A regional meeting on comprehensive control of cervical cancer was convened on 27–30 November 2012, Bangkok, Thailand, to strengthen initiatives for lowering the burden of cervical cancer in Member States of the South-East Asia Region, by reviewing the situation of the disease in countries, sharing technical updates and experiences of countries in screening programmes, and assessing the readiness of countries in introducing the HPV vaccine. County plans were drafted, which will be further refined to ensure that strategies and activities are carried out to strengthen cervical cancer control in Members States of the South-East Asia Region.
Comprehensive Cervical Cancer Control (CCCC) in the South-East Asia Region

Report of a regional meeting

Bangkok, Thailand, 27–30 November 2012
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A regional meeting was convened on 27–30 November 2012 to address several issues related to the prevention and control of cervical cancer in the Region. The general objective of the meeting was to strengthen initiatives for lowering the burden of cervical cancer in the Member States of the South-East Asia Region. The specific objectives of the meeting were as follows:

1. To review the situation of the magnitude of HPV infection and cervical cancer and the current status of prevention and control activities including screening in the countries;
2. To share technical updates and experiences of countries in screening for cervical cancer, and in HPV vaccine introduction;
3. To assess the readiness of countries in introducing the HPV vaccine as a national programme;
4. To identify the next steps to strengthen comprehensive cervical cancer control in countries.

Eight of the 11 Member States of the Region were represented at the meeting.

Following the inaugural session, at which the WHO Representative of Thailand read the message of the Regional Director, Dr Samlee Plianbangchang, technical presentations, were made in five sessions. These covered technical areas that include:
(i) setting the scene for global and regional overview of the situation in terms of disease burden and responses with emphasis on screening and HPV vaccine introduction;

(ii) the situation in countries;

(iii) sharing of experience from specific initiatives in three countries (Bhutan, India, Thailand);

(iv) introduction and updates on tools and guidelines; and

(v) partners’ perspective.

In addition, there was a group work session at which participants deliberated on three themes:

(i) coordinated action plans for the development of country specific guidelines;

(ii) strengthening cervical screening programmes;

(iii) communication and advocacy for long-term benefits of HPV vaccination.

A field visit was made to a WHO Collaborating Centre where screening for cervical cancer is well established. A final session attempted to draft country action plans before the summary and wrap-up of the meeting. In view of the differing situation and needs of countries, future technical support from WHO will be country-specific.
Introduction

There are several issues that need to be resolved to strengthen the prevention and control of cervical cancer in the countries of the South-East Asia Region. These include a high burden of the disease, ineffective screening programmes in countries, low level of awareness and motivation among women to use screening services, and the current high costs of the HPV vaccine which, if affordable, holds the promise of becoming an effective primary prevention measure. To address these issues, a regional meeting was convened from 27 to 30 November 2012, with participation of country representatives, partner and donor agencies, professional organizations, WHO Collaborating Centres in reproductive health and cancer control and selected experts. The meeting was jointly organized by the Maternal and Reproductive Health (MRH) unit and Immunization and Vaccine Development (IVD) unit in the Family Health and Research (FHR) Department of the Regional Office for South-East Asia, with strong input and cooperation from the Department of Reproductive Health and Research (RHR) and the Department of Immunization, Vaccines and Biologicals (IVB) in WHO headquarters.
Background

Cancer of the cervix is the second commonest cancer in women, and in some developing countries, it is the commonest. Globally, it is estimated that there are about half a million new cases of cervical cancer annually, and about 275 000 deaths are attributed to this disease. In the SEA Region, the epidemiology of cervical cancer differs among countries, but overall, the burden of disease is high. In 2008, from statistics provided by Globocan, there were about 200 000 new cases and more than 100 000 deaths due to cervical cancer. India by its sheer size alone, contributes 90% of these cases, and reports the highest number of cases worldwide.

Cervical cancer results from uncontrolled growth of severely abnormal cells, caused by the human papilloma virus (HPV). While the virus is necessary in the aetiology of the disease, it is not sufficient by itself, requiring other risk factors such as early sexual activity, as it takes about 30 years following infection for the disease to manifest itself. There are more than 50 types of HPV and six of them account for more than 80% of cases of cervical cancer.

While cervical cancer is the most prevalent cancer in women, it is also the most preventable, because of the availability of an efficacious test for early detection, using cervical cytology, administering the well-established Pap smear test, by which national screening programmes can be designed. If screening and treatment of positive cases are adequate, theoretically the disease can be virtually eliminated. However, screening using cervical cytology which has been the mainstay of prevention, followed by treatment for positive cases, is notorious for its ineffectiveness in national programmes, because the implications on the health system are challenging. The alternative screening method by visual inspection of the cervix, using either acetic acid or Lugol’s iodine, has been found to be less challenging programmatically, and is considered a viable
alternative to cytology. More recently, detection of antibodies to the HPV has been found to be even more acceptable and easier, but the current cost is a constraint.

With the discovery of the HPV vaccines, this has emerged as an attractive method of prevention, but for several technical reasons, the vaccine is NOT an alternative to screening, and even if a programme for HPV vaccination is introduced, screening will still be needed. Moreover, for low and middle income countries, in the Region, the current cost of the vaccine makes it unaffordable, although it may be cost-effective. In the South-East Asia Region, only Bhutan has introduced a national HPV vaccination programme. Whatever the modality of prevention, it is important that countries adopt a holistic and comprehensive cervical cancer control (CCCC or C4) approach. In the countries of the Region, several issues need to be resolved to strengthen CCCC. Overall, besides the high burden of the disease, the situation is characterized by ineffective screening programmes, a low level of awareness and motivation among women to use screening services, and the non-affordability of the HPV vaccine.
Objectives, programme and participants

The general objective of the meeting was to strengthen initiatives for lowering the burden of cervical cancer in the Member States of the South-East Asia Region.

The specific objectives were as follows:

1. To review the situation of the magnitude of HPV infection and cervical cancer and the current status of prevention and control activities including screening in countries of the South-East Asia Region;

2. To share technical updates and experiences of countries in screening for cervical cancer and in HPV vaccine introduction;

3. To assess the readiness of countries in introducing the HPV vaccine as a national programme;

4. To identify the next steps to strengthen comprehensive cervical cancer control in countries.

The agenda of the meeting is at Annex 1. Eight of the eleven Member States of the South-East Asia Region were represented at the meeting. Bangladesh, Democratic People’s Republic of Korea and India were unable to attend. There were representatives of professional bodies, partners and donors, including international NGOs as well as three experts as temporary advisers. The secretariat consisted of staff from MRH and IVD units of SEARO, and counterparts from WHO Headquarters; unfortunately there was minimal participation from country offices (represented only by Indonesia) because of another regional meeting held at the same time. The list of participants are listed at Annex 2.
Inaugural session

The message of the Regional Director, Dr Samlee Plianbangchang, was read by Dr Maureen Birmingham, WHO Representative in Thailand. (See Annex 3 for full text.) This was followed by introduction of participants. A briefing on the objectives and overall structure of the meeting was given by Dr Arvind Mathur, MO (MPS). It was clarified that chairperson and a co-chairperson will be nominated for each session.
Technical sessions

