The strategy provides guidelines for the implementation of the Gender Equality Law, which was passed in 2006. There are 6 objectives in the strategy and female migrants are mentioned specifically in one objective, which aims to ensure social insurance and HI for this group. The strategy sets some targets on sex ratio at birth, percentage of women who can access health services, and prevention of mother-to-child transmission, abortion, domestic violence, and human trafficking, etc. However, no specific indicators on female migrants were mentioned on the strategy.
National strategy on HIV/AIDS prevention and control through 2020 with a vision to 2030 (93)	This strategy includes specific objectives for the reduction in new HIV infections, the proportion of people who obtain adequate knowledge on HIV/AIDS, the rate of PLHIV getting antiretroviral treatment, etc. Migrants were identified as a "high-risk group" instead of a "vulnerable group" in HIV programs in the country.
National standards and guidelines for RH care services (94)	This document applies to both public and private health facilities and is the legal foundation for delivery of SRH services. It is also a manual for healthcare workers delivering SRH services and the basis for developing training materials for health professionals. In addition, it provides guidelines for monitoring, supervision, and evaluation of the quality of health services in health facilities. This is an important document to provide detailed guidelines for health workers on screening, treatment, and health information on STIs/RTIs, as well as planning for STIs/RTIs prevention activities with non-judgemental attitudes for everyone.

CHAPTER 5: PROGRAMS, INTERVENTIONS RELATED TO STIs/HIV PREVENTION AND CARE FOR FEMALE MIGRANTS

This chapter will discuss interventions on SRH, including STIs/HIV among the female migrant population in Vietnam and international best practices. Some interventions, which target both male and female migrants, are also included for analysis. Only activities related to STIs/HIV prevention are mentioned and discussed.

5.1 Programs and interventions in Vietnam

There are 15 programs/interventions on SRH for female migrants included in the review *(see appendix 2 for more detail)*. These interventions could be divided in three groups of beneficiaries as follows:

5.1.1 Group 1: Interventions for migrant workers in factories/IPs/EPZs

(Code P1->P7).

Locations: Most interventions have been implemented in large cities (Hanoi, HCMC, Binh Duong), where many factories/Ips/EPZs are located and attract a huge number of female migrants from other provinces.

These interventions can easily reach many female migrants since most of them live in the areas near their workplaces. Most IPs and EPZs have their labour unions, on-site clinics, and locations for implementing project activities. However, due to long working hours and low priority of employers, interventions can only be implemented in some factories with small-scale activities.

Project duration: Most projects have duration of 2-3 years. Only two projects were implemented for four years, one of which (P5) only had SRH-related activities for migrant workers for two years. Due to short implementation time, impacts of these interventions are quite limited.

Key program components:

All interventions established a network of peer educators from workers in factories to provide SRH information and services through direct communication, such as small groups, integrating SRH information into other activities, and organization of events and competitions to raise female workers' awareness. One project (P5) piloted SRH counselling via phone and "youth corners" in factories or communal houses for young but these services overlapped with working hours, so the effectiveness was very limited. A wide range of projects also used IEC materials for providing information. Only one project (P4) used migrant workers themselves to develop these materials (such as bulletins, writing articles for websites, and managing a Facebook fanpage) so that they were more appropriate for the target group. Three out of seven projects tried to advocate for factory managers to introduce gender-sensitive policies in their factories or integrate SRH-related policies into their human resource policies.

However, results from monitoring and evaluation (M&E) of these interventions showed that they faced a number of challenges. Firstly, female workers have to work long hours, so the number of women participating in extra programmatic activities fluctuated due to tiredness, which could lead to decreased productivity and income. Secondly, migrant workers have fixed and very busy schedules. Even though project activities were adjusted in accordance with their shifts, some activities were still difficult to

arrange. Last but not least, it was very hard to collaborate with factories to conduct project activities in the factories, particularly during working hours.

5.1.2 Group 2: Interventions for freelance migrants

(Code P8->P12).

Locations: Interventions for this group focused on female migrants from rural to urban areas, with two projects carried out in the destination places (Hanoi and HCMC) and two projects in home places (Thai Binh and Thanh Hoa). Only one project (P10) targeted both home and destination places but in a small number of areas (for example, it was only implemented in 5 out of 577 communes in destination areas and 6/902 communes in two rural provinces – the places of origin).

Project duration: Programs lasted from 3-4 years

Key program components:

These interventions also focused on raising female migrants' awareness of SRH issues, particularly STIs/HIV, through peer education, IEC materials and mass media. In addition, these projects also supported them purchasing HI cards because most of them do not have HI. A project by HealthBridge International (P9), which targeted potential female migrants, had a component called training of trainers for training staff of vocational training centres and labour companies about SRH, as well as advocating for these institutions to integrate SRH information into their curriculums. These women would enter formal or informal employment after migration. One program used religious leaders to encourage female migrants to participate in project activities and used a church for conducting project events.

Most freelance migrants have low education levels, conduct manual jobs and are highly mobile. In addition, they stay in scattered rent houses in the cities. Thus, it is very difficult to implement interventions for this group. Although this group is very diverse, including live-in and live-out domestic workers, private hospital caregivers, junk collectors, porters etc., no programs had specific intervention approaches for each group, which can limit their effectiveness and impact.

5.1.3 Group 3: Interventions for high-risk female migrant population

(Code P12->P14).

This group comprises FSWs, street youth, and migrants in bordering areas at risk for human trafficking. Among all interventions for the three groups, only one project in Soc Trang province (P12) aimed to both raise women's awareness before migration and provide them with information, economic and emotional support after going back to their homes.

With funding available mostly from the United States President's Emergency Plan for AIDS Relief (PEPFAR) and other major donors, interventions for FSWs have focused on big provinces or bordering areas that have a high prevalence of HIV among high-risk populations such as Hanoi, Hai Phong, Quang Ninh, HCMC, Lao Cai, and An Giang. These models also implemented activities by providing information through peer educators, IEC materials, establishing clubs, self-help groups and coffee shops for FSWs, as well as providing HIV/STI testing and treatment.

These programs have been implemented in a wide range of areas across the country and are quite sustainable in terms of funding and resources, in comparison with other

migrant groups. However, most interventions only focus on HIV prevention and do not pay attention to other SRH issues within this group. In addition, sex work is illegal in Vietnam and is highly stigmatized and discriminated against by society, specifically health workers. Thus, FSWs hesitate to participate in these program activities and delay accessing SRH information and services, including HIV prevention.

Some other key remarks from interventions for female migrants in Vietnam:

- Most interventions addressed intrapersonal and interpersonal factors, with a focus on raising female migrants' awareness about SRH, and used IEC materials and peer educators. Organizational, community, and public policy factors got little attention from these programs.
- The number of projects based in home areas is far fewer than in destination places. Therefore, many potential female migrants in rural areas do not benefit from these SRH interventions.
- Most interventions (except HIV prevention interventions for FSWs) have been implemented in short time and only cover a very small portion of female migrants. In addition, these programs are highly dependent on donor funding. They also have very little cooperation from employers, especially factories/IPs/EPZs. Sustainability of these programs and replication of successful activities are great challenges.
- Although most programs aim to raise the target group's awareness and use peer educators to provide information and services, very few projects introduced a participatory approach in designing, planning, monitoring, and evaluating programs. This limits the effectiveness of interventions for female migrants.
- M&E activities get very little attention in these interventions, so it is very difficult to assess their effectiveness and success, as well as lessons learnt to improve future interventions.
- Even though interventions tried to coordinate activities between the government and the private sector, their partnership is not strong. There is no specific agency to coordinate SRH interventions among the government, NGOs, and private companies.

