Report of the Regional Webinar on
Transition to HPV DNA test as a primary screening test for cervical cancer elimination to achieve the 2030 interim targets

29 October 2021
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Background

This Webinar was organized by MCA Unit of WHO SEARO in collaboration with WHO headquarters.

The participants included WCO focal points, regional and HQ staff from MCA, all relevant external stakeholders including national programme managers. 321 participants joined the webinar.

Objectives

The Objectives of the webinar were as follows.

• To strengthen Member States’ capacity for eliminating cervical cancer as a public health problem and achieve 2030 interim targets on 70 % coverage of screening of women in 35 and 45 years of age with precise test.
• To share 2021 WHO Guidelines/recommendations on Cervical Cancer screening and scaling up HPV DNA as a primary screening test.
• To share the method of price negotiation process, pool purchasing of HPV DNA and other treatment devices.
• To share the learnings from countries to adopt HPV DNA test as Primary screening test from other screening tests and integration of HPV testing into existing Laboratory platforms with successful examples and SEARO application.

Programme

• Introducing and scaling up testing for human papilloma virus as part of a comprehensive programme for prevention and control of cervical cancer
• Overview of screening programme in SEAR
• Country experience of transitioning from Pap smear to HPV DNA based testing including implication on costing
• Country experience of Pilot testing of HPV DNA testing and plans of moving from PAP smear to HPV DNA
• Innovative purchasing options for HPV DNA tests and equipment for management of precancerous lesions
• Options of integration of HPV testing into existing Laboratory Platforms with successful examples
• Discussions/clarifications and closing
Dr. Neena Raina SA/MCA welcomed the participants and shared the objectives of the webinar. She highlighted that the SEARO gives high importance to the Cervical cancer prevention and it focuses under the Regional Director’s flagship priority of prevention of NCDs focusing on the best buys for disease prevention and she highlighted about importance of deliberation planned in webinar to reach 90-90-90 targets.

**Scaling up testing for human papilloma virus**

Dr. Nathalie Broutet delivered her talk on “Introducing and scaling up testing for human papilloma virus as part of a comprehensive programme for prevention and control of cervical cancer”. She talked about the Proposed Elimination Threshold of less than 4 cases/100,000 women and Targets 90 70 70. She shared the WHO recommendations of the Screen and Treat OR Screen, Triage and Treat strategy for cervical cancer prevention with HPV DNA as primary screening test, starting at age 30 at every 5 to 10 years screening interval. After a positive molecular test screen, women’s eligibility should be checked for the ablative treatment and treatment should be offered by either thermocoagulation / cryotherapy or Excision.

**Impact of both strategy is similar in terms of** reduction of cervical cancer and deaths for normal population of women while only Screen, Triage & Treat is recommended for WHIV. **The costs** of HPV alone and HPV with triage were similar as more treatments with HPV alone and fewer treatments with triage with greater cost of additional testing with triage. **Choice should depend on the context i.e.:** the capacity of the health care system to provide triage tests compared to more treatment, when not using triage, the access to services and the acceptability of treating women without lesion for achieving the 90,70,90 targets,

**Overview of screening programme in SEAR**

Dr. Anoma presented an “Overview of screening program in SEAR”. She shared that no country of the SEAR is below the global elimination target of 4 cases/100,000 populations. Most of the countries are having opportunistic screening with either VIA or Pap smear, with only Thailand doing screening by HPV DNA test. **Sri Lanka has completed a feasibility study** to move from PAP smear to HPV DNA testing and **some districts-initiated HPV DNA test.**

The country-specific context is crucial for diagnosis and treatment services based on existing capacities and each country should develop solutions based on individual context for strengthening of referral pathways, especially for potentially curable cervical cancers; and for researching and understanding barriers to care (patient and health-care system perspective). She mentioned that Cancer cervix is given a high priority by WHO TAG and have given strong recommendations for strengthening the elimination of the disease. The key is implementation at scale rather than at incremental approaches. She shared the five strategic lines of action planned by SEAR:

1. Strengthen Primary prevention through HPV vaccination
2. Strategic action to improve cervical cancer screening and pre cancer treatment through innovative approaches

3. Strategies to improve access to services for early diagnosis, treatment of invasive cancer, rehabilitation and palliative care, strategic actions to improve health system support for elimination of cervical cancer, strategic actions to strengthen information, education

4. Strategic actions to improve health system support for elimination of cervical cancer

5. Strategic actions to strengthen information, education and advocacy for social mobilisation for elimination of Cervical Cancer

**Transitioning from Pap smear to HPV DNA based testing**

The next two presentations shared the practical experience of transferring from PAP smear to HPV DNA test as a primary screening test.

Dr. Suleeporn from MoH Thailand shared the “Country experience of transitioning from Pap Smear to HPV DNA based testing including implication on costing.” She shared the transition to HPV DNA testing from 2020 onwards. Before this the screening for Cervical cancer was done by Pap smear or VIA. Those screened positive for HPV 16/18 are offered colposcopy, positive for other types are offered cytology as a triage test and those who screen negative are rescreened after 5 years. Screening is done in Healthcare hospital which is a primary care unit. They started with a demonstration project in one province before launch of a national Programme. Pilot study data was used for economic evaluation. HPV test needed to be done at less than 16 USD. HPV test is universal coverage. In 2021 they have the programme in 44 Province with 51 central lab and 129 Colposcopy clinics. Next year they will scale up to 76 provinces with 101 central labs and 146 Colposcopy clinics. This year target population is 100,000 women but due to COVID 19 less population could be screened.

