KEMENTERIAN
KESEHATAN
REPUBLIK
INDONESIA

National Cervical Cancer Elimination Plan for Indonesia 2023-2030

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Foreword

Cervical cancer is a devastating disease that has affected millions of women and generations of families. Today, it is preventable and can be eliminated.

Humanity's understanding of Human Papillomavirus (HPV) and its connection to cervical cancer has been a breakthrough toward disease control. It has enabled the development of effective preventative measures such as HPV vaccines, enhanced screening methods, and early detection, thereby increasing the likelihood of successful treatment and survival for women.

While we have made remarkable advances in innovation, we must ensure that these life-saving measures are accessible to girls and women in various socioeconomic backgrounds. Accessibility to HPV vaccines, cervical cancer screening, and treatment is the genuine power of concrete actions.

To attain this goal, we have developed an action plan based on four pillars: service delivery, education training and outreach, key enablers of progress, and governance and policy. These pillars serve as the basis for specific priority areas and corresponding strategies and actions that will drive a comprehensive, whole-society response to eliminate cervical cancer.

In our fight against cervical cancer, we must collaborate. Collectively, we can equip women with the tools they need to fend off this devastating disease. Let our collaboration and determination make cervical cancer preventable, inexpensive, and manageable for every woman.

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Executive Summary

Cervical cancer is both preventable and treatable and thus can be eliminated from a population. However, in 2020 alone, there were more than 600,000 new cervical cancer cases and over 340,000 estimated deaths globally, despite the availability of modern interventions.[i] Cervical cancer is the second most common cancer among women in Indonesia, with the majority of women (70%) diagnosed in advanced stages when treatment is less effective. As a result, 50% of women diagnosed with cervical cancer die from the disease.[ii] Reducing Indonesia's cervical cancer incidence and mortality rates will require a comprehensive, multi-stakeholder approach to strengthen health system capacity, increase the availability of advanced treatment technologies, and address social, financial, cultural, societal and structural barriers to prevention and treatment.

At the World Health Assembly (WHA) in 2020, Indonesia committed to "recognizing the importance of a holistic health systems approach to cervical cancer prevention and control, integrating vaccination programs, screening and treatment programs, adolescent health services, HIV, sexual and reproductive health services, and communicable disease and noncommunicable disease health services, as well as the importance of inclusive and strategic national, regional, and global partnerships that extend beyond the health sector."

Indonesia's Cervical Cancer Elimination Plan Targets

of girls and boys fully vaccinated by age 15.

of all women between the ages of 30 and 69 screened with a HPV DNA test.

of women identified with cervical pre-cancer and cancer lesion receive treatment.

[1]Read "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," 3 August 2020, at 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 - PAHO/WHO | Pan American Health Organisation

The National Cervical Cancer Elimination Plan for Indonesia (2023-2030), developed by the Ministry of Health in partnership with key national and international stakeholders, is a comprehensive, whole-of-society strategy to accelerate Indonesia's progress towards the elimination of cervical cancer. *The goal* of this elimination plan is to provide national vision and clarity at the national level for all stakeholders on the path to cervical cancer elimination. This Plan builds upon and adopts national, regional, and international guidance and planning on cervical cancer elimination.

The National Cervical Cancer Elimination Plan for Indonesia (2023-2030), at-a-glance

Anchored on this vision, the *Elimination Plan* is built upon four pillars of action: (1) service delivery, (2) education, training, and outreach; (3) key enablers of progress, and (4) governance and policy. Through robust local and national leadership, evidence-based programming, and multi-stakeholder collaboration, these pillars lay the foundation for specific priority areas and corresponding strategies and actions to "leapfrog" Indonesia to cervical cancer elimination.

OUR VISION TO ELIMINATE CERVICAL CANCER

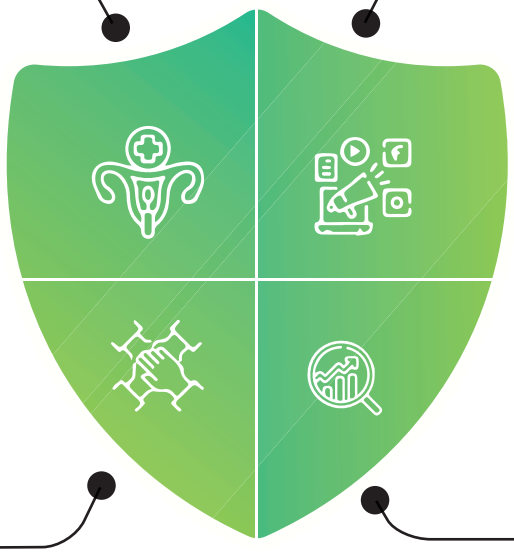
Indonesia aspires to become a nation where cervical cancer is eliminated as a public health concern. Together, as a united Indonesia, we envision a future where cervical cancer is a disease of the past, and every women – across all socioeconomic demographics - can live a healthy life free from its threat.

PILLAR 1:
SERVICE DELIVERY

Priority 1: Vaccination
Priority 2: Screening
Priority 3: Treatment

PILLAR 2:
EDUCATION, TRAINING & OUTREACH

Priority 4: Healthcare Workforce Strengthening
Priority 5: Public Awareness & Education



PILLAR 3:
ENABLERS OF PROGRESS

Priority 6: Monitoring, Evaluation & Research
Priority 7: Digital Enablers

PILLAR 4 :
STEWARDSHIP & COORDINATION

Priority 8: Governance & Policy
Priority 9: Financing For Elimination
Priority 10: Intersectoral Collaboration & Partnerships

PILLAR 1:
SERVICE DELIVERY

PILLAR 2
EDUCATION, TRAINING & OUTREACH

PILLAR 3
ENABLERS OF PROGRESS

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STEWARDSHIP & COORDINATION

Priority 1: Vaccination

Goals : *Ensure the nationwide expansion of the HPV vaccination program is properly implemented in elementary schools, Madrasah Ibtidaiyah, and other entities that can reach target populations, including in and out-of-school children (girls and boys) and women between ages 21 and 26*

- **Strategy 1.1:** Secure sufficient, affordable, and reliable HPV vaccines, Prioritizing the local procurement of high-quality products.
- **Strategy 1.2:** Increase the quality and coverage of vaccine delivery.
- **Strategy 1.3:** Improve the efficiency of vaccine delivery.

Priority 2: Screening

Goal*: Ensure the nationwide rollout and implementation of a screening program targeting all women aged 30 to 69.*

- **Strategy 2.1:** Ensure an affordable supply of quality-assured, high-performance screening tests, prioritizing the local procurement of high-quality products
- **Strategy 2.2:** Increase the quality and coverage of cervical cancer screening.
- **Strategy 2.3:** Review and improve the efficiency of screening methods, tools and technologies.

Priority 3: Treatment

Goal*: Establish a timely and comprehensive treatment pathways for women diagnosed with cervical pre- cancer and cervical cancer to have access to quality treatment and care.*

- **Strategy 3.1:** Strengthen overall service capacity for cancer treatment and care services in alignment with the national cancer control plan.
- **Strategy 3.2:** Strengthen pathology services for quality and timely diagnosis.
- **Strategy 3.3:** Improve access to surgery, cryotherapy, radiotherapy, chemotherapy, pathology, and palliative care services for quality and timely treatment.
- **Strategy 3.4:** Create an enabling environment for patients to receive cervical cancer treatment.

PILLAR 1
SERVICE DELIVERY

PILLAR 2 :
EDUCATION, TRAINING & OUTREACH

PILLAR 3
ENABLERS OF PROGRESS

PILLAR 4
STEWARDSHIP & COORDINATION

Priority 4: Healthcare Workforce Strengthening

***Goal**: Strengthen the healthcare workforce through training and capacity building to provide evidence- based information and timely, quality cervical cancer interventions comprehensively and equitably.*

- **Strategy 4.1:** Strengthen clinical and allied health capacity building and training to health professionals on cervical cancer interventions and evidence-based information that are in line with national guidelines
- **Strategy 4.2:** Optimise the size and distribution of the healthcare workforce to deliver cervical cancer interventions in a comprehensive and equitable manner.

Priority 5: Public Awareness & Education

***Goal**: Rally the community towards the goal of cervical cancer elimination, and improve community understanding of the role all interventions - including HPV vaccination, primary cervical cancer screening and secondary prevention - have in reducing cancer risk, severity, and mortality.*

- **Strategy 5.1:** Widely disseminate the national goal of cervical cancer elimination to rally individuals and communities to work together towards the cause.
- **Strategy 5.2:** Develop and disseminate evidence- based messaging for the public on the benefits, availability, safety, and efficacy of HPV vaccination.
- **Strategy 5.3:** Develop and disseminate evidence-based messaging to communicate the benefits of cervical cancer primary screening.
- **Strategy 5.4:** Ensure communities and patients have equitable access to quality information about cervical cancer symptoms and that each cancer patient has tailored information about their diagnosis, intended treatment, and planned optimal care pathways.

PILLAR 1
SERVICE DELIVERY

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Priority 6: Monitoring, Evaluation & Research

***Goal**: Ensure a robust nationwide monitoring, evaluation and research strategy to monitor progress and advance efforts to strengthen cervical cancer elimination activities continuously.*

- **Strategy 6.1:** Strengthen and enhance existing cervical cancer registries that guide monitoring, evaluation, and research, in line with international standards and definitions.
- **Strategy 6.2:** Set specific time-bound targets, milestones and indicators for monitoring and evaluating the national cervical cancer elimination program.
- **Strategy 6.3:** Strengthen the local evidence base through scientific, behavioral, and implementation of research to better inform cervical cancer elimination policies and programs that translate to better patient and population outcomes.

Priority 7: Digital Enablers

***Goal**: Use digital tools, as appropriate, to facilitate access to cervical cancer prevention and control services, improve programs effectiveness and efficiency, and promote accountability.*

- **Strategy 7.1:** Establish and integrate digital registries to support the program implementation, monitoring, and impact.
- **Strategy 7.2:** Develop a digital cervical cancer elimination information platform, paired with data from *Satu Sehat* as a repository for information for providers, patients, and partners on cervical cancer elimination policies, programs, and services.

PILLAR 1
SERVICE DELIVERY

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EDUCATION, TRAINING & OUTREACH

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Priority 8: Governance & Policy

***Goal**: Ensure a robust governance mechanism to efficiently and effectively fulfill the national commitment to cervical cancer elimination goals, strategic priorities, and actions as outlined in the Elimination Plan.*

- **Strategy 8.1:** Empower and strengthen the role of the Ministry of Health to govern Indonesia's cervical cancer elimination Program and monitor its progress.
- **Strategy 8.2:** Ensure a whole-of-government approach that aligns with and draws on the respective strengths and mandates of relevant Ministries and local development planning agencies.
- **Strategy 8.3:** Ensure prioritization of local products and local manufacturing that help increase the opportunities for domestic industry, while adhering to global quality standards.

Priority 9: Financing for Elimination

***Goal**: Ensure sufficient and sustainable funding and its efficient allocation for the achievement of national cervical cancer elimination goals.*

- **Strategy 9.1:** Undertake a costing analysis that estimates and projects the budgetary needs in support of the Elimination Plan.
- **Strategy 9.2:** Establish a cervical cancer elimination budget for the MOH and other entities to deliver cervical cancer elimination goals.
- **Strategy 9.3:** Engage with domestic and international funders to channel alternative sources of financing for the Elimination Plan.

Priority 10: Intersectoral Collaboration & Partnerships

Goal: Promote a whole-of-society commitment to cervical cancer elimination through intersectoral collaboration and partnerships.

- **Strategy 10.1:** In partnership with the multi-stakeholder cervical cancer elimination task force (Action 8.1.2), establish a multi-stakeholder platform for cervical cancer elimination dialogue.
- **Strategy 10.2:** Promote and catalyze partnership opportunities between sectors, including government, international and regional multilateral organizations, global policy and scientific fora, private sector, and civil society.

Acronyms & Abbreviations

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

Acronyms & Abbreviations

ACRONYMS

DALY	Disability-Adjusted Life Year
HIV	Human Immunodeficiency Virus
HPV	Human Papillomavirus
HPV DNA test	Human Papillomavirus Deoxyribonucleic Acid test
JKN	National Health Insurance Jaminan Kesehatan Nasional
LMIC	Low- or Middle-Income Country
Puskesmas	Public Health Centre / Community Health Centre
SMILE	Electronic Logistics Information Monitoring system Sistem Monitoring Informasi Logistik Secara Elektronik
TDaP	Tetanus, Diphtheria, and Pertussis
UHC	Universal health coverage
USD	United States Dollar
VIA	Visual Inspection with Acetic Acid

ABBREVIATIONS OF STAKEHOLDERS

AMSA	Asian Medical Student Association
ARSSI	Indonesian Private Hospitals Association Asosiasi Rumah Sakit Swasta Indonesia
BAPETEN	Nuclear Energy Regulatory Agency Badan Pengawas Tenaga Nuklir
BAPPEDA	Provincial Development Planning Agency
BAPPENAS	Ministry of National Development Planning Badan Perencanaan Pembangunan Nasional
BCS	Bandung Cancer Society
BIONS	Inspirational Online Talks Bincang Online Inspiratif
BKKBN	National Population and Family Planning Board Badan Kependudukan dan Keluarga Berencana Nasional

BPOM	National Agency of Drug and Food Control Badan Pengawas Obat dan Makanan
BPJS Kesehatan	Social Security Agency on Health Badan Penyelenggara Jaminan Sosial Kesehatan
BRIN	National Research and Innovation Agency Badan Riset dan Inovasi Nasional
CHAI	Clinton Health Access Initiative
CIMSA	Center for Indonesian Medical Students Activities
CISC	Indonesia Cancer Information and Support Association
CISDI	Center for Indonesia's Strategic Development Initiatives
DPR	House of Representatives Dewan Perwakilan Rakyat
DMI	Indonesia Mosque Council Dewan Masjid Indonesia
GAVI	Gavi, the Vaccine Alliance
GAIN	The Global Alliance for Improved Nutrition
GP2SP	Healthy, Productive Women Workers Movement Gerakan Pekerja Perempuan Sehat Produktif
HMI	Muslim Student Association Himpunan Mahasiswa Islam
HOGI	Indonesia Society of Gynecologic Oncology Himpunan Onkologi Ginekologi Indonesia
HIPPG	Habibie Institute for Public Policy and Governance
HRDTC	Human Resource Development Training Centre
IARC	International Agency for Research on Cancer
IBI	Indonesian Midwives Association Ikatan Bidan Indonesia
ICCC	Indonesia Cancer Care Community
IDAI	Indonesian Pediatric Society Ikatan Dokter Anak Indonesia
ISMKI	Indonesian Medical Students Executive Boards Association Ikatan Senat Mahasiswa Kedokteran Indonesia
ISMKMI	Indonesian Public Health Students Executive Boards Association Ikatan Senat Mahasiswa Kesehatan Masyarakat Indonesia
ITAGI	Indonesian Technical Advisory Group on Immunization
KemBUMN	Ministry of State Owned Enterprises Kementerian Badan Usaha Milik Negara
Kemenag	Ministry of Religious Affairs Kementerian Agama

