WHO CERVICAL CANCER ELIMINATION **INITIATIVE:** FROM CALL TO ACTION **TO GLOBAL** MOVEMENT

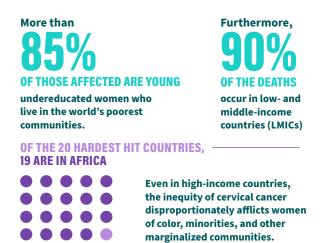
GET INFORMED. GET SCREENED. GET VACCINATED.





For the first time in history, the world has resolved to eliminate a cancer.

Few diseases reflect global inequities as much as cervical cancer. Cervical cancer is the fourth most common form of cancer among women worldwide.



In 2018, the World Health Organization's Director-General, Dr Tedros Adhanom Ghebreyesus, issued a call to action to scale up prevention, detection and treatment, and called on the world to finally eliminate cervical cancer as a public health problem. In 2020, WHO's Member States responded to the call, passing a historic resolution through the World Health Assembly. Resolution WHA73.2 adopted the Global strategy to accelerate the elimination of cervical cancer as a public health problem and its associated goals and targets for the period 2020–2030.



On November 17, 2020, WHO launched the strategy. The resolution and the strategy established clear targets to achieve by 2030 for HPV vaccination coverage (90%), screening coverage (70%), and access to treatment (90%).

In the time since, WHO has released a vast array of technical products and supported countries as they embark on this ambitious agenda. WHO regional committees have all adopted implementation frameworks. The world is ready to eliminate.

What is cervical cancer?



Cervical cancer develops in a woman's cervix (the entrance to the uterus from the vagina).

CERVICAL CANCER IS A VACCINE-PREVENTABLE CANCER.

Almost all cases are caused by the human papilloma virus (HPV), which is mainly transmitted through sexual contact, and for which we have a vaccine (primary prevention).

PRECANCER CAN BE TREATED BEFORE IT BECOMES CANCER.

Lesions progress from a precancerous stage to invasive cancer. That allows time to detect and stop the disease (secondary prevention). In many LMICs, clinicians apply simple vinegar to the cervix and assess it with the naked eye. This technique is known as "visual inspection with acetic acid" (VIA) and its quality is low. Today, better technology is available: high performance HPV tests can detect high-risk strains of the virus. This test also allows for a woman to collect a sample herself with a simple swab.

THERE ARE VARIOUS TREATMENT METHODS AVAILABLE.

During the precancerous phase, lesions can be treated by ablating or excising the affected tissue. If the disease progresses to cancer, when diagnosed early, it can be curable. Treatment may require surgery, radiotherapy, and/ or chemotherapy. Cancers diagnosed in late stages can be managed with appropriate treatment and palliative care, to limit pain and suffering.

Why it matters

ELIMINATING CERVICAL CANCER IS ABOUT GENDER EQUITY.

Access to primary healthcare can protect women with simple preventive services. By tackling cervical cancer, we begin to address the harm that women confront when their human right to health is neglected, and if we fail to prioritize the basic services they deserve.

ELIMINATING CERVICAL CANCER IS ABOUT ENDING A CYCLE OF POVERTY AND PROTECTING CHILDREN.

For poor families, when a mother gets sick and dies, the family sinks deeper into hardship. The health of the children she leaves behind is affected; many maternal orphans even die as a result. Poverty creates the circumstances for cervical cancer, which then further compounds poverty.

THIS IS UNFINISHED BUSINESS FOR THE HIV MOVEMENT.

Women living with HIV are six times more likely to develop cervical cancer. In fact, it is an AIDS-defining illness. For too long, the world has failed to prioritize the complete package of care for female HIV patients – extending their life with antiretroviral treatment, only for them to succumb to such a painful condition.

ELIMINATING CERVICAL CANCER WILL BRING THE WORLD CLOSER TO ACHIEVING SUSTAINABLE DEVELOPMENT GOAL 3.4.

Cervical cancer is the only NCD that can actually be eliminated. Curbing the disease will make a significant contribution to reducing premature deaths by one third by 2030.

The need for a call to action: the urgency to prioritize women's health

Until 2018, there was too little public conversation about the lack of access to the tools that could protect women from this devastating disease. Even more consequentially, there was insufficient prioritization of the problem. For example:

- The supply of HPV vaccine was drastically constrained, with only two prequalified manufacturers;
- Only 34 LMICs (26%) had HPV vaccine programmes
- Women in high-burden countries were and in many cases still are – being screened with low-quality VIA – when that is even available at all;



- Bulky cryotherapy devices that require complex, unsustainable logistics to refill gas tanks were a main approach to treating precancerous lesions in most LMICs, if available at all;
- Access to cancer management was and still is very limited; and
- Fragmented and inconsistent policies lacked a coordinated approach to bring together all the tools to eliminate the disease.

