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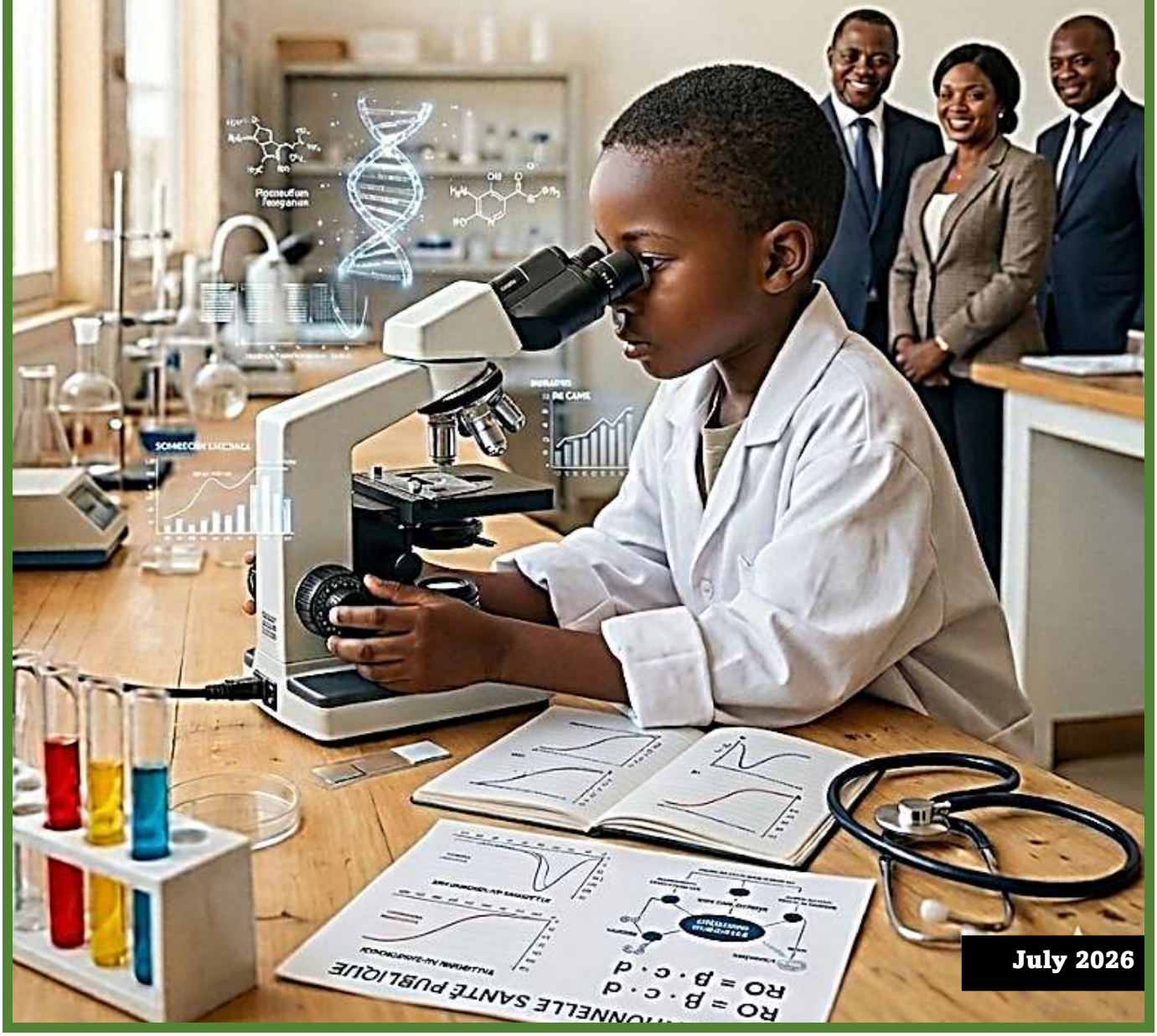
MINISTRY OF PUBLIC HEALTH

NATIONAL STRATEGIC PLAN FOR HEALTH RESEARCH 2026-2030



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FOREWORD

Against a backdrop of epidemiological, demographic, social and climatic transitions, as well as resource scarcity, Cameroon must establish a research framework capable of responding appropriately to national health priorities. It is with this in mind that the National Strategic Plan for Health Research (PSNRS 2026-2030) has been drawn up. It is fully aligned with the Government's vision, which is structured around three key areas: strengthening the health system to accelerate the implementation of Universal Health Coverage; improving people's access to quality care; optimising the use of available resources.

The PSNRS is the result of a participatory and inclusive process, based on a rigorous situational analysis and extensive consultations with health professionals, public administrations, academic and research institutions, technical and financial partners, and civil society. It provides a unifying framework for promoting health research, designed to strengthen research governance; structure its funding; develop national capacity for evidence generation; promote the effective use of research findings in health policies and programmesThis plan is aligned with the " Agenda for the Transformation of the Cameroonian Health System: Time to Act", which reaffirms our commitment to strengthening scientific research and innovation in the health sector. The aim is to promote useful, ethical and action-oriented research capable of producing knowledge that can be directly applied to the development of innovative health policies and practices.

This document is intended to serve as a reference for coordinating partners' interventions and monitoring progress in the field of health research. Furthermore, I remain firmly committed to providing the leadership necessary to make research a cornerstone of the Cameroonian health system's performance.

Convinced that its effective implementation depends on collective commitment, enhanced coordination and shared accountability, I urge all stakeholders to take full ownership of this plan to ensure its successful implementation.

LIST OF ABBREVIATIONS

AFD	:	French Development Agency
AFRO	:	WHO Regional Office for Africa
ANRP	:	National Pharmaceutical Regulatory Authority
ANRS	:	National Agency for AIDS Research
ARV	:	Antiretrovirals
CHW	:	Community Health Worker
BK	:	Koch's bacillus (Tuberculosis)
BMJ	:	British Medical Journal
BUCREP	:	Central Bureau for Censuses and Population Studies
CAMPHIA	:	Assessment of the impact of HIV in Cameroon on the general population
CBCHS	:	Health Services of the Cameroon Baptist Convention
CDC	:	US Centres for Disease Control and Prevention
CDNSS	:	Digital Documentation Centre for the Health Sector
CEMAC	:	Economic and Monetary Community of Central Africa
CENAME	:	National Centre for the Supply of Essential Medicines
CHDC	:	Cameroon Health Data Collaborative
CHRACERH	:	Hospital Centre for Research and Clinical Practice in Endoscopic Surgery and Human Reproduction
CHUY	:	Yaoundé University Hospital
CIOMS	:	Council for International Organisations of Medical Sciences
CIRCB	:	Chantal Biya International Research Centre
CIS	:	Health Information Unit
CMA	:	District Medical Centre
CNERSH	:	National Ethics Committee for Research in Human Health
CNLS	:	National Committee for the Fight against AIDS
CONSORT	:	Consolidated Standards for the Presentation of Clinical Trials
COVID-19	:	Coronavirus Disease 2019
CPC	:	Pasteur Centre of Cameroon
CRID	:	Centre for Research into Infectious Diseases
CSU	:	Universal Health Coverage
CTD	:	Decentralised Local Authorities
DCOOP	:	Cooperation Division
DEP	:	Research and Projects Division
DFID	:	UK Department for International Development
DHIS2	:	District Health Information System, version 2
DLMEP	:	Directorate for the Control of Disease, Epidemics and Pandemics
DOSTS	:	Directorate for Healthcare Organisation and Health Technology
DPML	:	Directorate of Pharmacy, Medicines and Laboratories
DPS	:	Directorate of Health Promotion

DRFP	:	Directorate of Financial Resources and Assets
DRH	:	Human Resources Directorate
DROS	:	Health Operations Research Division
RDPH	:	Regional Public Health Delegation
DS	:	Health District
DSF	:	Family Health Directorate
ECAM	:	Cameroon Household Survey
EDCTP	:	European and Developing Countries Clinical Trials Partnership
EDS	:	Demographic and Health Survey
EVIPNet	:	Network for evidence-informed policy-making
FAIR	:	Data principles: Findable, Accessible, Interoperable, Reusable
FCFA	:	Franc of the African Financial Community
FFOM	:	Strengths, Weaknesses, Opportunities, Threats
SWOT	:	Health Training
GAR	:	Results-Based Management
GIZ	:	German Agency for Technical Cooperation
HTA	:	High blood pressure
IMPM	:	Institute for Medical Research and Studies in Medicinal Plants
INS	:	National Institute of Statistics
IRAD	:	Agricultural Research Institute for Development
IRD	:	Research Institute for Development
ISM	:	Higher Institute of Healthcare Management
IST	:	Sexually Transmitted Infections
JICA	:	Japan International Cooperation Agency
KFW	:	German Development Bank
LNSP	:	National Public Health Laboratory
MICS	:	Multiple Indicator Cluster Survey
MINDEF	:	Ministry of Defence
MINEPAT	:	Ministry of the Economy, Planning and Regional Development
MINEPIA	:	Ministry of Livestock, Fisheries and Animal Industries
MINESUP	:	Ministry of Higher Education
MINFI	:	Ministry of Finance
MINRESI	:	Ministry of Scientific Research and Innovation
MINSANTE	:	Ministry of Public Health
MNT	:	Non-communicable diseases
NCDs	:	Neglected Tropical Diseases
OECD	:	Organisation for Economic Co-operation and Development
OCEAC	:	Organisation for Coordination in the Fight against Endemic Diseases in Central Africa
ODD	:	Sustainable Development Goals
IOM	:	International Organisation for Migration
WHO	:	World Health Organisation

NGO	:	Non-Governmental Organisation
ONSP	:	National Public Health Observatory
UNAIDS	:	Joint United Nations Programme on HIV/AIDS
CSOs	:	Civil Society Organisation
PACTR	:	Pan-African Clinical Trials Register
PESTEL	:	Political, Economic, Sociocultural, Technological, Environmental, Legal (analysis)
PEV	:	Expanded Programme on Immunisation
GDP	:	Gross Domestic Product
PNDS	:	National Health Development Plan
PNERO	:	National Pool of Experts for Operational Research
PNLP	:	National Malaria Control Programme
PNLT	:	National Tuberculosis Control Programme
PRISMA	:	Preferred elements for systematic reviews and meta-analyses
PSNRS	:	National Strategic Plan for Health Research
PTF	:	Technical and Financial Partners
PLHIV	:	People Living with HIV
RGPH	:	General Population and Housing Census
ROS	:	Operational Research in Health
RSI	:	International Health Regulations
RSS	:	Health Systems Research
M&E	:	Monitoring and Evaluation
AIDS	:	Acquired Immunodeficiency Syndrome
SMART	:	Specific, Measurable, Achievable, Realistic, Time-bound (indicators)
SND30	:	National Development Strategy 2020-2030
NHIS	:	National Health Information System
SNRI	:	National Research and Innovation System
SNRS	:	National Health Research System
SONU	:	Emergency Obstetric and Neonatal Care
SSS	:	Health Sector Strategy
STROBE	:	Strengthening the Reporting of Observational Studies in Epidemiology
TB	:	Tuberculosis
WHO-TDR	:	WHO Special Programme for Research and Training in Tropical Diseases
UNAIDS	:	Joint United Nations Programme on HIV/AIDS
UNFPA	:	United Nations Population Fund
UNICEF	:	United Nations Children's Fund
UNITAID	:	International Drug Procurement Facility (HIV, TB, Malaria)
USAID	:	United States Agency for International Development
USD	:	United States dollar
HIV	:	Human Immunodeficiency Virus
WHS	:	World Health Summit
WMA	:	World Medical Association

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EXECUTIVE SUMMARY

Cameroon faces a double burden of disease (the persistence of communicable diseases and the rise of non-communicable diseases) against a backdrop of chronic underfunding of the health sector (3.6 per cent of the national budget in 2023, far short of the Abuja commitment of 15 per cent), recurrent humanitarian crises and deep-seated inequalities. The review of the 2014-2018 National Strategic Plan for Operational Health Research reveals persistent structural shortcomings: fragmentation of research initiatives, insufficient and unsustainable funding, limited use of research findings in health decision-making, and the absence of a harmonised monitoring and evaluation mechanism.

Based on the findings of the situational analysis, which involved the collection and analysis of data from health programmes, technical directorates, universities, research institutes, health facilities and development partners, the drafting of this new plan has made it possible to address the structural shortcomings identified, notably the fragmentation of initiatives, weak national coordination, the limited capacity of stakeholders and the insufficient use of research findings in decision-making. It proposes a logical framework structured around four strategic outcomes: (i) strengthening governance and ethics in health research; (ii) the systematic use of evidence in decision-making; (iii) the institutionalisation of a culture of research within the health system; (iv) the mobilisation and sustainability of funding for research.

Implementation is driven by strengthened governance, led by the Ministry of Public Health, in coordination with the Ministry of Scientific Research and Innovation, national and regional ethics committees, academic institutions, technical and financial partners, civil society and communities. The total cost of implementing the National Strategic Plan for Health Research (PSNRS), including theregionalisation mechanism rolled out across the 10 regions, is estimated at 3.044 billion CFA francs (approximately 4.68 million USD) over the period 2026-2030, representing an average annual investment of 609 million CFA francs. This budget represents approximately 20 FCFA per capita per year, a level significantly below the standards recommended by the Algiers Declaration (2 per cent of national health expenditure). The budget allocation prioritises governance and ethics (32 per cent), followed by capacity building (27 per cent), sustainable financing (21 per cent) and evidence generation and utilisation (20 per cent).

By 2030, the PSNRS aims to ensure the regular conduct of priority operational research studies, the roll-out of standardised methodological tools, the training of a critical mass of researchers and decision-makers at all levels of the health system, the sustained production of policy briefs and knowledge products, and the documented integration of research findings into plans, guidelines and programme decisions. Monitoring will be carried out through a rigorous framework based on SMART indicators, clearly defined sources of verification and assigned institutional responsibilities.

RÉSUMÉ EXÉCUTIF

Le Cameroun fait face à une double charge de morbidité (persistance des maladies transmissibles et montée des maladies non transmissibles) dans un contexte de sous-financement chronique du secteur santé (3,6% du budget national en 2023, loin de l'engagement d'Abuja de 15%), de crises humanitaires récurrentes et d'inégalités profondes. Le bilan du Plan Stratégique National de Recherche Opérationnelle en Santé 2014–2018 révèle des lacunes structurelles persistantes : fragmentation des initiatives de recherche, financement insuffisant et non durable, faible utilisation des résultats dans la prise de décision sanitaire et absence de mécanisme de suivi-évaluation harmonisé.

Basé sur les résultats de l'analyse situationnelle qui a impliqué la collecte et l'analyse des données auprès des Programmes de santé, Directions techniques, Universités, Instituts de recherche, Formations sanitaires et partenaires au développement, l'élaboration de ce, nouveau, plan a permis de relever les insuffisances structurelles identifiées, notamment la dispersion des initiatives, la faiblesse de la coordination nationale, les capacités limitées des acteurs et l'utilisation insuffisante des résultats de recherche dans la prise de décision. Il propose un cadre logique structuré autour de quatre effets stratégiques : (i) le renforcement de la gouvernance et de l'éthique de la recherche en santé ; (ii) l'utilisation systématique des évidences dans la prise de décision ; (iii) l'institutionnalisation de la culture de la recherche dans le système de santé ; (iv) la mobilisation et la pérennisation des financements pour la recherche.

La mise en œuvre est portée par une gouvernance renforcée, assurée par le Ministère de la Santé Publique, en coordination avec le Ministère de la Recherche Scientifique et de l'Innovation, les comités d'éthique nationaux et régionaux, les institutions académiques, les partenaires techniques et financiers, la société civile et les communautés. Le coût global de mise en œuvre du Plan Stratégique National de Recherche en Santé (PSNRS), incluant le mécanisme de territorialisation déployé dans les 10 régions est estimé à 3,044 milliards FCFA (environ 4,68 millions USD) sur la période 2026-2030, soit un investissement annuel moyen de 609 millions FCFA. Cette enveloppe représente environ 20 FCFA par habitant et par an, un niveau significativement inférieur aux standards recommandés par la Déclaration d'Alger (2% des dépenses nationales de santé). La répartition budgétaire privilégie la gouvernance et l'éthique (32%), suivies du renforcement des capacités (27%), du financement durable (21%) et de la production et l'utilisation des évidences (20%).

À l'horizon 2030, le PSNRS ambitionne la réalisation régulière d'études de recherche opérationnelle prioritaires, le déploiement d'outils méthodologiques standardisés, la formation d'une masse critique de chercheurs et de décideurs à tous les niveaux du système de santé, la production soutenue de notes politiques et de produits de connaissance, ainsi que l'intégration documentée des résultats de recherche dans les plans, directives et décisions programmatiques. Le suivi se fera à travers un dispositif rigoureux fondé sur des indicateurs SMART, des sources de vérification clairement définies et des responsabilités institutionnelles attribuées.

INTRODUCTION

Introductory note

For the purposes of this plan, health research refers to operational health research, defined in its broadest sense, in accordance with the definition provided by Peters et al. [1] and the guidelines of the WHO Regional Strategy on Health Research 2016-2025 [2]. It encompasses health systems research, clinical research, implementation research, action research and evidence synthesis, provided that such work aims to generate knowledge that can be directly applied to improve health policies, programmes and practices.

Health research is one of the fundamental pillars of health system development and evidence-based governance. It is defined as scientific research into issues relating to the delivery of health services, the results of which directly inform operational decision-making [1]. Globally, it is recognised as a key driver of innovation, improved health outcomes and the strengthening of systems' resilience in the face of emerging challenges. Global frameworks such as the WHO Global Strategy on Health Research [3], the Sustainable Development Goals (SDGs) and the 2030 Agenda for Sustainable Development [4] reaffirm the need for increased production and use of scientific knowledge to guide public policy, optimise interventions and promote health equity.

In Africa, the Bamako Declaration [5] and the Algiers Declaration [6] marked a turning point by emphasising the strategic role of research in transforming health systems. These commitments have encouraged countries to structure their research ecosystems, strengthen governance, and promote operational research as a lever for improving the effectiveness, relevance and impact of health interventions. In Cameroon, the Health Sector Strategy (HSS) 2020-2030 [53], in its Objective 4.5, aims to ensure the development of health research and the availability of high-quality health information for evidence-based decision-making at all levels of the health system, in line with SDG 3.b, which aims at supporting research and the development of vaccines and medicines.

Organisation of health research in Cameroon

The health research ecosystem in Cameroon is structured around three functional categories of stakeholders, whose interactions determine the country's capacity to generate, translate and utilise scientific knowledge for the benefit of public health.

Stakeholders in governance and regulation

Research is a sector with shared responsibilities between the Ministry of Scientific Research and Innovation (MINRESI), the Ministry of Public Health (MINSANTE) and the Ministry of Higher Education (MINESUP). Within MINSANTE, the Division of Operational Health Research (DROS), established by Decree No. 2013/093 of 3 April 2013 [55], is responsible for the national coordination of operational research, the promotion of ethical standards and the translation of research findings into proposals for action. Furthermore, the National Ethics Committee for Research in Human Health (CNERSH), which was restructured in 2023, coordinates a network

of regional ethics committees that are gradually extending their coverage across the whole country.

Research organisations

Cameroon has several institutions and laboratories specialising in health research, notably: the Cameroon Pasteur Centre (CPC) with its branches in Garoua and Douala, the Institute for Medical Research and Studies on Medicinal Plants (IMPM), the Chantal Biya International Research Centre (CIRCB), the Coordination Organisation for the Fight against Endemic Diseases in Central Africa (OCEAC), the Centre for Research in Infectious Diseases (CRID) and the National Public Health Laboratory (LNSP). Universities and their faculties of medicine, pharmacy and biomedical sciences constitute the main source of training and academic output. National health programmes incorporate research components into their operational activities.

Stakeholders responsible for synthesising and transferring knowledge

The National Public Health Observatory (ONSP), in addition to its role in epidemiological surveillance and as the IHR focal point, plays a strategic role in centralising, analysing and disseminating health data to inform policy-making. The Cameroon Health Data Collaborative (CHDC), a network bringing together producers, users and partners in the field of health data, serves as a platform for coordinating and promoting the cross-sectoral sharing of research findings.

Coordination mechanisms

The coordination of health research remains fragmented across several ministries and institutions. The DROS coordinates operational research within MINSANTE, but work carried out by universities, research centres and MINSANTE's technical directorates often falls outside this coordination framework. Collaboration with MINRESI remains crucial, and formal mechanisms for data sharing between producers and users are insufficiently developed. The PSNRS 2026–2030 specifically aims to address these shortcomings by establishing a functional multi-stakeholder coordination framework.

