Ministry of Health
Material and Child Health Department

NATIONAL ACTION PLAN

ON CERVICAL CANCER PREVENTION AND CONTROL,

2016 - 2025

Hanoi, 2016

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LIST OF ABBREVIATIONS AND RELEVANT TERMS

Abbreviations

ADN	Acid Deoxyribonucleic
ASC-H	Atypical squamous cells, cannot exclude high-grade squamous intraepithelial lesion
ASC-US	Atypical squamous cells of undetermined significance
HI	Health Insurance
GH	General Hospital
OGH	Obstetrics & Gynecology Hospital
MCHP	Maternal and Child Health Protection
SP	Services Providers
CIN	Cervical Intraepithelial Neoplasia
RHC	Reproductive Health Care
HF	Heath Facilities
EC	Education and Communication
NG	National Guidelines
HPV	Human Papilloma Virus
HSIL	High - grade squamous intraepithelial lession
HSV-2	Herpes Simplex Virus type 2
KAP	Knowledge, Attitude, Practice
AP	Action Plan
NAP	National Action Plan
LSIL	Low-grade squamous intraepithelial lesion
MDG	Millennium Development Goals
STI	Sexually transmitted Infections
HHR	Health Human Resources
USS	Upper Secondary Schools
RMNCH	Reproductive, Maternal, Neonatal and Child Health
MCH	Maternal and Child Health
EPI	Extended Programs of Immunization
MSE	Monitor-Surveillance-Evaluation
LSS	Lower Secondary Schools
RHC	Reproductive Health Centers
IEC	Information - Education – Communication
CC	Cervical Cancer
VIA	Visual Inspection with Acetic acid
VILI	Visual Inspection with Lugol's Iodine

Relevant terms

CIN	Cervical Intraepithelial Neoplasia or cervical dysplasia and cervical interstitial neoplasia
Metaplasia	Squamous Metaplasia, pavement Metaplasia
Squamous Cells	Pavement epithelial cells

Chapter 1
INTRODUCTION

Cervical cancer is a malignant growth of the epithelial lining (squamous epithelium) or adenocarcinoma in the cervix, which often happens in women aged 30 onwards. This disease ranks the second in genital cancers among women in terms of morbidity and mortality.

While worldwide efforts in safe motherhood have helped reduce maternal mortality to 45% during 1990 to 2015 (the total number of mortality has dropped from 543,000 cases to 289,000 cases annually), the number of women's deaths attributed to cervical cancer has increased by 39% during the same period, from 192,000 to 366,000 cases a year. In Vietnam, the maternal mortality rate (MMR) is approximately 50-60 per 10,000 live births (MMR estimated by the UN in 2015 was 54 per 10,000 live births) and there are approximately 600-700 pregnancy and childbirth-related deaths every year. The number of deaths from cervical cancer however, can be as high as 2,500-2,700 cases every year. Many women have been saved from complications related to childbirth, but in the later stages, they might suffer from and even lose their lives because of other gynecological cancers, including cervical cancer.

In 2010, the number of women being diagnosed with cervical cancer in Vietnam was 5,664; the age-standardized rate (ASR) applied for cervical cancer prevalence is 13.6 per 100,000 women which is lower than that in Southeast Asia (15.8 / 10,000). Statistics show that cervical cancer prevalence is on the rise. In some particular provinces such as Can Tho, the raw morbidity rate increased from 15.7 per 10,000 in 2000 to 25.7 per 100,000 in 2009. There are various reasons attributing to this increase. One of the obvious reasons is that women are not being offered regular screening pap-smear tests in a systematic manner (which should be appropriate and accessible) to be able to early pick up symptoms for cervical cancer. In some cases, although pre-cancer lesions are found, treatment is not provided promptly and effectively.

Contracting one or more than one type of high risk Human Papillomavirus (HPV) has been confirmed to be the primary cause of cervical cancer. HPV infection is a sexually transmitted virus. The risk of having HPV infection at least once in a lifetime of a woman is about 80%, with the highest morbidity rate occurring at the age of 20-30 (can be up to 20-25% of the population). After the first exposure to HPV infection, approximately 5-10% of cases might result in changes in their cervixes. The vast majority of HPV infections will be cleared spontaneously. If a woman is infected with high-risk HPV type(s) which is then coordinated with other risk factors, the initial lesions may survive and evolve during the nest 10-20 years of their lives. Starting with cervical intraepithelial neoplasia stage, this lesion will gradually develop to the invasive cervical cancer.

Cervical cancer's risk factors include early or multiple sexual relations, multiple childbirths, improperly genital hygiene, chronic cervical inflammation, sexually transmitted infections, poor

nutritional and socio-economic conditions; smoking, diabetes, long-term use of mixed oral contraceptive pills (> 10 years), HIV and HSV-2 infections.

Cervical cancer morbidity in Vietnam is closely associated with the HPV prevalence; this percentage in the south is higher than in the north. A study conducted in 2003 showed that HPV prevalence in Ho Chi Minh City was 10.9%, which was 4-5 times higher than that in Hanoi (the corresponding rate in Hanoi was 2.0%). Another study conducted in 2010 and 2011 showed that HPV prevalence in Ho Chi Minh City was 8.27% compared to 6.13% in Hanoi. Both studies indicated that HPV infection was closely related to the number of sexual partners and early sexual relations.

A number of studies conducted in 2010 and 2011 indicated that the number of HPV types occurred in higher in Hochiminh city comparing to Hanoi city. On the contrary, the number of high-risk HPV types is higher in Hanoi city (91.3% compared to 75.8%). The two HPV types, i.e. 16 and 18, are responsible for the majority of cervical cancers i.e. type 18 is responsible for 40.74 % of cervical cancer and the respective percentage for type 16 is 22.22%. Diversity can be found among places of resident.

- In Hanoi, the most popular HPV types being responsible for cervical cancer include: 16 (1.73%), 18 (1.47%), 58 (1.2%) và 81 (0.80%).
- In Hochiminh city, the most popular HPV types being responsible for cervical cancer include: 18 (4.4%), 11 (2.13%), 16 (1.47%) và 58 (0.93%).

A study conducted in two big cities: Hai Phong and Can Tho by Hanoi Medical University in 2013 and 2014 (funded by UNFPA) indicated that HPV prevalence in invasive cervical cancer patients was up to 91% in which HPV type 16 accounts for 45%, 18 accounts for 19%, 33, 52, 58 together account for 1-3%; low-risk HPV type 11 accounts for 12% and type 6 accounts for 3%. Co-infection rate of two HPV types in a patient is not high (is calculated at 5%).

Cervical cancer causes huge burdens for patients, their families, health systems and the whole society. In 2012, cervical cancer's total direct expenses was estimated at VND 1,755 billion, ranking the 4^{th} and accounting for 0.015% of total GDP; its indirect expenses was estimated at VND 418 billion. Cervical cancer is ranked the 5^{th} out of 6 most common cancers.

Although cervical cancer is a serious disease, its mortality rate and burden to family and the society can be reduced if it is detected early and treated promptly. It is known that it takes long duration for the pre-cancer lesions to be formed; causal factors and risk factors have been identified; and it is easy to directly access the cervix to observe, examine, collect specimens and perform therapeutic interventions. It is therefore believed that majority of cervical cancers can be prevented by screening, early detection and precancerous lesions treatment.