The call to action: changing the world's approach to cervical cancer and a WHO flagship initiative

WHO's Call to Action sounded the alarm and

transformed the global response. In May 2018 Dr Tedros and Assistant Director-General Dr Princess Nono Simelela harnessed the collective support of champions, Member States and partners to bring the world together around cervical cancer elimination.



To drive the elimination agenda forward, the Director-General established a flaghsip <u>Cervical Cancer</u> <u>Elimination Initiative (CCEI)</u>. CCEI is

designed to transform the Call to Action and the Global Strategy into a real-world shift. To guide WHO and set CCEI on strong footing, a high-level advisory group of renowned experts was established, co-chaired by Prof. Senait Fisseha and Prof. Groesbeck Parham.



WHO co-created the Global Strategy with stakeholders, experts, and partners. Regions and expert technical working groups provided input into all sections of the strategy. Civil society and the general public actively contributed,

while people with lived experience and Member States were consulted throughout. Particular attention was paid to the disease's inequities.



By 2020, WHO Member States issued a strong mandate and made commitments to eliminate cervical cancer as a public health problem. Even at the height of the

COVID-19 pandemic, the <u>Global Strategy to Accelerate</u> the <u>Elimination of Cervical Cancer as a Public</u> <u>Health Probelm</u> was adopted unanimously and with overwhelming support at the Seventy-third World Health Assembly. Finally, the world had an actionable plan with clear targets.



WHO Assistant Director-General, Dr Princess Nono Simelela, visiting clinics in Rwanda as the country rolls out cervical cancer screening and treatment services.



"This is a historic moment for global health. It marks the first time that the world has committed to eliminating a cancer."

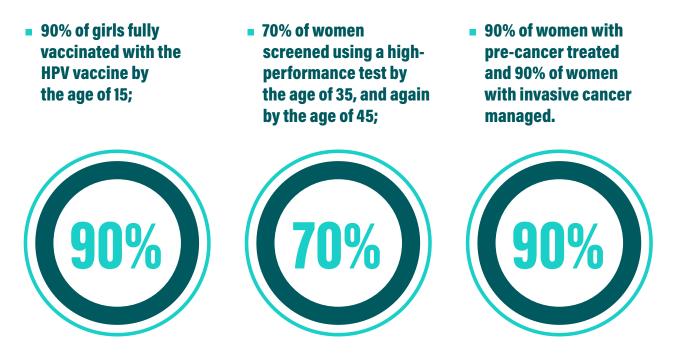
WHO Director-General, Dr Tedros Adhanom Ghebreyesus (17 November 2020)

CLEAR GOALS AND ACCOUNTABILITY

The Resolution and the Global Strategy sets clear targets, and establishes a means for accountability to keep the world on track to 2030 and beyond. To reach elimination, it aims to reduce incidence to fewer than four women per 100,000 women-years.

THE GLOBAL TARGETS

The Global Strategy establishes targets for each of three strategic pillars. If met by 2030, the targets would put countries on the path towards cervical cancer elimination:



Meeting and maintaining the 90-70-90 targets would yield significant returns in the coming century:

- the median cervical cancer incidence rate will fall by 42% by 2045, and by 97% by 2120, averting more than 74 million new cases of cervical cancer; and
- the median cumulative number of cervical cancer deaths averted will be 300 000 by 2030, over 14 million by 2070, and over 62 million by 2120.

On 17 November, 2020, the Global Strategy was officially launched on the sidelines of an extraordinary World Health Assembly, with an international day of action that unfolded all over the globe.

ACTION-ORIENTED LAUNCH

From the moment it was launched, implementation began. Survivors, advocates, leaders, governments and communities rolled out activities in every region, making international headlines.