5.2 International best practices

This section will analyse some best models of SRH interventions among female migrants internationally. Since some expert organizations have reviewed and documented best practices from many countries, in spite of analysing separate models, this part will discuss a combination of interventions on STIs, including HIV, for this group. The below strategies/activities are based on review and recommendations of the WHO (38,95), UNDP (96), and The Lancet HIV and Sex Workers Series (97).

5.2.1 Enhancing SRH promotion

Strengthening healthy sexual behaviours is one of the key strategies in addressing STIs/HIV issues in female migrants. This approach can be implemented by developing female migrants' personal skills of decision-making and negotiating with sexual partners about their relationships and sexual interactions. The literature review shows that sexual education should be done in both home and destination areas to increase the effectiveness of interventions (96).

Considering appropriate communication channels for each specific type of target group is very important to ensure successful STIs/HIV prevention programs (38). With a number of female migrants working in factories, activities such as health talks and group discussions, which were held in the factories were demonstrated to be effective. Trainers/facilitators should be trained in SRH knowledge and skills to deliver health messages to migrants and create a friendly-environment for them. For informal migrants, it is also necessary to include other communication channels such as peer education and community outreach (for example, including interactive drama) in their resident places. All health promotion activities need to pay attention to languages and cultural acceptance and take into account their vulnerabilities and needs.

P.Decat (98) piloted an intervention that included a standard package of community-based SRH promotion for female migrant workers in China. Results showed the effectiveness of the standard packages including health promotion via peer educators, face-to-face, and hot-line consultations from health workers for female migrants as well as other IEC materials.

According to the WHO's RH framework in Southeast Asia (95), some other interventions that should be included in programs for female migrants are strengthening community actions and advocacy for public policies. Communities should be empowered to recognize women's rights in decision making about sexual behaviours, and men's roles in promoting SRH by introducing a participatory approach. It is necessary to create a conducive environment for healthy sexual behaviour by facilitating self-help groups and support from other community groups. Since FSWs are the most vulnerable group among the female migrant population in many countries, strengthening legal support for this group is also an essential strategy for STIs/HIV prevention. As proclaimed by the ASEAN Declaration on the Protection and Promotion of the Rights of Migrant Workers (99), National SRH Strategies and HIV Prevention Programs for migrants and mobile populations have to ensure that migrants can access needed health information and services (96). This approach will address not only individual factors but also social determinants of STIs/HIV among female migrants.

5.2.2 Strengthening health systems and services

In the great effort to reduce STIs/HIV new infections, the WHO (38) provided a global strategy for prevention and control STIs/HIV for the period of 2006-2015, in which some key solutions were as follows:

Coverage and availability of services: Integration of STI services into FP services at the primary level to promote dual protection if appropriate is necessary. Furthermore, interventions should provide training and refresh training for health workers in both public and private health sectors and on-site clinics in the workplace and educational institutions.

Utilization of services: It is important to increase utilization of health services by i) Developing standard of care, which includes clear guidelines for implementation, and support for M&E activities; ii) Enhancing migrant-friendly services that ensure confidentiality, eliminate cultural barriers, and provide specific services for different types of vulnerable groups of migrants; iii) Managing STIs based on syndromes and ensure effective use of treatment according to syndrome or diagnosis, based on clinical testing if available; iv) Promoting voluntary partner notifications and treatment; v) Strengthening the partnership between the health system and enterprises/employers.

Sustainability of services: In order to ensure the sustainability of services, the strategy suggests to: i) Decentralize/reform the health system and services to allow meaningful involvement of all sectors in SRH interventions; ii) Promote research and document good practices to scale up successful models; and iv) Ensure the provision of human and financial resources for SRH interventions for (female) migrants and mobile populations.

5.2.3 Enabling a supportive environment

The WHO (38,95) also suggested to strengthen a supportive environment for female migrants in accessing SRH services, including STIs/HIV with detail as follows:

Legal reform: The current system should promote legislation to support human rights and remove all barriers to accessing health services among vulnerable groups.

Gender equity: Two strategies are recommended for gender equity, including i) Involvement of men in SRH interventions and strategies and ii) Empowering women in education, occupational opportunities, and the decision-making process.

Collaboration: Some key aspects should be considered to redude STIs/HIV, including i) Strengthening inter-sectoral collaboration among different public sectors to address multiple factors influencing STIs/HIV among female migrants; ii) Introducing a sector-wide approach, which involves public-private partnerships including NGOs, multi- and bilateral partners, community groups, and representatives of female migrants, as well as introduce regional collaboration to ensure the continuum of care for female migrants; and iii) Mobilizing and coordinating funding and resources for SHR care, particularly for STIs/HIV for female migrants.

CHAPTER 6: DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

6.1 Discussion

This study reaffirms that STIs/HIV is a problem among internal female migrants, including FSWs in Vietnam. In addition, findings from the study also show that STIs/HIV among female migrants are influenced by not only individual factors, but also social factors. The Social Ecological Framework is used to analyse these factors, which are categorized as intrapersonal, interpersonal, organizational, community and public policy factors. This chapter will discuss the STIs/HIV status and factors contributing to this, as well as interventions implemented to improve SRH among female migrants in Vietnam.

Magnitude of STIs, including HIV: Although there is no national data on STIs/HIV among the female migrant population since most of them go to private clinics for testing and treatment and public health facilities do not record medical diagnosis, some studies showed that STIs status among this group is worse than within the non-migrant population. Since funding of HIV prevention for high-risk populations is available, HIV and other STIs information among FSWs are quite well documented. Results from the two IBBS showed high HIV and other STI prevalence among FSWs in big cities, where many female migrants are located. Literature shows that migrants are "bridge population" for STIs/HIV transmission from high-risk to low-risk populations (65). Female migrants are very susceptible to STIs/HIV.

Intrapersonal factors: Literature shows that female migrants are getting younger and they are sexually active. Furthermore, they are not aware of risks of acquiring STIs/HIV and have negative attitudes towards STIs/HIV. In addition, limited knowledge and low utilization of safe sex methods, as well as limitations in negotiation skills to refuse sex or use condoms, put female migrants at high risk of suffering from STIs/HIV.

Interpersonal factors: This study found limited literature on risks of sexual harassment/violence among female migrant workers and domestic migrants, while a number of studies showed high risks among FSWs. However, women are expected to be innocent, passive, and discouraged from seeking information on SRH, resulting in limited knowledge and vulnerability for sexual harassment. Literature shows that female migrants are afraid of talking about sex or STIs with their boyfriends/husbands because it could be interpreted as them being unfaithful during the migration period. It might hamper their negotiation capacity to refuse sex and ask for condom use with their sexual partners, as well as delay migrants in seeking health services. This finding is consistent with findings from SAVY 2 (63) among young females in general.

The decision-making process of migration and sexual relationships, as well as female migrants seeking health-care, is influenced by their peers, their sexual partners, and their parents in both destination places and their home. Most parents play an important role in their daughters' migration decisions related to financial support for their families. However, parents rarely discuss with female migrants the SRH issues that they can deal with in new places. Instead of seeking information from their parents and teachers, the most frequent source of information about SRH for female migrants comes from their peers, which can be inaccurate and inadequate. This increases their risk of getting STIs/HIV.

Organizational factors: Although most female migrants are concentrated in big cities, where health facilities are widely available, they face large barriers in accessing health services and practicing their SRH rights. Health expenditures are the most challenging

barrier, in addition to inappropriate opening hours, negative attitudes of health workers, and perceived inadequate confidentiality in public health institutions. Female migrants are often victims of prejudice and are left out of local health programs, which make it difficult for them to get comprehensive SRH care, particularly for STIs/HIV.