Legal framework

The regulatory framework has been considerably strengthened with the enactment of Act No. 2022/008 of 27 April 2022 on medical research involving human subjects [37] and Act No. 2025/009 of 15 July 2025 on the donation, procurement and transplantation of human bi [38]. The drafting of implementing regulations for these laws is a priority of the PSNRS.

In Cameroon, the drafting t of the first National Strategic Plan for Operational Health Research (PSNRS) 2014-2018 represented a landmark step forward by laying the foundations for coordinated governance of operational research and helping to shape national health research priorities. However, an analysis of its implementation highlights significant limitations that have hindered the achievement of the expected outcomes, notably the lack of sustainable and predictable funding, the limited exploitation, dissemination and use of research findings, the

institutional fragmentation of initiatives, and the absence of a harmonised and functional monitoring and evaluation mechanism.

An analysis of the lessons learnt from this period reveals, on the one hand, significant strengths and opportunities, such as the existence of national expertise, the commitment of the Ministry of Health (MINSANTE) and the interest shown by technical and academic partners; and, on the other hand, weaknesses and threats linked to dependence on external funding, the limited integration of operational research into programme planning cycles, and the insufficient uptake of results by decision-makers. These findings underscore the need, within the 2026-2030 National Strategic Plan for Health (PSNRS), to consolidate institutional achievements, to address the structural shortcomings observed during the implementation of the 2014-2018 PSNRS, and to put in place robust mechanisms for governance, funding, monitoring and evaluation, and the effective use of findings in order to maximise the impact of operational research on public health policies and interventions.

To date, the national and international health landscape has undergone profound changes. Cameroon faces a double burden of disease: on the one hand, the persistence of communicable diseases such as HIV, tuberculosis, malaria and neglected tropical diseases; on the other, the rapid rise in non-communicable diseases, notably cancers, diabetes and high blood pressure. With the epidemiological transition, Cameroon is also facing recurrent epidemics, emerging threats (COVID-19), the impacts of climate change and pressures arising from humanitarian and migration crises. These dynamics require the continuous adaptation of health policies and programmes, making more responsive, integrated and better-funded operational research essential.

Established in the late 1980s, the system for the protection of participants in human health research has been significantly strengthened. This development has resulted in the creation, within the Ministry of Public Health, a division specifically tasked with this remit, the development of a regulatory framework that has enabled the restructuring of the ethical review system to improve its quality and the monitoring of research protocols exposing participants to high risks, and the decentralisation of ethical review to the regional and health institution levels to bring it closer to researchers.

Furthermore, a law on medical research was passed by both houses of the Cameroonian Parliament and subsequently promulgated by the President of the Republic.

Despite these significant advances, shortcomings remain in raising ethical standards to the level required by the WHO, given Cameroon's level of development. It appears necessary to build on these achievements by drafting the regulatory texts to implement the promulgated law, by adapting participant protection mechanisms to this new legal framework, and by strengthening the capacities of key stakeholders (notably ethics committees, researchers and health authorities at national, regional and operational levels) so that they can play their role in this process fully and credibly.

In a country such as Cameroon, characterised by persistent inequalities, mainstreaming gender and equity is a central challenge for health research in Cameroon, as women, adolescents, rural populations, people living in poverty and groups affected by crises face differing risks in terms of access to services, quality of care and health outcomes. Health research provides a vital tool for analysing these inequalities, documenting specific barriers linked to gender and social determinants, and generating evidence to guide more equitable and gender-sensitive interventions, in line with Cameroon's national and international commitments.

Furthermore, Cameroon's health system is regularly confronted with public health emergencies and humanitarian crises, including epidemics, population displacement, natural disasters and situations of insecurity in certain regions, which place increased pressure on service delivery capacities and exacerbate existing vulnerabilities. These situations disproportionately affect already marginalised groups, particularly women and children, and disrupt the continuity of essential services, highlighting the need for timely, operational data to tailor health responses.

The development of the PSNRS 2026-2030 is therefore not merely a technical update. It represents a pivotal moment to reposition health research at the heart of Cameroon's health system, making it more relevant, more accessible and better integrated into the sector's planning and steering mechanisms. This process will also enable the mobilisation of stakeholders – public institutions, research organisations, universities, technical and financial partners, and civil society – through an inclusive, collaborative and results-oriented approach. In this context, this new plan aims to strengthen the governance of health research, promote more sustainable funding, structure multisectoral collaborations and improve the production, dissemination and use of scientific findings for policy-making and decision-making.

In an environment characterised by recurring public health emergencies and humanitarian crises, health research is a strategic tool for analysing the impact of these shocks on the functioning of the health system, assessing the resilience of services, identifying bottlenecks and documenting innovative approaches to maintaining equitable access to care, particularly for the most vulnerable groups. The systematic integration of gender- and equity-sensitive analyses into research thus helps to strengthen the health system's preparedness, response and recovery, whilst supporting evidence-based decision-making tailored to local realities.

The PSNRS 2026–2030 therefore aims to translate scientific evidence into concrete action, strengthen a culture of accountability and promote more effective, equitable and sustainable interventions. By incorporating recent innovations, notably digital health and 'Data to Policy' approaches, it will help to modernise the health system and improve the country's capacity to respond to current and future health challenges.

This strategic plan is organised as follows:

- **Chapter 1. Context:** Presents the general framework within which the plan is set: Cameroon's health situation, national health policies, international commitments and the rationale for the need for structured operational research.

- **Chapter 2. Methodological Approach:** Describes the process used to develop the plan: stakeholder consultations, literature reviews, validation workshops and the tools used to collect and analyse the data that informed the planning.
- **Chapter 3. Current situation:** Provides an overview of health research in Cameroon: achievements, strengths, weaknesses, institutional capacities, available resources and gaps identified during the previous period.
- **Chapter 4. Research Priorities:** Sets out the research areas and themes deemed to be priorities for 2026–2030, selected on the basis of public health needs, national policies and identified knowledge gaps.
- **Chapter 5. Strategic Framework:** Defines the vision, strategic directions, areas of intervention and objectives of the plan, forming the backbone of the PSNRS for the period in question.
- **Chapter 6. Organisational Framework:** Sets out the structures, coordination mechanisms and roles of the various stakeholders (ministries, research institutions, partners) responsible for implementing operational health research.
- **Chapter 7. Translation and Use of Research Findings:** Sets out strategies for disseminating research findings to decision-makers, health professionals and the general public, with a view to promoting their use in health policies and practices.
- **Chapter 8. Monitoring and evaluation framework:** Sets out the indicators, mechanisms and tools for monitoring the plan's progress, evaluating its outcomes and making any necessary adjustments during implementation.
- **Chapter 9. Financial Framework:** Estimates the overall cost of the plan, identifies potential sources of funding (state budget, technical and financial partners) and proposes a strategy for resource mobilisation.
- **Chapter 10. Risk Analysis and Management:** Identifies risks that could jeopardise the implementation of the plan (financial, institutional, political, etc.) and proposes mitigation measures to limit their impact.

CHAPITRE 1. BACKGROUND

1.1. GENERAL INFORMATION ON CAMEROON

1.1.1. Physical context

Cameroon covers a surface area of 475,442 km². It stretches between latitudes 1°40' and 13°05' north over a distance of 1,250 km, and between longitudes 8°30' and 16°10' east over a distance of 860 km. Cameroon, situated at the head of the Gulf of Guinea, is bordered to the north by Lake Chad, to the north-east by the Republic of Chad, to the east by the Central African Republic, to the south by the Republic of the Congo, the Republic of Gabon and the Republic of Equatorial Guinea, and to the west by the Federal Republic of Nigeria; it has a coastline stretching for 380 km.

The terrain is generally varied, characterised by highlands and narrow plains stretching between the Atlantic Ocean and the South Cameroon Plateau. These plains are barely more than 150 km wide across the whole country. The Adamaoua Plateau acts as a veritable 'water tower' for the country, as the main rivers have their source there. These rivers flow into four (04) drainage basins, which are essentially: the Atlantic basin, into which the Sanaga (the country's longest river at 920 km) flows, the Nyong, the Ntem, the Moungo and the Wouri; the Niger basin, into which the Bénoué flows, either dry or swollen depending on the season due to its tributaries; the Lake Chad basin, into which the Logone flows; and the Congo basin, which receives the Sangha, formed by its Cameroonian tributaries, the Kadeï and the Ngoko.

Cameroon's climate is characterised by great diversity due to the influence of the sea, the terrain and the country's latitudinal extent. Cameroon can thus be subdivided into three major climatic zones: the humid equatorial zone situated between 2° and 6° north latitude, the Sudanese zone situated between 7° and 10° north latitude, and the Sudano-Sahelian zone situated beyond 10° north latitude. Rainfall varies considerably from one region to another. It ranges from 380-600 mm per year in the semi-arid regions of the north-west to 1,500 mm on the Adamaoua Plateau; reaching 2,500-4,000 mm on the coast, and up to 10,000 mm along the western flank of Mount Cameroon, where it rains heavily almost all year round. As for average temperatures, the lowest is 21°C on the plateau, the highest is 32°C in the Northern Region; in the South and along the coast, it varies between 22°C and 29°C.

1.1.2. Institutional structure

Cameroon has been an independent state since 1 January 1960. The Constitution of 18 January 1996 enshrines the separation of the three (03) branches of government: the Executive, the Legislature and the Judiciary. The Executive is headed by the President of the Republic, the Head of State, who is elected by universal suffrage for a renewable term of seven (7) years.

Legislative power is exercised by Parliament, which comprises two (02) chambers:

the National Assembly, which has 180 members elected by universal suffrage for a renewable term of five (05) years; and the Senate, which has 100 senators – 10 members per region, three of whom are appointed by the President of the Republic – appointed for a term of five (05) years. Judicial power, for its part, is exercised by the Supreme Court, the Courts of Appeal and the lower courts.

National political life underwent a profound transformation following the restoration of pluralist democracy in December 1990. This institutional change was accompanied by changes to the administrative structure.

1.1.3. Administrative and political structure

The country is divided into 10 regions (Adamaoua, the North, the Far North, the Centre, the East, the Littoral, the West, the North-West, the South-West and the South), 58 departments, and 360 districts, which are respectively under the authority of governors, prefects and sub-prefects.

In Cameroon, decentralisation and the involvement of Decentralised Local Authorities (DLAs) are governed by Law No. 2019/024 of 24 December 2019 on the General Code of Decentralised Local Authorities [57]. Articles 160 and 270 of this Act set out the matters relating to health that have been transferred to the communes and regions.

Pursuant to this Act, Decree No. 2023/132 of 10 February 2023, laying down the procedures for the exercise of certain powers transferred by the State to the regions in the field of health, specifies the exercise of these transferred powers, in particular with regard to:

(i) the construction, equipping, management, maintenance and support of regional and district hospitals,
(ii) participation in the development of the regional section of the healthcare map,
(iii) participation in the organisation and management of the supply of essential medicines, reagents and medical devices, all in accordance with national health policy.

1.1.4. Demographic situation

According to projections from the 3rd General Population and Housing Census (RGPH), carried out by the Central Bureau for Censuses and Population Studies (BUCREP), Cameroon's population was estimated at 26.5 million on 1 January 2020. However, the population pyramid projections from the World Fact Book Intelligence Agency forecast a population of 34,051,102 in Cameroon by 2030. An analysis of the spatial distribution of the population based on the 3rdGeneral Population and Housing Census (RGPH) shows that the Central Region was the most populous in the country, with approximately 3.56 million inhabitants (18 per cent), whilst the Southern Region was the least populous, with approximately 692,000 inhabitants (4 per cent). According to recent UNFPA projections (2024), Cameroon's annual population growth rate is estimated at 2.6 per cent, which requires enhanced strategic planning of health services to meet the growing needs of the population.

According to the 2018 Demographic and Health Survey, the Total Fertility Rate (TFR) is estimated at an average of 4.8 children, or 5 children per woman. The fertility rate is significantly higher in rural areas (6.0 children per woman) than in urban areas (3.8 children per woman). Fertility is higher in the North (TFR of 6.2) and the Far North (5.9) regions, and lower in the Littoral (4.3) and South (4.1) regions. The cities of Yaoundé (3.5) and Douala (2.8) have the lowest levels. [7].,

As at 30 May 2025, Cameroon had approximately 2.1 million forcibly displaced people, including nearly 969,000 internally displaced persons (IDPs), more than 699,000 returnees to their communities of origin, and several hundred thousand refugees and asylum seekers residing in Cameroon or neighbouring countries [8]. These displacements affect a highly diverse population: data collected by multisectoral assessment missions in regions such as the Centre region estimated that around 54 per cent of internally displaced persons are women and 46 per cent are men. A significant proportion of those displaced are children and adolescents: for example, in one sample, there were nearly 13,973 children aged between 5 and 14 and 14,882 young people aged between 15 and 24 [9].

1.1.5. Socio-economic situations

Cameroon has experienced moderate economic growth in recent years. Real gross domestic product (GDP) grew by 3.5 per cent in 2024, compared with 3.2 per cent in 2023, driven mainly by agriculture, the services sector and improved electricity supply to industry, despite a contraction in the oil sector. However, this growth remains well below the target set out in the National Development Strategy (an average growth rate of 8 per cent over the decade 2020–2030) and reflects structural constraints such as infrastructure gaps, weak governance and insufficient levels of investment [10]. Per capita GDP in 2024 is estimated at around USD 1,467 [33], a level that slightly exceeds the pre-COVID-19 pandemic threshold but remains well below the historic peaks observed in the 1980s [14].

In terms of living standards, around 37.7 per cent of the population was living below the national poverty line in 2022, meaning nearly four in ten people were living on less than 813 FCFA per day (≈US$1.4), indicating persistent poverty despite moderate economic growth [11]. This situation reflects weak household purchasing power and vulnerability to economic shocks, which is also reflected in unmet financial needs for healthcare, education and food.

According to the OECD [13], mobilising tax revenue to fund healthcare remains a major challenge, with public health expenditure accounting for less than 5 per cent of GDP, well below the Abuja target of 15 per cent. In this socio-economic context, the resources allocated to healthcare remain limited. Total health expenditure in Cameroon accounts for around 4 per cent of GDP, with per capita current health expenditure stagnating at around USD 58–61, and a heavy reliance on direct household payments, which cover nearly 70 per cent of the ’s health funding [12]. Public health expenditure is particularly low, accounting for only around 0.4 per cent of

GDP, and the share of the national budget allocated to the Ministry of Public Health has been on a downward trend, standing at around 3.6 per cent of the total budget in 2023 [13]

Inadequate public health funding, against a backdrop of high poverty and moderate economic growth, has direct consequences for the health status of the population. The health system remains heavily dependent on external funding, and the out-of-pocket costs borne by households create financial barriers to accessing care, contributing to poor health indicators such as life expectancy, maternal and infant mortality, and the persistent prevalence of communicable diseases [14] (2025). The system's inability to invest sufficiently in essential health services limits access to preventive and curative care, exacerbates health inequalities, and increases the vulnerability of the poorest populations to health and economic shocks.,

1.1.6. Socio-cultural context

Cameroon's socio-cultural context is characterised by exceptional diversity, with over 270 ethnic groups, a multitude of local languages, and official bilingualism in French and English, all of which shape the country's social, political and institutional dynamics. This diversity is accompanied by heterogeneous value systems and social norms, strongly influenced by traditions, traditional chiefdoms, religions (Christianity, Islam and traditional religions) and gender relations, which play a decisive role in individual and collective behaviour.

Social and regional inequalities, particularly between urban and rural areas, as well as socio-cultural norms relating to gender, age and social status, influence access to education, healthcare, employment and civic participation. In the field of public health, these factors shape perceptions of illness, the use of modern healthcare, the acceptability of health interventions and community participation, making a culturally sensitive and context-specific approach essential in the design and implementation of policies and programmes.

1.2. ORGANISATION OF THE HEALTH SECTOR

The health sector in Cameroon is organised in a pyramid structure (Table 1) comprising three levels (central, intermediate and peripheral) and three sub-sectors: (i) a public sub-sector; (ii) a private sub-sector (non-profit and for-profit); and (iii) a traditional sub-sector. Each level of the pyramid thus formed has its own administrative, health and consultative structures.

Table1 : Different levels of the health pyramid in Cameroon

Level	Administrative structures	Responsibilities	Public health facilities	Private healthcare facilities	Dialogue framework
Central	▪ Office of the Minister for Public Health ▪ General Secretariat ▪ Directorates and Similar Bodies	▪ Development of the Sectoral Health Strategy ▪ Coordination ▪ Regulation	▪ CENAME, CPC, LANACOME, CIRCB, ▪ General Hospitals, CHUY, CHRACERH, HGOPY, HGOPED (1st category); ▪ Central Hospitals, ▪ Regional Hospitals (2nd category); ▪ ONSP.		National Council for Health, Hygiene and Social Affairs.
Intermediate	10 Regional Public Health Delegations,	Technical support for districts	▪ Regional and equivalent hospitals (3rd category)	▪ Polyclinic ▪ (category A)	Regional Funds for Health Promotion
Peripheral	210 Health districts [15]	Implementation of Programmes	▪ District hospitals and equivalent facilities (4th category) ▪ CMA (5th category) ▪ CSI (6th category) ○ CSA (7th category)	▪ Clinic (category B) ▪ Medical practice, dental practice (category C); ▪ Healthcare Centre (category D)	▪ COSADI ▪ COGEDI ▪ COSA ▪ COGE

Source: Human Resources Development Plan for the Health Sector: Current Situation and Assessment, 2012, SSS 2020–2030.

1.2.1. Performance of the healthcare system

The performance of Cameroon's health system remains below expectations, with operational capacity still limited. According to the WHO report on the performance of health systems in the African Region, the Cameroonian system's level of functionality was estimated at 46 per cent in 2022, with access to health services assessed at 46 per cent, average service quality at 62 per cent and resilience estimated at 33 per cent, whilst only 46 per cent of the demand for care was met.

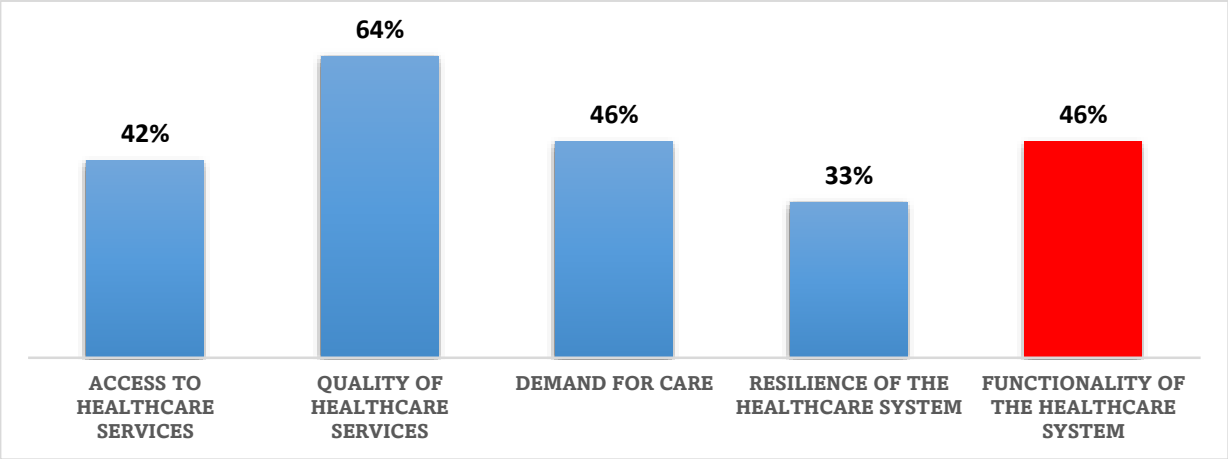

Figure1 : Performance level of the health system in Cameroon, 2020
Source: Report on the performance of health systems in the WHO African Region – AFR/RC70/13, 6 October 2020

Several structural factors account for these results. Inadequate health funding limits the provision of services, whilst the uneven distribution of health workers – whose numbers are insufficient overall – creates marked regional disparities. The health information system, despite the nationwide roll-out of DHIS2, has not yet reached the level of maturity required to systematically support evidence-based decision-making. Limited access to services and care for certain vulnerable populations, the limited dissemination of technical documents produced, and insufficient coordination between technical directorates and programmes also contribute to limiting the system's capacity to deliver high-quality services to the population.

