The Content and Implementation of Policies and Programs on Adolescent Sexual and Reproductive Health in Vietnam: Results and Challenges

Hoang Khanh Chi¹, Hua Thanh Thuy¹, Luu Thi Kim Oanh¹, Tran Quynh Anh¹, Nguyen Duc Vinh², Nghiem Thi Xuan Hanh² and Nguyen Thanh Huong¹

¹Hanoi University of Public Health, Hanoi, Vietnam. ²Maternal and Child Health Department, Ministry of Health, Hanoi, Vietnam.

ABSTRACT: In Vietnam, great efforts have been made in sexual and reproductive health (SRH) information provision, education, communication, as well as service provision for the adolescent and youth (A&Y) over the last 10 years. This paper aimed to examine the content and implementation of SRH policies for A&Y between 2006 and 2017. Case studies were conducted, including interviews and historical documentation. Qualitative data were collected in Hai Duong, Hue, and Dong Thap provinces through 34 in-depth interviews with representatives of central/provincial agencies and 9 focus group discussions with representatives of communal agencies and beneficiaries. SRH policies for A&Y during 2006 to 2017, along with other related national policies, were developed cohesively, however, the gaps in information provision, education, communication as well as service provision remained unresolved. The contents of policies and program implementation did not cover comprehensively, especially regarding disadvantaged groups such as disabled people, migrants, ethnic minorities, and people aged 10 to 14 years. The A&Y SRH policies and program implementation had faced some challenges relating to governance, service delivery, health workforce, health information system, and health financing. The SRH policy for A&Y in the next period needs to be focused on interventions/services for disadvantaged groups. While the human resource is of great importance for the capacity and feasibility to tackle SRH’s challenges, strengthening the advocacy to ensure policies/programs should be prioritized and committed for effective implementation. An appropriate financing system to run information provision, education, communication, and support services for A&Y must be considered during policy development and implementation.

KEYWORDS: Adolescent, youth, sexual and reproductive health, implementation of policy, Vietnam

Introduction

Sexual and reproductive health (SRH) is one of the important factors that are crucial to the healthy physical and mental development of the adolescent and youth (A&Y); the growth in A&Y population presents opportunities for nations with healthy, educated workforces to potentially shape a country’s economic prospects.¹ As A&Y period is characterized by series of physiological, psychological, and social changes that expose them to unhealthy sexual behaviors such as early sex experimentation and unsafe sex.¹ These put them at high risk of SRH problems, including early marriage, teenage pregnancies, unsafe abortion, sexually transmitted infections (STIs), and HIV/AIDS.²

Vietnamese government’s commitment to addressing the issues affecting A&Y is demonstrated by the fact that the country has signed several international human rights treaties and declarations. These include the Convention on the Rights of the Child in 1990, Program of Action of the International Conference on Population and Development (ICPD) in 1994, the Millennium Development Goals in 2000, and the Sustainable Development Goals in 2015. In Vietnam, A&Y SRH issues are mentioned in the various legislative and policy frameworks. The key documents include the Law on Protection, Care and Education for Children,³ Youth Law,⁴ Marriage and Family Law,⁵ the Vietnamese Youth Development Strategy 2011 to 2020,⁶ National Population and Reproductive Health Strategy 2011 to 2020,⁷ and the National Plan of Action on Adolescence Health in the period of 2006 to 2010 with orientation to 2020.⁸

Although the Ministry of Health of Vietnam (MOH) and other stakeholders including the Ministry of Education and the Labour Union have made great efforts in information provision, education, communication, and service provision, A&Y’s knowledge and skills on SRH are limited; SRH education has not been implemented at a large scale; the provision of information and friendly services on SRH has not met the A&Y’s diverse needs.²,⁹ A number of A&Y’s situations including early sexual intercourse, unsafe sex, unwanted pregnancy, unsafe abortion, and risks of sexually transmitted diseases (STDs) have not been improved, especially in rural and remote areas, in industrial parks,¹⁰ and disadvantaged groups.²,¹⁰

In response to the challenges and changes of Vietnam’s A&Y population and socio-economic situation, and to contribute to achieving Vietnam Sustainable Development Goals and Agenda 2030¹¹ policies and programs on adolescent and youth sexual and reproductive health (AYSRH) over the past 10 years need to be reviewed and analyzed. This paper aims to examine the content
and the implementation of selected policies and programs on AYSRH in the period of 2006 to 2017 for further development of appropriate recommendations on AYSRH.

Methods
Case studies were conducted, including interviews and historical documentation. The study was conducted from June to December 2018.

Historical documentation
Historical documentation focused on policies and program documents in the period from 2006 to 2017. All types of national policies and policy documents were sought through webpages of and directly from the Government, Ministries, and Legal Library (https://thuvienphapluat.vn/). Laws, Circulars, Action Plans, Strategies, Guidelines, and so on being issued from 2006 to 2017 were all included. The search of materials regarding programs and interventions (monitoring and evaluation reports, administrative records) was expanded through general internet search using Google and targeted searches of organizations’ webpages such as: World Health Organization (WHO), United Nations Population Fund (UNFPA), United Nations Children’s Fund (UNICEF), and other international/local non-governmental organizations (NGOs). The materials, especially for those unpublished, were collected by direct contact with the Maternal and Child Health Department (MCH)—MOH and key informants.

