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APAC accelerates cervical cancer elimination

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Cervical cancer remains one of the most pressing women's health challenges in the Asia Pacific region, accounting for approximately 58 per cent of global deaths, according to an Economist Impact analysis commissioned by the Asia Pacific Women's Cancer Coalition and supported by Roche. Despite being largely preventable through vaccination and early detection, the disease continues to impose a substantial clinical, social, and economic burden across low, middle, and high income countries in the region.



As governments, healthcare providers, and industry stakeholders respond to the increased threat perception of HPV, the cervical cancer landscape in Asia Pacific is rapidly evolving. From expanding HPV vaccination and organised screening programmes to policy reforms, programme scale up, and awareness initiatives, countries across the region are recalibrating strategies to accelerate progress.

Governments across the region are rolling out vaccination drives, expanding screening access, and strengthening treatment pathways. These commitments are reshaping not only public health strategy but also the broader healthcare and commercial landscape. As HPV vaccination coverage is growing and screening programmes modernising, demand for diagnostics, therapeutics, and supporting infrastructure is rising. The cervical cancer market in Asia Pacific is evolving in response, with innovation spanning prevention, detection, and treatment.

Cervical cancer market

Current treatment and diagnostics

The cervical cancer market is evolving in two important directions at once: scientific progress and global access expansion. “On the scientific side, we’re seeing steady growth across prevention, diagnostics, and treatment. The overall market is valued at roughly $22–25 billion in 2024 and is projected to grow at about 5–6 per cent annually over the next decade. Immunotherapies and antibody-drug conjugates are expanding treatment options for advanced disease, while molecular HPV testing is increasingly replacing traditional Pap cytology as the primary screening method, in line with updated WHO guidelines,” observed **Dr Judith Ng-Cashin, Chief Medical Officer, Novotech**.

Preventive vaccines remain one of the most important tools for cervical cancer control and continue to shape long term disease incidence.

According to the Cervical Cancer - Global Clinical Trial Landscape (2024), 25 unique companies are active across marketed and Phase III cervical cancer assets. 14 companies commercialise approved therapies spanning immune checkpoint inhibitors, VEGF inhibitors and biosimilars, antibody drug conjugates, chemotherapies, and preventive vaccines. 12 companies are advancing phase III candidates. One company, Innovent Biologics, appears in both categories, highlighting its dual commercial and late stage development presence. The treatment landscape is transitioning from a chemotherapy dominated model, toward one centred on immunotherapy, targeted biologics, and HPV directed innovation.

Among marketed therapies, immune checkpoint inhibition has become the systemic backbone of advanced disease. Keytruda from Merck established PD 1 blockade as a standard of care in PD L1 positive recurrent or metastatic cervical cancer. Anti angiogenic therapy remains foundational through Avastin from Roche, though the presence of multiple bevacizumab biosimilars from Amgen Inc., Biocon Ltd., Bio-Thera Solutions, and Innovent Biologics signals increasing pricing pressure and broader global access, particularly across Asia Pacific markets. A major therapeutic milestone has been the approval of Tivdak from Genmab, the first tissue factor targeting antibody drug conjugate in cervical cancer, validating ADCs as a high potential growth modality. Traditional cytotoxic agents such as topotecan, irinotecan, gemcitabine, and ifosfamide remain clinically relevant but are increasingly positioned within combination regimens rather than as standalone backbones.

The phase III pipeline is dominated by immuno-oncology candidates. PD-1, PD L1, and CTLA 4 programmes from AstraZeneca, Biocad, Shanghai Henlius Biotech, and Innovent Biologics intensify competition in checkpoint blockade.

Also, therapeutic HPV vaccines targeting E6 and E7 viral oncoproteins are advancing, including programmes from Inovio Pharmaceuticals, ISA Pharmaceuticals, and Ayala Pharmaceuticals, reflecting strategies that directly address the viral drivers of disease rather than solely modulating immune checkpoints. Cell therapy is also represented in late stage development, notably tumour infiltrating lymphocyte approaches from Iovance Biotherapeutics, introducing highly personalised immunotherapeutic strategies into the cervical cancer setting.

Geographically, 10 of the 25 companies are headquartered in the Asia Pacific region, representing approximately 40 per cent of the dataset. China accounts for the largest share, followed by Japan, India, and Singapore. While Western leaders such as Merck, Roche, and AstraZeneca retain strong global positions, Asia Pacific companies are rapidly expanding their role, not only as commercial suppliers but also as innovation drivers. Chinese firms are advancing novel checkpoint inhibitors and bispecific antibodies alongside biosimilars, while Indian manufacturers such as Biocon are strengthening global biologics supply and improving affordability in emerging markets.

Diagnostics

Self collection is emerging as a key advancement in cervical cancer diagnostics, expanding access to HPV testing and reducing reliance on clinic based sampling. By allowing women to collect their own vaginal samples for HPV testing, self collection aims to improve participation rates, particularly among those who face barriers to traditional screening.