On 17 November 2020, amidst pandemic lockdowns, communities turned on their lights in the color teal, illuminating over 100 landmarks across all regions of the globe to mark the launch of the *Global Strategy to Accelerate the Elimination of Cervical Cancer*. The launch was broadcast with live participation around the world, catalyzing implementation activities from day one. Survivors of cervical cancer played leading roles and shared stories. First Ladies and local leaders rallied their communities, with cancer walks and advocacy events. Ministries of Health initiated services at new facilities, while screening campaigns rolled out. In **Zambia**, for example, the Teal Sisters, a group of cervical cancer survivors, worked with the Ministry of Health to screen inmates in female prisons across the country. In **Rwanda**, facilities brought new screening services online. In **Paraguay's Cordillera region**, the government launched an HPV testing program. In conjunction with the launch, **El Salvador** introduced the HPV vaccine. In **India**, journalists were trained to report on cervical cancer, as the Global Strategy attracted coverage by major media outlets and local press around the world. A robust, world-wide social mobilization followed. Each year since, on 17 November, the world has rallied again with equal force for another day of action, maintaining heightened energy for the Global Strategy. For example, in November 2021, to mark the one year anniversary of the Global Strategy, **Australia** invested millions to support its pledge to be the first nation in the world to achieve elimination.



Cervical Cancer Elimination Initiative 2021 Teal Ribbon Photo Competition Winner. Vaccinated youth. Mingyang Chen, Chinese Academy of Medical Sciences & Peking Union Medical College

GLOBAL LEADERSHIP AND COMMITMENTS ESTABLISHED: ALL WHO REGIONAL COMMITTEES HAVE NOW ADOPTED REGIONAL ACTION PLANS.

These incorporate the strategy's goals and targets, customizing the approach for their respective geographies. The institutional platforms are already in place to facilitate implementation across countries.

TECHNICAL PRODUCTS TO ASSIST COUNTRIES.

With all hands on deck, and the collective effort of technical departments and regional offices, WHO has produced a vast array of technical products to support implementation. Updated clinical guidelines, policy documents, technical specifications, and prequalification services have brought together the best available knowledge and evidence across WHO and from outside experts, so that countries can put the tools to use.

IN TANDEM, CCEI HAS FOCUSED ON COUNTRY IMPACT, Providing technical assistance for governments.

With the support of the German government, the Susan Thompson Buffett Foundation, and Unitaid, WHO has deployed experts to countries to provide actionable advice; it has helped countries update national policies; supported procurements; and collaborated closely with partners to channel even more assistance for countries. As a result of these multi-pronged and collective efforts, we have seen meaningful progress.

Technical products and tools to support implementation



To give Member States, partners and the public an easily accessable database of all WHO technical products and related information to support the implementation of the Global

Strategy, WHO created <u>The Cervical Cancer Elimination</u> <u>Initiative Knowledge Repository</u>. The Knowledge Repository is a web-based platform, which provides "one-stop" access to the knowledge collected from a variety of sources. To help countries track progress against the elimination targets, WHO produced <u>Cervical Cancer</u> <u>Country Profiles</u> and a <u>Framework for Monitoring</u> <u>the Implementation of the WHO Global Strategy to</u> <u>Accelerate the Elimination of Cervical Cancer as a</u> <u>Public Health Problem.</u>

Early achievements



WE HAVE SEEN EARLY ACHIEVEMENTS IN THE FIRST PILLAR.

By the end of 2022, the number of manufactures with licensed HPV vaccines has more than doubled to five, and production capacity has increased rapidly. Based on the latest evidence, WHO issued recommendations for optimized HPV vaccine schedules, including the possibility for adolescents to receive a single dose, which can reduce programmatic cost and increase flexibility to reach higher coverage. Since the Call to Action, 50 countries introduced the HPV vaccine into their routine immunization programmes, most of which are LMICs.



WE HAVE SEEN EARLY ACHIEVEMENTS IN THE SECOND PILLAR.

WHO updated guidelines to support HPV testing as a preferred screening method, to allow for self-sampling, and to improve treatment modalities. For example, with recommendations on the use of portable, battery-powered thermal ablation devices to treat precancerous lesions, WHO has also been supporting countries to phase out cryotherapy. In doing so, WHO supported reduced access pricing for thermal ablation products. Looking to the future, WHO is supporting innovation for the next generation of point-of-care testing and artificial intelligence-based screening, which hold exciting potential to further improve quality, reduce costs, and increase access.



WE HAVE SEEN EARLY ACHIEVEMENTS IN THE THIRD PILLAR.

WHO published a framework for strengthening and scaling-up services for the management of invasive cancer, and guidance for procuring radiotherapy devices. WHO deployed clinical experts to help train surgeons and oncologists, established new partnerships on diagnostics and radiotherapy, and brought together professional societies to further build capacity in LMICs.