All policy documents collected were analyzed using a content analysis approach. Themes for the content analysis were generated by the United Nations Educational, Scientific, and Cultural Organization ( UNESCO).

Interviews
Ninety participants consented to participate in 34 in-depth interviews and 9 focus group discussions (IDIs and FGDs).

The health care system of Vietnam is organized in a 3-level system, led by the MOH which formulates and executes health policy and programs in the country. At provincial level, 63 departments of health operate under management of the MOH and the Provincial People’s Committee. The primary level includes district health centers, commune health stations, and village health workers. Participants were categorized in groups representing different sectors (health, labor, and education), they are health service providers, policymakers, local stakeholders at the central, provincial, and primary levels in accordance with 3 levels of health system. Beneficiaries are A&Y in schools, factories, and communities.

Data collection and data analysis. The consultant team conducted all IDIs and FGDs based on semi-structured guidelines. Each IDI took approximately 45 to 60 minutes, and each FGD took around 60 to 90 minutes. All interviews were audio-recorded, then transcribed and coded for thematic analysis. NVivo 12 was used for data analysis. We employed the WHO’s6 6 building blocks of health system, including (1) governance; (2) service delivery; (3) health workforce, (4) health information system, (5) health financing, and (6) access to essential medicines to analyze the related challenges to the implementation programs and policies on AYSRH.

Ethical considerations
Research ethic approval for this review was issued by the Research Ethics Committee of Hanoi University of Public Health, Vietnam (Ethics Approval No. 481/2018/YTCC-HD3).

Results
The content analysis of policies and programs on AYSRH in the period from 2006 to 2017

AYSRH policies in the period from 2006 to 2017 were built in a cohesive and well-integrated manner with national policies for health and related areas: The policy content for the AYSRH policies were in alignment with the previous and existing legal documents. Take examples Law on Protection, Care and Education for Children (2004), Youth Law (2005), and the Decrees under these Laws. At the national level, the AYSRH was reflected in the sectoral policies. Their scopes varied to their sectorial home but fairly synchronized. At provincial and municipality levels, selected documents on AYSRH have been issued documents in line with the national policy on AYSRH and goals set depending on actual local situations.

The policy framework for AYSRH was fairly complete and comprehensive. In general, the policy environment in Vietnam enabled the AYSRH information and services provided over the past 10 years. Health in general and AYSRH, in particular, was considered an important factor to the country’s development and were an objective of the human development strategy of Vietnam’s Government and the Communist Party. A number of main contents of AYSRH have been mentioned in the system of legal documents at all levels in the 2006 to 2017 period depending on the functions and priority areas of ministries and agencies. These contents cover the main aspects of AYSRH including gender equality and gender sensitivity (see Tables 1 and 2).

The results of document review as well as IDIs/FGDs indicated some challenges and shortcomings in policies on AYSRH, as follows:

Firstly, Vietnam has not had a separate and comprehensive strategy/plan on AYSRH, but only integrated into policies, strategies, general plans on A&Y, population, and reproductive health (RH). “... The problem here is that there should be stronger and more specific regulations on AYSRH in particular.” (IDI—Representative of MOH).

In addition, legal documents and action plans related to AYSRH have not covered disadvantaged groups such as the disabled, migrant, ethnic minorities, and people aged 10 to 14 years. Policies content analysis shows the gaps as presented in Box 1:
Table 1. Main contents on AYSRH in the system of legal documents.

