



MINISTRY OF HEALTH

**ACTION PLAN
TOWARDS THE
ELIMINATION OF
CERVICAL
CANCER
IN MALAYSIA
2021-2030**



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TABLE OF CONTENTS

Message from The Minister of Health	2
Message from The Secretary General of Health	3
Message from The Director General of Health Malaysia	4
Acronyms and Abbreviations	6
The strategy at a glance	8
Introduction	12
Elements	16
Priorities	17
Priority 1: Strengthening governance & policy	19
Strategy 1: Embracing cervical cancer elimination programme and efficient administration	20
Priority 2: Enriching access & participation	23
Strategy 2: Strengthening primary prevention through enhancing health literacy	24
Priority 3: Enhancing service delivery	27
Strategy 3: Scaling up to achieve 90% coverage for HPV vaccination among women	28
Strategy 4: Strategic actions to achieve 70% coverage for screening and 90% treatment of precancerous lesions	30
Strategy 5: Strategic actions to achieve 90% treatment and care for cervical cancer cases	33
Priority 4: Intersectoral Collaboration	35
Strategy 6: Intensity intersectoral coalition with stakeholders through networking and smart partnerships	36



Priority 5: Monitoring, evaluation and research	39
Strategy 7: Improvement of surveillance systems to support monitoring and evaluation activities	40
Strategy 8: Explore impact of screening and treatment methods in improving patients' outcome through research	43
Annex 1	45
Contributors	59
References	63





FOREWORD

- ◆ Message from the Minister of Health
- ◆ Message from the Secretary General of Health
- ◆ Message from the Director General of Health

Message from the Minister of Health

“

The juncture has arrived for an ambitious, inclusive strategy to accelerate this resolution.

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The Ministry of Health's **Action Plan Towards The Elimination of Cervical Cancer in Malaysia** is a comprehensive planning for the next ten years.

This is a testament to the enthusiasm for such a momentous goal, even in the context of the COVID-19 pandemic, in which countries globally have affirmed their patronage for this primacy. Building on this momentum, Malaysia is geared to encounter any encumbrance along the path to reach this goal.

The juncture has arrived for an ambitious, inclusive strategy to accelerate this resolution. This nation has set its path towards this destination, with the development of this Action Plan.

This plan serves to bring together diverse stakeholders to collaboratively nurture a strong collective supremacy to eliminate cervical cancer. In committing to “leaving no one behind”, plans are already underway to implement the strategies outlined in ensuring all women receive equitable access to quality screening and care.

I hope that this will be a new dawn for Malaysia, in the spirit of shared responsibility, we are optimistic that Malaysia will succeed in achieving the set goals and targets and become one of the early few countries attaining the elimination threshold.

I would like to take this opportunity to express my deepest gratitude to everyone who have contributed to the development of this Action Plan Towards the Elimination of Cervical Cancer in Malaysia 2021-2030. These concerted efforts will accelerate the attainment of goals and targets and thus, safeguarding the health of Malaysian women especially in preventing cervical cancers and precancerous lesions through an integrated approach.

Thank you.

A handwritten signature in black ink, appearing to read 'Khairy Jamaluddin', written over a horizontal line.

YB KHAIRY JAMALUDDIN
Minister of Health Malaysia



Message from the Secretary General of Health

The success of the impetus to eliminate cervical cancer depends on political volition, country-led action investments, and global esprit de corps, as well as unceasing and versatile collaboration.

This Action Plan is Malaysia's response to the call by the World Health Organization to eliminate cervical cancer within the century. The **Action Plan Towards the Elimination of Cervical Cancer in Malaysia 2021-2030** is a framework encompassing elimination goals and targets for the scaling-up of HPV vaccination, intensification of cervical screening as well as precancer and cancer treatment.

This plan sets forth five priorities and actions encompassing strengthening governance and policy, improving access and community participation, enhancing timely and high-quality service provision, augmenting intersectoral collaboration as well as heightening surveillance.

Although the COVID-19 pandemic has taken a substantial toll on health systems across the biosphere, it is morally essential to ensure that women and adolescents continue receiving the health services they required.

The success of the impetus to eliminate cervical cancer depends on political volition, country-led action investments, and global esprit de corps, as well as unceasing and versatile collaboration.

Thus, we are gratified to present this **Action Plan Towards the Elimination of Cervical Cancer in Malaysia 2021-2030** to the partners involved in the fracas against cervical cancer. Demonstrating exceptional care and positive outcomes for women diagnosed with cervical cancer is pivotal in combatting fear and stigma of this debilitating cancer.

Thank you.

YBHG. DATO' MOHD SHAFIQ BIN ABDULLAH
Secretary General of Health Malaysia

Message from the Director General of Health

Malaysia must meet these targets; 90% of girls fully vaccinated with the HPV vaccine by age 15, 70% of women are screened with a high-performance test by the age of 35, and again by 45 and 90% of women identified with cervical disease receive treatment.



The World Health Organization has passed a resolution to accelerate the elimination of cervical cancer as a public health problem in 2020. This is achieved when the age-standardized incidence rate for cervical cancer of less than 4 per 100,000 population.


Since the disease primarily affects women in their prime adult years, illness and death from cervical cancer sets emotional and financial endeavor on families, communities, and health systems. Opportunely, the World Health Organization has paved a transpicuous avenue to eliminating this public health quandary along with its devastating ramifications on women, communities, and society.

In order to navigate this journey, Malaysia must meet these targets; 90% of girls fully vaccinated with the HPV vaccine by age 15, 70% of women are screened with a high-performance test by the age of 35, and again by 45 and 90% of women identified with cervical disease receive treatment.

Eliminating cervical cancer as a public health problem is part of revering this commitment and many others related to encountering inequities and advocating the rights of women and adolescent girls to high quality, people-centred equitable health services.

As we now shift to implementation, we will resume to engage with all the parties involved to ensure the goals and targets delineated in this action plan will be accomplished.

I thank the many people from various ministries and agencies who have contributed to this process, all of whom worked incessantly to help steer and shape this work.


**YBHG. TAN SRI DATO' SERI DR. NOOR HISHAM
BIN ABDULLAH**
Director General of Health Malaysia



ACRONYMS

- ◆ Acronyms and Abbreviations
- ◆ The Strategies at a Glance



Acronyms and Abbreviations

ATM	Malaysian Armed Forces
CDC	Centre For Disease Control
Dr	Doctor
FHDD	Family Health Development Division
FM	Broadcasting station
FRHAM	Federation of Reproductive Health Associations Malaysia
HIS	Hospital Information System
HIV	Human Immunodeficiency Virus
HPV	Human papillomavirus
IEC	Information Education Communication
IKN	National Cancer Institute
JAKIM	Department of Islamic Development Malaysia
JKN	State Health Department
LMIC	Low and middle-income countries
LO	Liaison Officer
MAKNA	National Cancer Council of Malaysia
MAMPU	Malaysian Administrative Modernization and Management Planning Unit
MIMOS	Government own company, under Ministry of Science, Technology and Innovation
MKAK	National Public Health Laboratory
MOE	Ministry of Education

MOH	Ministry of Health
MyHDW	Malaysia Health Datawarehouse
NCSM	National Cancer Society Malaysia
NGO	Non-governmental organization
NIH	National Institute of Health
NIP	National Immunization Programme
NPFDB	National Population and Family Development Board
NSPCCP	National Strategic Plan for Cancer Control Programme
PIK	Health Informatics Centre
PKD	District Health Office
PRIS	Patient Registry Information System
RTM	Radio Television Malaysia
SOCISO	Social Security Organization
SOP	Standard Operating Procedure
STD	Sexually transmitted disease
TPC-OHCIS	Teleprimary Care – Oral Health Clinical Information System
WHO	World Health Organization

Priority 1

Strengthening Governance and Policy

Strategy:

- Embracing cervical cancer elimination programme and efficient administration.