Kemendagri	Ministry of Home Affairs *Kementerian Dalam Negeri*
Kemendesa PDTT	Ministry of Villages, Development of Disadvantaged Regions, and Transmigration *Kementerian Desa, Pembangunan Daerah Tertinggal, dan Transmigrasi*
Kemendikbudristek	Ministry of Education, Culture, Research and Technology *Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi*
Kemenkeu	Ministry of Finance *Kementerian Keuangan*
Kemenko PMK	Coordinating Ministry For Human Development And Culture *Kementerian Koordinator Bidang Pembangunan Manusia dan Kebudayaan*
Kemenpppa	Ministry of Women Empowerment and Child Protection *Kementerian Perempuan Dan Perlindungan Anak*
Kemensos	Ministry of Social Affairs *Kementerian Sosial*
Kemhan	Ministry of Defense *Kementerian Pertahanan*
Kemenkes	Ministry of Health *Kementerian Kesehatan*
Kemlu	Ministry of Foreign Affairs *Kementerian Luar Negeri*
Kemnaker	Ministry of Manpower *Kementerian Ketenagakerjaan*
KKI	Indonesian Medical Council *Konsil Kedokteran Indonesia*
Kominfo	Ministry of Communication and Informatics *Kementerian Komunikasi dan Informatika*
KOWANI	Indonesian Women's Congress *Kongres Wanita Indonesia*
KSP	Office of the President *Kantor Staf Presiden*
KWARNAS	National Council of Indonesian Scout Movement *Kwartir Nasional*
MATAKIN	Indonesia Khonghucu Council *Majelis Tinggi Agama Konghucu Indonesia*
PELKESI	Fellowship of Christian Services for Health in Indonesia *Persekutuan Pelayanan Kristen untuk Kesehatan di Indonesia*

PERDHAKI	Indonesian Health Dharma Work Association *Persatuan Karya Dharma Kesehatan Indonesia*
PERKHIN	Indonesia Khonghucu Woman Society *Perempuan Konghucu Indonesia*
PERSI	Indonesia Hospitals Association *Perhimpunan Rumah Sakit Seluruh Indonesia*
PERWANAS	Indonesia Woman Movement Society *Pergerakan Wanita Nasional Indonesia*
PDUI	Indonesian General Practitioners Association *Perhimpunan Dokter Umum Indonesia*
PGI	Indonesia Churches Association *Persekutuan Gereja Indonesia*
PHDI	Indonesia Parisada Hindu Dharma *Parisada Hindu Dharma Indonesia*
PORI	Association of Indonesian Radiation Oncology *Perhimpunan Dokter Spesialis Onkologi Radiasi Indonesia*
POGI	Indonesian Association for Obstetrics and Gynaecology *Perkumpulan Obstetri dan Ginekologi*
PPI	Indonesian Student Association *Perhimpunan Pelajar Indonesia*
PKK	Family Welfare Movement *Pembinaan Kesejahteraan Keluarga*
PPNI	National Indonesian Association of Nurses *Persatuan Perawat Nasional Indonesia*
RCCE	Risk Communication & Community Engagement Working Group
RPJMN	National mid-term development plan *Rencana Pembangunan Jangka Menengah Nasional*
RPJPN	National long-term development plan *Rencana Pembangunan Jangka Panjang Nasional*
RSK	KASIH Cancer Rest House *Rumah Singgah KASIH*
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
WHO	World Health Organization
WHDI	Indonesia Hindu Dharma Woman Association *Wanita Hindu Dharma Indonesia*
YKI	Indonesia Cancer Foundation *Yayasan Kanker Indonesia*

Introduction

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Introduction

BACKGROUND

The human toll of cervical cancer

With over 600,000 new cases and more than 340,000 estimated deaths globally, cervical cancer remains the fourth leading cause of cancer in women worldwide. The human papillomavirus (HPV), the most common viral infection of the reproductive tract, causes almost all cases of cervical cancer and is attributed to several other types of cancer. Adopting evidence-based interventions is important to both prevent infection and detect abnormalities early, reducing the risk of progression to invasive cervical cancer, when treatment is less intensive and incurs a lower cost.

Cervical cancer can be stopped

For the first time in history, we have the tools, technologies, and leadership to end a form of cancer that has devastated the lives of millions of women and their families. Cervical cancer is one of the most preventable and treatable types of cancer and we can all work together to see it eliminated.

In 2020, the World Health Organization issued an unprecedented call to all nations to eliminate cervical cancer by achieving an annual incidence rate of 4 per 100,000 women. The WHO established the "90-70-90" targets to aid in elimination efforts:

90% of Girls are Vaccinated: At least 90% of girls are vaccinated with the HPV vaccine by the age of 15.

70% of Women Screened: At least 70% of eligible women are screened for cervical cancer using effective and affordable screening methods.

90% of Women with Cervical Disease Treated: At least 90% of women diagnosed with cervical disease receive appropriate treatment, ensuring that those with precancerous or early-stage cancerous lesions receive timely and effective care.

While the 90-70-90 goals and their corresponding medical interventions are the cornerstone of any cervical cancer elimination strategy, a broader, comprehensive health system effort is necessary to achieve elimination. Ensuring broad access to vaccination, screening, and treatment will require a multi-faceted approach across the total care pathway (Figure 1), from the global introduction of interventions to their administration in Indonesian women.

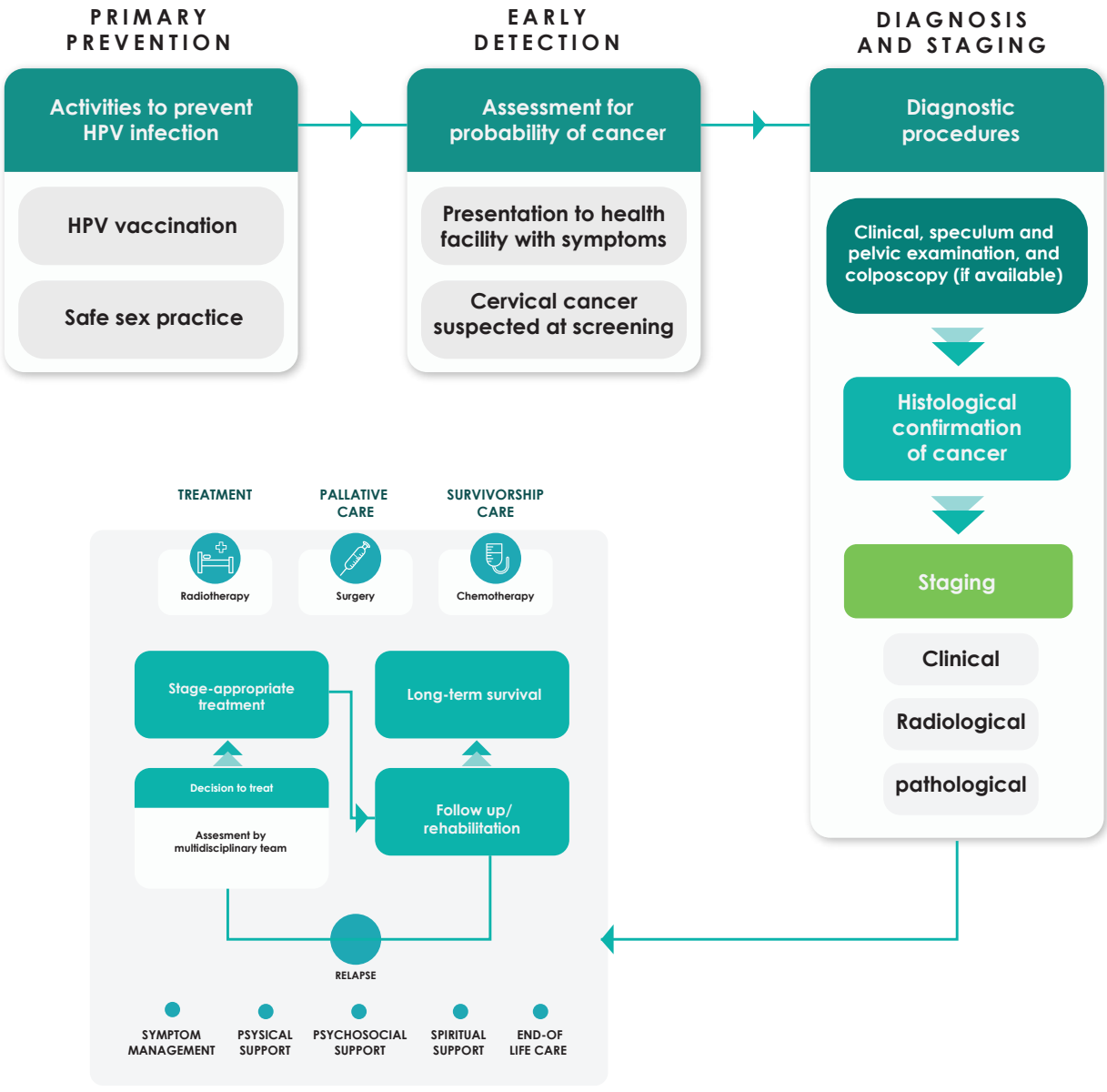

Figure 1 The Total Care Pathway

Source: Adapted from WHO[iv]

What is the situation in Indonesia today?

In Indonesia, cervical cancer takes a significant toll on women and their families, with over 103 million women over the age of 15 at risk. Cervical cancer is indeed the second leading cause of cancer in women, with approximately 36,000 women diagnosed every year. Moreover, approximately 70% of all women diagnosed are at advanced stages of the disease. Consequently, mortality due to cervical cancer in Indonesia is high. In 2020, approximately 21,000 women died from cervical cancer in the country. Without any intervention, it is estimated that over 1.7 million women in Indonesia will die from cervical cancer by 2070 and nearly 4 million women by 2120.

Indonesia expanded HPV vaccination nationally in 2023.

The HPV immunization Program in Indonesia was initially implemented in stages as a demonstration program. It was first introduced in 20 districts and cities between 2016 and 2021, and was expanded to an additional 112 districts and cities in 2022. The pilot Programs achieved high HPV vaccination coverage (93.9% for the first dose and 90.3% for the second dose), indicating that the HPV vaccine was widely accepted. In an effort to accelerate the elimination of cervical cancer, the Ministry of Health expanded the HPV immunization Program nationwide, officially launching in August 2023.

During the pilot Program and now through the national Program, HPV vaccines have been primarily administered in schools to girls in grades 5 and 6, when it is still mandatory for girls to attend school and students also receive the tetanus, diphtheria, and pertussis (TDP) booster dose – optimizing the number of girls who can be vaccinated in a given age cohort. While the immunization program is primarily targeted to girls in school, it is imperative also to reach school-age children who are not attending school, as well as move towards catch-up vaccination for older girls who were not vaccinated in previous years.

The uptake of cervical cancer screening has been limited, despite coverage and free provision of services.

Currently, cervical cancer screening services are covered by the National Health Insurance Scheme for married women ages 30-50 years using VIA or cytology every 3-5 years; services are also available for low-income women for free at puskesmas or during mass screening Programs. [vi]Despite decades of efforts by the medical, public health, and community health forces and the removal of direct financial barriers,[2] screening coverage remains quite low, reaching only 9.35% of women in the target population in 2020, with significant variance between provinces.

A 2021 scoping review of the facilitators and barriers of cervical cancer screening uptake in Indonesia found a number of important factors contributed to low uptake of screening nationwide, including: 1) knowledge: lack of awareness, low health literacy low-risk perception of cervical cancer; 2) logistical constraints: cost, time, and travel needed to access services, and 3) supply-side constraints: limited access and coverage at facilities, lack of skilled health workers, and lack of advocacy and health promotion activities.

Indonesia has high morbidity and mortality related to cervical cancer due to late-stage

[2] *Indirect* financial barriers could include, for example, travel costs, time off work, and child care.

diagnosis and limited treatment options.

Over half of the women who are diagnosed with cervical cancer in Indonesia will not survive, representing about 14.4 deaths per 100,000 women. Reducing Indonesia's high cervical cancer morbidity and mortality rates will require a comprehensive, multi-stakeholder approach to strengthen health system capacity, increase the availability of advanced treatment technologies, and address social, financial, cultural, societal and structural barriers to treatment.

Treatment options depend on several factors, including the stage of cancer, the patient's overall health, and individual preferences. Treatment plans often include surgery, chemotherapy, radiation therapy, or a combination of treatments. Independent of the prognosis, quality care requires input and support from a range of multidisciplinary specialists, such as gynaecologist oncologists, radiation oncologists, nurse practitioners, rehabilitation specialists, and psychologists, to ensure the best possible care for each patient.

The range of cervical cancer treatment services varies widely between geographical regions. There is currently a significant mapping exercise being undertaken to standardize the availability of specific services at the puskesmas, district, provincial and national levels.

What can be done?

Indonesia remains firmly committed to providing affordable and comprehensive access to healthcare services through Jaminan Kesehatan Nasional Program. By reinforcing the principles of universal health coverage, Indonesia is making significant advances in reducing the burden of cervical cancer in the population. Important health system transformation efforts and key milestones are now in place to put Indonesia on a firm footing to pursue the path of cervical cancer elimination. This plan lays out a comprehensive, whole-of-society approach to accelerate Indonesia's path to cervical cancer elimination.

THE FOUR PILLARS OF THE ELIMINATION PLAN

The National Cervical Cancer Elimination Plan for Indonesia (2023-2030) is organized around four pillars of action: 1) service delivery; (2) education, training, and outreach; (3) key enablers of progress; and (4) governance and policy. These pillars lay the foundation for specific priority areas and corresponding strategies and actions that will be driven by a comprehensive whole-of-society response to "leapfrog" Indonesia to cervical cancer elimination.