5.1 Setting the scene – global and regional overview

Global burden of disease and WHO’s response

Along with the geographical distribution of cervical cancer globally, it was highlighted that in the past three decades, countries with effective screening programmes had seen a reduction in disease burden, while cervical cancer remains in high low income countries where there are no effective screening programmes. The role and impact of primary, secondary and tertiary prevention was illustrated along with the natural history of the disease from infection with HPV to full-blown cancer. The different types of screening tests were discussed briefly – conventional pap smear, visual inspection with acetic acid (VIA), visual inspection with Lugol’s iodine (VILI), and HPV-DNA test, using either traditional molecular tests or new HPV rapid test (not yet on the market). The “screen and treat” modality was presented with its advantages and limitations. Based on these, the choice of a screening test would depend on several parameters – effectiveness (sensitivity and specificity), capacity to reach the target population, costs, and the new environment, where there is now a vaccine. The current and suggested new algorithm for strengthening cervical cancer control involving primary, secondary and tertiary levels of care was shown.

It was summarized that a good prevention programme must effectively test the target population and reach a significant proportion of it, ensure treatment and follow-up of positive women, and monitoring and evaluation for measuring
impact. Challenges include human resource shortage, poor organizational leadership, identifying the best programme option for a particular country, financial constraints and weak monitoring and evaluation.

Cervical cancer in the South-East Asia Region: burden and response

The sources of information for disease burden for both HPV infection and cervical cancer are generally limited, with data from Globocan being the most frequently used. Using this source and the country-specific reports on HPV and related cancers published by WHO and ICO, some measures for the South-East Asia Region were presented, and countries are ranked on the absolute number of cases. The highest burden is reported from Bangladesh, India, Indonesia, Myanmar, Nepal (Nepal has the highest age-specific incidence of 32 per 100 000) and Thailand. India is prominent by contributing to the highest number of cervical cancer cases and deaths globally (134 420 cases and 72 000 deaths in 2008). Bhutan and Sri Lanka report lower numbers and no data is available for Maldives and Timor-Leste. As to the incidence of HPV infection and its sequel, there is even less information with reports from selected countries (India 7.9/100 000, Indonesia 31/100 000 and Thailand 8.8/100 000. Information on screening is also very limited, with Thailand reporting the highest at 37.7%, and the other countries reporting less than 2%. Data was presented from a published article which assessed screening in 57 countries, and revealed that the average coverage for developed countries was 63% while that for developing countries was only 19%, with two countries of the Region - Bangladesh and Myanmar – recording less than 1% coverage rate. Countries of the Region need to go on seeking for a screening method that is technically efficacious, programmatically effective, cost-effective and at the same time affordable, locally appropriate and acceptable, and cognizant of the resource implications, especially on the health system. On HPV vaccination initiatives, India was one of the four countries that participated in the PATH project (which has been discontinued), along with Peru, Uganda and Vietnam. Bhutan is the only country in the Region that has introduced the vaccine as a national programme.

In summary, the situation in the South-East Asia Region is characterized by (i) high burden for both morbidity and mortality; (ii) poor performance of screening with stagnating screening rates; (iii) HPV vaccine beyond the reach of most countries with the current high costs. There is also evidence from some studies that the level of awareness of the public to the disease and its prevention methods varies among countries.
**HPV vaccination global situation and progress**

The HPV vaccines have provided an opportunity for primary prevention of cervical cancer, which can complement the current secondary prevention strategy of screening and tertiary prevention by effective treatment. The WHO position paper on HPV vaccine was presented, and a map of the world showing countries that have introduced the vaccines in their national immunization programme was shown. Brief information was given on the three countries that have introduced the vaccine – Bhutan, Lesotho and Rwanda – and there is a possibility that Tanzania will do so in the near future. Experiences from developed countries that have introduced the vaccine (Australia, Switzerland, United Kingdom, United States of America) were also shared. Some of the lessons learnt included the challenge of the high cost of HPV vaccines even in high income countries, and the difficulty of achieving high coverage. Only because of the availability of donated vaccines, HPV vaccines have been introduced in some developing countries. However, if resources to purchase HPV vaccine are not a constraint and there is no major resistance to its acceptance, introduction of HPV vaccine is feasible in the routine EPI programme even in developing countries. The most practical strategy to reach adolescent girls with HPV vaccines seems to be to adopt a school-based immunization approach. However, for it to be successful, there is need for high school enrolment and good collaboration between the health and education sectors.

Given the sensitivity around cervical cancer, there is some concern about broad advocacy efforts for this vaccine. Programmatic challenges include reaching the target population (adolescents), the need for three doses over a six-month period, and ensuring that HPV vaccination is an integrated component of a comprehensive cervical cancer control strategy. There are also challenges related to coverage monitoring and impact evaluation. The requirement of three doses, with wide intervals between doses, makes coverage monitoring even more difficult than traditional EPI vaccination coverage monitoring practices. Further, impact monitoring requires a fairly high level of sophistication, which is non-existent in most developing countries, and to see the true impact on cervical cancer, we have to wait till the current vaccinated cohorts reach the age range when cervical cancers become evident. Intermediate impact methods include monitoring HPV type, CIN lesion, and genital warts.

**The challenge of sustainable HPV vaccine introduction in the South-East Asia Region**

The very big population of the South-East Asia Region, especially India, which has the highest burden of cervical cancer in the world, in itself is a challenge.
In terms of the coverage of existing EPI vaccines, and using DPT3 as the proxy measure, there are eight countries with coverage exceeding 90%, and three countries below 75%, with some districts recording less than 50%. This means that 9 million children are not receiving the third dose of vaccine containing DPT. The proportion of cervical cancer cases attributed to HPV has not been established for the Region. In any attempt to introduce the HPV vaccine, countries need to justify the use of the vaccine in terms of cost–effectiveness, assess the affordability including for long-term sustainability, and consider coordination with introduction of other new vaccines and other programme priorities. Countries also need to develop a new vaccine introduction plan as part of the country’s multi-year plan, and ensure that the vaccination programme is linked to the comprehensive cervical cancer control programme. The current cost per dose of the two vaccines is still high. An analysis by WHO-GAVI indicates that for the introduction year, the start-up and operational costs for delivering three doses per eligible girl is US$ 7 to US$ 11, excluding the cost of vaccine. This, of course, varies, depending on the mode of service delivery (routine or campaign), geography of the country, service point (school or health facility), and the number of girls vaccinated in each session.

The need to especially reach out to girls who are least likely to access screening later in life was emphasized. In terms of GAVI eligibility, the countries of the South-East Asia Region are currently categorized as follows - GAVI eligible (Bangladesh, Democratic People’s Republic of Korea, India, Myanmar, Nepal and Timor-Leste), graduated (Bhutan, Indonesia, Sri Lanka) and non-GAVI eligible (Maldives and Thailand).

