Federal Ministry of Health

NATIONAL INSTITUTE FOR CANCER RESEARCH AND TREATMENT

NATIONAL STRATEGIC PLAN FOR PREVENTION AND CONTROL OF CANCER OF THE CERVIX IN NIGERIA

2023 -2027

FOREWORD

Cancer of the uterine cervix is the second commonest cancer in Nigeria and one of the leading causes of cancer related morbidity and mortality in the country. Incidentally, it is largely preventable and can be cured when detected early and promptly treated. There are several efforts put in place by the Federal Government and partners to address cancer of the uterine Cervix, yet all the efforts seem not to yield the desired results due to inadequate coordination of the various efforts and resources within the country. In order to address this, the Federal government established the National Institute for Cancer Research and Treatment to provide national leadership in cancer research, treatment and control in the country. The institute decided to finalize, print, launch and poised to implement this strategic Plan in order to actualize the global target of eliminating cancer of the Cervix by the year 2030.

The goal of this strategic Plan is to reduce incidence, morbidity and mortality from cervical cancer by one-third from 2022 levels by 2027. It has a set of nine (9) specific objectives ranging from immunization against Human Papilloma Virus, establishment of national screening programme, treatment of pre-cancerous lesions, provision of palliative care services, data management and conduct of ground breaking research into cervical cancer in the country among others. The Plan contains an implementation roadmap with a set of activities, indicators and timelines with clear-cut organizational responsibilities, that n within the life speeded to be achieved within the life span of the Plan (2023-2027).

This strategic Plan is a veritable tool that will guide all the activities and programmes of all the stakeholders with interest in cervical cancer in the country as it contains all the strategies needed to attain the global targets of eliminating cervical cancer by the year 2030. Therefore, this Plan is recommended to public and private institutions and organizations to use in the development of all their activities and Plans in the area of cervical cancer programmes.

The National Institute for Cancer Research and Treatment is committed to collaborate with all the stakeholders to implement this Strategic Plan. It will guide all our national response and programmes in tackling cancer of the cervix. It shall guide our activities as we expand the national HPV vaccine programme that has been rolled out, the secondary prevention programme that is currently operational in some states of the federation among other activities,

It is my hope that everyone will find this plan useful and support the Federal government to ensure that it is fully implementated .

Prof. Usman Malami Aliyu
Director General

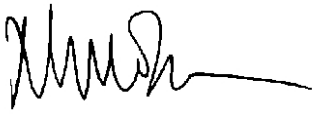
ACKNOWLEDGMENT

It is my honour and privilege to appreciate all the organizations and individuals who contributed in one way or the other to make the development of this National Strategic Plan for Prevention and Control of Cancer of the Uterine Cervix 2023-2027 possible. Development of this Strategic Plan became necessary due to unrelenting commitment of the Federal Government to achieve the global target of eliminating cancer of the uterine cervix by the year 2030.

I want to thank the leadership of the Federal Ministry of Health, The Honourable Minister of State for Health Dr Tunji Alausa, the Permanent Secretary, the Director Hospital Services, Dr Jimoh O. Salaudeen, all the staff of the National Cancer Control Programme under the leadership of Dr Okpikpi Okpako for their roles in the development of this Plan. I also wish to thank all the members of the National Technical Working Group (TWG) for Cancer Prevention and Control in Nigeria for working assiduously in the development of this strategic Plan. The role played by the Clinton Health Access Initiative (CHAI) in supporting secondary prevention of cancer of the cervix in Nigeria is commendable. The effort of the oncology team of CHAI including Lola Ameyan, Layo Lawason, Paulette Ibeka, Aisha Ndanusa, Kelechi Uzor and Sageera Tukur were very impressive and appreciated. I also want to thank the World Health Organization and Solina Health for supporting some of the several meetings organized to review this Strategic Plan.

The leadership role of the Pioneer Director General of the National Institute for Cancer Research and Treatment (NICRAT), Prof Usman Malami Aliyu eventually saw to the completion, printing and launching of this Strategic Plan. In line with the mandate of NICRAT, it is my hope that NICRAT in liaison with the Federal Ministry of Health and other governmental and nongovernmental organizations will oversee the full implementation of this Plan. I want to appreciate all the Directors and staff of NICRAT for their support. For want to space, I want to most sincerely, thank everyone who contributed towards the actualization of the National Strategic Plan for Prevention and Control of Cancer of Uterine Cervix 2023-2027.

This plan took into consideration the existing structures, commitment of government at all levels, development partners, non-governmental organizations, community, and faith based organizations and individuals within our national cancer ecosystem. We hope to leverage on the existing and potential structures and platforms to implement this strategic Plan. Therefore, I wish to thank all organizations, persons and groups who have offered to support the implantation of this Plan.



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17th October 2023.

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1.0 INTRODUCTION

Cervical cancer is the fourth most diagnosed cancer and the fourth leading cause of death due to cancer among women in the world. In 2020, there were 607,127 new cases of cervical cancer globally with 341,831 deaths. The African continent reported 117,316 new cases and 76,745 deaths in the same year. It is estimated that if the current situation continues, there would be 135,000 new cases of cervical cancer and 83,000 deaths in Africa by 2030 (1, 2).

The high burden of cervical cancer and the resultant huge number of deaths occurring in women in the African Region has been attributed to poor access to effective screening and identification of precancerous lesions, low disease awareness, late presentation in the health facilities, and inadequate treatment services. The inequity in access to services has been attributed to competing health care priorities, insufficient financial resources, weak health systems, and limited numbers of trained providers (1).

Cervical cancer prevention and control programmes situate well under the Sustainable Development Goals 3 and 5; ensuring healthy lives and promoting the well-being of all ages, achieving gender equality and empowering all women and girls. The two goals contribute by ensuring universal access to sexual and reproductive health services to improve women's health. In addition, the updated UN Secretary-General's *Global Strategy for Women and Children's Health* and the 2011 "Political Declaration of the High-level Meeting of the UN General Assembly on the Prevention and Control of Non-Communicable Diseases" (NCD), as well as the "comprehensive global monitoring framework" under development, include key indicators, and a set of global targets for the prevention and control of non-communicable diseases including cervical cancer (1, 3).

Furthermore, the World Health Organization (WHO) has developed several guidance documents that give a broad vision of what a comprehensive approach to cervical cancer prevention and control means. The documents outline complementary strategies for comprehensive cervical cancer prevention and control and highlight the need for collaboration across programmes, organizations, and partners. They also emphasize the core principle of a comprehensive approach to cervical cancer prevention and control which is to act across the life course using the natural history of the disease to identify opportunities in relevant age groups to deliver effective interventions. The WHO comprehensive approach to cervical cancer prevention and control over the life course provided an overview of programmatic interventions under three interdependent components: primary, secondary, and tertiary prevention (Figure 1).

The public health goal of *primary prevention* is to reduce HPV infections because persistent HPV infections can cause cervical cancer. *Secondary prevention; screening for and treating precancerous lesions aims at* decreasing the incidence and prevalence of cervical cancer and the associated mortality, by intercepting the progress from pre-cancer to invasive cancer, whilst *tertiary prevention; treatment of invasive cervical cancer has the* goal of decreasing the number of deaths due to cervical cancer (3).