Community factors: Living in a society that prefers men, the community assesses women based on the men's perspective. Sex is considered a "private and sensitive issue" that is "easy to joke about" but "hard to talk about" – a taboo in society (49). In addition, STIs/HIV are perceived as closely connected with IDUs, FSWs, and MSM - the "social evils" that create barriers to accessing information on and services for STIs/HIV.

Public policies: Some SRH policies for female migrants have been integrated in some public policies, such as the National strategy on Population and RH 2011–2020 and the National Strategy on Gender Equality for the 2011-2020 periods. However, there is no separate national policy or coordinating organization taking responsibility for SRH of female migrants. As a result, migrants still receive little attention in STIs/HIV interventions.

Interventions to prevent STIs/HIV among the female migrant population: Interventions on SRH for female migrants can be categorized in three groups: i) female migrants working in factories; ii) freelance female migrants; and iii) High-risk female migrants. Most interventions for the first two groups were small-scale programs of short duration, primarily focused on interpersonal and intrapersonal factors rather than other factors. Interventions for FSWs have been carried out in many areas due to available funding, but most of them only focus on HIV prevention; therefore, SRH and specifically STIs, might be ignored.

M&E activities were not carried out properly since most projects only reported knowledge change as an intervention result, which created difficulties in measuring the effectiveness of programs and the possibility of replication.

Moreover, collaboration among stakeholders (government, NGOs, female migrants, factories, etc.) was not well established. This limits the sustainability of SRH programs for female migrants.

Conceptual framework: The SEM was appropriate to identify factors influencing STIs/HIV among the female migrant population. There are five layers of factors in the model. They are all inter-related to each other, and contribute to STIs/HIV in this population. The framework was also very helpful in analysing SRH interventions for female migrants to better understand possible solutions that can help reduce STIs/HIV for this group in Vietnam.

6.2 Conclusions

This thesis highlights a number of determinants of STIs/HIV among the internal female migrant population in Vietnam, in which the risk factors and vulnerability related to sex work were also mentioned. In addition, this thesis also critically analyses interventions to reduce STIs/HIV in the country, and best practices from expert organizations after reviewing SRH programs around the world. The key conclusions from the research are as follows:

Lack of national data on STIs/HIV among female migrants

The existing studies show that STIs/HIV prevalence might be high among the female migrant population. Even though the IBBS has quite comprehensive data on STI/HIV prevalence in some provinces where many FSWs are located, there is no national data on STI/HIV prevalence among female migrants. The current national survey on migration does not include some types of migrants, such as temporary and seasonal migrants. Thus, information on SRH in the migrant population is not comprehensive, which can influence developing interventions and policies for this group.

Lack of a separate policy on SRH for (female) migrants

Although some SRH policies for female migrants were integrated in current strategies and policies, there is no separate SRH policy for this group. Some organizations involved in management of SRH for migrants, particularly women such as MoH, MOLISA, and local authorities, but there is no coordinating organization for this issue. Therefore, SRH programs for female migrants receive little attention and resources from the government. In addition, it also created difficulties in M&E programs and replication of successful models.

Stigma related to STIs/HIV

- Misconception, negative attitudes, and stigma related to STIs/HIV are common among the female migrant population. They do not acknowledge that they are at risk for getting these infections.
- A minority of both married and unmarried female migrants reported using condoms when having sex. Sex is taboo among unmarried female migrants and requests to use condoms are considered a "signal" of having extra-marital relationships among married women, or are considered characteristic of FSWs. Thus, female migrants were afraid of seeking information and services about SRH in general and STIs/HIV in particular, and found it difficult to discuss these issues with their sexual partners, friends, and parents. The stigma related to STIs/HIV also creates barriers for SRH interventions and policies to reach this population.
- Due to some policies on migration control, such as the registration system and limited migrant recruitment in some governmental organizations, local people in destination places also stigmatize migrants as root causes of social evils. This also influences the accessibility of local health services for female migrants since local authorities and health workers do not consider them a target group for SRH programs.

Unsustainable interventions for female migrant population

Most SRH interventions for female migrant workers and freelance groups were small-scale and of short duration. In addition, few programs were conducted in home places, which would provide needed information and skills for women before migration. Interventions for FSWs included a substantial number of HIV prevention programs, but other STIs got very little attention. Due to dependence on funding, interventions for female migrants are not sustainable and difficult to replicate.

Inadequate health system in destination areas to meet demand of female migrants

Findings from studies highlighted the health system's inadequate response to SRH issues among female migrants. Although female migrants are vulnerable to STIs/HIV and have many difficulties in living in new places, there are many factors that influence

them not accessing health services. Most strikingly, health expenditures seem to be the most important barrier for female migrants in accessing SRH services, due to low income and complicated procedures for using HI in public health facilities.

6.3 Recommendations

From the findings and conclusions mentioned above, the following are recommendations of the study:

6.3.1 Recommendations related to policies

1) A coordinating organization/committee addressing migrant rights should be established and MOLISA could be the principle stakeholder. It should develop a separate national SRH policy for the migrant population, particularly focusing on female migrants. This policy should include these components as follows:
   - Target group: Migrants should include seasonal and temporary migrants because they are also vulnerable to SRH problems.
   - The coordinating organization should meaningfully involve stakeholders in different government organizations (MoH, MOET), Labour Union, NGOs, Women's Union, Youth Union and representatives of female migrants.
   - The policy should establish detailed guidelines for implementation and M&E at all levels. Migrants should be acknowledged as an inevitable supplemental labour force of urbanization rather than "social problems." Thus, instead of policies aimed at controlling migration, policies regarding migration and female migrants' SRH, HIV status, and sex work should be comprehensive and rights-based. The registration system should be more relax, so that female migrants can have more benefits in terms of living conditions and healthcare access in their destination places.
   - The coordinating committee should advocate for the local government to integrate SRH for (female) migrants into education, health and socio-economic plans in destination places.
2) The MOLISA should improve the implementation of social insurance and (voluntary) HI for female migrants in both formal and informal sector in accordance with the Labour Law.

6.3.2 Recommendations related to interventions

3) It is necessary to conduct interventions in raising female migrants' awareness about SRH, accessing health services, and improving living skills in home areas before they move to other places. Interventions for FSWs should integrate other SRH services (specifically other STIs) into HIV prevention programs. In addition, future interventions should also focus on changing health workers' attitudes and behaviours.
4) Current interventions target female migrants and employers rather than creating a broader supporting environment for them. Female migrants are still stigmatized by local authorities and local people. Thus, involving the community in all stages of SRH programs for female migrants is very important to reduce stigma and discrimination between local people and FSWs during SRH service provision.
5) Lack of priority of employers and limited funding are key reasons programs are unsustainable. It is necessary to elicit social responsibility from factories/

employers, to encourage them to integrate SRH into regulations of enterprises and provide migrant-friendly services in factories.

6) Information on regulations related to free RH services at public health facilities for all women regardless of their migration status should be emphasized in SRH interventions for female migrants. In addition, it is necessary to improve monitoring and supervision activities to ensure effective and consistent implementation of services.
7) Interventions should introduce a participatory approach to attract more people into a meaningful environment for female migrants. Furthermore, information on successful models should be documented and shared with other stakeholders for replication.