These findings highlight the need for operational research capable of identifying bottlenecks, documenting effective practices and producing evidence that can be directly used to improve the system's performance at all levels of the health pyramid.

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1.2.2. Healthcare funding

The proportion of Cameroon's national budget allocated to the health sector has fluctuated between 3.3 and 5.9 per cent since 2005 [16]. This proportion remains well below the commitment made by African heads of state at the Abuja summit in April 2001, which called for 15 per cent of the national budget to be allocated to health.

Total health expenditure (THE) rose from 821 to 874 billion CFA francs between 2018 and 2019, representing a 7 per cent increase. As a percentage of GDP, THE remained stagnant at around 4 per cent during this period.

Households remain the main source of funding for health expenditure. Over these two years, their contribution through direct payments accounted for an average of 71 per cent of current health expenditure (CHE). Development partners are the second largest source of health funding, accounting for an average of 13 per cent of CHE [16]

In the field of research, funding remains structurally inadequate, poorly documented and heavily dependent on external sources. The 2008 Algiers Declaration recommends that Member States of the WHO African Region allocate at least 2 per cent of their national health expenditure to health research and devote at least 5 per cent of the external aid received for health to research. The Bamako Call to Action (2008) reaffirmed these commitments by calling on countries to establish sustainable research funding mechanisms.

In Cameroon, there are no consolidated public data available to quantify national expenditure on health research precisely. However, several converging indicators suggest that the current level falls well short of international targets. With total health expenditure estimated at around 874 billion CFA francs (2019), the 2 per cent target would correspond to an annual investment of around 17.5 billion CFA francs. However, the budget allocated to the DROS and the documented funding for operational research represent only a marginal fraction of this amount, estimated at less than 0.1 per cent of health expenditure.

The funding of health research in Cameroon exhibits several worrying structural characteristics. Firstly, there is a heavy reliance on external funding: virtually all nationwide studies (CAMPHIA, EDS, MICS) are funded by technical and financial partners, which exposes the system to a risk of discontinuity should donors' priorities shift. Secondly, a fragmentation of funding sources: each institution, programme or project funds its own research activities without central coordination, making it impossible to obtain a consolidated overview of investments. Thirdly, the absence of a dedicated budget line: in the MINSANTE programme budget, research does not have a specific, identifiable allocation, unlike other cross-cutting functions. Fourthly, virtually non-existent funding for translating results: whilst resources can sometimes be mobilised for data collection, the transformation of results into policy briefs, summaries and knowledge products usable by decision-makers remains unfunded.

The 2014-2018 National Health Research Strategy (PSNRS) had already identified funding as a major bottleneck. The lack of significant progress on this issue over the past period confirms the need for a more ambitious and diversified resource mobilisation strategy. The 2026-2030

National Strategy for Health and Social Research (PSNRS) addresses this issue through Impact 4, focusing on three key areas: advocacy for an increase in the state budget allocation, the mobilisation of innovative funding sources (taxes on harmful products, corporate social responsibility, funding from local authorities) and the strengthening of national capacity to access international research funds.
An analysis of per capita health expenditure shows that between 2018 and 2019, there was a 5 per cent increase in total per capita health expenditure; this expenditure rose from 34,589 to 36,305 CFA francs, equivalent to $58 in 2018 and $63 in 2019 respectively. In other words, the current level of health funding is insufficient to guarantee the population's access to essential health services and to make further progress towards Universal Health Coverage (UHC), given the $146 per capita required for lower-middle-income countries.

1.2.3. Infrastructure and equipment

The Cameroonian health system is based on a three-tiered pyramidal structure (central, intermediate and peripheral), which is reflected operationally in the territorial network of health facilities. The country has 210 health districts and 1,869 health zones for an estimated population of 31,893,502. The referral facilities are divided into 7 general hospitals (GHs), 13 central hospitals or regional hospital centres (CHCs) and 28 regional hospitals or annexes (RHs/HRAs). The national ratios are therefore approximately 4.56 million inhabitants per GH, 2.45 million per CC/RHC and 1.14 million per RH/RHA, figures which indicate significant pressure on the provision of specialist care.

A regional analysis reveals marked structural contrasts. The population per health district ranges from nearly 63,000 in the South-West to around 193,000 in the West – a difference of more than threefold. At the level of health areas, the same pattern persists: each area serves an average of more than 16,000 inhabitants in the West, compared with around 8,000 in the South and the North-West. These disparities reflect highly unequal capacities for planning, supervision and management of health information at the first level of the system. Where health districts are overburdened, curative care tends to take precedence over documentation, monitoring and evaluation, with direct repercussions on the quality of routine data.

The distribution of referral hospitals exacerbates this imbalance. Seven regions have no general hospitals at all, which concentrates the provision of tertiary care in a few urban centres, mainly Yaoundé and Douala. This centralisation creates a centripetal referral dynamic that lengthens waiting times for treatment, increases costs for households and exacerbates socio-health inequalities. HC/CHRs and HR/HRAs provide intermediate coverage, but with a considerable caseload per facility: in the West, one HR/HRA serves nearly 1.28 million inhabitants, compared with around 339,000 in the South.

This configuration has direct implications for health research. The scarcity of specialist technical facilities restricts clinical and translational research to a limited number of sites, almost exclusively in urban areas, leading to a systematic recruitment bias that is not representative of

the country's epidemiological diversity. At the same time, the variable quality of data in overburdened health regions (under-reporting, delays in notification, classification errors) undermines epidemiological research based on the national health information system. Vulnerable regions, particularly the North-West and South-West, face a combination of infrastructure deficits and constraints on access to the field, risking exclusion from the scope of national research and creating a vicious circle in which the areas most exposed to health problems produce the least evidence.

Table2 : Distribution of health facilities by region

REGIONS	Population in 2026*	HEALTH DISTRICTS	HEALTH AREAS	HEALTH FACILITIES		
				GH	CH / RHC	RH / RHA
Adamaoua	1,716,920	12	88	0	1	4
Centre	5,882,702	34	287	4	3	3
East	1,325,977	15	167	0	1	2
Far North	6,367,319	37	301	0	1	4
Coast	4,756,498	24	190	2	1	2
North	3,766,780	15	147	1	1	2
North-West	1,881,591	21	234	0	1	2
West	3,854,452	20	235	0	1	3
South	1,015,714	13	104	0	2	3
South-West	1,325,547	21	116	0	1	3
TOTAL	**31,893,502**	**212**	**1869**	**7**	**13**	**28**

Source: List of Health Districts in Cameroon, MINSANTE, 2026
** Source: MINSANTE, CIS, Priority Health Target Populations 2026*

However, the peripheral network remains an under-utilised asset. The 1,869 health zones and 210 districts offer considerable potential for decentralised operational research, monitoring trends in common morbidity and evaluating programme performance at the community level. The 28 HR/HRA centres provide a means of broadening the geographical scope of clinical research, provided that human resources and equipment are strengthened within them. The current distribution of infrastructure is therefore not merely a matter of healthcare provision: it determines the nature of the research questions that can be addressed, the populations actually studied and, ultimately, the PSNRS's ability to produce scientific evidence that is inclusive, representative and useful for national health planning.

1.2.4. Medicines and other pharmaceutical products

The supply of pharmaceutical products is managed by the National System for the Supply of Essential Medicines (SYNAME). The pharmaceutical sector is divided into two sub-sectors: private and public.

The public pharmaceutical sub-sector is organised into three levels: (i) the central level, comprising the National Centre for the Supply of Essential Medicines and Medical Consumables (CENAME) and the technical directorates; (ii) the regional level, comprising the Regional Health Promotion Funds (FRPS) and the Regional Delegations of Public Health (RDPH); and (iii) the operational level, comprising the Health Facilities (HF) and community stakeholders. Within this system, CENAME supplies the FRPS and first- and second-category hospitals; the FRPS supply the HF; and the HF dispense medicines to patients. In addition to the HF, multi-skilled Community Health Workers dispense outpatient supplies such as condoms and antimalarial drugs for the treatment of uncomplicated malaria.

In the private sub-sector, local wholesale distributors source supplies from foreign purchasing offices, CENAME and national manufacturers in order to supply private pharmacies as well as the pharmacies of clinics and polyclinics that have obtained authorisation from the Order of Pharmacists. The management of Reproductive Health supplies is governed by SYNAME. At central level, management is carried out by the Technical Directorates in collaboration with CENAME. At regional level, it is managed by the RDPH in collaboration with the FRPS, and at local level by the DS and the HF.

Thanks to support from numerous PTFs and government grants, certain therapeutic classes are currently provided free of charge (anti-tuberculosis drugs, antiretrovirals, artemisinin-based antimalarial drugs for children aged 0 to 5, anti-leprosy drugs, etc.).
Although PTF grants have helped to reduce the cost of essential products such as obstetric kits, contraceptives and antimalarial drugs, dependence on this external funding exposes the health system to the risk of supply disruptions should the grants be withdrawn. This necessitates the implementation of an appropriate strategy to mitigate this risk.

Furthermore, there is a vast illicit supply network feeding the black market for medicines, which may have links to the legitimate sector. Many stakeholders in the pharmaceutical sector operate outside the control of the Directorate of Pharmacy, Medicines and Laboratories (DPML).

Established in 2019, the National Blood Transfusion Programme (PNTS) aims to ensure self-sufficiency in high-quality blood products throughout the country. Currently in Cameroon, the number of blood bags required annually to treat patients in healthcare facilities is estimated at 400,000. Blood and labile blood products represent the best treatment option for these patients. However, less than 25 per cent of blood requirements are met each year, with nearly 95 per cent of replacement donations coming from relatives or family members (donations prohibited by the WHO) and less than 5 per cent from voluntary, unpaid donations (donations recommended by the WHO).

1.2.5. Human resources

Human resources in the health sector remain a major structural concern for Cameroon's health system. The Analysis of the Healthcare Sector Labour Market carried out in 2025, based on data from the latest census of healthcare personnel, data from public administrations managing healthcare staff, healthcare professional associations and bodies, as well as recent statistics on healthcare personnel, provides an up-to-date overview of the situation. In 2024, Cameroon had approximately 69,312 active healthcare workers, spread across the various healthcare professions, including around 10,446 community health workers (CHWs). The average density of healthcare staff is estimated at 20.4 healthcare workers per 10,000 inhabitants, which is approximately 45.8 per cent of the indicative threshold of 44.5 per 10,000 set by the Sustainable Development Goals (SDGs). This structural shortfall confirms the continuing lack of qualified staff in health facilities (HF), particularly in rural areas.

The ratios by professional category confirm the scale of the shortfall. The ratio of doctors remains well below international standards, with a marked concentration in the two major cities (Yaoundé and Douala) and a critical shortage in the northern regions and rural areas. The ratio of midwives is also below the required standards, whilst that of nurses is closer to the target. The health human resources standards set out in the National Health Development Plan (PNDS 2021–2025) [54] for primary healthcare facilities show that the operation of Integrated Health Centres (CSI) and District Medical Centres (CMA) does not guarantee a continuous provision of high-quality primary healthcare services to the population.

Several aggravating factors contribute to this situation. The insufficient number of qualified staff in HFs, most of whom are in precarious situations due to a lack of formal contracts, is compounded by the uneven distribution of healthcare staff across the country and a failure to ensure that staff profiles match job requirements. The lack of information on staff working in the private sector and in partner organisations within the health sector further complicates planning. Furthermore, the number of staff recruited by the civil service does not match the number of retirements and the brain drain, meaning that the gap between on-the-ground needs and the number of staff deployed continues to widen.

Added to this shortage of qualified staff in primary healthcare facilities is the issue of Multi-skilled Community Health Workers (CHWs). Although recognised as essential to the provision of effective community care and services, CHWs do not have official status within the healthcare hierarchy nor do they have a service regime. The 2025 Labour Market Analysis estimates that there are approximately 10,446 CHWs out of 69,312 active staff, representing nearly 15 per cent of the total workforce, which highlights both their numerical significance within the system and the urgent need to clarify their institutional integration.

In terms of research, these human resource shortfalls directly limit the system's capacity to conduct operational research at the decentralised level, where needs are nevertheless most critical. The low density of qualified staff in districts and peripheral health areas reduces the

availability of the skills required to collect reliable data, implement research protocols and evaluate health interventions. The PSNRS will need to take this fundamental constraint into account when defining its strategic priorities, by linking the strengthening of research capacity with the gradual resolution of the human resources shortfall.

1.2.6. National Health Information System (NHIS)

1.2.6.1. Strategic role of CIS within the health research ecosystem

MINSANTE utilises the DHIS2 platform, managed by the Health Information Unit, which enables the collection, processing, analysis and visualisation of health data and indicators. Since 2018, the roll-out of DHIS2 has been extended to all health facilities across the country. However, challenges remain regarding data quality (timeliness, consistency, completeness), feedback to peripheral facilities and the effective use of data for decision-making.

The sub-components of the NHIS with the lowest levels of maturity relate to funding, analytical capacity, partner engagement and planning. Meanwhile, the highest levels of maturity are found in the sub-components of disease surveillance and evaluation of progress in the health sector. The strengths and weaknesses identified show that significant progress has been made in data generation, whilst further efforts are needed in the areas of health data governance, strategic planning and the use of data for decision-making. The assessment of the health information system in Cameroon highlights significant advances, notably a high level of political awareness and a favourable institutional framework. Nevertheless, numerous challenges remain, such as the harmonisation of data collection tools, the improvement of human resources, the strengthening of interoperability, and the consolidation of analytical capacities. Reliance on external funding, the fragmentation of parallel systems, and insufficient material resources currently hinder the performance and reliability of the HIS. The establishment of a clear strategic framework, a national reference framework, and strengthened governance, as well as the development of a culture of data utilisation, are essential for Cameroon to reach a level that complies with international standards. Digitalisation, greater involvement of universities, and the simplification of mechanisms for communication and data dissemination will be key drivers in ensuring the, sustainability and effectiveness of the national health information system (Strategic Plan for Strengthening the National Health Information System 2026-2030).

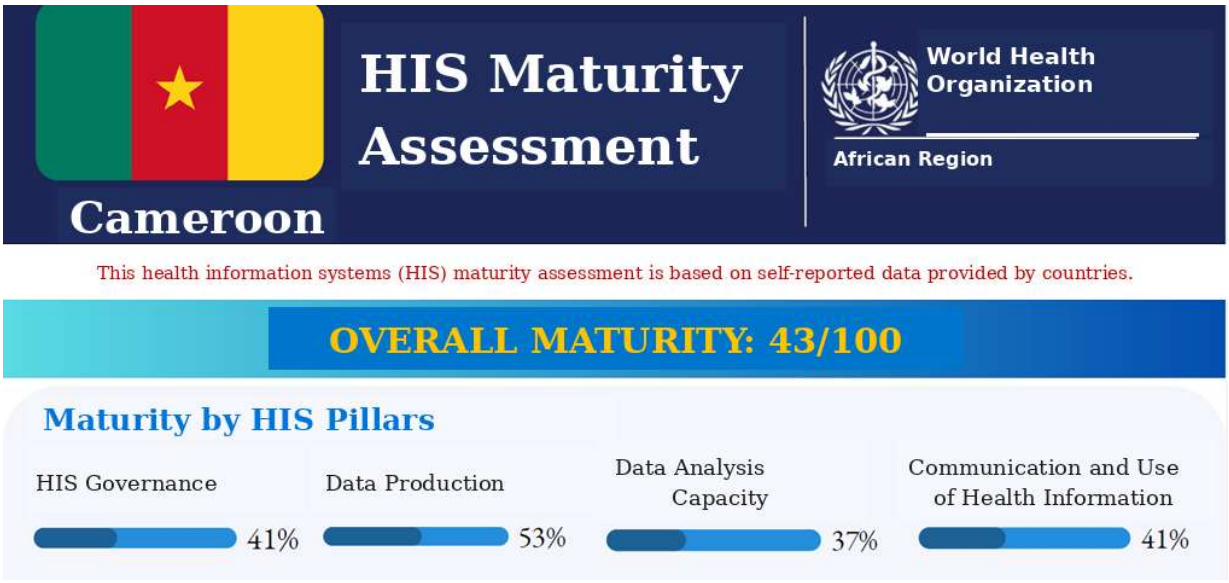

Figure2 : Production, analysis and communication capabilities

In 2025, according to data from the assessment of the HIS's overall maturity carried out using the SCORE and HIS Maturity tools, Cameroon has an estimated overall maturity of 43 per cent, which classifies it as a system that is still emerging. This result reflects persistent difficulties in the production, analysis and use of health data for decision-making purposes.

1.2.6.2. ONSP's strategic role in the health research ecosystem

Beyond its role in epidemiological surveillance as the IHR focal point, the National Public Health Observatory (ONSP) plays a key strategic role within the national health system: that of collecting, analysing, synthesising and disseminating health data to inform health policies. The ONSP aims to transform the data it collects into useful knowledge, fully in line with the 'Data to Policy – Data for Health' approach. Within the framework of the PSNRS, the ONSP acts as a natural bridge between the production of health research (coordinated by the DROS) and programme and policy decision-making. Its complementary role with the DROS is structured as follows: the DROS coordinates the production of operational research, whilst the ONSP contributes to the synthesis, centralisation and dissemination of health data (including that derived from research) to decision-makers. The PSNRS plans to strengthen this functional link, in particular through: (i) the integration of operational research findings into the ONSP's knowledge products (bulletins, analytical reports, dashboards); (ii) the joint production of evidence-based policy briefs; (iii) the strengthening of the ONSP's capacity for evidence synthesis.

1.2.6.3. Cameroon Health Data Collaborative (CHDC) as a coordination platform

The CHDC, by virtue of its nature as a network bringing together health data producers, users and partners, and by virtue of its approach to working within the NHIS, serves as a platform for coordination, partnership and advocacy on health data and information issues. The CHDC represents a key lever for structuring the health research ecosystem and the process of evidence-

based decision-making. The PSNRS positions it not only as a vehicle for promoting the Digital Documentation Centre for the Health Sector (CDNSS), but also as a mechanism for cross-sectoral sharing of research findings and dialogue between data producers and users.

1.2.6.4. Health Research and the Health Information System (HIS)

Operational health research is an essential component of the "health information" pillar of the health system. The PSNRS is aligned with the Strategic Plan for Strengthening the NHIS, which is currently undergoing validation and explicitly identifies the strengthening of health research as one of its priority areas. The tools proposed by the PSNRS (CDNSS, research database, visualisation portal) do not create a parallel system but are integrated into the existing NHIS infrastructure, notably the DHIS2 platform and the public dashboard. The aim is to build a truly integrated decision-making process, in which routine data, surveillance data and research data jointly inform decision-making at all levels of the health system. However, these three information flows still operate largely in silos, without formal mechanisms for integration. The Strategic Plan for Strengthening the NHIS explicitly identifies the strengthening of health research as one of its priority areas, creating an opportunity for functional coordination with the PSNRS.

Early 2022 saw the introduction of the Monthly Activity Report for Multi-skilled Community Health Workers (RMA-CHWs) into the community data collection system, with its digitisation on the DHIS2 platform. Since then, very few CHWs have had access to it. Emphasis should be placed on providing equipment and training CHWs in the use of these tools to ensure the collection and analysis of community data, which remains very limited.

1.3. EPIDEMIOLOGICAL SITUATION IN CAMEROON

1.3.1. Communicable diseases

Communicable diseases remain a major cause of morbidity and mortality. Malaria remains the leading cause of consultations, hospital admissions and deaths in healthcare facilities. Cameroon is one of 11 countries accounting for around two-thirds of the global burden, representing 3 per cent of global cases and 1.9 per cent of malaria-related deaths in the 2023. At national level, malaria accounts for 50 per cent of hospital admissions, 65 per cent of which are among children under five [59]. The proportion of the population with access to insecticide-treated bed nets reached 72.8 per cent in 2023, compared with 59 per cent in 2018 [17].

Cameroon is faced with a widespread HIV epidemic.According to the official statement by the Minister of Public Health (April 2024), HIV prevalence among adults aged 15–49 was estimated at 2.1 per cent in 2023, down from 2.7 per cent in 2018. Disparities persist by gender (3.5 per cent among women compared with 1.9 per cent among men) and by region [18,19]. The number of people living with HIV was estimated at around 480,232 in 2022, with an increase in antiretroviral (ARV) coverage [19]. Tuberculosis remains endemic. Cameroon features on the

WHO lists of countries with a high burden of TB and TB/HIV co-infection. The WHO estimates the incidence at around 170 cases per 100,000 population (2023 estimate), with a diagnostic gap of 43 per cent at national level (2019) [20]. Measles and cholera continue to be reported sporadically, with recurrent outbreaks linked to humanitarian crises and gaps in vaccination coverage, particularly in the North, Far North, South-West and North-West regions [21].