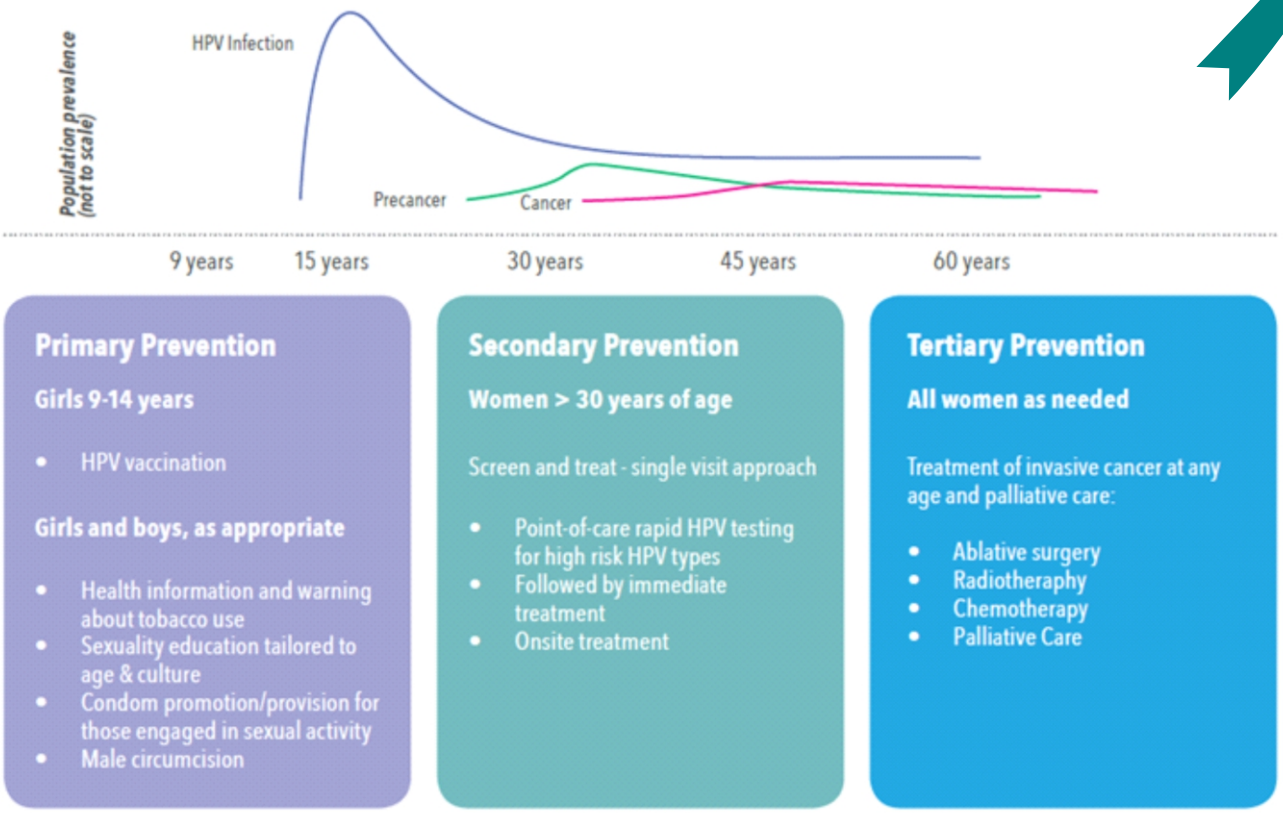


Figure 1: Life course approach to Cervical Cancer Prevention and Control (1).

The WHO recommends a comprehensive multidisciplinary approach to cervical cancer prevention and control at the national level. The approach is made up of several key components ranging from community education, social mobilization, vaccination, screening, diagnosis, treatment, and palliative care. The involvement of various disciplines and national health programmes such as immunization, reproductive health, cancer control, and adolescent health is very significant for the success of the programme. Additionally, the WHO through the 90-70-90 target seeks to fully vaccinate 90% of girls before age 15, screen 70% of women with a high-performance test by the age of 35 and 45 years and offer treatment to 90% of women with cervical lesions (90% of women with pre-cancer treated, and 90% of women with invasive cancer managed) by 2030 (4).

2.0 CURRENT SITUATION IN NIGERIA

Cancer of the cervix is the second commonest cancer and the second leading cause of cancer mortality among women in Nigeria (2, 5). With an estimated population of about 206 million people in 2020, Nigeria has over 56 million women aged 15 years and older who are at risk of developing cervical cancer (6, 7). The 2020 GLOBOCAN report estimates 12,075 new cases and 7,968 deaths due to cervical cancer. It has an Age Standardized Incidence of 18.4/100,000 and a mortality rate of 13.2/100,000 (2). The majority of women with cervical cancer die in an undignified and painful manner after many months of ill health characterized by intractable pain, urinary or faecal incontinence, and severe anaemia among others. Late presentation at the health facility is responsible for the death of about 8,000 women from cancer of the cervix annually in Nigeria. If this trend continues, the annual number of cases of cancer of the cervix and deaths from the condition could rise to 13,900 and 9,200 respectively by 2025 (2).

Research reveals that most cases of cancer of the cervix are caused by the Human Papilloma Virus (HPV). Currently in Nigeria, about 20.65% (8) of women with normal cytology in the general population are estimated to harbour cervical HPV-16/18 infection at a given time, and 66.9% of invasive cervical cancers are attributed to HPVs 16 and 18 (5,9). This is a very common sexually transmitted infection which occurs in young girls within two years of sexual debut. In most cases, the infection is cleared by natural body immunity, but some persist, leading to the development of abnormal cells in the cervix that could over time transform into cancerous cells. Available data on the sexual and reproductive behaviour patterns of young people (25-49 years) in Nigeria have shown that early onset of sexual activity and early marriages are highly prevalent as evidenced by the median age at first sexual intercourse of 17.2 years for women and 21.7 years for men, with wide variation between geopolitical zones (15.7 years in the North West and 19.4 years in the South West) (10).

The capacity for prevention, early detection, diagnosis and treatment of precancerous and cancerous lesions of the cervix in Nigeria is weak. Currently, the national immunization programme for HPV is not fully operational and the screening campaigns are currently conducted mainly by individuals, Community-based Organisations (CBOs), and Non-Governmental Organizations (NGOs). Although tertiary care takes place in public and private facilities all over the country, available services are grossly inadequate. PAP smear, colposcopy, and histopathology services essential for the diagnosis of cervical cancer are available mainly in tertiary facilities. Most secondary facilities are not equipped to do biopsies because the required personnel and equipment are not readily available. Average waiting time for histology reports can be up to three weeks to months and ancillary investigations for complete workup of suspected cancer cases are not readily available in most hospitals. Electrosurgical excision procedures such as Loop Electrosurgical Excision Procedure (LEEP)/Large Loop Excision of Transformation Zone (LLETZ) and cold coagulation are only available in a few centres. In addition, only a few centres can perform trachelectomy, radical hysterectomy, and pelvic exenteration.

According to the International Atomic Energy

Agency (IAEA) Nigeria needs 166 linear accelerators based on the estimated population of 206 million (1 linear accelerator per 400,000 people). However, there are only 21 machines available in Nigeria (including Linear Accelerators, Cobalt 60 and High Dose Rate Brachytherapy Machines) which are situated in 12 centres, with less than 50% functionality at any given time. *Three additional centres are currently being established in Borno, Katsina and Plateau*

The awareness of Palliative care in Nigeria was heightened with the HIV epidemic and increasing prevalence of cancer. With the late presentation and diagnosis of cancer cases, research evidence suggests that these patients need palliative care. Palliative care is a holistic care and approach to care given to persons with a life-limiting disease that focuses on pain and symptom control for patients and family support throughout the course of illness until death and even in bereavement. Available data indicate that each year about 181,600 Nigerians die in pain, while opioid consumption from 2008 to 2010 was 2.6kg, enough to treat only 266 people. This translates to an average opioid coverage rate of 0.2% during the period.

2.1 National Response

Nigeria developed a National Cancer Control Plan in 2008 to provide strategic direction for the national programme. It includes guidance on increasing awareness of cancer of the cervix screening and prevention, training of health care workers (HCW), vaccination against the Human Papilloma Virus, treatment of precancerous lesions as well as monitoring and evaluation. It also defines the roles and responsibilities of stakeholders and steps for integrating cancer of the cervix prevention into reproductive health services at the primary health care level as stipulated by the National Primary Health Care Development Agency (NPHCDA) mandate. Despite this effort, implementation of the plan has at best been sporadic and limited to hospitals and research settings. This is mainly due to factors such as inadequate public awareness of the problem, lack of capacity for population screening and preventive programmes, limited access to treatment for advanced conditions, and inadequate financial and political will (11).

2.2 Primary Prevention

Primary prevention of cancer of the cervix through awareness creation, health promotion and vaccination with the HPV vaccine has been very limited in Nigeria. Although Nigeria has approved the two available prophylactic vaccines for the prevention of HPV infections, the routine HPV immunization programme in Nigeria is not fully operational. Both bivalent and quadrivalent vaccines are approved for use and are only provided on request from some private and public health facilities. The bivalent vaccine is effective against HPV 16 and 18, the strains that cause 70% of all cervical cancer cases worldwide while the quadrivalent vaccine, on the other hand, has an added advantage over the bivalent vaccine with demonstrated efficacy against HPV 6, 11, 16, and 18 that cause 90% of all genital wart cases. The vaccines are targeted at girls aged 9-14 years, using 2 doses at 0 and 6-12 months. The delivery strategies recommended include School-Based, Health Centre Based, and Outreach /community options. The government is engaging pharmaceutical companies and NGOs to reduce the cost of the vaccines while continuing to evaluate and endorse other vaccines available for the prevention of cancer of the cervix for use in the country.