Chapter 2

CURRENT SITUATIONS ON CERVIAL CANCER PREVENTION AND CONTROL

2.1. World Health Organization and other related international organizations' recommendations

Evidence from the past decades shows that in order to achieve a cost – effective balance and attain significant and sustainable impacts on cancer prevention and control programs, it is necessary to incorporate various methods and strategies into intervention packages. To achieve practical results, intervention packages should be deployed in public health system with selected appropriate interventions after considering local needs. These intervention packages can vary within a country.

Multiple cervical cancer prevention and control methods have been recommended by World Health Organization and implemented by many other countries in the world including prevention level 1, level 2 and level 3:

- Prevention level 1 includes education and communication to reduce high-risk sexual lifestyle; to encourage safe sex practice; to provide vaccination against HPV infection; to avoid or reduce other high-risk factors such as early marriage, early childbirth, and smoking (both passive and active smoking).

- Prevention level 2 includes cervical intraepithelial neoplasia (CIN) lesions detection and providing appropriate treatment. The currently used methods in cervical pre-cancerous lesions detection include Papanicolaou test, cervical Visual Inspection with Acetic acid (VIA) or Visual Inspection with Lugol's Iodine (VILI), HPV DNA tests. After discovered, precancerous lesions can be treated by removal the cancer cells (removing using knives, electrocautery, laser, and LEEP) or destructive methods (cryotherapy, electrocautery, and laser vaporization).

- Prevention level 3 includes invasive cancers detection at an early stage and providing treatment at eligible health facilities.

- Providing cancer treatment at the advanced stage and providing palliative care are indispensable elements in cervical cancer prevention and control.

Based on evidence from studies and piloting programs that have been conducted in many countries with limited resources such as India, Thailand, China and many African countries for over 15 years (1995 - 2010), it is recommended by many organizations such as Union for International Cancer Control (UICC), International Federation of Gynecology and Obstetrics (FIGO), United Nations Population Fund (UNFPA), JHPIEGO, PATH, International Planned Parenthood Federation (IPPF) that multiple methods should be applied after considering the local typical features and conditions.

Table 1. Screening methods for cervical cancer (UICC, UNFPA, PATH, and JHPIEGO)

Features	**Papanicolaou test**	**VIA Test**	**ADN HPV Test**
Sensitivity	47 - 62%	67 - 79%	66 - 100%
Specificity	60 - 95%	49 - 86%	62 - 96%
Number of visits required for screening and treatment	≥ 2	1 or 2	≥ 2
Preparedness of the health system	Trained technicians and doctors who can perform Pap tests, microscopes, dyes, glasses, specimen transport and results delivery systems, monitoring and surveillance systems for positive cases.	- Regular training and monitoring, less requirements in material consumption. - It does not require machinery.	- It requires well trained laboratory staff, electricity, test kits, readers, and specimen transport and results delivery systems.
Notes	- It has been proved useful in more than 50 years in developed countries and developing countries. It should be repeated after a few years due to low sensitivity.	It has been proved effective for more than 10 years in various health facilities in developing countries with positive results	- It has been proved useful for more than 10 years in many developed countries, and recently proved useful in developing countries. - Low screening frequency due to high sensitivity

According to these organizations' recommendations, screening programs should start by a combination of different screening methods depending on geography, available health infrastructure and human resources. These programs should not be based merely on cervical cells testing due to low sensitivity and require relatively high prerequisites to ensure the quality and coverage. Moreover, these screening programs should be accompanied by appropriate treatment is provided, would not be effective and as a result, it hardly provides any impact on cervical cancer morbidity and mortality reduction. Therefore, it is necessary to set up a good referral system in which suspected patients can be referred to health facilities at higher level. It is also necessary to ensure a two-way communication system to better monitor and track patients.

An approach on VIA screening and immediate/short-delayed cryotherapy treatment should be considered. If this approach is adopted, it is necessary to have referral system in place to enable patients to be admitted to health facilities in which colposcopy, LEEP (Loop Electrosurgical Excision Procedure) or loop excision procedure are available in case cervical cryotherapy services cannot be provided.

2.2. Current situations of cervical cancer prevention and control

2.2.1. In the world

** In Australia:*

Australia has been exercising a very efficient national Pap smear screening program since 1991. In this program, pap smear tests are provided to women aged 18-69 every two years (together with a tracking and reminding system), including women who had been vaccinated with HPV. HPV test is only given to women who have been provided with treatment for precancerous lesions. More testing will be done for these patients including cervical biopsy and colposcopy. The program has been successfully reduced the current cervical cancer morbidity in all age groups (from 12.7 to 4.9 per 100,000). As a result, Australia is considered to be one of the countries with the lowest cervical cancer mortality in the world (1.4 per 100,000).

Australia is a leading country in HPV vaccination program, with nearly 80% of girls to be vaccinated and about 75-80% of women under 26 years old to be vaccinated since 2008. One of the successes gained in the program is the reduction of papilloma (genital warts) by 50 percent among women under 28 years old and among men who have had heterosexual sex and not being vaccinated. The Australian government has decided to include boys aged 12-13 into national vaccination program since 2013. Vaccination programs is delivered together with a vaccination registration system that collects information and assesses program's impact. All women with abnormal pap smear results and cancer-related HPV will be recorded including cases with cervical cancer. Both vaccination programs and registration systems have websites that offer all necessary information to the community.

Health education and communication is delivered at schools, depending on the states, which often includes sexual health topics including sexually transmitted diseases. Mass media is also used to increase people's knowledge of cervical cancer vaccination and screening programs.

**** In India:***

Studies with large – sized samples were conducted by Sankaranayananan et al in 2007 on 49,000 women aged 30-59 in India for over 7 years. VIA tests performed with/without cryotherapy therapy showed that the program had a strong impact on women aged 30-39. General morbidity and mortality have decreased by 25% and 35% respectively for the whole investigated group but increased to 38% and 66% in the age group of 30 – 39 respectively. This result suggests a focus on target group of 30 years old will be important in the area of public health; if there are enough resources, the program shall be extended to older women. A special

evident-based report prepared by Union for Cervical Cancer Prevention published in Deptember 2009 also confirmed this recommendation.

Results of a desk review conducted by Sauvaget et al published in April 2011 in which the number of 26 studies has been reviewed showed that VIA was performed on women without symptoms and was confirmed by the gold standard for lesions detection from CIN II and over. Meta-analysis results showed that the VIA sensitivity was 80% (79% - 82%) and the specificity was up to 92% (91% - 92%). Regions (being investigated), perception of people receiving screening services and sample sizes did not influence the accuracy of VIA. The positive predicted value was 10% (9% - 10%). The authors concluded that VIA could be used for cervical cancer screening thanks to its simplicity and low cost and it was an effective alternative option for pap smear testing in many places with limited resources.

* ***In Malaysia****:*

Cervical cancer ranks the 2nd among causes of cancer deaths and the 4th among the causes of deaths in Malaysia. The overall prevalence is 19.7 / 100,000 and the highest prevalence recorded is 28.8 among Chinese and Indian women living in Malaysia. The main problem facing Malaysian health care system is the lack of human resources in health facilities (including obstetrics and gynecology doctors, oncologists, histopathology doctors, etc. ...), especially in the public health sector.

