# NATIONAL INSTITUTE FOR CANCER RESEARCH AND TREATMENT

# NATIONAL CANCER RESEARCH AGENDA

## 2024-2028

# Foreword

Dear Colleagues and Stakeholders,

I am pleased to present the National Cancer Research Agenda of our institute, a comprehensive document outlining our strategic priorities for the next five years in the field of cancer research and treatment. This agenda has been developed by the National Institute for Cancer Research and Treatment (NICRAT), with inputs from a wide range of experts and stakeholders, and is intended to guide our efforts in addressing the challenges posed by cancer and improving outcomes for patients across the country.

Cancer remains a major public health challenge, affecting millions of people worldwide and causing immense suffering and loss. In Nigeria, the burden of cancer is increasing, and it is crucial that we take concerted action to tackle this disease head-on. The National Cancer Research Agenda of NICRAT serves as a roadmap for our collective efforts, bringing together the best minds in the field and harnessing the power of research to make a meaningful difference in the lives of cancer patients.

The agenda is centred around four key pillars: prevention and early detection, diagnosis and treatment, support and care, and research and innovation. Through research in these areas, we aim to develop effective preventive strategies, improve early detection methods, enhance treatment options, and provide better support and care for cancer patients and survivors. Additionally, we emphasize the need for a strong focus on research and innovation in the areas of cancer cell biology and genomics, implementation, and behavioural science, which will be the driving force behind the development of new and more effective policies on cancer prevention and therapies.

To achieve these goals, collaboration and partnership are crucial. The National Cancer Research Agenda encourages active engagement of diverse stakeholders, including researchers, clinicians, policymakers, patient advocates, industry partners, private sector, and the wider community. By working together, we can amplify our impact and translate research findings into tangible improvements in policy formulation, cancer care, and outcomes.

I would like to express my gratitude to all those who have contributed to the development of this agenda. Your expertise, insights, and commitment have been invaluable in shaping our strategic priorities and ensuring that they align with the needs of our nation. I also extend my appreciation to the NICRAT team for their tireless efforts in bringing this agenda to fruition.

As we embark on this journey, I encourage all of you to embrace the National Cancer Research Agenda as a guiding framework and to join us in our mission to reduce the burden of cancer and improve the lives of those affected by this devastating disease. Together, we can make a difference and transform the landscape of cancer research and treatment in Nigeria.
Thank you for your unwavering support and dedication.

**Prof Usman Malami Aliyu** MBBS, MPH, FWACS
Director General

# Acknowledgement

It is with great honour that I write to appreciate all the stakeholders and partners of the National Institute for Cancer Research and treatment (NICRAT) who made useful contributions in the development of this National Cancer research Agenda. This document is intended to give a direction to all cancer researchers and grant donors on Nigeria Cancer research Priorities and needs. it is my hope that it will be a very useful guide in planning research that can be translated into policies and practice.

The Institute owes millions of gratitude to the Honourable Minister of Health and Social Welfare, Prof Mohammed Ali Pate and the Honourable Minister of State for Health and Social Welfare Dr Tunji Alausa for their support and commitment towards improving cancer care and research in the country. The contribution of Prof Folakemi Odedina and her team at Mayo clinic, USA is unprecedented and cannot be ignored. I also wish to acknowledge the contributions made to this document by Prof. Echezona Ezeanolue of Center for Translational Research , UNN Enugu and Dr Nwamaka Lasebikan, the Director of Oncology center, UNTH Enugu and the President, Association of Radiation and Clinical Oncologists of Nigeria (ARCON).

On the home front, the unalloyed fatherly support of the Director General of NICRAT, Prof Usman Malami Aliyu towards the development and finalization of this national cancer research Agenda cannot be ignored. I wish to thank my colleagues, Prof Sani Malami and Dr Mohammed Usman Waziri and other staff of NICRAT for their contributions towards the development of this document.

**Dr Uchechukwu Emmanuel Nwokwu** MBBS, MHM, FWACP
Director, Clinical Services

# Table of Content

# Chapter 1:

# Introduction

The National Institute for Cancer Research and Treatment (NICRAT) was established by the Federal Government to provide National leadership in Cancer Research, Treatment and Control in Nigeria. The NICRAT Establishment Act 2017 also empowers the Institute to among others: Guide scientific improvements to cancer prevention, treatment and care; Coordinate and liaise with the wide range of groups and health care providers with interest in cancer.