Priority 2

Enriching Access and Participation

Strategy:

- Strengthening primary prevention through enhancing health literacy.

Priority 3

Enhancing Service Delivery

Strategy:

- Scaling up to achieve 90% coverage for HPV vaccination among women.
- Strategic actions to achieve 70% coverage for screening and 90% treatment for precancerous lesions.
- Strategic actions to achieve 90% treatment and care for cervical cancer cases.

The Action Plan at a Glance

Priority 4

Intersectoral Collaboration

Strategy:

- Intensify intersectoral coalition with stakeholders through networking and smart partnerships.

Priority 5

Monitoring, Evaluation and Research

Strategy:

- Improvement of surveillance systems to support monitoring and evaluation activities.
- Explore impact of screening and treatment methods in improving patients' outcomes through research.

“

This action plan, and the strategy it advances, are apparatuses for bringing greater equity and accessibility to cervical cancer prevention, treatment and care.

YB Khairy Jamaluddin

”

“

The accomplishment of these strategies requires an active commitment by a large and diverse group of key partners to join forces in reaching a common aspiration.

Dato' Mohd. Shafiq Bin Abdullah

”

“

This plan entails the priorities and the actions in addressing the impediments to the path towards elimination of cervical cancer specifically for Malaysia.”

Tan Seri Dato' Seri Dr Noor Hisham Bin Abdullah

”





INTRODUCTION

- ◆ Background
- ◆ Elements: Vision, Goals and Objectives
- ◆ Principles: Priorities



Introduction

Cervical cancer is one of the most preventable and treatable form of cancer

Cervical cancer remains a major burden to many countries worldwide, particularly in under-developed and developing countries. It continues to have a huge impact on women not only physically but also socially and sexually. However, due to its slow progression and cytological identifiable precursors and provided it is detected early and managed effectively, cervical cancer is one of the most preventable and treatable form of cancer. Despite decades of awareness campaigns and progress in technology, cervical cancer screening coverage and uptake remain low, more so amongst the younger and high risk women. Unfortunately, of those diagnosed, more than 76% were at stage II and above where intensive and invasive treatment will be required (A. M. Azizah, Nor Saleha, Noor Hashimah, Asmah, & Mastulu, 2016).

Cervical cancer is caused by persistent infection with high-risk types of human papillomavirus (HPV), which is sexually transmitted. HPV 16 and HPV 18 are among the most common high-risk HPV types and are found in approximately 70% of all cervical cancer cases (Ramakrishnan, Patricia, & Mathan, 2015). Globally, cervical cancer is the fourth most common cancer in women with an estimated 604,000 new cases and 342,000 deaths in 2020 (Sung et al., 2021). Cervical cancer is the third most common malignancy among women in Malaysia with an age-standardized incidence rate of 6.2/ 100,000 population in 2012-2016 (A. M. Azizah et al., 2016).

Approximately 80 per cent of high risk HPV infections clear spontaneously without any intervention within two years (World Health Organization, 2020b). However, a small


proportion of infections (10 per cent) can persist for several years, progress to precancerous lesions and, if left untreated, to invasive cancer over a 10 to 20 year-period (Schiffman, Castle, Jeronimo, Rodriguez, & Wacholder, 2007). Therefore, implementing vaccination against HPV in girls aged 9 to 13 years, combined with screening of precancerous lesions in women aged 30 years and older, followed by prompt and appropriate treatment, are key interventions in the prevention of cervical cancer (World Health Organization, 2014). HPV testing, because of its high sensitivity, offers a great opportunity to enhance the effectiveness of cervical cancer screening.

In Malaysia, women have been screened using conventional Pap smears since 1969. It was the only primary screening tool available until 2019. Due to restricted resources, Malaysia has yet able to launch a population-based screening. Therefore, the coverage of opportunistic screening via conventional cytology over a period of five (5) years, 2015 to 2020 was dismal with an average of 25 per cent. This poor coverage was contributed by multiple factors such as lack of awareness, negative experiences to the procedure, inhibitory beliefs, resources

constraints, lack of social support and other factors. Noticing the laggardness of a single approach, Malaysia doubles up her strategy by introducing HPV immunization to hasten the reduction of cervical cancer. With the success of a national HPV vaccination program, MOH recognizes the need to review our national cervical screening programme. While HPV vaccination will not remove the necessity for cervical screening, there is a need to transform to a more effective screening modality that is aligned with the current international evidence.

Programme planners should consider the minimum level of services required to reduce cervical cancer morbidity and mortality when deciding whether and how to launch a cervical cancer prevention programme. These include the technical and financial resources available to a programme, as well as the healthcare infrastructure that are existing. Judicious consideration of these factors will assist decision makers assess the feasibility and appropriateness of enhancing or expanding the existing services.

Recent advances in screening and testing technology have led WHO to recommend the use of HPV testing as a screening tool (Pan



American Health Organization (PAHO), World Health Organization (WHO), & Centers for Disease Control and Prevention of the United States of America (CDC), 2016). Adopting this new test as a primary screening modality, requires the Ministry of Health to reengineer

and strengthen its strategies and reorganize its current programme capacity to achieve the elimination goals. Malaysia is optimistic that Cervical Cancer Control Programme remains a high-profile agenda in the country and thus a change is inevitable for a better outcome of the programme.

WHO Director-General declared a global call to action towards the elimination of cervical cancer, and urged all key partners to join forces with respect to this ambitious goal

Reiterating revived political will to achieve profound reductions in cervical cancer-related mortality, in May 2018, the WHO Director-General declared a global call to action towards the elimination of cervical cancer, and urged all key partners to join forces with respect to this ambitious goal (World Health Organization, 2018). The threshold for elimination cervical cancer as a public health problem is defined by WHO as an age-standardized incidence rate of less than 4 per 100,000 (World Health Organization, 2020a). In order to achieve this goal globally, the Elimination Strategy

proposes that 90-70-90 targets to be met by 2030.

The global strategy to eliminate cervical cancer will entail ardent political support from international and local leaders; coordinated cooperation among multi-sectoral partners; patronage for equitable access in the context of universal health coverage; effective strategies towards resource mobilization; health system strengthening; as well as vigorous health promotion at all levels (World Health Organization, 2020a). The moment has arrived for an ambitious,

concerted, and inclusive strategy to accelerate eliminating cervical cancer as a public health problem. A disease that now stands as one of the world's greatest public health failures can be eliminated.