PILLAR 1:
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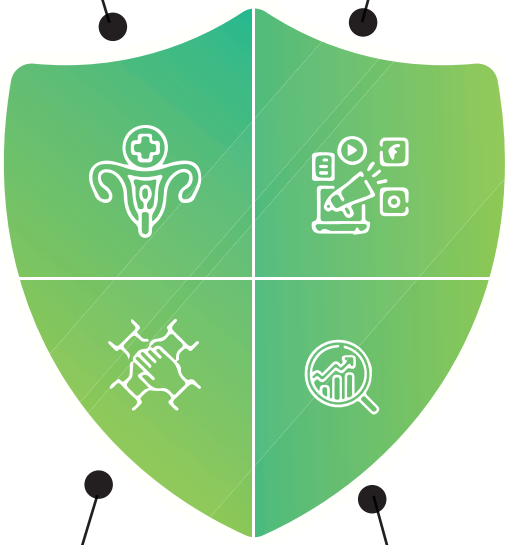

PILLAR 3:
ENABLERS OF PROGRESS

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Priority 7: Digital Enablers

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STAKEHOLDER COORDINATION

Stakeholder coordination is essential to achieve cervical cancer elimination goals. The realization of the plan is only possible with multi-sectoral stakeholder coordination. Each strategy and action included in the Elimination Plan will require the support and coordination of "lead" and "partner" stakeholders who are crucial for successful implementation. In this plan, the key stakeholder groups are as follows:

SECTOR	STAKEHOLDERS
Academia	Academic experts International expert institutions International centres of excellence Universities
Business partners	Adaro Energy Tbk Alodokter Anlene Indonesia Anam Selaras Abadi APINDO APRIL Group Astra International BASF Indonesia Boehringer Ingelheim Cargill Indonesia East West Seed Indonesia Halodoc Herbalife Indonesia Indofood Sukses Makmur Tbk Kao Indonesia Klikdokter Mandiri InHealth Nutrifood Indonesia Otsuka Indonesia Prodia Prudential Indonesia Reckitt Benckiser Indonesia Tanoto Foundation Tirta Investama Unilever
Cancer services hospitals network	National Cancer Centre, Dharmais Cancer Hospital, Jakarta Regional fostership hospitals *All public and private hospitals that offer cancer services*

SECTOR	STAKEHOLDERS
Community partners	Community cadres Village and community leaders Risk communication and community engagement working group (RCCE) **Cancer Community** Bandung Cancer Society (BCS) Cancer Care Friends (Sahabat Peduli Kanker) Cancer Observer Foundation Depok District Cancer Support Community Indonesia Cancer Information and Support Association (CISC) Indonesia Cancer Support Association Indonesia Cancer Foundation Indonesia Cancer Care Community (ICCC) KASIH Cancer Rest House (RSK) Love & Healthy Prita Solidarity Cancer Volunteer Community University Student Cancer Support Community Woman Health Foundation Qalista Peduli Sesama Foundation **Religious Groups** ***Buddhist Groups*** Indonesian Health Dharma Work Association (PERDHAKI) ***Christian Groups*** Fellowship of Christian Services for Health in Indonesia (PELKESI) Indonesia Churches Association (PGI) ***Hindu Groups*** Indonesia Parisada Hindu Dharma (PHDI) Indonesia Hindu Dharma Woman Association (WHDI) ***Khonghucu Groups*** Indonesia Khonghucu Council (MATAKIN) Indonesia Khonghucu Woman Society (PERKHIN)

SECTOR	STAKEHOLDERS
	Muslim Groups Aisyiyah Al Hidayah Quran Studies Society Fatayat Nadlatul Ulama Indonesia Mosque Council (DMI) Muhammadiyah Muslimat Nadlatul Ulama Nahdhatul Ulama **Student Community** Asian Medical Student Association (AMSA) Center for Indonesian Medical Students Activities (CIMSA) Indonesian Student Association (PPI) Indonesian Medical Students Executive Boards Association (ISMKI) Indonesian Public Health Students Executive Boards Association (ISMKMI) Muslim Student Association (HMI) **Women Groups** Dharma Women's Association/ *Dharma Wanita* Family Welfare Movement (PKK) Healthy, Productive Women Workers Movement (GP2SP) Indonesian Women's Congress (KOWANI) Indonesia Woman Movement Society (PERWANAS)
Development partners	Clinton Health Access Initiative (CHAI) Gavi, the Vaccine Alliance (GAVI) International Agency for Research on Cancer (IARC) United Nations agencies, e.g. UNFPA, UNICEF, UNDP World Health Organization (WHO) The Global Alliance for Improved Nutrition (GAIN)

SECTOR	STAKEHOLDERS
Government & Government Agencies	Coordinating Ministry for Human Development And Culture (Kemenko PMK) House of Representatives (DPR) Ministry of Communication and Informatics (Kominfo) Ministry of Defense (Kemhan) Ministry of Education, Culture, Research and Technology (Kemendikbudristek) Ministry of Finance (Kemenkeu) Ministry of Foreign Affairs (Kemlu) Ministry of Health (Kemenkes) Ministry of Home Affairs (Kemendagri) Ministry of Manpower / Kementerian Ketenagakerjaan (Kemnaker) Ministry of National Development Planning (Bappenas) Ministry of Religious Affairs (Kemenag) Ministry of Social Affairs (Kemensos) Ministry of State Owned Enterprises (KemBUMN) Ministry of Villages, Development of Disadvantaged Regions, and Transmigration (Kemendesa PDTT) Ministry of Women Empowerment and Child Protection (Kemenpppa) National Population and Family Planning Board (BKKBN) National Agency of Drug and Food Control (BPOM) National Research and Innovation Agency (BRIN) Nuclear Energy Regulatory Agency (BAPETEN) Office of the President (KSP) Provincial Development Planning Agency (BAPPEDA) Provincial Health Office (Dinas Kesehatan) District Health Office Provincial, regency, and municipal development planning agencies Social Security Agency on Health (BPJS Kesehatan)
Hospitals	General hospitals Specific hospitals National hospitals Provincial level hospitals District level hospitals Military hospitals Private hospitals

SECTOR	STAKEHOLDERS
Industry groups (Pharmacy and diagnostic)	Aventis Pharma Bayer Indonesia Biofarma Darya Varia Laboratorie, Tbk Indofarma Kalbe Farma Labcito Merck Indonesia Tbk Merck Sharp dan Dohme Ind Roche Indonesia
Media	Local celebrities, champions, and social media influencers Antaranews Detik.com El Shinta Femina (Prana Dinamika Sejahtera) Gen FM GueSehat.Com Indosiar Inspirational Online Talks (BIONS) Jak FM Jawa Pos Kompas Kompas TV Liputan6 Media Indonesia Mediacom Metro TV MNCTV Mustang Nakita Nova Prambors Republika RCTI Share & Care Tempo Tribun TV One

SECTOR	STAKEHOLDERS
Non-governmental Organisations	BUMN for Indonesia Foundation Center for Indonesia's Strategic Development Initiatives (CISDI) Dompet Dhuafa Foundation Habibie Institut for Public Policy and Governance (HIPPG) Indonesian Hospital Association (PERSI) Indonesia Zakat Initiative National Council of Indonesian Scout Movement (KWARNAS) Tanoto Foundation Humanitarian Emergency Agency Rapid Response
Primary Care Networks	Puskesmas Other medical clinics and independent medical practices
Professional Organisations	Association of Indonesian Radiation Oncology (PORI) Human Resource Development Training Centre (HRDTC) Indonesian Association for Obstetrics and Gynaecology (POGI) Indonesian Association of Pathologists (PDSPA) Indonesian General Practitioners (PDUI) Indonesian Medical Association Indonesia (IDI) Indonesian Medical Council (KKI) Indonesian Midwives Association (IBI) Indonesian Pediatric Society (IDAI) Indonesia Pharmacist Associations (IAI) Indonesia Society of Gynecologic (HOGI) Indonesian Women's Imaging and Reproductive Radiology Subspecialists Association (IWIS) Indonesia Radiologic Specialist (PDSRI) Indonesian Technical Advisory Group on Immunization (ITAGI) National Indonesian Association of Nurses (PPNI) Indonesia Public Health Experts Association (IAKMI) Indonesian Community Health Centre Acceleration Association (APKESMI) Indonesia Clinic Association (ASKLIN) Indonesia Primary Health Care Facilities Association (PFKI)

Pillars & Strategic Priorities

Priority 1: Vaccination

Priority 2: Screening

Priority 3: Treatment

The achievement of cervical cancer elimination fundamentally rests on the successful delivery and uptake of interventions across the cervical cancer prevention and control continuum. The continuum includes primary prevention through HPV vaccination, secondary prevention through cervical cancer screening and early diagnosis, treatment of pre-cancer and invasive cancer, and palliative care, which seeks to manage symptoms and alleviate pain for patients whose cancer is at an advanced stage.

To support the delivery of these crucial interventions to prevent and treat HPV and cervical cancer, this Pillar outlines a comprehensive approach to ensure improved health outcomes. Each strategy and action will require the support and coordination of "lead" and "partner" stakeholders who are crucial for successful implementation.

PRIORITY 1
VACCINATION

GOAL

Ensure the nationwide expansion of the HPV vaccination Program is properly implemented in elementary schools, *Madrasah Ibtidaiyah*, and **other entities that can reach target populations, including in and out-of-school children (girls and boys) and women between ages 21 and 26**

STRATEGY 1.1

Secure sufficient, affordable, and reliable HPV vaccines, prioritizing the local procurement of high-quality products

STRATEGY 1.2

Increase the quality and coverage of vaccine delivery

STRATEGY 1.3

Improve efficiency of vaccine delivery

Almost all cervical cancers (95%) are caused by HPV, which is the most common viral infection of the reproductive tract and is attributed to several other types of cancer. The HPV vaccine is safe and the most cost-effective tool against cervical cancer, protecting against at least 70% of all cervical cancers. HPV vaccines are most effective if administered prior to exposure to HPV, which occurs through sexual activity.

The HPV immunization Program in Indonesia was initially implemented in stages as a demonstration Program. It was first introduced in 20 districts and cities between 2016 and 2021, and was expanded to an additional 112 districts and cities in 2022. The pilot Programs achieved high HPV vaccination coverage (93.9% for the first dose and 90.3% for the second dose), indicating that the HPV vaccine was widely accepted. In an effort to accelerate the elimination of cervical cancer, the Ministry of Health expanded the HPV immunization Program nationwide, officially launching in August 2023.

The Elimination Plan outlines strategies to expand the HPV immunization Program. The initial target population for HPV vaccines for the period of the Elimination Plan is girls in grades 5 and 6, when it is still mandatory for girls to attend school at this age and when students receive the Tetanus, Diphtheria, and Pertussis (TDP) booster dose – optimizing the number of girls who can be vaccinated in a given age cohort. While the immunization Program is primarily targeted to girls in school, the Elimination Plan will also target all children aged 11 and 12 who are not attending school, as well as older girls, boys at age 15, and young women who have not been vaccinated against HPV.

Goals For Priority 1

GOALS FOR PRIORITY 1

TARGET

90%

Phase 1 2023 to 2027

- All girls fully vaccinated at ages 11 and 12 (Grades 5 and 6 or equivalent)
- All out-of-school girls vaccinated at ages 11 and 12
- All girls yet to be vaccinated to receive catch-up vaccinations at age 15
- Catch-up vaccination to be offered to all women beyond the age of 21 up to 26, as requested and needed

90%

Phase 2 2028 to 2030

- All girls fully vaccinated at ages 11 and 12 (Grades 5 and 6 or equivalent)
- All out-of-school girls vaccinated at ages 11 and 12
- All girls yet to be vaccinated to receive catch-up vaccinations at ages 15 and 21
- All boys fully vaccinated at ages 11 and 12 (Grades 5 and 6 or equivalent)
- All out-of-school boys vaccinated at ages 11 and 12
- All boys yet to be vaccinated to receive catch-up vaccinations at age 15
- Catch-up vaccination to be offered to all women beyond the age of 21 up to 26, as requested and needed

ACTIONS FOR PRIORITY 1

Strategy 1.1: Secure sufficient, affordable, and reliable HPV vaccines, prioritizing the local procurement of high-quality products

Action 1.1.1

Plan for and ensure an adequate budget for the Ministry of Health to procure HPV vaccines as part of the overall national cervical cancer elimination commitment.

LEAD

Ministry of Health *(Kemenkes)*
House of Representatives *(DPR)*
Ministry of Finance *(Kemenkeu)*
Ministry of National Development Planning *(Bappenas)*
Office of the President *(KSP)*

PARTNERS

Development partners

Action 1.1.2

Tap into traditional and innovative financing mechanisms to increase funding for vaccine procurement.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Finance *(Kemenkeu)*
Ministry of Foreign Affairs *(Kemlu)*
Ministry of National Development Planning *(Bappenas)*

PARTNERS

Development partners

Action 1.1.3

Build and strengthen local regulatory, manufacturing, storage, and supply chain capabilities to produce HPV vaccines and ensure their safety and efficacy in collaboration with global, regional, and domestic regulators and manufacturers.

LEAD

Ministry of Health *(Kemenkes)*
Coordinating Ministry for Economic Affairs (*Kementerian Koordinator Bidang Perekonomian)*
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
National Agency of Drug and Food Control *(BPOM)*
National Research and Innovation Agency *(BRIN)*

PARTNERS

Development partners
Industry groups

Action 1.1.4

Build and strengthen opportunities for public-private dialogue, partnership, and other forms of engagement that promote affordable access to HPV vaccines for target populations.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
Ministry of State-Owned Enterprises *(KemBUMN)*

PARTNERS

Community partners
Development partners
Industry groups

Action 1.1.5

Guarantee the accessibility of HPV vaccines for Program implementation by meticulously planning and procuring an ample and timely supply, ensuring efficient distribution to vaccinate the entire nationwide target population.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Finance *(Kemenkeu)*

PARTNERS

Industry groups

Action 1.1.6

Ensure sufficient quantities and quality of HPV vaccines, ancillary products (e.g., syringes), and cold-chain storage solutions are available in all vaccination centers, adhering to vaccine storage and administration specifications.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Finance *(Kemenkeu)*
Ministry of State-Owned Enterprises *(KemBUMN)*

PARTNERS

Industry groups

Strategy 1.2: Increase the quality and coverage of vaccine delivery

Action 1.2.1

Ensure multi-stakeholder and inter-sectoral government commitments for the nationwide rollout and implementation of the HPV vaccination Program.

LEAD

Ministry of Health *(Kemenkes)*
Coordinating Ministry for Human Development and Culture *(Kemenko PMK)*
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
Ministry of Home Affairs *(Kemendagri)*
Ministry of Religious Affairs *(Kemenag)*

PARTNERS

Community partners
Development partners
Hospitals
Industry groups
Professional Organisations
Puskesmas
Other clinics or independent medical practices

Action 1.2.2

Implement school-based vaccination as the dominant strategy, and explore appropriate alternative delivery platforms for out-of-school or other hard-to-reach populations.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
Ministry of Home Affairs *(Kemendagri)*
Ministry of Religious Affairs *(Kemenag)*
Ministry of Women Empowerment and Child Protection *(Kemenpppa)*

PARTNERS

Community partners
Development partners
Hospitals
Puskesmas

Action 1.2.3

Develop targeted strategies to improve the efficiency of vaccine delivery to hard-to-reach populations, such as girls out-of-school and those in remote rural areas, including innovative last-mile delivery strategies and information on how they can access the HPV vaccine outside the school-based Program.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
Ministry of Home Affairs *(Kemendagri)*
Ministry of Religious Affairs *(Kemenag)*

PARTNERS

Community partners, Development partners

Action 1.2.4

Ensure equity in the availability and accessibility of catch-up opportunities across provinces and for the most marginalized groups, including considerations for alternative community locations and providers.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
Ministry of Home Affairs *(Kemendagri)*
Ministry of Religious Affairs *(Kemenag)*
Ministry of Women Empowerment and Child Protection *(Kemenpppa)*

PARTNERS

Community partners, Development partners

Strategy 1.3: Improve efficiency of vaccine delivery

Action 1.3.1

Annually review local and international scientific evidence on HPV vaccine effectiveness, including, for example, new technologies and dosing schedule, such as the introduction of single-dose interventions.