The Global Alliance for Vaccine and Immunization (GAVI) is supporting developing countries including Nigeria to introduce the vaccine following a successful implementation of a demonstration/pilot project among an eligible

20,000 population of girls aged 9 to 13 years. Countries were expected to select at least 2 districts in the country representing the two major regions of the country namely the Northern and Southern zones.

2.3 Secondary Prevention

Secondary prevention through screening for precancerous lesions and early diagnosis followed by adequate treatment is also being promoted in Nigeria but is largely implemented by individuals, institutions, professional bodies, NGOs, and CBOs with the sub-optimal implementation of the national programme. The visual inspection with acetic acid/Lugol's iodine is non-invasive, cheap, simple, and easy to conduct, requires little expertise, and no sophisticated equipment. Above all, it provides an instant result that can be interpreted on the spot. HPV DNA testing is increasingly being used for cervical cancer screening because it can be collected easily by either the provider or the patient, and it provides more objective results with better sensitivity than VIA and is recommended over VIA (when feasible) by the WHO. Studies have also demonstrated HPV self-sampling to be an effective measure to reach under-screened women and have been identified as easy, convenient, comfortable and private. By tailoring self-sampling implementation to each community, can be an effective intervention. Cryotherapy is currently the most widely available treatment method however the reliance on current cryotherapy tools on a medical gas supply chain prevents widely available treatment due to frequent gas stock-outs and significant ongoing operating costs. Gasless treatment tools such as thermal ablation devices can make point-of-care (POC) treatment readily available, easing logistics and reducing the risk of loss-to-follow-up (LTFU). Thermal ablation has comparable effectiveness to cryotherapy for the treatment of precancerous lesions; and the procedure is safe, with minimal side effects and adverse events, and no measurable impact on fertility. Thermal ablation devices are considerably easier to use and manage than traditional cryotherapy machines, as they do not rely on medical gas, and are less expensive and more portable than handheld cryotherapy devices. Both cryotherapy and thermal ablation offer an opportunity for instant treatment of precancerous lesions after identification, thus fulfilling the "screen and treat" strategy. Clients with suspicious lesions will be referred for tissue biopsy and further management. This public health approach will enhance the capacity of the primary health care system to detect and support the early treatment of cancer of the cervix. There is a need for continuous capacity building of different cadres of health care providers to implement the screening and treatment strategy.

There are multiple opportunities to integrate cervical cancer prevention and control into existing healthcare delivery systems, such as reproductive health and HIV/AIDS programmes. National cervical cancer prevention and control programmes offer a model for collaboration among several programmes, including reproductive health, Non-Communicable Diseases (NCDs), cancer control, immunization, and adolescent health. These national programmes could thus catalyse changes in the planning and delivery of health care, supporting a transition from vertical approaches to horizontal systems.

Integration of cervical cancer prevention activities into other sexual and reproductive health programmes, to improve coverage, has proven to be more complex than expected. Experience with integration has been mixed, not enough is known about how integrated interventions can best be configured and what effect they have on the prevention of infections, cancer of the cervix and women's health in general. This is basically due to the inadequate funding of cervical cancer

prevention programmes resulting in a paucity of data, lack of programmatic experience and local lessons learned from research and policy actions.

The government continues to upgrade hospitals and provide equipment such as Colposcopes, CT scans, MRIs, linear accelerators, brachytherapy and other radiotherapy equipment. In addition, staff are currently undergoing training in cancer radiotherapy and cancer registration.

The Federal Government has established two nuclear medicine facilities across the country with a plan for five additional centres. There are also two private nuclear medicine centres. While the technical partnership with International Atomic Energy Agency (IAEA) is continuing, the Federal Ministry of Health is engaging other partners towards successful cancer prevention efforts

Palliative care has been recognized as an important aspect of cancer control and is prioritized in Nigeria's National Cancer Control Plan (2018-2022). Individuals and local and international organizations are collaborating with FMOH Cancer Control Unit to create awareness about Palliative care in Nigeria. This led to the development and launch of a National Policy and Strategic Plan for Hospice and Palliative Care to make oral Morphine available and affordable in addition to other deliverables. Accordingly, Morphine has been made available at Central Medical Stores Oshodi Lagos with a dispensing centre in each of the six geopolitical zones including NW: ABUTH Zaria, NE: FTH Gombe, NC: National Hospital Abuja, SS: FMC Yenagoa, SE: National Orthopaedic Hospital Enugu SW: OAUTH Ile Ife. The number of tertiary healthcare institutions and state ministries of health collecting varying quantities of Morphine sulphate powder for compounding and distribution to patients has been increasing steadily since 2013.

Although Nigeria is the most populous country in Africa, palliative care access is inadequate compared to some African countries but some progress has been made. There has been increasing awareness among health professionals especially those involved in HIV and Cancer care and pain management on the need for palliative care for patients with life-limiting diseases. Notable results include an increasing number of emerging sites of palliative care across the country and the availability of morphine for pain management. From only two known hospice facilities in 2004, there has been an increase in the number of sites over the years in all six geopolitical zones of the Federation. The sites are mainly in South-West, North-Central and South-East geopolitical zones, with few in the North-East, North-West and South-South zones. The sites are mostly located in tertiary health institutions, a few established freelance NGOs and faith-based organizations. There are about 13 viable facilities with only 1 offering paediatric services. Services provided include pain management, teleconsultation, bereavement support and other palliative care services to in-patients, home-based, and daycare patients. In hospitals, the services are provided by few volunteers, Palliative Care trained multidisciplinary staff through teamwork. There is a gap in the training for full-time palliative care specialists as only University College Hospital (UCH) Ibadan commenced a short certificate course in palliative care for healthcare providers. However, the programme in UCH Ibadan is currently not functional.

3.0 VISION; GOAL AND SPECIFIC OBJECTIVES

3.1 Vision

To free Nigeria from the burden of cervical cancer, making it a country where cervical cancer is no longer a public health problem.

3.2 Goal

To reduce incidence, morbidity and mortality from cervical cancer by one-third from 2021 levels by 2027.

3.3 Specific Objectives

a) To immunize 50% of girls 9-14 years with HPV vaccine by 2027

b) To screen 50% eligible women aged 25-49 using high performance test at least twice in their lifetime by 2027

c) To provide adequate and effective treatment of precancerous lesions for 100% detected cases by 2027

d) To establish an effective two-way referral pathway across all levels of care

e) To ensure that all referred cases of suspicious cancer lesions have access to prompt diagnosis, and that management is initiated within one week of presentation

f) To improve access to palliative care in line with palliative care policy

g) To ensure availability of quality data on cervical cancer programmes

h) To increase the number of National level research that identify and address knowledge gaps in cervical cancer control

i) To ensure adequate and sustainable funding for cervical cancer programmes

4.0 STRATEGIC APPROACHES

The national strategy for the prevention and control of cancer of the cervix in Nigeria will utilize a public health approach - employing a combination of education, vaccination, screening, diagnosis, treatment, palliative care and linkages with other sexual and reproductive health programmes.

4.1 HPV Mass Immunization Campaigns

HPV vaccination, a primary prevention approach, will be targeted at girls 9-14 years of age in and out of school. The immunization campaign will be conducted using mixed delivery strategies including School Based, Health Centre Based, and Outreach /community-based strategies targeting girls at primary, junior secondary and senior secondary schools. Girls out of school will be identified and reached in places such as their homes, on the street, in markets, religious centres and other places they can be found according to states' peculiarities. Catch-up immunizations should be given to girls up to 26 years for those not sexually active and not fully immunized.

Any bivalent, quadrivalent or nanovalent vaccines which act against oncogenic HPV genotypes and with the potential for cross-protection from other strains are recommended for use in Nigeria. They have a safety profile similar to other NPI vaccines. Eligible girls should receive at least one dose for protection. Since the vaccines do not protect against all HPV types that can cause cervical cancer, girls vaccinated against HPV will still require cervical cancer screening later in their lives. Immunocompromised individuals, including those who are living with HIV, and females aged 15 years and older who meet catch-up immunization criteria should also receive the vaccine.