| NAME OF DOCUMENT                                                   | TYPE OF DOCUMENT | CONTENT                                                                                                                                                                                                 |
|-------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Guidance on implementing several articles of the Youth Law        | Decree (120/2007/NĐ-CP\textsuperscript{15} and 78/2017/NĐ-CP\textsuperscript{14}) | Reproductive health care and sexual abuse prevention: Adolescents aged from 16 to under 18 reserves the right to be instructed and provided with SRH knowledge; to be able to receive free counseling on mental health, SRH, HIV/AIDS, and STIs prevention. |
| Children Law                                                      | Law (102/2016/QH13\textsuperscript{16}) | Rights to be protected from sexual abuses: children (who are under 16 years old) reserve the right to be protected from any types of sexual abuse.                                                            |
| Population mission in the new situation                          | Resolution (No. 21-NQ/TW)\textsuperscript{17} | Improving A&Y knowledge and attitudes and behaviors of SRH                                                                                                                                                  |
|                                                                   |                  | Limiting the number of unplanned pregnancies cases in A&Y                                                                                                                                                 |
|                                                                   |                  | Strengthening the network of providing family planning (FP) and RH services.                                                                                                                                |
|                                                                   |                  | Developing the logistics system of contraceptives.                                                                                                                                                         |
| The national plan of action on A&Y health in the period of 2006 to 2010 orientation to 2020 | Decision (2010/QĐ-BYT\textsuperscript{18}) | Improving access to quality healthcare services, especially those related to SRH, HIV/AIDS, and STIs prevention                                                                                              |
|                                                                   |                  | Limiting the number of unplanned pregnancy cases and HIV/AIDS infection among A&Y.                                                                                                                        |
| The behavior change communication strategy on population, RH and FP in the period of 2006 to 2010 | Decision (No. 4620/QD-BYT/QD-DSGĐTE\textsuperscript{19}) | Improving knowledge and life skills regarding population, RH, and FP.                                                                                                                                      |
|                                                                   |                  | Promoting the involvement of A&Y and FP/RH service providers in policies/programs planning/design/implementation.                                                                                         |
|                                                                   |                  | Assign a key role to the education sector in the delivery of SRH content for A&Y inside and outside of school                                                                                               |
| Instructions on providing friendly healthcare to A&Y             | Decision (4617/QD-BYT\textsuperscript{20}) | The instruction specified definitions, regulations, standards of healthcare centers at all levels in order to provide friendly healthcare to A&Y.                                                              |
| Strengthening HIV/AIDS prevention in education sector           | Directive (61/2008/CT-BGD&ĐT\textsuperscript{21}) | Strengthening education on HIV/AIDS preventions and anti-discrimination for people infected and/or affected by HIV for in-school A&Y.                                                                    |
|                                                                   |                  | Integration of HIV in the formal curriculum and extra-curricular activities.                                                                                                                              |
| National guidance on reproduction healthcare services            | Decision (4620/QD-BYT\textsuperscript{22} and 4128/QD-BYT\textsuperscript{23}) | Improving knowledge and life skills and behavior regarding RH including gender and sexual abuse.                                                                                                             |
|                                                                   |                  | Emphasizing the need for RH services including counseling                                                                                                                                                   |
|                                                                   |                  | Improving friendly healthcare services for A&Y                                                                                                                                                            |
| Population and reproduction Healthcare of Vietnam in the period of 2011 to 2020 | Decision (2013/QD-TTg\textsuperscript{24}) | Increasing the number and improving the quality of adolescents-and-youth-friendly RH service providers                                                                                                   |
|                                                                   |                  | Decreasing the proportion of unplanned pregnancy in Renovating the network of providing population and reproductive health care services.                                                               |
|                                                                   |                  | Developing and completing the logistics system of contraceptives.                                                                                                                                          |
|                                                                   |                  | Expanding the provision of pre-marriage counseling and health examination services.                                                                                                                        |
|                                                                   |                  | Expanding the provision of prenatal and neonatal screening services.                                                                                                                                     |
| Professional guidance on pre-marriage counseling and health examination | Decision (25/QD-BYT\textsuperscript{25}) | Focuses on pre-marriage men and women (including A&Y).                                                                                                                                                     |
|                                                                   |                  | Improving the quality of pre-marriage counseling and health examination services.                                                                                                                          |
| Vietnam youth development strategy in the period of 2011 to 2020  | Decision (2474/QD-TTg\textsuperscript{26}) | Improving knowledge, life skills about RH, gender equality for young people                                                                                                                                    |
|                                                                   |                  | There are no specific vulnerable youth groups mentioned in this strategy.                                                                                                                                   |
| Regulations on functions, missions, authority, and organizational structure of provincial reproduction healthcare center | Circular (59/2015/TT-BYT\textsuperscript{27}) | Assigns a key role to provincial reproduction healthcare center in delivery of SRH services (including counseling) at provincial level.                                                                 |
| Set of indicators for Vietnamese youth                           | Decision (158/QD-TTg\textsuperscript{28}) | The proportion of the youth who has been given reproduction and sexual information and healthcare services                                                                                                  |
|                                                                   |                  | Adolescent/youth birth rate.                                                                                                                                                                            |
### Table 2. Summary of content analysis in AYSRH policies in Vietnam.

| CONTENT                                                                 | AVAILABILITY                                                                 |
|------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 1. Assigns a key role to the education sector in the delivery of SRH knowledge | X                                                                            |
| 2. Assigns a key role to the healthcare sector in the delivery of SRH services | X                                                                            |
| 3. Puberty education/family life education                              | X                                                                            |
| 4. Sexual education                                                    | X                                                                            |
| 5. Pregnancy prevention                                                | X                                                                            |
| 6. Focuses on HIV and AIDS                                             | X                                                                            |
| 7. Focuses on STIs                                                     | X                                                                            |
| 8. Focuses on SRH                                                      | X                                                                            |
| 9. Gender issues, including sexual abuse                               | X                                                                            |
| 10. Focuses specifically on sexual abuse                               | X                                                                            |
| 11. Emphasizes information/knowledge                                   | X                                                                            |
| 12. Youth-friendly services (including counseling)                     | X                                                                            |
| 13. Life skills approach                                               | X                                                                            |
| 14. Community/parent involvement                                       | X                                                                            |
| 15. A&Y involvement in program planning                               | X (behavior change communication program only)                              |
| 16. Target specific groups                                             | X (not covered disadvantaged groups such as the disabled, migrant, ethnic minorities, and people aged 10-14 years) |
| 17. Adolescents                                                       | X (aged from 10 to 18)                                                       |
| 18. Target in-school youth                                            | X                                                                            |
| 19. Target out-of-school youth                                         | X                                                                            |
| 20. Focus on specific girls (teenage, young mothers)                   | X                                                                            |
| 21. Refers to levels of education                                      | X (primary only)                                                            |
| 22. Integration in the formal curriculum                               | X (HIV/AIDS only)                                                           |
| 23. Integration in the non-formal curriculum                           |                                                                               |
| 24. Train teachers/build capacity                                      | X                                                                            |
| 25. Stigma/discrimination                                              | X (HIV/AIDS only)                                                           |
| 26. Includes peer education as a strategy                              | X (HIV/AIDS only)                                                           |
| 27. Safety nets                                                        |                                                                               |
| 28. Refers to the role of different sectors/actors                     | X                                                                            |

### Box 1. Gaps in A&Y SRH relevant policies’ content in Vietnam.

The content of relevant policies showed a number of differences between domestic and international documents. For example, the international policies do not require third-party approval for adolescents to access SRH services (abortion service) while the Vietnam National guidelines on RH require all abortion services for those under 18 years old with the consent of a guardian (parent, spouse, etc.). The age of adolescence being 10 to 18 as prescribed in documents in Vietnam was not inconsistent with international guidelines (10 to 19 years).