LEAD

National Agency of Drug and Food Control *(BPOM)*
Ministry of Health *(Kemenkes)*
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*

PARTNERS

Academia
Industry groups
Professional Organisations

Action 1.3.2

Use local data from immunization registries and other monitoring platforms to identify regional or population coverage gaps, as well as manage inventory and stock-outs to ensure access for eligible populations.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
Ministry of Home Affairs *(Kemendagri)*

PARTNERS

Community partners
Hospitals

Action 1.3.3

Review and update relevant clinical and programmatic guidelines on HPV vaccination in line with local and international scientific evidence.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
National Research and Innovation Agency *(BRIN)*
Regional fostership hospitals

PARTNERS

Academia
Industry groups
Professional Organisations

PRIORITY 2
SCREENING

GOAL

Ensure the nationwide rollout and implementation of a screening Program targeting all women aged 30 to 69

STRATEGY 2.1

Ensure an affordable supply of quality-assured HPV DNA screening tests, prioritizing the local procurement of quality products

STRATEGY 2.2

Increase the quality and coverage of HPV and cervical cancer screening

STRATEGY 2.3

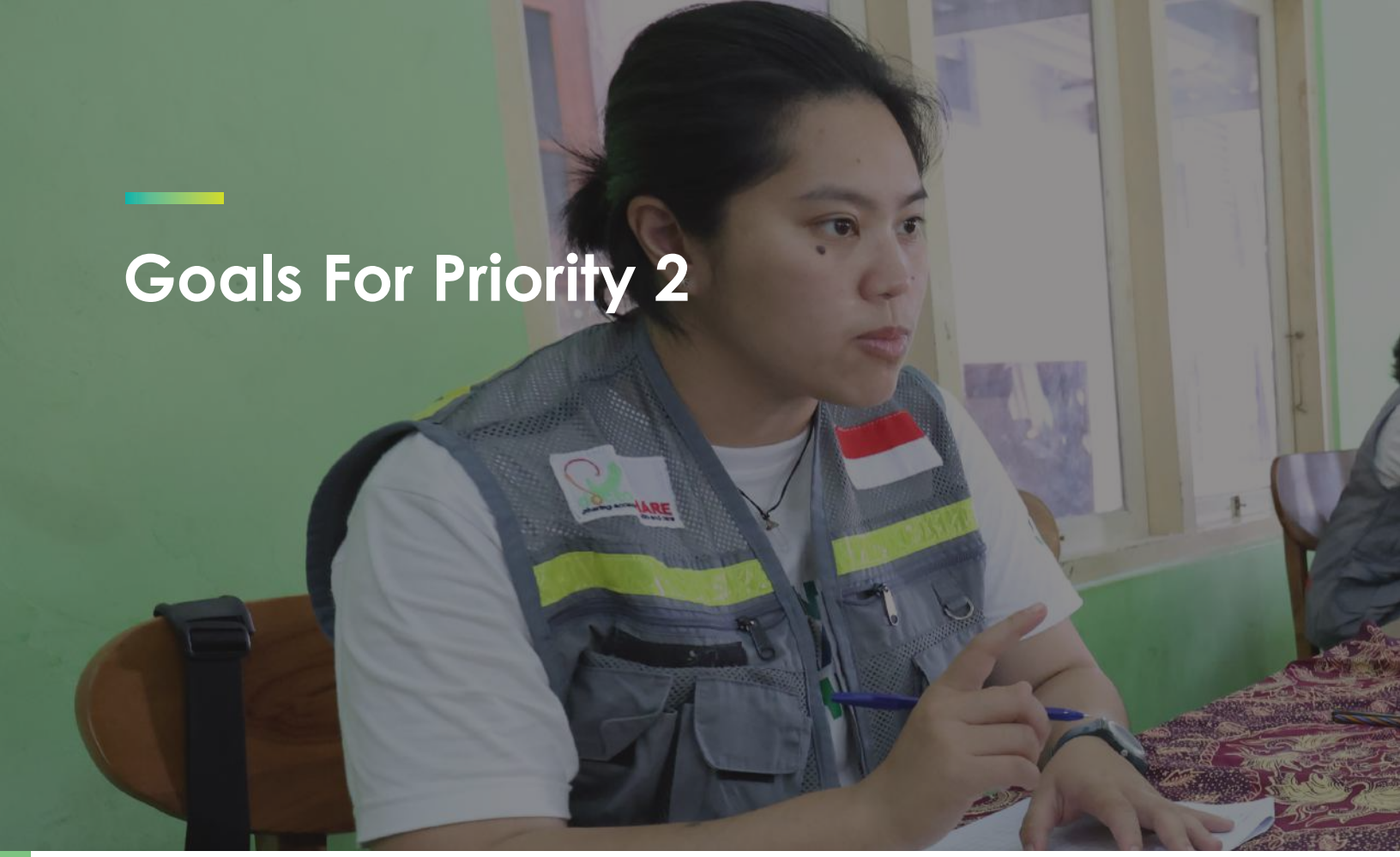
Review and improve the efficiency of screening methods, tools and technologies

The goal of cervical cancer screening is to identify, remove, and/or treat pre-cancerous lesions that are likely to progress to cancer before they do so. Regular screening can also support the diagnosis of cervical cancer at an early stage, when treatment is typically more effective and less invasive. Preventing the development and progression of cervical cancer is critical to reduce incidence and related morbidity and mortality, with the ultimate goal of elimination.

In Indonesia, the most common screening method is VIA, followed by cytology-based screening, in accordance with previous national and international guidelines. In 2020, the World Health Organization issued new guidelines recommending the use of a high-performance test as the primary method for HPV and cervical cancer screening. Compared to VIA and cytology-based screening, a high-performance test, such as HPV DNA testing, has been shown to be simpler, prevents more pre-cancers and cancer, and is more cost-effective than visual inspection techniques or cytology.

The achievement of the WHO 90-70-90 goals and corresponding national goals are contingent on the transition and widespread adoption of high-performance tests as the primary modality of screening. As of 2023, pilot tests in Indonesia are assessing the effectiveness of a dual approach with HPV DNA testing for screening paired with VIA inspection to detect pre-cancerous lesions.

Currently, screening coverage through VIA and cytology-based methods remains quite low, only reaching 9.3% of women in the target population in 2020, with significant variance between provinces. A 2021 scoping review of the facilitators and barriers of cervical cancer screening uptake in Indonesia found a number of important factors contributed to low uptake of screening nationwide, including: 1) knowledge: lack of awareness, low health literacy low-risk perception of cervical cancer; 2) logistical constraints: cost, time, and travel needed to access services, and 3) supply-side constraints: limited access and coverage at facilities, lack of skilled health workers, and lack of advocacy and health promotion activities.



Goals For Priority 2

GOALS FOR PRIORITY 2

TARGET **Phase 1** 2023 to 2027

70%

- All women between the ages of 30 to 69 are screened using HPV DNA testing as the primary screening method

Phase 2 2028 to 2030

75%

- All women between the ages of 30 to 69 are screened once every 10 years using HPV DNA testing as the primary screening method

ACTIONS FOR PRIORITY 2

Strategy 2.1: Ensure an affordable supply of quality-assured, HPV DNA screening tests, prioritizing the local procurement of quality products.

Action 2.1.1

Plan and ensure an adequate budget for the Ministry of Health to secure HPV DNA screening tests as part of the overall national cervical cancer elimination commitment.

LEAD

Ministry of Health *(Kemenkes)*
House of Representatives *(DPR)*
Ministry of Finance *(Kemenkeu)*
Ministry of Industry *(Kemperindustrian)*
Ministry of National Development Planning *(Bappenas)*
Office of the President *(KSP)*

PARTNERS

Development partners

Action 2.1.2

Tap into traditional and innovative financing mechanisms to increase funding for cervical cancer screening.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Finance *(Kemenkeu)*
Ministry of Foreign Affairs *(Kemlu)*

PARTNERS

Development partners

Action 2.1.3

Build and strengthen local regulatory, manufacturing, storage, and supply chain capabilities to produce tools, technologies and infrastructure needed for quality screening methods, and ensure their safety and accuracy, in collaboration with global and regional regulators and manufacturers.

LEAD

Ministry of Health *(Kemenkes)*
Coordinating Ministry for Economic Affairs (*Kementerian Koordinator Bidang Perekonomian)*
Ministry of Industry (Kemperindustrian)
National Research and Innovation Agency *(BRIN)*

PARTNERS

Development partners
Industry groups
Professional Organisations

Action 2.1.4

Build and strengthen opportunities for public-private dialogue, partnership, and other forms of engagement that promote affordable access to cervical cancer screening for eligible populations.

LEAD

Ministry of Health *(Kemenkes)*

PARTNERS

Development partners
Industry groups
Professional Organisations

Strategy 2.2: Increase the quality and coverage of HPV and cervical cancer screening

Action 2.2.1

Transition primary cervical cancer screening methods from current methods to HPV DNA screening methods with appropriate clinical guidelines and protocols (including transport for centralized testing) and strengthen laboratory services as well as quality assurance Programs. Strengthen capacity and training for healthcare workforce, including laboratories, to deliver these services.

LEAD

Ministry of Health *(Kemenkes)*

PARTNERS

Academia
Industry groups
Professional Organisations

Action 2.2.2

Phase scale-up of screening from opportunistic to population-based with updated guidelines and training to support HPV and cervical cancer screening through routine health care visits in primary care settings, reproductive health, HIV / STD, and family health consultations.

LEAD

Ministry of Health *(Kemenkes)*
National Population and Family Planning *(BKKBN)*

PARTNERS

Development partners
Professional Organisations

Action 2.2.3

Expand *Jaminan Kesehatan Nasional* (JKN) coverage of cervical cancer screening methods to include HPV DNA testing.

LEAD

Ministry of Health *(Kemenkes)*
Social Security Agency on Health *(BPJS Kesehatan)*

PARTNERS

Academia

Action 2.2.4

Consider, where appropriate, alternative strategies, such as point-of-care screening and self-sampling methods, for hard-to-reach populations and remote communities.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Home Affairs *(Kemendagri)*
Ministry of Villages, Development of Disadvantaged Regions, and Transmigration *(Kemendesa PDTT)*

PARTNERS

Community partners
Development partners
Puskesmas
Primary care networks

Action 2.2.5

Implement a screening and management pathway for HIV / STD infected women and disseminate the pathway to relevant key partners.

LEAD

Ministry of Health *(Kemenkes)*

PARTNERS

Community partners
Development partners
Puskesmas
Primary care networks

Strategy 2.3: Review and improve efficiency of screening methods, tools and technologies

Action 2.3.1

Review and update relevant clinical and programmatic guidelines on HPV and cervical cancer screening in line with local and international scientific evidence.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital

PARTNERS

Academia
Professional Organisations

Action 2.3.2

Promote screen, triage and treat approaches, such as Visual inspection with acetic acid (VIA) for HPV DNA-positive individuals, to be used alongside the primary screening method to detect pre-cancerous lesions.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Home Affairs *(Kemendagri)*
National Cancer Centre, Dharmais Cancer Hospital

PARTNERS

Academia
Development partners
Hospitals
Puskesmas
Other clinic and independent medical practices

Action 2.3.3

Conduct training of healthcare workers on local and culturally-appropriate evidence-based interventions to increase screening participation in under-screened eligible populations.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Communication and Informatics *(Kominfo)*
Ministry of Finance *(Kemenkeu)*
Ministry of Religious Affairs *(Kemenag)*
National Cancer Centre, Dharmais Cancer Hospital

PARTNERS

Development partners
Professional Organisations

Action 2.3.4

Annually review local and international scientific evidence on current methods (e.g. HPV DNA testing only; HPV DNA and VIA co-testing) and emerging technologies and tools such as clinically validated high-sensitivity tests.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
National Research and Innovation Agency *(BRIN)*
Regional fostership hospitals

PARTNERS

Academia
Accredited Testing Laboratory
Development partners
Professional Organisations

PRIORITY 3
TREATMENT

GOAL

Establish a timely and comprehensive treatment pathway for women diagnosed with cervical pre-cancer and cervical cancer to have access to quality treatment and care

STRATEGY 3.1

Strengthen overall service capacity for cancer treatment and care services in alignment with the national cancer control plan

STRATEGY 3.2

Improve access to cryotherapy, thermal ablation, conization, long excision of the transitional zone and other appropriate treatment for quality and timely treatments of pre-cancer

STRATEGY 3.3

Improve access to surgery, cryotherapy, radiotherapy, chemotherapy and pathology for quality and timely treatment of invasive cancer

STRATEGY 3.4

Improve access to palliative care services

STRATEGY 3.5

Create an enabling environment for patients to receive cervical cancer treatment

Access to timely, quality, and affordable treatment and palliative care options, paired with greater social support services for women and their families, can help slow the progression of invasive cervical cancers and protect the dignity and quality of life of women living with this disease. Demonstrating the potential to treat cervical cancer effectively will support Indonesia in better engaging the next generation of women in screening services.

In Indonesia, cervical cancer is the second most common female cancer, with most – 70% - of women diagnosed in advanced stages, when treatment is less effective. As a result, 50% of women diagnosed with cervical cancer die from it. Reducing Indonesia's cervical cancer incidence and mortality rates will require a comprehensive, multi-stakeholder approach to strengthen health system capacity, increase the availability of advanced treatment technologies, and address social, financial, cultural, societal and structural barriers to treatment.

Treatment options for cervical cancer depend on several factors, including the stage of cancer, the patient's overall health, and individual preferences.

The *Elimination* Plan outlines strategies to support treatment at different stages of cancer: 1) women who are detected with pre-cancer lesions and can thus be quickly and effectively treated at the puskesmas level, 2) women are diagnosed with invasive cancer and require comprehensive specialized treatment with advanced pathology, radiotherapy and chemotherapy services at the regional hospital level, and 3) women who are the most advanced stages of disease who need palliative care within home and community settings.

Goals For Priority 3

GOALS FOR PRIORITY 3

TARGET

Phase 1 2023 to 2027

70%

- All women with pre-cancer are treated
- All women with invasive cancer managed

Phase 2 2028 to 2030

90%

- All women with pre-cancer are treated
- All women with invasive cancer managed

ACTIONS FOR PRIORITY 3

Strategy 3.1: Strengthen overall service capacity for cancer treatment and care services in alignment with the national cancer control plan

Action 3.1.1

Assess and improve existing cancer service readiness, healthcare workforce training, and clinical capacity for treatment at the *puskesmas*, district, provincial and national levels.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
Ministry of Home Affairs *(Kemendagri)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Academia
Cancer Services Hospitals Network
Clinicians and Researchers
Provincial Health Office
Professional Organisations
Hospitals
Nuclear Energy Regulatory Agency *(BAPETEN)*
Puskesmas
Universities

Action 3.1.2

Review and update relevant clinical and programmatic guidelines on cervical cancer diagnosis, management and treatment in line with local and international scientific evidence.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Home Affairs *(Kemendagri)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Academia
Cancer Services Hospitals Network
Development partners
Hospitals
Professional Organisations
Puskesmas

Action 3.1.3

Establish and strengthen referral pathways between primary (e.g. *puskesmas*, General Practitioner (GP)) to secondary and tertiary levels of care, including consideration of hub-and-spoke and teleconsultation models.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Home Affairs *(Kemendagri)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network
Hospitals
Puskesmas

Action 3.1.4

Build and strengthen local regulatory, manufacturing, storage, and supply chain capabilities to produce treatment agents and care devices, and ensure their safety and efficacy in collaboration with global and regional regulators and manufacturers.