### 5.2 Country situation of comprehensive cervical cancer control

Using a template for standardized content of the report, countries gave a brief and concise report of the situation. In terms of disease burden, countries reported similar incidence as reported by the Globocan reports and presented in the preceding session. In most countries, cervical cancer was the second leading cancer among women, and the presentation of cases was at a late stage. The burden of HPV infection was not fully known in these countries. The following section describes the efforts undertaken in countries.

**Bhutan**

Pap smear programme was started in 1999 in hospitals, and in 2003, it was extended to basic health units (BHUs); currently 30 hospitals and all 181 BHUs
provided this service. It is under the responsibility and management of the reproductive health programme in the Ministry of Health. The coverage of Pap smear had increased significantly in the past 12 years - from 3528 in 2000 to 21,539 in 2011, which translated to a coverage rate of 25%. (Visual inspection by Acetic Acid (VIA) has also been introduced, but in very few facilities, and colposcopy and Loop Electrosurgical Excision Procedure (LEEP) treatment were available only in the national and regional referral hospitals. Radiotherapy and brachytherapy needed to be sought outside the country. The limitations of the screening programme included the need for multiple visits, transporting the slides to centres with cytology services (there were 12 cyto-technicians in 10 hospitals), need for two weeks for the report to be given, and limited VIA services. Bhutan had introduced the HPV vaccine.

**Indonesia**

The programme for prevention and control of cervical cancer began in 2007 consisting of screening by VIA, IEC (information, education, and communication), cancer registry and training of health providers. There were two responsible Directorates (Noncommunicable Diseases and Maternal Health), and the programme was funded by the government with support from the Female Cancer Programme Foundation of Leiden University, and Jhpiego (until 2011). The programme was implemented in 23 provinces, 108 districts and 347 health centres. The number of women screened had increased significantly from about 5000 in 2007 to more than 400,000 in 2011. Twenty-two hospitals provided treatment services including radiotherapy, and eight of these also provided brachytherapy. The cancer registry was started in 2009 in 23 teaching hospitals. HPV vaccine was available in the private sector. Challenges included human resource shortage, logistics, inability to include the vaccine due to high cost and limited capacity for the cancer registry. Opportunities included strong
government commitment, trained staff in the 23 provinces, 22 hospitals with treatment facilities, and the school health programme. The coverage for EPI vaccines exceeded 80%.

**Maldives**

The burden of cervical cancer was not known. The prevention programme started in 2007 with awareness creation, and there was a plan for a pilot project in 2013–2014 for screening by VIA. There were also plans to conduct a Knowledge Attitude & Practice study and a study to measure incidence, as well as a plan to begin a national cancer registry. The national referral hospital (Indira Gandhi Memorial Hospital) had facilities for diagnosis, but for treatment, patients were referred to either India or Sri Lanka. HPV vaccine could be availed from a private provider. Challenges abounded for a country that had to start from the beginning, in terms of lack of data, no established programme, poor human resource capacity, and lack of facilities. None of the EPI vaccines was given in schools.

**Myanmar**

The national programme started in 2008, consisting of advocacy and awareness as primary prevention, with very limited and sporadic services for screening, which has been started in a few areas. These services faced several challenges, especially resources and expertise, as well as low level of awareness among women.

**Nepal**

The incidence of cervical cancer was relatively high in Nepal, exceeding 24/100,000. A national cancer registry was begun in 2005 (hospital-based and has been started in seven hospitals), and guidelines for comprehensive cervical cancer control were developed in 2010 under the Ministry of Public Health. The components were awareness raising; screening (using VIA including single visit-and-treat and pap smear); colposcopy, LEEP, chemotherapy and radiation – but these were provided only in some facilities. Challenges mainly related to resource lack and logistics including manpower. One opportunity was a well-established school health programme through which a few vaccines were delivered. Immunization coverage of EPI vaccines was high, exceeding 80%.
Sri Lanka

The national screening programme began in 1998, consisting of screening, diagnosis and treatment. Screening was by Pap smear and in 2011, the coverage was 25%, which was an increase over 2009 (11%) and 2010 (12%). There were 10 centres that provided treatment facilities with 6 having radiotherapy and 3 with brachiotherapy facilities. Monitoring and evaluation was through a hospital-based national registry which began in 2006, and efforts had been made to begin a population-based registry. There was work in progress in several areas – awareness campaigns, establishing a call-recall system, decentralization of dedicated cyto-screeners, a national advisory committee, and plans were underway to pilot VIA and HPV-DNA.

There were several opportunities for strengthening cervical cancer control in a country with a well-developed health system and infrastructure, high rates of literacy and committed health workers. Sri Lanka had started deliberations on introducing the HPV vaccine, and while the health sector and social environment including a high school enrolment rate and high EPI vaccine coverage appeared encouraging, the government was not ready to purchase the vaccine at the current price.

Thailand

Several screening efforts had been conducted by individual hospitals in the past. According to a 2002 government report, 25% of women had undergone screening. However, a national screening programme was started only in 2005, based on experiences and lessons learnt from the previous years of unorganized and uncoordinated initiatives. Awareness campaigns were a major feature of the national programme. With organized screening, the target was to screen 80% of eligible women (13 million aged 30 to 65 years). Thailand took the lead in introducing VIA including the see-and treat single visit approach (SVA) as an alternative to pap smear, and was currently implementing a dual-track approach. Since 2005, there was an increase in coverage, from 20.3% in 2005 to 25.1% in 2009. For treatment, there were 158 centres with 25 providing radiotherapy and 23 brachiotherapy. A cancer registry was in place since 1998. Except for the high cost of the HPV vaccine, the environment in Thailand favoured introduction of the vaccine as a national programme.
Timor-Leste

There was no screening initiative as yet. At the national hospital, Pap smear could be done, and if a cervical cancer case was detected, the only form of treatment was total hysterectomy. There was no doctor trained in colposcopy, LEEP or other modalities of treatment.

Summary

All countries have begun some efforts at screening, with varying degrees of maturity - Sri Lanka and Thailand have made significant inroads and are moving from opportunistic to organized screening; at the other end are Maldives and Timor-Leste which have not started any screening programme, and Myanmar, where screening is limited to only a few centres. The other countries (India, Indonesia, Nepal) have scattered and sporadic screening initiatives, not amounting to a national programme. The countries have identified criteria to enable them to introduce the HPV vaccine, and are monitoring its price; currently it is not yet affordable in any of these countries. Only Bhutan has introduced the vaccine as a national programme. In most of the other countries, the vaccine can be obtained from the private sector.

5.3 Experiences from selected countries

Three presentations were made on experiences in countries – Thailand and India on screening, and Bhutan on HPV vaccine introduction in the programme (Annex 1).