6.3.3 Recommendations related to research

8) National data on SRH in general, and STIs/HIV in particular, among female migrants should be collected by improving the reporting system from bi-annual FP campaigns. They should specify the participants' migration status and include public and private clinics in big cities. The data should include information on STIs/HIV status and factors influencing STIs/HIV among female migrants, including seasonal and temporary migrants.
9) Two main research gaps were identified in this thesis, which are little is known about 1) sexual violence/harassment/coercion experienced by female migrants, including effect on STI/HIV status and 2) magnitude and factors influencing SRH problems of some minority population (such as female ethnic minority migrants, disable female migrants). These topics could be considered for future research in Vietnam.
10) Further evaluation of SRH interventions targeted at female migrants in Vietnam should be conducted as well. A cost-effectiveness assessment should be included in future research, to give better insight in which models and interventions are worth replicating.

REFERENCES

1. International Organization for Migration (IOM). Glossary on Migration. 2nd ed. Geneva: International Organization for Migration; 2011.
2. General Statistics Office (GSO). Migration and Urbanization in Vietnam: Status, trends and differences. Hanoi: Statistical Publishing House; 2011.
3. World Health Organization (WHO). Fact sheet No. 110 on Sexually Transmitted Infections [Internet]. Geneva; [updated 2013 Nov; cited 2015 Jul 5] Available from: http://www.who.int/mediacentre/factsheets/fs110/en/
4. Wasserheit JN, Holmes KK. Reproductive Tract Infections: Challenges for International Health Policy, Programs, and Research. In: Germain A, Holmes KK, Piot P, Wasserheit JN, eds. Reproductive Tract Infections: Global Impact and Priorities for Women's Reproductive Health. New York: Plenum Press; 1992.
5. General Statistics Office (GSO). Statistical handbook 2014. Hanoi: Statistical Publishing House; 2014.
6. General Statistics Office (GSO). The 2009 Vietnam Population and Housing census. Hanoi: Statistical Publishing House; 2010.
7. United Nations: Department of Social and Economic Affairs, Population Division. World population prospects: The 2012 revision, Key findings and Advance Tables. Working Paper No. ESA/P/WP.227. Geneva; 2013.
8. Viet Nam Publishing House of Natural Resources Environment and Cartography. Administrative map of Vietnam [Internet]. 2009 [cited 2015 Jul 5]. Available from: http://www.bando.com.vn/en/default.aspx
9. Maps of the world. Map: Location of Vietnam in the world [Internet]. 2012 [cited 2015 Jul 5]. Available from: http://www.mapsofworld.com/vietnam/vietnam-location-map.html
10. World Bank (WB). World Bank Income Classifications (as of December 2010). Washington, DC; 2011.
11. United Nations Development Programme (UNDP). Human Development Report 2014: Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience. Hanoi; 2014.
12. Vietnam Ministry of Health (MoH), Health Partnership Group. Joint annual health review 2014. Hanoi: Medical Publishing House; 2015.
13. United Nations: Department of Social and Economic Affairs, Population Division. World Population Ageing 2013. Geneva; 2013. Report No.: ST/ESA/SER.A/348
14. World Health Organization (WHO), United Nations International Children's Emergency Fund (UNICEF), United Nations Fund for Population Activities (UNFPA), World Bank (WB), United Nations Population Division. Trends in Maternal Mortality: 1990-2013. Geneva: World Health Organization. 2014.
15. Vietnam Ministry of Health (MoH). Vietnam AIDS response progress report 2014. Hanoi; 2014.
16. Joint United Nations Programme on HIV/AIDS (UNAIDS). Global report: UNAIDS report on the global AIDS epidemic 2013. Geneva; 2013.

17. Vietnam Ministry of Health (MoH). Action plan on STI prevention and control till 2010. Hanoi; 2006.

18. Tien T Van, Phuong HT, Mathauer I, Phuong NTK. A health financing review of Vietnam with a focus on social health insurance. Hanoi; 2011.

19. Vietnam Ministry of Health (MoH). Decision on organization and activities of private health facilities No. 217-BYT/QD. Vietnam; 1989.

20. General Statistics Office (GSO). The April 1, 2013 time-point population change and family planning survey. Hanoi; 2013.

21. Vietnam Ministry of Health (MoH). Circular on functions, tasks and organizations of Family planning services No. 05/2008/TT-BYT. Vietnam; 2008.

22. Prime Minister Nguyen Tan Dung. Decision on allowance for village health workers No. 75/2009/QD-TTg. Vietnam; 2009.

23. Ngo AD, Hill PS. The use of reproductive healthcare at commune health stations in a changing health system in Vietnam. BMC Health Serv Res. BioMed Central Ltd; 2011;11(1):237.

24. The National Assembly. Law on health insurance No. 25/2008/QH12. Vietnam; 2008.

25. The National Assembly. Law on amendments to the Law on health insurance No. 25/2008/QH12. Vietnam; 2014.

26. Ministry of Labour Invalids and Social Affairs (MOLISA), Ministry of Health (MoH). Inter-circular providing guidelines on occupational safety and hygiene in enterprises No. 01/2011/TTLT-BLĐTBXH-BYT. Vietnam; 2011.

27. Minh BN, Anh N. Accessibility and Use of Contraceptives in Vietnam. Int Fam Plan Perspect. 1997;28(4):214–9.

28. World Health Organization (WHO). Abortion in Vietnam: An assessment of policy, programme and rearch issues. Geneva; 1999.

29. Locke C, Nguyen TNH, Nguyen TTT. The Institutional Context Influencing Rural-Urban Migration Choices and Strategies for Young Married Women and Men in Vietnam. Ho Chi Minh city; 2008.

30. General Statistics Office (GSO). Vietnam migration survey 2004. Hanoi: Statistical Publishing House; 2005.

31. Le ATK. Health and access to health services of rural-to-urban migrant populations in Viet Nam [PhD thesis]. Basel: Universität Basel; 2013.

32. Anh DN, Program SD, Tacoli C. Migration in Vietnam: A review of information on current trends and patterns and their policy implications. Hanoi; 2003.

33. National Institute of Hygiene and Epidemiology (NIHE), Family Health International 360 (FHI360), Vietnam Administration of HIV/AIDS Control (VAAC), Centers for Disease Control and Prevention (CDC), The United States Agency for International Development (USAID). The HIV/STI Integrated Biological and Behavioral Surveillance (IBBS) in Vietnam 2009. Hanoi; 2011.

34. Summerfield G. Economic Transition in China and Vietnam: Crossing the Poverty Line is Just the First Step for Women and Their Families. Rev Soc Econ. 1997;55(July 2015):201–14.

35. Duong LB, Linh TG. Social protection for rural-urban migrants in Vietnam : current situation, challenges and opportunities. Hanoi; 2010.

36. Nguyen TTT, Dang THL. Status of Sexual and Reproductive Health Care of Young Female Migrant Factory Workers in My Hao, Hung Yen province. Hanoi; 2012.

37. World Health Organization (WHO). Global incidence and prevalence of selected curable sexually transmitted infections. Geneva; 2008.

38. World Health Organization (WHO). Global strategy for the prevention and control of Sexually Transmitted Infections: 2006-2015. Sexually Transmitted Diseases. Geneva: World Health Organization; 2007.

39. United Nations Population Fund (UNFPA). Reproductive health for migrants - qualitative research in Quy Nhon, Binh Dinh. Hanoi; 2008.

40. Resurreccion BP, Khanh HT Van, Studies D, Luang K. Able to Come and Go : Reproducing. Wiley Intersci. 2007;224(December 2006):211–24.

41. Toyota M, Yeoh BS a, Nguyen L. Editorial introduction: Bringing the "left behind" back into view in Asia: A framework for understanding the "migration-left behind nexus." Wiley Intersci. 2007;13:157–61.