The cervical cancer screening program in Malaysia has been implemented since 1969, and it is now still offering opportunities for women to have pap smear tests done once every three years. Targets of this program are women who are have been sexually active aged from 20 to 65. The program recommends that if results of the pap smear are normal for the two successive tests, women should continue to have this test done with higher interval of every three years. Women are receiving pap smear testing free of charge at public hospitals and other public health facilities. In addition, they can have pap smear test done in private clinics, military hospitals and non-governmental facilities. In 2005, approximately 69% of pap smear tests were done in public health facilities and approximately 20.6% was performed in private clinics.

Malaysia granted license to both HPV vaccines in 2006 and 2007. However, vaccination can only be delivered in private health centers. In 2010, the national HPV vaccination program was implemented to provide free HPV vaccines for girls aged 13 years and older at schools with parents' consent. This program is delivered in both in public and private schools. Ministry of Public Health in Malaysia has succeeded to negotiate with vaccines manufacturers and providers to reduce the price to USD 14-15 USD per dose when purchasing in large quantity. This price will be further reduced. Analysis on cost effectiveness in Malaysia during 2007 - 2008 proved that costs incurred in cervical cancer treatment was higher than associated costs in prevention programs. It is therefore concluded that immunization programs is higher cost-effective.

Health education and communication activities implemented in the national cancer control and prevention program include improving knowledge about HPV, cervical cancer, changing

behaviors to achieve a healthy lifestyle; early vaccination and screening. Main communication channels include the mass media, electronic bulletin boards, flyers and posters.

2.2.2. In Vietnam

*** HPV vaccines (Prevention level 1)**

Both HPV vaccines namely Gardasil® and Cervarix®, are licensed and have been present in Vietnam since 2009, although they have not been included in national programs of immunization. Vietnam has achieved many promising successes in the expanded immunization programs. Vaccines are provided through national expanded immunization programs under the management of Ministry of Health and delivered/supplied to clients by many different stakeholders such as National Institute of Hygiene and Epidemiology, Local Institute of Hygiene and Epidemiology, preventive medicine centers and health stations.

Vietnam is one of the four countries (along with India, Peru and Uganda) participating in a global and comprehensive program on cervical cancer, cervical cancer reduction through vaccination, screening and cervical cancer treatment. This program is sponsored by the Bill & Melinda Gates Foundation; deployed by PATH (Program for Appropriate Technology in Health) along with other partners like National Institute of Hygiene and Epidemiology and Maternal and Child Health Department, Ministry of Health. Gardasil® vaccine has been provided to clients by National Institute of Hygiene and Epidemiology and the national expanded immunization programs with two key options: immunization services at school for grade 6 students (follow-up by the community) and immunization services provided at health stations for girls aged 11 in urban, rural and mountainous areas. In total, over 6,400 girls have received at least 1 dose of HPV vaccine. Each option receives different level of interest and attention due to its advantages and disadvantages, but in general all the stakeholders agree with the two chosen options. The coverage of these two options is large with approximately 94% of the young girls being fully vaccinated in the second year of school-based vaccination program (the corresponding figure for the first year was 83%). As far as health facility- based vaccination program is concerned, 98% girls in the community has received vaccination in the second year of the program (the figure for the first year was 93%). “Cancer prevention and control” is the main reason why parents, health workers, teachers and young girls consent to participate in the program.

HPV vaccines are now being provided to young girls and women in the age group of 9-26 and they will be charged for the service. HPV vaccination includes three 3 injections within 6 months. By December 2015, approximately 514,000 doses of Cervarix and 811,000 doses of Gardasil have been imported into Vietnam, and the number of women accepting HPV vaccination ranged from 350,000-400,000 people. Cost for three courses of injection ranges from VND 2,400,000 to VND 4,000,000.

*** Cervical cancer screening**

The cervical cancer screening system has already been in place in Vietnam, however there are many problems facing this system due to geographical difficulties. Furthermore, almost all the

programs are passive, and screeing are done based on the symptomatic diagnosis. There is no standard screening protocols available and this is the most challenging barrier to standardize screening services.

During 1970 to 1980, cervical cancer prevention and control activities were implemented on a small scale in some central and provincial health facilities via cervical cells testing. In late 1990s, in Ho Chi Minh City, a cervical cancer screening programs was deployed by Vietnam - US cervical cancer prevention and control project. Screening was also based on cervical cells testing.

Cervical cancer screening and treatment has been included in the National Strategy for Reproductive health, 2001 – 2010. One of the objectives pursuit in this Strategy includes "increase the proportion of health facilities providing early diagnosis of cervical cancer to 50%" (Goal 5). One of the objectives in the National Strategy on Cancer prevention and control, 2008 - 2010 also aims at increasing the proportion of early diagnose in cancer from 20% to 30%. The proportion is expected to increase to 50% in the National Program on Cancer prevention and control, 2010 – 2020). **However, there is no detailed implementation plan available and budget has not been allocated to enable the implementation of this strategy. Laboratories that can perform cervical cells testing are only available at the central and provincial levels. Labs are negligible at the district level. There lacks of skilled human resources working in these labs and quality assurance is not given enough attention. As a result, cervical cancer screening has not been implemented on a large scale.**

From March 2009 to March 2011, Maternal and Child Health Department (Ministry of Health) cooperated with PATH Organization to implement a project on "Strengthening secondary prevention in cervical cancer in Vietnam". This project was deployed in 3 provinces namely Thanh Hoa, Thua Thien - Hue and Can Tho. Within the project's framework, VIA is used to screen cervical lesions at all levels, especially at the communal level. Abnormal results detected would be cared for in accordance to the regulations and protocols. Majority of detected cases were treated immediately or were given temporary treatment by cervical cryotherapy at the district level. If cryotherapy treatment was not allowed in these patients, they would be referred to provincial / central level where LEEP method would be provided. In total, 38,187 women aged from 30-49 were screened using VIA and positive VIA rate detected was at 3%. Results of both quantitative and qualitative evaluations showed that VIA is having a lot of advantages and this method is welcomed by both health professionals and clients.

With the aim to provide necessary knowledge and skills for health workers in providing services in cervical cancer screening, prevention and treatment, Ministry of Health has developed and issued a "Guidelines on precancerous lesions screening and treatment for cervical cancer secondary prevention" on 16th May 2011. It is a supplementary document to the National guidelines on reproductive health services issued by Health Ministry in 2009. The new guideline provide information on services to address the needs in precancerous lesions screening, prevention and treatment for cervical cancer as secondary prevention measures in which precancerous lesions screening, prevention and treatment are integrated in reproductive health

care services. With the new Guidelines, cervical cancer screening services (using both cervical cells testing and VIA testing methods) have been deployed more efficiently at every health care facilities at all three mentioned levels.

During 2010 - 2015, many international partners and non-governmental organizations in Vietnam such as UNFPA, PATH, GIZ, Marie Stopes International etc. directly or indirectly supported some provinces to implement cervical cancer screening programs as well as provided treatment for abnormal cases that have been detected. These programs have achieved certain success, and a number of useful lessons during the deployment process have been learned.

*** Cervical cancer treatment**

One of the main difficulties facing the expansion of the cervical cancer treatment services is the overlap in cancer treatment system in Vietnam. In general, cervical cancer patients are treated at Oncology Hospital at central level and patients are referred from Oncology Departments in provincial hospitals. However, since this disease is related to reproductive tract, care and treatment (and surgery in some special cases) are also provided in maternity hospitals, reproductive health care centers, obstetrics departments, and pediatric hospitals. It should be noted that private health sector is growing and attracting more and more patients. At the time being, no standard protocol is applied in cancer treatment and palliative care at all levels. This is the most challenging barrier in ensuring quality of care in caring and treatment for cervical cancer patients.