Remarkable progress has been observed in preventing and controlling cervical cancer among Malaysian women since the 21st century. In 2003, the age-standardized incidence rate of cervical cancer was 19.7 per 100,000 population that had demonstrated a notable decline to 8.3 per 100,000 population in 2007 and later to 5.6 per 100,000 population in 2016 over a period of 13 years (A. Azizah et al., 2019; A. M. Azizah et al., 2016; Lim & Halimah, 2004).

Nevertheless, significant gaps and hindrances persist in the effort to reduce the incidence and mortality towards the elimination of cervical cancer as a public health problem. This Action Plan of sets forth a blueprint to guide the Ministry of Health and its officers as well as the relevant key partners in enhancing their capacity for innovative and efficient strategies that will further accelerate the attainment of elimination target.

Moving towards the elimination target, cervical screening in Malaysia has shifted from

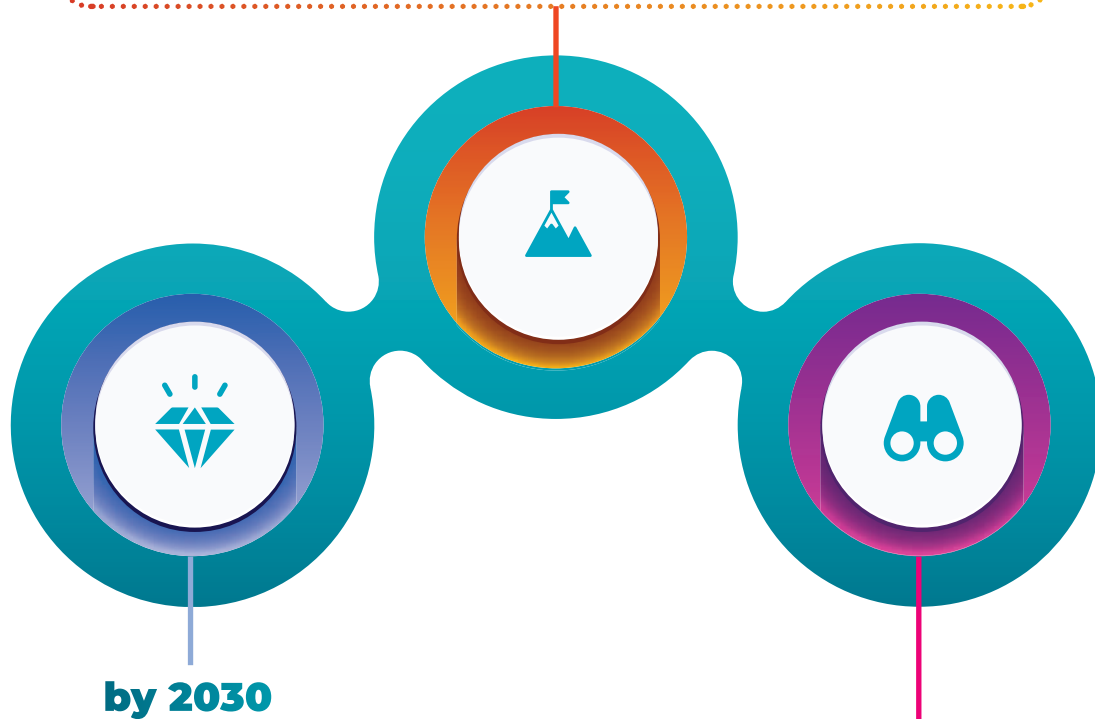
conventional cytology to molecular-based screening in phases. The roll-out of the HPV testing as primary screening was effected in August 2019 in Federal Territory Kuala Lumpur and Putrajaya, Kedah and Kelantan. In order to achieve impact, screening coverage should reach at least 70 per cent of the target population (Kim, Brisson, Edmunds, & Goldie, 2008). At the initiation phase of the HPV testing, women aged 30 to 49 years were offered to be tested. Those women who were not within the age range were offered cytology screening. However, when Phase two was commenced, the age range was reviewed and the test was extended to women aged 50 to 65 years old. The Ministry of Health will ensure that the women across the country have access to this HPV test in the future. The need for an effective cervical cancer screening is evident, hence the Ministry of Health is steadfast to ensure Malaysian women attain optimum health standard.



Elements

OUR VISION

A country where cervical cancer is eliminated as a public health problem (incidence of cervical cancer is defined as less than **4/100,000 population.**)



by 2030

OUR GOALS

To accelerate the progress towards the elimination of cervical cancer via ensuring:

- ◆ 90% HPV vaccination coverage among girls aged 13 years.
- ◆ HPV screening coverage of 70% of women aged 30 years to 65.
- ◆ 90% treatment of precancerous lesions.

OUR OBJECTIVES

- ◆ Creating an enabling environment for the cervical cancer elimination.
- ◆ Engage collaboration with key partners working towards cervical cancer elimination.
- ◆ Exploration and exploitation of new ideas and prospects in achieving the set targets.
- ◆ Accelerate the progress toward the elimination of cervical cancer as a public health problem.

Priorities

Priorities are employed to steer actions as they recognizes and responds to the broad influences on screening behaviour. The five integrated priorities below are the foundation for the Action Plan:



Figure 1: Framework for cervical cancer control and prevention Action Plan 2021-2030





PRIORITY 1

- ◆ Strengthening governance and policy



Priority 1 : Strengthening Governance & Policy

General elements of good governance include:

- Transparency
- Participation
- Accountability
- Integrity
- Capacity

The basis of an effective cervical cancer elimination programme is strong governance with evidence based planning, regulatory oversight and quality assurance. The governance structure should include representatives from the MOH, experts in screening, and health professionals involved in diagnostic and treatment to provide guidance on organizational issues, manage activities and ensure its correlation with the rest of the health care system.

Strategy 1

Embracing cervical cancer elimination programme and efficient administration

Strategy 1.1

Strengthening of the organizational structure in the Ministry of Health to the attainment of the national programmes goals and targets, with coordinating mechanisms to ensure effective interprogrammatic coordination.

Strategic Actions

- Establishment of Cervical Cancer Comprehensive Prevention and Screening Committee at the national level.
- Formation of Cervical Cancer Comprehensive Prevention and Screening Committee at the state and district level (all key partners).

Strategy 1.2

Review of national cervical cancer policies based on the scientific evidence.

Programme and policies that are unpredictable without evidence or best practice may result in ineffective implementation and detriment. Misallocation of resources has been compounded by unfitting perceptions of the benefits of cancer interventions and distortions of the market for cancer products. To translate evidence into policy and programmes, scientific knowledge must be contextualized to the disease burden and health system capacity throughout the cancer control continuum.

Strategic Actions

- Revise the screening policy and national guidelines and align with international guidance (WHO).

Strategy 1.3

Re-evaluation of national cervical cancer programme and strategies in line with the global objectives.

A stepwise approach should be used in implementing cancer control programmes. Malaysia should start by focusing on WHO's "best buy", which can be implemented at low cost and are feasible for all health system (World Health Organization, 2020c). The country programme should reinforce the drive towards models of care that promote high-quality, people-centred primary health care.