The NICRAT Act of 2017 recognized the need for a national commitment to making progress against cancer and dedicated the federal government to developing a large-scale, world-class cancer research enterprise. With the establishment of NICRAT, unprecedented scientific opportunities, passion, and commitment from diverse aspects of our society, it is pertinent to provide a national roadmap, ambitious research focus and approaches essential to ending cancer in Nigeria.

The focus of the National Cancer research Agenda is to provide pragmatic guidance that would provide insights into the peculiarities of cancer in Nigeria for effective early detection, prompt diagnosis and cutting-edge treatment modalities to achieve a society where every person with cancer lives a full and active life. Various talents and resources represented across the National Cancer ecosystem provides a unique opportunity to outline a plan of action that is broad, far-reaching, and impactful in delivering improved health outcomes for Nigeria. This agenda can only achieve the desired success if every facet of our society and every person contribute to bringing about the changes needed to address cancer research gap in the country.

To achieve its goals, the National Cancer Research Agenda provides **a framework for collaboration** that will provide Nigerians the full benefit of each partner's contribution. The National Cancer Research Agenda has three elements. First, it establishes priority areas of action with specific **goals** that needs to be achieved to prevent cancer, reduce mortality from cancer, and maximize quality of life for people living with cancer.

The second component of the National Cancer Research Agenda is a **set of strategies** associated with each priority area of action, describing essential research directions and implementation activities necessary to maximize benefits. A lot still needs to be done to unravel how cancer develops, how it progresses, and how to prevent and treat it. These can be achieved through research which is the backbone of the National Institute for Cancer Research and Treatment.

The third and perhaps most important component of the National Cancer Research Agenda is a **call to action,** that every local and international organization and individual, support NICRAT to improve scientific evidence in order to end suffering from cancer. While the government agencies and other organizations that have traditionally comprised the "cancer community" will be essential to achieving the priority areas of the National Cancer Research

Agenda, commitment from many partners in the government, non-governmental organizations, academic, and private sectors will to support our collective efforts.

# Chapter 2:

# Priority Areas Of The National Cancer Research Agenda.

To prevent and control in Nigeria, the National Cancer Research Agenda focuses on seven primary Priority Areas with specific goals. The goals are written as aspirational statements, describing an ideal future, and represent opportunities for everyone and every organization to contribute to our continued progress against cancer. Each priority area includes a description of the situation analysis and focused strategies to make progress. We encourage everyone involved in our nation's fight against cancer to reflect upon these priority areas and strategies and to determine where their efforts might be helpful.

**The seven Priority Areas of Action include:**
- **Prevention**
  a. All people and society adopt proven strategies that reduce the risk of cancer.
  b. Disparities in cancer risk factors, incidence, treatment side effects, and mortality are eliminated through equitable access to prevention, screening, treatment, and survivorship care. .
- **Early detection**
  Cancers are detected and treated at early stages, enabling more effective treatment and reducing morbidity and mortality.
- **Diagnosis and treatment**
  Effective diagnosis and treatment, with minimal side effects, is accessible to all people with all cancers, including those with rare cancers, metastatic cancers, and treatment resistant disease.
- **Data management**
  Secure sharing of privacy-protected health data is standard practice throughout research, and researchers share and use available data to achieve rapid progress against cancer.
- **Research Infrastructure**
  There is need to bridge the infrastructural disparity in our cancer care ecosystem to ensure that all cases of cancer has access to optimal care.
- **Motivated workforce**
The cancer care and research workforce is diverse, reflects the communities served, and meets the needs of all people with cancer and those at risk for cancer, ensuring they live longer and healthier lives.
- **Resource mobilization**
  Every person with cancer or at risk for cancer has an opportunity to participate in research or otherwise contribute to the collective knowledge base, and barriers to their participation are eliminated.

# Chapter 3:

# Strategic Framework

## 3.1 CANCER PREVENTION

*Goal: All people and society adopt proven strategies that reduce the risk of cancer.*

**Situation Analysis**

It is estimated that more than half of all cancers can be prevented by applying the knowledge that we have now. This knowledge includes behavioural change to reduce risk from modifiable factors, reducing cancer disparities by closing care gaps, reducing toxic and environmental exposures, receiving available vaccinations against infectious agents known to cause cancer, and implementing other preventive measures such as identifying and removing precancerous lesions.