4.2 Approaches to Screening

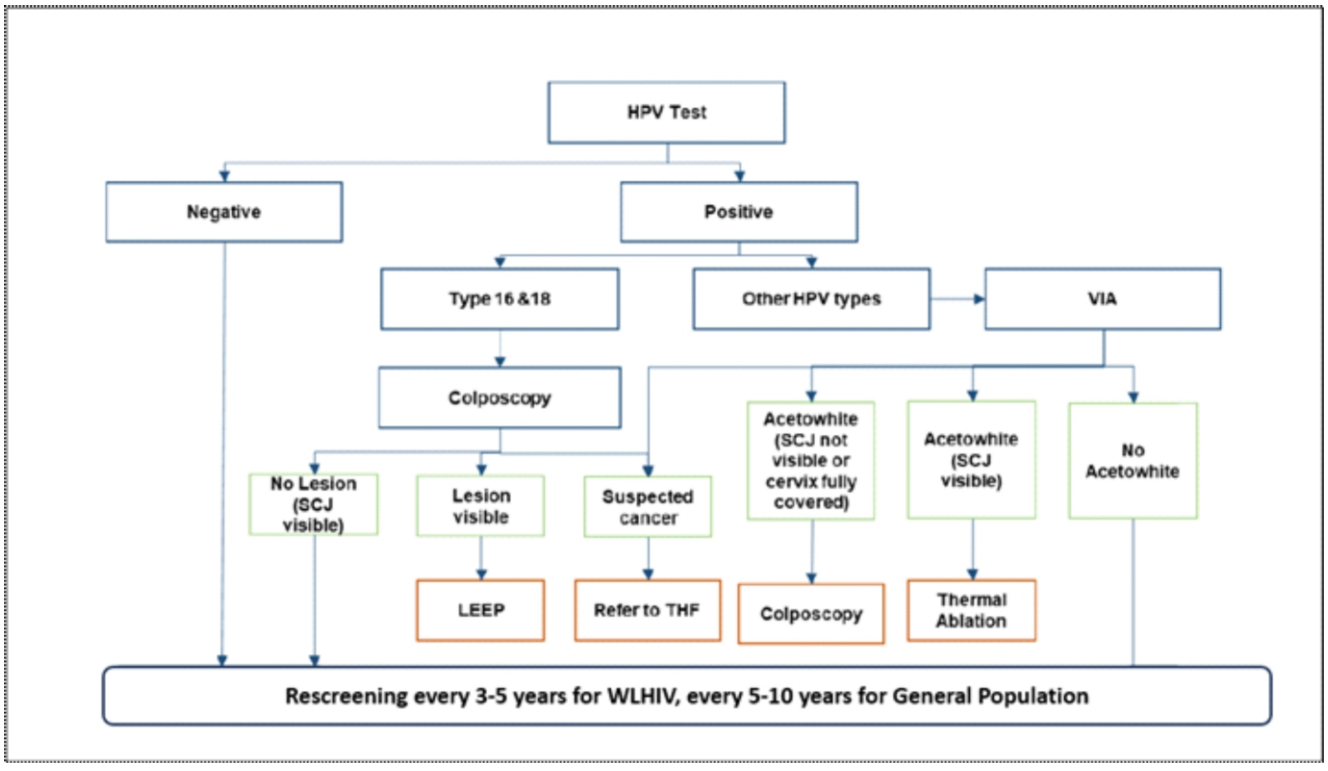
Early detection of asymptomatic precancerous lesions and prompt treatment can prevent the majority of cervical cancers. There is a need to establish a structured national screening programme at all levels of healthcare delivery. In order to reach more women in the target age group, screening programme services will be integrated into other sexual and reproductive health services including family planning and HIV/AIDS programmes. As a minimum, screening is recommended for every woman 25-65 years of age at least once in her lifetime.

The national programme will promote different types of screening tests currently available including HPV DNA testing (both HCW-assisted and self-sampling), Cytology (pap smear), Visual Inspection with Acetic Acid (VIA) and Visual Inspection with Lugol's Iodine (VILI), depending on availability and eligibility. HPV DNA testing is strongly recommended. To drive seamless HPV DNA testing, effective sample transport mechanisms such as National Integrated Sample Referral Network (NiSRN) and appropriate laboratory infrastructure must be in place. Existing sample transport mechanisms may be leveraged for HPV DNA testing. The programme will work with laboratory leadership and authorities to optimize underutilized multiplex testing platforms in the country for HPV DNA testing and to integrate HPV DNA testing into laboratory workflows. Where HPV DNA testing or cytology is not available, use of VIA/VILI will

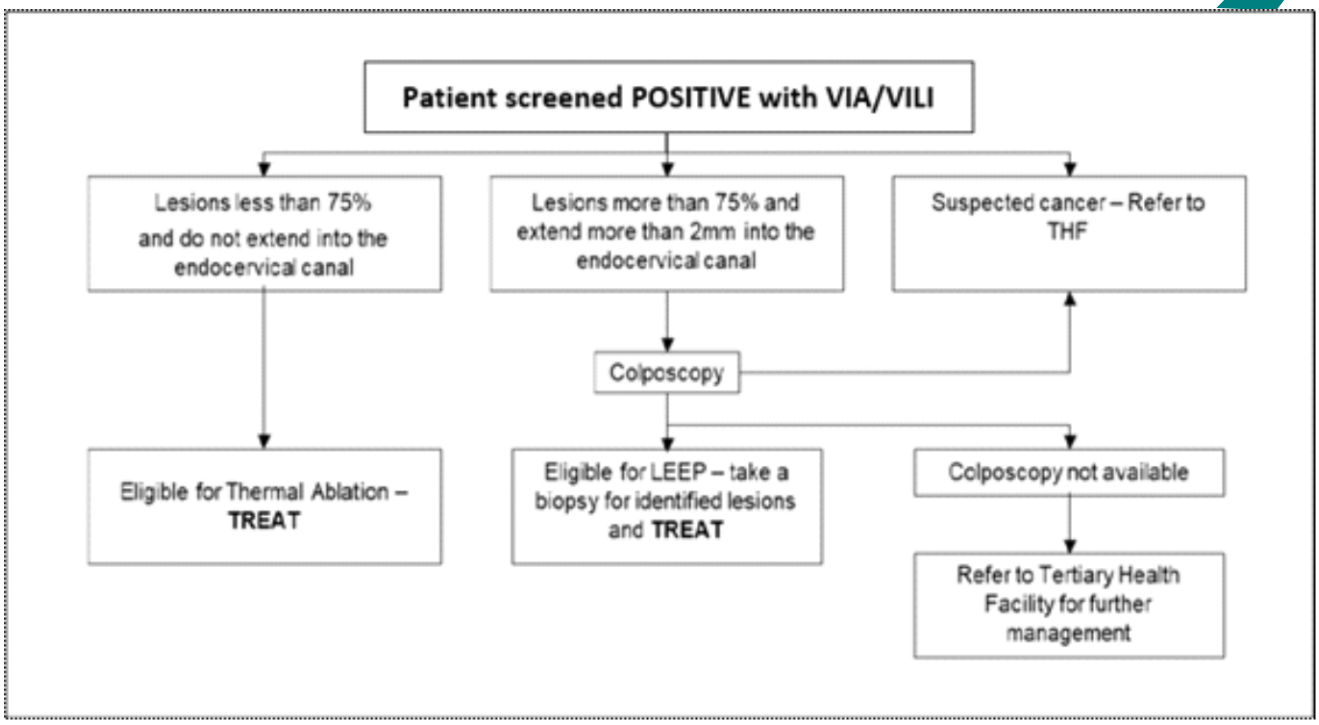
be encouraged at all levels. Due to the subjective nature of VIA, the programme will work towards the adoption of automated visual evaluation (AVE) of cervical images, which has been developed to help improve the accuracy of VIA.

The programme will promote different types of treatments for precancerous lesions including thermal coagulation, cryotherapy and LEEP. With the availability of portable thermal ablation devices and the benefits of using these devices over traditional cryotherapy, the programme strongly recommends the procurement and use of these devices where possible. Thermocoagulation/Cryotherapy should be available at primary (PHC), secondary (SHF) and tertiary facilities (THF). It will be provided by appropriately trained health providers. Colposcopy and LEEP should be made available at secondary care levels and should be done by trained medical officers & gynecologists where available.