“The biggest shift is toward prevention and earlier detection. HPV self-collection has now received regulatory approval in the US, and organised HPV-based screening programmes are expanding globally,” remarked Dr Judith.

Countries are also introducing structured self collection pathways. BD announced a strategic partnership with Camtech Health to offer women in Singapore the option to self collect cervical screening samples at home.

Australia’s National Cervical Screening Program (NCSP) now offers self-collection of HPV samples as an option for all routine participants aged 25–74, allowing people to collect their own vaginal sample rather than relying exclusively on clinician-collected samples. This is aimed at increasing participation and reducing barriers to screening.

Thailand has also advanced its national screening framework, transitioning from cytology to HPV based screening in 2020. In 2023, self collection options were introduced for women aged 30 to 60.

AI-based cervical cancer screening technologies are advancing across multiple markets. In April 2025, TruScreen Group launched a five year screening programme in Ho Chi Minh City, Vietnam, targeting 260,000 women using the TruScreen Ultra device in partnership with the Ho Chi Minh City Public Health Association and Gorton Health Services. In February 2026, the company reported validation results from a large Chinese study supporting broader clinical adoption of its screening tool. In India, Tirupati based researcher Lalasa Mukku developed an artificial intelligence based technique to detect cervical cancer related tumours.

Hologic received US Food and Drug Administration clearance for its digital cytology system integrating deep learning and volumetric imaging to detect precancerous lesions and cervical cancer cells, with availability in Australia and New Zealand.

Evolving treatments

Although effective preventive and treatment tools are available, scientists are continuing to research easier, less invasive, and more accessible approaches to detect and treat cervical cancer at earlier stages.

Researchers at Japan's Chiba University are developing a therapeutic nanogel nasal vaccine designed to address established infection. In preclinical models, the vaccine activated local immune responses and slowed tumour growth, supporting further development of therapeutic HPV vaccination strategies.

Screening innovation is also advancing through non-invasive approaches. Researchers in China evaluated the use of menstrual blood collected via a sanitary pad-based sampling strip to detect HPV and cervical intraepithelial neoplasia grades 2 and 3. Diagnostic accuracy of menstrual blood testing was compared with clinician-collected cervical samples, with findings supporting its potential as a home-based screening method, particularly for women who do not attend clinic-based screening.

Another Chinese company, PHASE Scientific International Limited, launched a large-scale clinical study for urine-based HPV screening, establishing the first site in Guang'an, Sichuan Province, China. The trial applies the company's PHASiFY urine based DNA concentration technology to evaluate a scalable and accessible model for cervical cancer prevention.

Awareness Programmes

Awareness programmes remain a cornerstone of the global cervical cancer elimination strategy, focusing on increasing public understanding of HPV vaccination, regular screening, and early treatment. Improving awareness and encouraging women to participate in routine screening are critical to reducing late-stage diagnosis and mortality.

Roche launched National Women's Checkup Week to raise awareness and expand access to cervical health screenings. Through partnerships with businesses, healthcare providers, and community organisations, the initiative promotes education and facilitates access to preventive services, supporting the integration of routine screening into standard healthcare practices.

Regional coalitions are also strengthening advocacy and implementation efforts. The Asia Pacific Women's Cancer Coalition is working toward eliminating women's cancers across the region, while TogetHER for Health provides advocacy support, policy engagement, and small grants to cervical cancer and reproductive health programmes in low and middle-income countries. One example is Program ROSE in Malaysia, which conducts community outreach initiatives focused on education and early detection. Through sponsorships and donations, Program ROSE has screened 25,000 women across 200 locations, serving as a scalable model within Malaysia and the broader region.

Asia Pacific Economic Cooperation economies adopted the Roadmap to Accelerate Cervical Cancer Elimination by 2025, establishing coordinated actions for 2026-2030. The roadmap focuses on strengthening HPV vaccination, screening, and early treatment, aligning regional policies with the World Health Organisation's 90-70-90 targets, and promoting best practice sharing across member economies.

In September 2024, the governments of the United States, Australia, India, and Japan launched the Quad Cancer Moonshot to advance cancer control in the Indo Pacific, beginning with cervical cancer. The initiative aims to improve healthcare infrastructure, expand research collaboration, strengthen data systems, and enhance prevention, detection, treatment, and care capacity across participating countries.

Country Wise Initiatives

India

India is strengthening its cervical cancer prevention and screening ecosystem through policy, innovation, and state level programmes. In April 2025, indigenously developed HPV test kits for cervical cancer screening were launched under the Department of Biotechnology's Grand Challenges India programme at Biotechnology Industry Research Assistance Council

(BIRAC). The initiative aims to expand access to affordable, locally developed molecular diagnostics.