The modifiable behavioural causes of cancer that remain common in society include tobacco use, alcohol use, obesity, a sedentary lifestyle, and excessive sun exposure. Safe and effective vaccines prevent cancers induced by HPV (human papillomavirus) and hepatitis B. Additionally, inherited genetic factors increase the risk for some cancers, and people with inherited risk syndromes require knowledge of this increased risk and increased monitoring and risk-reducing strategies. By identifying new ways to increase the uptake of proven prevention approaches, especially in medically underserved populations, more research in implementation science and targeted interventions could significantly reduce cancer incidence and death from cancer.

Although most approaches to cancer prevention involve avoidance of risk behaviours, advances in understanding how cancer develops now allow us to identify precancerous abnormalities in cells and tissues that indicate a high risk of transformation to invasive cancer. Cancer interception is the practice of actively treating these high-risk lesions, therefore "intercepting" the process of cancer formation before a malignancy can develop. Currently, effective prevention or interception approaches are unavailable for far too many cancers, particularly those often detected late, such as cancers of the brain, ovaries, and pancreas. There is a great need for more fundamental and clinical research to understand the biology of precancerous in ways that lead to effective prevention or interception methods for all cancers.

NICRAT will mobilize resources to support a broad portfolio of research in cancer prevention, including studies to understand the causes of cancer, characterize the biology of precancerous lesions, and identify and test new prevention approaches, including tobacco cessation, multi-cancer vaccines, and novel prevention agents.

**Cancer Prevention Research Strategies**

| Strategy | Lead organization | Timelines |
|---|---|---|
| 1.Develop, test, and evaluate interventions that incorporate individual, system, and societal-level approaches to promote cancer risk-reducing behaviours for people of all ages | NICRAT | 2024 |
| 2. Develop and implement methods to eliminate tobacco exposure | NICRAT | 2024 |
| 3. Include measures to overcome health disparities at all levels and in all aspects of cancer prevention research | NICRAT | 2024 |
| 4. Increase focus on implementation science research to identify context specific strategies that promote cancer prevention and early detection. | NICRAT | 2024 |
| 5. Identify methods and technologies to eliminate chronic infections that lead to cancer | NICRAT | 2025 |
| 6. Understand and address toxic and environmental exposures that contribute to cancer | NICRAT | 2025 |
| 7. Increase focus on cancer prevention clinical trials, including intervention and interception trials | NICRAT | 2025 |
| 8. Conduct research to identify ways to prevent additional cancers among cancer survivors | NICRAT | 2026 |
| 9. Pursue new vaccines to prevent cancers | NICRAT | 2027 |
| 10.Undertake fundamental and translational research to increase understanding of cancer aetiology and the molecular nature of precancerous lesions and its relationship to genetic, behavioural, and environmental influences, and social determinants of health | NICRAT | 2028 |

## 3.2 EARLY DETECTION

***GOAL: To research into modalities that ensure that Cancers are detected and treated at early stages, enabling more effective treatment, and reducing morbidity and mortality.***

**Situation Analysis**

Early detection of cancer when it is most treatable, can reduce the morbidity and mortality due to such cancers. Currently, only a handful of cancer screening tests are known to reduce the chance that people regularly receiving screening will die from the screened cancer and for which the benefits of screening outweigh the harms. They include:

- mammography for breast cancer
- HPV and Pap tests for cervical cancer
- colonoscopy, sigmoidoscopy, and stool-based tests for colorectal cancer
- low-dose CT scans for lung cancer

Unfortunately, screening rates for some of these successful tests are suboptimal. People's access to and use of screening can be affected by numerous social determinants of health, including where they live, whether they have health insurance, and whether they have access to transportation, among others. In addition, there are no proven screening tests for nearly all other cancers, including those with high mortality, such as pancreatic, ovarian, and brain cancer. As a result, these cancers are often diagnosed based on symptoms, by which time they are often advanced and far more challenging to treat.

Once cancer is detected, it must be successfully treated. Although there have been tremendous advances in treatment, far too many cancers are diagnosed late when treatment is less likely to be effective. A better understanding of the reasons for disparities in rates of early detection of cancer across subpopulations is necessary.

New technologies under development can detect circulating tumour cells, tumour DNA, and other substances in the blood that indicate the presence of many types of cancer. Multicancer detection (MCD) assays developed using these technologies can improve early cancer detection, particularly for cancers without a current screening modality. These assays may also help identify patients at very high risk of being diagnosed with cancer in the future who can benefit from interception therapy. However, the research community must meet several challenges to ensure that these assays translate into decreased cancer mortality without over treating conditions unlikely to cause harm.