If HPV is the primary screening test, following screen-positive tests, clients should undergo triage test with VIA or colposcopy +/- biopsy for histopathologic confirmation of disease prior to appropriate treatment. Where there are no facilities for histopathological diagnosis or triage test is unavailable, a policy of 'screen and treat' may be acceptable. Clients should undergo treatment appropriate to the type of lesion found.



If VIA is the primary screening test, following screen-positive tests, clients should undergo treatment appropriate to the type of lesion found.



HIV-infected women have a higher risk of having persistent HPV infections, and a higher risk of developing precancerous lesions. They are also more likely to develop cervical cancer earlier and die from it sooner. They are advised to follow a different screening schedule because most develop these lesions at a younger age and progress to cancer at a faster rate. HPV DNA tests or cytology screening tests are strongly recommended for women living with HIV. Where not available, VIA/VILI may be done. Thermocoagulation/cryotherapy and LEEP should be used for treatment.

The following screening interval is recommended:

- Among the general population of women:
    - HPV DNA detection in a screen-and-treat approach starting at the age of 30 years with regular screening every 5 to 10 years.
    - HPV DNA detection in a screen, triage and treat approach starting at the age of 30 years with regular screening every 5 to 10 years.
    - For women who screen HPV positive but have a negative triage result, rescreening should take place after 2 years.
- Among women living with HIV:
    - HPV DNA detection in a screen, triage and treat approach starting at the age of 25 years with regular screening every 3 to 5 years.
    - For women who screen HPV positive but have a negative triage result, rescreening should take place after 1 year.
- Among women who test negative with VIA or cytology, the interval for re-screening should be three to five years.
    - For women treated with ablation or LLETZ without histopathology results available, or if treated based on histopathology of CIN2/3 or AIS, a follow-up test should be conducted at 12 months

4.3 Establishing and Maintaining a Treatment Referral Network

A two-way referral protocol and functioning communication system will be established at national and state levels to ensure an effective referral system and overcome the challenge faced in the provision of chemotherapy and radiotherapy in prevention. The programme will work to strengthen linkages between primary, secondary and tertiary facilities to enable timely access and continuity of care between health facilities, laboratories, diagnostic and referral treatment centres for cervical cancer, and reduce loss to follow-up

4.4 Palliative Care

Government will continue to expand access to palliative care to ensure that patients with life-threatening cervical cancer are provided with relief from pain and suffering (both physical and psychological). Teams of health care providers including doctors, nurses, other specialists, and community members will be trained to provide palliative care services in each state.

4.5 Demand Generation

Nationwide awareness campaigns will be led by high-level policymakers at the national and state levels. Local Government Areas and the private sector including pharmaceutical companies and hospitals are expected to collaborate to ensure that individuals, families and communities get appropriate information, education and communication to increase community awareness about cervical cancer prevention and control. To raise disease awareness and drive uptake of HPV vaccine and cervical cancer screening services, the program strongly recommends community-based demand generation strategies including engagement of community leaders, religious and traditional leaders, and collaboration with established Civil Society Organizations (CSOs), leveraging their trust-based relationships with the community to reiterate the importance of the HPV vaccine and cervical cancer screening.

4.6 Monitoring and Evaluation

Monitoring and evaluation of the progress of the objectives and targets set for the prevention and control of cervical cancer in Nigeria will be strengthened to ensure that quality data are available for planning and monitoring of progress. The programme strongly recommends the use of the national cervical cancer data tools across health facilities implementing screening and treatment. The programme will also work to ensure cervical cancer indicators are captured in the national health management information systems (NHMIS) tools and mechanisms, and recommend the inclusion of cervical cancer indicators into State and community health management information systems. Population-based cancer registries and hospital-based registries should be operationalized. Together, these tools will be utilized for cervical cancer data collection and analysis. Each level of government and supporting stakeholders will play crucial roles in ensuring the availability of essential data elements. Essential impact indicators such as incidence and mortality of cervical cancer will be collected from sentinel facilities and cancer registries to monitor long-term trends in disease incidence and mortality rate. This will enable the country to assess the long-term impact of both HPV vaccination and cervical cancer screening and treatment programmes.

4.7 Capacity Building

Healthcare providers at all levels will be trained to competency in appropriate skills for prevention, diagnosis, treatment and palliative care in the control of cervical cancer. Capacity for HPV vaccine cold chain maintenance and logistics, HPV testing, cytology, colposcopy, thermocoagulation, LEEP, LLETZ and visual inspection will be expanded to cover the majority of different levels of health care facilities in the

country as appropriate. Scale-up training and retraining of gynaecologists, oncologists, histopathologists, laboratory scientists, nurses, palliative care specialists and other allied healthcare providers is recommended for effective multidisciplinary team management.

4.8 Mobilization of Resources

Governments at all levels should have a budget line dedicated to cervical cancer control and should embark on an extensive resource mobilization drive to ensure that funds are available for the implementation of the strategy. Resource mobilization will be data-driven and is expected to be supported by stakeholders at international, regional, national, state, local government, and community levels. There should be advocacy at the National and State Houses of Assembly to provide legislative backing.

4.9 Research

Governments at all levels and stakeholders should support and provide an enabling environment for the conduct of national-level research that addresses important national questions on cervical cancer control.

Further reviews of the national strategic plan should be based on evidence generated in-country and supported by global evidence.

At least 5% of the budget for cervical cancer control should be devoted to research to address operational gaps in the implementation of the national cervical cancer control programme.

5.0 ROAD MAP FOR CERVICAL CANCER PREVENTION AND CONTROL IN NIGERIA

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
To immunize 50% of girls 9- 14 years with HPV vaccine by 2027	2023: 5% 2024: 15% 2025: 25% 2026: 40% 2027: 50%	Secure vaccines and establish vaccination program to deliver HPV vaccines to girls between the ages of 9 -14: 1. Health facility-based immunization programmes 2. School-based vaccination programme 3. HPV house-to-house vaccination campaigns	HPV immunization coverage rate	Create partnerships with and undertake awareness creation for the use of HPV vaccine through the use of targeted IEC material and other social mobilization platforms (traditional rulers, social media, CBOs, FBOs, NGOs, private sector) Work with the NPHCDA to establish and institute HPV service delivery structure (school-based, House-to-House)	Percentage of the target population that is aware of the use of HPV vaccines	1. Annual records 2. Reports of Surveys	NICRAT/ FMOH/NPH CDA/ NGOs/ Media/SMOH /MOI/MWA/ NOA and other MDAs (such as NYSC) including ALGON and Youths)

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
				Partner with global organizations and other critical actors to work with manufacturers to improve access to HPV vaccine Conduct advocacy to Nigerian technical advisory group on acceptance and use of HPV vaccine in Nigeria	Improved access to HPV vaccines from baseline values		FMOH/NICRAT/NPHCDA/SMOH/NGOs/CHAI/ other DPs, NIMRD, NIPRD,PGMANM (Pharmaceutical Manufacturers Group of Manufacturers Association of Nigeria)
				Integrate HPV vaccination into the routine immunization schedule and enlist the support of MDAs (education and women affairs and interior) to Integrate schools and women groups and the force into the immunization programmes.	Number of states in which HPV vaccines has been introduced Percentage of the target population in each state vaccinated		FMOH, State & Fed MDAs (Education and Women Affairs), LGA Health Depts, PECA,NICRAT /NPHCDA
				Training of health care workers on HPV vaccine delivery, handling and vaccination	% Planned HCW that have received training on HPV		FMOH, NICRAT, State & Fed MDAs (Health), NPHCDA, LGA Health Depts, NCS and/other NGOs

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
				Secure donations and support to expand cold chain and delivery systems Strengthening cold chain and delivery systems for HPV	% of LGA with cold chain equipment. Average breakdown time for CCE % of HFs with stock-out of HPV vaccines		FMOH, NICRAT/NPHCDA /UNICEF/ Private sector/ other NGOs
				Sensitize and vaccinate girls in schools. Organize outreach sessions to vaccinate girls who do not attend schools Partner with communication and mobile telephone companies to rebroadcast messages on cervical cancer vaccination.	% of planned outreach sessions conducted % of target population reached with broadcast messages		FMOH, State and Fed. MDAs in Education, Information, Communication & Health /NPHCDA /WHO /CSOs / Telecom companies