Thailand – Developing and scaling up resource-appropriate approaches fro CCCC in low-resource settings: essential practices

After several years of screening using cytology by Pap smear examination, Thailand took cognizance of the ineffectiveness of this approach, and began seeking a screening method that is less demanding on the health system. Hence, Thailand made serious efforts to provide screening by VIA, and had obtained convincing evidence on the acceptable quality of VIA (based on sensitivity and specificity) as evaluated by several studies worldwide; and also a comparison of cost-effectiveness of VIA against other methods. Besides acceptable quality and acceptability by women and ease of access to eligible women, it was emphasized that for a screening programme to be effective, it
must have mechanisms to treat positive women, either by referral to a higher level facility or preferably at the same facility where the VIA was done – and Thailand had good experience in this. The single visit approach (SVA) consisted of counselling, a pelvic examination in which a VIA was carried out, discussion of the results with the woman, treatment for positive women by cryotherapy, and post-treatment counselling and follow-up.

There were various service delivery options for SVA, and Thailand offered a good example for these, such as the SAFE project, conducted with JHPIEGO. Following the SAFE project, comparison of cost-effectiveness of various approaches showed that the SVA was the most cost-effective (US$ 263 per year of life saved, compared to US$ 290 for VIA and referral and US$ 1459 for Pap smear); and it had led to the largest reduction of mortality (34.9% compared to 12.3% for VIA and referral and 13.5% for Pap smear). There was also evidence of a 50-60% reduction in the incidence of cervical cancer.

From the experience of Thailand, the take-home messages were (i) to conduct an assessment before introducing a new approach; (ii) to build capacity; (iii) to develop service provision; (iv) monitoring and evaluation; (v) pilot to be followed by scaling up; (vi) budget to be factored in for scaling up; (vi) success to be disseminated. Because of the shift from opportunistic to organized screening, there was a need to identify all target eligible women in the population; re-design the service delivery model to adapt to organized screening; have a sustained and strong link between the community with screening and treatment centres, and a sustained referral system.

Arguments were presented on why vaccination alone without screening was not an option – the large cohorts of women unvaccinated, difficulty in reaching the target population for vaccination, uncertain and ever-changing age of sexual debut, possibility of inadequate dosage for the three-dose regime. A brief overview of the MDI (Mother-Daughter Initiative) was also provided which aimed to determine the coverage of service in the population, and to assess the mother’s acceptability of having her daughter receive the full course of HPV vaccine – 98.5% of mothers indicated that they would want their daughters to be vaccinated in the next three months. Lessons from the MDI included the role of community participation and mobilization, preparation of the health provider with knowledge and skills, and adaptation to the health system needed. A comparison was also made on the advantages and limitations of a school-based vaccination programme and vaccination through MDI, and the lesson learnt is to adopt both approaches in an integrated manner.
India – A pilot project in slums area of Mumbai city on cervical cancer screening using VIA

Despite the very heavy burden of cervical cancer in India in terms of both morbidity and mortality, screening, which was the mainstay of control, had not been implemented nationwide. There were sporadic efforts on screening. The screening programme used cytology-based methods. Pap smear was not suitable in India because of the large population, the relatively high costs and the lack of health facilities and manpower as well as difficulties with management of the logistics. Therefore, India needed to identify a screening approach that was less demanding logistically and more feasible, programmatically, culturally acceptable and sustainable, and this recommendation was endorsed by a Government of India-WHO committee in 2006. As a result, VIA was selected as an alternative to Pap smear. The rationale of selecting VIA was based on findings from a cluster randomized control trials (RCT) of VIA carried out by trained nurses in South India which showed a significant reduction in cervical cancer mortality. It was postulated that a two-week training for health care providers would suffice. There was enough evidence on the cost-effectiveness of VIA. There was another cluster RCT to assess HPV-DNA test for screening in India, which showed that it is the most objective and reproducible method. However, the current costs were prohibitive and it required a level of sophistication in the laboratory; and there was also an ethical issue because it was known that a majority of HPV infection regressed with time, and developing treatment protocols was ethically problematic.

The algorithm of the study on VIA in 30 slum clusters in Mumbai selected by simple random sampling, with comparable control group was discussed. Screening was carried out every three years, and at the end of 12 years (after
Three rounds of screening) an interim analysis was conducted, which revealed very encouraging results in terms of participation and coverage, (89% screened at least once, 67% at least twice, and 47% at least three times); compliance with diagnosis was almost 80%, high treatment completion rates for positive cases (92% for invasive and 85% for precancer); annual attrition was only 2.2%; inter-observer variability was acceptably low; and downstaging had continued even after 12 years. The impact measures were equally impressive – higher detection rate in study compared to control groups; the screened group had lower number of deaths; the overall reduction in mortality was 31%. In summary, the study provided a level-1 evidence of the efficacy and effectiveness of VIA conducted by trained health workers, in a low socioeconomic setting (urban slums) and should be actively advocated for nationwide implementation.

**Bhutan: Introduction of HPV vaccine in a national programme**

Cervical cancer was the leading cancer among women in Bhutan. Bhutan was the only country in the Region that had introduced a national HPV vaccination programme. It began in 2010 with a catch-up programme targeting girls 12–18 years old both in and out of school. In 2011, routine vaccination was started for 12-year-old girls as part of the national EPI programme. Support for the vaccine (Gardasil) introduction came from both Merck, as well as an NGO, the Australian Cervical Cancer Foundation (ACCF). The catch-up was fully supported by donation from Merck, and for the next five years, the ACCF would provide the vaccine free of cost to the Royal Government of Bhutan. Thus, Bhutan secured six years’ support for the HPV vaccination programme. There was some degree of hesitation among parents at the launch of the vaccine due to the introduction of a signed consent form as no other previous vaccination campaigns or routine immunization programme required a written consent. However, it was rapidly withdrawn, as it led to more confusion than anything else. The success of the programme could be attributed to the strong primary health care system, a high level of political commitment, strong support from the Ministry of Education, a robust immunization programme, and funding from partners. The challenges included getting an accurate measure of the target population, difficulty in reaching girls who were out of school, and ensuring proper and complete reporting.

**5.4 Introduction and updates of tools and guides**

Two presentations were made: one on the guidelines for comprehensive cervical cancer control (C4 - GEP) and the other on costing tools for HPV vaccine (C4P).
Guidelines on Comprehensive Cervical Cancer Control: C4-GEP

WHO developed the “Comprehensive Cervical Cancer Control: a Guide for Essential Practice (C4-GEP)” in 2006 which had been translated into the six official languages of the UN, and adapted by several countries including Sri Lanka and Thailand. The main messages in the guide were (i) health education is an integral part of comprehensive cervical cancer control; (ii) if sufficient resources are available, the screening method recommended is cytology, but not for women <25 years old, and not to be done annually; (iii) visual inspection with cryotherapy is recommended for pilot or under closely monitored settings; (iv) HPV-DNA test is not for women under 30 years old; (v) regardless of HIV status, women should be offered cervical cancer screening and treatment.