1.3.2. Maternal, neonatal and child health

Maternal, neonatal and child health remains a major challenge. According to the most recent inter-agency estimates, the maternal mortality ratio is estimated at 258 deaths per 100,000 live births in 2023. The country is aiming for a rate of 140 per 100,000 live births by 2030, in line with the SDGs [22].

Neonatal mortality stands at 25 deaths per 1,000 live births (2023), infant mortality (< 1 year) is 41 per 1,000 live births (2023) and child mortality (< 5 years) stands at 67 per 1,000 live births (2023), reflecting persistent shortcomings in access to emergency obstetric and neonatal care [23,24]. These indicators also reflect the impact of infections, perinatal complications and malnutrition on child survival.

1.3.3. Non-communicable diseases

Methodological note

The data below are the most recent available WHO/NCD-RisC and IDFestimates. Cameroon has not yet conducted a comprehensive national STEPS survey; the estimates are therefore based on modelling using sub-national population-based studies. Closing this data gap is a priority for operational research.

Cameroon is undergoing a gradual epidemiological transition, with a rise in non-communicable diseases (NCDs). The probability of premature death (between the ages of 30 and 70) due to one of the four main NCDs (CVD, cancers, diabetes, chronic respiratory diseases) is estimated at around 20 per cent in Cameroon [25].

- High blood pressure: according to estimates from the NCD Risk Factor Collaboration used by the WHO, the prevalence of high blood pressure among adults aged 30–79 in Cameroon is estimated at around 38 per cent (2019 data), with only 6 per cent of those with high blood pressure achieving adequate blood pressure control [26]. This estimate is consistent with the WHO profile on hypertension published in 2025.
- Diabetes: the prevalence of diabetes in the WHO African Region rose from 6.4 per cent in 1990 to 10.5 per cent in 2022 among adults aged 18 and above [27]. For Cameroon specifically, the IDF (Diabetes Atlas, 10th edition, 2021) estimated the prevalence in the African region at 4.5 per cent (adults aged 20–79) with a projection of 5.2 per cent by 2045 [28]. The IDF (11th edition, 2025) confirms the projected 142 per cent increase in the number of people with diabetes in Africa by 2050 [29]. The rate of undiagnosed cases

remains a cause for concern: the proportion of undiagnosed diabetes in Africa is the highest in the world, estimated at 53.6 per cent [28].

- Cardiovascular diseases: according to the WHO's Global Health Estimates (2021), the probability of premature death caused by cardiovascular disease (ages 30–70) in Cameroon was 12 per cent in 2012, and the age-standardised mortality rate caused by cardiovascular disease was 11.85 per cent in 2017 (GBD data) [25,30]. High blood pressure is the main cardiovascular risk factor in the country.
- Cancers: the increasing burden of cancer is part of this transition, although national registry data remain limited.

Behavioural risk factors contribute to this trend:

- Tobacco: the prevalence of current smoking among adults (aged ≥15 years) is estimated at 4.3 per cent in 2022 (8.4 per cent among men, 0.3 per cent among women), down from 7.5 per cent in 2019 (WHO, WHO Global Report on Trends in Prevalence of Tobacco Use 2000-2030, 2024) [31].
- Physical inactivity: the WHO estimates that around 27 per cent of Cameroonian adults do not meet the recommended levels of physical activity [25].
- Unbalanced diets, particularly excessive salt intake (with average consumption exceeding 5 g/day) [25].

This transition is placing additional strain on a health system that has historically been geared towards combating infectious diseases. The lack of a recent national STEPS survey represents a critical gap in the steering of policies for the prevention and control of NCDs [34], which operational research should help to address [25].

1.3.4. Health emergencies and epidemic threats

The country remains vulnerable to recurring health emergencies and epidemic threats, notably outbreaks of cholera, measles, meningitis and other emerging or re-emerging diseases. Humanitarian and security crises (in the Lake Chad basin (Far North), the North-West and South-West regions, and the East region affected by the influx of refugees) exacerbate the vulnerability of populations and disrupt the continuity of health services. Outbreaks of cholera (notably in 2022 and 2024 in the Far North and South- -West) and meningitis occur regularly in the northern regions, with varying levels of severity [21].

1.3.5. Summary and implications for operational research

The epidemiological situation in Cameroon (characterised by the dual burden of communicable and non-communicable diseases, persistent challenges in maternal and child health, and recurring health emergencies) highlights the need to strengthen integrated disease surveillance, improve the quality and use of health data, and promote operational research as a strategic lever for adapting interventions to local realities, reducing health inequalities and sustainably improving national health indicators [32,33].

In particular, operational research could help to: (i) fill data gaps on NCDs by conducting a national STEPS survey; (ii) evaluating the effectiveness of integrated chronic disease management strategies at the primary healthcare level; (iii) optimising interventions to combat malaria, TB and HIV in areas of humanitarian crisis; and (iv) improving the coverage and quality of emergency obstetric and neonatal care.

The purpose of this Health Research Plan is to define Cameroon's strategic directions in the field of operational research, as well as the priorities, mechanisms and actions required for the better organisation, promotion and coordination of health research activities, with a view to generating scientific knowledge that will help improve public health and strengthen the health system. In line with the DROS's core remit, this plan goes beyond operational research issues and addresses topics such as driving the development of improved traditional medicines.

CHAPITRE 2. METHODOLOGICAL APPROACH

2.1. THEORETICAL FRAMEWORK FOR THE ANALYSIS

The development of the PSNRS 2026-2030 is based on a theoretical framework rooted in the National Health Research Systems (NHRS) model, conceptualised by Pang et al. [35] at the instigation of the World Health Organisation. This framework, which serves as the international normative benchmark for analysing health research as a structured system, is organised around four fundamental and interdependent functions.

The first function, governance (stewardship), refers to the state's strategic leadership in defining priorities, developing regulatory frameworks and coordinating stakeholders. The second function concerns funding, that is, the mobilisation, allocation and management of resources dedicated to research. The third function centres on the creation and support of resources, encompassing skilled human resources, infrastructure and organisational capacity. The fourth function, which constitutes the ultimate purpose of the system, is the production, dissemination and use of knowledge to improve health.

This framework has been applied in many low- and middle-income countries, notably Ghana, Kenya, South Africa and Senegal, where it has been used to identify weaknesses in national research systems and to improve alignment between scientific output and health priorities. In the Cameroonian context, it appears particularly relevant to conduct a systemic examination of the structural bottlenecks that limit the impact of health research on health policies and programmes.

The PSNRS's framework, comprising four strategic outcomes, covers all four pillars of the SNRS: Outcome 1 (Governance and Ethics) corresponds to the "Governance and Leadership" pillar; Outcome 4 (Sustainable Funding) corresponds to the "Funding" pillar; Outcome 3 (Capacity Building) corresponds to the "National Capacities and Infrastructure" pillar; Outcome 2 (Evidence Generation and Use) corresponds to the "Knowledge Generation and Use" pillar. This correspondence ensures the plan's systemic comprehensiveness.

2.2. CONCEPTUAL FRAMEWORK FOR THE ANALYSIS

The conceptual framework for the analysis has been operationalised around four interdependent analytical components, structured in line with the sections of the interview guides:

- The first component, strategic direction and research framework, examines needs, priorities, and the regulatory and ethical framework.
- The second component analyses the resources and means mobilised, including funding, and human, technical and organisational capacities.
- The third component focuses on the dynamics of collaboration and partnerships between technical directorates, research institutions, technical and financial partners, and civil society.
- The fourth component focuses on the production, dissemination and use of research findings.

The interaction between these four components generates intermediate outcomes - relevance of research topics, quality of research, and ownership by decision-makers - which determine the expected effects on the performance of the health system. In line with WHO/TDR guidelines [62] and the concept of integrated research, health research is defined in this framework as an applied scientific approach, integrated into health programmes and services, aimed at producing knowledge that can be directly used to improve the effectiveness, efficiency, quality, equity and resilience of the health system. This approach explicitly recognises health districts, health facilities and the community as key settings for the generation, testing and application of research data.

2.3. DEVELOPMENT PROCESS

The process of developing the PSNRS was led by the Division of Operational Health Research (DROS), in accordance with the Methodological Guide for Strategic and Operational Planning in Cameroon [36]. This guide advocates a participatory and multisectoral approach at all stages of the planning cycle. A monitoring committee was established at the outset to ensure the technical quality and institutional ownership of the process. The process was structured into four successive and iterative phases:

2.3.1. Phase 1: Conceptualisation and methodological framework (October-November 2025).

This phase involved putting together the technical drafting team, carrying out a preliminary stakeholder analysis, developing data collection tools (individual and group interview guides, a document analysis grid), defining the conceptual framework and having the methodology approved by the monitoring committee. The interview guides were tailored to five target groups: heads of departments and programmes at MINSANTE, academic and research institutions, technical and financial partners, civil society organisations, and healthcare professionals at the intermediate and operational levels.

2.3.2. Phase 2: Situational analysis and participatory assessment (November 2025-January 2026).

Data collection comprised two complementary components. The first component, the literature review, focused on national strategic documents (the 2020–2030 Sectoral Health Strategy, PNDS 2021–2025, annual sectoral review reports), health programme reports, available databases (DHIS2, GBD 2021 data, EDS 2018, MICS), international policy frameworks (WHO/AFRO resolutions, the Algiers Declaration, the Bamako Declaration) and the evaluation of the 2014–2018 National Strategic Programme for Research and Health (PSNRS). The second component, the field consultations, was carried out through individual interviews and focus groups with key informants selected using purposive sampling from with various organisations involved in the production and use of health research data. The interviews were recorded, transcribed using

automated transcription software (Sonix.ai, TurboScribe), and then analysed using thematic content analysis. Informed consent was obtained from participants in advance.

2.3.3. Phase 3: Development of the strategic framework and implementation tools (February-March 2026).

Based on the results of the situational analysis, the technical team developed the strategic framework (vision, outcomes, outputs, indicators), the organisational framework (roles and responsibilities of stakeholders), the monitoring and evaluation framework, and the financial framework. This phase included a series of technical workshops that enabled the various stakeholders to progressively validate the components of the plan.

Based on data obtained from interviews and document analysis, two complementary analytical methods were employed: a functional analysis of the ROS and a PESTEL analysis. The functional analysis was carried out specifically on the basis of a survey of key informants at the strategic, intermediate and operational levels, on the one hand, and a review of the main national strategy documents for the various programmes and projects of the Ministry of Public Health, on the other. This review covered all the mechanisms enabling Cameroon to generate, utilise and institutionalise research, using a tool designed through a participatory process with input from all key stakeholders, including the DROS. The main components examined were :

(i) Governance (the national vision for operational research, research priorities aligned with health needs, ethical and regulatory frameworks, coordination between ministries, universities, hospitals, NGOs and technical partners);
(ii) Funding issues (mobilisation of sustainable national and partner funding, calls for proposals, resources for translating results into practice, not merely for data production); (iii) Capacity building (development of multidisciplinary teams, methodological support, etc.);
(iii) The generation of useful evidence (studies focused on concrete issues such as the organisation of care, quality, costs, access, equity, continuity of services, etc.);
(iv) Integration into decision-making and practice (translating findings into operational recommendations); (vi) Dissemination and sharing of knowledge;
(v) Documentation of best practices and failures.
(vi) Partnerships and sustainability (embedding research within health programmes rather than on the periphery, developing regional and international collaborations, etc.);

The PESTEL analysis recommended by MINEPAT for the development of strategy documents in Cameroon was carried out according to its main criteria: Political, Economic, Sociocultural, Technological, Environmental and Legal.

2.3.4. Phase 4: participatory validation and feedback (March-April 2026).

The draft PSNRS underwent several rounds of review by national and international experts, followed by a participatory validation workshop bringing together all the identified stakeholders.

The comments made during these sessions, on which a consensus was reached, were incorporated into the final version of the document.

2.4. STAKEHOLDERS INVOLVED

The main categories of stakeholders who contributed to the development of the PSNRS include: central, intermediate and peripheral structures of the MINSANTE (technical directorates, health programmes, health facilities); partner administrations in the health sector in the field of research (MINRESI, MINESUP, MINDEF); faculties of medicine and pharmacy and health training colleges; research centres and institutes (CPC, IMPM, CIRCB, CRID, OCEAC, LNSP); technical and financial partners; learned societies and scientific networks; civil society organisations; and public, private and faith-based health facilities.

2.5. ANALYTICAL TOOLS

The situational analysis drew on several complementary tools, applied sequentially. The PESTEL analysis (Political, Economic, Sociocultural, Technological, Environmental, Legal), recommended by MINEPAT for the drafting of strategy documents in Cameroon, enabled an assessment of the external environment in which health research takes place. The functional analysis, structured around the DROS's core remit, examined the organisational, functional and utility aspects of the national research framework. The SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis summarised the results of the previous analyses by comparing the system's internal capabilities with external dynamics.

In addition, a survey of 323 health research projects (151 university theses and 172 administrative research authorisations issued between 2024 and 2025) made it possible to map national scientific output and identify gaps in research. The operational outcomes of national health programmes were compared with the SSS targets to estimate gaps in programme performance.

2.6. PRIORITISATION CRITERIA

The identification of strategic and thematic priorities was based on systematic triangulation incorporating three levels of analysis: analysis of the existing research corpus, assessment of programme performance gaps, and analysis of the national epidemiological profile. Priorities were ranked according to a weighted composite score combining five criteria: the national burden of disease (30 per cent), the severity of the research gap (25 per cent), the magnitude of the programme performance gap (25 per cent), the degree of alignment with the priority areas of the SSS (15 per cent) and operational feasibility (5 per cent). It should be noted that these thematic priorities constitute a guiding framework. A detailed national health research agenda will be drawn up during the first year of the PSNRS's implementation, through a dedicated participatory process involving all stakeholders.

2.7. METHODOLOGICAL LIMITATIONS

Several methodological limitations are worth noting. Purposive sampling does not allow for statistical representativeness of all health research stakeholders in Cameroon. Quantitative data on research funding remain fragmented in the absence of national health research accounts. The corpus of 323 studies analysed covers only documented outputs and does not include all research carried out outside the formal MINSANTE framework (universities, private sector). These limitations highlight the need to carry out a comprehensive mapping of stakeholders and research output from the first year of implementation, as set out in Output 1.1 of the logical framework.

CHAPITRE 3. A REVIEW OF OPERATIONAL RESEARCH IN HEALTHCARE

3.1. ANALYTICAL FRAMEWORK AND METHODOLOGY

This review of the state of operational research in health (ORH) in Cameroon follows a two-stage structured approach. A contextual analysis (PESTEL) first characterises the macro-environment in which the national research system operates. A functional analysis then examines the internal capacities of the national system according to the four-pillar model of the National Health Research System (NHRS) defined by Pang et al. [35] and consolidated by WHO-AFRO Resolution AFR/RC65/R2. An integrative strategic synthesis (SWOT) concludes the chapter and provides a bridge to the strategic framework in Chapter 5.

The four pillars selected as the structural framework are:

- Governance and leadership: organisational and regulatory framework, stakeholders, intersectoral coordination, national prioritisation mechanism, ethical and normative standards.
- Health research funding: mobilisation of domestic and external resources, allocation mechanisms, sustainability.
- National health research capacity: human resources, institutions, infrastructure, initial and continuing training.
- Knowledge production and utilisation: evidence generation, translation of results, scientific communication, integration into decision-making and practice.

This framework meets several requirements: (i) alignment with the international normative framework underpinning the analysis of health research systems in Africa; (ii) consistency with the five strategic priorities of the PSNRS 2026-2030 (Chapter 5); (iii) institutional clarity, by providing decision-makers with a directly actionable assessment.

The analysis is based on a methodological triangulation: a literature review of national strategic frameworks (SSS 2020–2030, PNDS, vertical programme plans), a normative analysis (Decree No. 2013/093, Act No. 2022/008, Act No. 2025/009), individual interviews and focus groups conducted between November 2025 and January 2026 with key informants at the strategic, intermediate and operational levels (see Chapter 2), and an analysis of the ROS situational analysis report.

3.1.1. PESTEL analysis

The PESTEL analysis, recommended by the MINEPAT Methodological Guide to Strategic Planning [36], characterises the environment in which the national ROS system operates.

At the political level, the environment formally recognises the importance of research for health policy-making, as evidenced by the 2020–2030 Sectoral Health Strategy (Objective 4.5),

international commitments (SDG 3, the 2008 Algiers Declaration, AFR/RC65/R2) and recent legislative strengthening (Act No. 2022/008; Act No. 2025/009). However, this recognition is struggling to translate into operational leadership: public health research (PHR) continues to be perceived as a peripheral activity, frequently delegated to technical and financial partners (TFPs) or academic stakeholders, rather than being undertaken as a sovereign function.

Economically speaking, research is still largely viewed as a non-productive cost in the short term, rather than as an investment in efficiency that generates savings in the medium and long term. The national economy of policy-oriented research is exogenous, fragmented and, as things stand, structurally unsustainable.

From a socio-cultural perspective, research remains strongly associated with the academic sphere (theses, publications, academic careers) rather than with the collective resolution of public policy issues. This perception fuels low institutional demand, a failure on the part of decision-makers to take ownership of the results, and limited involvement of practitioners and communities in knowledge generation.

From a technological perspective, the country has emerging digital infrastructure (DHIS2, the Health Sector Digital Documentation Centre, the Cameroon Health Data Collaborative platform, and the National Public Health Observatory). However, the lack of harmonised usage standards and mechanisms for pooling advanced expertise (biostatistics, data science, health economics) limits their added value. The challenge is not a lack of tools, but a lack of standardised systems for their use. The World Health Statistics 2025 (WHO) [39] also highlights the growing importance of artificial intelligence and digital transformation for health research in Africa.

From an environmental perspective, recurrent epidemics, humanitarian crises (the Far North, the North-West and South-West regions, and the East) and the health impacts of climate change objectively reinforce the need for rapid, context-specific and resilient health research.

From a legal perspective, the regulatory and ethical framework is recognised as legitimate and protective. However, its implementation remains rigid, disproportionate to the level of risk posed by protocols, and inadequately resourced. Standardised procedures, review times and the lack of post-approval monitoring hinder the conduct of operational research.

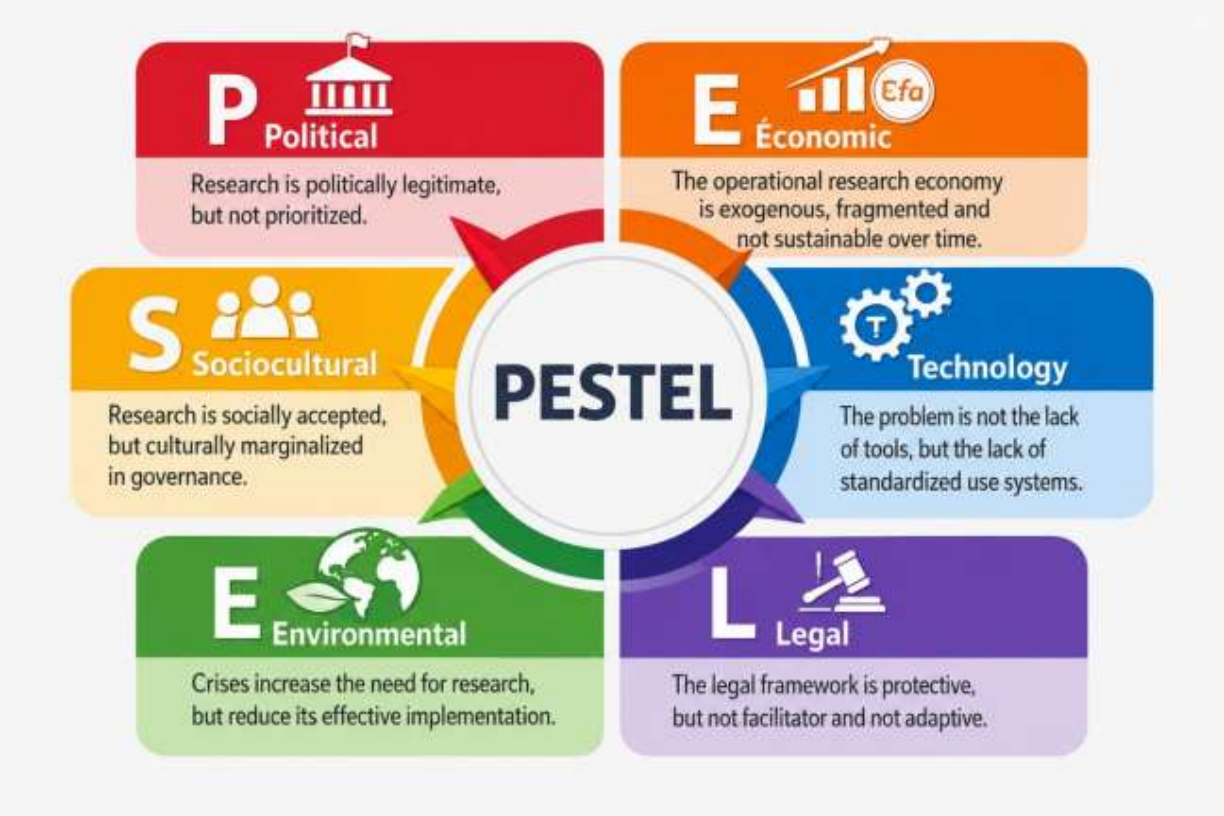

Figure3 : PESTEL analysis of operational research in Cameroon

3.2. CURRENT STATE OF GOVERNANCE AND LEADERSHIP

3.2.1. Organisational and institutional framework

Cameroon has a formal organisational framework for the coordination of health research. Decree No. 2013/093 of 3 April 2013 on the organisation of the Ministry of Public Health establishes the Division of Operational Health Research (DROS) as the central body responsible for coordinating, promoting and guiding operational research in the sector. This institutional anchoring is a strength, as few countries in the sub-region have a dedicated structure at this hierarchical level.