Strategic Actions

- Conduct a situational analysis in assessing the effectiveness of screening of cervical cancer.
- Generate a screening model in ensuring proficient service delivery.



Clipboard with a stethoscope and a form. The form contains the following fields:

- Patient Name: _____
- Birth Address: _____
- Address: _____
- Reason for Admission: _____
- Diagnosis & Adm: _____
- Treatment: _____

Other visible text on the form includes "Discharge", "Date of Discharge", and "Patient's Signature".



PRIORITY 2

◆ Enriching access and participation



Priority 2: Enriching access & participation

Primary health care is at the centre of integrated strategies, both to increase access to services and potentially stabilize cost. In continuum of cancer care includes encouraging screening and ensuring accurate and timely diagnosis. Women are empowered with the knowledge and skills to make informed choices. Furthermore, women are ensured access to timely follow-up diagnostic services.

Strategy 2

Strengthening primary prevention through enhancing health literacy

A robust understanding of the social, cultural, societal and structural hurdles to the uptake of services is fundamental. Such knowledge will inform the development of context-specific and culturally appropriate strategies and the design of acceptable, accessible service delivery platforms. Local communities, especially women, must be involved and empowered to lead the development of these crucial programmes, serves as allies, counter misinformation or stigmatization, and support those needing more intricate treatment. Increasing health literacy, knowledge of rights and awareness of cervical cancer prevention and control will assist to mobilize, empower and engage communities.

Strategy 2.1

Tailor persuasive advocacy messages to promote cervical cancer screening.

Strategy 2.1.1

Establish collaboration with the media.

Strategic Actions

- Provide information education communication (IEC) materials to be used by the mass and social media (FHDD and MOH's facebook, twitter, infosihat portal).
- Arrange health slots with broadcasting agencies e.g. Selamat Pagi Malaysia (RTM), Forum Perdana (RTM), Bicara Naratif (RTM), Bicara Dr (RTM), Bicara (Al-Hijrah), Gegar FM (Radio), Asyik FM (Radio).
- Engaging broadcasting agencies to promote women to come forward for cervical cancer screening (crawler).

Strategy 2.1.2

Involving cervical cancer survivors in the task to empower women.

Strategic Actions

- Engage cervical cancer survivors to share their experiences in battling cervical cancer in either radio or television interviews.

Strategy 2.1.3

Building and improving self-confidence in eliminating fears of the procedure.

Strategic Actions

- Create short videos on Pap smear and HPV self-sampling techniques and upload them on social media.
- Display short videos on Pap smear and HPV self-sampling techniques at the waiting area at health clinics.

Strategy 2.2

Building and developing skills in delivering an effective message.

Strategy 2.2.1

Training health professionals, NGOs and volunteers

Strategic Actions

- Develop a training module to improve communication skill.
- Conduct training for professionals, NGOs and volunteers using the training module.





PRIORITY 3

◆ Enhancing service delivery

Priority 3: Enhancing Service Delivery

Strategy 3

Scaling up to achieve 90% coverage for HPV vaccination among women

Strategy 3.1

Vaccinating adolescents before they become sexually active is the most effective way to reduce HPV-related cancers. In Malaysia, HPV Immunization Programme was launched in August 2010 as a part of the National Immunization Programme (NIP) utilizing a school-based approach. The target age group for HPV immunization is 13 year old girls. This group was chosen because more than 80 per cent of this age group are enrolled in school and do not receive other vaccinations. Successive cohorts of immunized seroconverted 13 year old girls would be protected when they become sexually active.

A school-based strategy can serve as an opportunity to create or strengthen school health services and improve health education and communication. Within two years, this programme achieved its target of vaccinating approximately 250,000 school girls each year. The Ministry of Health collaborated with a group of key partners and fostered strong partnerships supported by policies and institutional structures in assuring success. Continued efforts in increasing vaccination and endless endeavor to build awareness among adolescents are essential to decrease the cervical cancer burden.

Strategic Actions

- Promote and increase adolescent vaccination rates through government secondary schools.
- Promote the incorporation of cervical cancer prevention strategies as a part of the school's curriculum in expanding the student's knowledge about cervical cancer.

- Encourage the private schools to involve with HPV immunization programme.
- Involvement of religious and traditional leaders to carry messages on HPV vaccinations in enhancing community sensitization.
- Shifting the age of vaccination from 13 years to 9 years (improve coverage due to compulsory primary education policy).
- Improve community understanding of the importance of HPV vaccinations in reducing cancer risk.
- Improve the consistency and accuracy of data collection by developing HPV Vaccination Registry.
- Collaborate with the Ministry of Education to ensure prompt reminders are sent to the consented parents when school girls have missed vaccinations.
- Provide training on monitoring and investigating adverse events.

Strategy 3.2

Securing sufficient and affordable supply of HPV vaccines for public health preparedness.

Strategic Actions

- Developing a vaccine tracking system that supports a centralized distribution in addressing vaccine access or shortages.
- Conduct microplanning with school health team at state level to identify and train mobilizers to ensure efficient vaccine supply and delivery.
- Determine barriers and develop advocacy strategy.



Strategy 4

Strategic actions to achieve 70% coverage for screening and 90% treatment of precancerous lesions

Strategy 4.1

Ensure affordable and equitable access to screening and treatment services.

Cervical cancer screening requires a reliable health infrastructure for implementation, sustainability and achievement of coverage.

Strategic Actions

- Engagement with other relevant agencies (General practitioners, National Population and Family Development Board (NPFDB), Social Security Organization (SOCSO), National Cancer Council of Malaysia (MAKNA), Federation of Reproductive Health Associations Malaysia (FRHAM), National Cancer Society Malaysia (NCSM), Malaysian Armed Forces (ATM) to disseminate the latest policy and recommendation.
- To implement HPV testing in phases.
- Expansion of the target population to involve women attending outpatient clinics as well as conducting outreach activities.

Strategy 4.2

Strengthens integrated service delivery to better address women's health, sexual and reproductive health, HIV co-infection, and the prevention of cancer and other non-communicable diseases.

Women living with HIV have higher risk of invasive cervical cancer, reflecting both immunosuppression caused by HIV infection and shared risk factors (Odafe et al., 2013). They also have higher prevalence of persistent HPV infection, the primary cause of cervical cancer compared with those who are HIV negative. The World Health Organization's guidelines for cervical cancer control recommends cervical cancer screening as soon as girls or women are tested positive for HIV, regardless of age (World Health Organization, 2006).

Services integrated into existing sexual and reproductive health services, Infectious Clinics, as well as maternal and child health clinics are entry points for reaching women in providing more comprehensive, better integrated screening and management. People-centred referral mechanisms should minimize inconvenience to patients and reduce opportunity costs.