"This is a moment of significance because it represents a commitment to centering the needs of women and girls and valuing their bodies and their lives, and it is a necessary step toward a brighter future for all people."

Prof Senait Fisseha, Co-Chair of the WHO Director-General's Expert Group on Cervical Cancer Elimination

"The continued rise in cervical cancer incidence and mortality rates amongst the world's poorest women, despite the availability of preventive and therapeutic measures, signifies one thing: profit is more important than life. This reality must be considered when designing strategies to eliminate cervical cancer in low-income countries."

Prof Groesbeck Parham, Co-Chair of the WHO Director-General's Expert Group on Cervical Cancer Elimination

THE GLOBAL STRATEGY HAS CHANGED THE SOCIAL DIALOGUE AROUND CERVICAL CANCER.

Over recent years, a political agenda mobilized and sparked a fledgling social movement, while highlighting

the inequities of the disease. A global community of cervical cancer survivors and advocates has emerged. WHO continually collaborates with these networks for their guidance and expertise, to co-create solutions.

Survivors, advocates, and civil society leaders on the front lines

"After treatment I promised myself that I was going to fiercely fight to save the lives of my two daughters, whom I was so afraid of leaving behind, by advocating for the HPV vaccine for the young girls and screening for the adult women. We need better access to surgery, radiation, chemotherapy, brachytherapy to save more lives. When the World Health Organization launched the strategy to accelerate the elimination of cervical cancer I saw hope."

KAREN NAKAWALA, cervical cancer survivor, civil society leader, and radio host in Zambia.



Prof Neerja Bhatla and healthcare workers take a pledge to eliminate cervical cancer in India.



Karen Nakawala and the Teal Sisters, cervical cancers survivors and advocates.



Survivor, Icó Toth, with advocates, establish a memorial to cervical cancer patients in Hungary

Standing up for social justice

IN OCTOBER 2022, DR TEDROS APPOINTED THE FAMILY OF HENRIETTA LACKS AS WHO GOODWILL AMBASSADORS FOR CERVICAL CANCER ELIMINATION.

Henrietta Lacks was a Black American woman who died from cervical cancer in 1951, at a time when racial discrimination was legal in her society. While she sought treatment for cervical cancer, researchers took biopsies from her body without her knowledge or consent. The cells they took, known as HeLa cells, became the first "immortal" cell line, continuing to replicate outside the human body. HeLa cells have contributed to countless medical breakthroughs, including the development of the HPV vaccine, polio vaccine, and drugs for HIV and cancers. Her extraordinary contribution to science remained hidden from the world for many years – even as others made fortunes off of her exploitation.





"Much like the injustice of Henrietta Lacks' story, women all over the world from racial and minority ethnic groups face disproportionately higher risks from cervical cancer. WHO's goal is to eliminate cervical cancer, which means the innovations created with Henrietta Lacks' cells must be made available equitably to all women and girls."

Country Highlights: EL SALVADOR



Cervical cancer advocates gather at El Salvador's Monumento a la Constitución.

WHO's Call to Action to eliminate cervical cancer gave momentum to El Salvador's efforts, which date back to 2008. Today, El Salvador has potential to become the first country in Central America that could reach the elimination targets.

In November 2020, coinciding with the launch of the global strategy, and despite the COVID-19 pandemic, El Salvador introduced the HPV vaccine into its national program. The cost of doses were included in the national budget, so that the country can pursue the 90% vaccination target by 2030.

El Salvador also responded by releasing new screening targets to achieve 70% coverage by 2030. The Ministry of Health (MOH) now offers services in all 75 screening facilities throughout the country. With support of partners such as BHI, the MOH had demonstrated that the screen-and-treat approach recommended by WHO significantly reduced loss-to-follow-up and improved cost-effectiveness. On that basis, in 2022, the government included HPV test procurement in the annual budget, making El Salvador one of the first countries in the region to fully implement the screen-and-treat approach. That same year, the MOH also included HPV self-sampling into its guidelines, adopting WHO recommendations that provide women with even more options for getting tested. Next, the country set its sights on the treatment of precancerous lesions. Although testing had improved, healthcare workers relied on cryotherapy to ablate lesions, which required expensive gas contracts and complex logistics. With help from several partners, WHO and PAHO, throughout the three levels of the organization, coordinated support to equip and train all of the country's facilities with state-of-theart, portable thermal ablation devices. The effort puts the country on a path to bring to full scale the latest technology recommended in WHO's recent guidelines.