At the national level, the Ministry of Health and Family Welfare has recommended the introduction of the cervical cancer vaccine under the Universal Immunisation Programme, signaling intent to integrate HPV vaccination into routine public health delivery.

State governments are also advancing targeted campaigns. Maharashtra launched the Cervical Cancer Free Maharashtra campaign in Pune to promote vaccination, screening, and early detection. Sikkim has implemented a free HPV vaccination and screening drive, positioning itself as an early mover in state led elimination efforts.

China

China has integrated the HPV vaccine into its national immunisation programme, marking a policy level step toward expanding cervical cancer prevention coverage. The move supports broader access to HPV vaccination within the public health system and aligns with global elimination targets.

In parallel, the World Health Organization has prequalified two Chinese produced bivalent HPV vaccines, Cecolin and Walrinvax, following evaluation of their quality, safety, and efficacy. Both vaccines demonstrated strong protective efficacy against high risk HPV types, strengthening China's domestic vaccine manufacturing capacity and supporting supply for both national and international immunisation programmes.

Australia

Australia is on track to become the first country to eliminate cervical cancer by 2035, according to a report from the Centre for Research Excellence in Cervical Cancer Control. In 2021, the national cervical cancer incidence rate declined to 6.3 per 100,000 women, down from 6.6 per 100,000 in 2020. For the first time since records began in 1982, no cervical cancer cases were diagnosed in women under 25 in 2021. Survival outcomes have also improved, with the five year survival rate increasing to 76.8 per cent for 2017 to 2021, compared with 73.9 per cent for 2012 to 2016.

While Australia is progressing toward elimination, cervical cancer remains a leading cause of death in several neighboring countries. To address regional disparities, the Elimination Partnership in the Indo Pacific for Cervical Cancer (EPICC) brings together Australian research institutions and global partners to support national elimination strategies. The consortium is led by the University of Sydney and includes the Australian Centre for the Prevention of Cervical Cancer, the Kirby Institute, Family Planning Australia, the National Centre for Immunisation Research and Surveillance, and Unitaid. The University of Sydney has also partnered with Timor-Leste to support cervical cancer elimination efforts.

Programme expansion from 2025 is supported by a AUD 13.1 million commitment from the Minderoo Foundation, building on the Australian Government's AUD 22 million investment to strengthen implementation and regional collaboration across the Indo Pacific.

Thailand

Thailand has made significant progress in cervical cancer control and is on track to achieve the 90-70-90 targets by 2030, particularly through HPV vaccination and screening programmes. The HPV vaccine has been included in the national immunisation schedule since 2017 and is offered free of charge to girls aged 11–12. However, challenges remain in reaching 90 per cent coverage, including issues with vaccine supply, logistical barriers, and regional disparities.To improve outcomes, Thailand is focusing on population education, expanding oncology services, investing in workforce development, strengthening referral networks, and promoting the best clinical practices through standardised treatment protocols, according to WHO.

Barriers to the Road to 2030

Despite progress toward the World Health Organization 90 70 90 targets for cervical cancer elimination by 2030, multiple structural and systemic barriers continue to slow implementation across regions.

The central challenge in cervical cancer today isn't a lack of tools, it's equitable implementation at scale. Globally, only about one-third of women have been screened in the past five years, and screening coverage in many low-income countries remains in the low single digits annually. The barriers are largely structural and social.

“First is infrastructure gaps. Many countries lack laboratory capacity, trained specialists, and organised screening systems. Companies are responding with point-of-care HPV tests, self-sampling solutions that reduce reliance on clinic-based exams, and technologies that improve laboratory efficiency,” said Dr Judith.

She further added, “Cost and affordability is another barrier. HPV testing and multi-dose vaccination schedules have historically been expensive for national programmes. The move toward a validated single-dose HPV vaccine could significantly reduce per-person costs and simplify logistics. Tiered pricing models and financing mechanisms through GAVI, the World Bank, and philanthropic partners, including nearly $600 million in global commitments announced in 2024, are also helping expand access.”

Another barrier is health literacy and stigma. Misconceptions about HPV and vaccine hesitancy continue to limit uptake, even in high-income countries. In the US, adolescent HPV vaccine completion rates are still just above 60 per cent. Companies and public health agencies are investing in school-based vaccination programmes, community outreach, and integrated primary care approaches to improve awareness and trust.

“Ultimately, cervical cancer is one of the few cancers we can realistically eliminate with the tools already available. The next five years will be defined less by new discoveries and more by how effectively we scale vaccination, screening, and follow-up care, particularly in the regions where the burden is highest,” said Dr Judith.

Achieving the 2030 elimination targets will depend on implementation at scale, ensuring that proven interventions reach the populations most at risk and closing the remaining gaps between innovation and access. Beyond the public health impact, there are also clear economic implications, with a Roche report estimating that every $1 invested in cervical cancer interventions could generate a $3 return to the local economy.

Ayesha Siddiqui