Comprehensive sexuality education has not been mandatory (at least in the extra-curricular programs) in school settings.

There have been no specific plans and guidelines on the expansion of the implementation of gender equality and—sensitivity in AYSRH, and to create a favorable environment for SRH at both central and local levels.

Guidance on service provision for the disadvantaged groups was insufficient and unspecified.

There is an existing inconsistency in policy documents related to AYSRH even within a province.
The Implementation Analysis of Policies and Programs on AYSRH in the Period From 2006 to 2017

Some implementation results of programs/interventions on AYSRH

In the past 10 years, the health system has provided a number of adolescent-friendly SRH programs, based on national guidelines issued in 2009 and 2016. Table 3 summarizes key information about the level of performance, including programs/interventions contents; methods of implementation; implementation settings; age and gender of target objects; and level of performance based on document review and interviews with stakeholders.

The primary goal of policies, programs, and interventions on AYSRH is “to improve AYSRH.” Table 4 summarized results of programs/interventions on AYSRH in the period from 2006 to 2017:

The indexes in Table 4 have demonstrated the improvement on A&Y SRH over time. However, the implementation of programs/interventions on AYSRH is often slower than requirements. Results of the survey and assessment of the stakeholders show that activities and achievements have not met the increasing demand of A&Y: “... over the 10 years, we [SRH service providers for A&Y] have been taken a step ahead but still not met the demand” (IDI - representative of NGOs). Strategies, schemes, and plans have been set specific targets but there were not an appropriate system monitoring and collecting regular data, so there is not enough evidence to accurately quantify the results of implementing the goals on SRH of these policies and programs/interventions for A&Y.

Challenges in Implementing Policies and Programs on AYSRH

Challenges relating governance

Results of interviews with stakeholders as well as document review showed that the commitment of leaders and the priority level is still quite limited for AYSRH. For example, in the Youth development strategy, youth employment is the main priority; in RH issues, maternal mortality and MCH are always top priorities—“the budget has been cut, and in the period before 2015, the focus was achieving the Millennium Development Goals, especially the reduction of maternal mortality and child mortality, A&Y issues were limited” (IDI—Representative of the provincial RH center).

In addition, changes in the period from 2006 to 2017 on the organizational structure of the health system—separation and integration of preventive health centers and district hospitals, merging provincial preventive units with CDC, were challenges for the implementation of the master plan in particular and the policies and programs on AYSRH in general.

Most of the stakeholders stated that the interdisciplinary coordination mechanism in the state management of AYSRH service provision has not been effective. The reason was that there were no specific and clear mechanisms and plans on interdisciplinary coordination and information exchange. The coordination usually depended on the relationship among leaders of relevant departments and agencies—“... we worked with the education sector, like some schools, and with the Youth Union, which was based on the necessity and personal relationships rather than having a clear mechanism” (IDI—Representative of provincial RH center).

Moreover, lack of tools and limitations in monitoring and evaluation the policy/program implementation, lack of specific and clear mechanisms to facilitate mobilizing the effective participation of the private sector and non-governmental organizations (NGOs), and ineffective coordination and cooperation among relevant agencies (loose and unsustainable) were mentioned in IDIs and GDs as challenges in implementing programs in AYSRH.

Challenges relating to the health workforce

As stakeholders’ confirmation, the lack of human capacity of AYSRH is a major challenge in implementing policies and programs: “there is not enough workers or capacity, etc., every tool or guideline is available, but the human resource in the system is still not ready for policy implementation” (IDI—representative of an international organization).

There has been no in-depth training staff in the field of AYSRH in the health system. Although training courses on AYSRH, especially the youth-friendly service model, were implemented, the training time was short and inadequate to change the health workers’ attitude of service provision on AYSRH. In particular, the period from 2010 until now, training for health workers on AYSRH has not been done enough and varied in different provinces depending on the local situation. For example, in Hai Duong, since 2009, there has been almost no or just a combination of some training courses for health workers on essential intra-natal and post-natal healthcare for mothers and infants, which mainly relied on the central funding.

Human resources for AYSRH education activities at schools were also limited because of significant changes in the management model of secondary and high schools. Positions in schools including medical staff were also determined based on the job placement scheme and tended to be reduced.