Finally, with the update of national guidelines for the integrated prevention and control of breast and cervical cancer in 2022, hospital treatment with chemotherapy, surgery, radiotherapy, and palliative care have been standardized for patients diagnosed with invasive cancer. With the collaboration of WHO, IARC and IAEA, El Salvador is also identifying gaps and expanding it national cancer control plan to fully integrate the national cervical cancer elimination strategy.

Moving forward, the MOH is working to improve surveillance data, critical for tracking progress toward elimination.

Country Highlights: NIGERIA



Women drummers in Kebbi State beat the Call to Action to eliminate cervical cancer at the Argungu Fishing Festival.

Nigeria records an estimated 12,075 cervical cancer cases and 7,968 deaths annually. The government and civil society have the will to make a change. As Nigeria co-sponsored the launch of the Global Strategy, it also implemented services.

The Federal Ministry of Health and the State Ministries of Health, with support from Unitaid and partners, rolled out a secondary prevention program, starting with three states. WHO then supported Nigeria to rapidly double the scope, working with the state and federal governments, Nigeria's First Ladies Against Cancer, and partners to extend the program first to Kebbi and Niger states, and then to Ondo, Ekiti and Anambra states as well.

The programmes expanded with healthcare worker trainings, data tools, and the provision of screening and treatment supplies. To increase demand for services, and with additional support from members of the WHO Director-General's Expert Group, advocacy efforts and town halls took place across Nigeria, including television and radio appearances by the first ladies, cancer experts, and prominent leaders. Some of the primary healthcare centers in participating states noted record turnout of women, boosted by the efforts of sensitized healthcare workers: "I take advantage of the family planning programme and ante-natal and post-natal days to raise awareness about cervical cancer screening," said one healthcare worker in Ondo state.

To achieve this, WHO and partners supported dialogues to identify and fill funding gaps in the new states. Several state governments also approved the inclusion of cervical cancer secondary prevention in their state health insurance schemes and / or incorporated costs into the state budget.

Building a more equitable future

THERE IS REASON FOR HOPE: WE HAVE A COST-EFFECTIVE STRATEGY.

For every dollar invested in the Global Strategy, an estimated \$3.20 will be returned to the economy by 2050, accounting for the increases in women's participation in the workforce. That figure rises to \$26.00 when societal benefits are also taken into account.

INVESTMENT IN THE GLOBAL STRATEGY WILL ALSO ADVANCE COUNTRIES TOWARD OTHER STRATEGIC PRIORITIES AND THE SUSTAINABLE DEVELOPMENT GOALS (SDGS).

It would contribute to several SDGs, including; eliminating poverty (SDG 1), good health and wellbeing (SDG 3), gender equality (SDG 5), and reducing inequalities (SDG 10). It aligns with the focus on universal health coverage demonstrated by the United Nations (UN) General Assembly in 2019. The global effort is aligned with human rights instruments that uphold health as a human right; the UN Secretary-General's Global Strategy for Women's, Children's and Adolescents' Health (2016–2030); and the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020, which identifies HPV vaccination and cervical cancer screening and treatment as best buys.

ELIMINATION WILL REQUIRE SOLIDARITY AND PARTNERSHIPS.

The Global Strategy has been embraced by partners, who collectively oriented their efforts toward the goals.



For example, Gavi, the Vaccine Alliance, is providing support for LMICs to introduce and scale up HPV vaccines, while the Bill & Melinda Gates Foundation supported critical HPV vaccine research.

Unitaid matched the WHO's Call to Action with catalytic investments in screening and treatment programs in 14 countries, engaging implementing partners - the Clinton Health Access Initiative (CHAI), Expertise France, Jhpiego, the Union for International Cancer Control (UICC) and others - to assist Ministries of Health. The U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund have further supported secondary prevention, especially for HIV/AIDS programs. On the Global Strategy's November 17 anniversary, FIND launched a new program to support diagnostics for cervical cancer. Partners such as Basic Health International (BHI), the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), Lions Clubs and Rotary Clubs joined in partnership with Ministries of Health to further roll out services. In collaboration with the WHO Academy, the International Agency for Research on Cancer (IARC) has developed a comprehensive training on screening, diagnosis, and management of cervical precancer.

Together, the International Atomic Energy Agency (IAEA), IARC and WHO assist countries to assess cancer control capabilities, primarily through joint reviews. Professional societies have brought together surgeons and oncologists to strengthen clinical skills across LMICs.