In 2012, WHO updated the guide in order to expand HPV vaccine, include health education, incorporate new data available on screening tests and algorithms and principally on the impact of the use of VIA followed by cryotherapy when adequate as well as on HIV and cervical cancer, and the possibility of introducing HIV and cervical cancer screening. Detailed information was provided for the different components of comprehensive cervical cancer control: health education, HPV vaccine introduction, age at first screening and frequency of and approaches for screening and management of HIV-positive women. It was argued that the current management of pre-cancer which required a colposcopy and diagnosis following positive finding on cytology-based screening, and then referral of the positive woman for treatment, had several limitations, in particular, with regard to follow-up rate and access to treatment. Therefore, where coverage of screening and access to treatment was low, it was advised to consider introducing the screen-and-treat or single visit approach (when feasible), based on VIA and cryotherapy. Screening programme options would take into account the age (30 and above); frequency (depending on the test, the result of the test, resources and coverage that could be achieved); the test (depending on resources); who was the care provider; treatment modalities and community outreach.

It was also reported that there were two companion guides to the C4GEP guide, Technical Specifications for Cryotherapy Equipment, and Quality Control and Quality Assessment for VIA and for Cryotherapy. These two guides targeted programme managers to procure cryotherapy equipment as well as to strengthen the monitoring and quality of the national cervical cancer prevention and control programme. These guides could be accessed on the link below:

http://www.who.int/reproductivehealth/topics/cancers/en/index.html
Cost–effectiveness and cost considerations on cervical cancer prevention in low and middle income countries

The various criteria for assessing an intervention such as safety, efficacy, quality, affordability, sustainability, value for money, and equity were discussed. Costs represented the value of resources used for a programme, consisting of the financial cost which was the actual expenditure and the economic or opportunity cost which included the inputs without actual expenditures such as donated goods or personnel diverted from other services in the project budget. There were three types of costs that could be distinguished for a cost analysis: for introducing the vaccine (start-up cost) which included costs for planning, training and social mobilization, initial years of setting up the programme; recurrent costs during a typical operational year of the project (vaccine and service delivery); and capital costs of project inputs which lasted more than one year (cold chain equipment).

For different policy questions related to vaccine introduction decisions, there were tools for assessing specific parameters and criteria – sustainability (budget impact analysis), impact on disease (epidemiological model), value for money (cost-effectiveness analysis), affordability (cost analysis), price negotiation (threshold analysis). Explanation was given why in low income countries, where priorities are usually pre-set by, for example, international donors or Overseas Development Assistance cost analysis to address affordability issues were more relevant than cost-effectiveness analysis. This was in contrast to middle income countries, where priorities needed to be set among competing programmes for available budget allocation decisions; hence, cost-effectiveness analysis was more relevant.
There had been an increase in the literature on the cost-effectiveness of HPV, but it was predominantly from high income countries. The limited availability of cost-effectiveness studies from low income countries indicated that there was lack of country-specific cost for HPV vaccine delivery; vaccines with lower costs were not only cost-effective, but could also be cost-saving; major determinants of cost-effectiveness were vaccine price, the comparator used against HPV vaccine (i.e. doing nothing or screening programmes) and the country’s own definition of a cost-effectiveness threshold, in other words, societal willingness to pay for additional health gains.

WHO had reviewed six cost-effective studies of HPV vaccines and held a consultation which concluded that (i) low and middle income countries (LMIC) lacked capacity to perform and interpret cost-effective studies; (ii) it was important not to rely on a single model for decision-making, but on cost-effectiveness results from multiple groups; (iii) strengths and limitations of the various models needed to be understood before they were used for decision-making as models for cost-effectiveness analysis were dependent on the subjective model design and assumptions of the developer and/or analyst.

The features of the costing and planning tool for comprehensive cervical cancer control – the WHO Cervical Cancer Prevention and Control Costing (C4P) tool were described. This was initially developed in and for United Republic of Tanzania, which was receiving donation for the vaccine, and its purpose was to assist planners to estimate and project the five year cost of introducing a CCCC programme, and to understand the cost implications of adopting various alternatives to CCCC. The generic version of the tool consisted of a HPV vaccine module and a cervical cancer screening and treatment module. Details of the findings from the Tanzanian experience were given.

The overall conclusions were: (i) in low income countries HPV vaccine could be cost-effective, but not affordable; (ii) several models from different modelling groups were available for CE analysis with different levels of complexity to answer different economic related policy questions; (iii) specific national HPV vaccine delivery costs and scaled up screening and treatment cost information from LMIC was lacking; (iv) in middle-income “non-GAVI eligible countries”, both procurement cost and programme delivery cost might be barriers for HPV vaccine introduction.
Discussions

Based on the objectives of the meeting, the following three major areas of concern were deliberated on: (i) to ensure coordinated action plans for the development of country-specific guidelines; (ii) to strengthen cervical cancer screening programmes in countries; (iii) to develop an appropriate and effective communication and advocacy strategy for the introduction of the HPV vaccine.

**Coordinated action plans for the development of country-specific guidelines**

A coordinated action plan begins with a strategic assessment of the situation for which the guideline on strategic approach from WHO can be used. The plan must include a financing plan for the various components of the programme. It should also include plans for resource management including management of human resources and data; the latter being especially important for monitoring and evaluation. Piloting of screening packages in different settings may be needed, and this need to be properly planned to ensure optimal coordination. A referral system needs to be developed in an integrated manner; with supervision capacity of health managers. The guiding principles of a coordinate plan include using evidence, ensuring equity and quality, and cost-effectiveness.

**Strengthening cervical cancer programmes**

Since countries are in different situations, recommendations for strengthening cervical cancer screening programmes differ accordingly. The dual method of Pap smear and VIA introduced in Bhutan, Nepal, Sri Lanka and Thailand will continue. Indonesia has decided to adopt only VIA; Myanmar has begun screening by Pap smear in a very limited area and this needs to be reviewed as to its viability. For Maldives and Timor-Leste where no screening has been initiated, the proposal is to use VIA. Whatever test is selected, screening programmes must be linked to a reliable referral system that will ensure treatment of all positive cases. Areas for technical support need to be identified, and may include developing the algorithm for screening, and to introduce or strengthen a cancer registry. For training of health staff, it is suggested that Tata Memorial Hospital in India (a WHO Collaborating Centre for Cancer Control) be approached for conduct of training of trainers.
**Communications and advocacy**

Before the HPV vaccine is introduced, countries must start by advocacy and awareness raising. Public interest and attention is likely to be high because this is perceived as an “anti-cancer” vaccine, which may be a more apt term to use for the lay public instead of the highly technical term “human papilloma virus vaccine”. The target audience of both communication and advocacy needs to be clearly identified and reached. Messages on vaccine safety, efficacy, dosage and regimen of vaccination, age of vaccination, and need for HPV to be part of a comprehensive approach (especially the fact that it does not preclude the need for screening) should be well designed and disseminated to the relevant target audience.