NICRAT will support studies and initiatives that promote uptake of proven early detection and screening strategies, develop new cancer screening tests and evaluate tests already being used. The Institute will collaborate with industry partners, and researchers to develop trials to

understand the net benefit of MCD assays. NICRAT will also foster innovation in early -stage cancer detection by supporting technology development by Nigerian small businesses.

**Early Detection Research Strategies**

| Strategy | Lead organization | Timelines |
|---|---|---|
| | | |
| 1. Develop methods to identify precancerous cells and eliminate them while minimizing side effects | NICRAT | 2024 |
| 2. Conduct research to identify and overcome barriers to the treatment of early-stage cancers in communities with disparities, including financial toxicity and policies that limit effective system-level and community-sourced patient navigation services | NICRAT | 2025 |
| 3. Develop new methods to detect cancers, particularly for those cancers where no effective screening tests currently exist | NICRAT | 2026 |
| 4. Develop novel imaging technologies for early cancer detection for use alone or in combination with other tests | NICRAT | 2027 |
| 5. Conduct rigorous clinical trials to capture evidence about the benefits and harms of novel cancer detection tests | NICRAT | 2028 |

## 3.3 DIAGNOSIS AND TREATMENT

*Goal: To promote access to effective treatment, with minimal side effects, to all people with all cancers, including those with rare cancers, metastatic cancers, and treatment-resistant disease.*

**Situation Analysis**

The management of cancer involves the use of a multi-modal approach which includes surgery, chemotherapy, radiotherapy, nuclear medicine, and palliative care. The absence of a well-structured and functional tumor boards in some of the comprehensive cancer care centers affects the quality of care cancer patients receive. Comprehensive cancer care centers are expected to offer pathology, molecular and imaging diagnostics, with any or a combination of surgery, chemotherapy, radiotherapy and nuclear medicine services as part of treatment for cancer patients. Machine downtime, common in many centers, worsens timely access to treatment in Nigeria. The country doesn't have medical oncology as a specialty, rather has training for clinical oncologists that is those trained as radiation oncologist with additional training in the administration of chemotherapy. In some centers, the surgeons also administer chemotherapy to their patients.

The concept of "precision oncology" captures the idea that each person's cancer is unique and that their treatment should reflect their individual characteristics, including the molecular makeup of their tumours. However, there are still significant gaps in our understanding of cancer biology, limiting the ability to develop precision therapies with limited side effects that work for all patients.

New treatments would not be possible without clinical trials, which allow promising new treatments to be carefully tested in people with cancer. These studies provide evidence that a treatment works as intended and is safe for cancer care. Unfortunately, progress is hampered because the number of cancer patients participating in clinical trials remains low. This is particularly true for people from racial and ethnic minority groups, people from lower socioeconomic backgrounds, older people, and those with other serious health conditions.

• The NICRAT will promote Experimental Therapeutics Programme to help researchers in the academic and private sectors overcome financial and technical barriers to the development of new therapies—particularly high-risk treatments for rare cancers and paediatric cancers—and facilitate the movement of promising therapeutic agents from the research laboratory to patient care.

**Diagnosis and Treatment Research Strategies**

| Strategy | Lead organization | Timelines |
|---|---|---|
| 1. Develop approaches that maximize equitable access to proven treatments | NICRAT | 2024 |
| 2. Develop effective methods for predicting if patients will respond to treatment and their likely long-term outcomes | NICRAT | 2024 |
| 3. Make the fullest possible use of available resources to identify biologically informed therapeutic targets | NICRAT | 2025 |
| 4. Place particular emphasis on pursuing biological and technological approaches to treat rare cancers, treatment-resistant tumours, and childhood cancers | NICRAT | 2026 |
| 5. Move aggressively and more equitably to transition promising new therapies from their initial discovery to clinical trials | NICRAT | 2026 |
| 6. Inform treatment discovery and clinical development by collecting population-wide data on cancer recurrences and metastatic cancer development and linking these data to individual characteristics of patients and their tumours, treatments, and clinical outcomes | NICRAT | 2027 |
| 7. Develop approaches that minimize toxicities from cancer treatment and that detect and ameliorate short- and long-term effects of treatment, including second malignancies in cancer survivors | NICRAT | 2027 |
| 9. Rigorously pursue a greater understanding of the fundamental mechanisms of cancer biology, from the earliest precancerous lesions to transition to cancer and metastatic disease, incorporating new computational methods to visualize, model, and predict tumour evolution | | 2028 |