Challenges relating to the health financing system

Limited funding sources for AYSRH service provision have been always an existing problem. All of the information collected from reports and interviews with stakeholders showed that there was no separate central government budget for local programs on AYSRH, but it was structured from the budget for general RH programs which has been increasingly limited while the support of international organizations for reproductive healthcare in general and AYSRH, in particular, has been decreasing.
Table 3. Level of implementations of programs/interventions on AYSRH in the period from 2006 to 2017.

| CONTENTS                                         | KEY INFORMATION                                                                 | LEVEL OF PERFORMANCE |
|-------------------------------------------------|---------------------------------------------------------------------------------|----------------------|
| The specific contents of programs/interventions  | *Education and communication                                                   | ++                   |
|                                                  | - Adolescent physiological characteristics                                       |                      |
|                                                  | - The difference between friendship and love                                    |                      |
|                                                  | - Sex before marriage                                                           |                      |
|                                                  | - Safe sex conducts (contraceptive methods, especially emergency contraception). |                      |
|                                                  | - Handling unwanted pregnancy                                                   |                      |
|                                                  | - Handling sexual desires due to being stimulated by watching movies, or by actively/passively using recreational drugs. |                      |
|                                                  | - Homosexual sex, same-sex marriage                                            |                      |
|                                                  | - HIV/AIDS prevention                                                           |                      |
|                                                  | - The issue of child marriage and inbreeding marriage                           |                      |
|                                                  | - Legal policies related to population and RH - FP activities; maternity regimes; knowledge about reproductive healthcare and mobilize young workers to check pre-marriage health; no sex selection at birth; prenatal and neonatal screening; prevention of STIs. |                      |
|                                                  | *Increase accessibilities of services                                           | ++                   |
|                                                  | - Testing HIV and STIs                                                          |                      |
|                                                  | - Contraceptives                                                                |                      |
|                                                  | - Gynecological examination                                                     |                      |
|                                                  | - Counseling on sexual and reproductive health topics, pre-marriage counseling  |                      |
| Solution/methods of implementation               | *Communication, skills education at school                                       | ++                   |
|                                                  | - Exchange ideas with experts                                                   |                      |
|                                                  | - Educational games, plays, knowledge examinations                              |                      |
|                                                  | - Consulting                                                                    |                      |
|                                                  | - Chamber of communication on sexual and reproductive health at schools         |                      |
|                                                  | - Student’s sexual and reproductive health club                                 |                      |
|                                                  | - Discussion groups                                                             |                      |
|                                                  | - “Puberty program” for grades 6, 7 and parents; and “Peer education program” for grades 8 to 12. |                      |
|                                                  | - Building and testing: A guide for teachers to integrate the content of education of the population and reproductive health into Geography, Biology and Citizen Education (2006-2010) |                      |
|                                                  | - Building and testing: “Gender education, gender equality in adolescent RH care for high school students through extra-curricular educational activities” (2012-2015) |                      |
|                                                  | *Communication in community                                                     | ++                   |
|                                                  | - Adolescent club; Mother-Child club, Pre-Marriage club                         |                      |
|                                                  | - Online/telephone consultation/hotline                                          |                      |
|                                                  | - Broadcasting                                                                  |                      |
|                                                  | - Educational films                                                             |                      |
|                                                  | - Skits                                                                         |                      |
|                                                  | - Distributing communicational products                                         |                      |
|                                                  | - Improve the capacity of the involving parties; young people selling condoms at household |                      |
|                                                  | *Provisions of health counseling and examination services at industry parks:   | ++                   |
|                                                  | - “Your health” model                                                           |                      |
|                                                  | - Establishing clubs of peer educators in factories to organize educational games to communicate about RH issues. |                      |
|                                                  | - Doing advocacy related to population and RH and FP, maternity regime, knowledge of RH and mobilize young workers to check pre-marriage health; avoid prenatal sex selection, prenatal and neonatal screening, STIs prevention. |                      |
|                                                  | *Provide friendly healthcare service                                            |                      |

| Implementation settings                          | Secondary and high schools                                                      | ++                   |
|                                                  | Colleges, universities                                                          | ++                   |
|                                                  | Vocational school                                                              | +                    |
|                                                  | Firms, Industrial zones                                                         | +                    |

(Continued)
Table 3. (Continued)

| CONTENTS                          | KEY INFORMATION                                   | LEVEL OF PERFORMANCE |
|-----------------------------------|---------------------------------------------------|----------------------|
| Communities                       |                                                   | ++ +                 |
| Major cities: Hanoi, HCM City, Da Nang, etc. |                                                   | ++ +                 |
| Provinces with the highest rate of sex imbalance at birth (Hung Yen, Hai Duong, Bac Ninh, Bac Giang, Nam Dinh, Hoa Binh, Hai Phong, Vinh Phuc, Quang Ninh, Quang Ngai) |                                                   | ++                   |
| Industrial zones of several provinces (An Giang, Long An, Binh Duong, Nam Dinh, Thai Nguyen, etc.) |                                                   | ++                   |
| Mountainous and central provinces with many areas in difficulties (Dien Bien, Lao Cai, Bac Kan, Cao Bang, Quang Binh, etc.) |                                                   | +++                  |
| Characteristics of target groups  |                                                   |                      |
| High school: 15 to 18 years old    |                                                   | +++ + +              |
| Secondary school: 11 to 14 years old |                                                   | +                    |
| A&Y in communities                |                                                   | ++ +                 |
| Youth working at industrial zones  |                                                   | +                    |
| Young students at universities, colleges, vocational schools |                                                   | +                    |
| Ethnic minority                   |                                                   | ++                   |
| Other vulnerable A&Y: migrant, disable, etc. |                                                   | +                    |
| Female                            |                                                   | +++ + +              |
| Male                              |                                                   | +++                  |
| Other target groups               |                                                   |                      |
| Medical Staff                     |                                                   | ++                   |
| Teacher                           |                                                   | ++                   |
| Parents of A&Y                    |                                                   | +                    |

Level of performance: (+), very few; (++), few; (+++), common; (++++) quite common.