Strategic Actions

- Conduct a situational analysis of HIV and STD in Malaysia in collaboration with CDC, MOH Malaysia.
- Review of cervical cancer screening and management policy among women in high risk group.
- Propose a screening and management pathway for HIV / STD infected women and disseminate the assented pathway to relevant key partners.
- Review/ update the national HPV screening guideline to ensure that the guideline is based on the most recent scientific evidence, adhere to WHO recommendations and is tailored to the needs of priority populations.
- Offer HPV screening among HIV/STD infected women.

Strategy 4.3

Intensify capacity building and resources entailed to optimize screening and diagnosis.

Ensuring that all primary care providers are sufficiently trained and proficient in conducting the procedures for screening and diagnosis, in assuring high-quality of care for women, and in providing comprehensive care involving a multidisciplinary team is crucial. Furthermore, it is vital to assess the infrastructure capacity and needs including the laboratory capability to process screening tests in an opportune time, yet accurate, and ensure provision of the essential infrastructure, provision and equipment in enabling an apt screening and diagnosis.

Strategic Actions

- Develop an online training module for cervical cancer screening programme targeting healthcare providers.
- Training the healthcare providers using the developed module in enhancing their knowledge and skill.
- Disseminate the training module to relevant key partners to enable them to train their staff as well.
- In order to enable an increased excess to colposcopy, a training module to encourage more medical officers to perform colposcopy should be developed.
- Medical officers who fulfil the criteria are privileged to perform colposcopy.
- A master list of essential equipment for screening and diagnosis for the nation should be prepared and updated every 2 years.

Strategy 5

Strategic actions to achieve 90% treatment and care for cervical cancer cases

Approximately 85% of cervical cancers occur in low and middle-income countries [LMICs) representing 12% of women's cancers in those regions.

Strategy 5.1

Implement cervical cancer management guidelines.

Strategic Actions

- Review the current clinical practice guideline of cervical cancer management (latest edition 2015).

Strategy 5.2

Inaugurate referral pathways and people-centred linkages throughout the continuum of care.

Strategic Actions

- Establish a network to coordinate the services (appointing liaison officers at primary and secondary care).
- Integrate palliative care into domiciliary services.

Strategy 5.3

Improve access to other cancer management such as radiotherapy and chemotherapy in line with NSPCCP 2021-2025.

Strategic Actions

- Conform to NSPCCP 2021-2025 activities.

Strategy 5.4

Reinforce pathology services in diagnosing cancer and expand surgical capacity in line with NSPCCP 2021-2025.

Strategic Actions

- Increase number of trained cytopathologists to meet the optimum requirement throughout Malaysia.
- Review cytology service in line with HPV screening services.
- Increase access to colposcopy services through provision of colposcopes to hospitals.

Strategy 5.5

Strengthens and integrates palliative care services.

Strategic Actions

- Conform to NSPCCP 2021-2025 activities.

PRIORITY 4

◆ Intersectoral Collaboration





Priority 4: Intersectoral Collaboration

Strategy 6

Intensity intersectoral coalition with stakeholders through networking and smart partnerships

Multisectoral collaboration is crucial for mobilizing and sharing knowledge, expertise, technologies and financial resources to support the achievement of elimination target. The translation on the ground cannot transpire effectively unless there is a collaborative platform that brings together the key players to spearhead concerted action. The collaborative platform affords a more holistic solution and effective implementation of strategies, policies and programmes. It is prudent to commit to an ardent leadership and inclusive multisectoral collaboration that will ensure key partners work towards a common goal.

Strategy 6.1

Creating networking with multi-agencies to enhance delivery of health services.

Strategic Actions

- Extending HPV screening activities to a wider target population.

Strategy 6.2

Centralised sampling analysis to improve efficiency in resource mobilization.

Strategic Actions

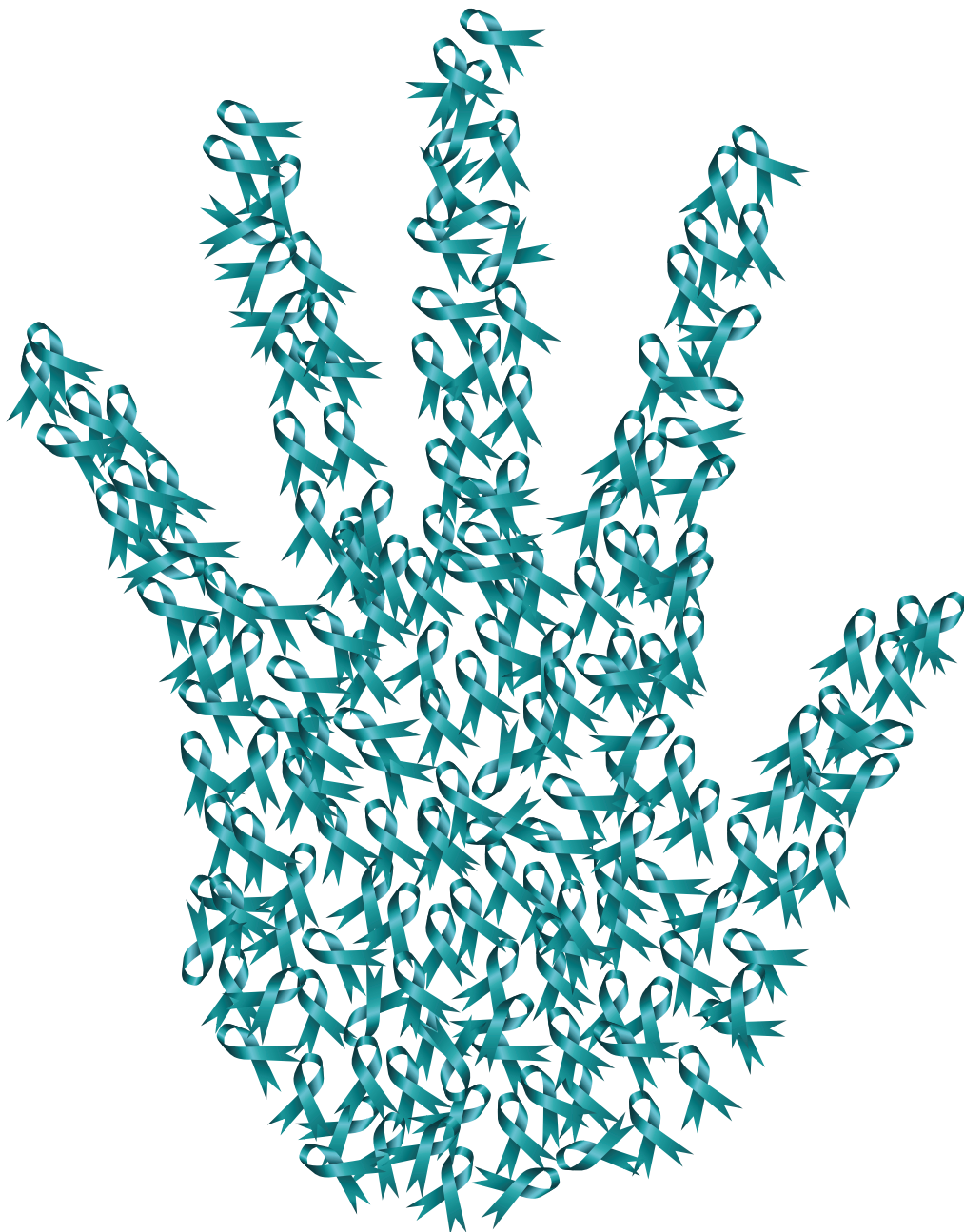
- Established centralized sampling analysis centres according to zones.