LEAD

Ministry of Health *(Kemenkes)*
National Agency of Drug and Food Control *(BPOM)*
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
Ministry of Finance *(Kemenkeu)*
National Research and Innovation Agency *(BRIN)*

PARTNERS

Development partners
Industry groups

Strategy 3.2: Improve access to cryotherapy, thermal ablation, conization, long loop excision of transitional zone and other appropriate treatments for quality and timely treatment of pre-cancer

Action 3.2.1

Assess baseline estimated need and treatment gap for cryotherapy, thermal ablation, conization, long loop excision of transitional zone and other appropriate treatments for women diagnosed with cervical pre-cancer.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Academia
Cancer Services Hospitals Network
Hospitals
Puskesmas

Action 3.2.2

Expand training, quality, distribution, and number of healthcare workforce in line with estimated pre-cancer treatment needs.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network
Hospitals
Professional Organisations
Puskesmas

Strategy 3.3: Improve access to surgery, cryotherapy, radiotherapy, chemotherapy and pathology for quality and timely treatment of invasive cancer

Action 3.3.1

Assess baseline estimated need and treatment gap for surgery, radiotherapy, chemotherapy, and pathology for women diagnosed with cervical cancer.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Nuclear Energy Regulatory Agency *(BAPETEN)*
Regional fostership hospitals

PARTNERS

Academia
Cancer Services Hospitals Network
Hospitals
Puskesmas
Professional Organisations

Action 3.3.2

Strengthen, ensure availability, and expand access to high-quality pathology, chemotherapy, radiotherapy, and surgical services at tertiary facilities to ensure timely access to treatment.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Academia
Cancer Services Hospitals Network
Industry groups
Nuclear Energy Regulatory Agency *(BAPETEN)*
Professional Organisations
Hospitals
Universities

Action 3.3.3

Ensure training, quality, distribution, and number of general and specialized workforce including pathologists, gynaecologists, oncologists, surgeons, anesthesiologists, intensive care nurses and other relevant staffing in line with estimated treatment needs

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Academia
Cancer Services Hospitals Network
Hospitals
Professional Organisations
Puskesmas

Strategy 3.4: Improve access to palliative care services

Action 3.4.1

Strengthen and improve access to palliative care services, such as end-of-life care and pain relief for patients.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network
Hospitals
Puskesmas
Provincial and Regency/City Health Service
Universities

Action 3.4.2

Strengthen supportive therapies, including psychological support, family support and other services. Where possible, implement home-based models of palliative care that are integrated into primary health care.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network
Community partners
District Health Office
Hospitals
Puskesmas
Provincial Health Office

Strategy 3.5: Create an enabling environment for patients to receive cervical cancer treatment

Action 3.5.1

Ensure the JKN Program covers treatment and care costs associated with cervical pre-cancer and cancer. Explore mechanisms to provide financial support for indirect non-medical costs for follow-up consultations and treatment, should they require additional support

LEAD

Ministry of Health *(Kemenkes)*
District Health Office
Ministry of Home Affairs *(Kemendagri)*
Ministry of Social Affairs *(Kemensos)*
National Cancer Centre, Dharmais Cancer Hospital
Provincial Health Office
Regional fostership hospitals

PARTNERS

Community partners
Hospitals
Puskesmas
Non-governmental organisations

Action 3.5.2

Provide comprehensive support to enhance quality of life and address societal, geographical, and structural barriers to accessing services, including low levels of health literacy and stigma associated with cervical cancer. Incorporate patient engagement and accountability mechanisms where possible.

LEAD

Ministry of Health *(Kemenkes)*
Cancer Services Hospitals Network
Ministry of Social Affairs *(Kemensos)*

PARTNERS

Community partners
Development partners
District Health Office
Non-governmental organisations
Provincial Health Office

Priority 4:
HEALTHCARE WORKFORCE STRENGTHENING

Priority 5:
PUBLIC AWARENESS & EDUCATION

Achieving cervical cancer elimination will require comprehensive education, training, and outreach Programs to support service delivery for cervical cancer interventions, particularly as guidelines, technologies, and implementation Programs evolve. Development and guidance of such outreach Programs will be completed at the national level, while provincial, district, and other local-level authorities and local education, religious, and political leaders will play an important role in developing and carrying out effective and culturally sensitive campaigns.

PRIORITY 4
HEALTHCARE WORKFORCE STRENGTHENING

GOAL

Strengthen the health workforce through training and capacity building to provide evidence-based information and timely, quality cervical cancer interventions comprehensively and equitably

STRATEGY 4.1

Strengthen clinical and allied health capacity building and training to health professionals on cervical cancer interventions and evidence-based information in line with national guidelines

STRATEGY 4.2

Optimise the size and distribution of the healthcare workforce to deliver cervical cancer interventions in a comprehensively and equitably manner

A well-trained and competent health workforce stands as an indispensable pillar upon which the success of cervical cancer elimination rests. To ensure equitable access to interventions throughout the nation, the whole health workforce must be properly trained and health system capacities optimized, even at the most rural level. It is important that healthcare providers are not only well-informed but also proficient in the latest clinical evidence and adept at the administration of available vaccination, screening, and treatment options. Beyond clinical services, healthcare workers are the frontline in providing accurate and easy-to-understand information, and to deliver services that make women feel comfortable, safe, and supported.

By equipping our healthcare workforce with the knowledge and skills necessary to introduce, practice, and promote elimination interventions, they will be empowered to advocate for all patients at every encounter.

Goals For Priority 4

ACTIONS FOR PRIORITY 4

Strategy 4.1: Strengthen clinical and allied health capacity building and training of health professionals on cervical cancer interventions and evidence-based information in line with national guidelines.

Action 4.1.1

Provide up-to-date and standardized vaccine, screening, and treatment education in medical school Programs, nursing Programs, midwifery Programs, pathology and other relevant post-graduate Programs, and continuing medical education opportunities for for the existing workforce.

LEAD

Ministry of Health *(Kemenkes)*
Cancer Services Hospitals Network
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
Hospitals

PARTNERS

Academia
Development partners
Professional Organisations

Action 4.1.2

Provide and incentivize training, education, and accreditation for general practitioners, primary healthcare and front-line providers at the puskesmas level using standardized and user-friendly digital training systems on vaccination, screening, and basic treatment for cervical cancer.

LEAD

Ministry of Health *(Kemenkes)*
Cancer Services Hospitals Network
District Health Office
Provincial Health Office

PARTNERS

Development partners
Non-governmental organisations
Professional Organisations
Puskesmas
Primary care networks

Action 4.1.3

Train and build the capacity of relevant health workforce and community volunteers to deliver education and information on vaccine safety and efficacy and to vaccine hesitancy. Incorporate interpersonal communication techniques as part of the training.

LEAD

Ministry of Health *(Kemenkes)*
Cancer Services Hospitals Network
District Health Office
Provincial Health Office

PARTNERS

Community partners
Development partners
Professional Organisations
Hospitals
Puskesmas
Primary care networks

Action 4.1.4

Pilot and evaluate remote training options such as, but not limited to, twinning Programs, regional training hubs, telementoring, e-learning, mobile learning and low-cost virtual reality simulation.

LEAD

Ministry of Health *(Kemenkes)*
Cancer Services Hospitals Network
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Hospitals
Puskesmas
Primary care networks

Strategy 4.2: Optimise size and distribution of healthcare workforce to deliver cervical cancer interventions in a comprehensive and an equitable manner

Action 4.2.1

Use evidence-based mapping of healthcare facilities to optimize the allocation of the healthcare workforce to ensure access to cervical cancer interventions and to address service coverage gaps.

LEAD

Ministry of Health *(Kemenkes)*
District Health Office
National Cancer Centre, Dharmais Cancer Hospital
Provincial Health Office
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network
District Health Office
Professional Organisations
Provincial Health Office
HospitalsPrimary care networks

Action 4.2.2

Adopt tele-mentoring to aid existing clinical workforce and support task-shifting in areas of low healthcare worker access, when necessary.

LEAD

Ministry of Health *(Kemenkes)*
Cancer Services Hospitals Network
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Academia
Hospitals
Professional Organisations
Puskesmas

Action 4.2.3

Ensure sufficient staffing of trained healthcare workers to provide appropriate cervical cancer interventions at p*uskesmas*, district, provincial and national hospitals.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network
Hospitals
Professional Organisations
Puskesmas

PRIORITY 5
PUBLIC AWARENESS & EDUCATION

GOAL

Rally the community towards the goal of cervical cancer elimination, and improve community understanding of the role all interventions - including HPV vaccination, primary cervical cancer screening and secondary prevention - have in reducing cancer risk, severity, and mortality.

STRATEGY 5.1

Widely disseminate the national goal of cervical cancer elimination to rally individuals and communities to work together towards the cause

STRATEGY 5.2

Develop and disseminate evidence-based messaging for the public on the benefits, availability, safety, and efficiency of HPV vaccination

STRATEGY 5.3

Develop and disseminate evidence-based messaging to communicate the benefits of HPV and cervical cancer primary screening

STRATEGY 5.4

Ensure communities and patients have equitable access to quality information about cervical cancer symptoms and that each cancer patient has tailored information about their diagnosis, intended treatment, and planned optimal care pathway

Raising awareness and education on cervical cancer will promote a whole-of-society commitment to achieving cervical cancer elimination. Educating the public on HPV and cervical cancer in clear language that speaks to their questions and concerns is vital to Increasing acceptance and uptake of cervical cancer interventions. Moreover, information and education efforts are important to counter broader issues on vaccine and screening hesitancy, as well as the stigma that may be associated with HPV.

By developing and tailoring communication materials to provide information on the national goal of cervical cancer elimination, Indonesia can thoughtfully implement nationwide and local public awareness, education, and social mobilization efforts. Subnational leaders are critically important messengers, who can tailor materials to their community needs. Further, leaders can benefit from collaborative learning and opportunities to communicate about their elimination Programs, share lessons learned, and strategize to overcome shared obstacles.

Goals For Priority 5

ACTIONS FOR PRIORITY 5

Strategy 5.1: Widely disseminate the national goal of cervical cancer elimination to rally individuals and communities to work together towards the cause.

Action 5.1.1

Develop nationwide, evidence-based public awareness, education, and social mobilization efforts, based on knowledge, attitude and practice assessments. Encourage districts, provinces and cities to tailor cervical cancer elimination efforts to their specific contexts.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network
Community partners
Development partners
District Health Office
Hospitals
Ministry of Manpower *(Kemnaker)*
Ministry of Women Empowerment and Child Protection *(Kemenpppa)*
Non-governmental organisations
Professional Organisations
Provincial Health Office

Action 5.1.2

Implement cervical cancer education materials on the national cervical cancer elimination goal and related programs, policies, and interventions.

Develop targeted messaging to healthcare workforce, non-governmental organizations, patients, women, adolescents and youth.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network Hospitals
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
Ministry of Defense *(Kemhan)*
Ministry of Home Affairs *(Kemendagri)*
Professional Organisations

Action 5.1.3

Engage and incentivize cadres of volunteer community workers and community leaders to educate and rally support within local communities toward cervical cancer elimination.

LEAD

Ministry of Health *(Kemenkes)*
District Health Office
Ministry of Home Affairs *(Kemendagri)*
Ministry of Villages, Development of Disadvantaged Regions, and Transmigration *(Kemendesa PDTT)*
Provincial Health Office

PARTNERS

Ministry of Religious Affairs *(Kemenag)*
Community partners
District Health Office
Non-governmental organisations
Provincial Health Office *(Kemhan)*
Ministry of Home Affairs *(Kemendagri)*
Professional Organisations

Action 5.1.4

Engage cervical cancer survivor groups and women advocacy groups to promote awareness and education initiatives to increase awareness of cervical cancer elimination and the importance of timely access to services and treatment.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Women Empowerment and Child Protection *(Kemenpppa)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

District Health Office
Non-governmental organisations
Provincial Health Office
Ministry of Home Affairs *(Kemendagri)*
Professional Organisations

Action 5.1.5

Leverage traditional and social media, including local celebrities, champions, and social media influencers, to effectively run public education campaigns and disseminate information widely. Improve and optimise the use of the Ministry of Health's current efforts such as the *Ayo Sehat* website.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Communication and Informatics *(Kominfo)*
Ministry of Home Affairs *(Kemendagri)*

PARTNERS

Development partners
Media
Non-governmental organisations

Strategy 5.2: Develop and disseminate evidence-based messaging for the public on the benefits, availability, safety, and efficacy of HPV vaccination

Action 5.2.1

Develop and routinely review local, culturally-appropriate information and education resources to communicate widely about the benefits, availability, safety, and efficacy of the HPV vaccine, including public education strategies that address vaccine hesitancy.

LEAD

Ministry of Health / *Kementerian Kesehatan (Kemenkes)*
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
Ministry of Religious Affairs *(Kemenag)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Academia
Community partners
Development partners
Ministry of Women Empowerment and Child Protection *(Kemenpppa)*
Non-governmental organisations
Professional Organisations

Action 5.2.2

Co-develop and implement innovative education and program delivery strategies using high-quality evidence to address vaccine hesitancy and other participation barriers in school-based and out-of-school programs.

LEAD

Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
Ministry of Religious Affairs *(Kemenag)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Community partners
Development partners
Non-governmental organisations

Strategy 5.3: Develop and disseminate evidence-based messaging to communicate the benefits of HPV and cervical cancer primary screening

Action 5.3.1

Develop and routinely review culturally-appropriate and easy-to-understand education resources on the importance of cervical cancer screening in early detection, diagnosis, and prompt treatment of precancerous lesions, as well as clinical and care pathways post-screening

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
National Population and Family Planning Board *(BKKBN)*
Regional fostership hospitals

PARTNERS

Community partners
Development partners
Non-governmental organisations

Action 5.3.2

Develop and tailor screening recruitment information to reach general and historically under-represented populations.

LEAD

Ministry of Health *(Kemenkes)*
District Health Office
Ministry of Home Affairs *(Kemendagri)*
Ministry of Villages, Development of Disadvantaged Regions, and Transmigration *(Kemendesa PDTT)*
Provincial Health Office

PARTNERS

Community partners
Development partners
Ministry of Religious Affairs *(Kemenag)*
Non-governmental organisations

Strategy 5.4: Ensure communities and patients have equitable access to quality information about cervical cancer symptoms and that each cancer patient has tailored information about their diagnosis, intended treatment, and planned optimal care pathway.

Action 5.4.1

Develop and implement evidence-based materials and technologies to inform patients about treatment and care options and pathways

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network
Professional Organisations

Action 5.4.2

Provide information, consultation and support (for example, utilizing the expertise of nurses and allied health professionals) such that patients and their families fully understand and contribute to their preferences and needs to their care pathway.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network
Professional Organisations

Action 5.4.3

Engage cervical cancer survivor groups and women advocacy groups to address the stigma associated with HPV and cervical cancer.

LEAD

Ministry of Health (*Kemenkes)*

Ministry of Women Empowerment and Child Protection *(Kemenpppa)*

PARTNERS

Community partners
Non-governmental organisations


Kartu Imunisasi Anak Sekolah
Nama Anak
NIK
Tanggal Lahir
Nama Orang Tua/Wali
Sekolah

Priority 6:
MONITORING, EVALUATION & RESEARCH

Priority 7:
DIGITAL ENABLERS

As new policies and programs are introduced, several systems enablers that can support their implementation and ongoing improvement. For example, measuring the progress of policies and programs through robust surveillance and monitoring systems will support our understanding of their success, as well as tailor outreach and inform future iterations of policies and Programs. Additionally, growing digital health capabilities can facilitate a wide range of activities, including education and awareness strategies.