The shortage of human resources who have been provided with standardized training can be found in cervical cancer prevention at all three levels. Furthermore, changes in human resources, limitations and shortage of facilities and specialized equipment have significantly reduced the retained rate of staff working in this area.

2.3. Projections of cervical cancer mobility and mortality

It is forecasted by the World Health Organization that without appropriate interventions being introduced and delivered in cervical cancer screening, prevention and treatment, the mobility and mortality rate due to cervical cancer will increase by 25 % in 10 years' time. By 2030, most of the deaths due to cervical cancer will occur in the developing countries.

The annual per capita income in Vietnam has surpassed USD 1,000 and has been rising slowly and steadily. If universal health insurance can be applied and the entrance fee can be increased at an acceptable level, it will allow HPV vaccination and cervical cancer tests to be included s in the insurance package. It will be ideal if RMNCH (reproductive, maternal, newborn and child health) service pack can be included in the insurance package and will gradually be integrated into the national expanded programs of immunization.

Cost for HPV vaccination services to the last users can be sharply reduced if the national relevant authorities can ensure a large contract of service and can negotiate prices with vaccine

manufacturers and providers. It is hoped that the successful model from Malaysia can be applied in the context of Vietnam.

Cervical cells testing has proved its value if the quality of the test can be guaranteed. VIA test however, has increasingly been proved to be a equivalently valuable test in determining cervical lesions. VIA allows health professionals to apply temporary treatment at district level or even at higher levels.

Along with the development of new HPV tests which have been applied in many developed countries and developing countries for the last 5-10 years, more and more evidence show that the results of HPV test have been widely utilized together with pap smear. Due to the high sensitivity in HPV detection, clients with positive results must be investigated shortly thereafter. They shall be given a pap smear test or VIA test/colposcopy to determine presence of cervical lesions as well as to determine whether treatment needs to be given.

Chapter 3

PRIORITY ORIENTATIONS IN DURING 2016 – 2025 PERIOD

1. Identify objectives on the basis of considering objectives set forth in domestic and international programs and documents e.g. Strategy to protect, care and improve people's health, 2011- 2020 and vision to 2030; Vietnam's population – reproductive health strategy, 2011 – 2020, the United Nations' Strategy for Maternal and Child Health and sustainable development's goals.
2. Closely integrate cervical cancer prevention and control into related health programs such as safe motherhood programs, population and family planning, HIV / AIDS prevention and control, national cancer prevention and control , non-communicable diseases prevention, poverty reduction programs, and other socio-economic development programs.
3. Increase the awareness for the authorities and increase the level of understanding for the community (including health care workers) on cervical cancer and cervical cancer prevention and control measures.
4. Develop intervention plans based on the scientific evidence collected from investigations, surveys, and scientific researches. Focus on reducing the differences between regions. Paying attention to special target groups such as poor women, ethnic women and migrants. Select appropriate interventions after considering natural and social conditions; respect cultural values, customs, and practices; mobilize the participation of people and community in communication activities and service delivery.
5. Along with strengthening the availability and quality of network service providers, enhance the level service utilization via communication, health education is needed. Reduce barriers in having access to cervical cancer prevention and control services.

6. Continue to strengthen information system on maternal and child health including contents on cervical cancer prevention and control. Information from both public and non-public health facilities should be included. Improve quality of reports and promote the use of evident-based information in planning and policies development. Advocate and mobilize resources to implement activities to achieve objectives in cervical cancer prevention and control.

Chapter 4

NATIONAL ACTION PLAN ON CERVICAL CANCER PREVENTION AND CONTROL, 2016 – 2025

4.1. Objectives

4.1.1. Strategic objectives

Deploy cervical cancer prevention, screening and control with the aim to early detect cervical cancer. Reduce morbidity and mortality rate related to cervical cancer to contribute to achieve the goals set forth in the following documents: Strategy to protect, care and improve people's health, 2011- 2020 and vision to2030; Vietnam's population – reproductive health strategy, 2011 – 2020 ; National Strategy on prevention and control of cancer, cardiovascular disease, diabetes, chronic obstructive pulmonary disease, asthma and other chronic non-communicable diseases, 2015 – 2025; and sustainable development goals.

4.1.2. Specific objectives

Specific objective 1: Increase the awareness for the authorities and increase the level of understanding for the community (including health care workers) on cervical cancer and cervical cancer prevention and control measures.
Targets:

- 100% of provinces and cities will develop their action plan for cervical cancer prevention and control.
- 70% of adults will have the correct knowledge on cervical cancer and how to prevent this disease;
- 100% of relevant medical staff will have correct knowledge on cervical cancer and how to prevent this disease;

Specific Objective 2: Strengthen the capacity in preventing, screening, and treatment for cervical cancer with the aim to: early detect pre-cancer lesions and cancer; reduce morbidity rate; timely provide treatment for invasive cervical cancer cases.

Targets:

- 100% of provincial/city's hospitals will provide pap smear tests and are able tin interpret clinical results;
- 90% of district hospitals will collect samples from pap smear tests and send to hospitals at higher level for testing;
- 70% of commune health centres will provide cervix observation using acetic acid;
- At least 60% of women aged 30-54 years will be screen for cervical cancer by 2025;
- At least 25% of girls and women will be vaccinated against HPV by 2025;
- 90% of pre-cancerous cases and 90% of cervical cancer will be detected and treated in accordance with professional guidelines.

Specific Objective 3: Strengthen capacity and improve cost-effectiveness in monitoring and administration of cervical cancer

Target:
- Information on cervical cancer and HPV infection will be included in the contents of regular reports and will be integrated into available health information systems.

4.2. Solutions and Actions

4.2.1. Solutions on policies and budget guarantee

Activities:

- Organize advocacy, propaganda to provide information to policy makers, leaders and elected members on the importance of cervical cancer prevention and control. This activity is done to guarantee state budget allocation to cervical cancer prevention and control.
- Encourage mass organizations and political and civil societies to participate in cervical cancer prevention and control.

- Mobilize resources and supports from local and international organizations, donors, development partners to deliver activities on cervical cancer prevention and control.
- Conduct more advocacy to have HPV vaccine included in RMNCH (reproductive, maternal, newborn and child health) service pack and gradually integrate it into the national expanded programs of immunization.

4.2.2. Solutions on communication and education, awareness and attitudes raising and behavior change

Activities:

- Edit and improve communication and education materials on health care for health workers and the community. Special attention should be given to targeted groups including junior high & high school students, teachers, parents and women aged 21-65 who are sexually active.

- Improve contents and utilizing multiple communication channels when conducting communication activities e.g. print newspapers, TV and radio, virtual newspapers. Focus on behavior change communication activates conducted by community-based communicators'

team. Apply modern forms of media such as the Internet, interactive television, interactive radio, interactive theater, social networking ...

- Collaborate with agencies, unions, political, social and professional organizations in order to utilize multiple communication channels to reach targeted groups.

- Organize training on direct communication skills for the staff who will directly provide services at different levels and communicators in the community; combine community-based communication with commination provided at the health facilities.