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
		Sexual and reproductive health education of girls and boys	% Of girls and boys with increased knowledge of HPV (as defined by a pre and post-test)	Partner with the ministry of education to integrate awareness of HPV and cervical cancer prevention in the school curriculum and programme	% of planned education centers using revised curriculum		FMOH, NICRAT, other Fed & State. MDAs (Education and Health)/ CSOs/ NGOs
				Sensitize parents and community leaders on importance of HPV Vaccination Develop and disseminate health education material to communities and schools	% of states in which health education materials have been distributed		Fed & State. MDAs/NPHCDA/MOE/CSO
		Mobilize resources from public and private sector donors, to secure HPV vaccine procurement Develop capacity for in-country production of vaccine	% Increase in funding for HPV vaccine and related programs % Of HPV vaccines obtained from Gavi	Advocacy to the legislature, state governments, private sector, etc. for a dedicated budget line and increased funding for HPV vaccines and related programs	% increase in funding from government in appropriation		FMOH, NICRAT/CSOs/PECA/SMOH/NPHCDA

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
				Create a basket fund for HPV vaccine procurement and programs	Implementation of the Basket fund		FMOH, NICRAT/ NGOs / CSOs/PECA/SMOH/ NPHCDA, IPs
				Partner with NPHCDA and Gavi to provide HPV vaccine at access rate Developing capacity for local vaccine production	Increased access to the vaccine		CSOs/ NGOs /PECA/NICRAT/ NPHCDA
		Develop M&E systems to track HPV vaccine delivery, HPV incidence and prevalence		Partner with the DHPRS team of the FMOH to include HPV incidence and immunization tracking into the NHMIS tool	HPV indicators included in the NHMIS		FMOH/ NICRAT/NPHCDA/IHVN/CSOs /NGOs / CHAI/IPs
				Produce biannual survey reports and undertake verification of HPV related data	number of surveys conducted		FMOH/NICRAT/NPHCDA/IHVN/CSOs / NCS AND OTHER NGOs / CHAI/IPs

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
To screen 50% eligible women aged 25 to 49 using high-performance tests at least twice in their lifetime by 2027 **Note:** **WLHIV (25-49)** **General population (30-49)**	2023: 5% 2024:15% 2025:25% 2026:40% 2027:50%	Provide fixed and mobile screening services at all levels with emphasis on PHCs:	% of eligible women screened with high performance precision cervical screening test Number of PHCs providing screening services	Baseline survey	Baseline survey conducted	Survey report	
				Establish a structured national screening programme at all levels of healthcare delivery	Formal launch of the national programme	Program report	
				Maintain Register for all screened persons	Establishment of Population/Hospital based registries	Number of population/ Hospital based registries	
				Conduct sensitization and awareness campaign	Sensitization and awareness campaign conducted	Program report	

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
				Update screening guidelines, SOPs and job aids	Screening guidelines, SOPs and job aids updated	Facility registers	
				Procurement and maintenance of equipment and supplies for screening	% of equipment procured Number of maintenance activities completed on schedule	Equipment registers	
				Training and retention of trained health workers	Number of health facilities with trained healthcare workers on cervical cancer screening	Training Reports Certification where needed	
				Optimization of centralized and POC/near POC labs for HPV testing	Number of labs optimised/conducting HPV testing	Lab registers / LIMS	
				Establish mobile outreach teams from health facilities and other community based strategies for reaching women	Number of healthcare facilities with mobile outreach teams Number of community health workers trained to provide cervical cancer screening Number of communities with access to cervical cancer screening within the community	Outreach report	

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
and effective treatment of precancerous lesions for 100% detected cases by 2027	2024: 30% 2025: 60/% 2026: 90% 27: 100%	equipment and treatment for precancerous lesions • 1 Apex PHC with thermal ablation device per political ward • 1 LEEP device in a referral general hospital per LGA	eligible for Thermocoagulation treated during the same visit Number of facilities that provide treatment for precancerous lesions			needed	SMOH Development Partners
				Develop/update treatment guidelines and manuals	Treatment guidelines created/updated and disseminated by 2025	Training Reports Quality of Care Assessments	FMOH/NICRAT SMOH Development Partners
				Procurement of equipment, installation, maintenance, and supply of materials	% of Planned equipment procured % of functional equipment	Signed service order forms Supportive Supervisory Visits	FMOH/NICRAT SMOH CMD Development Partners
To establish an effective two-way	Number of states with established referral	Establish an effective two-way referral system	% of screen-positive women with lesions not eligible for	Conduct service availability mapping Deployment of	Service availability mapping conducted	Monthly reports	FMOH/NICRAT, NPHCDA

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
referral pathway across all levels of care	pathways for management of cervical cancer		thermocoagulation referred for colposcopy who attend referral visit % of screen-positive women with suspected cancer referred who attend referral visit % of patients that are continually tracked	technology such as GIS(Geographical information system) for ease of patient tracking from point of referral to point of care Reminders on patient appointment via SMS			NATIONAL SPACE RESEARCH AND DEVELOPMENT AGENCY NIGCOMSAT, NCC
				Develop referral directory	Referral directory developed		
				Develop referral guidelines and SOP	Referral guidelines and SOP created		

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
				Develop an appointment system using appointment diaries etc.	Appointment system created		
				Identification and training of referral focal person	List of referral focal persons available Training of referral focal persons		
To ensure that all referred cases of cancerous lesions have access to prompt diagnosis and that is initiated within 1	60% of cancer of cervix patients with management initiated within 1 week and active treatment within 4 - 6 weeks	Provision of necessary equipment and materials for diagnosis and treatment of cancerous lesions Ensure improved referral pathway.	% of screen-positive women with suspected cancer referred who attend referral visit %of confirmed positive women who receive treatment	Provision of standard equipment (Radiology, CT, adequately equipped operating theatre)	Number and type of equipment provided	% of patients with cervical cancer receiving treatment within two weeks of presentation	Cancer Registry, HIMS, NPHCDA, NICRAT, Professional Bodies
				Innovative training and retraining of relevant staff	Number of relevant Staff trained	Training register and knowledge recall	FMOH/NICRAT, Professional

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
week presentation and active treatment within 4 - 6 weeks		Patient Navigation to improve referrals and reduce dropout rate.					bodies, Partners
				Provision of additional Facilities for diagnostic & treatment (histopathology, surgery, Chemo, Radiotherapy & Palliative)	Number of additional diagnosis and treatment facilities	No Installed and in Use	FMOH/NICRAT, FMOF, Ministry of Defense, NNRA, NAEC
				Provision and dissemination of drug	Quantity of procured drugs	Quantity of procured drugs dispensed	NAFDAC, Professional bodies, FMOH, Partners
				Creation and dissemination of treatment guidelines and inclusion of MDT	Disseminated Treatment guideline No of practitioners utilizing guidelines	Adoption of treatment guidelines as SOPs. Functional MDTs	FMOH/NICRAT, Professional bodies and Partners

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
				Encourage patients to be in support groups, clinical trials. Shared decision making to include relatives and patients	No of patients in support groups and clinical trials No of patients whose relatives are involved in decision making	Functional patient Support groups (Physical/virtual).	
To improve access to palliative care in line with palliative care policy	Number of Tertiary facilities offering palliative care 2023 : 50% 2024: 80% 2025: 100% 2026: 100%	Ensure the availability of palliative care units offering functional palliative care services Awareness/education of patients on the purpose/benefits	Number of tertiary facilities with functional palliative care units	Implement/update a palliative care strategy	Palliative care strategy implemented		
				Increase the number of palliative care units	Number of palliative care units established		
				Expand access to palliative care drugs including oral morphine	% of cervical cancer patients that have access to pain control		FMOH/NICRAT

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
	2027: 100%	of palliative care services Measures to pre-empt addiction					
To ensure availability of quality data on cervical cancer programmes	Number of states contributing to the annual national cervical cancer report 2023: 100% 2024: 100% 2025: 100% 2026: 100% 2027: 100%	Establish tracking, follow up and feedback mechanism Harmonization/standardization of all data collection tools for cervical cancer to foster easier utilization	Establishment of a tracking system	Baseline data collection Conduct tracking and follow up using paper tools, e-health technology and community resource persons	Establishment of a tracking system	DHIS Cervical Cancer Dashboard	FMoH, SMoH, NPHCDA, HIMS, CSOs, NSCR
				Digitization of data tools	Establishment of digitized data collection tools and digitized mechanism for data collection		
				Facility level dedicated staff for cervical cancer	Dedicated cervical cancer data management focal		