Strategy 6.3

Strengthens service delivery via fostering collaboration with NGOs (FRHAM, district council)

Strategic Actions

- Engagement with NGOs (FRHAM, district council, etc.) to enhance screening activities.







PRIORITY 5

◆ Monitoring, evaluation and research

Priority 5: Monitoring, Evaluation and Research

Strategy 7

Improvement of surveillance systems to support monitoring and evaluation activities

Establishing a well-functioning information system is fundamental to a successful programme monitoring and evaluation. Ideally, information from client records should be linked to regional or national databases or cancer registry to allow effortless aggregation of data on key indicators. If such system is not possible, sentinel surveillance methods for data collection and monitoring might be a practical alternative.

It is cardinal that robust surveillance and monitoring systems are developed at national and state level, both to establish the baseline and monitor the impact of broad interventions and activities implemented as part of the cervical cancer elimination strategy. Monitoring and evaluation also assist programme managers in recognizing gaps and procure specific actions to improve coverage, quality and outcomes.

Strategy 7.1

Develop a noteworthy monitoring system that meets the requirement of the programme.

Strategic Actions

- Option 1 (short term)
 - Develop an automated data report using excel spreadsheet.
 - Conduct data analysis and compare performance trends.
- Option 2 (long term):
 - Develop Cervical Cancer Screening Registry using PRIS/MyHDW platform with the following requirements:
 - ✓ “Call & Recall System”
 - ✓ Automated System that can alert defaulters
 - To roll out TPC-OHCIS and HIS nationwide as a feeder system and integrate with PRIS.

Strategy 7.2

Establishment of tracking system in ensuring continuum of care.

Strategic Actions

- Creating a concept paper that integrates call recall mechanism in the cervical cancer screening registry.
- Implementation of the tracking system.

Strategy 7.3

Collaboration with key partners to ensure detailed implementation of cancer prevention and control programme in Malaysia.

Strategic Actions

- Data sharing concerning screening activities.
- Review performance of screening.



Strategy 7.4

On site supervision to ensure quality data collection.

Strategic Actions

- Conduct routine assessment on site.
- Assess the quality of practice among healthcare providers in conducting screening procedures according to SOP.

Strategy 7.5

Dissemination of performance reports to the respective states towards enhancing service delivery.

Strategic Actions

- Generate performance reports on cancer screening programme.
- Gather feedback from the respective states.

Strategy 8

Explore impact of screening and treatment methods in improving patients' outcome through research

Research and innovation are essential to reducing the burden of cancer, improving treatment outcomes as well as the quality of life of people affected by cancer. Research leads to new prevention programmes, diagnostics, treatment discoveries and new models of care. Knowledge and technologies for cervical cancer care are evolving, thus the current and new treatments should be assessed and those that deliver the best results should be adopted.

Strategy 8.1

Collaboration between MOH and academic institutions to conduct research concerning critical areas of cervical cancer.

Strategic Actions

- Data sharing between MOH and academic institutions.
- Organize collection of specimens and data for research if required by academic institutions.

Strategy 8.2

Development of statistical model in supporting the global strategy towards accelerating the elimination of cervical cancer.

Strategic Actions

- Construct a statistical model in projecting the timeline in reaching the Malaysia's elimination threshold.

Strategy 8.3

Estimating the impact of HPV vaccination and cervical screening on cervical cancer prevalence.

Strategic Actions

- Construct a comparative transmission-dynamic models in estimating the effects of vaccination and screening on cervical cancer prevalence.

Strategy 8.4

Improve accessibility to new drugs by conducting clinical trials for cancer treatment.

Strategic Actions

- Conduct clinical trials in determining the safety and effectiveness of new drug therapy in comparison of the current therapy.

Strategy 8.5

Cost effectiveness analysis of cervical cancer prevention programme.

Strategic Actions

- Organize cost effectiveness analysis research.

Annex 1

Strategies and Indicators Towards Cervical Cancer Elimination

Strategy 1: Embracing cervical cancer elimination programme and efficient administration

No	Strategies	Activities	Performance Indicators	Target	Agencies Responsible
1.1	Strengthening of the organisational structure in the Ministry of Health to the attainment of the national programme's goals and targets, with coordinating mechanisms to ensure effective interprogrammatic coordination.	I. Establishment of Cervical Cancer Comprehensive Prevention and Screening Committee at the national level.	- Timeline	- By 2021	- MOH - IKN - University hospitals - Academic institutions
		II. Formation of Cervical Cancer Comprehensive Prevention and Screening Committee at the state and district level (all key partners).	- Number of committees formed	- 1 committee per level	- JKN - State Health Directors - PKD - Related Agencies
1.2	Review of national cervical cancer policies based on the scientific evidence.	i. Revise the screening policy and national guidelines and align with international guidance (WHO).	- A reviewed guideline	- A review should be conducted in 2022 or sooner if new evidence become available.	- MOH - IKN - University hospitals - Academic institutions
1.3	Re-evaluation of national cervical cancer programme and strategies in line with the global objectives.	i. Conduct a situational analysis to assessing the effectiveness of cervical cancer screening.	- Frequency of analysis	- Minimum once a year	- MOH
		ii. Generate a screening model in ensuring proficient service delivery.	- Timeline	- By 2021/2022	- MOH



Strategy 2: Strengthening primary prevention through enhancing health literacy

No	Strategies	Activities	Performance Indicators	Target	Agencies Responsible
2.1	Tailor persuasive advocacy messages to promote cervical cancer screening.				
2.1.1	Establish collaboration with the media.	<p>i. Provide information education communication (IEC) materials to be used by the mass and social media (FHDD & MOH's facebook, twitter, infosihat portal).</p> <p>ii. Arrange health slots with broadcasting agencies e.g Selamat Pagi Malaysia (RTM), Forum Perdana (RTM), Bicara Naratif (RTM), Bicara Dr (RTM), Bicara (Al-Hijrah), Gegar FM (Radio), Asyik FM (Radio).</p> <p>iii. Engaging broadcasting agencies to promote women to come forward for cervical cancer screening (crawler).</p>	<p>- Frequency of posting</p> <p>- Frequency of slots arranged</p> <p>- Frequency of crawler shown</p>	<p>- Minimum once a week</p> <p>- Once every 3 months</p> <p>- Minimum once a week.</p>	<p>- MOH</p> <p>- MOH - Broadcasting agencies</p> <p>- MOH - Broadcasting agencies</p>
2.1.2	Involving cervical cancer survivors in the task to empower women.	Engage cervical cancer survivors to share their experiences in battling cervical cancer in either radio or television interviews.	- Frequency of shows	- Minimum once a year (Cervical Cancer Awareness Month)	- MOH - Broadcasting agencies

No	Strategies	Activities	Performance Indicators	Target	Agencies Responsible
2.1.3	Building and improving self-confidence in eliminating fears of the procedure.	i. Create short videos on Pap smear and HPV self-sampling techniques and upload them on social media.	- Number of videos produced	- 1 video produced	- MOH
		ii. Display short videos on Pap smear and HPV self-sampling techniques at the waiting area at health clinics.	- Frequency of shows	- Minimum once a week	- MOH - JKN - PKD
2.2	Building and developing skills in delivering an effective messages.				
2.2.1	Training health professionals, NGOs and volunteers.	i. Develop a training module to improve communication skill.	- Number of training modules developed	- One training module developed	- MOH
		ii. Conduct training for professionals, NGOs and volunteers using the training module.	- Frequency of training conducted	- Minimum twice a year	- MOH - JKN - PKD



Strategy 3: Scaling up to achieve 90% coverage for HPV vaccination among women.