For advocacy, there is need to highlight the magnitude of the problem of cervical cancer, potential impact of the vaccine, cost-effectiveness including potential savings and long term economic impact. It may be necessary to document real-life experiences as case studies, including anecdotes of sufferers and family members of cervical cancer; and communications should aim to create demand for the intervention. If there is a possibility of an anti-vaccine lobby, strategies should be designed to counter them, such as using the voices of community leaders and influential community groups and NGOs.
5.5 Field visit to WHO Collaborating Centre for Research and Training in Reproductive Health, Department of Obstetrics and Gynaecology, Chulalongkorn University

The visit was organized by the staff of the WHO Collaborating Centre. Before the visit, a briefing was given at the meeting venue. The learning activities of the field visit consisted of a lecture, a discussion by experts of the centre on the two methods of screening – VIA and Pap smear cytology, a clinic visit, and observation of colposcopy services. These were very useful and informative, and the visit could showcase the level of sophistication that exists at the Centre in both patient care and in teaching of medical students and staff. During lunch, opportunities were optimized for more sharing and exchange of experiences.
5.6 Partners’ perspectives

International Agency for Research in Cancer (IARC): Scientific evidence on cervical cancer control

After a brief overview of the global situation of cervical cancer burden, highlighting that the Region contributes to the highest burden globally, the approaches to CCCC were revisited and outlined as (i) awareness and socioeconomic development; (ii) HPV vaccination; (iii) screening; (iv) early diagnosis and treatment. A snapshot of what has been happening in South-East Asia Region was shown – with Bhutan having introduced the vaccine since 2011 and having achieved >95% coverage; demonstration vaccination projects in India and Nepal; population based screening programmes in place in Thailand (Pap smear and VIA), Tamil Nadu (Pap smear and VIA), and Bangladesh (VIA); sporadic screening in India and Indonesia using both methods; sporadic screening by Pap smear in Sri Lanka; extremely limited screening in Myanmar; and important research initiatives in India and Thailand.

The promise and expectations of the HPV vaccine and the challenges in its introduction were highlighted. Evidence on the efficacy and safety of the HPV vaccine was demonstrated. Experiences from low and middle income countries in the different regions of the world were shared – Africa (Rwanda), Asia (Bhutan, Fiji, Vanuatu, Malaysia), and Latin America (Panama, Peru, Colombia, Argentina and Mexico). Salient findings from the programme in Bhutan and demonstration projects in Nepal, India (including the pilot VIA screening in two districts in Tamil Nadu), and Bangladesh were communicated. Programme experiences from India and Thailand were also shared, especially the success of the single-visit approach implemented in Thailand. Information on the careHPV raid test in the context of the need to provide technical support for HPV testing in low resource settings was also provided. An algorithm was shown on the incorporation of HPV testing in screening programmes.

The South-East Asia Region contributes the highest number of cervical cancer cases; screening is not uniformly implemented and generally has led to little impact; there is promise that the rapid HPV test will be made more available in the near future. There are several countries in the Region which are GAVI-eligible, and some countries have demonstrated that the introduction of the HPV vaccine is feasible and acceptable.
Global Alliance for Vaccine Initiative (GAVI Alliance): Support for HPV vaccines

The partnership forged by GAVI is truly multi-pronged, and innovative, comprising UN agencies, governments, the World Bank, donors, especially Bill and Melinda Gates Foundation, research institutions, vaccine industry, civil society organizations and individuals. The mission of the Alliance is to save children’s lives and protect people’s health by increasing access to immunization in poor countries. For this, GAVI has adopted four strategic goals: (i) accelerating the uptake of under-used and new vaccines; (ii) contributing to strengthening the capacity of integrated health systems to deliver immunization; (iii) increasing the predictability of global funding and improve the sustainability of national financing, and (iv) shaping vaccine markets. Based on these, several achievements of GAVI were established, and US$7.2 billion had been committed to countries for various purposes including provision of under-used vaccines, health systems strengthening, operational support, vaccine introduction, injection safety support.

HPV vaccine was among the several vaccines currently supported by GAVI. A new window for funding was opened in June 2012 which closed on 31 Aug 2012, because there was a discrepancy between national HPV programmes implemented and the number of GAVI-eligible countries. Two possible pathways for HPV vaccine introduction were shown. The criteria for application were discussed - at least 70% coverage of DPT3; demonstration of ability to deliver a complete series of vaccine in a medium-sized district and reaching at least 50% of the target population; submission of a report on costing analysis; clear communication strategy and a clear road map for a comprehensive strategy. GAVI recognized that by 2020, some targets could be achieved – 159 million girls will be immunized; HPV will be included in the routine immunization programme of 47 low income countries; 2 million deaths will be averted; cervical cancer screening programmes will be strengthened; and synergies created between RH, HIV/STI, adolescent health and school health programmes.

Bill and Melinda Gates Foundation (BMGF): Giving every person a chance to live a healthy and productive life

Recognizing the effectiveness and benefits of the HPV vaccine, the Foundation formed an alliance with WHO, IARC, PATH, Harvard Foundation and Institute Catalan Oncologica, funded by the Foundation for US$50 million in 2005. This alliance established a global policy recommendation for HPV vaccine; generated key data for vaccine introduction; created models for cost-effectiveness and
impact; prepared tools for vaccine introduction; established online resource centres; and developed free online training for cancer screening. Through PATH, the Foundation contributed to the demonstration of HPV introduction projects in four countries – India, Peru, Uganda and Vietnam. Technical support was also provided for country-led screening programmes including training; integrating it into HIV/AIDS clinics; scaling up through RH networks; inclusion in health insurance package; and establishing cervical cancer screening coverage as a target indicator under the UN Declaration on NCDs. The Foundation was considering the following activities for the near future – measuring impact in two countries that were early introducers of HPV vaccine; global tracking of cervical cancer and screening coverage as indicator for NCD; dissemination of lessons learnt; advocacy and resource mobilization; and evaluation of options for future low-cost vaccines. Work was ongoing to develop and assess low-cost HPV-DNA test. In conclusion, the Foundation’s four strategies for market innovation were: (i) take every opportunity to close programme funding gaps; (ii) engage with all partners willing to work for global health goals; (iii) invest in specific product development projects, and (iv) seek novel and potentially transformative opportunities.

**JHPIEGO: Comprehensive cervical cancer control (C4) in low resource settings – lessons learnt**

The features of an effective CCCC including screening and vaccination were described. It was highlighted that the HPV vaccine did not exclude continuing screening programmes, and JHPIEGO conducted its programmes and projects based on several evidence-based recommendations. Currently, JHPIEGO had projects in nine countries – six in Africa, one in South America, and two in Asia (Thailand and Philippines). Based on the experience in these, the take-home messages were: assessment was critical, capacity was to be built, service was to be effectively delivered, budget was planned for scaling up, monitoring was essential, pilot projects to be expanded nationally, and success to be disseminated. For effective scaling up of screening, it is essential to implement a sustainable organized screening which targets all eligible women and screening them at regular intervals, referral and treatment have to be provided and the link with the community has to be sustained.