Collectively, these efforts represent a meaningful starting point to advance this ambitious agenda.

"Now is the time to act. There is a powerful mandate. Investments into this space will meet a growing global movement to achieve clear goals and targets, based on evidence. Political will is ready. The science is ready. And civil society is ready. Together, we can prevent suffering for millions of women and their families and build a more just future for today's children."

Bente Mikkelsen, WHO Director for the Department of Noncommunicable Diseases

Key technical products on cervical cancer elimination

- WHO guidelines for the use of thermal ablation for cervical pre-cancer lesions https://apps.who.int/iris/handle/10665/329299
- Improving data for decision-making: a toolkit for cervical cancer prevention and control programmes <u>https://apps.who.int/iris/handle/10665/279420</u>
- WHO HPV Vaccine Coverage Monitoring Manual https://www.who.int/publications/i/item/ hpv-vaccine-coverage-monitoring-manual
- Global strategy to accelerate the elimination of cervical cancer as a public health problem <u>https://apps.who.int/iris/handle/10665/336583</u>
- WHO technical guidance and specifications of medical devices for screening and treatment of precancerous lesions in the prevention of cervical cancer <u>https://apps.who.int/iris/handle/10665/331698</u>
- Introducing and scaling up testing for human papillomavirus as part of a comprehensive programme for prevention and control of cervical cancer https://apps.who.int/iris/handle/10665/336668
- WHO recommendations on self-care interventions: human papillomavirus (HPV) self-sampling as part of cervical cancer screening https://apps.who.int/iris/handle/10665/332333
- WHO framework for strengthening and scaling-up services for the management of invasive cervical cancer https://apps.who.int/iris/handle/10665/337539
- WHO HPV Vaccine Coverage Monitoring Manual <u>https://www.who.int/publications/i/item/</u> hpv-vaccine-coverage-monitoring-manual
- WHO guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention, 2 ed https://apps.who.int/iris/handle/10665/342365
- WHO guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention, second edition: use of mRNA tests for human papillomavirus (HPV) <u>https://apps.who.int/iris/handle/10665/350652</u>
- WHO guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention: web annex A: syntheses of evidence, 2nd ed https://apps.who.int/iris/handle/10665/342366
- WHO guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention: web annex B: evidence-to-decision tables, 2nd ed https://apps.who.int/iris/handle/10665/342367

 WHO guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention, second edition: use of mRNA tests for human papillomavirus (HPV): web annex: evidence-to-decision framework for mRNA testing for HPV https://apps.who.int/iris/handle/10665/350557

New WHO recommendations on screening and treatment

- New WHO recommendations on screening and treatment to prevent cervical cancer among women living with HIV (Policy Brief) https://apps.who.int/iris/handle/10665/342712
- Technical specifications of radiotherapy equipment for cancer treatment <u>https://apps.who.int/iris/handle/10665/339912</u>
- Implementation of post-market surveillance in cervical cancer programmes (Policy brief) https://apps.who.int/iris/handle/10665/339861
- Generating Evidence for Artificial Intelligence Based Medical Devices: A Framework for Training Validation and Evaluation https://apps.who.int/iris/handle/10665/349093
- Cervical Cancer Country Profiles <u>https://www.who.int/publications/m/item/</u> cervical-cancer-country-profiles
- Consolidated guidelines on HIV prevention, testing, treatment, service delivery and monitoring: recommendations for a public health approach https://apps.who.int/iris/handle/10665/342899
- Global market study: HPV vaccines <u>https://www.who.int/publications/m/item/</u> <u>who-hpv-vaccine-global-market-study-april-2022</u>
- WHO HPV vaccine introduction dashboard <u>https://app.powerbi.com/view?r=eyJrljoiNDIxZTFkZ-GUtMDQ1Ny00MDZkLThiZDktYWFlYTdkOGU2NDcwI-iwidCl6ImY2MTBjMGI3LWJkMjQtNGIzOS04MTBiLTNkY-zl4MGFmYjU5MCIsImMiOjh9</u>
- Human papillomavirus (HPV) nucleic acid amplification tests (NAATs) to screen for cervical pre-cancer lesions and prevent cervical cancer (Policy brief) <u>https://apps.who.int/iris/handle/10665/352495</u>
- WHO Position Paper on Human Papillomavirus (HPV) <u>https://www.who.int/teams/immunization-</u> <u>vaccines-and-biologicals/policies/position-papers/</u> <u>human-papillomavirus-(hpv)</u>