However, the DROS operates in an environment characterised by a fragmentation of research efforts: a number of research projects are carried out within central directorates, vertical programmes and projects without the DROS being informed or involved, which weakens its capacity for strategic steering and knowledge capitalisation. The key stakeholders interviewed are in agreement: *"Research priorities are often dictated by the projects and terms of reference of technical and financial partners, rather than by a clear national framework."*

Alongside the DROS, the institutional ecosystem comprises a network of institutes and centres specialising in human health, mainly concentrated in Yaoundé: the Cameroon Pasteur Centre (CPC) and its branches in Garoua and Douala, the Institute for Medical Research and the for the Study of Medicinal Plants (IMPM), the Chantal Biya International Research Centre (CIRCB), the Higher Institute for Scientific and Medical Research (ISM), the National Agency for Research on AIDS and Hepatitis (ANRS-MIE Cameroon), the Organisation for Coordination in the Fight against Endemic Diseases in Central Africa (OCEAC), the French National Research Institute for Development (IRD), the Centre for Research in Infectious Diseases (CRID) and the National Public Health Laboratory (LNSP). In addition to these organisations are the National Public Health Observatory (ONSP), a national platform for the synthesis and dissemination of health information, and the Cameroon Health Data Collaborative (CHDC), a multi-stakeholder forum for the coordination of health data.

3.2.2. Regulatory and legislative framework

The regulatory framework for health research has seen substantial progress. Act No. 2022/008 of 27 April 2022 [37] and Act No. 2025/009 of 15 July 2025 on the donation, collection and transplantation of human biological material represent major milestones. They consolidate the legal framework for health research and demonstrate the legislature's commitment to an ethical and structured environment.

However, the implementation of this political will remains limited, mainly due to delays in drafting the implementing regulations. In the absence of these regulations, stakeholders continue to operate on the basis of circulars and inconsistent internal procedures, which create legal uncertainty for researchers and study sponsors.

3.2.3. National ethical review system

Cameroon has established an ethical review system centred on the National Ethics Committee for Human Health Research (CNERSH), whose new executive committee was appointed by Decision No. 2057/D/MINSANTE/SESP/SG/DROS of 10 May 2023, and regional human health research ethics committees, whose territorial coverage is gradually expanding. A *Guide on the organisation, functioning and procedures of the ethical and administrative review system for human health research in Cameroon* has been drawn up, complementing the regulatory framework.

However, three structural limitations are undermining the system's performance:

(i) inconsistencies in the way regional committees operate, with their performance relying more on the individual commitment of members than on structured institutional support;
(ii) a lack of proportionality in review procedures relative to the risk level of protocols, which particularly disadvantages low-risk human health research (observational studies, implementation evaluations);
(iii) the absence of structured post-approval monitoring, which deprives the system of an essential mechanism for ensuring ethical quality whilst the research is being conducted.

3.2.4. National prioritisation mechanism: a non-existent system

No official document sets out a formalised national vision for operational health research. This absence directly results in the lack of an institutional mechanism for prioritising research topics. In practice, research agendas are shaped by funding opportunities and partners' terms of reference, rather than by the needs of the national health system.

The consequences are threefold: (i) thematic fragmentation of the research carried out, (ii) recurrent misalignment with national health priorities, (iii) a weakening of the MINSANTE's decision-making autonomy over the national research agenda.

3.2.5. Intersectoral coordination

Coordination between institutional stakeholders remains poorly structured. The scope of collaboration with the Ministry of Scientific Research and Innovation (MINRESI) remains unclear, and health research conducted by universities under the supervision of the Ministry of Higher Education (MINESUP) largely escapes the knowledge and oversight of MINSANTE. NGOs, learned societies and communities are not sufficiently integrated into research governance mechanisms.

These findings underpin the central importance of Strategic Priority 1 (Governance and Coordination): formalising a national vision for public health research, adopting implementing regulations for the 2022 and 2025 laws, establishing a national mechanism for prioritising research themes, strengthening the operational capacity of the CNERSH and regional committees, and structuring interministerial coordination.

3.3. CURRENT STATE OF FUNDING

3.3.1. Level and structure of funding

Funding for operational health research in Cameroon is characterised by uncertainty, fragmentation and external dependence. No budget line dedicated to operational health research is identified in the State's budgetary documents, and estimating the total volume of resources mobilised each year is made difficult by the absence of a centralised traceability mechanism.

By way of comparison, the Abuja target (15 per cent of the state budget allocated to health) remains unmet (averaging 3.6 per cent over the recent period), and even within the health budget itself, the share allocated to research remains negligible, well below the 2 per cent of National Health Expenditure target recommended by the WHO for health research.

3.3.2. Allocation mechanisms and calls for proposals

Each institution, programme or project secures its own funding independently, and national coordination bodies are often unaware of how this funding is obtained. Competitive national calls

for proposals are rare, and the number of international calls open to Cameroonian teams is declining against a global backdrop of shifting donor priorities and reductions in official development assistance.

3.3.3. Funding for the translation of research findings

A particularly structural shortcoming concerns the funding for translating research findings into policy and practice. Resources are mainly channelled towards data production, and only marginally towards knowledge translation processes (such as the drafting of strategic briefing notes, dissemination to decision-makers and support for implementation), even though these are essential for transforming knowledge into action.

These findings form the basis of Strategic Priority 5 (Resource mobilisation and sustainability of funding): advocating for a dedicated budget line for research-to-policy translation, diversifying funding sources (decentralised local authorities, earmarked taxes, philanthropic foundations, the private sector via CSR), establishing a national scheme for competitive calls for proposals, and explicitly earmarking resources for the translation of research findings.

3.4. CURRENT STATE OF NATIONAL CAPACITIES

3.4.1. Human resources

Cameroon has strong scientific capacity, particularly within universities, medical faculties and specialised institutes. Several senior officials at MINSANTE are also university lecturers and researchers, acting as a bridge between policy-makers and knowledge producers.

Four structural weaknesses are nevertheless apparent:

(i) a marked shortage of expertise in biostatistics, data science, socio-anthropology of health and health economics;
(ii) a geographical concentration of advanced expertise in a few institutions, mainly in Yaoundé and Douala, with no mechanism for pooling resources for the benefit of the Regional Public Health Delegations (RDPHs) and the districts;
(iii) a scarcity of multidisciplinary teams comprising clinicians, epidemiologists, health economists and social scientists;
(iv) staff training (clinicians, managers, epidemiologists) in ROS limited to initial academic training, with no structured system for continuing professional development or scientific mentoring.

3.4.2. Institutions and infrastructure

Alongside the institutes mentioned in section 3.2.1, the country has a developing digital infrastructure: the National Health Information System (NHIS) operated on DHIS2, the CDNSS, the ONSP and the CHDC. These infrastructures constitute underutilised strategic assets.

Three shortcomings limit their current added value:

(i) the low level of interoperability between national and sub-national databases, which prevents cross-analysis of trends (for example: infectious diseases versus non-communicable diseases, co-infections, co-morbidities);
(ii) the CDNSS is under-fed with data and under-utilised; it is little known amongst stakeholders and insufficiently integrated into decision-making processes;
(iii) the lack of a single national platform for registering research protocols and sharing research findings.

3.4.3. Training and continuing professional development

The volume of academic output (dissertations, theses) from medical and pharmacy faculties is significant, but remains predominantly focused on curriculum validation rather than on resolving operational problems within the health system. No structured national system for continuing training in HIR is currently in place, and methodological support for practitioners on the ground (RDPH, districts, health facilities) remains ad hoc and largely informal. Operational stakeholders unanimously express the need for closer collaboration with the DROS and systematic support in research methodology.

These findings form the basis of Strategic Priority 2 (Strengthening institutional and human capacity): the development of a national continuing professional development programme in ROS aligned with international standards ([50–52]), the establishment of a scientific mentoring scheme, the sharing of advanced expertise to benefit intermediate and operational levels, and the structuring of interoperability between national databases in accordance with the FAIR principles.

3.5. CURRENT STATE OF KNOWLEDGE PRODUCTION AND USE

3.5.1. Production of evidence

Cameroon regularly produces large-scale studies: the Cameroon Population-based HIV Impact Assessment (CAMPHIA), the Demographic and Health Survey (DHS), the Multiple Indicator Cluster Survey (MICS) (generally commissioned by MINSANTE and conducted in partnership with the National Institute of Statistics, which falls under the remit of MINEPAT), as well a , national studies conducted by vertical programmes and local surveys. This output demonstrates a genuine capacity to generate evidence-based data.

Three limitations temper this assessment:

(i) Firstly, the data does not always reach decision-making bodies in a timely manner.
(ii) Secondly, the data collection strategy is not explicitly linked to a decision-making purpose defined in advance, which leads to sub-optimal use of the results.
(iii) Thirdly, analyses are concentrated at higher levels (central and programme) and focused primarily on monitoring programme objectives, to the detriment of analyses aimed at

providing an integrated understanding of the national epidemiological situation and informing operational decisions at intermediate and operational levels. Regular epidemiological surveillance surveys remain rare and are limited to a few programmes.

3.5.2. Quality standards and scientific norms

The systematic application of international standards for scientific output (CONSORT for clinical trials [50], STROBE for observational studies [51], PRISMA for systematic reviews [52] and the FAIR principles (Findable, Accessible, Interoperable, Reusable) [48] for data management) is not yet widespread in the conduct and publication of national studies. This situation limits the international comparability of results and their integration into global databases.

3.5.3. Translating results into policy and practice

The analysis reveals a major shortfall in the translation of research findings into policy and practice. At the strategic levels of the Ministry of Health (MINSANTE), research outputs are available but are rarely utilised for policy formulation, planning and programme improvement. Their use becomes marginal at the intermediate and operational levels.

The factors behind this are systemic:

(i) the absence of a national strategy for utilising findings;
(ii) a scarcity of knowledge products tailored to decision-makers (policy briefs, operational summaries, periodic epidemiological bulletins);
(iii) the lack of an institutional timetable for disseminating research findings, apart from standard programme reports;
(iv) the limited institutionalisation of the knowledge translation function within the MINSANTE's directorates and programmes.

3.5.4. Scientific communication and knowledge management

The Digital Documentation Centre for the Health Sector (CDNSS) is the national reference body for health documentation. However, its content is updated irregularly and its use by stakeholders is limited, due to a lack of structured institutional communication and integration into decision-making processes. No periodic national epidemiological bulletin is currently published in a standardised format. Mechanisms for capitalising on good practices and documenting failures are virtually non-existent.

These findings underpin Strategic Priorities 3 (Knowledge generation aligned with health priorities) and 4 (Systematic use of results): a national scheme for calls for proposals on the ten thematic priorities, the integration of international standards (CONSORT, STROBE, PRISMA, FAIR), institutionalisation of Data-to-Policy workshops, launch of a periodic national health bulletin, revitalisation of the CDNSS as a national reference platform, and integration of the knowledge translation function into the MINSANTE's directorates.

3.6. STRENGTHS-WEAKNESSES-OPPORTUNITIES-THREATS (SWOT) ANALYSIS

The Strengths-Weaknesses-Opportunities-Threats analysis consolidates the findings of the four pillars and cross-references the system's internal capacities with the external dynamics that influence its performance, sustainability and ability to inform public decision-making. It forms the strategic foundation of Chapter 5.

Table3 : Integrative SWOT analysis of operational health research in Cameroon

STRENGTHS	WEAKNESSES
▪ Strong scientific capabilities in universities, institutes and laboratories (CPC, IMPM, CIRCB, CRID, OCEAC, ANRS, IRD, LNSP) ▪ Formal recognition of research in the 2020–2030 Health Sector Strategy and international commitments ▪ Formal organisational framework of the DROS (Decree No. 2013/093 of 3 April 2013) ▪ Structured ethical review system (CNERSH + regional committees) ▪ Strengthened legislative framework (Acts No. 2022/008 and No. 2025/009) ▪ Existence of the ONSP, the CHDC and the CDNSS as coordination and dissemination bodies ▪ Significant volume of academic output (faculties of medicine and pharmacy) ▪ Close links between universities and MINSANTE (MINSANTE officials also serve as lecturers and researchers) ▪ Experience gained through projects funded by PTFs ▪ Regular large-scale studies (CAMPHIA, EDS, MICS)	▪ Lack of a national vision for the ROS formalised in an official document ▪ Insufficient coordination between the DROS, the technical directorates of MINSANTE, MINRESI, MINESUP and the universities ▪ Lack of a national mechanism for prioritising research topics ▪ An ethical framework ill-suited to low-risk ROS; lack of post-approval monitoring ▪ Delays in drafting implementing regulations for recent legislation ▪ Virtually non-existent domestic funding and heavy reliance on external funding ▪ Virtually no funding for the translation of research findings ▪ Limited capacity in biostatistics, data science, socio-anthropology and health economics ▪ Lack of a national continuing professional development scheme for ROS ▪ Non-interoperability of databases; under-utilisation of the CDNSS ▪ Lack of a national strategy for utilising research findings ▪ No standardised periodic national epidemiological bulletin ▪ Lack of structured mechanisms for knowledge capitalisation and management

OPPORTUNITIES	THREATS
▪ Simultaneous development of the PSNRS 2026–2030 and the PNDS 2026–2030 (policy window) ▪ Growing international priority given to evidence-based policy ▪ Progressive digitalisation of the health system (DHIS2, ONSP, CDNSS, CHDC) ▪ Expanding "Data-to-Policy" approach across the continent ▪ The era of artificial intelligence and digital transformation (WHS 2025) ▪ African regional dynamics (Africa CDC [60], CEMAC, Algiers Declaration) on health sovereignty ▪ Act No. 2022/008 and Act No. 2025/009 as drivers for shaping the national framework ▪ Availability of targeted funding within certain vertical programmes ▪ The presence of academic and research stakeholders who are highly engaged and keen to be involved ▪ Positive pressure from health crises to make decisions based on local data	▪ A shift in donor priorities and a reduction in official development assistance ▪ Persistent institutional and disciplinary fragmentation ▪ A culture of urgency at the expense of systemic learning ▪ Humanitarian and migration crises (Far North, North-West, South-West, East) ▪ Health impacts of climate change on fragile health systems ▪ Discouragement of young researchers due to a lack of career prospects in ROS ▪ Risk of national research losing credibility if results continue to go unused ▪ Socio-political instability in certain parts of the country ▪ Burnout amongst stakeholders due to research being undervalued by institutions

Cameroon has genuine scientific potential and a formal institutional framework, but the national operational health research system is struggling to translate knowledge into sustainable action aligned with the priorities of the health system. The four pillars present a mixed picture: governance suffers from a lack of a formalised vision and prioritisation mechanisms; funding is structurally dependent and fragmented; capacities are robust but insufficiently pooled; and although research output is substantial, translating it into decisions remains the weak link in the chain.

The context is nevertheless strategically favourable for a systemic overhaul, provided that structural reforms are undertaken simultaneously across all four pillars (governance, funding, capacities, and research output and utilisation) and to capitalise on the convergence of the national policy window (PSNRS and PNDS 2026–2030), the strengthened legislative framework (Acts of 2022 and 2025) and regional dynamics (Africa CDC, AFR/RC65/R2). It is this overhaul that the present National Strategic Plan for Health Research 2026–2030 is designed to drive, through the five strategic priorities detailed in Chapter 5.

CHAPITRE 4. OPERATIONAL RESEARCH PRIORITIES (2026-2030)

An analysis of the current operational health research framework has identified the following priorities, which take into account the challenges and issues identified, as well as international principles in the field and the official remit of the DROS. The table below presents the corresponding prioritisation matrix.

4.1. ORGANISATIONAL AND MANAGEMENT PRIORITIES

In accordance with the resolutions of the WHO Regional Office for Africa, notably the Health Research Strategy 2016–2025 (AFR/RC65/R2) and the Framework for Strengthening the Use of Evidence (AFR/RC71/13) [63], the priorities for strengthening the health research system in Cameroon are structured around the four pillars of the SNRS:

1. **Pillar 1. Governance and leadership**: Organising the coordination of health research stakeholders and health research activities at central, intermediate and operational/hospital levels, as well as within sectoral bodies; strengthen intersectoral collaboration on health research through existing platforms; clarify institutional responsibilities, strengthen regulation, consolidate ethics committees and ensure the protection of participants and the oversight of bioethics; and establish a priority operational research agenda for the country.
2. **Pillar 2. Sustainable funding and partnerships for operational health research**: developing innovative mechanisms (competitive funds, public- private co-funding, South–South partnerships, domestic mobilisation).Formalising partnerships with universities. Advocating for increased funding for health research.
3. **Pillar 3. Strengthening institutional and human capacity in health research:** training new researchers, strengthening researchers' capacities, creating networks of young scientists, encouraging non-researchers to share data and experiences, and equipping local institutions. Ensuring that relevant research training modules are included in the core training curricula for doctors, nurses and statisticians.
4. **Pillar 4. Promoting the production and utilisation of health research findings:** encouraging relevant research, strengthening national databases to facilitate the active dissemination of health research data to decision-makers and communities through both conventional and modern channels; this will incorporate, amongst other things, the principles of the "Data to Policy" approach, which will enable data to be transformed into concrete operational or policy decisions. Strengthen the capacities of the ONSP and the CHDC network as a platform for sharing research results Monitor the development of improved traditional medicines and support research into medicinal plants. Monitor the achievement of the indicators set out in the sectoral health strategy and other strategic documents.

4.2. THEMATIC PRIORITIES

ThePSNRS sets out a thematic framework based on a systematic triangulation of epidemiological data, gaps in programme performance and shortcomings in national scientific output. These guidelines are not intended to constitute a detailed research agenda, but rather to provide a reference framework for prioritisation. A more detailed and specific national health research agenda (research questions, timeframes, responsible parties) will be developed during the first year of the PSNRS's implementation, in accordance with Activity 1.1 of Outcome 1 of the logical framework.

The ten thematic priorities selected, ranked by weighted composite score, are set out in the priorities table (Table 4 of the main document). These cover: the prevention and screening of non-communicable diseases (PT1), mental health (PT2), antimicrobial resistance (PT3), human resources for health (PT4),health financing and universal health coverage (PT5), preparedness for health emergencies (PT6), gender and equity (PT7), neglected tropical diseases (PT8), health governance (PT9) and environmental health (PT10).

The One Health approach must be systematised for diseases with zoonotic potential and emerging health threats, in accordance with the FAO-OIE-WHO tripartite framework [61]. Similarly, research into preparedness for and response to public health emergencies, identified as a critical blind spot in the national research landscape, must be given priority attention in the post-COVID-19 context.

4.2.1. Methodological rationale for prioritisation

The identification of thematic priorities for the period 2026-2030 is based on a systematic three-level triangulation, grounded in national empirical data rather than disciplinary preferences or external agendas.