4.2.3. Solutions on training and capacity strengthening

Activities:

- Develop training programs, update training materials on cervical cancer prevention and control on the basis of internationally recommended best practices.

- Organize training and continuous training courses (short-term courses) for health workers on the delivery of preventive measures level 1, 2 and 3. Prioritize staff training by teams who will work in the roster to meet the need of cervical precancerous lesions screening and treatment. Focus on implementing activities immediately after training.

- Organize training for health workers on cervical cancer prevention and control on the basis of their knowledge and perceptions as well as on the actual needs to enable them to provide right information and support clients. It is important to encourage their participation so that they shall be able to comply protocols in monitoring and treatment.

- Provide training for community-based health workers on medical treatment and palliative care, improve the supply of morphine and other painkillers for cancer patients to better control their pain.

- Provide training for managers, supervisors, laboratory staff, instruments and equipment maintenance staff to encourage their participation in cervical cancer prevention and control.
- Strengthen intensive training on pap smear tests/histopathology/colposcopy; synchronously supplement equipment, medicines, biological products (test), upgrade facilities to improve services, enhance the availability of services at the central and provincial levels. These activities should be done to be able to provide quality services for patients who have been referred. Other activities and services such as providing internal - external monitoring, ensuring quality in cytology, colposcopy, and histopathology should be organized and provided.

4.2.4. Solutions on upgrading facilities and equipment

Activities:

- Upgrade facilities for cervical cancer prevention and control at all levels, focus on district and provincial levels.

- Synchronously supplement equipment and medicines, upgrade facilities; combined with the personnel training for geographically disadvantaged district general hospitals to afford to provide prevention services level 2.

- Invest, upgrade and develop gynecology and oncology specialized clinics at central, regional and provincial levels to meet the needs in medical care and palliative care needs of patients.

- Provide necessary equipment, including air pressure systems, LEEP machines to medical facilities from the district level upwards for treatment of precancerous cervical lesions.

4.2.5. Technical, science and technology solutions

*** Supply HPV vaccines and behavior change communication (Prevention level 1)**

Activities:

- Conduct community-based surveys at the beginning, middle and end of the period, focusing on target groups to obtain information on their knowledge, attitudes and practices (KAP) in cervical cancer prevention and control.

- Prepare plans to implement national HPV vaccine program in Vietnam on the basis of considering existing immunization programs with the aim to utilize existing human resources and necessary equipment such as cold chains to preserve HPV vaccines.

- Deploy behavior change communication to enhance the community's knowledge on HPV, risk behaviors and how to prevent.

*** Solutions on cervical pre-cancer screening and treatment (Prevention level 2)**

Activities:

- Update national guidelines on cervical cancer prevention and control, on the basis of the guideline and recommendations made by the World Health Organization.

- Implement screening programs using existing available screening tests and health facilities 'capacity, including cervical cytology (classic or **solution-embedded cells**), visual inspection with acetic acid (VIA) or HPV tests to detect infection of high risk genital HPV (according to screening regimens).

- Strengthen application of high-risk HPV testing, including HPV testing to define types 16, 18; HPV rapid testing in combination with cervical cells testing or VIA.

Screening age and frequency: The target group includes women aged 21-65 years old who have ever had sex – special attention is given to women in the age group of 30-54; women who have negative results of from pap smear tests or VIA test will be screened again after 3 years, women with negative results of HPV test will be screened again after 5 years. It is recommended to use pap smear or HPV as testing methods for women over the age of 50 - especially after the menopause - since the VIA test is not suitable for this age group.

- Integrate level 2 prevention activities with other vertical programs, particularly safe motherhood, prevention and control of HIV/AIDS and sexually transmitted infections, cancer prevention and control, non-communicable diseases prevention and control etc. to increase efficiency and reduce costs.

- Study and apply relevant science and technology, promote international cooperation in cervical cancer prevention and control. Evaluate the effectiveness of intervention models in order to draw lessons for replication.

*** Solutions to deal with invasive cancer treatment and palliative care (Prevention level 3)**

Activities:

- Strengthen and improve conditions among facilities that can provide high quality cervical cancer treatment at central and regional levels. Strengthen the referral system. Cooperation between Oncology hospitals and obstetric hospitals should be strengthen in order to utilize current resources and ensure treatment standards.

- Early detect and provide treatment for women suffering from invasive cancer or who are at the advanced stage of cancer development.

- Provide palliative care, pain control, and psychological support for cervical cancer patients and their families.

4.2.6. Solutions to improve information recording system, monitoring and surveillance

Activities:

- Consolidate and improve the quality of cervical cancer information recording system, including screening recording and cancer recording to monitor, manage, and develop evidence -based programs and policy making.

- Complete set of indicators and tools used to monitor and evaluate cervical cancer prevention and control. Coach / train the staff working in statistics and reports to improve the report.

- Connect information from all data sources on cancer, screening, HPV infection and HPV vaccines, including public and private health care. Apply step by step information technology, which is integrated with computerization of reporting statistics system.

- Strengthen and upgrade the quality of monitoring and surveillance, including integration monitoring and support after training in large scale deployment, deployment of two-way exchange of information, especially between upper level and lower level. Ensure program monitoring, checking coverage, efficiency and impact of the program.

4.3. Expected Outcomes

4.3.1. Expected Outcome 1: *Legislation, policy advocacy and national guidelines on cervical cancer prevention and control will be developed and implemented*.

Outcome 1.1: 1-2 advocacy round(s) a year on the importance of cervical cancer prevention and control to policy makers, leaders and elected representatives will be organized.

Outcome 1.2: Unions, political and civil society, the mass media will be engaged in policy and resources advocacy and create a favorable social environment for cervical cancer prevention and control.

Outcome 1.3: HPV vaccines will be included in RMNCH service pack and have integration roadmap in national expanded programs of immunization.

4.3.2. Expected Outcome 2: *Health communication and education, awareness raising, attitudes and behavior changing will be effectively implemented.*

Outcome 2.1: The number of communication materials (leaflets, posters, flips, pictures ...) will be developed for students, parents, women, and health-care workers.

Outcome 2.2: The number of video clips will be developed and played on the mass media: TV, radio....

4.3.3. Expected Outcome 3: Trained staff and personnel for cervical cancer prevention and control will be adequate.

Outcome 3.1: National guidelines on cervical cancer prevention and control will be updated and issued in 2016 (updated every 5 years).

Outcome 3.2: Programs and Training materials on cervical cancer prevention and control will be compiled/updated and issued in 2016 (updated every 5 years).

Outcome 3.3: 10-12 TOT training courses x 30-40 trainees in a course for 2 years from 2016 to 2017. 30-36 continuing medical training courses / year x 30 - 40 trainees in a class in the next 10 years will be organized. These training courses will focus on cervical cells techniques, VIA test, HPV testing techniques and prioritize staff training under team, in order to meet the requirements of precancerous cervical lesions screening and treatment.

Outcome 3.4: 10-12 training courses / year x 30 - 40 trainees in a course in the next 10 years to standardize the methods for early stage and advanced stage cervical cancer treatment will be organized.

Outcome 3.5: 10-12 training courses / year x 30 - 40 trainees in a course in the next 10 years about palliative care, pain control and psychological support for patients and family members will be organized with the focus on community-based palliative care content.