No	Strategies	Activities	Performance Indicators	Target	Agencies Responsible
3.1	Improving coverage of vaccination among girls through ongoing vaccination and surveillance	i. Promote and increase adolescent vaccination rates through government secondary schools.	- Vaccination coverage	- Minimum 95% of 13 years old school children vaccinated	- MOH - MOE - JKN - PKD
		ii. Promote the incorporation of cervical cancer prevention strategies as a part of the school's curriculum in expanding the students' knowledge about cervical cancer.	- Frequency of trainings provided	- Minimum once a year	- MOH - MOE - JKN - PKD
		iii. Encourage the private schools to involve with HPV immunization programme.	- Number of private schools involved	- To be determined later	- MOH - MOE - JKN - PKD
		iv. Involvement of religious and traditional leaders to carry messages on HPV vaccinations in enhancing community sensitization.	- Frequency of sermon	- Minimum once a month	- MOH - JAKIM - Related religious associations - JKN - PKD - NGOs
		v. Improve community understanding concerning the importance of HPV vaccination in reducing cancer risk.	- Anonymous survey via WA/ telegram	- Minimum once a year	- MOH - Telco companies

No	Strategies	Activities	Performance Indicators	Target	Agencies Responsible
		vi. Improve the consistency and accuracy of data collection by developing HPV Vaccination Registry.	- Timeline	- By 2025	- MOH
		vii. Collaborate with the Ministry of Education to ensure prompt reminders are sent to the consented parents when school girls have missed vaccinations.	- Percentage of missed vaccination	- Less than 5% missed vaccination	- MOH - MOE
		viii. Provide training on monitoring and investigating adverse events.	- Frequency of training	- Minimum 1 training a year	- MOH
3.2	Securing sufficient and affordable supply of HPV vaccines for public health preparedness.	i. Developing a vaccine tracking system that supports a centralized distribution in addressing vaccine access or shortages.	- Timeline	- By 2022	- MOH
		ii. Conduct microplanning with school health team at state level to identify and train mobilizers to ensure efficient vaccine supply and delivery.	- Frequency of meetings conducted	- Minimum once every 2 months	- MOH - MOE - JKN - PKD
		iii. Determine barriers and develop advocacy strategy.	- Frequency of workshop conducted	- Minimum once a year	- MOH - MOE - JKN - PKD



Strategy 4: Strategic actions to achieve 70% coverage for screening and 90% treatment of precancerous lesions

No	Strategies	Activities	Performance Indicators	Target	Agencies Responsible
4.1	Ensure affordable and equitable access to screening and treatment services.	i. Engagement with other relevant agencies (General practitioners, National Population and Family Development Board (NPFDB), Social Security Organization (SOCSO), National Cancer Council of Malaysia (MAKNA), Federation of Reproductive Health Associations (FRHAM), National Cancer Society Malaysia (NCSM), Malaysian Armed Forces (ATM) to disseminate the latest policy and recommendation.	- Frequency of meetings conducted	- Minimum twice a year	- MOH - NPFDB - SOCSO - MAKNA - FRHAM - NCSM - ATM
		ii. To implement HPV screening by phases.	- Screening coverage	- Increment of coverage to achieve 40% in 3 years (2021 – 2023) - 10% increment every 2 or 3 years (until 70% coverage)	- MOH - JKN - PKD
		iii. Expansion of the target population to involve women attending outpatient clinics as well as conducting outreach activities.	- Screening coverage	- To be determined later	- MOH - JKN - PKD

No	Strategies	Activities	Performance Indicators	Target	Agencies Responsible
4.2	Strengthens integrated service delivery to better address women's health, sexual and reproductive health, HIV co-infection, and the prevention of cancer and other non-communicable diseases.	i. Conduct a situational analysis of HIV and STD in Malaysia in collaboration with CDC, MOH Malaysia.	- Number of reports produced	- Minimum 1 per year	- MOH
ii. Review of cervical cancer screening and management policy among women in high risk group.		- Timeline	- By 2022	- MOH - Academic institutions	
iii. Propose a screening and management pathway for HIV / STD infected women and disseminate the assented pathway to relevant key partners.		- Timeline	- By 2022	- MOH - Academic institutions	
iv. Review / update the national HPV screening guideline to ensure that the guideline is based on the most recent scientific evidence, adhere to WHO recommendations and is tailored to the needs of priority populations.		- Timeline	- By 2022	- MOH - Academic institutions	
iv. Offer HPV screening among HIV/STD infected women.		- Produce a proposal	- By 2022	- MOH - NGOs - Academic institutions - JKN	



No	Strategies	Activities	Performance Indicators	Target	Agencies Responsible
4.3	Intensify capacity building and resources entailed to optimize screening and diagnosis.	i. Develop an online training module for cervical cancer screening programme targeting healthcare providers.	- Number of training modules produced	- Minimum 1 training module produced	- MOH - Academic institutions
		ii. Training the healthcare providers using the developed module in enhancing their knowledge and skill.	- Frequency of training conducted	- Minimum once per year	- MOH - JKN - PKD
		iii. Disseminate the training module to relevant key partners to enable them to train their staff as well.	- Frequency of training conducted by key partners	- Minimum 1 training per year	- MOH - NPFDB - SOCSO - MAKNA - FRHAM - NCSM - ATM
		iv. In order to enable an increased excess to colposcopy, a training module to encourage more medical officers to perform colposcopy should be developed.	- Number of training module	- Minimum 1 training module produced	- MOH - Academic institutions - Malaysian Gynaecologic Cancer Society
		v. Medical officers who fulfil the criteria are privileged to perform colposcopy.	- Guidelines for privileging	- 1 guideline produced	- MOH - Academic institutions - Malaysian Gynaecologic Cancer Society
		vi. A master list of essential equipment for screening and diagnosis for the nation should be prepared and updated every 2 years.	- Frequency of updates	- Updated every 2 years	- MOH - JKN - State hospitals

Strategy 5: Strategic actions to achieve 90% treatment and care for cervical cancer cases