**PATH: PATH and cervical cancer prevention**

The profile of PATH as an international NGO working in more than 70 countries including its mission and areas of work (health technologies, vaccines and immunizations, reproductive health, maternal and child health, emerging
and epidemic diseases) was described. PATH had been working in the area of cervical cancer for more than 20 years. It conducted demonstration HPV vaccine projects in four countries - India, Peru, Uganda and Vietnam, and a report on the formative research results of these was published. Essentially, the demonstration project on HPV vaccine aimed to (i) compare alternative vaccination strategies; (ii) generate programmatic and cost data; (iii) assess and ensure acceptability, feasibility and coverage; and (iv) assess different dosing schedules. Interesting and useful findings were shared on a project to assess rapid HPV test using careHPV (in partnership with Qiagen), which demonstrated that there was a potential to make this test a method for population-based screening. In carrying out its projects, PATH received funding from BMG Foundation and GAVI. The online resources developed by PATH on cervical cancer, and could be accessed through www.rho.org.

The Federation of Obstetric and Gynecological Societies of India (FOGSI):

FOGSI had a committee on oncology and trophoblastic tumours, which had carried out several activities related to cervical cancer. Its goal was to reduce women’s cancers by 30% in three years, using a three-pronged approach of education, awareness and prevention. It carried out wide range activities including community service and camps for screening, advocacy for adolescent health, use of news and media, eradicating myths, and research and provision of treatment for cervical cancer. Camps for screening were frequently conducted. Currently, two research projects were ongoing, one of which was on cervical cancer – screening and management of operable cervical cancers in tertiary hospitals. FOGSI carried out training of two days’ and four days’ duration in colposcopy in several centres, and in 2012, 72 FOGSI members underwent the course. Several new centres were planned to be added for this purpose.

5.7 Country action plans

The participants from the eight countries developed country plans of action, with facilitation by the experts, staff members from WHO, and partners. These plans take into account and are based on the situation in the country relating to the burden of the disease, information and data, available; status of screening programme, readiness to introduce the HPV vaccine, current EPI performance/coverage, and programmes that reach the target population for HPV vaccine (school health and adolescent health programmes).
The plans take into account the three “pillars’ of broad principles for coordinated CCCC at national level; strengthening current screening programmes; introducing screening where it is not yet in existence; and communications and advocacy activities for introduction and sustainability of HPV vaccine.

The action plans have identified issues to be resolved such as lack of information/data; low public awareness; weakness of existing screening programmes (method, opportunities instead of organized, human resource issues, logistics problem, weak referral system, non availability of on-site treatment, quality of service, and poor leadership and supervision).

While these draft plans have not identified detailed activities to resolve these issues, these will be taken to the countries for further deliberation and development, into a detailed action plan with a logical framework which indicates what technical support is needed from partners.
Conclusion

The meeting met its objectives, with effective stock-taking of the situation, and used the opportunity to develop action plans. The technical sessions including the field visit provided useful information for the development of plans in countries to strengthen CCCC. The sharing of experiences was very useful, and participants gained new knowledge in several areas related to CCCC. The participation of international NGOs as partners was commendable and beneficial; and the contribution of the three experts (temporary advisers) was highly appreciated. The participation by WHO collaborating centres (CCs) in RH provided a strong platform for future collaborative work between the Regional Office and CCs, and with countries.

The next steps for the countries would include the following: refinement and further development of the plans of action with all stakeholders in countries; mutual exchange of commonly-shared activities such as training, IEC, cancer registry, and studies on HPV incidence; exploring options to conduct training in a most efficient manner by availing of the centres in the Tata Memorial Hospital and Chulalongkorn University with coordination and facilitation by the Regional Office.

The Regional Office will begin initiatives to develop a regional strategy for CCCC and identify an expert group, which will convene its first meeting to draft the regional strategy in early 2013.
Annex 1

Agenda

Background
Objectives
Brief overview of the programme and folder contents
Introduction of participants

Setting the Scene: Global and regional overview of comprehensive control of cancer cervix
- Global burden of disease and response
- Cervical cancer in the SEA Region: burden and response
- HPV vaccination (global situation and progress)
- The challenge of introducing sustainable HPV vaccine in the SEA Region

Discussion

Setting the Scene: Country situation of comprehensive control of cancer cervix

Country Presentations

Experiences of programmes from selected countries

Pap smear or VIA
• Experiences from Thailand
• Screening programmes in India

National HPV vaccine programme in Bhutan

**Introduction and updates on available tools**

• Essential practice guidelines for comprehensive control of cancer cervix
• Introduction to costing tool
• Scientific evidence base for cervical cancer control

**Discussions**

• Broad guidelines for developing coordinated action plan for comprehensive control of cancer cervix at national level
• Strengthening of cervical cancer screening programmes in the countries
• Communication and advocacy for long term benefits of HPV vaccination

Field visit to WHOCC-Department of Obstetrics and Gynaecology, for Research in Training in Reproductive Health, Chulalongkorn University and visit to the hospital

**Partners’ Perspective**

• Global Alliance for Vaccine Initiative
• Bill and Melinda Gates Foundation
• JHPIEGO
• PATH
• International Planned Parenthood Federation, South Asia Regional Office
• Federation of Obstetric and Gynaecological Societies of India

**Country Action Plans**

Report on country action plans and regional actions

Conclusion: Wrap up and next steps
### Annex 2

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Distinguished participants, dear colleagues, ladies and gentlemen,

I have the honour to present greetings from Dr Samlee Plianbangchang, Regional Director, WHO South-East Asia Region, to the distinguished participants of the Regional Meeting on Comprehensive Cervical Cancer Control. As the Regional Director is unable to be present here today, I have the privilege of reading out his address on this occasion.

Quote

Cancer of the cervix is the second commonest cancer in women, and in some developing countries it is the commonest. Globally each year about half a million women develop cervical cancer, and about 275 000 of them die of the disease. In terms of prevalence, an estimated 1.4 million women worldwide are living with the disease. In 2008, the countries of the South-East Asia Region had almost 200 000 new cases of cervical cancer giving an incidence of almost 25 per 100 000; with a mortality rate of almost 14 per 100 000.

Advances in scientific knowledge have thrown some light on the etiology of this deadly disease. Cervical cancer results from uncontrolled growth of severely abnormal cells of the cervix, caused by the human papillomavirus (HPV), which is the commonest form of Sexually transmitted infection. This virus is necessary but not sufficient in the etiology of the disease. There are more than 50 types of HPV, and six of these account for 80% of cervical cancer cases. Of these,
the two leading causes are HPV types 16 and 18, accounting for about 70% of cases of cervical cancer. Following infection with HPV, it can take up to 30 years for cancer to develop.

Fortunately, advances in scientific knowledge have also given us technologies to combat this disease. While it is the second commonest cancer in women, it is also the cancer that is most preventable through screening and treatment of pre-cancerous lesions and, more recently, partially through vaccination.

The vast majority of the cases of and deaths from cervical cancer are unnecessary, because there are efficacious and potentially effective modalities for prevention and management, which include primary prevention by vaccination and secondary prevention by screening to detect and treat early disease. However, these modalities do not always translate to effective prevention and control programmes. This low level of programme effectiveness is due to the following two main reasons.

- Firstly, although screening and early detection have been available for several decades and have been the mainstay of prevention, the requirements for designing and implementing such a programme are complex, needing very sound and strong management. Further, in many countries that have embarked on screening programmes, the impact on reducing burden of disease has not been seen. A strong health system is crucial to make screening programmes work, which unfortunately does not exist in many developing countries.