PRIORITY 6
MONITORING, EVALUATION & RESEARCH

GOAL

Strengthen the health workforce through training and capacity building to provide evidence-based information and timely, quality cervical cancer interventions comprehensively and equitably

STRATEGY 6.1

Strengthen and enhance, when needed, existing cervical cancer registries that guide monitoring, evaluation, and research, in line with international standards and definitions

STRATEGY 6.2

Set specific time-bound targets, milestones and indicators for monitoring and evaluating the national cervical cancer elimination program

STRATEGY 6.3

Strengthen the local evidence base through scientific, behavior, and implementation research to better inform cervical cancer elimination policies and programs that translate to better patient and population outcomes

Establishing and maintaining robust surveillance and monitoring systems for cervical cancer interventions - at both the national and subnational level - can guide the development and revision of policies, procedures, and Programs by calculating a baseline and monitoring their impact. Linking registry data can further support clinical and policy decision-making by providing a comprehensive overview of access to cervical cancer interventions and their outcomes at the individual and population level, assisting Program managers in recognizing gaps and introducing targeted actions to improve coverage, quality, and outcomes.

Goals For Priority 6

ACTIONS FOR PRIORITY 6

Strategy 6.1: Strengthen and enhance, when needed, existing cervical cancer registries that guide monitoring, evaluation, and research, in line with international standards and definitions

Action 6.1.1

Enhance the existing HPV immunization registry, as needed, to simplify and expedite data collection, to support timely measurement of vaccine coverage rates, and to assess and address performance achievements and gaps.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
Ministry of Home Affairs *(Kemendagri)*

PARTNERS

Development partners
District Health Office
Provincial Health Office

Action 6.1.2

Strengthen the existing national cervical cancer screening registry, Canscreen5, to identify women eligible for screening, track their history and uptake of screening, and notify women if and when screening is recommended.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Home Affairs *(Kemendagri)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Academia
District Health Office
Hospitals
Provincial Health Office

Action 6.1.3

Ensure the diagnosis and treatment of patients, both those with pre-cancerous lesions and those identified with cervical cancer, Are properly reported and systematically collected.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Home Affairs *(Kemendagri)*
National Cancer Centre, Dharmais Cancer Hospital
National Population and Family Planning Board *(BKKBN)*
Regional fostership hospitals

PARTNERS

Academia
Cancer Services Hospitals Network
District Health Office
Hospitals
Provincial Health Office

Action 6.1.4

Establish an interconnected system between registries to track uptake of interventions throughout the continuum of services (vaccination, screening, and treatment), as well as related outcomes (e.g., morbidity and mortality).

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Home Affairs *(Kemendagri)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Academia
Cancer Services Hospitals Network
District Health Office
Hospitals
Provincial Health Office

Strategy 6.2: Set specific time-bound targets, milestones and indicators for monitoring and evaluating the national cervical cancer elimination Program

Action 6.2.1

Define clear, time-bound process (e.g. coverage rates of vaccination) and outcome (e.g. number of deaths averted) metrics to track progress of vaccination, screening, and treatment initiatives.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Home Affairs *(Kemendagri)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Development partners
District Health Office
Provincial Health Office

Action 6.2.2

On a quarterly basis, review and report the impact of the various interventions and their respective progress towards elimination targets, and adjust program interventions as necessary.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Home Affairs *(Kemendagri)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

District Health Office
Provincial Health Office

Action 6.2.3

On a half-yearly basis, evaluate the progress towards elimination targets and include its assessment in both a mid-year and annual policy report on the progress towards cervical cancer elimination.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Home Affairs *(Kemendagri)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Development partners
District Health Office
Provincial Health Office

Strategy 6.3: Strengthen the local evidence base through scientific, behavioural and implementation research to better inform cervical cancer elimination policies and Programs that translate to better patient and population outcomes

Action 6.3.1

Develop a national research agenda for cervical cancer led by the MOH, informed by scientific experts and academia, the cervical cancer elimination interagency committee, the cervical cancer elimination multi-stakeholder taskforce, and key multilateral organizations

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Home Affairs *(Kemendagri)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Academia
Development partners
Professional Organisations

Action 6.3.2

Evaluate and develop innovative and emerging technologies, approaches, and sustainable quality assurance systems on their efficacy, feasibility and sustainability, for example, new vaccines, urine testing, TeleDoVIA, digital health diagnostics, and self-sampling.

LEAD

Coordinating Ministry for Human Development and Culture *(Kemenko PMK)*
Ministry of Health *(Kemenkes)*
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
National Research and Innovation Agency *(BRIN)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Academia
Development partners
Professional Organisations

Action 6.3.3

Conduct implementation and policy research with local universities and academia to understand and address contextual barriers to uptake for cervical cancer interventions and how to create an enabling environment for access to quality cervical cancer services.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
National Research and Innovation Agency *(BRIN)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Academia
Development partners
Professional Organisations

Action 6.3.4

Conduct economic and financing studies to establish resourcing needs for cervical cancer elimination, relevant cost-benefit analyses, and the long-term impact of cervical cancer elimination in Indonesia

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
National Research and Innovation Agency *(BRIN)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Academia
Development partners
Professional Organisations

PRIORITY 7
DIGITAL ENABLERS

GOAL

Use digital tools, as appropriate, to facilitate access to cervical cancer prevention and control services, improve Program effectiveness and efficiency, and promote accountability

STRATEGY 7.1

Establish and integrate digital registries to support program implementation, monitoring and impact

STRATEGY 7.2

Develop a digital cervical cancer elimination information platform, paired with data from Satu Sehat, as a repository for information for providers, patients, and partners on cervical cancer elimination policies, programs, and services

In March 2020, Indonesia launched *Satu Sehat*, a national integrated health services platform, used as a digital COVID-19 contact tracing application. In 2022, patient health data from all health facilities began to be integrated into the platform, to facilitate data entry and allow patients and providers to access health data on demand. The platform is expected to continue its growth trajectory, and can play a key role in monitoring and evaluation of the national cervical cancer elimination strategy.

In addition, leveraging the existing Electronic Logistics Information Monitoring system (SMILE) is instrumental in optimizing the dashboard reporting capabilities and data visualization in *Satu Sehat*. Developed by the United Nations Development Program and MOH in 2018, SMILE is a mobile and web-based application that plays a key role in strengthening the HPV immunization supply chain system in Indonesia by enabling real-time visibility of vaccine cold chain logistics.

Beyond monitoring and evaluation, digital platforms can be leveraged to facilitate education and awareness strategies and bridge gaps in access across jurisdictions and health facilities. Additionally, digital platforms can support digital reminders for vaccination series completion, follow-up procedures after screening, and next steps for treatment.

Goals For Priority 7

ACTIONS FOR PRIORITY 7

Strategy 7.1: Establish and integrate digital registries to support Program implementation, monitoring and impact

Action 7.1.1

Integrate data from cervical cancer and related registries into the *Satu Sehat* platform to enhance clinical protocols and reduce "loss to follow-up" using the platform's established digital system of tracking, as well as functions to deploy digital reminder-recall notifications regarding vaccination, screening, and treatment status and appointments. Introduce protocols to ensure patients are registered for the system.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Ministry of Home Affairs *(Kemendagri)*
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network
Development partners
District Health Office
Hospitals
Other clinics or independent medical practices
Provincial Health Office
Puskesmas

Action 7.1.2

Establish and integrate accessible and digital data systems, including logistics tracking for HPV vaccination, diagnostics and therapeutics, and registries for vaccination, screening, diagnosis, treatment, and deaths, to support implementation, monitoring and impact of the *Elimination Plan* in a real-time manner.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network
District Health Office
Hospitals
Other clinics or independent medical practices
Provincial Health Office
Puskesmas

Action 7.1.3

Adopt digital data visualization tools (e.g., dashboard monitoring through *Satu Sehat*) to synthesize data from registries and visualize data in an effective, useful and real-time manner. Ensure that these tools are made available to every stakeholder involved in the *Elimination Plan*.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network
District Health Office
Hospitals
Other clinics or independent medical practices
Provincial Health Office
Puskesmas

Action 7.1.4

Optimize the dashboard reporting capabilities by leveraging on the Electronic Logistics Information Monitoring system (SMILE) to accurately monitor the availability of vaccination logistics in real-time so as to increase the effectiveness of vaccinations deployment and planning.

LEAD

Ministry of Health *(Kemenkes)*
Development partners

PARTNERS

District Health Office
Provincial Health Office
Puskesmas

Strategy 7.2: Develop a digital cervical cancer elimination information platform, paired with data from *Satu Sehat,* as a repository for information for providers, patients, and partners on cervical cancer elimination policies, Programs, and services.

Action 7.2.1

Develop and disseminate online training modules for cervical cancer screening, vaccination, and treatment programs in accordance with the latest national guidelines, targeting general practitioners, obstetric and gynaecologist specialists, registered nurses, and other relevant health workers.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
National Population and Family Planning Board *(BKKBN)*
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network
District Health Office
Hospitals
Other clinics or independent medical practices
Professional organisations
Provincial Health Office
Puskesmas

Action 7.2.2

Develop and routinely disseminate digital information, education, and strategies to healthcare workers, community groups, religious leaders, and media outlets to effectively communicate and engage with local women on cervical cancer prevention and treatment, as well as access to services.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Communication and Informatics *(Kominfo)*
Ministry of Women Empowerment and Child Protection *(Kemenpppa)*
National Cancer Centre, Dharmais Cancer Hospital
National Population and Family Planning Board *(BKKBN)*
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network
District Health Office
Hospitals
Other clinics or independent medical practices
Professional organisations
Provincial Health Office
Puskesmas

Action 7.2.3

Use digital channels to raise awareness and education amongst the general population on cervical cancer information, for example by working with technology companies with sizable customer bases to deliver information, resources, and reminders.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Communication and Informatics *(Kominfo)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network
District Health Office
Hospitals
Provincial Health Office
Technology Compani

Action 7.2.4

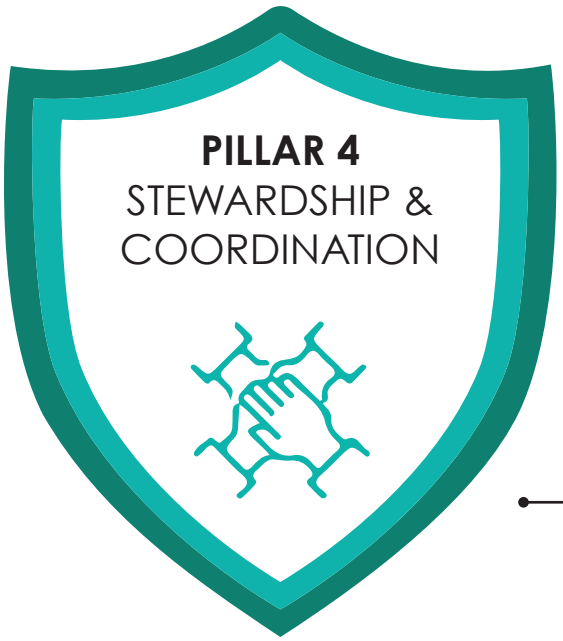
Establish hub-and-spoke telepathology and expert telementoring models, where *puskesmas* healthcare professionals can receive timely and adequate support from specialist doctors in hospitals, to assist in providing high-quality care to all patients, regardless of location.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
National Population and Family Planning Board *(BKKBN)*
Regional fostership hospitals

PARTNERS

Cancer Services Hospitals Network
District Health Office
Hospitals
Provincial Health Office
Puskesmas



Priority 8:
GOVERNANCE & POLICY

Priority 9:
FINANCING FOR ELIMINATION

Priority 10:
INTERSECTORAL COLLABORATION & PARTNERSHIPS

The final pillar provides the foundation for the entire *Elimination Plan*. The role of government is central and multi-faceted: to raise and allocate resources efficiently, to command public awareness and attention, to lead and coordinate all stakeholders, and above all, to ensure the safety and welfare of the nation. In the following priorities of the *Elimination Plan,* specific strategies and actions are outlined to build up the governance mechanisms for oversight and decision-making, ensure evidence-based budgeting and allocation of funds to deliver on actions, and to promote and whole-of-society efforts to realize the goals of cervical cancer elimination.

PRIORITY 8
GOVERNANCE & POLICY

GOAL

Ensure a robust governance mechanism to efficiently and effectively fulfill the national commitment to cervical cancer elimination goals, strategic priorities, and actions as outlined in the Elimination Plan

STRATEGY 8.1

Empower and strengthen the role of the Ministry of Health to govern Indonesia's cervical cancer elimination programs and monitor its progress

STRATEGY 8.2

Ensure a whole-of-government approach that aligns with and draws on the respective strengths and mandates of relevant Ministries and local development planning agencies

STRATEGY 8.3

Ensure prioritization of local products and local manufacturing that help increase the opportunities for domestic industry, while adhering to global quality standards

The determinants of health and well-being reach beyond the health sector – individual and community health is influenced by education, income, and living conditions, among other factors. Thus, establishing good, strong governance for cervical cancer elimination in Indonesia will involve a whole-of-government, whole-of-system, local product-oriented approach with champions from relevant Ministries to bring different perspectives and experiences into evidence-based planning, oversight, and guidance, as well as to examine, redesign, and introduce policies that impact access to cervical cancer interventions.

In addition to government representatives, the governance structure should include experts from across the continuum of interventions - including health professionals, civil society, academics and educators, and private sector - to provide guidance on organisational issues, manage activities, and ensure the Program's correlation with the broader health care system.

Goals For Priority 8

ACTIONS FOR PRIORITY 8

Strategy 8.1: Empower and strengthen the role of the Ministry of Health to govern Indonesia's cervical cancer elimination Program and monitor its progress.

Action 8.1.1

Develop a government interagency cervical cancer elimination committee, including district and provincial level authorities, that promotes a whole-of-government approach and coordination to achieve cervical cancer elimination objectives.

LEAD

Coordinating Ministry for Human Development and Culture *(Kemenko PMK)*
Ministry of Health *(Kemenkes)*
Ministry of National Development Planning *(Bappenas)*

PARTNERS

District Health Office
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
Ministry of Finance *(Kemenkeu)*
Ministry of Home Affairs *(Kemendagri)*
Ministry of Villages, Development of Disadvantaged Regions, and Transmigration *(Kemendesa PDTT)*
Ministry of Women Empowerment and Child Protection *(Kemenpppa)*
National Cancer Center, Dharmais Cancer Hospital
National Population and Family Planning Board *(BKKBN)*
Provincial Health Office
Regional fostership hospitals

Action 8.1.2

Establish a multi-stakeholder cervical cancer elimination task force with national and local representation, that advises the interagency committee and is composed of a secretariat, technical working groups, and local authorities (e.g. district secretary) in line with the strategic priorities of the *Elimination Plan*.