Outcome 3.6: 5-6-12 training courses / year x 30 - 40 trainees in a course in the next 10 years to the staff involved in cervical cancer prevention and control: participants for the includes services providers (direct communicator), managers, supervisors, laboratory staff, and equipment and instruments maintenance staff.

4.3.4. Expected Outcome 4: *Facilities, equipment, science and technology will be upgraded, fully equipped to implement cervical cancer prevention and control.*

Outcome 4.1: KAP surveys and demand for manpower training and equipment will be implemented at the beginning, middle, and end of the period.

Outcome 4.2: Medical facilities from district hospitals and higher levels are synchronously supplemented equipment, medicines and upgraded infrastructure, combined with staff training to afford to provide prevention services level 2.

Outcome 4.3: Obstetrics and gynecology specialized medical facilities at central, regional and provincial levels will be invested, upgraded and developed according to development planning network of obstetrics and gynecology specialized medical care for the period 2011 - 2020 and later of Ministry of Health.

Outcome 4.4: Studies and researches and application of new technologies in cervical cancer prevention and control are implemented effectively. International cooperation will be strengthened and effectiveness of existing intervention models will be assessed to ensure that best practices can be replicated.

4.3.5. Expected Outcome 5: Finance for cervical cancer prevention and control will be guaranteed.

Outcome 5.1: Resources for cervical cancer prevention and control will be guaranteed at the minimum rate of USD 5 / women within the screening age per year.

Outcome 5.2: 90% of interventions developed in the National action plan for cervical cancer prevention and control, 2016-2020 will be delivered using mobilized resources. These activities shall be either implemented or supported by domestic and international organizations and donors.

Outcome 5.3: Following the approved action plan, 100% of provinces / cities will allocate their local budget to implement activities on cervical cancer prevention and control during the period 2016-2025.

4.3.6. Expected Outcome 6: Information recording system, tracking and monitoring will be integrated into existing monitoring and information system and will be operating efficiently.

Outcome 6.1: The set of indicators, monitoring, monitoring and evaluation tools of cervical cancer prevention and control will be developed.

Outcome 6.2: Information on cervical cancer and HPV infection from both private health facilities should be included and integrated into existing health information systems.

Outcome 6.3: 20 training courses x 30 - 40 trainees in a course for staff working in statistics and reporting will be organized to improve reporting quality.

Outcome 6.4: Monitoring and surveillance including integration monitoring and support after training in large-scale implementation will be strengthened.

Chapter 5

MANAGEMENT AND IMPLEMENTATION

5.1. Stakeholders' responsibilities

Maternal and Child Health Department: Be responsible to act as the focal point of the annual planning, implementation, coordination, training, monitoring, supervision and evaluation of the Action Plan's activities; coordinate with General Department of Preventive Medicine and Extended Programs of Immunization to propose integrating HPV vaccine into immunization programs of the Ministry of Health.

Department of Planning and Finance: Be responsible for mobilizing and coordinating the resources of the Government and local and international organizations for reproductive health care, including prevention and control, ensuring sufficient budget for the goals of the Action Plan.

Medical Services Administration: Coordinate with Maternal and Child Health Department to develop professional guidelines in cervical cancer prevention and control.

Department of Science, Technology and Training: Be responsible for coordinating with Maternal and Child Health Department in developing, reviewing, supplementing and evaluating programs of training materials on cervical cancer prevention and control; coordinate with Maternal and Child Health Department to develop guidelines for research and investigation in cervical cancer prevention and control.

Department of Personnel and Organization: Be responsible for guiding localities to complete organization of reproductive health care network, fulfill and complement policies in order to enhance training, recruiting and encouraging staff trained on cervical cancer prevention and control.

Coordinate with Maternal and Child Health Department; integrating cervical cancer prevention and control, especially HPV vaccination in non-communicable disease prevention programs and projects to implement the Action Plan.

Top ranking specialty hospitals: Be responsible for coordinating and deploying retraining and post-training supervision, receiving the cases that are over the treatment capacity of provincial level and providing specialized health services for cancer patients.

City and Provincial Health Departments: The Action Plan on cervical cancer prevention and control, 2016 – 2025 should be develop with the consideration of the local needs and available resources. These Action Plans will be submitted to People's Committee for approval to ensure that budget is allocated for relevant activities. People's committees shall be responsible for directing the implementation of the action plan and integrating objectives set forth in this Plan into other existing programs in their respective cities and provinces. DHOs shall be responsbiel for mobilizing every available resources to support the implementing of the action plan. Last but

not least, DHOs shall be responsible for preapring progress reports to provincal/cities' People's Committees and Ministry of Health.

Unions, professional associations and mass media: Coordinate closely with Ministry of Health to advocate leaders of the Party, the Government, unions at all levels, decision makers, prestigious people in the community to strengthen policy and resources support for cervical cancer prevention and control; simultaneously, actively participate in communication and education in order to raise people's awareness, attitudes and behavior of people in cervical cancer prevention and control.

5.2. Implementation and coordination mechanism

At central level: Maternal and Child Health Department and Ministry of Health will be responsible for collecting and sharing information, coordinating activities between the branches and units, programs / projects, domestic and foreign organizations' participation in cervical cancer prevention and control in order to enhance effective coordination and avoid duplication.

At city and provincial level: provinces and cities' reproductive health centers are the focal point responsible for advising Department of Health to develop the local annual action plan on cervical cancer prevention and control, submitting it to competent authorities to be approved, and coordinating activities among units and organizations active in cervical cancer prevention and control in the provinces/cities to increase coordination's efficiency and avoid duplication.

5.3. Implementation Roadmap

Piloting in some key provinces, assess the available results and make recommendation for replication in other provinces

- In the first 2 years: Pilot in 5-7 provinces in which small-scale projects have been implemented.
- Each year thereafter: Expand in 2-3 provinces neighboring nuclear provinces.
- After 10 years: implement national wide

Chương 6. BUDGET

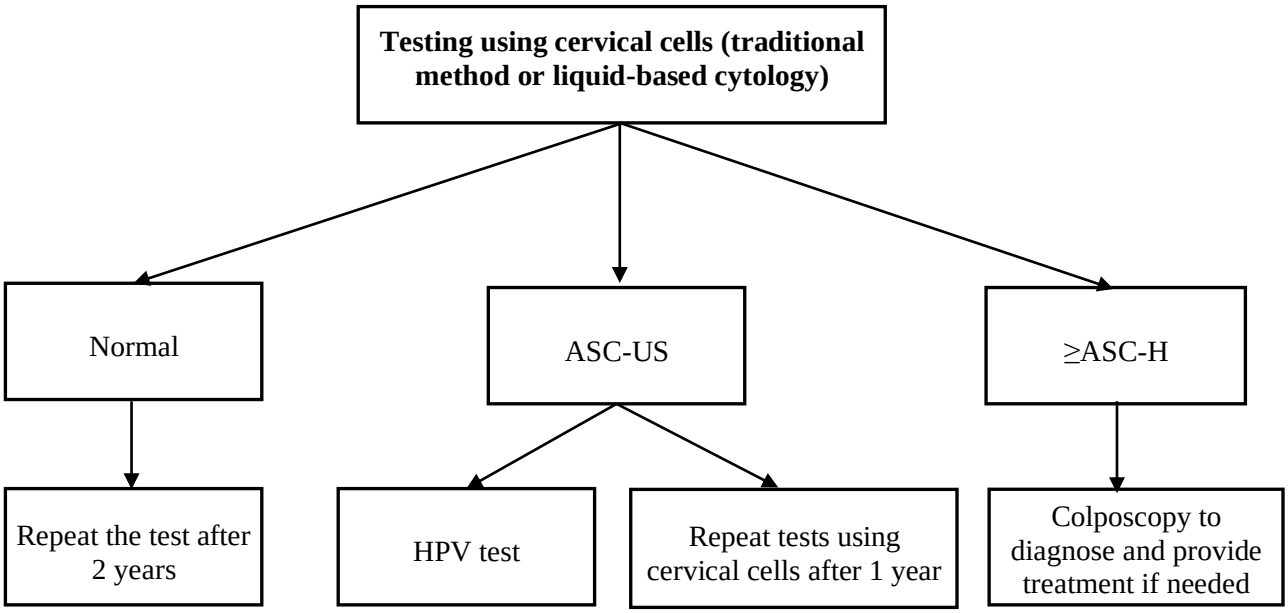
1	Total budget for 2016 - 2025	VND 200 billion
2	Source: National Program on Health care (Reproductive health project)	VND 50 billion
3	Source: From other National programs, projects (government bonds, Population and Family Planning programs, HIV/AIDS prevention and control program etc.)	VND 20 billion
4	Source: ODA	VND 50 billion
5	Source: Local budget	VND 50 billion
6	Source: Mobilizing from other development partners (credit agencies, national and international NGOs)	VND 30 billion