42. Dang NA. Cross-border migration and sexuality in Vietnam: Reality an policy responses. In: Cross-border mobility and sexual exploitation in the greater southeast Asia sub-region. Nakhon Pathom; 2006 p. 43–121.

43. National Assembly. Law on HIV/AIDS prevention and control No. 64/2006/QH11. Vietnam; 2006.

44. McLeroy K, Bibeau D, Steckler A, Glanz K. An ecological perspective on health promotion programs. Health Educ Q. 1988;15(4):351–77.

45. Larios SE, Lozada R, Strathdee S a, Semple SJ, Roesch S, Staines H, et al. An exploration of contextual factors that influence HIV risk in female sex workers in Mexico: The Social Ecological Model applied to HIV risk behaviors. AIDS Care. 2009;21(July 2015):1335–42.

46. Apostolopoulos Y, Sonmez S, Kronenfeld J, Castillo E, McLendon L, Smith D. STI/HIV risks for Mexican migrant laborers: Exploratory ethnographies. J Immigr Minor Heal. 2006;8(3):291–302.

47. Wirtz A, Zelaya C, Peryshkina A, Latkin C, Mogilnyi V, Galai N, et al. Social and Structural Risks for HIV among Migrants and Immigrants Men Who have Sex with Men in Moscow, Russia: Implications for Prevention. AIDS Care. 2014;26(3):387–95.

48. Pham TLL. Perception and practice of health service utilization for STIs/RTIs of female migrants aged 18-49 working at industrial zones in Long Bien, Hanoi [Master thesis]. Hanoi: Hanoi School of Public Health; 2012.

49. Bélanger D, Khuat TH. Single women's experiences of sexual relationships and abortion in Hanoi, Vietnam. Reprod. Health Matters. 1996; 7(14):71-82.

50. Lan PT. Sexually transmitted infections and other reproductive tract infections in rural Vietnam: Current situation, management and implications for control [PhD thesis]. Stockholm: Karolinska Institute; 2009.

51. Go VF, Quan VUM, Chung A, Zenilman JM, Moulton LH, Celentano DD. Barriers to Reproductive Tract Infection (RTI) care among Vietnamese Women: Implications for RTI Control Programs. Sex Transm Infect. 2002; 29(4):201-206.

52. Lan PT, Lundborg CS, Phuc HD, Sihavong a, Unemo M, Chuc NTK, et al. Reproductive tract infections including sexually transmitted infections: a population-based study of women of reproductive age in a rural district of Vietnam. Sex Transm Infect. 2008;84:126–32.

53. Anh PK, Thi N, Khanh N, Ha DT, Chien DT, Thuc PT, et al. Prevalence of Lower Genital Tract Infection Among Women Attending Maternal and Child Health and Family Planning Clinics in Hanoi. Southeast Asian J Trop Med Public Heal. 2003;34(2):367–73.

54. Syed HR, Dalgard OS, Hussain A, Dalen I, Claussen B, Ahlberg NL. Inequalities in health: a comparative study between ethnic Norwegians and Pakistanis in Oslo, Norway. Int J Equity Health. 2006;5:7.

55. Anh LTK, Hoang Vu L, Bonfoh B, Schelling E. An analysis of interprovincial migration in Vietnam from 1989 to 2009. Glob Health Action. 2012;5:1–12.

56. World Health Organization (WHO). Health of migrants: the way forward - report of a global consultation Madrid, Spain, 3-5 March 2010. Geneva: World Health Organization; 2010.

57. Le TKA, Pham TLL, Vu HL, Schelling E. Health services for reproductive tract infections among female migrant workers in industrial zones in Ha Noi, Viet Nam: an in-depth assessment. Reprod Health. BioMed Central Ltd; 2012;9(1):11.

58. National Committee for AIDS Drug and Prostitution Prevention and Control (NCADPPC). Vietnam AIDS response progress report 2014. Hanoi; 2014.

59. Deb AK, Deb M, Saha MK, Chakraborty S, Bhattacharya SK, Detels R. HIV transmission potential among local and migrant factory workers in Kolkata, India. AIDS Behav. 2009;13:928–38.

60. National Institute of Hygiene and Epidemiology (NIHE), Family Health International (FHI), Vietnam Administration of Control HIV/AIDS (VAAC), Centers for Disease Control and Prevention (CDC), The United States Agency for International Development (USAID). Results from the HIV/STI Integrated Biological and Behavioral Surveillance (IBBS) in Vietnam 2005 – 2006. Hanoi; 2006.

61. Le TKA, Pham TLL, Vu HL, Schelling E. Health service utilization for reproductive tract infections of female migrants aged 18-49 working at industrial zones in Long Bien, Ha Noi, 2011. Vietnam J Public Heal 10/2012. 2012;1(1):1–6.

62. Rushing R. Migration and sexual exploitation in Vietnam. Asian Pacific Migr J. 2006;15(4):471–94.

63. General Statistics Office (GSO). Survey Assessment of Vietnamese Youth (SAVY 2). Hanoi: Statistical Publishing House; 2010.

64. Anderson a F, Qingsi Z, Hua X, Jianfeng B. China's floating population and the potential for HIV transmission: a social-behavioural perspective. AIDS Care. 2003;15(July 2015):177–85.

65. Lau JT, Thomas J. Risk behaviours of Hong Kong male residents travelling to mainland China: a potential bridge population for HIV infection. AIDS Care. 2001;13(July 2015):71–81.

66. Ministry of Labour Invalids and Social Affairs (MOLISA), Vietnam Association of Manpower Supply (VAMAS), International Organization for Migration (IOM).

Preliminary report on the HIV/AIDS knowledge, attitude and practice of pre-departure overseas migrant workers. Hanoi; 2006.

67. National Assembly. Law on marriage and families No. 52/2014/QH13 Vietnam; 2014.
68. General Statistics Office (GSO). Survey Assessment of Vietnamese Youth (SAVY 1). Hanoi: Statistical Publishing House; 2005.
69. Grayman JH, Nhan DT, Huong PT, Jenkins R a., Carey JW, West GR, et al. Factors associated with HIV testing, condom use, and sexually transmitted infections among female sex workers in Nha Trang, Vietnam. AIDS Behav. 2005;9(1):41–51.
70. Center for Social Affair Activities, Federation of Labour in Ho Chi Minh city. Survey on knowledge, attitude, belief and practice on AIDS of workers in 3 seaports: Binh Dong, Tran Van Kieu and Sai Gon. Ho Chi Minh city; 1997.
71. Nguyen TTT. Sexual reproductive health and rights among ethnic minority young people in Quang Ninh province. Hanoi; 2013.
72. United Nations Population Fund (UNFPA). Socio-cultural influences on the reproductive health of migrant women. Hanoi; 2011.
73. Puri M, Cleland J. Assessing the factors associated with sexual harassment among young female migrant workers in Nepal. J Interpers Violence. 2007;22(11):1363–81.
74. Yang H, Li X, Stanton B, Fang X, Lin D, Mao R, et al. Workplace and HIV-related sexual behaviours and perceptions among female migrant workers. AIDS Care. 2005;17(July 2015):819–33.
75. Nguyen TN. Migrants and non-migrant domestic workers in Hanoi: the segmentation of domestic service, Working paper 22, DEV Working Paper Series. Hanoi; 2010. 33 p.
76. Hoang TTH, Nguyen TK, Hoang BT, Le TTBT, Giang TL, Pham TBN, et al. Internal female migrants in the arduous journey for opportunities. Hanoi; 2011.
77. Dang N, Luu N, Tran T, Hoang V. Mobility and HIV Vulnerability in Vietnam. Hanoi; 2008.
78. Vu THL. Barriers in accessing reproductive health services and current intervention models for female migrants. Vietnam J Public Heal. 2012;25(25):7.
79. The National Assembly. Labour Law. Law No. 10/2012/QH13 Vietnam; 2012.
80. Ngo AD, Alden DL, Hang N, Dinh N. Developing and Launching the Government Social Franchise Model of Reproductive Health Care Service Delivery in Vietnam. Soc Mar Q. 2009;15:71–89.
81. National Assembly. Labour Code No. 10/2012/QH13 Vietnam; 2012.
82. National Assembly. Law on registration No. 36/2013/QH13. Vietnam; 2013.
83. Ministry of Health (MoH) and Health Partnership Group. Joint Annual Health Review 2014. Hanoi; 2014.
84. Webber G, Spitzer D, Somrongthong R, Dat T, Kounnavongsa S. Facilitators and barriers to accessing reproductive health care for migrant beer promoters in Cambodia, Laos, Thailand and Vietnam: A mixed methods study. Globalization Health. 2012;8:21.
85. United Nations (UN). Internal Migration: Opportunities and challenges for socio-economic development in Vietnam. Hanoi; 2010.