Economic evaluation of cervical cancer screening using HPV DNA testing support the full scale implementation of HPV testing as a primary cervical cancer screening in Thailand.

Dr. Padmaka Silva, from Family Health Bureau MoH, Sri Lanka shared “Country experience of Pilot testing of HPV DNA testing and plans of moving from PAP smear to HPV DNA”. The target population covered for screening is Sexually active women aged 35 and 45 years (35-year cohort – 0.8 % of the total population 45-year cohort – 0.8 % of the total population). He shared that up to October 2021 Percentage of 35-year age cohort coverage who had undergone Pap smear /HPV screening out of 0.8% of the population is 26.5.

- Pilot Project Successfully Completed in Kalutara District in 2018
- First machine installed in Family Health Bureau in 2019, Second machine also installed
- Purchased about 20,000 samples in 2019 and 2020
• Got the approval from the secretary to the MOH to purchase 100,000 test kits by 2023 (to cover 70% of the target population that belongs to 35-year cohort)
• They have scaled up HPV DNA testing in 20/27 districts because of:
  • Improved coverage of cervical cancer screening
    • Reduce the work burden of Cytoscreeners
    • Improve the sensitivity of cervical cancer screening
    • Increase the screening interval
    • Reduce the burden for colposcopies.

Purchasing options for HPV DNA tests and equipment

Parth Bahuguna & Owen Demke from CHAI gave a talk on Innovative purchasing options for HPV DNA tests and equipment for management of precancerous lesions. Through the rapid expansion of TB and HIV testing programs, and more recently through COVID-program expansions, testing infrastructure has increased greatly across Low-and-Middle-Income Countries. Pricing remains a key barrier to scale, with various key components for HPV testing driving overall pricing: test reagents and consumables, instrument, sample collection media and swabs, etc. Global pricing offers from suppliers demonstrate a diverse set of offerings.

Focused discussions at country levels have allowed for significantly improved pricing that can be accessed by countries through setting screening targets, engagement with suppliers, and establishing a multi-supplier competitive market. Further efforts will be needed to socialize current pricing and reach more scalable solutions for HPV testing.

Global negotiations with treatment device suppliers have sought to scale up the use of portable thermal ablation and loop electrical excision procedures (LEEP) devices in low-and-middle income countries. Unitaid and CHAI have concluded two new global agreements with Liger/Cure Medical LCC (Liger) and Wisap Medical Technologies GmbH (Wisap) respectively. As a result of these agreements, Liger and Wisap respectively offered a price that were up to 43% and 59% lower than the current market. New low-priced, portable, multi-use thermal ablation treatment devices offer a significantly better commodity cost per treatment as compared to cryotherapy. The average per treatment TA cost in CHAI focus countries is ~$0.36. The average per treatment Cryotherapy cost in CHAI focus countries is ~$26.62

Ongoing work is seeking to understand market impact of these devices. Investment in thermal ablation allows for decentralization enabling an increase in overall screening and treatment demand.

Integration of HPV testing

Dr. Anita Sands talked about Integrating HPV testing into laboratory platforms. She mentioned that the reviewing capacity for testing when molecular (NAT) technologies are used should not be restricted to one programme as it is unaffordable and therefore very unlikely that labs can afford a different instrument for each condition they test for.

Integration is mainly at the level of laboratory-based platforms.
60% of the HPV tests in the global market are without a single peer-reviewed publication, 82% lack any published analytical and/or clinical evaluation and over 90% are not evaluated in line with consensus requirements that ensure safe use in clinical settings. For cervical cancer screening, integration must consider that cytology services are generally not co-located with molecular testing. Adjustments will be required for both specimen collection and laboratory workflow.

Examples of success – VSC Foundation, Australia: Pivoted from LBC to HPV testing
- Also offer CT/NG testing, bowel cancer screening
- Pivoted to offer support SARS-CoV-2 testing (without impacting capacity or timelines for HPV testing)

Closing remarks
Dr. Neena Riana extended a vote of thanks to all presenters and WCOs, HQ and SEARO colleagues and the audience.

Key Takeaways
WHO SEAR is committed for cervical cancer elimination as a regional flagship priority. Elimination initiative is worth pursuing and will be feasible and effective in SEA region. Elimination is within the reach of all countries in the SEA Region. Time is right for a concerted and inclusive strategy to accelerate the elimination of disease as a public health problem. The key is implementation at scale rather than at incremental approaches.

Economic evaluation of cervical cancer screening using HPV DNA testing support the full scale implementation of HPV testing as a primary cervical cancer screening in Thailand. Sri Lanka have scaled up HPV DNA testing in 20/27 districts. Innovative purchasing options for HPV DNA tests and equipment for management of precancerous lesions is now available.

Focused discussions at country levels have allowed for significantly improved pricing that can be accessed by countries through setting screening targets, engagement with suppliers, and establishing a multi-supplier competitive market. For Integrating HPV testing into laboratory platforms, adjustments will be required for both specimen collection and laboratory workflow. For cervical cancer screening, integration must consider that cytology services are generally not co-located with molecular testing. Choice of HPV alone and HPV with triage should depend on the context i.e.: the capacity of the health care system to provide triage tests compared to more treatment, when not using triage, the access to services and the acceptability of treating women without lesion for achieving the 90,70,90 targets.