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
				data management Capacity development for staff that manage cancer registry data (entry, validation and transmission)	person in each facility		
				Establish data handshake between CanReg and DHIS2	Established handshake between CanReg and DHIS2		FMOH/NICRAT
To increase the number of National level research that identifies and address knowledge gaps in	Number of national level research conducted per annum..	Call for, identify, evaluate and fund proposals that best address the identified knowledge gaps	% of research funded	Call for proposals that best address the identified knowledge gaps Identify and evaluate proposals that best address the identified knowledge gaps	Number of published articles on cervical cancer control over the 5-year period	Number of identified gaps and research to address the gaps	FMOH/NICRAT, SMoH, NGOs, MDAs

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
cervical cancer control				fund researches that best address the identified knowledge gaps			
To ensure adequate and sustainable funding for cervical cancer programmes	% Increase in the funding available for cervical cancer programme 2023: 15% 2024: 30% 2025: 50% 2026: 80% 2027: 100% % of total funding need that is met • The	Costing and resource mapping of cervical cancer programme • Otherwise assessing the available fund can be used for. • Importantly sustain source of funds. • Percentage contribution from government	Funding gap determined and addressed • Conduct a baseline survey to ascertain the currently available funding by all stakeholders, being supervised or coordinated by FMOH essentially to map out strategies to address the financial deficit.	Conduct comprehensive costing of resources required for the procurement of cervical cancer-specific drugs, consumables, devices and programme costs	Costing of required resources completed • Percentage of required funding available for cervical cancer programmes • Increased screening on yearly assessment • Increased survival rate • Increased number of equipment	Quarterly audit report or Annual audit report/Annual budget performance report.	All Stakeholders (NICRAT,//NPHCDA/NGO/DONORS/SMOH/MOF/MWA/NHIA/Philanthropists,with supervision from NICRAT/

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
	Government at all levels ● Partners (NGO's, Pharmaceuticals, Philanthropists e.g FLAG) ● Grants from partners and other funders e.g NIH, Global Grants Program Global Grants Program (d4hglobalgrantsprogram.org)	at all levels. (Counterparts funding possibly backed by law through legislation). CSO ● A budget committee that comprises different partners to discuss and plan funding strategies at regular intervals. They will be responsible for costing & resource	- A multi-faceted team of experts should be formed to comprehensively identify needs for effective costing. (Considering more importantly - Awareness - Screening/Testing - Medications/Kit - Advocacy - Testing & Equipment - Possible				

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
		mapping. This committee will be supervised by the FMOH. ● Harmonization with other NGOs /similar programs to maximize funding sources and uptake of medications, equipment and opportunities. ● Understudy existing successful systems /	financial Support for the treatment of cervical cancer. - Research & Development - Personnel - Training/Capacity Development - Monitoring & Evaluation				

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
		programs in other countries or home programs in order to learn how the copied programs are sustained. • Collaboration with other government agencies for optimal performance and uptake at all levels e.g Customs, Ministry of Women Affairs,					

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
		Ministry of Finance etc • Yearly audit of finances and funding in order to prevent waste and reinvent excess to areas of need. • Integration of services to HIV and other programs • repurpose some of the COVID19 /other facilities. • Stratify					

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
		persons getting screened based on income to enhance cost effectiveness					
		Develop and implement sustainable financing strategy	% of funding from Government and other donors	Conduct a landscape analysis of available resources for cervical cancer programme	Resource mapping completed		
		Conduct resource mobilization	Resources mobilized	Constitute advocacy (Include CSR) team and develop tool	advocacy tool developed		
				Conduct advocacy visits	advocacy visits conducted		

Objective	Milestone	Strategies	Outcome Indicators	Activities	Indicators	Verification method	Responsible
				Develop sustainable financing strategy including the use of basket funds etc.	strategy developed		
				Implement developed strategy	strategy implemented		

6.0 MONITORING AND EVALUATION FRAMEWORK

An important component of this strategic plan is the monitoring and evaluation of progress of the objectives and targets set for prevention and control of cancer of the cervix in Nigeria. The M&E structure will be based on the following core principles:

- Provision of data that meets the reporting requirements of the relevant stakeholders
- Utilization of national tools and methods for data collection to ensure timeliness of reporting
- Independent assessments of the M&E process, to reduce bias and provide an impartial appraisal
- Clearly defined roles and responsibilities for data collection, analysis, and usage to ensure accountability
- Data dissemination process that allows all stakeholders to easily access data and make decisions based on the data.

6.1 The Monitoring and Evaluation process

Essential impact indicators such as incidence and mortality of cervical cancer will be collected from sentinel facilities and cancer registries to monitor long-term trends in disease incidence and mortality rate. This will enable the country to assess the long-term impact of both HPV vaccination and cervical cancer screening and treatment programmes.

Step 1: Develop a log frame that outlines key objectives, activities, outputs and outcomes for the
year: Log frame development is the first step in the performance management process; it will outline key objectives, activities, outputs, and outcomes.

Step 2: Determine KPIs: Once the log frame has been completed, key performance indicators will be set for all objectives, activities, outputs, and outcomes. Metrics should be measurable, specific, and relevant to what is being measured.

Step 3: Set baselines and targets for all indicators: Once metrics have been determined, baselines and targets are to be set. Baselines should equate to values from the last month of the previous calendar year, while targets should be ambitious but take into account baseline values.

Step 4: Develop a tracking sheet and dashboard: Once baselines and targets have been determined, the M & E group will create data tracking sheets and dashboards that will contain information such as definition of data, responsible persons for data collection, etc.

Step 5: Ongoing data collection: Data collection should be done monthly using the national NHMIS
tools and reported through the existing national framework. Data from sentinel sites and registries will be forwarded directly to the National Cancer Control Programme at the Federal Ministry of Health. Data handshake should be established between CanReg and DHIS2

Step 6: Conduct supervisory visits: Supervisory visits should be carried out at all levels of Government. Reports of supervisory visits should inform planning at all levels with adequate feedback given to all facilities and institutions visited in the course of supervision.

Step 7: Conduct performance reviews: Discussions on performance based on tracked metrics across objectives should be institutionalized and embedded into cancer prevention TWG quarterly meetings. These present an opportunity to discuss indicators that have seen improvements and those that have not; clear action items should be identified during these meetings and deadlines should be set for completion.

6.2 Roles and Responsibilities for M&E

ENTITY	RESPONSIBILITY
Community	**Clients participate by providing information to providers based on previous screening or treatment history, demographics and contact information**
Facility Staff: Providers (Doctors, Nurses, CHEWs etc.), Data Entry Clerks, and Charge Nurses	• Providers are the primary data collectors, completing the source document (Screening form, HPV test request and results form, Referral card) during the client visit • Data entry clerks help with transcription from the completed client form to the screening and treatment register; and the calculation of indicators on the NHMIS monthly summary form • Charge Nurses should meet with providers to review and use data for decision-making at the facility level. • Discuss challenges related to the programme highlighted by the routine service delivery statistics
Local government staff	• Conduct supportive supervisory visits to each primary health care facility monthly • Helps facility providers understand the data collected and its implications • Completes NHMIS Monthly Summary Forms (in some cases, helps and trains facility staff to complete NHMIS MSF)
State Staff: Supervisors and Staff	• Supervise the local governments on a quarterly basis • Ensures that data are checked and verified through periodic data quality assessments or audits, ideally carried out during supportive supervision visits. • Aggregates facility-level data captured on NHMIS Monthly Summary Forms into DHIS 2 (some facility staff may also have this capacity) for data visualization and use • Works with national government to develop State and facility level targets related to Screening Rate and Coverage based on trends and programme direction
National Staff	• Conduct 6 monthly supervisions of the states • Uses aggregate data from facilities and State level to guide overall cervical cancer prevention programming • Uses data to inform budget allocations • Conduct performance reviews against key performance indicators • Identifies lessons learned and makes strategic recommendations and decisions, ensuring that feedback on the data flows back to State supervisors • Works with subnational staff to develop State and facility-level targets related to Screening Rate and Coverage based on trends and programme direction

6.3 Log frame

Key programme indicators for primary, secondary and tertiary prevention within the cervical cancer prevention and control approach are vaccination coverage, by age, number of doses; screening coverage; treatment rate; survival rates and opioid access for women with advanced cervical cancer.