- Level 1: Analysis of the existing research corpus. An exhaustive survey of 323 health research studies produced in Cameroon (2024-2025) was carried out,covering university theses (151 theses) as well as the 172 Administrative Research Authorisations (ARAs) issued by MINSANTE over the same period. Each study was classified according to the five priority areas and nineteen sub-themes of the 2020-2030 Sectoral Health Strategy (SSS), enabling the volume of scientific output to be quantified by sub-theme and gaps in national research to be identified.
- Level 2: Assessment of programme performance gaps. The operational results of national health programmes were compared with the SSS targets on the basis of annual sector reviews, available mid-term evaluation reports and routine data from NHIS/DHIS2. For each sub-theme, a gap between the set target and actual performance was estimated, enabling the identification of areas where operational research is lacking in order to correct the programme's course.

- Level 3: Analysis of the epidemiological profile and strategic directions. The national epidemiological profile was updated using data from the Global Burden of Disease Study 2021 (Cameroon profile [58]), the 2018 DHS, routine surveillance data and demographic projections up to 2030. This analysis highlights the accelerated epidemiological transition (the rise in NCDs, the persistence of infectious diseases, and the emergence of new threats), as well as the populations and regions most at risk.

4.2.2. Prioritisation criteria

The selected priorities were ranked according to a weighted composite score based on five criteria:

- the national burden of disease measured in DALYs and attributable mortality, based on GBD 2021, EDS 2018 and MINSANTE surveillance data (30 per cent);
- the intensity of the research gap, i.e., the inverse of the density of scientific output by sub-theme (25 per cent);
- the extent of the programme performance gap (25 per cent);
- the degree of alignment with the priority areas of the SSS 2026-2030 (15 per cent); and
- operational feasibility in light of existing national capacities (5 per cent).

This process led to the identification of ten cross-cutting thematic priorities, structured according to the five pillars of the SSS, supplemented by specific guidelines for each clinical and public health domain (section 4.2.4).

4.2.3. Summary of thematic priorities for 2026-2030

These research areas are not ranked in order of priority, but constitute the ten themes where there is an urgent need.

Table 4 : Summary of thematic priorities for 2026-2030

	Areas	SSS priority	Research intensity in 2026[1]	Epidemiological burden[2]	Programme performance gap[3]
PT1	Primary prevention and early screening for NCDs (hypertension, diabetes, cancers, cardiovascular diseases)	Prevention	Moderate (6.2%)	Very high (35% premature mortality)	High (<20% screening coverage)
PT2	Mental health and neurodevelopmental disorders	Care	None (0%)	Very high (>18% prevalence)	Critical (>95% treatment gap)
PT3	Antimicrobial resistance : surveillance, rational use and operational response	Prevention	Very low (<2%)	High and rising	High (>60% documented irrational prescriptions)
PT4	Healthcare workforce: availability, retention and performance in disadvantaged areas	Health system	Virtually non-existent (0.9%)	N/A	Critical (e.g., ratio of 0.09 doctors per 1,000 inhabitants)
PT5	Health financing, Universal Health Coverage (UHC) and financial protection for households	Health system	Low (3.4%)	N/A	Critical (70% direct payments by households)
PT6	Preparedness for public health emergencies, epidemics and the resilience of health systems	Prevention	Low (<6%)	High (recurring epidemics, humanitarian crises)	Critical (no system assessed)
PT7	Gender, equity and the health of vulnerable populations (displaced people, older people, people with disabilities, etc.)	Promotion	Very low (<1%)	High (documented persistent inequalities)	High (e.g., maternal mortality rate 467 per 100,000)
PT8	Neglected tropical diseases: national operational research towards elimination by 2030	Prevention	Low (only 4.7% in AAR)	High (>10 million people at risk)	High (WHO elimination targets at risk)
PT9	Health governance, transparency and evidence-based management	Governance	Absent (0%)	N/A	High (low use of evidence in decision-making)
PT10	Environmental health, water, sanitation and the impacts of climate change on health	Promotion	Virtually absent (<1%)	Moderate and increasing	Moderate (25% without access to safe drinking water)

[1] Research density in the analysed corpus (N=323 studies, 2022–2025). Absent = 0%; Virtually absent = <1%; Very low = 1–3%; Low = 3–6%; Moderate = 6–12%
[2] Based on GBD 2021 data, EDS 2018 data and MINSANTE surveillance data.
[3] Assessed using sectoral health system reviews and national health programme reports.

4.2.4. Research avenues for specific areas

4.2.4.1. NCDs and internal medicine (PT1, PT3)

The epidemiological transition requires a fundamental realignment of research priorities. Whilst the clinical management of NCDs is adequately represented in the national academic corpus (10.8% of the analysed corpus), primary prevention and early detection at population level remain consistently under-resourced (only 6.2%). The prevalence of hypertension, estimated at 29 per cent among Cameroonian adults, is accompanied by a blood pressure control rate of less than 15 per cent, revealing a gap in both treatment and prevention. Operational research should prioritise the evaluation of integrated strategies for the screening and management of comorbidities in primary healthcare facilities, the optimisation of access to essential medicines for chronic non-communicable diseases, and innovative approaches to patient follow-up in resource-limited settings.

Antimicrobial resistance, documented in sentinel hospitals (ESBL-producing E. coli >40 per cent, increasing levels of carbapenemase-producing Klebsiella), requires the establishment of harmonised national epidemiological surveillance and the generation of evidence on interventions for the rational use of antibiotics in both the public and private sectors.

4.2.4.2. Maternal, newborn and child health (WP7)

Maternal and child health remains an absolute priority. Maternal mortality (467 deaths per 100,000 live births) and neonatal mortality (22‰) remain well below the SDG targets. Operational research must focus on the determinants of the quality of obstetric care in district hospitals (particularly emergency obstetric and neonatal care), gender- and geographically-specific barriers to access, and community-based interventions to improve antenatal and postnatal care. The sexual and reproductive health of adolescent girls, particularly the prevention of early pregnancies and STIs, is a priority sub-theme for which research output remains insufficient (4.6 per cent of the corpus).

4.2.4.3. Public health, epidemics and resilience (PT6, PT8)

The analysed corpus reveals a complete absence of operational research on preparedness for health emergencies, despite the fact that, since 2020, Cameroon has faced the COVID-19 pandemic, two Mpox epidemics, recurrent cholera outbreaks and persistent humanitarian crises in four regions. The lessons learnt from these episodes have not yet informed a structured research programme on the resilience of health systems, integrated surveillance mechanisms or national rapid response capabilities. This priority has a national health security dimension that warrants urgent attention in the 2026–2030 research agenda. Within the framework of ‘ ’ the ‘One Health’ approach, the surveillance of zoonoses and emerging diseases at the human-animal-environment interface must be

the subject of collaborative, inter-institutional research protocols involving MINSANTE, MINEPIA and MINRESI.

With regard to Neglected Tropical Diseases, whilst the AARs document genuine research activity (sixteen protocols authorised over the period), this remains driven almost exclusively by international organisations or specialised institutes (CRID, Pasteur Centre), without sufficient involvement from national universities. An effort to strengthen national research capacity on NTDs is essential to align the scientific agenda with the WHO's elimination targets by 2030.

4.2.4.4. Governance, human resources and funding (PT4, PT5, PT9)

These three priorities form the systemic foundation without which no sustainable progress is possible on other fronts. The development of human resources in health is the most glaring blind spot in the analysed corpus: just one university thesis and three annual research reports over a three-year period, whilst the doctor-to-population ratio (0.09 per 1,000 inhabitants) remains one of the lowest in the region. Operational research will need to document the determinants of staff retention in rural areas, the impact of motivation and incentive policies, and the effectiveness of innovative deployment models (community health workers, delegation of tasks, telemedicine).

With regard to financing, the fact that direct household payments continue to account for over 70 per cent of total health expenditure - one of the highest rates in Central Africa - calls for operational research focused on the financial barriers to accessing healthcare, the efficiency of existing financial protection mechanisms (health vouchers, community mutual aid schemes) and the pathways to Universal Health Coverage in the Cameroonian context.

4.2.4.5. Traditional medicine

Traditional medicine represents a significant national resource, the scientific development of which is well underway in universities (over 80 per cent of the pharmacy theses analysed focus on ethnopharmacology). For the period 2026–2030, the priority will need to shift from phytochemical characterisation (which is well documented) to the subsequent stages of the value chain: clinical efficacy and safety studies, galenic development of improved traditional medicines (ITMs), authorisation processes, pharmacovigilance and the integration of traditional practitioners into referral and counter-referral systems. Research into the interactions between traditional medicine and modern therapies (particularly in the management of malaria, diabetes and neonatal infections) also constitutes an operational priority documented in the body of work.

4.3. POPULATION AND GEOGRAPHICAL PRIORITIES

The interviews highlight that operational research in Cameroon must be targeted both by vulnerable group and by region, with particular attention paid to rural populations, women and children, adolescents, and areas affected by crises or characterised by marked socio-economic inequalities. The aim is to generate relevant local data to adapt health programmes, strengthen universal health coverage and reduce health inequalities.

4.3.1. Population priorities

4.3.1.1. Women of reproductive age and pregnant women

- Reducing maternal mortality and improving access to emergency obstetric and neonatal care;
- Integrating gender considerations into health interventions, particularlyfor rural or vulnerable women;
- Prevention and treatment of sexually transmitted infections and HIV.

4.3.1.2. Newborns and children under 5

- Combating neonatal and infant mortality (infections, malnutrition, perinatal complications) ;
- Vaccination and targeted preventive interventions;
- Improving access to essential healthcare in rural and peri-urban areas.

4.3.1.3. Adolescents and young people

- Sexual and reproductive health, comprehensive education and prevention of STIs/HIV;
- Prevention of risky behaviours (alcohol, tobacco, drugs, risky sexual behaviour).

4.3.1.4. Older people and vulnerable populations

- Non-communicable diseases (high blood pressure, diabetes, cardiovascular diseases);
- Equitable access to primary care and continuity of treatment;
- Social protection and support for populations affected by poverty or crises.

4.3.2. Regional priorities

4.3.2.1. Rural and remote areas

- Low health coverage, limited access to quality healthcare;
- Need to examine the geographical, economic and cultural barriers to accessing health services.

4.3.2.2. Urban and peri-urban areas

- Management of emerging and non-communicable diseases;
- Monitoring of risks associated with rapid urbanisation (pollution, sedentary lifestyles, respiratory and cardiovascular diseases).

4.3.2.3. Border regions or regions in crisis

- Management of communicable diseases (cholera, measles and tuberculosis epidemics);
- Assessment of the impact of humanitarian crises on access to healthcare and the continuity of health programmes.
- Continuity of services, harmonisation of cross-border protocols for certain chronic conditions (HIV/AIDS, tuberculosis, etc.)

4.3.2.4. Regions with significant socio-economic disparities

- Prioritising disadvantaged populations to reduce health inequalities;
- Targeting of interventions and evaluation of funding mechanisms, including the impact of direct payments and external funding.

CHAPITRE 5. STRATEGIC FRAMEWORK

5.1. THEORY OF CHANGE FOR THE PSNRS 2026-2030

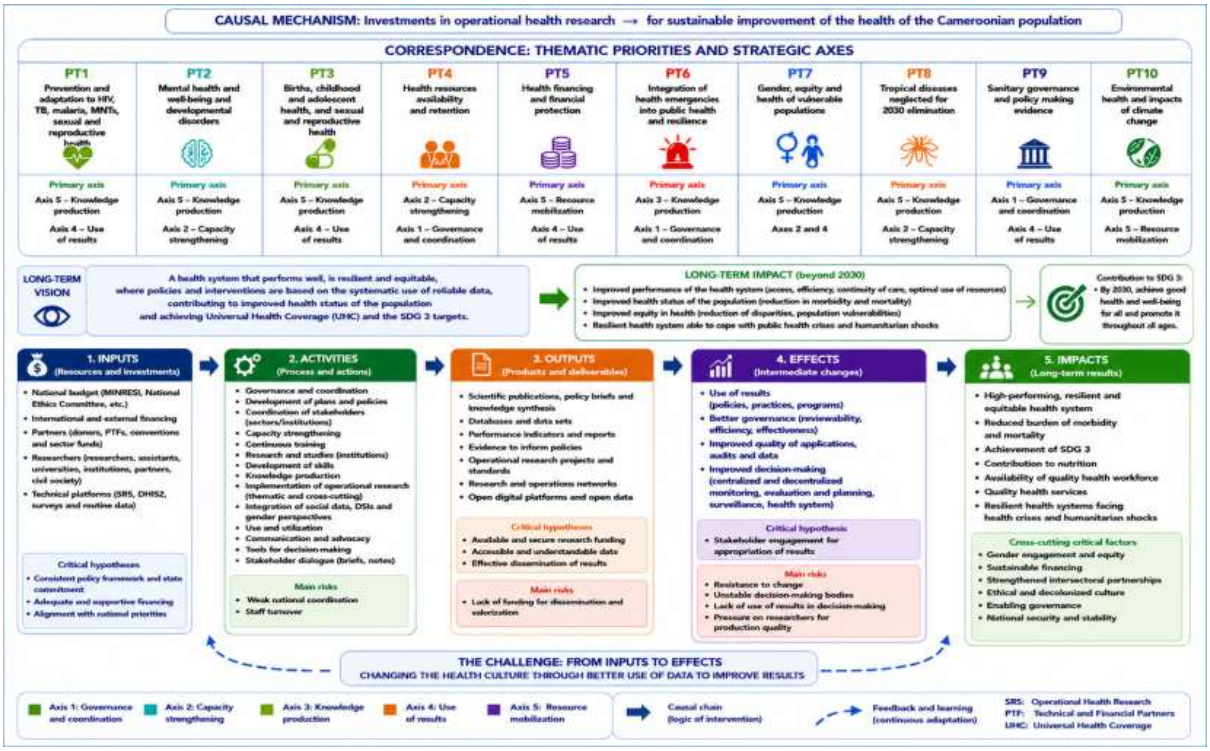

Figure4 : Theory of Change for the 2026-2030 PSNRS

The Theory of Change for the 2026-2030 PSNRS sets out the causal chain through which investment in health research contributes to improving the health of Cameroon's population. It is based on the following fundamental premise: IF Cameroon invests in strengthening the governance, capacity and funding of health research, AND IF the results of this research are systematically translated into accessible knowledge products and integrated into decision-making processes, THEN health policies and interventions will be better tailored, more efficient and more equitable, WHICH will contribute to a measurable improvement in the health status of the population.

5.1.1. Level 1 : Inputs → Activities

If financial resources are mobilised (a multi-year budget of 3.044 billion CFA francs, including funding for decentralisation, and a growing contribution from the State towards 2 per cent of health expenditure) AND IF the institutional framework is consolidated (the DROS is operational, ethics committees are functioning, implementing regulations have been promulgated) AND IF multisectoral partnerships are formalised (agreements between MINSANTE, MINRESI and MINESUP, coordination platforms), THEN the planned activities can be implemented. Critical assumption: the Government's political commitment is maintained and translated into actual budgetary allocations. Main risk: research funding being deprioritised during periods of budgetary constraints.

5.1.2. Level 2 : Activities → Outputs

IF methodological training, mentoring programmes, calls for proposals, ethical oversight and coordination sessions are carried out in accordance with the operational framework, THEN the system will produce: trained researchers and decision-makers, harmonised protocols, high-quality studies, functional ethics committees and active data platforms. Critical assumption: scientific quality meets international standards and the outputs are accessible to non-researchers. Main risk: high turnover of trained staff and administrative red tape.

5.1.3. Level 3 : Outputs → Outcomes

IF the evidence produced is systematically translated into policy briefs and presented to decision-makers via the National Pool of Experts (PNERO), deliberative policy dialogues and sectoral reviews, THEN health policy and programme decisions will gradually be based on evidence. Critical assumption: decision-makers effectively commit to an evidence-based decision-making culture. Main risk: resistance to change within the administration and the politicisation of research findings. It is at this level that the major challenge identified in the 2014–2018 PSNRS review lies: simply producing research is not enough; a change in decision-making culture is the sine qua non for impact.

5.1.4. Level 4 : Effects → Impact

IF policies and programmes are better tailored through the use of evidence, AND IF the health system strengthens its resilience and adaptability, THEN there will be a measurable improvement in the performance of the health system (increased efficiency, optimal allocation of resources), a reduction in health inequalities and an improvement in the health status of the population. Critical cross-cutting factors: socio-political stability, predictable funding, effective inter-institutional coordination.

5.2. STRATEGIC OUTCOMES : EXPECTED IMPACTS

- **Vision:** By 2030, Cameroon will have an effective national health research system, capable of producing high-quality scientific evidence and systematically translating this into informed decisions to accelerate progress towards universal health coverage.

- **Objective:** To contribute to improving the health of the population through informed decisions on health promotion, disease prevention and management, and the strengthening of the health system. Whilst ensuring the protection of participants, to generate sufficient quantities and quality of relevant research data, which are transformed into policy or operational briefings.

- **Impact:** By 2030, Operational Health Research will contribute 10 per cent to the development of a healthy, productive workforce capable of driving strong, inclusive and sustainable growth.

- **Alignments:** This plan is based on the Sectoral Health Strategy, which is itself aligned with the SND 30 and the SDGs. It is also in line with Cameroon's international commitments regarding the strengthening of evidence-based health **systems**, notably:
  - The Nuremberg Code of 1947 [40] ;
  - The Helsinki Declaration of June 1964, and its successive amendments [41];
  - The conclusions of the Ministerial Conference on Health Research in Mexico City (2004) [42];
  - The Algiers Declaration of 26 June 2008 on Health Research in the African Region;
  - The Bamako Call to Action on Health Research of 19 November 2008;
  - The WHO Regional Strategy for Health Research

The CIOMS Guidelines for Research Involving Human Subjects (revised 2016) [43].

- **Principles:** In accordance with Cameroon's national guidelines and the international guidelines of CIOMS [43] and the Declaration of Helsinki [41], all research protocols must obtain prior ethical approval, guarantee informed consent, ensure data confidentiality and

protect vulnerable populations. The implementation of the national strategy for operational health research will be guided by the following principles:

- Strict protection of participants,
- Reducing inequalities through the inclusion of vulnerable groups,
- Results-oriented management,
- Scientific integrity and methodological rigour
- A multi-sectoral approach,
- Decentralisation,
- Transparency in project management
- Active community participation.

5.3. STRATEGIC OUTCOMES : EXPECTED EFFECTS

The outcomes will be aligned with the following priorities:

- **Priority 1 : Governance and leadership**
  Strengthening governance and ethical standards in operational research in human health;
- **Priority Area 2: Data generation and use**
  Systematic use of strategic information derived from operational research in health policy-making;
- **Priority area 3: National capacities and infrastructure**
  Strengthening the culture of operational research within the healthcare system;
- **Priority Area 4 : Funding**
  Mobilising and securing long-term funding to achieve national priorities for operational research.

Outcome 1: By 2030, the quality of governance and of ethical frameworks for operational research in human health will improve by at least 50 per cent, as measured by predefined standardised indicators,
Justification: The assessment carried out on operational research in Cameroon has revealed shortcomings that compromise institutional coherence, scientific credibility and the strategic use of the results produced. Indeed, the issues of governance in the field of health research and those of ethics, which are fundamental to operational research, present weaknesses., , , , , The proposed interventions therefore aim to strengthen the institutional, regulatory and operational environment for operational research in human health. Increasing the quality of governance by 50 per cent and that of ethics by 50 per cent is therefore a realistic and essential composite outcome to strengthen the achievement of the objective of the Operational Research e function at MINSANTE. Specific quality indicators, including measures of institutional coordination, ethical compliance and accountability, to establish the baseline and monitor progress, will be defined in the Monitoring and Evaluation Plan. **The text states that the composite governance quality score (Annex) will be used as an indicator, comprising the five dimensions set out and the 20 sub-indicators.**

Output 1.1: **By 2030, 100 per cent of the regulatory documents governing health research and ethics will be made available to all stakeholders**

Interventions/Activities:

1.1.1. Carry out a mapping exercise of stakeholders/actors in health research
1.1.2. Periodically update the stakeholder mapping for ROS
1.1.3. Conduct a periodic survey of institutional stakeholders to identify research priorities
1.1.4. Hold a regular session to validate priorities in health research
1.1.5. Periodically disseminate the document on ROS priorities
1.1.6. Strengthen the mechanism for disseminating normative documents to stakeholders
1.1.7. Periodically update the register of normative documents

Output 1.2: By 2030, 100 per cent of stakeholders mapped by level will participate in ROS coordination and monitoring activities

Interventions/Activities:

1.2.1. Develop a digital platform to ensure real-time monitoring of approved research protocols
1.2.2. Establish a monitoring and evaluation system for ROS activities at all levels
1.2.3 Hold an annual multisectoral coordination meeting for research stakeholders (multisectoral 'zoonosis' platform)
1.2.4 Hold a periodic coordination meeting for stakeholders at regional level
1.2.5 Hold a periodic coordination meeting for research stakeholders at central level

Output 1.3: By 2030, 100 per cent of the implementing regulations for laws relating to human health research involving human subjects in Cameroon will have been drafted and circulated.