LEAD

Ministry of Health *(Kemenkes)*
Coordinating Ministry for Human Development and Culture *(Kemenko PMK)*
Ministry of National Development Planning *(Bappenas)*
Ministry of Women Empowerment and Child Protection *(Kemenpppa)*
Ministry of Home Affairs *(Kemendagri)*
(Bappenas)

PARTNERS

Community partners
Development partners
District Health Office
Ministry of Women Empowerment and Child Protection *(Kemenpppa)*
Non-governmental organisations
Professional Organisations
Provincial Health Office

Action 8.1.3

Develop and implement a quarterly report on cervical cancer elimination status that aggregates and analyses data from district, provincial, and national data in line with the *Elimination Plan*'s goals, targets, and actions.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Home Affairs *(Kemendagri)*
(Bappenas)

PARTNERS

District Health Office
Provincial Health Office

Strategy 8.2: Ensure a whole-of-government approach that aligns with and draws on the respective strengths and mandates of relevant Ministries and local development planning agencies

Action 8.2.1

Ensure that cervical cancer elimination policies and programming are aligned with major national development, societal, and economic agendas, as well as their corresponding plans, including but not limited to Indonesia's mid-term development plan, *RPJMN* 2025 to 2029, long-term development plan, *RPJPN* 2025 to 2045, and the Golden Indonesia 2045 Vision.

LEAD

All government agencies

PARTNERS

Provincial Development Planning Agency *(BAPPEDA)*
Provincial Health Office
District Health Office

Action 8.2.2

Reinforce the leadership of provincial and district governments to carry out cervical cancer elimination policies and Programs in accordance to their local context.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of National Development Planning *(Bappenas)*
Ministry of Home Affairs *(Kemendagri)*

PARTNERS

National Cancer Centre, Dharmais Cancer Hospital
Provincial Development Planning Agency *(BAPPEDA)*
Provincial Health Office
District Health Office
Regional fostership hospitals

Action 8.2.3

Reinforce existing decrees, particularly the Joint Decree on School Based Immunization, signed by four Ministries - Ministry of Health, Ministry of Education, Ministry of Home Affairs, and Ministry of Religious Affairs (03/KB/2022), and consider the establishment of decrees and regulations to ensure local level enforcement.

LEAD

Coordinating Ministry for Human Development and Culture *(Kemenko PMK)*
Ministry of Health *(Kemenkes)*
Ministry of Education, Culture, Research and Technology *(Kemendikbudristek)*
Ministry of Home Affairs *(Kemendagri)*
Ministry of Religious Affairs *(Kemenag)*

PARTNERS

Not applicable

Strategy 8.3: Ensure prioritization of local products and local manufacturing that helps increase opportunities for domestic industry, while adhering to global quality standards.

Action 8.3.1

In line with presidential decree No. 59 Year 2017, prioritize the procurement of tools, technologies, and interventions from domestic entities. Consider international procurement when domestic products are not available or not in line with international evidence-based quality standards.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Finance *(Kemenkeu)*
Provincial Development Planning Agency *(BAPPEDA)*

PARTNERS

Development partners
Industry groups

PRIORITY 9
FINANCING FOR ELIMINATION

GOAL

Ensure sufficient and sustainable funding and its efficient allocation for the achievement of national cervical cancer elimination goals

STRATEGY 9.1

Undertake a costing analysis that estimates and projects the budgetary needs in support of the Elimination Plan

STRATEGY 9.2

Establish a cervical cancer elimination budget for the MOH and entities to deliver cervical cancer elimination goals

STRATEGY 9.3

Engage with domestic and international funders to channel alternative sources of financing for the Elimination Plan

The elimination of cervical cancer is an ambitious goal with lasting health, social, and economic benefits, but will likely require additional and targeted resources in the short-term. While existing funding sources and mechanism will be drawn upon, it is important to have a fully costed plan that specifies resource and funding needs to successfully implement each strategy. Budgeting decisions should be informed by locally-relevant economic and costing data and the identification of highest-priority funding needs. This section outlines a stepwise approach to develop an evidence-based budget for each priority that is then reviewed by appropriate governmental bodies for approval or modification.

Goals For Priority 9

ACTIONS FOR PRIORITY 9

Strategy 9.1: Undertake a costing analysis that estimates and projects the budgetary needs in support of Indonesia's cervical cancer Elimination Plan.

Action 9.1.1

Review – and commission when necessary - existing international and local economic and costing studies on cervical cancer elimination interventions and their implications for the Indonesian context.

LEAD

Ministry of Health *(Kemenkes)*

PARTNERS

Academia
Development partners

Action 9.1.2

Undertake an evidence-based analysis of costing and modelling that will provide an estimated cost for each strategic priority action area in the Elimination Plan.

LEAD

Ministry of Health *(Kemenkes)*

PARTNERS

Academia
Development partners

Strategy 9.2: Establish a cervical cancer elimination budget for the MOH and other entities to deliver cervical cancer elimination interventions in alignment with goals

Action 9.2.1

Based on costing analysis articulated in Strategy 9.1, develop a proposed budget for each strategic priority, including recipients of budget allocation and source of budget (from existing or new funds).

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Finance *(Kemenkeu)*

PARTNERS

Development partners
Non-governmental organisations

Action 9.2.2

Review proposed budget with the interagency cervical cancer elimination committee and submit for further review and approval by the Ministry of Finance, DPR, and other relevant decision-making entities.

LEAD

Ministry of Health *(Kemenkes)*
House of Representatives *(DPR)*
Ministry of Finance *(Kemenkeu)*
Office of the President *(KSP)*

PARTNERS

Not applicable

Action 9.2.3

Develop an annual review of cervical cancer elimination budget, cost projections, and financial position to assess resource needs and long-term sustainability of cervical cancer elimination goals, targets, and actions.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Finance *(Kemenkeu)*

PARTNERS

Not applicable

Strategy 9.3: Engage with domestic and international funders to channel alternative sources of financing for the Elimination Plan.

Action 9.3.1

Fully engage in local, regional and international efforts for global cervical cancer elimination to explore new and existing alternative funding mechanisms to supplement the official budget for the national cervical cancer elimination Program.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Finance *(Kemenkeu)*

PARTNERS

Academia
Development partners

PRIORITY 10
INTERSECTORAL COLLABORATION & PARTNERSHIPS

GOAL

Promote a whole-of-society commitment to cervical cancer elimination through intersectoral collaboration and partnerships

STRATEGY 10.1

In partnership with multi-stakeholder cervical elimination task force (Action 8.1.2), establish a multi-stakeholder platform for cervical cancer elimination dialogue

STRATEGY 10.2

Promote and catalyse partnership opportunities between sectors, including government, international and regional multilateral organisations, globarl policy and scientific fora, private sector, and civil society

Indonesia's commitment to eliminating cervical cancer depends on the involvement, collaboration, and coordination of many important stakeholders - including healthcare workers, professional associations, community partners, international development partners, private sector, and the patients themselves. There is a wealth of knowledge, expertise, and capabilities that, when shared and coordinated, can empower stakeholders and multiply the impact of their individual and collective efforts.

This Priority puts forward strategies that encourage knowledge sharing and collaboration amongst stakeholders that will help drive improvements in policy, programming, and practice and ultimately, in better health outcomes.

Goals For Priority 10

ACTIONS FOR PRIORITY 10

Goal: Promote a whole-of-society commitment to cervical cancer elimination through intersectoral collaboration and partnerships

Strategy 10.1: In partnership with the multi-stakeholder cervical cancer elimination task force (Action 8.1.2), establish a multi-stakeholder platform for cervical cancer elimination dialogue.

Action 10.1.1

Establish regular multi-stakeholder networking and information-sharing sessions that provide opportunities for stakeholders, particularly patients and providers, to share experiences, understand the latest clinical evidence and guidance, and foster partnerships within the cervical cancer community.

Ensure active participation in sessions by the multi-stakeholder cervical cancer elimination task force and interagency cervical cancer elimination committee.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Ministry of Health *(Kemenkes)*
Academia
Development partners
Ministry of Communication and Informatics *(Kominfo)*
Non-governmental organisations
Professional Organisations

Action 10.1.2

Establish procedures to incorporate findings from the networking and information-sharing sessions into Program governance (e.g., surveys, meeting reports, patient experiences).

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Not applicable

Strategy 10.2: Promote and catalyse partnership opportunities between sectors, including government, international and regional multilateral organisations, global policy and scientific fora, private sector, and civil society.

Action 10.2.1

Engage in dialogue with multilateral organisations, international organisations, and foreign governments to share knowledge and explore partnership and collaboration opportunities.

LEAD

Ministry of Health *(Kemenkes)*
Ministry of Foreign Affairs *(Kemlu)*
National Cancer Centre, Dharmais Cancer Hospital

Regional fostership hospitals

PARTNERS

Development partners

Action 10.2.2

Actively engage and explore partnership and collaboration opportunities between local patient groups, faith-based organisations, community groups, academics, and private sector entities that can help achieve cervical cancer elimination goals and targets.

LEAD

Ministry of Health / *Kementerian Kesehatan (Kemenkes)*

PARTNERS

Community partners
Non-governmental organisations
Professional Organisations

Action 10.2.3

Engage with private sector providers through partnerships for the delivery of integrated health services to ensure depth of coverage and affordable access to individuals.

LEAD

Ministry of Health *(Kemenkes)*
National Cancer Centre, Dharmais Cancer Hospital
Regional fostership hospitals

PARTNERS

Academia
Industry groups

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   Kementerian Koordinator Bidang Pembangunan Manusia dan Kebudayaan
2. **Jakarta Provincial Health Office**
   Dinas Kesehatan Provinsi DKI Jakarta
3. **Ministry of Home Affairs**
   Kementerian Dalam Negeri
4. **Ministry of Manpower**
   Kementerian Ketenagakerjaan
5. **Ministry of National Development Planning / National Development Planning Agency**
   Kementerian Perencanaan Pembangunan Nasional / Badan Perencanaan Pembangunan Nasional
6. **National Population and Family Planning Board**
   Badan Kependudukan dan Keluarga Berencana Nasional
7. **Clinton Health Access Initiative, Indonesia**
8. **Fatayat Nahdlatul Ulama**
9. **Indonesian Cancer Foundation**
   Yayasan Kanker Indonesia
10. **Indonesian Health Services Association**
    Asosiasi Dinas Kesehatan Seluruh Indonesia
11. **Indonesian National Nurses Association**
    Persatuan Perawat Nasional Indonesia
12. **Indonesian Oncology Association**
    Perhimpunan Onkologi Indonesia
13. **Indonesian Pediatric Society**
    Ikatan Dokter Anak Indonesia
14. **Indonesian Radiation Oncology Society**
    Perhimpunan Onkologi Radiasi Indonesia
15. **Indonesian Society of Gynecologic Oncology**
    Himpunan Onkologi Ginekologi Indonesia
16. **Indonesian Society of Obstetrics and Gynecology**
    Perhimpunan Obstetri Ginekologi Indonesia
17. **Indonesian Technical Advisory Group on Immunization**
18. **PT. Biofarma**
19. **Pimpinan Pusat Aisyiyah**
20. **United Nations Children's Fund, Indonesia**
21. **United Nations Population Fund, Indonesia**
22. **World Health Organization**

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ANNEX 1

PRELIMINARY COSTING ANALYSES OF THE NATIONAL CERVICAL CANCER ELIMINATION PLAN

This *Elimination Plan* is an important and ambitious initiative to end a cancer that has devastated millions of women and their families. Such an effort requires the full support of stakeholders and society as well as the resources and funding to make it all happen.

Here the Plan presents a preliminary costing analysis that estimates the funding it would take to fully implement this *Plan* and realize the national goals and targets. As with any analyses, these figures below are derived from a set of assumptions about the multitude of factors and the interplay of these factors that will determine the final cost. Therefore, any significant change in modeling assumptions and external realities that are not previewed in the model, can change the results significantly.

Costing Overview

Program Interventions	**Cost (in billions, Rupiah)**		
	Phase 1 2024-2027	***Phase 2*** 2028 to 2030	***Total*** 2024-2030
Vaccination	13,560	6,300	**19,860**
Screening	30,420	8,550	**38,970**
Pre-cancer treatment	630	176	**806**
Invasive Treatment	5,650	6,102	**11,752**
All other pillars	97	18	**115**
Total	**50,357**	**21,146**	**71,503**

PRIORITY 1: VACCINATION
Estimated cost: IDR 19,860,000,000,000

Variables
Number of people vaccinated in Phase 1

Assumptions

2024	11,484,390
2025	9,693,461
2026	5,642,605
2027	7,033,325

Explanation
Number of people vaccinated is based on the programme (as referenced below)

Population in need is taken from UN Population database projections (https://population.un.org/dataportal/data/indicators/47/locations/360/start/2020/end/2095/pyramid/pyramidagesexplotsingle)

Variables
% coverage

Assumptions
1) In 2024, girls age 11 yo will receive two doses (85%); girls age 12 yo will receive two doses (35%); girls age 15 yo will receive two doses (85%); women age 21-26 yo (9% of at need population) will receive optional (60% coverage);

(2) In 2025, girls age 11 yo will receive two doses (85%); girls age 15yo will receive two doses (85%); women age 21-26 yo (9% of at need population) will receive optional (70% coverage)

(3) In 2026, girls age 11 yo will receive two doses (85%); women age 21-26 yo (9% of at need population) will receive optional (80% coverage)

(4) In 2027, girls age 11 yo will receive two doses (90%); girls age 15yo will receive two doses (25%); women age 21-26 yo (9% of at need population) will receive optional (90% coverage)

Explanation
Coverage rates were discussed with CCEI informal working group based on MoH guidance

Targets in line with Global strategy to eliminate cervical cancer (though inclusion of gender neutral vaccination (ie, vaccinating boys) is not part of the Global Strategy

Variables
Number of people vaccinated in Phase 2

Assumptions

2028	6,710,369
2029	5,154,487
2030	4,843,924

Explanation
Number of people vaccinated is based on the programme (as referenced below)

Population in need is taken from UN Population database projections (https://population.un.org/dataportal/data/indicators/47/locations/360/start/2020/end/2095/pyramid/pyramidagesexplotsingle)

Relating to the inclusion of boys and age range, WHO SAGE recommendation is: "WHO recommends that vaccination of secondary target populations, e.g. females aged ≥15 years, boys, older males or MSM, is recommended only if this is feasible and affordable, and does not divert resources from vaccination of the primary target population or effective cervical cancer screening programmes." (https://iris.who.int/bitstream/handle/10665/365350/WER9750-eng-fre.pdf?sequence=1)

Variables
% coverage

Assumptions
(5) In 2028, girls and boys age 11 yo will receive two doses (90%); man and women age 21 yo will receive two doses (90%); man and women age 22-26 yo (9% of at need population) will receive optional (90% coverage)

(6) In 2029, girls and boys age 11 yo will receive two doses (90%); man and women age 21yo will receive two doses (90%); man and women age 23-26 yo (9% of at need population) will receive optional (90% coverage)

(7) In 2030, girls and boys age 11 yo will receive two doses (90%); man and women age 24-26 yo (9% of at need population) will receive optional (90% coverage)

Explanation
Coverage rates were discussed with CCEI informal working group based on MoH guidance

Targets in line with Global strategy to eliminate cervical cancer (though inclusion of gender neutral vaccination (ie, vaccinating boys) is not part of the Global Strategy

Variables
Number of total people vaccinated

Assumptions
50,562,562

Explanation
Sum of 2024 - 2030

Variables
% coverage

Assumptions
Yes, target reached.

Global strategy to eliminate cervical cancer target is 90% of girls fully vaccinated with the HPV vaccine by the age of 15.