Baseline metrics for the national and state cervical cancer prevention and control programmes would be collected to ascertain the status at inception of implementation of this strategy. This will form the basis for measurement of progress towards the set targets by 2027.

Objective	Indicator	Baseline		Targets derived from milestones						Verification
		Result	Year	Source	2023	2024	2025	2026	2027	
To immunize 50% of girls 9-14 years with HPV vaccine by 2027	Percentage of eligible girls in the target population who have received the two recommended doses (fully vaccinated in the HPV vaccination schedule)	NA	2021	-	5%	15%	25%	40%	50%	Annual Records Reports of Surveys
To screen 50% eligible women aged 25 -65 using high performance tests at least twice in their lifetime by 2027	% of eligible women screened with cervical screening test in the last 12 month period	NA	2021	-	5%	15%	25%	40%	50%	Program report Facility Records

Objective	Indicator	Baseline		Targets derived from milestones						Verification
		Result	Year	Source	2023	2024	2025	2026	2027	
To provide adequate and effective treatment of precancerous lesions for 100% detected cases	% of screen-positive women with lesions eligible for treatment treated during the same visit	NA	2021	-	100%	100 %	100%	100%	100%	Program report
To establish an effective two-way referral pathway across all levels of care	Proportion of states with documented referral pathways for management of cervical cancer established	0	2021	FMoH	100%	100 %	100%	100%	100%	Program report
To ensure that all referred cases of suspicious cancer lesions have access to prompt diagnosis and that	% of cancer of cervix patients with management initiated within 1 week	NA	2021	-	50%	80%	100%	100%	100%	Program report Facility records

Objective	Indicator	Baseline		Targets derived from milestones						Verification
		Result	Year	Source	2023	2024	2025	2026	2027	
management is initiated within one week of presentation										
To improve access to palliative care in line with palliative care policy	Number of Tertiary facilities offering palliative care	20%	2021	FMOH	50%	80%	100%	100%	100%	Facility records
To ensure availability of quality data on cervical cancer programmes	Proportion of states contributing to the annual national cancer of the cervix programme report	0%	2021	FMOH	50%	80%	100%	100%	100%	National Programme Annual Report
To increase the number of National level research that identify and address knowledge	Number of national level research conducted per annum..									

Objective	Indicator	Baseline		Targets derived from milestones						Verification
		Result	Year	Source	2023	2024	2025	2026	2027	
gaps in cervical cancer control										
Ensure that there is adequate and sustainable funding for cervical cancer programs	% increase in the funding available for cancer of the cervix	NA	2021	-	30%	40%	60%	80%	100%	Budgetary allocation Programme Report

INDICATOR	METHOD OF MEASUREMENT
Percentage of eligible girls in the target population who have received the two recommended doses (fully vaccinated in the HPV vaccination schedule).	Numerator: Number of eligible girls receiving 2 doses of HPV vaccination. Denominator: Number of girls in the population eligible for HPV vaccination (school and non-schoolgirls) Method of measurement: Number of eligible girls receiving 2 doses of HPV vaccination/ (total number of girls in the population eligible for HPV vaccination) x 100 Measurement frequency: Semester, Annually. M&E framework: Outcome Data sources: National Cancer Registry data.
Percentage of women in the target population aged 25-49 years who have been screened at least once	Numerator: Number of women aged between 25-49 years screened for cervical precancerous lesion in health facilities (cumulative). Denominator: Number of women in the population who are 25-49 years of age. Method of measurement: Number of target women aged 25-49 years screened for cervical precancerous lesion / (total number of women in the population who are 25-49 years of age) x 100. Measurement frequency: Annually M&E framework: Outcome

INDICATOR	METHOD OF MEASUREMENT
	Data sources: National Cancer Registry data.
Percentage of women in the target population aged 25-60 years who have been screened at least once	Numerator: Number of women aged 25-60 screened at least once in the last 3-5 years for WLHIV and 5-10 years for general population Denominator: Number of women in the population who are 25-60 years of age and eligible for screening Method of measurement: Number of women aged 25-60 screened at least once in the last 3-5 years for WLHIV and 5-10 years for general population/ (total number of women in the population who are 25-60 years of age and eligible for screening) x 100. Measurement frequency: Annually M&E framework: Outcome Data sources: National Cancer Registry data.

INDICATOR	METHOD OF MEASUREMENT
Percentage of women 25-60 years who have been screened for the first time with a cervical screening test in the 12-month period.	Numerator: Number of women aged between 25-60 years screened for cervical precancerous lesion for the first time in the 12- month period in health facilities (cumulative). Denominator: Number of women in the population who are 25-60 years of age. Method of measurement: Number of women aged between 25-60 years screened for cervical precancerous lesion for the first time in the 12- month period in health facilities / (total number of women in the population who are 25-60 years of age) x 100 Measurement frequency: Annually M&E framework: Output Data sources: National Cancer Registry data.
Percentage of screened women aged 25-49 years with a positive result in the previous 12-month period.	Numerator: Number of screened women aged 25-49 years with a positive result in the previous 12-month period. Denominator: Number of screened women aged 25-49 years in the previous 12- month period. Method of measurement: Number of screened women aged 25-49 years with a positive result in the previous 12-month period / (Number of screened women aged 25-49 years in the previous 12-month period x 100 Measurement frequency: Annually M&E framework: Output

INDICATOR	METHOD OF MEASUREMENT
	Data sources: National Cancer Registry data
Percentage of screened women aged 25-60 years with a positive result in the previous 12-month period.	Numerator: Number of screened women aged 25-60 years with a positive result in the previous 12-month period. Denominator: Number of screened women aged 25-60 years in the previous 12- month period. Method of measurement: Number of screened women aged 25-60 years with a positive result in the previous 12-month period / (Number of screened women aged 25-60 years in the previous 12-month period x 100 Measurement frequency: Annually M&E framework: Output Data sources: National Cancer Registry data

INDICATOR	METHOD OF MEASUREMENT
Percentage of screened-positive women completing appropriate treatment for cervical precancerous lesion in the previous 12-month period	Numerator: Number of screened-positive women completing appropriate treatment for cervical precancerous lesion in the previous 12-month period. Denominator: Number of screened women aged 25-60 years with a positive result in the previous 12-month period. Method of measurement: Number of screen- positive women completing appropriate treatment for cervical precancerous lesion in the previous 12-month period/ (total number of screened women aged 25-60 years with a positive result in the previous 12-month period) x 100 Measurement frequency: Annually M&E framework: Outcome Data sources: National Cancer Registry data
Percentage of women aged 25-60 screened who are HIV positive	Numerator: Number of screened women aged 25-60 who are HIV positive Denominator: Number of women aged 25-60 years who are HIV positive. Method of measurement: Number of screened women aged 25-60 who are HIV positive/ (total number of women aged 25-60 years who are HIV positive) x 100 Measurement frequency: Annually M&E framework: Outcome Data sources: National Cancer Registry data

INDICATOR	METHOD OF MEASUREMENT
Percentage of HIV positive women aged 25-60 screened with positive result	Numerator: Number of HIV positive women aged 25-60 screened with positive result Denominator: Number of HIV positive women aged 25- 60 years who are screened. Method of measurement: Number of HIV positive women aged 25-60 screened with positive result/ (total number of screened women aged 25-60 years who are HIV positive) x 100 Measurement frequency: Annually M&E framework: Outcome Data sources: National Cancer Registry data
No. of facilities conducting cervical cancer screening	Numerator: Number of facilities conducting cervical cancer screening Denominator: Number of facilities available Method of measurement: Number of facilities conducting cervical cancer screening / (total number of facilities) x 100 Measurement frequency: Annually M&E framework: Outcome Data sources: National Cancer Registry data

INDICATOR	METHOD OF MEASUREMENT
No. of women aged 25-60 years screened on cervical cancer per facility	Numerator: Number of screened women aged 25-60 years on cervical cancer per facility Denominator: Number of screened women aged 25-60 years on cervical cancer Method of measurement: Number of screened women aged 25-60 years on cervical cancer per facility/ (total number of screened women aged 25-60 years on cervical cancer) x 100 Measurement frequency: Annually M&E framework: Outcome Data sources: National Cancer Registry data

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