Table 4. Summary of index changes in AYSRH.

| NO. | INDEX                                                                 | RESULTS                                                                 |
|-----|------------------------------------------------------------------------|------------------------------------------------------------------------|
| 1   | A&Y’s knowledge of pregnancy (fertile days): increased, but still low | Female: 18.0%; male 7.0% (in 2010)25                                    |
|     |                                                                        | Female: 22.1%; male 12.8% (in 2017)2                                    |
| 2   | Rate of adolescent pregnancy over total pregnancy: reduced            | 2.6% (49,208/1,858,036) (in 2016)26                                      |
|     |                                                                        | 2.4% (45,102/1,845,059) (in 2017)26                                      |
| 3   | Rate of adolescent abortion over total abortion: reduced              | 2.2% (in 2010)26                                                        |
|     |                                                                        | 1.45% (over 9months of 2017)26                                           |
| 4   | Age specific fertility rate among female adolescents (15-19years)    | 45 births/1000 women (in 2014)27                                       |
|     | (ASFR): significantly reduced                                        | 23 births/1000 women (in 2017)2                                        |
| 5   | Unmet needs for modern contraceptives: reduced                        | 35% of woman aged 15-24 (in 2014)27                                      |
|     |                                                                        | 29.6% of women aged 15-24 (in 2017)2                                    |
| 6   | A&Y’s knowledge of HIV                                                | 54.5% in urban and 51.6% in rural area (in 2010)25                      |
|     | Correct and comprehensive knowledge about HIV is rather low           | 30.1% in urban and 24.2% in rural area (in 2017)2                         |
In the context of limited financial resources for health programs and decentralized management for local authorities, the issue of mobilizing financial resources for the AYSRH program depended heavily on the commitment and dynamics of staff working in this field and the commitment and support of local authorities. Results of IDIs with leaders of the MOH showed that in a number of provinces, the provincial/municipal RH centers appeared quite active. On one hand, they mobilized to find funding for programs "for instance, An Giang and Ho Chi Minh city’s RH centers still doing it. Can Tho performs quite well." On the other hand, they used the available funding to maintain activities. However, there have been also provinces that operated the program entirely based on the state budget through the national health program. “Hai Duong only has the funding from the target program to support the RH center” (IDI—Representative of Hai Duong RH center).

Interview results also showed some important SRH services (e.g. counseling) for A&Y have not been covered by health insurance: “counseling on physiological disorders. . . like premature ejaculation or erectile dysfunction, or even adolescents have problems in intercourses. . . was not in payment list” (IDI—provincial health service provider). In addition, the current regulations on health insurance have created barriers for schools to provide health services for A&Y, it had not been widely implemented and has not timely. "...we are very difficult to find information about A&Y, and their health as well, the General Statistics Office does not have annual health data.” (IDI—Representative of MOET).

Challenges relating to the health information system

Indicators on AYSRH have not been developed and collected systematically and comprehensively, even though since 2011, the MCH (MOH) has attempted to bring data collection on rate of adolescent pregnancy over total pregnancy and the rate of adolescent abortion over total abortion in the annual report. Additionally, the data and information on the network and the results of AYSRH program were still inadequate, inaccurate, and not timely. “...we are very difficult to find information about A&Y, and their health as well, the General Statistics Office does not have annual health data.” (IDI—Representative of MOET).

Challenges relating AYSRH service delivery

Between 2006 and 2017, although the health sector and stakeholders - through implementing targeted programs, schemes, and projects—had made great efforts in providing friendly SRH services for A&Y, it had not been widely implemented and has faced a lot of difficulties in the implementation, as follows:

Interventions at the pilot-scale, not replicating the model, mainly due to lack of funding and programs integrated with routine activities in the intervention areas.

Defragmented service provision, lack of synchronization, and lack of referral.

“Abandoned” interventions and services at vocational schools, secondary schools, colleges, and universities.

Significant gaps in SRH service provision for those aged 10 to 14 years, disabled, ethnic minority, migrant, working in industrial zones.

Limitations in communication to parents

Limitations in implementing youth-friendly services, especially at commune levels (not implemented or implemented but ineffective).

Trends to choose private facilities for SRH services became popular, especially abortion while the quality investigation and assurance of private service remained limited.

Discussion

The results from content analysis of policies and programs on AYSRH demonstrated that during 2006 to 2017, the government expressed an interest in SRH through the promulgation of a system of documents fully with objectives, solutions, and responsibilities of sectors and agencies in the policy implementation. The policy on AYSRH is in Vietnam’s efforts to implement global commitments. According to a report from the Department of Maternal, Newborn, Child and Adolescent Health—WHO, Vietnam had met 4/5 criteria used to review the AYSRH policy situation, similar to Indonesia, India, Bhutan, and Cambodia but higher than Laos, Bangladesh, and Timor Leste. Vietnam was also one of few countries in the region with national policies and legal frameworks to widely regulate the rights of AYSRH.