- Secondly, the potential and promise of primary prevention through the HPV vaccine is severely limited by its high costs, which are not within the reach of most developing nations.

Over and above these problems, even if prevention programmes (either HPV vaccination or screening), are available in countries, it has been observed that there is great inequity and disparity, and disadvantaged women do not have access to these life-saving interventions.

It has been observed in several countries that women who are in advantaged situations, such as those in urban and those with in high-economic status, have Pap smear examinations as often as required, and sometimes even more often, while women who are poor, uneducated and especially in rural areas do not have this screening test even once in their lifetime.
Therefore screening using cytological examination, most commonly by Pap smear has met with success in developed countries with strong health systems, but in developing countries, Paps’ smear programmes are notorious for their ineffectiveness, where the essential elements for a successful screening programme are rare or even non-existent.

An alternative method of early detection by visual inspection using acetic acid (VIA) has shown some potential worth exploring for countries of this Region where the requirements of a Pap smear programme are not within reach. This less demanding approach also has the advantage of offering treatment of abnormalities in a single visit.

The relatively newer HPV DNA detection method is less well established and needs to be evaluated for impact, and currently its cost is a limiting factor.

On a more basic level, it is also known that there is low level of awareness among women about cervical cancer, and about the importance of screening. As an organized national screening programme is very challenging to put in place, most national programmes in developing countries resort to opportunistic screening, if at all. Because opportunities to reach women are limited through specific health services such as maternal health services, the programme tends to capture younger women and exclude older women who have a higher risk of cervical cancer.

The introduction of the HPV vaccine has made primary prevention possible. While the safety and efficacy of the vaccine is beyond doubt, and the acceptability by the target population is certainly superior to screening; the current high cost of the vaccine is the major constraint for most countries.

I am aware that some cost-benefit analysis studies have been conducted and that these will provide valuable information on the recommendations to be made by this meeting.

It must always be borne in mind that even if HPV vaccination is cost-effective, it is a harsh reality that it is not affordable by most countries. It is also important to bear in mind a HPV vaccine does not eliminate the need for early detection and screening, as the vaccine protects only against specific, albeit the commonest types of the human papillomavirus.

The HPV vaccine has to be administered to adolescent girls before they are exposed to the virus through sexual activity, and the need to deliver vaccines to this target group may also pose challenges.
Against this background of the wide range of difficulties in these prevention strategies, I am pleased that this regional meeting is being convened supported by WHO headquarters and the Regional office and other partners and experts, to allow the Member States to take stock of the situation of cervical cancer prevention and control in the countries, and how to respond to this situation focusing on, “comprehensive” approach to prevention and control.

WHO has developed several guidelines for comprehensive cervical cancer control (C4), which have been adapted and adopted in some countries of the Region. Some of these have recently been updated too.

WHO has also released a position statement on the HPV vaccine, which essentially recommends the vaccine if certain conditions are met: if the disease is of public health importance, if its introduction is programmatically feasible, if it is cost-effective, and if funding is sustainable.

To date only one country of the South-East Asia Region has introduced the vaccine as a national programme: Bhutan. In other countries, the vaccine is only accessible in the private sector, and only to those women and girls who can afford the high cost.

With the reality that some countries of the Region have started some C4 activities to varying extent, are using different approaches, and with the need to deliberate on the most appropriate screening method, it is crucial that a review and stock-taking, as intended by this meeting, be carried out.

I am confident that the sharing of experiences by countries and the views provided by the experts in various aspects of C4 at this meeting will lead the way towards a regional framework for comprehensive cervical cancer control. The experience of Bhutan in the national HPV vaccination programme to be shared at this meeting is an opportunity. I also note that there will be a visit to the Department of Obstetrics and Gynaecology, Hospital of Chulalongkorn University, one of the WHO collaborating centres for reproductive health, and I hope this will offer an opportunity for participants to learn from the best practices in cervical cancer prevention and control.

This regional meeting has attempted to bring together as many stakeholders and partners as possible, especially in view of the fact that there are multiple facets to C4. From the country perspective, I can appreciate the complexity of the participation, since this comprehensive approach will involve managers in programmes for maternal and reproductive health, immunization, noncommunicable diseases and adolescent health.
Given the need for a multisectoral approach, it is well recognized that besides WHO, the sister UN agencies also have an important role, especially the United Nations Population Fund (UNFPA) and UN Women. The participation of bodies concerned with cancer control, such as the Union for International Cancer Control (UICC) and the International Agency for Research on Cancer (IARC), needless to say, is opportune, as also of organizations that have paid particular attention to cervical cancer such as Jhpiego, Program for Appropriate Technology in Health (PATH), and Population Services International (PSI). It is also very encouraging to see the participation of donor organizations, such as the Global Alliance for Vaccines and Immunisation (GAVI Alliance), the Bill and Melinda Gates Foundation, and the United States Agency for International Development (USAID).

The role of professional organizations cannot be over-emphasized, and I am pleased to see participation from the South Asian Federation of Obstetrics and Gynaecology and the Federation of Obstetrics and Gynaecological Societies of India (FOGSI) and several experts from Member countries of the Region.

Within WHO, the close collaboration among the different relevant programmes at headquarters, Regional Office, and Country office is further enhanced by the full participation of the WHO collaborating centres for maternal and reproductive health in the Region, and also an expert from a collaborating centre in cancer prevention.

Ladies and gentlemen,

It is clear that there are challenges in our quest to reduce the burden of cervical cancer in this Region. This meeting will identify, describe and analyse these problems to pave the way for strengthening national programmes on prevention and control of cervical cancer and to help in developing a Regional Strategy. There are also opportunities that we have to make use of, which I am sure this meeting will identify and make recommendations on.

As I said at the beginning, while cervical cancer is either the most prevalent or the second most prevalent cancer in women, it is also the cancer that has the most potential for prevention by using evidence-based technologies and interventions. These opportunities will make this deadly disease not only more preventable and become less prevalent, but also may make elimination of cervical cancer a technical possibility.
Last but not the least; I would like to thank the WHO Representative to Thailand and her staff for their support and cooperation.

I wish you a successful and productive meeting.

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I shall, of course, apprise the Regional Director of this meeting and its outcome.

I wish you a fruitful meeting and a pleasant stay in Bangkok.

Thank you.
Regional meeting on Comprehensive Cervical Cancer Control in the South-East Asia Region

Bangkok, Thailand, 27–30 November 2012
A regional meeting on comprehensive control of cervical cancer was convened on 27–30 November 2012, Bangkok, Thailand, to strengthen initiatives for lowering the burden of cervical cancer in Member States of the South-East Asia Region, by reviewing the situation of the disease in countries, sharing technical updates and experiences of countries in screening programmes, and assessing the readiness of countries in introducing the HPV vaccine. County plans were drafted, which will be further refined to ensure that strategies and activities are carried out to strengthen cervical cancer control in Members States of the South-East Asia Region.