APENDICES
Screening protocol

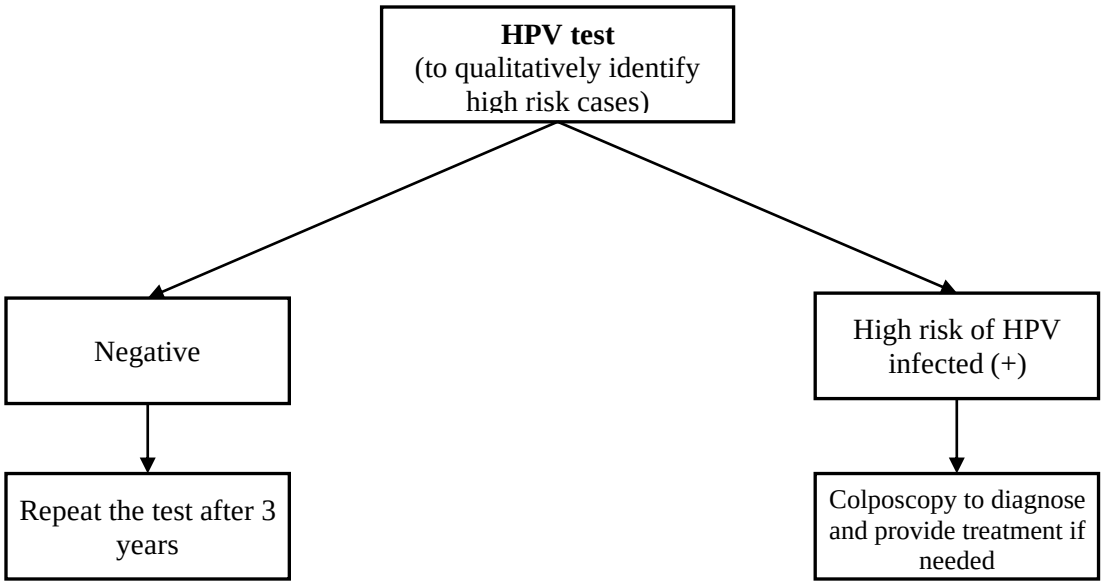
Appropriate protocols are selected depending on condition and available technical capacity**.**

- ***It is possible for facilities that are capable to conduct HPV and Cytology test to apply one of the following three protocols***

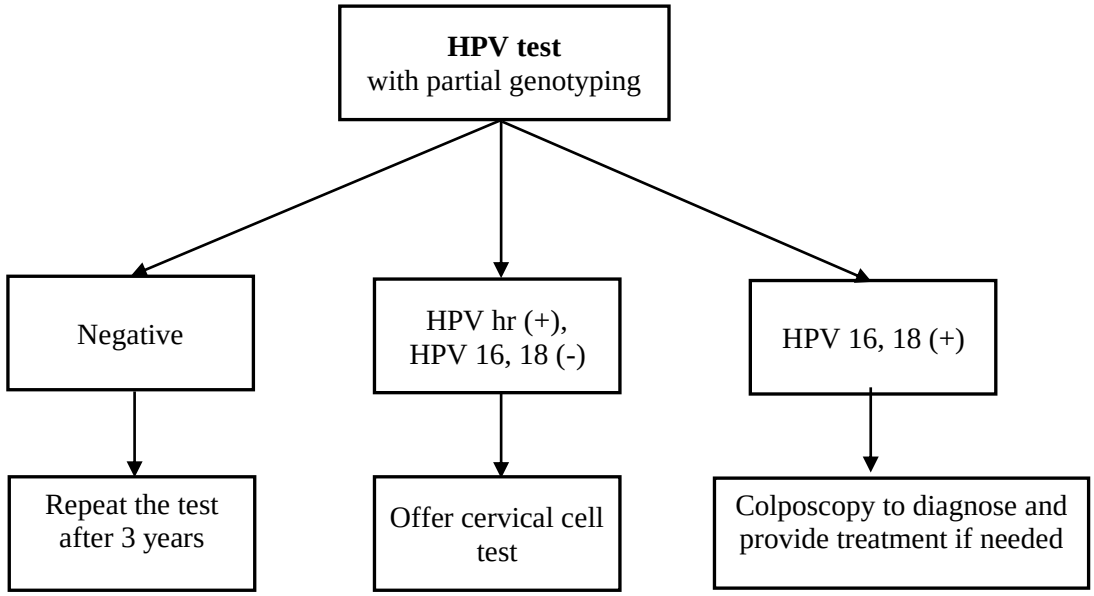
Protocol 1: Screening using cervical cells