The study also pointed out challenges and shortcomings in policies on AYSRH in Vietnam including legal documents and action plans related to AYSRH did not cover comprehensively, especially disadvantaged groups. According to a review of policies and strategies on sexuality education in Asia and the Pacific of UNESCO, Vietnam, like other countries in the region, has not had any policies to exempt public health service costs for adolescents aged 15 to 19. However, in some countries in the Asia-Pacific region, the AYSRH policy has focused on non-school groups while also clearly demonstrating the orientation to non-sex groups (Explicit about targeting before sexually active)—especially the early adolescent group (10-13 years), these target groups were not clearly defined in Vietnam's national policy documents reviewed.

Applying WHO’s 6 building blocks of a health system, we also analyzed the challenges relating to the implementation of policies and programs on AYSRH. This application provided evidence to health policymakers of problems relating to the health system that need to be strengthened to improve the AYSRH results.

Firstly, relating governance, the lesson learnt from low and middle-income countries showed that priority setting (is defined as the process by which policy decision-makers are
made on how health care resources should be allocated among competing programs or individuals) for health programs/interventions was one of the most challenging and complex issues. The results of gaps in policies and programs on AYSRH showing a lack of commitment of health managers; therefore the first thing need to be done to strengthen the advocacy to ensure AYSRH policies and programs are prioritized and committed on implementing at both central and local level. In addition, all programs/policies need tools to monitor and evaluate the implementation process, however, the results of challenges relating governance and health information system (HIS) showed that there were a lack of monitoring and evaluation tools in AYSRH policies/program as well as limitations of HIS infrastructure to collect data systematically and comprehensively in Vietnam. The systematic review by Mazur et al on the assessment of adolescent-friendly SRH programs, which selected 20 from more than 11 000 studies in the period from January 2000 to June 2015, suggested that policy makers and program managers could use the following 3 indicator groups to monitor and evaluate the AYSRH program, including accessibility, capacity, and characteristics of health workers, and privacy and confidentiality. The policymakers in Vietnam should consider these indicators when developing monitoring and evaluation tools on the progress and results of AYSRH policies and programs. Besides, improving HIS to ensure timely and accurate information provided to develop and implement AYSRH policies and programs is essential.

Secondly, the health workforce plays a significant role in the service acceptance to young customers, however, assessments of this study showed that the capacity of health service providers itself was insufficient to increase access to AYSRH services. Therefore, training of knowledge of youth-friendly services for service providers is indispensable and plays an important part in the success of AYSRH service promotion. Regarding the training content, lessons learn from low- and middle-income countries have demonstrated that training for health service providers should include the following priority actions: (1) Build the capacity of health providers to provide SRH information and services to adolescents; (2) Enhance the capacity of law enforcement and health service providers to prevent, respond to and mitigate sexual gender-based violence; (3) Build the capacity of health providers to provide adolescent friendly SRH services through in-service, on-the-job training, mentorship, and continuous medical education; (4) Support integration of AYSRH training into the pre-service curriculum in all medical training institutions; (5) Strengthen quality assurance mechanisms through continuous supportive supervision and mentorship at all levels; and (6) Build the capacity of program managers, planners, and service providers on data use for decision-making.

Finally, in order to solve the difficulties relating financial resource and health service delivery, as lessons from best practices on AYSRH in the low-middle income countries, the solutions like integrating adolescent-friendly SRH services into available health facilities, actively bringing accessible services to young people, developing reasonable price adolescent-friendly services package could be applied to increase the accessibility to AYSRH services in the short-run. In the long term, the authorities at all levels should give adequate, stable, and sustainable financial resource for AYSRH activities.

Limitations
This study was made with our best efforts to review, synthesize the policies, programs/interventions for AYSRH, and both rigorous and gray literature as comprehensive as possible within a time constraints and limited resources. During the data collection in Hanoi (central level) and 3 provinces representing 3 geographical regions of Vietnam, the consultant team identified and sought all available documents such as the related reports, research deliverables. The main strategy to identify the documents was through online resources. Therefore, it is not possible to cover lessons learned from all regions and provinces in the country. Although this review was not able to list all AYSRH programs/interventions at every geographic reach, scalability, it tried to bring in the typical examples in Vietnam as a lesson learnt for low- and middle-income countries.

Conclusion
AYSRH policies for A&Y during 2006 to 2017, along with other related national policies were developed cohesively, yet the gaps in information provision, education, communication as well as service provision remained unresolved. The contents of policies and program implementation did not cover comprehensively, especially regarding disadvantaged groups such as disabled people, migrants, ethnic minorities, and people aged 10 to 14 years. The AYSRH policies and program implementation had faced some challenges relating to governance, service delivery, health workforce, health information system, and health financing. The SRH policy for A&Y in the next period needs to be focused on interventions/services for disadvantaged groups. While the human resource is of great importance for the capacity and feasibility to tackle SRH's challenges, strengthening the advocacy to ensure policies/programs should be prioritized and committed for effective implementation. An appropriate financing system to run information provision, education, communication, and support services for A&Y must be considered during policy development and implementation.

Acknowledgements
We would like to express our heartfelt thanks to stakeholders including the Ministry of Health; the United Nation Population Fund, departments, and sectors in and outside of the health sector at central/provincial/district levels for their participation in this study.

Author Contributions
Hoang Khanh Chi, Tran Quynh Anh and Nguyen Thanh Huong contributed to the design and implementation of the
research. All authors contributed to the analysis of the results and to the writing of the manuscript.