No	Strategies	Activities	Performance Indicators	Target	Agencies Responsible
5.1	Implement cervical cancer management guidelines	i. Review the current clinical practice guideline of cervical cancer management (latest edition 2015).	- A reviewed guideline	- A review should be conducted in 2021 or sooner if new evidence became available.	- MOH - Malaysia Gynaecological Cancer Society - Malaysia Oncological Society - Academic of Medicine Malaysia
5.2	Inaugurate referral pathways and people-centred network throughout the continuum of care	i. Establish a network to coordinate the services (appointing liaison officers at primary and secondary care).	- Number of liaison officers appointed	- Minimum 1 liaison officer at each facility.	- MOH - NGOs
		ii. Integrate palliative care into domiciliary services.	- Percentage of patient under domiciliary care	- Minimum 50% of patients registered under domiciliary care	- MOH
5.3	Improve access to other cancer management modalities such as radiotherapy and chemotherapy in line with NSPCCP 2021-2025.	i. Conform to NSPCCP 2021-2025 activities.	- Follow NSPCCP 2021-2025 indicators	- Follow NSPCCP 2021-2025 targets	- MOH - Hospitals Directors - Head of Departments



No	Strategies	Activities	Performance Indicators	Target	Agencies Responsible
5.4	Reinforce pathology services in diagnosing cancer and expand surgical capacity in line with NSPCCP 2021-2025.	i. Increase number of trained cytopathologists to meet the optimum requirement throughout Malaysia.	- Percentage increase of trained cytopathologists per year	- 20% increase annually	- MOH - Hospitals Directors - Head of Departments
		ii. Review cytology service in line with HPV screening services.	- Number of proposals produced	- One proposal produced	- MOH
		iii. Increase access to colposcopy services through provision of colposcope to hospitals.	- Number of colposcope procured and supplied to hospitals.	- 4 colposcope per year	- MOH - MOF
5.5	Strengthens and integrates palliative care services.	i. Conform to NSPCCP 2021-2025 activities	- Follow NSPCCP 2021-2025 indicators	- Follow NSPCCP 2021-2025 targets	- MOH - Hospitals Directors - Head of Departments



Strategy 6: Intensity intersectoral coalition with stakeholders through networking and smart partnerships

No	Strategies	Activities	Performance Indicators	Target	Agencies Responsible
6.1	Creating networking with multi-agencies to enhance delivery of health services.	i. Extending HPV screening activities to a wider target population.	- Screening coverage	- 40% per annum	- MOH - LPPKN - ATM - FRHAM - SOCSO - MAKNA - NSCM - Other NGOs
6.2	Centralised sampling analysis to improve efficiency in resource mobilisation.	i. Established centralized sampling analysis centres according to zones.	- Number of samplings per centre	- To be determined later	- MOH - MKAK - Directors - Microbiologist
6.3	Strengthens service delivery via fostering collaboration with NGOs (FRHAM, district council).	i. Engagement with NGOs (FRHAM, district council) to enhance screening activities.	- Frequency of meetings	- Minimum twice a year	- MOH - JKN - PKD



Strategy 7: Improvement of surveillance systems to support monitoring and evaluation activities

No	Strategies	Activities	Performance Indicators	Target	Agencies Responsible
7.1	Develop a noteworthy monitoring system that meets the requirement of the programme.	<ul style="list-style-type: none"> • Option 1 (short term) 			
		i. Develop an automated data report using excel spreadsheet.	- Timeline	- By 2021	- MOH
		ii. Conduct data analysis and compare performance trends.	- Frequency of analysis	- Three-monthly	- MOH
		<ul style="list-style-type: none"> • Option 2 (long term): 			
		i. Develop Cervical Cancer Screening Registry using PRIS/MyHDW platform with the following requirements: ✓“Call & Recall System” ✓ Automated System that can alert defaulters.	- Timeline	- By 2025	- MOH - MAMPU - MIMOS
		ii. To roll out TPC-OHCIS and HIS nationwide as a feeder system and integrate with PRIS.	- Timeline	- By 2025	- MOH
7.2	Establishment of tracking system in ensuring continuum of care.	i. Creating a concept paper that integrates call recall mechanism in the cervical cancer screening registry.	- Number of concept papers produced	- One concept paper produced	- MOH (PIK)
		ii. Implementation of the tracking system.	- Duration of completion	- By 2025	- MOH

No	Strategies	Activities	Performance Indicators	Target	Agencies Responsible
7.3	Collaboration with key partners to ensure detailed implementation of cancer prevention and control programme in Malaysia.	i. Data sharing concerning screening activities	- Frequency of sharing	- Twice a year	- MOH - LPPKN - ATM - FRHAM - SOCSO - MAKNA - NSCM - Other NGOs
		ii. Review performance of screening.	- Frequency of review	- Bi-annual review	- MOH - LPPKN - ATM - FRHAM - SOCSO - MAKNA - NSCM - Other NGOs
7.4	On-site supervision to ensure quality data collection.	i. Conduct routine assessment on-site.	- Frequency of visits	- Once a year	- MOH
		ii. Assess the quality of practice among healthcare providers in conducting screening procedures according to SOP	- Assessment checklist	- Minimum score 80%	- MOH
7.5	Dissemination of performance reports to the respective states towards enhancing service delivery.	i. Generate performance reports on cancer screening programme	- Frequency of write-up	- Annually	- MOH - JKN
		ii. Gather feedback from the respective states	- Frequency of feedback	- Annually	- MOH - JKN



Strategy 8: Explore Impact of Screening and Treatment Methods in Improving Patients Outcome through Research

No	Strategies	Activities	Performance Indicators	Target	Agencies Responsible
8.1	Collaboration between MOH and academic institutions to conduct research concerning critical areas of cervical cancer.	<ul style="list-style-type: none"> i. Data sharing between MOH and academic institutions. ii. Organize collection of specimens and data for research if required by academic institutions. 	<ul style="list-style-type: none"> - Number of papers published - Frequency of data of specimen collection 	<ul style="list-style-type: none"> - Minimum 1 paper per year - Depends on the trials/ research conducted 	<ul style="list-style-type: none"> - MOH - Academic institution - MOH - Academic institution
8.2	Development of statistical models in supporting the global strategy towards accelerating the elimination of cervical cancer.	i. Construct statistical models in projecting the timeline in reaching the Malaysia's elimination threshold.	- Timeline	- By 2022	<ul style="list-style-type: none"> - MOH - Academic institution
8.3	Estimating the impact of HPV vaccination and cervical screening on cervical cancer prevalence.	i. Construct comparative transmission-dynamic models in estimating the effects of vaccination and screening on cervical cancer prevalence.	- Number of papers published	- Minimum 1 paper per year	<ul style="list-style-type: none"> - MOH - Academic institution
8.4	Improve accessibility to new drugs by conducting clinical trials for cancer treatment.	i. Conduct clinical trials in determining the safety and effectiveness of new drug therapies in comparison of the current therapy.	- Number of trials	- Minimum 1 trial per year	<ul style="list-style-type: none"> - MOH - University hospitals - NIH - Academic institutions
8.5	Cost effectiveness analysis of cervical cancer prevention programme.	i. Organize cost effectiveness analysis research	iii. Number of papers published	- Minimum 1 paper per year	<ul style="list-style-type: none"> - MOH - University hospitals - NIH - Academic institutions

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