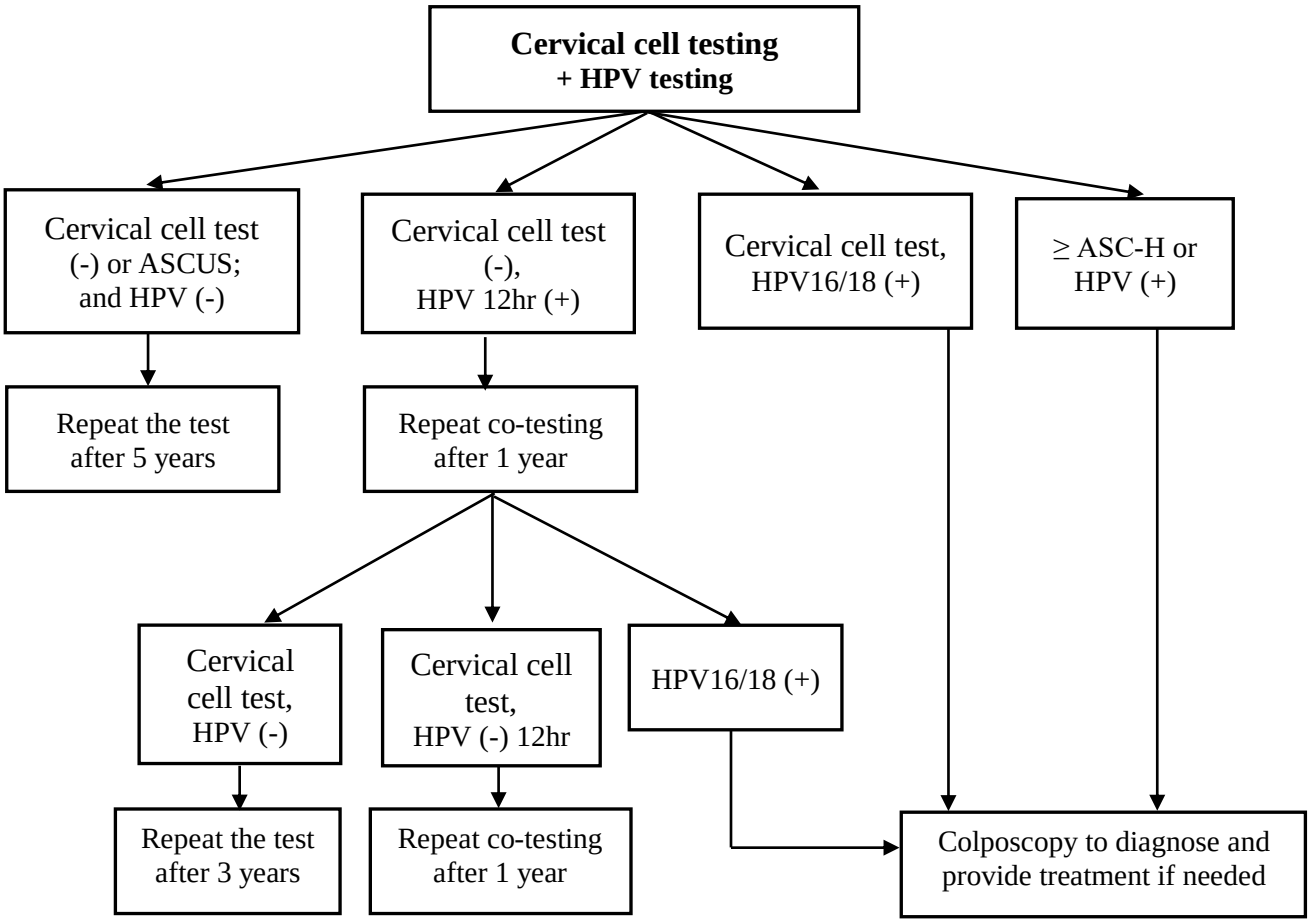
Protocol 2A: Screeing using stand – alone HPV test *(qualitative method)*


HPV test
(to qualitatively identify high risk cases)
Negative
High risk of HPV infected (+)
Repeat the test after 3 years
Colposcopy to diagnose and provide treatment if needed

Protocol 2B: Screeing using HPV test *(partial genotyping)*

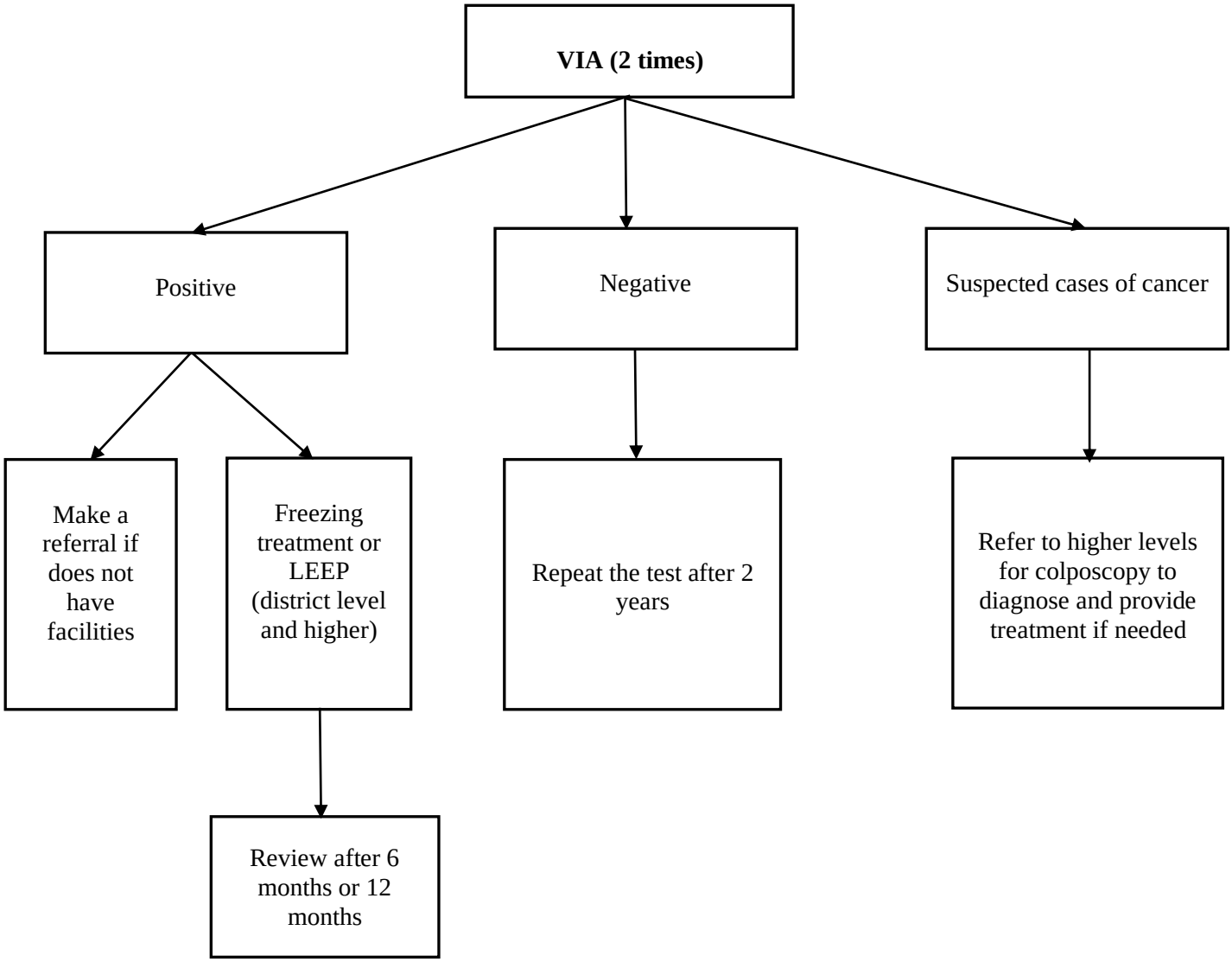


Protocol 3: Screening using co-testing method (HPV testing and cervical cell testing)



- ***In case the facilities are not capable to conduct HPV and cervical cell testing, it is possible for the facilities to collect samples (for either cervical cell testing or HPV testing) to send to Pathology where tests can be conducted. Screening using visual inspection with acid acetic (VIA)*** **can be provided in these facilities.**

Protocol 4: Screening using VIA



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Identify objectives on the basis of considering objectives set forth in domestic and international programs and documents e.g. Strategy to protect, care and improve people's health, 2011- 2020 and vision to 2030; Vietnam's population – reproductive health strategy, 2011 – 2020, the United Nations' Strategy for Maternal and Child Health and sustainable development's goals

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