## 3.4 DATA MANAGEMENT

***Goal: To secure, privacy-protected sharing of health-related data is standard practice throughout research, and researchers share and use available data to achieve rapid progress against cancer.***

**Situation Analysis**

The Institute has a Nigerian National System of Cancer Registries which supervises the 34 Cancer registries in the country comprising of 10 population based and 24 hospital-based cancer registries. Even though all the cancer registries have the CanReg5 software designed by the WHO/IARC for data management, some of them are still not comfortable using it. The absence of a central coding system leads to poor data quality. The major challenge of the registries is lack of funding and continuous training of registry staff. In Nigeria, clinical and population-based research studies in oncology are not well developed; however, the nation through NICRAT plans to achieve significant progress on this over the next 5 years. Creating a national data ecosystem to equitably and responsibly collect and share cancer data will enable all cancer research and clinical care participants to contribute, access, combine, and analyse diverse data related to cancer. This infrastructure will accelerate progress against cancer by providing researchers with resources required for knowledge generation and will be constructed and managed so that more patients can actively participate in clinical research. NICRAT will liaise with different stake holders to provide infrastructure and tools and coordinate activities that will enable data sharing and use across the cancer research community.

**Data Management Research Strategies**

| Strategy | Lead organization | Timelines |
|---|---|---|
| 1. Enable frictionless data sharing throughout all of cancer research and develop tools that optimize data use and analysis to achieve rapid progress. | NICRAT | 2024 |
| 2. Build and maintain a unified Cancer Research Data base that enables the routine collection, integration, harmonization, distribution, and reuse of data from a broad range of research studies in a secure, patient privacy–protected environment. | NICRAT | 2024 |
| 3. Develop data quality standards, metrics, and acceptable methodologies to facilitate greater use of routine health care data as a research tool. | NICRAT | 2024 |
| 4. Support ongoing and new development of novel data visualization and analysis tools, and the infrastructure required to make them accessible to researchers. | NICRAT | 2025 |
| 5. Enable communities and health care organizations that face resource limitations or other disparities in access to research to engage with and benefit from data availability and related scientific advances | NICRAT | 2026 |

## RESEARCH INFRASTRUCTURE

***Goal: There is need to bridge the infrastructural disparity in our cancer care ecosystem to ensure that all cases of cancer has access to optimal care.***

**Situation Analysis**

Nigeria has grossly inadequate infrastructure for Cancer research, diagnosis and treatment with about 12 Hospitals having one form of radiotherapy or another with significant few having comprehensive treatment capacity. The NICRAT Act 2017 empowers the In stitute to build and maintain an infrastructure that provides investigators with resources and materials that promote innovative research, coordinates research studies and clinical trials.

**Cancer Research Infrastructure Strategies**

| Strategy | Lead organization | Timelines |
|---|---|---|
| 1. Support NICRAT designated oncology centres to have requisite infrastructure for training, research and treatment. | **NICRAT** | **2024** |
| 2. Build a world class oncology research centre with facilities for training, research and clinical trials. | **NICRAT** | **2024-2026** |
| 3. Build a national oncology laboratory with biorepository facility. | **NICRAT** | **2024-2027** |
| 4. Maintain NICRAT facilities (headquarters and designated cancer Centres). | **NICRAT** | **2024-2028** |

## 3.5 MOTIVATED WORKFORCE

***Goal: The cancer care and research workforce is diverse, reflects the communities served, and meets the needs of all people with cancer and those at risk for cancer, ensuring they live longer and healthier lives.***

**Situation analysis**

Our efforts to end cancer will fail if we ignore our most important resource— the cancer care and research workforce. Early career cancer researchers must meet significant challenges as they embark upon and remain on this career path. These include completing initial training, finding mentors, obtaining research funding, and securing academic appointments. In addition, most research requires participation in scientific teams, making it difficult for early career researchers to gain the individual recognition required for professional advancement. Structural barriers along the way to becoming an early and midcareer cancer researcher reduce the diversity of the workforce and these barriers need to be addressed. Among the many challenges facing our cancer research workforce, the most significant is the uncertainty of a successful future in cancer research due to a lack of funding opportunities.

A mandate to develop a workforce that adequately reflects the populations it serves requires us to address long-standing societal factors that produce a cancer research and clinical care workforce lacking ethnic, religious and gender diversity. A multiface ted approach to engage students at the earliest levels of schooling is needed to overcome persistent barriers to including scientists and physicians from various backgrounds.