This target is achieved by 2030 as the cohort of girls 11-15 yo will have been fully vaccinated with two doses (WHO Global strategy does not specify number of doses, it specified "fully" which is currently measured according to country context)

Explanation
Global strategy can be found here: https://www.who.int/publications/i/item/9789240014107

Variables
Type of vaccine)

Assumptions
Quadravalent vaccine

Explanation
WHO Global strategy does not specify valency of HPV vaccine

WHO recommendation for vaccination (SAGE)

Variables
Number of doses per person

Assumptions
Two-dose schedule for all ages

Explanation
According to WHO SAGE: "Two-dose schedule. The current evidence supports the recommendation that a 2-dose schedule be used in the primary target group from 9 years of age and for all older age groups for which HPV vaccines are licensed. "

"Current evidence suggests that a single dose has comparable efficacy and duration of protection as a 2-dose schedule and may offer programme advantages, be more efficient and affordable, and contribute to improved coverage. From a public health perspective, the use of a single dose schedule can offer substantial benefits that outweigh the potential risk of a lower level of protection if efficacy wanes over time, although there is no current evidence of this."

(https://www.who.int/news/item/20-12-2022-WHO-updates-recommendations-on-HPV-vaccination-schedule)

Variables
Rate of scale-up in Phase 1

Assumptions
Immediate coverage of 85% (from approximately 60-65% in 2023) then to 90% by 2027

Explanation
There is no standard pathway for scaling-up of vaccine coverage. An increase of 15-20% is feasible according to countries that have invested in full-scale vaccination programme.

https://immunizationdata.who.int/pages/coverage/hpv.html

Variables
Rate of scale up in Phase 2

Assumptions
Coverage remains at 90%

Explanation
Recommended target as per recommendation of Ministry of Health CCEI strategy

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Variables
Cost of vaccinations per dose

Assumptions
Rp. 178.750

Explanation
Estimation cost given by Ministry of Health and in-line with published studies and modelling for Indonesia (for example, https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0230359&type=printable)

Variables
Discount rate

Assumptions
Costs discounted at 3%

Explanation
Standard WHO-CHOICE methodology uses 3% discount rate. Reference for modelling was methodology used for Best Buy/Appendix 3 update approved by governments at WHA 76 (2023)

https://cdn.who.int/media/docs/default-source/ncds/mnd/2022-app3-technical-annex-v26jan2023.pdf?sfvrsn=62581aa3_5

Variables

Inflation rate

Assumptions

Values unadjusted for inflation (nominal or current prices)

Explanation

Multiple methodologies could be used for inflation adjustment and can be used in secondary analysis. The nominal price of the vaccine is expected to decrease; this was also not included in the analysis. To avoid biasing in favour of inflation and against changes in nominal prices, no inflation adjustment was used.

https://www.who.int/teams/health-systems-governance-and-financing/economic-analysis/costing-and-technical-efficiency/quantities-and-unit-prices-(cost-inputs)/programme-costs-in-the-economic-evaluation-of-health-interventions

Variables

Program/delivery costs

Assumptions

The cost cover introduction costs (microplanning, training, and social mobilization/Information, Education and Communication [IEC]), recurrent costs (service delivery, monitoring and evaluation, and supervision/adverse events following immunization [AEFI]), and other costs (logistic and waste management, promotion, cold-chain supplement, and vaccine carrier)

Explanation

Reference is made to WHO costing of vaccination programme in Indonesia by WHO

https://www.sciencedirect.com/science/article/pii/S2212109923000080?fr=RR-2&ref=pdf_download&rr=822928ff7e82be49

Assumed school based 90%; outreach programme 10%

PRIORITY 2: SCREENING
Estimated cost: IDR 38,970,000,000,000

Variables
Number of women screened in Phase 1

Assumptions

2024	9,135,000
2025	12,420,000
2026	14,700,000
2027	17,597,250

Explanation
Number of people screened is based on achieving National strategy of 75% coverage by 2030 for target population

Population in need is taken from UN Population database projections (https://population.un.org/dataportal/data/indicators/47/locations/360/start/2020/end/2095/pyramid/pyramidagesexplotsingle)

Number of women screened before 2024 taken from MoH and published studies (https://www.statista.com/statistics/1084812/indonesia-cervical-cancer-screening/; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9360967/; https://www.ui.ac.id/en/the-high-number-of-cervical-cases-in-indonesia-due-to-low-screening/)

Variables
% coverage

Assumptions
70% coverage reached at 2027
(target of 70% calculated by numerator = number of women screened for cervical cancer in past 10 years between ages of 30-69yo / denominator = number of women aged 30-69 yo in 2027)

Explanation
Coverage rates were discussed with CCEI informal working group based on MoH guidance

Targets in line with Global strategy to eliminate cervical cancer

Variables
Number of women screened in Phase 2

Assumptions

2028	5,252,000
2029	5,202,000
2030	4,949,000

Explanation
Number of people screened is based on the CCEI strategy

Population in need is taken from UN Population database projections (https://population.un.org/dataportal/data/indicators/47/locations/360/start/2020/end/2095/pyramid/pyramidagesexplotsingle)

Variables
% coverage

Assumptions
75% coverage reached at 2030
(target of 75% calculated by numerator = number of women screened for cervical cancer in past 10 years between ages of 30-69 yo / denominator = number of women aged 30-69 yo in 2030)

Explanation
Coverage rates were discussed with CCEI informal working group based on MoH guidance

Targets greater than Global strategy to eliminate cervical cancer and WHO/IARC recommended minimum participation rate for effective screening programmes (70%) though 75% coverage is in line with best practices

---

Variables
Number of total women screened

Assumptions
69,255,250

Explanation
Sum of 2024 - 2030

It can be noted that the overall women who are in the target population in 2030 is approximately 70.1 million. The explanation for why the coverage is 75% and not greater is because an estimated 10 million women who were screened in 2020-2030 were older than 69 yo in 2030 when the metric is calculated.

Variables
Type of test (HPV DNA test)

Assumptions
Assumed to be high-performing HPV test with sens/specf of 88% and 75%

Explanation
High performance test recommended by WHO elimination strategy and screening guidelines (https://www.who.int/publications/i/item/9789240030824) with test performance as summarized here (https://cdn.who.int/media/docs/default-source/ncds/mnd/technical-brief-cancer.pdf?sfvrsn=6d4cc25_11)

HPV prevalence estimated from https://hpvcentre.net/statistics/reports/IDN_FS.pdf

VIA triage positivity (20-28%) based on published studies:

Variables
Rate of scale-up in Phase 1

Assumptions

2023	12%
2024	23%
2025	36%
2026	52%
2027	70%

Explanation
Scale-up rate aspirational and required to reach 70% by 2027

(Alternate is to scale by screening approximately 13.5 million women each year from 2023-2027, which is a scale-up rate of approximately 13% per year)

Variables

Rate of scale-up in Phase 2

Assumptions

2028	72%
2029	74%
2030	75%

Explanation

Scale-up rate to achieve target

Variables

Cost of screening

Assumptions

Unit cost for HPV DNA test: IDR 363.000 including;
Cytobrush and collecting tube: Rp 54.966
Reagent for DNA extraction: Rp 83.665
BMHP penunjang ekstraksi DNA: Rp 37.829
Reagent for DNA test (PCR reagents):Rp 126.540
Sample transportation: Rp 15.000
Biaya pemeriksaan lab: Rp 45.000
Total: Rp 363000

Explanation

HPV unit costs provided by Ministry of Health

Additional costs:

- Outpatient visit: two visits with workforce time
- High-performance HPV test every 10 years), at least two in a lifetime

Costs cross-referenced with publications:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6616831/

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3395009/

https://www.pharmacypractice.org/index.php/pp/article/view/2808/1086

Variables

Discount rate

Assumptions

Costs discounted at 3%

Explanation

Standard WHO-CHOICE methodology uses 3% discount rate. Reference for modelling was methodology used for Best Buy/Appendix 3 update approved by governments at WHA 76 (2023)

https://cdn.who.int/media/docs/default-source/ncds/mnd/2022-app3-technical-annex-v26jan2023.pdf?sfvrsn=62581aa3_5

Variables

Discount rate

Assumptions

Costs discounted at 3%

Explanation

Standard WHO-CHOICE methodology uses 3% discount rate. Reference for modelling was methodology used for Best Buy/Appendix 3 update approved by governments at WHA 76 (2023)

https://cdn.who.int/media/docs/default-source/ncds/mnd/2022-app3-technical-annex-v26jan2023.pdf?sfvrsn=62581aa3_5

Variables
Inflation rate

Assumptions
Values unadjusted for inflation (nominal or current prices).

Explanation
Multiple methodologies could be used for inflation adjustment and can be used in secondary analysis. The nominal price of the vaccine is expected to decrease; this was also not included in the analysis. To avoid biasing in favour of inflation and against changes in nominal prices, no inflation adjustment was used.

https://www.who.int/teams/health-systems-governance-and-financing/economic-analysis/costing-and-technical-efficiency/quantities-and-unit-prices-(cost-inputs)/programme-costs-in-the-economic-evaluation-of-health-interventions

Variables
Program/delivery costs

Assumptions
Standard programme costs adjustments as per WHO methodology
https://www.who.int/teams/health-systems-governance-and-financing/economic-analysis/costing-and-technical-efficiency/quantities-and-unit-prices-(cost-inputs)/programme-costs-in-the-economic-evaluation-of-health-interventions

Explanation
Programme costs include 1. Programme-Specific Human Resources (eg, national-, regional-, district and admin staff); 2 Training (in-service, train of trainers, development of training programmes, updating curricula, support activities, digital learning systems); 3 Supervision; 4 Monitoring and Evaluation; 5.Quality Control/ Quality Assurance; 6. Program specific transport cost; 7. Communication, Media & Outreach; 8. Advocacy (including advocacy strategy); 9. General Programme Management and Administration; 10. Research and innovation; 11. Community and civil society engagement, social participation; 12. Multisectoral Engagement

PRIORITY 3: TREATMENT
Estimated cost: IDR 12,558,000,000,000

Variables
Number of women treated (pre-cancer) in Phase 1

Assumptions
2024	50,816
2025	81,615
2026	112,584
2027	143,681

Explanation
Assume 90% of women who screen positive receive treatment as specified above

HPV prevalence taken from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2453028/

Variables
% coverage (target reached)

Assumptions
90% treatment as per 2027 target

Explanation
90% coverage maintained throughout programme implementation as per CCEI and MoH target

Variables
Type of treatment

Assumptions
Thermal ablation, cryotherapy and/or additional procedures as indicated

Explanation
• Cryotherapy (30%): for those with positive findings on HPV test and positive VIA triage test with equipment including cryosurgical system, mechanical; N2O gas with aggregate cost of 223,000 Rp

• Thermal ablation (70%): for those with positive findings on HPV test and positive VIA triage test with aggregate cost of 200,000 Rp

(publication pending)

• Colposcopy (10%): including technologies, provider time

• LEEP (5%): including consumables, technologies, provider time and histology review

• Biopsy (2%): including consumables, technologies, provider time and histology review

Estimates in line with published studies such as https://d-nb.info/1276934653/34, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10107773/; https://bmcmedicine.biomedcentral.com/articles/10.1186/s12916-023-02840-8, https://bmjopen.bmj.com/content/13/1/e065074, ones referenced above,

Variables
Number of women treated (invasive) in Phase 1

Assumptions
2024 18,167
2025 20,483
2026 22,903
2027 23,476

Explanation
Assume 50% baseline coverage reaching 70% by 2027

Variables
% coverage

Assumptions
70% treatment coverage as per 2030 target

Explanation
As agreed with MoH

Variables
Type of treatment

Assumptions
Multi-modality treatment including radiotherapy for 30%

Explanation
https://cdn.who.int/media/docs/default-source/ncds/mnd/technical-brief-cancer.pdf?sfvrsn=6d4cc25_11

- Inpatient visits: 6 visits for stage I; 2 visits for stage II; • Outpatient visits: 6 visits for stage I; 30 visits for stage II
- Additional 20 visits (twice/year) for surveillance
- Concurrent cisplatin with radiotherapy 6 cycles/doses of chemotherapy (weekly based regimen)
- Management of chemotherapy-associated nausea with ondansetron, or equivalent
- Pre-treatment tests and staging studies when indicated including x-ray and ultrasound
- Pre-treatment diagnostic studies when indicated including cross-sectional imaging (e.g., CT scan) and ultrasound.
- Surgical equipment: hysterectomy set; cone biopsy including biopsy forceps
- Radiotherapy including brachytherapy: machine and supports/boards

Stage distributions and outcomes for calibration with reference to https://ascopubs.org/doi/full/10.1200/GO.20.00155 and https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2676491/

Variables
Partial or complete treatment

Assumptions
All women with cervical lesions (pre-invasive and invasive) complete treatment

Explanation
In line with CCEI target and established guidelines

Variables
Number of women treated (pre-cancer) in Phase 2

Assumptions

2028	156,165
2029	153,147
2030	144,970

Explanation
Assume 90% of women who screen positive receive treatment as specified above

Variables

% coverage

Assumptions

90% treatment as per 2027 target

Explanation

90% coverage maintained throughout programme implementation as per CCEI and MoH target

---

Variables

Number of women treated (invasive) in Phase 2

Assumptions

2028	28,073
2029	30,831
2030	33,708

Explanation

-

Variables

(% coverage)

Assumptions

90% treatment coverage as per 2030 target

Explanation

Scenario #3 (coverage 50%-->90% by 2030) as per dialogue with MoH

Variables

Program/delivery costs

Assumptions

Standard programme costs adjustments as per WHO methodology https://www.who.int/teams/health-systems-governance-and-financing/economic-analysis/costing-and-technical-efficiency/quantities-and-unit-prices-(cost-inputs)/programme-costs-in-the-economic-evaluation-of-health-interventions

Explanation

Programme costs include 1.Programme-Specific Human Resources (eg, national-, regional-, district and admin staff); 2 Training (in-service, train of trainers, development of training programmes, updating curricula, support activities, digital learning systems); 3 Supervision; 4 Monitoring and Evaluation; 5.Quality Control/ Quality Assurance; 6. Program specific transport cost; 7. Communication, Media & Outreach; 8. Advocacy (including advocacy strategy); 9. General Programme Management and Administration; 10. Research and innovation; 11. Community and civil society engagement, social participation; 12. Multisectoral Engagement

PRIORITIES 4 TO 10
Estimated cost: IDR 115,000,000,000

Variables
Activities costed

Assumptions
All activities from plan with exception of three interventions below

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Variables
Baseline level of infrastructure, manpower vs. additional

Assumptions
Included in programme costs

Variables
Activities not costed

Assumptions
Activity 1.1.3, 2.1.3, 3.1.4

Explanation
Agreement that activities related to local manufacturing to not be included, specifically

Action 1.1.3: Build and strengthen local regulatory, manufacturing, storage, and supply chain capabilities to produce HPV vaccines and ensure their safety and efficacy in collaboration with global, regional, and domestic regulators and manufacturers.

Action 2.1.3: Build and strengthen local regulatory, manufacturing, storage, and supply chain capabilities to produce tools, technologies and infrastructure needed for quality screening methods, and ensure their safety and accuracy, in collaboration with global and regional regulators and manufacturers.

Action 3.1.4: Build and strengthen local regulatory, manufacturing, storage, and supply chain capabilities to produce treatment agents and care devices, and ensure their safety and efficacy in collaboration with global and regional regulators and manufacturers.

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