**ORCID iDs**
Hua Thanh Thuy https://orcid.org/0000-0002-1638-0103
Luu Thi Kim Oanh https://orcid.org/0000-0003-4381-4015

**Note**
(i) In Vietnam, industrial parks are locations that are earmarked by the government for the production of industrial goods and services. Typically, industrial zones complement certain activities—such as production, export, or hi-tech—and have incentives for business that set up there.

**REFERENCES**

1. World Health Organization. Maternal, Newborn, Child and Adolescent Health. World Health Organization; 2017.
2. Ministry of Health and United Nations Population Fund. National Survey on Sexual and Reproductive Health among Vietnamese Adolescents and Young Adults aged 10-24. Ministry of Health and United Nations Population Fund; 2017.
3. The National Assembly. Law No 25/2004/QH11: Law on Protection, Care and Education for Children. The National Assembly; 2004.
4. The National Assembly. Law No. 53/2005/QH11: Youth Law. The National Assembly; 2005.
5. The National Assembly. Law No 52/2014/QH11: Law on Marriage and Family. The National Assembly; 2014.
6. The Prime Minister. The Vietnamese Youth Development Strategy 2011-2020. Decision No 2474/QĐ-TTg. 2011.
7. The Prime Minister. The National Population and Reproductive Health Strategy for the Period of 2006-2010 with Orientation to 2020. Decision No 2010/QĐ-BYT. Ministry of Health; 2006.
8. The Prime Minister. Guidance on Implementing the Youth Law. Decree No 78//2007/NĐ-CP. 2007.
9. The Prime Minister. Guidance on Implementing Several Articles of the Youth Law. Decree No 78//2017ND-CP. 2017.
10. The National Assembly. Law No. 102/2016/QH13: Children Law. The National Assembly; 2016.
11. Party C. Population Mission in the New Situation. Resolution No. 21-NQ/TW. 2017.
12. Population FACC. The Behavior Change Communication Strategy on Population, SRH and FP in the Period of 2006-2010. Decision No. 01/2006/QD-DSGDTE. 2006.
13. Ministry of Health. Instructions on Providing Friendly Healthcare to Adolescent and Youth. Decision No 467/QĐ-BYT. Ministry of Health; 2017.
14. Ministry of Education. Strengthening HIV/AIDS Prevention in Education Sector Directive No 61/2008/CTBGDĐT. Ministry of Education; 2008.
15. Ministry of Health. National Guidance on Reproduction Healthcare Services. Decision No 4620/QĐ-BYT. Ministry of Health; 2009.
16. Ministry of Health. National Guidance on Reproduction Healthcare Services. Decision No 4128/QĐ-BYT. Ministry of Health; 2016.
17. Ministry of Health. Professional Guidance on Pre-Marriage Counseling and Health Examination. Decision No 25/QĐ-BYT. Ministry of Health; 2011.
18. Ministry of Health. Regulations on Functions, Missions, Authority, and Organizational Structure of Provincial Reproduction Healthcare Center. Vol Hanoi. Circular No. 59/2015/T-T-BYT. Ministry of Health; 2015.
19. The Prime Minister. Set of Indicators for Vietnamese Youth. Decision No 158/QP-Ttg. 2016.
20. General Office of Population and Family Planning, General Statistics Office Vietnam, ADB, General Office of Population and Family Planning. General Statistics Office Vietnam, ADB. Survey Assessment of Vietnamese Youth 2. General Office of Population and Family Planning, General Statistics Office Vietnam, ADB; 2010.
21. Maternal and Child Health Department – Ministry of Health. Report Year 2017. Maternal and Child Health Department – Ministry of Health; 2017.
22. General Statistics Office in Vietnam and UNICEF. Viet Nam Multiple Indicator Cluster Survey 2014. General Statistics Office in Vietnam and UNICEF; 2015.
23. World Health Organization. Maternal & Newborn, Child and Adolescent Health Policy Indicators. World Health Organization. 2018.
24. UNESCO. Review of Policies and Strategies to Implement and Scale Up Sexual and Reproductive Health Services-3/ UNESCO; 2012.
25. Youngkong S, Kapiiri L, Baldrus R. Setting priorities for health interventions in developing countries: a review of empirical studies. Trop Med Int Health. 2009;14:930-939.
26. Mazur A, Brindis CD, Decker MJ. Assessing youth-friendly sexual and reproductive health services: a systematic review. BMC Health Serv Res. 2018;18:216.
27. The Challenge Initiative. Adolescent & youth-friendly services. Accessed September 13, 2020. https://tciurbanhealth.org/courses/adolescent-youth-sexual-reproductive-health-services-supply/lessons/adolescent-and-youth-friendly-services-3/
28. Nuniarela Mavedzenge SM, Doyle AM, Ross DA. HIV prevention in young people in sub-Saharan Africa: a systematic review. J Adolesc Health. 2011;49:568-586.
29. Gage AJ, Do M, Grant D. Best Practices for Adolescent-and-Youth-Friendly HIV Services: A Compendium of Selected Projects in PEPFAR-Supported Countries. MEASURE Evaluation; 2017.
30. Marie Stopes International, Marie Stopes Internation. Delivering sexual and reproductive health services to young people: Key lessons from Marie Stopes International’s programmes. Marie Stopes Internation; 2012.
31. International Planned Parenthood Federation. International Planned Parenthood Federation. Do They Match? Young People's Realities and Needs Relating to Sexuality and Youth Friendly Service Provision in Bangladesh. International Planned Parenthood Federation; 2010.