**Workforce Research Strategies**

| Strategy | Lead organization | Timelines |
|---|---|---|
| 1. Conduct national cancer research manpower mapping | NICRAT | 2024 |
| 2. Expand and extend the capacity for cancer research by engaging a diverse pool of talented learners in cancer research and supporting their pursuit of a career in cancer research | NICRAT | 2024 |
| 3. Eliminate barriers and facilitate entry for individuals historically excluded from or underrepresented in the cancer research workforce | NICRAT | 2024 |
| 4. Develop initiatives to address gaps and needs (e.g., more physician- and other clinician scientists) and increase the number and competitiveness of cancer researchers from underrepresented and underserved backgrounds | NICRAT | 2024-2026 |
| 5. Conduct research to understand and address the unique needs and concerns of cancer researchers at all career stages and in all disciplines, including laboratory researchers, clinical care providers, data scientists, health economists, behavioural and social scientists, and all others who participate in cancer research | NICRAT | 2024-2027 |
| 6. Develop new strategies and mechanisms to support career development paths in the life sciences industries and non-research science sectors, such as education, health policy, or health journalism | NICRAT | 2024-2028 |

## 3.7 SOCIAL MOBILIZATION

*Goal: to ensure that every person with cancer or at risk for cancer has an opportunity to participate in research or otherwise contribute to the collective knowledge base, and barriers to their participation are eliminated.*

**Situation Anaylisis**

Clinical trials are an essential component of cancer research. They provide evidence demonstrating that new treatments and ways to diagnose, prevent, and treat cancers are effective. Clinical trials also evaluate whether new therapies, devices, or protocols are associated with acceptable side effects when weighed against the potential benefits.

Clinical trials offer patients the opportunity to participate in cancer research and receive potentially promising treatments, and most patients indicate that they are willing to participate when a trial is offered to them. At present, however, only a small percentage of patients enrol in clinical research, and barriers to research participation exist at multiple levels. Multilevel barriers include many of the same features associated with overall access to quality care, such as lack of adequate health insurance, limited resources in rural locations, or geopolitical inequities. Research participation is also hindered by the limited availability of trials for specific types or stages of cancer and by overly restrictive study inclusion criteria.

Clinical trial access is increased by reaching potential participants in their communities and reducing the burden of participation. The COVID-19 pandemic accelerated the use of virtual interactions between health care providers and patients and showed us that more fully integrating telemedicine practices into clinical trials allows people to participate without the added time and costs of traveling to a clinical trial site. New investments in telemedicine infrastructure are needed to allow participants to sign consent forms online, receive medications in the mail or at health care facilities close to their homes, and undergo safety monitoring in their local community.

NICRAT will identify and collaborate with relevant organizations involved in clinical trials to assist patients have access to highly trained physicians and researchers who study how to better prevent and treat cancer through carefully designed trials. In addition to testing new cancer treatments, these studies include cancer prevention trials, trials testing behavioural interventions for cancer risk factors like smoking and obesity, de-escalation trials testing the effectiveness of using less treatment, and complex combination therapy trials using novel adaptive designs.

**Social mobilization Research Strategies**

| Strategy | Lead organization | Timelines |
|---|---|---|
| 1, Ensure that opportunities to participate in and benefit from research are equitably distributed | **NICRAT** | **2024** |
| 2. Expand research infrastructure for all types of clinical and observational studies, developing and streamlining methods to increase access to participation for all | **NICRAT** | **2025** |
| 3. Integrate clinical research into routine clinical care using methods that avoid increasing provider or patient burden | **NICRAT** | **2026** |
| 4. Facilitate rapid referral, access, enrolment, accrual, and retention of diverse populations in clinical trials | **NICRAT** | **2027** |
| 5. Develop and implement methods to return research results in meaningful ways to patients who participate in studies | **NICRAT** | **2028** |

# Chapter 4:

# Call to Action

To succeed in addressing cancer in Nigeria, we need to apply the knowledge gained through research at various levels of cancer ecosystem. The National Cancer Research Agenda is not solely focused on research but is a framework that promotes collaboration among all stakeholders that is required to ensure that every person with cancer lives a full and active life. It is our hope that every stakeholder will put hand on deck to ensure effective collaboration for accelerated progress.

NICRAT is always ready to work with partners within the country and beyond to accomplish more together than we can separately do.
Persons with cancer are counting on us for solace.

UNITY AND FAITH, PEACE AND PROGRESS