86. Prime Minister Nguyen Tan Dung. National strategy on population and reproductive health for the 2011-2020 period - Decision 2013/QD-TTg. Vietnam; 2011.

87. Nguyen HN, Hardesty M, Hong KT. "I Am Tired But If I Don't Try to Have Sex, My Wife Will Think I've Been Fooling around in the City": Work, Migration, and Sex Among Vietnamese Migrant Laborers. J Sex Res. 2012;50(6):548–59.

88. Trieu TNT. Knowledge, use and perception of the emergency contraception pills among Vietnamese women in Ho Chi Minh City [Master thesis]. Uppsala: Uppsala University; 2012.

89. Prime Minister Nguyen Tan Dung. Decree on administrative punishment regarding population and children No. 114/2006/ND-CP. Vietnam; 2006.

90. Truong HA. Reproductive health of female migrant workers in Hanoi: Current situation and policy implications. Hanoi; 2009.

91. The National Assembly. Ordinance on Handling of Administrative Violations [Internet]. Ordinance No. 44/2002/PL-UBTVQH. Vietnam; 2002.

92. Prime Minister Nguyen Tan Dung. National Strategy on Gender Equality for the 2011-2020 period - Decision 2351/QD-TTg. Vietnam; 2010.

93. Deputy Prime Minister Nguyen Xuan Phuc. Decision on approving the national strategy on HIV/AIDS prevention and control through 2020 with a vision to 2030 No. 608/QD-TTg. Vietnam; 2012.

94. Vietnam Ministry of Health (MoH). National standards and guidelines for RH care services. Hanoi: Medical Publishing House; 2009 p. 313–44.

95. World Health Organization (WHO). A Framework for Implementing the Reproductive Health Strategy in the South-East Asia Region. New Delhi: WHO; 2008.

96. United Nations Development Programme (UNDP). HIV/AIDS & Mobility in South-East Asia. Bangkok; 2008.

97. Bekker LG, Johnson L, Cowan F, Overs C, Besada D, Hillier S, et al. Combination HIV prevention for female sex workers: what is the evidence? Lancet. 2014;385:72–87.

98. Decat P, Zhang W-H, Delva W, Moyer E, Cheng Y, Wang Z, et al. Promoting contraceptive use among female rural-to-urban migrants in Qingdao, China: A comparative impact study of worksite-based interventions. Eur J Contracept Reprod Heal Care. 2012;17(3):363–72.

99. Association of Southeast Asian Nations - ASEAN. ASEAN Declaration on the Protection and Promotion of the Rights of Migrant Workers [Internet]. Philippines; 2007 [cited 2015 Jul 25]. Available from: http://www.asean.org/communities/asean-political-security-community/item/asean-declaration-on-the-protection-and-promotion-of-the-rights-of-migrant-workers-3

100. Djamba Y, Goldstein S, Al E. Permanent and temporary migration in Viet Nam during a period of economic change. Asia – Pacific Popul J. 1999;14(3):25–48.

101. Deshingkar P. Internal Migration, Poverty and Development in Asia Internal Migration, Poverty and Development in Asia. Institute of Development Studies. 2006.

102. Le VT. Migrant workers and socio-economic impacts in Ho Chi Minh City. Ho Chi Minh city; 2006.

103. Maries Stopes International (MSI). Working to Improve the Reproductive Health of Men and Women in Viet Nam - Brochure. Hanoi; 2010.

104. Adidas group. Adidas: Corporate responsibility report 2007. Herzogenaurach, Germany; 2007.

105. Maries Stopes International (MSI). Advancing social and economic empowerment of female migrant workers through development and implementation of gender-sensitive initiatives. Hanoi; 2014.

106. Centre for Creative Initiatives in Health and Population (CCIHP). Project proposal: Promote rights to sexual and reproductive health for young mmigrant workers in Hanoi. Hanoi; 2014.

107. United Nations Population Fund (UNFPA). End-line Survey Report: Maternal and child health project in Binh Dinh province. Binh Dinh; 2008.

108. Department of Labour Invalids and Social Affairs of Can Tho province (DOLISA). Can Tho bridge project to health: project final narrative report. Can Tho; 2008.

109. HealthBridge Foundation of Canada. A Safe Return : Changing Attitudes and Traditions in Vietnam: Factsheet. Hanoi; 2008.

110. HealthBridge Foundation of Canada. A Safe Return : Changing Attitutes and Traditions in Vietnam: Final narrative report. Hanoi; 2008.

111. United Nations Entity for Gender Equality and the Empowerment of Women (UN Women). Annual Report 2012-2013 UN Women. New York; 2013.

112. Institute for Development and Community Health – Light institute. We are women – A rights-based approach to empowering migrants in Vietnam: Project introduction. Hanoi; 2013.

113. Institute for development and community health - Light institute. Interventions on sexual and reproductive health for migrants in Vietnam, 2000-2008. Hanoi; 2009.

114. Women's Union of Soc Trang province. Prevention of women trafficking and social problems - HIV/AIDS in Soc Trang province: Project proposal. Soc Trang; 2006.

115. Huong B. HIV prevention work reaches the streets [Internet]. 2011 [cited 2015 Jul 20]. Available from: http://vietnamnews.vn/society/218208/hiv-prevention-work-reaches-the-streets.html

116. President's Emergency Plan for AIDS Relief (PEPFAR) Vietnam team. Vietnam operational plan report: Financial year 2011. Hanoi; 2012.