Interventions/Activities:

1.3.1. Organise the finalisation of the implementing regulations
1.3.2 Organise the validation of the implementing regulations
1.3.3 Submit the implementing regulations to the Prime Minister's Office (SPM),

Output 1.4: By 2030, 100 per cent of regions and first- and second-category hospitals will have a functioning ethics committee (holding at least four sessions per year).

Actions/Activities:

1.4.1. Develop standardised tools for the operation of ethics committees (activity report template, procedures manual, annual work plan, etc.)
1.4.2. Establish ethics committees in all ten regions
1.4.3. Establish ethics committees in first- and second-category HFs
1.4.4 Organise training for members of regional ethics committees and those of first and second category HFs
1.4.5. Supervise the ethics committees of Category 1 and 2 HFs
1.4.6 Supervise the national and regional ethics committees
1.4.7 Hold at least four annual protocol review sessions within the ethics committees of Category 1 and 2 HFs
1.4.8 Hold at least four annual protocol review sessions within the regional ethics committees

Output 1.5: By 2030, a bioethics monitoring and regulatory system will be operational in Cameroon

Interventions/Activities:

1.5.1. Support HFs in the accreditation process in line with international bioethics standards

1.5.2 Develop harmonised tools (activity report templates, procedure manuals, annual work plans, etc.) for the operation of the national committee responsible for bioethics in human health

1.5.3 Develop a mechanism for monitoring bioethical incidents (identification of points of contact, development of tools, etc.)

1.5.4 Establish a national committee responsible for bioethics in human health

1.5.5 Organise the certification of staff at accredited HF centres in accordance with international bioethics standards

1.5.6 Organise training for members of the national committee responsible for bioethics in human health

1.5.7 Oversee the activities of the National Committee on Bioethics for Human Health

1.5.8 Hold meetings of the National Committee on Bioethics for Human Health

Output 1.6: By 2030, at least four evaluation studies will have been carried out to measure the actual contribution of the implementation of the reference documents to the country's development objectives

Interventions/Activities:

1.6.1. Conduct a rapid baseline assessment survey on the status of national strategic indicators

1.6.2 Conduct a mid-term evaluation of the health sector policy documents covering the 2026–2030 cycle

1.6.3 Carry out a final evaluation of the health sector policy documents covering the 2026–2030 cycle

1.6.4 Conduct a study to assess the contribution of health interventions to the achievement of the country's development objectives

Outcome 2: By 2030, at least 90 per cent of the evidence produced by the ROS will have contributed to decisions taken within the health system.

Rationale: The evaluation of operational health research has shown that few strategic and operationall decisions are taken on the basis of research findings, due to shortcomings in the production of relevant evidence and the utilisation of research outcomes. These shortcomings are particularly evident in the "One Health" approach and in the development of improved traditional medicines and support for research into medicinal plants. Furthermore, several indicators defined following evaluations of various thematic strategies and planned to inform the implementation or evaluation of interventions are not being measured , including those of the sectoral health strategy. No regulatory or operational mechanisms have been put in place to ensure that investment in evidence generation can be capitalised upon in health operations or strategies.

Output 2.1: By 2030, 90 per cent of the indicators set out in reference documents requiring operational research data will be regularly reported.

Interventions/activities:

2.1.1. Compile a list of indicators derived from reference documents that require operational research data

2.1.2. Establish a quality assurance mechanism for indicators requiring operational research data

2.1.3 Organise the periodic collection of indicators requiring operational research data

2.1.4 Produce a thematic report on indicators requiring operational research data

Output 2.2: **By 2030, 50 per cent of operational research work will be focused on national priorities**

Interventions/activities:

2.2.1 Develop a directory of operational research (OR) projects carried out in Cameroon

2.2.2 Establish a "Health-Research" consultation framework with donors to align their funding with the national list of OR priorities

2.2.3 Formalise a framework agreement between MINSANTE and the institutions of the National Research and Innovation System (SNRI)

2.2.4 Raise awareness amongst institutions within the National Research and Innovation System (SNRI) regarding ROS priorities

Output 2.3: By 2030, 90 per cent of research results will be transformed into knowledge products

Interventions/activities:

2.3.1. Develop policy briefs on national priorities for ROS

2.3.2 Develop a public portal for visualising research data

2.3.3 Develop a national database to centralise primary evidence-based research data

2.3.4 Conduct a baseline study on the use of evidence in decision-making at MINSANTE (audit of recent circulars and policies).

2.3.5 Organise a 'National Forum on Research for Action' (held twice a year)

2.3.6 Build the capacity of stakeholders to translate ROS results into knowledge products.

2.3.7 Disseminate knowledge products at all levels.

Output 2.4: By 2030, research on the national pharmacopoeia will have been developed

Interventions/activities:

2.4.1. Support pharmacovigilance relating to Improved Traditional Medicines (ITMs)

2.4.2 Support the authorisation and marketing process for Improved Traditional Medicines (ITMs).

2.4.3 Develop and disseminate good practice guidelines on clinical trials for MTAs.

2.4.4 Establish a platform for collaboration between researchers (universities/IMPM) and traditional practitioners

2.4.5 Conduct a situational analysis of MTAs and associated research protocols

2.4.6 Set up a fund to support clinical research into priority MTA (e.g. antimalarials, antihypertensives, sickle cell disease).

2.4.7 Ensure the supervision of clinical trials within the framework of the National Pharmaceutical Regulatory Authority (ANRP)

Output 2.5: By 2030, 90 per cent of documentation produced in relation to the health sector will be available in the Digital Documentation Centre for the Health Sector (CDNSS)

Interventions/activities:

2.5.1 Ensure the ongoing maintenance of the CDNSS website

2.5.2 Actively collect documents (research findings, regulatory documents, strategic plans, activity reports, etc.)

2.5.3 Train users and focal points at all levels of the healthcare system in the use of the CDNSS

2.5.4 Upload documents relating to the health sector to the CDNSS

2.5.5 Promote the CDNSS at all levels of the health system and across all other collaborating sectors (notably through the Cameroon Health Data Collaborative (CHDC))

Outcome 3: By 2030, a culture of operational research will be institutionalised in 80 per cent of target health system facilities

Rationale:

The baseline assessment revealed that operational research remains concentrated at central level and within academic institutions, with participation by decentralised facilities – despite their being on the front line of service delivery – still limited. Although the RDPHs, SSDs and reference hospitals ( ) play a key role in the coordination and delivery of care and services, they have limited capacity to conduct operational research. Although healthcare system stakeholders face operational bottlenecks on a daily basis, they play little part in generating evidence-based solutions due to:

- Limited proficiency in the methodological tools of operational research and data analysis;
- A lack of time set aside for research within their clinical workload;
- A lack of dedicated financial resources within decentralised organisations for small-scale quality improvement studies;
- Insufficient mentoring between experienced researchers and practitioners in the field.

Output 3.1: By 2030, all Regional Health Directorates (RDPHs) and 90 per cent of Category 1 to 3 health facilities will have at least one staff member with skills in operational health research

Interventions/activities:

3.3.1.1 Establish a pool of focal points drawn from all RDPHs and 90 per cent of Category 1 and 2 HFs for the implementation of operational health research

F3.1.2 Train and support staff in drafting and submitting research proposals in response to calls for funding proposals

I 3.1.3 Implement a mentoring programme for focal points from all RDPHs and 90 per cent of Category 1 and 2 HFs in the field of ROS

Output 3.2: By 2030, Cameroon will have a mechanism in place to recognise and motivate researchers in the field of human health

Interventions/activities:

3.2.1 Establish four scientific networks of researchers

3.2.2 Coordinate the activities of the scientific networks
3.2.3 Organise periodic calls for funding for ROS projects
3.2.4 Organise a forum at regular intervals to recognise excellence in ROS
3.2.5 Develop a scheme to support independent researchers

Output 3.3: Develop mechanisms to improve initial and continuing training for ROS human resources

Interventions/activities:

3.3.1 Monitor and evaluate initial and continuing training programmes in medicine, dentistry, pharmacy and nursing
3.3.2 Develop online learning materials and self-study tools (e-learning) in the field of ROS
3.3.3 Develop and validate harmonised curricula and competency modules for the training of healthcare personnel in ROS
3.3.4 Organise advocacy with the Ministry of Higher Education and Scientific Research (MINESUP) in favour of integrating a curriculum on ROS into the training of health workforce personnel (RHS)
3.3.5 Organise advocacy with the Ministry of Health (MINSANTE) in favour of integrating a ROS curriculum into the training of healthcare workforce (RHS)

Output 3.4: By 2030, all 10 regions will have a functioning Regional Research Coordination Committee (CRCR).

Interventions / Activities:

3.4.1. Draft, validate and adopt the legislation establishing the Regional Research Coordination Committees (CRCRs) in the 10 regions
3.4.2. Appoint, train and equip two ROS focal points per RDPH and one focal point per health district, then ensure their coordination and supervision
3.4.3. Integrate ROS into the Regional Health Development Plans (PRDS) and the Health District Development Plans (PDDS)
3.4.4. Fund and conduct at least one operational research study per region each year, with the results disseminated
3.4.5. Organise Regional Health Research Days to showcase research findings
3.4.6. Develop, roll out and maintain the national and regional ROS monitoring dashboard

Outcome 4: By 2030, at least 80 per cent of PSNRS interventions will secure the necessary funding for their implementation

Justification:

A key challenge in health operations research in Cameroon is funding, which is insufficient, poorly understood and uncertain, and relies primarily on short-term partnerships whose agendas do not always align with national research priorities. This initiative aims to improve this situation by focusing efforts on funding research priorities and ensuring their long-term availability.,

Output 4.1: By 2030, at least 2 per cent of national health expenditure will be allocated to operational health research in accordance with the Algiers Declaration

Interventions/activities:

4.1.1. Prepare the groundwork for the implementation of the PSNRS2026–2030 interventions 4.1.2 Develop guidelines encouraging Category 1 to 3 hospitals to allocate a percentage of their own revenue to action research aimed at improving the quality of care. 4.1.3 Conduct a study to assess the contribution of PTFs and national stakeholders to the funding of operational health research in Cameroon 4.1.4 Organise advocacy efforts with decision-makers at the Ministry of Health (MINSANTE) to allocate a specific budget for the implementation of operational health research studies 4.1.5 Promote and disseminate the National Operational Health Research Strategy (PNS ROS) amongst stakeholders
Output 4.2: **By 2030, the proportion of funding allocated to operational health research by private organisations and local authorities will increase** **Interventions/Activities**: 4.2.1. Introduce taxes on products harmful to health and luxury goods to fund operational health research 4.2.2. Develop a tax incentive or co-funding mechanism to encourage local businesses (insurance companies, pharmaceutical industries) to fund operational research in health 4.2.3. Organise advocacy efforts with large companies to support the funding of operational health research 4.2.4. Strengthen the mechanism for collaboration with Regional Councils to fund operational research in health at regional level.
Output 4.3: **By 2030, the contribution from external funding allocated to the ROS will be doubled** **Interventions/Activities**: 4.3.1. Improve the financial governance of ROS activities to increase donor confidence and encourage direct funding (sectoral budget support). 4.3.2. Ensure the regular mobilisation of government counterpart funds within the framework of co-financing schemes (UNITAID, FM, EDCTP, etc.) 4.3.3. Establish South-South and North-South research consortia, led by Cameroonian institutions, to apply for major research grants 4.3.4. Develop and regularly disseminate a digital portfolio of 'Investment Opportunities in Operational Health Research in Cameroon' to attract private foundations and philanthropic organisations 4.3.5. Facilitate and support independent teams within consortia to respond to international calls for proposals 4.3.6. Establish a strategic monitoring system to respond to international calls for tenders relating to OOR 4.3.7. Organise advocacy efforts with businesses to secure funding for OOR as part of their CSR initiatives

CHAPITRE 6. ORGANISATIONAL FRAMEWORK

Taking into account the institutional, academic, community and international frameworks, this chapter identifies, structures and characterises the stakeholders in health operations research in Cameroon, drawing on the functional taxonomy of National Health Research Systems (NHRS) proposed by Pang et al. [35] and adopted by the World Health Organisation. Three functional categories are identified: (i) governance and regulatory bodies, (ii) research producers, and (iii) research users and knowledge translation stakeholders. This framework aims to clarify roles, identify areas of complementarity and, at the end of the chapter, form the basis for an assessment of the coordination mechanisms that need to be strengthened in the implementation of the PSNRS 2026–2030.

6.1. STAKEHOLDERS IN OPERATIONAL RESEARCH

6.1.1. Governance and regulatory bodies

This category comprises the institutions entrusted with the responsibilities of coordination, policy-making, regulation, ethical oversight and the production of strategic data for the management of the national health research system. They define the rules, set priorities and ensure that research activities comply with national and international standards.

6.1.1.1. Ministry of Public Health (MINSANTE)

a. Division of Operational Health Research (DROS)

Through the DROS, MINSANTE ensures the national coordination of operational health research. The DROS defines strategic priorities, develops and implements national policies, guidelines and priorities for research, and oversees research activities carried out under priority programmes (malaria, HIV, tuberculosis, reproductive health, nutrition, non-communicable diseases, etc.).

Decree No. 2013/093 of 3 April 2013 on the organisation of the Ministry of Public Health sets out the internal organisation of the DROS and the remit of its two units: the Clinical Research Unit and the Scientific Networks and Ethics Promotion Unit.

In accordance with the aforementioned decree, the DROS's responsibilities are:

- Monitoring clinical research studies;
- To promote research in hospitals;
- To promote operational research and the dissemination of findings on disease control, reproductive health and nutrition, in liaison with the relevant authorities;
- Monitoring issues relating to bioethics, in liaison with the relevant authorities and organisations;

- Monitoring research into the use of improved traditional medicines, in conjunction with the Ministry responsible for research;
- Translating conclusive research findings into proposals for action;
- Supporting research into medicinal plants;
- Managing scientific networks and promoting research ethics;
- Coordinating relations with higher education institutions in the field of initial and continuing training.

b. National Ethics Committee for Research in Human Health (CNERSH)

The CNERSH ensures that health research complies with ethical standards: it protects participants, assesses and authorises research protocols, ensures compliance with national and international standards (the Declaration of Helsinki, CIOMS guidelines) and advises public authorities on ethical issues relating to research and the use of data. It is supported by the regional ethics committees for human health research and by the institutional ethics committees of university hospitals and research institutes, the scaling up of which is provided for in Output 1.4 of this plan.

c. National Public Health Observatory (ONSP)

The ONSP, established by Decree No. 2010/2952/PM of 1 November 2010 [56], is a key player in health research due to its remit to carry out epidemiological studies and surveys, as well as to set up and manage databases on public health issues. It plays a central role in the production, centralisation and dissemination of evidence-based health data to decision-makers, programmes and partners.

d. Health Information Unit (CIS)

CIS is responsible for the operational governance of the National Health Information System (NHIS) and acts as the link between the routine production of health data and its use for research, planning and decision-making purposes. Its key contributions to research are :

- Collecting, centralising and managing health data from healthcare facilities and health programmes;
- Producing national health statistics that can be used for research and decision-making;
- Ensuring the quality, reliability and availability of data used in studies and research;
- Supporting the monitoring and evaluation of health programmes and projects;
- Facilitating the analysis of epidemiological and health trends and the production of indicators necessary for operational research;
- To support researchers and decision-makers by making national health data available and to contribute to the ongoing development of the NHIS.

CIS thus constitutes a vital link between the production of health data and its use in research, planning and the governance of the health system. Strengthening interoperability between CIS, the DROS and the ONSP is a priority for the PSNRS 2026-2030 (see outputs 1.2 and 2.1).

e. National Pharmaceutical Regulatory Authority (ANRP)

The ANRP oversees clinical trials conducted within the country and ensures regulatory compliance for research into health products, including improved traditional medicines (MTA). Together with the CNERSH, it forms the second pillar of the regulation of medical research involving human subjects, in accordance with Law No. 2022/008 of 27 April 2022 and Law No. 2025/009 on the legal framework for pharmacy. The PSNRS 2026–2030 provides, under Output 2.4, for the strengthening of the ANRP's supervisory capacities, the development of good clinical practice guidelines adapted to the Cameroonian context, and the establishment of a fund to support clinical research on priority MTAs.

f. Hospital Centre for Research and Application in Endoscopic Surgery and Human Reproduction (CHRACERH)

CHRACERH is a leading university hospital specialising in clinical and operational research, particularly in the fields of reproductive health, specialist surgery and medical innovation. As such, it contributes to the generation of scientific data on fertility and maternal and reproductive health; to the testing of new diagnostic and therapeutic approaches adapted to the Cameroonian context; to the scientific supervision of doctors, junior doctors and students in research methodology; and to making the results available to inform decisions by the Ministry of Health (MINSANTE). As such, CHRACERH serves as a model for a university hospital structure, the wider adoption of which is encouraged by Output 1.4 (the establishment of functional ethics committees in Category 1 and 2 HFs).

6.1.1.2. Other ministries involved

a. Ministry of Scientific Research and Innovation (MINRESI)

MINRESI is involved in setting the strategic direction, regulating and promoting operational health research. It ensures consistency with national research policies, contributes to strengthening scientific capacity, coordinates with the research institutions under its supervision (IMPM, ISM, CRMPR, etc.) and helps to put research findings to good use for innovation and public decision-making.

b. Ministry of Higher Education (MINESUP)

MINESUP contributes to the development of operational research in health through the training of specialised human resources, the academic and scientific supervision of doctoral theses and dissertations, the generation of knowledge, and the promotion of partnerships between universities, research institutes and public bodies to ensure that research findings are utilised in health policies and programmes.

6.1.1.3. Decentralised Local Authorities (DLA)

In accordance with Law No. 2019/024 of 24 December 2019 on the General Code for Decentralised Local Authorities, municipalities and regions have been granted devolved powers in the field of health. As such, they can contribute to the co-funding of operational research activities of local interest, to the integration of research findings into local health planning, and to community mobilisation around evaluated interventions. Their formal integration into the

ROS coordination framework is a key driver of the effective decentralisation of the national health research system.

6.1.2. Research producers

This category encompasses all entities that design, conduct and publish operational research. It forms the core of the national scientific production framework.

6.1.2.1. Universities and faculties

State universities (Yaoundé I, Yaoundé II, Douala, Dschang, Buea, Ngaoundéré, Maroua, Bamenda, Bertoua, Ebolowa, Garoua) and their faculties (medicine, pharmacy, biomedical sciences, social sciences, public health) constitute the main source of academic output and the training of human resources in operational research. They contribute to translating scientific evidence into health policies and practices through the production of dissertations, theses and publications, and by providing expertise to institutions in the sector.

The main roles of universities and faculties in the field of operational research in health are:

- To train professionals and researchers in health, biomedical and social sciences, equipping them with skills in operational research;
- To generate biomedical, clinical and socio-behavioural evidence aligned with national health priorities;
- To provide scientific and methodological guidance for research projects and degree programmes;
- To support the health system through multidisciplinary analysis, evaluation and decision support;
- Disseminate and translate research findings into operational recommendations and public policy;
- To promote ethics, scientific integrity and compliance with regulatory standards in research.

6.1.2.2. Research centres and institutes

Cameroon is home to several research institutes and centres specialising in human health, including:

- the Pasteur Centre of Cameroon (CPC), with its branches in Garoua and Douala;
- the Institute for Medical Research and Studies on Medicinal Plants (IMPM);
- the Chantal Biya International Research Centre (CIRCB);
- the Centre for Research on Emerging and Re-emerging Diseases (CREMER);
- the Higher Institute for Scientific and Medical Research (ISM);
- the Centre for Research into Infectious Diseases (CRID);
- the Coordination Organisation for the Fight against Endemic Diseases in Central Africa (OCEAC);

- the French National Research Institute for Development (IRD);
- the National Agency for Research on AIDS and Hepatitis (ANRS);
- the National Public Health Laboratory (LNSP).

These institutions produce data and analyses relating to priority health issues, conduct epidemiological surveillance studies, contribute to health monitoring and actively participate in international research networks.