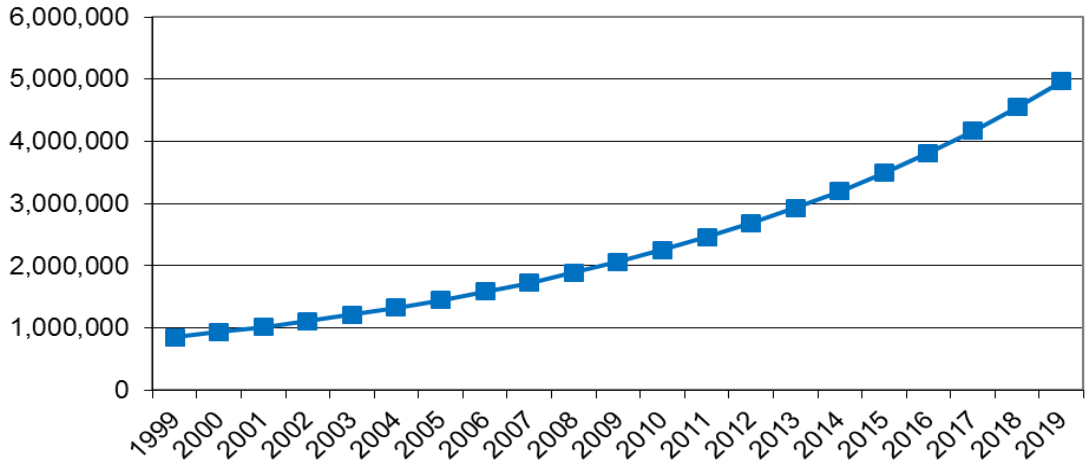
APPENDICES

Appendix 1: Migrant population in Vietnam

In Vietnam, internal migrants are categorized in two groups: organized migrants, who were directed and sponsored by the government, and spontaneous migrants. The first group migrated to another area because they lost their land due to natural disasters or public construction (for example a hydroelectricity dam) or voluntarily move to new economic zones after government encouragement. The second group are not organized by the government (100). In the beginning after the reform economic policy in Vietnam in 1986, when the government tried to promote economic growth, most migrants were organized migrants. However, in recent years, most internal migrants in Vietnam are spontaneous (101).

In recent decades, migration trends due to demand of the labour market have been increasing all over the world, from country to country as well as from one place to other places within a country (internal migration). Rapid urbanization and economic growth in many countries like Vietnam have created many opportunities and increasing demand of the labour market, leading to more internal migration. Migration from rural to urban areas has grown very quickly, which is shown in figure 6: migrants from rural to urban areas have been increasing rapidly in 10 years from 1999 and are expected to reach 5 million in 2019.

Figure 6. ***Migrant trend between rural to urban areas in the period 1999-2009 and projection to 2019 in Vietnam***



Source: Statistical handbook, General Statistics Office, 2014 (5)

In Vietnam, internal migration (both within and cross provinces) was estimated at about 6.7 million (about 6.5% of total population) in 2009; among them, migration among provinces within the country was approximately 3.4 million people (6). VT.Le estimated in research carried out in HCMC that 70% of workers in IPs and EPZs were migrants (102). The most important motivation for the migration is that income in Hanoi and HCMC can be 5-7 times higher than the income from doing farming in rural areas (42). In HCMC, 90% of the migrant workers were within the age group of 15-39 (102). In addition, around 58% of migrants completed secondary school education level and 15% were categorized as having very poor economic status (55).

Appendix 2. List of interventions models for female migrants in Vietnam

Code	Name of interventions, implementers, funders	Program location(s)	Time	Target population	Key program components	Results/ Outcomes
I	**Interventions for (female) migrant workers**					
P1	Improving the sexual and reproductive health among workers of Adidas supplier factories ***Implementer:*** Marie Stopes International (MSI) ***Funder:*** Adidas - Salomon Asia Regional Office (103) (104)	Ho Chi Minh city and Binh Duong province	2005-2008	(Migrant) workers	➢ Provide SRH information and services through a mobile clinic and RH clinic of MSI in the province ➢ Training on counselling skills on SRH and contraception for health staff of factory clinics ➢ Training for peer educators in factories about SRH ➢ Establishment of a referral system among factory clinics, drug stores, public and private clinics to increase the availability of SRH information for migrant workers in factories	➢ 118,000 RH services were provided for more than 52,000 turns of workers ➢ Involvement of 14 factories and 225 health facilities in the referal system ➢ Counselling skills of health staff of factory clinics and peer educators were significantly improved ➢ 600 peer leaders were trained and provided knowledge on SRH, including HIV/STI prevention for 47,000 workers ➢ Simultaneously pilot new financing mechanisms (e.g. service voucher) to encourage the target audience to access services at low cost.
P2	Photovoice - A participatory development project to improve the SRH status of migrant workers in Hanoi, Viet Nam ***Implementer:*** MSI ***Funder:*** World Bank (103)	Hanoi	2005-2006	Migrant workers	➢ Training for 20 migrants about SRH, HIV/STIs information and photography ➢ Technical support for migrants to take photos about their lives related to SRH ➢ Organization of a photo competition and exhibition of the best photos	Only completed activities were reported. No measurement of outcomes

Code	Name of interventions, implementers, funders	Program location(s)	Time	Target population	Key program components	Results/ Outcomes
P3	Advancing social and economic empowerment of female migrant workers through development and implementation of gender-sensitive initiatives ***Implementer:*** MSI ***Funder:*** European Union (105)	Binh Duong and Dong Nai provinces	2013-2015	Female migrant workers	➢ Training peer educators among female migrant workers ➢ Organization of "Health fair day for migrant workers" to provide SRH information and services ➢ Advocate for the establishment of gender-sensitive workplace policies, which include access to SRH information and services	The project is on-going. Only completed activities were reported. No measurement of outcomes
P4	Promote rights to SRH for young migrant workers in Hanoi ***Implementer:*** CCIHP ***Funder:*** Asian-Pacific Resource and Research Centre for Women (ARROW) (106)	Hanoi	2014-2015	Young migrant workers Leaders of enterprises	➢ Publishing articles and bulletins on Corporate social responsibility (CSR), which were related to SRH policy and legislation of Vietnam for workers ➢ Advocacy and technical support for developing enterprise policies, which integrate SRH and HIV/AIDS prevention into human resource policies ➢ Training for peer educators in factories about SRH ➢ Facilitation of discussion a corner about SRH rights for migrant young workers on facebook fanpage and website of CCIHP ➢ Mobilization of enterprises in advocacy for SRH rights for workers ➢ buy allocation budget for SHR activities	The project is on-going. Only completed activities were reported. No measurement of outcomes
P5	Providing SRH information for young migrants in Binh Dinh province (under project "Maternal and Child Health Project in Binh Dinh Province")	Binh Dinh province	2004-2008	Migrant workers	➢ Organization of promotional events to provide knowledge on SRH for young workers in the factories. ➢ Providing counselling on SRH directly in young-people-friendly corners in Youth Centre and through a free-phone number	➢ The project attracted more than 3000 local and migrant young workers participating in the promotional events about SRH. ➢ Number of requested phone call about SRH was gradually

Code	Name of interventions, implementers, funders	Program location(s)	Time	Target population	Key program components	Results/ Outcomes
	Implementers: UNFPA, People's committee of Binh Dinh province ***Funder:*** New Zealand Agency for International Development (NZAID) (107)					increased and young people appreciated the services.
P6	Can Tho bridge project to health ***Implementer:*** Care international – Vietnam ***Funder:*** Japan Bank for International Cooperation (JBIC) (108)	Can Tho province	2006-2008	Migrant workers	➢ Establishment and training for peer educators to provide information on HIV/STI prevention, condom promotion, communication and negotiation skills for mobile populations and migrant workers ➢ Organization of social clubs for migrants to discuss and share their concern about migrants' lives and information on HIV/STIs ➢ HIV/STI prevention forum on a provincial television broadcasting program with the involvement of local government, relevant stakeholders and representatives of migrants ➢ Large social events on HIV/STI prevention to improve awareness of community and raise migrants' voices	➢ By the end of the project, a network of peer educators and clubs was established and functioning regularly ➢ Awareness on HIV/STIs and practices of safe sex among migrants were significantly improved ➢ Some construction companies and mass organizations (women' union, youth unions) have integrated HIV/STI prevention into their regular activities
P7	RH care and HIV prevention for young workers in the private sector ***Implementer:*** RH Centres of provinces, Department of HIV/AIDS Prevention and the Viet Nam Trade Union ***Funder:*** UNFPA (78)	Binh Duong, Da Nang, Hai Phong, Nam Dinh	2002-2005	Young workers in private sector	➢ Training for peer educators in factories about SRH ➢ Providing information on RTIs/STIs and HIV prevention through peer educators network and IEC materials ➢ Advocating for factory leaders to understand the importance of SRH care for young workers and call for their involvement in SRH programs.	Only completed activities were reported. No measurement of outcomes.

Code	Name of interventions, implementers, funders	Program location(s)	Time	Target population	Key program components	Results/ Outcomes
II	**Interventions for freelance migrants**					
P8	A community house for migrant population in Ha Noi ***Implementer:*** Light institute ***Funder:*** World Concern (78)	Hanoi	2007-2010	Migrants	➢ Establishment a "community house" for freelance migrants to easily access information and services on SRH. It is located in areas where most migrants are most concentrated. ➢ Providing information on RTIs/STIs and HIV prevention through peer educators and a library for migrants	Only completed activities were reported. No measurement of outcomes.
P9	A Safe Return: Changing Attitudes and Traditions in Vietnam ***Implementer:*** Health Bridge, Department of Labour Invalid and Social Affairs of Thai Binh province ***Funder:*** Canadian International Development Agency (CIDA) (109) (110)	Thai Binh province	2006-2008	Female migrants	➢ Developing curriculum and conduct training on HIV/STI prevention (knowledge, skills for safe sex, rights) for (potential) female migrants ➢ Conducting training of trainers (ToT) on HIV/STI prevention for staff of labour-exporting companies and vocational centres ➢ Writing and publishing booklets and articles on magazines for migrants about HIV/STI prevention to disseminate information to female migrants ➢ Conducting research on the impact of migration of migrants' families and status of the labour market and vocational trainings. ➢ Strengthening dialogues between local government and labour companies, vocational centres for better management of migrants and encouragement for integrating HIV/STI prevention in pre-departure sections of these companies	➢ 103 training courses was conducted for 6 labour companies and vocational training centres for 2,459 (potential) female migrants ➢ Knowledge of female migrants was improved ➢ Teaching skills of trainers from ToT were significant improved ➢ Local governments paid more attention to health issues of migrants rather than only economic aspects ➢ Local media (television, radio, newspaper) expressed its concern by widely publishing information on HIV/STIs and other information related to female migrants ➢ A list of trusted labour companies and vocational training centres was developed and disseminated to migrants ➢ 6 vocational training centres planned to integrate HIV/STI

Code	Name of interventions, implementers, funders	Program location(s)	Time	Target population	Key program components	Results/ Outcomes
						prevention into their curriculums
P10	We are women – A rights-based approach to empowering migrants in Vietnam ***Implementer:*** Institute for Development and Community Health – Light ***Funder:*** UN Women (111) (112)	Hanoi, Nam Dinh, Thai Binh, Thanh Hoa	2013-2015	Female migrants	➢ Trainings for migrants on SRH, social services related to migrants that apply right-based approach ➢ Providing counselling, health services and legal support for migrants ➢ Supporting the migrants in buying health insurance ➢ Providing information and emotional support for migrants' families about home and destination places	The project is on-going. Only completed activities were reported. No measurement of outcomes
P11	RH information and services for migrants, 7th Cycle ***Implementer:*** General Office for Population Family Planning (MoH), Institute for development and community health (Light) ***Funder:*** UNFPA (113)	2007-2009	HCMC, Hanoi	Migrants	➢ Developing and disseminating IEC materials for migrants on STIs/HIV prevention ➢ Providing referral cards about relevant health facilities' locations and SRH services for migrants ➢ Raising awareness for healthcare workers in both public and private health facilities and drug stores in the locations to sensitize SRH issues of migrants.	Only completed activities were reported. No measurement of outcomes.
P12	Training Catholic female migrants in ha noi on gender, family and RH issues and HIV prevention ***Implementer:*** Research Centre for Gender, Family and	Hanoi	2008-2009	Female migrants	➢ Raising awareness of Catholic female migrants about their SRH rights, gender equity, and STIs/HIV prevention though training in the evenings at a church. ➢ Developing and disseminating IEC materials for migrants on STI/HIV prevention	Only completed activities were reported. No measurement of outcomes.

Code	Name of interventions, implementers, funders	Program location(s)	Time	Target population	Key program components	Results/ Outcomes
	Environment in Development (CGFED) ***Funder:*** World Bank (113) (72)					
III	**Interventions for high-risk migrants**					
P13	Prevention of women trafficking and social problems - HIV/AIDS in Soc Trang province ***Implementer:*** Women's Union of Soc Trang province ***Funder:*** The Embassy of Finland (114)	Soc Trang province	2006-2008	(Potential) female migrants	➢ Training on HIV/STI prevention (knowledge, skills for safe sex, rights) for (potential) female migrants ➢ Integrating HIV/STI prevention into regular meetings of the women' union and community meetings ➢ Publishing booklets and articles on local loudspeaker system to raise awareness of community and (potential) female migrants about HIV/STI prevention and other issues of migration ➢ Raising a microcredit fund for poor women or migrant women after going back home.	Only completed activities were reported. No measurement of outcomes.
P14	HIV/AIDS prevention for street - children and youth in Hanoi ***Implementer:*** Save the children United States ***Funder:*** USAIDS (113) (115)	7 provinces (Hanoi, Quang Ninh, Hai Phong, Nghe An, HCMC, Can Tho and An Giang)	2006-2010	Street children and youth (informal migrants)	➢ Training for peer educators among street children/youth about HIV prevention ➢ Establishing clubs to provide information on street life, gender, STIs, HIV/AIDS, condoms, and drugs ➢ Developing and disseminating a list of vocational centres, voluntary counselling and testing (VCT) clinics, and health clinics with reasonable prices or free for street children	➢ By the end of the project, around 500 peer educators were trained and provided information for more than 60,000 street children and youth. The beneficiaries increased gradually. ➢ The project has raised awareness on HIV/STI prevention for street children and youth and facilitated them to access health services ➢ Some vocational schools have promulagated a decision to integrated HIV intervention into their regular activities

Code	Name of interventions, implementers, funders	Program location(s)	Time	Target population	Key program components	Results/ Outcomes
P15	HIV intervention (including STIs) for FSWs ***Implementers:*** Departments of HIV/AIDS prevention of provinces, NGOs ***Funders:*** Government and donors, in which big donors are President's Emergency Plan for AIDS Relief (PEPFAR – The United States of America), the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) and The World Bank (WB) (15) (116)	Whole countries (especially 28 key provinces)	2002-up to now	FSWs	➢ Establishing peer educators to provide information and condoms to FSWs as well as encourage FSWs to access voluntary counselling and testing, antiretroviral therapy treatment. There were some models of clubs (Ex: "Far away from home" club in Can Tho province), self-help groups and coffee shops (Ex: "Condom coffee shop" in HCMC) for FSWs to provide information and HIV and STIs rapid test with free of charge and encourage them to access health facilities when needed. ➢ Training health workers about non-judgment attitude towards high-risk population. ➢ Specifically, the "100% condom use program" requires all sexual acts at entertainment establishments have to use of condoms.	There are various results depending on each projects. ➢ Integrated Behavioural and Biological Surveys (IBBS) in 2009 showed that 92% FSWs reported to use condoms when they have sex with their most recent clients in 2013. ➢ The successful implementation of this program also demonstrated a collaborative effort among local authorities, public health specialists, NGOs, etc.