6.1.2.3. Scientific and research committees for priority programmes

Priority health programmes and projects (Expanded Programme on Immunisation, National Malaria Control Programme, National AIDS Control Committee, National Tuberculosis Control Programme, etc.) frequently carry out nationwide studies to address specific operational challenges. Some, such as the CNLS, have a dedicated research unit within their organisational structure. This research activity, which is significant in both volume and scope, must, to ensure its strategic coherence, be integrated into the overall coordination provided by the DROS.

6.1.2.4. Researchers and research organisations

This sub-category comprises individuals and private organisations that actively carry out investigative, analytical and evaluative work:

- Academic researchers, epidemiologists, biostatisticians and specialists in social sciences applied to health;
- Field doctors and independent researchers providing scientific expertise and leadership in studies. The PSNRS 2026-2030 provides, under Output 3.2 (mechanisms for the recognition and motivation of researchers), for a formalised process of scientific recognition for independent health researchers;
- Companies and consultancy firms specialised in operational health research (IRESCO, “Afrique en Marche”, etc.), which contribute to the technical subcontracting of studies commissioned by public institutions and partners.

6.1.3. Research users and stakeholders involved in knowledge translation

This category comprises the institutions and stakeholders that utilise research findings for policy formulation, operational planning and the implementation of health interventions.

6.1.3.1. Public decision-makers and programme managers

The Office of the Minister of Public Health, the General Secretariat, the central technical directorates (Directorate of Studies, Planning and Cooperation; Directorate of Healthcare Organisation and Health Technology; Directorate of Health Promotion; Directorate for the Control of Disease, Epidemics and Pandemics, etc.), the Regional Public Health Delegations

(RDPH) and those responsible for priority programmes use research findings to formulate policies, draw up operational plans and adjust intervention strategies.

6.1.3.2. Health facilities and health centres

Health facilities serve both as sites for on-site operational research and as direct users of the results produced:

- General, central, regional and district hospitals, and health centres: sources of data and fields of study for operational research;
- National priority health programmes (malaria, HIV/AIDS, tuberculosis, immunisation, maternal and neonatal health, NCDs, mental health, etc.): incorporate research components to assess and improve the quality, accessibility and continuity of interventions.

6.1.3.3. Technical and Financial Partners (TFPs)

United Nations agencies (WHO, UNICEF, UNFPA, UNAIDS, etc.), bilateral cooperation organisations (Vital Strategies, AFD, GIZ, JICA, KFW, etc.), international foundations (Bill & Melinda Gates Foundation, Wellcome Trust, etc.) and global funds (Global Fund, Gavi) provide structural support for operational health research. This support takes the following forms: direct funding for priority research projects, technical and methodological expertise, support for degree programmes and continuing professional development, international coordination and networking, and guidance on the use of research findings in decision-making. Vital Strategies, in particular, is assisting the Ministry of Health (MINSANTE) in the design and implementation of this plan.

6.1.3.4. Non-governmental organisations (NGOs) and civil society

National and international NGOs and civil society organisations are key actors on the ground who facilitate the collection of context-specific data, community- , social mobilisation and advocacy for evidence-based practice. In particular, they are active in:

- community health and health promotion (local associations, civil society platforms);
- the implementation and evaluation of health interventions in hard-to-reach areas and amongst vulnerable populations;
- advocacy for the incorporation of research findings into public policy.

6.1.3.5. Communities and community health workers

Communities and community health workers (CHWs) are both sources of primary data, beneficiaries of the results and key players in ensuring the social acceptability of interventions. In line with the 'One Health' approach and decentralisation, their involvement in research processes – from formulating research questions to disseminating results – ensures relevance, ethical standards and effectiveness.

- CHWs (community liaisons, community health workers) provide on-the-ground information and facilitate data collection in remote areas;

- Communities enable the assessment of local practices, the identification of socio-cultural barriers and the implementation of appropriate solutions;
- They are the primary agents of the behavioural change identified by the research.

6.1.4. Decentralised research stakeholders

The territorialisation of the PSNRS is based on the allocation of clear responsibilities to the two decentralised levels of the health system: the Regional Public Health Delegations (RDPHs) and the Health Districts. In accordance with the healthcare pyramid (Table 1) and the principle of decentralisation, which is one of the plan's guiding principles, these structures are not merely fields of study and users of research findings: they are full partners in the generation, coordination and application of operational research at their respective levels.

6.1.4.1. Regional Delegations of Public Health (RDPH)

The RDPH is responsible for the regional governance of health research. In this capacity, it:

- Chair the Regional Research Coordination Committee (CRCR) and facilitate consultation between districts, healthcare facilities, the regional ethics committee, partner sectors and Decentralised Local Authorities;
- Identifies and reports operational research issues arising from the field, in line with the national mapping of priorities (output 1.1);
- Oversees the utilisation of routine NHIS data for research purposes and ensures the quality of data produced in health areas;
- Carries out regional monitoring and evaluation of the implementation of the PSNRS and reports on the region's performance to central government.

6.1.4.2. Health Districts

The Health District, as the operational level for planning and action, acts as the local link for operational research. The district management team :

- Incorporates an operational research component into the District Development Plan and the annual micro-plan, targeting locally identified bottlenecks;
- Conducts or facilitates local operational studies (coverage of interventions, barriers to access, quality of care, programme performance);
- Ensures the completeness, timeliness and quality of routine data, a prerequisite for reliable epidemiological research based on the NHIS;
- Engages communities and community health workers in formulating research questions and reporting results;
- Applies validated evidence at district level and documents the lessons learnt from its implementation.

This distribution ensures that operational research is not concentrated exclusively in urban reference centres and that it covers the entire national territory, including vulnerable regions at risk of being excluded from the scope of research.

6.2. REGULATORY FRAMEWORK AND CLINICAL TRIALS

Clinical trials are a fundamental part of health research that was not adequately addressed in previous versions of the document. The regulatory framework for clinical trials in Cameroon is based primarily on Law No. 2022/008 of 27 April 2022 governing medical research involving human subjects, on Law No. 2025/009 establishing the legal regime for the pharmaceutical sector, and on the remit of the National Pharmaceutical Regulatory Authority (ANRP). This framework is supplemented by implementing regulations currently being drafted, the finalisation and submission of which to the Prime Minister's Office are provided for in Output 1.3 of this plan.

The PSNRS 2026-2030 provides for the strengthening of the supervision of clinical trials, in particular those involving improved traditional medicines (ITMs), through three structural interventions (output 2.4):

- the development of good clinical practice guidelines tailored to the Cameroonian context;
- strengthening the ANRP's oversight capacity and coordination between the ANRP, the CNERSH and the DROS;
- the establishment of a fund to support clinical research into priority MTAs (antimalarials, antihypertensives, sickle cell disease, etc.).

Table5 : Mapping of the roles, responsibilities and legal bases of stakeholders in operational health research

Category	Specific actors	Main role	Legal basis / reference
1. Governance and regulation	MINSANTE — Division of Operational Health Research (DROS) and its two units (Clinical Research Unit; Scientific Networks and Ethics Promotion Unit)	National coordination of operational health research (ROS), setting priorities, developing research policies, overseeing programmes, translating findings into proposals for action	Decree No. 2013/093 of 3 April 2013
	National Ethics Committee for Human Health Research (CNERSH) and regional/institutional ethics committees	Assessment and authorisation of research protocols, protection of participants, compliance with national and international standards (Helsinki, CIOMS)	Act No. 2022/008 of 27 April 2022
	National Pharmaceutical Regulatory Authority (ANRP)	Supervision of clinical trials and research into healthcare products; regulation of MTA	Act No. 2022/008 ; Act No. 2025/009
	National Public Health Observatory (ONSP)	Conducting national epidemiological studies and surveys, managing public health	Decree No. 2010/2952/PM

		databases, disseminating evidence to decision-makers	of 1 November 2010
	Health Information Unit (CIS)	Production and quality assurance of national health data, feeding data into the NHIS, making data available for research	MINSANTE Organisation Chart- Decree No. 2013/093
	MINRESI ; MINESUP	Strategic direction of national scientific research; oversight of research institutions and universities; academic supervision of health workforce (RHS)	Ministerial Organic Decrees
	Decentralised Local Authorities (DLA)	Co-funding and local ownership of ROS activities; community mobilisation within the framework of devolved health powers	Act No. 2019/024 of 24 December 2019
2. Research providers	State universities and their faculties (medicine, pharmacy, biomedical sciences, public health, social sciences); health training colleges (registered nurses, medical support staff, health workers)	Academic research, training of researchers, scientific and methodological supervision of research, publication of results	Framework Act on Higher Education
	Research centres and institutes: CPC (and its Garoua and Douala branches), IMPM, CIRCB, CRID, CREMER, OCEAC, IRD, ANRS, ISM, LNSP	Specialised research (infectious diseases, non-communicable diseases, surveillance, medical technology assessment, tropical diseases); health monitoring; participation in international networks	Respective founding decrees
	Scientific committees and research units of priority programmes (PEV, PNLP, CNLS, PNLT, etc.); CHRACERH; university hospitals	Conducting evaluative studies on programme interventions; clinical research in university hospitals	Programme documents ; HF statutes
	Independent researchers; companies and consultancy firms specialising in public health research (IRESCO, Afrique en Marche, etc.)	Contract research; technical expertise available to public institutions and PTFs	Commercial Code; framework agreement to be drawn up (output 2.2)
3. Users and stakeholders in knowledge translation	Minister's Office, central technical directorates of MINSANTE, RDPH, DS, managers of priority programmes	Use of results for policy formulation, the development of operational plans and the adjustment of intervention strategies	Decree No. 2013/093; Sectoral Health Strategy
	Hospitals and health facilities (categories 1 to 6)	Field studies; integration of evidence into planning and clinical practice; generation of routine data via the NHIS	HF Statutes; Decree No. 2013/093

	Technical and Financial Partners (WHO, UNICEF, UNFPA, USAID, AFD, GIZ, Global Fund, Gavi, Vital Strategies, etc.)	Co-funding, technical expertise, international networking, support for the application of findings	Bilateral and multilateral cooperation agreements
	National and international NGOs; civil society organisations; professional health associations	Implementation, evaluation, community mobilisation, advocacy for the use of evidence	Law No. 99/014 of 22 December 1999 on NGOs
	Communities and community health workers (CHWs)	Primary data sources, social acceptability of interventions, agents of behavioural change	National Community Health Policy

Source: Prepared by DROS, based on Decree No. 2013/093, Act No. 2022/008, Act No. 2025/009 and the National Health Research Systems model [35].

6.3. ASSESSMENT OF COORDINATION MECHANISMS AND CHALLENGES FOR THE 2026–2030 NATIONAL HEALTH RESEARCH STRATEGY (PSNRS)

Whilst the institutional roles of the various stakeholders are, on the whole, clearly defined by the legislation in force, an analysis of the implementation of the 2014-2018 National Health Research Strategy (PSNRS) and the consultations conducted during the drafting of this plan reveal that the mechanisms for operational coordination between stakeholders remain insufficiently formalised and function poorly. By way of illustration, there is little regular formal interaction between the DROS, CIS and the ONSP, even though their respective remits - coordination of research, management of the NHIS and production of epidemiological studies — call for systematic coordination. Similarly, coordination between the DROS and the scientific committees of the priority programmes remains largely informal, which limits the strategic coherence of the research activities carried out by these programmes.

These findings align with the structural shortcomings identified in Chapter 3 (current situation) and underpin the strategic choices of the PSNRS 2026-2030, in particular:

- strengthening research governance and ethics (Outcome 1), through the establishment of regular coordination meetings at central, regional and multisectoral levels, and the systematic mapping of stakeholders (outputs 1.1 and 1.2);
- improving the use of evidence in decision-making (Outcome 2), by formalising framework agreements between MINSANTE and the institutions of the National Research and Innovation System (Output 2.2) and developing the Health Sector Digital Documentation Centre (CDNSS, Output 2.5);
- the institutionalisation of a research culture (Outcome 3), through the deployment of ROS focal points in the RDPHs and HFs and the establishment of scientific networks of researchers (outputs 3.1 and 3.2);

- the sustainable mobilisation of resources (Outcome 4), by achieving the target of 2 per cent of national health expenditure allocated to research, in accordance with the Algiers Declaration.

Improving the operational coordination of health research stakeholders is therefore a cross-cutting priority of this plan, the implementation of which determines the overall performance of the national operational health research system.

Regional Research Coordination Committee (CRCR)

To give effect to the regional coordination provided for in Output 1.2.4, a Regional Research Coordination Committee (CRCR) is established in each region, chaired by the Regional Public Health Delegate. The CRCR brings together the regional ROS focal points, representatives of the district steering groups, the regional ethics committee, the region's reference health facilities, partner sectors and the Decentralised Local Authorities. It meets at least twice a year and is tasked with prioritising regional research issues, monitoring the territorial implementation of the PSNRS and ensuring consistency between national guidelines and local realities. The CRCR acts as the formal interface between the central level and the decentralised level, addressing the lack of operational coordination identified in this section.

6.4. OPERATIONAL FRAMEWORK OF THE PSNRS 2026-2030

Table6 : Operational framework of the PSNRS 2026–2030

IMPACT	**Operational health research contributes 10 per cent to the development of a healthy, productive workforce capable of driving strong, inclusive and sustainable growth**	
Outcome 1: By 2030, the quality of governance and research ethics in operational health research will have improved by 50 per cent according to the selected quality indicators		
Outputs	**Interventions/Key Activities**	**Indicator**
1.1. By 2030, 100 per cent of the regulatory documents governing research and ethics will be made available to all stakeholders	Map the stakeholders in research and ethics	Percentage of regulatory documents governing research and ethics made available to all mapped stakeholders
	Update the mapping periodically	
	Strengthen the mechanism for disseminating normative documents to stakeholders	
	Compile a list of regulatory documents	
	Periodically update the catalogue of regulatory documents	
	Conduct a periodic survey of institutional stakeholders to identify research priorities	
	Hold a regular session to validate priorities within ROS	
	Publish the document on ROS priorities annually	
1.2 By 2030, 100 per cent of stakeholders mapped by level will	Hold a regular coordination session for research stakeholders at central level	Percentage of research stakeholders mapped by level who have
	Hold a regular coordination session for stakeholders at regional level	

participate in ROS coordination and monitoring activities	Hold an annual multi-sectoral coordination session for research stakeholders	participated in meetings to coordinate research activities
	Establish a data management system for ROS-related activities at all levels	
	Develop a digital platform to ensure real-time monitoring of approved research protocols	
1.3. Implementing regulations for laws relating to human health research involving human subjects in Cameroon are drafted and submitted	Organise the finalisation of the implementing regulations	Number of implementing regulations submitted to the SPMs
	Organise the validation of the implementing regulations	
	Submit the implementing regulations to the Prime Minister's Office (SPM)	
1.4. By 2030, 100 per cent of regions and first- and second-category hospitals will have a functioning ethics committee (2 to 4 sessions per year)	Establish ethics committees in first- and second-category HFs	Percentage of Category 1 and 2 hospitals with a functioning ethics committee (having held 2 to 4 sessions per year)
	Establish ethics committees in the ten regions	
	Organise training for members of regional ethics committees and first and second category HFs	
	Hold four protocol review sessions at the ethics committees of Category[1]and Category 2 HF centres	
	Hold four protocol review sessions within the regional ethics committees	
	Develop standardised tools for the operation of ethics committees (activity report templates, procedural manuals, annual work plans, etc.)	
	Supervise the national and regional ethics committees	
	Supervise the ethics committees of Category 1 and 2 HFs	
1.5 By 2030, a bioethics monitoring and regulatory system will be operational in Cameroon.	Establish the national committee responsible for bioethics in human health	Percentage of reported bioethical incidents that have been investigated
	Organise training for members of the national committee responsible for bioethics in human health	

	Hold meetings of the National Committee on Bioethics for Human Health	
	Develop harmonised tools (activity report template, procedures manual, annual work plan, etc.) for the operation of the National Committee on Bioethics for Human Health	
	Organise the certification of staff at accredited HFs against international bioethics standards	
	Support HFs through the accreditation process in accordance with international bioethics standards	
	Supervise the activities of the national committee responsible for bioethics in human health	
	Develop a mechanism for monitoring bioethical incidents (identification of points of contact, development of tools, etc.)	
1.6 By 2030, at least four studies will have been carried out to measure the actual contribution of the implementation of the reference documents to the country's development objectives	Conduct a rapid baseline assessment survey on the status of national strategic indicators	Percentage of reference documents that have been the subject of a study to measure the achievement of the country's development objectives
	Conduct a mid-term evaluation of the health sector reference documents covering the 2026–2030 cycle	
	Conduct a final evaluation of the health sector reference documents covering the 2026–2030 cycle	
	Conduct a study to assess the contribution of health interventions to the achievement of the country's development objectives	
Outcome 2: By 2030, at least 90 per cent of the evidence produced by the ROS will have contributed to decisions taken within the health system		
Outputs	**Interventions/Key Activities**	**Indicator**
2.1., By 2030, 90 per cent of the indicators derived from the	Compile a list of indicators derived from reference documents requiring operational research data	Percentage of indicators derived from reference

reference documents requiring operational research data will be regularly updated	Organise the periodic collection of indicators requiring operational research data	documents requiring operational research data that are regularly updated
	Establish a quality assurance system for indicators requiring operational research data	
	Produce a thematic report on indicators requiring operational research data	
2.2. By 2030, 50 per cent of operational research (ROS) work will be focused on national priorities	Develop a directory of operational research work carried out in Cameroon	% of operational research (ROS) projects focused on national priorities
	Raise awareness of operational research (OR) amongst institutions within the National Research and Innovation System (SNRI)	
	Formalise a framework agreement between MINSANTE and the institutions of the National Research and Innovation System (SNRI)	
	Establish a "Health-Research" consultation framework with donors to align their funding with the national list of ROS priorities.	
2.3. By 2030, 90 per cent of research findings will be transformed into knowledge products	Conduct a baseline study on the use of evidence in decision-making at MINSANTE (audit of recent circulars and policies).	% of research findings transformed into knowledge products
	Capacity building for stakeholders to translate ROS research findings into knowledge products.	
	Disseminate knowledge products at all levels	
	Develop policy briefs addressing national priorities	
	Develop a national database to centralise primary ROS data	
	Develop a public portal for visualising research data	
	Organise a "National Forum on Research for Action" (held twice a year)	
	Conduct a situational analysis of traditional medicines and associated research protocols	

2.4. By 2030, research into the national pharmacopoeia will have been developed	Support the authorisation and marketing process for Improved Traditional Medicines (ITMs).	Number of research studies carried out on MTAs
	Oversee clinical trials within the framework of the National Pharmaceutical Regulatory Authority (ANRP)	
	Support pharmacovigilance relating to MTAs	
	Establish a platform for collaboration between researchers (universities/IMPM) and traditional practitioners	
	A fund to support clinical research into priority MTAs (e.g. antimalarials, antihypertensives, sickle cell disease) is being set up.	
	Develop and disseminate good practice guidelines on clinical trials for traditional medicines.	
2.5. By 2030, 90 per cent of the documentation produced in relation to the health sector will be available in the Digital Documentation Centre for the Health Sector (CDNSS)	Actively collect documents (research findings, regulatory documents, strategic plans, activity reports, etc.)	Percentage of documentation produced in relation to the health sector available in the Digital Documentation Centre for the Health Sector (CDNSS)
	Upload documents relating to the health sector to the CDNSS	
	Train users and focal points at all levels of the healthcare system to manage the CDNSS	
	Ensure the ongoing maintenance of the CDNSS website	
	Promote the CDNSS at all levels of the healthcare system and across all other collaborating sectors (notably through the Cameroon Health Data Collaborative (CHDC))	
Outcome 3: By 2030, a culture of operational research will be institutionalised in 80 per cent of target healthcare facilities		
Outputs	**Interventions/Key Activities**	**Indicator**
,	Establish a pool of focal points drawn from all RDPHs and 90 per cent of Category 1 and 2 HFs for the implementation of ROS	

3.1. By 2030, all RDPHs and 90 per cent of Category 1 to 3 health facilities will have at least one staff member with skills related to operational health research	Implement a mentoring programme for focal points from all RDPHs and 90 per cent of Category 1 and 2 HFs in ROS	Percentage of staff who have completed the mentoring programme
	Train and support staff in drafting and submitting research proposals in response to calls for funding proposals	
3.2. By 2030, Cameroon will have a mechanism in place to recognise and motivate researchers in the field of human health	Establish four scientific networks of researchers	Number of operational networks
	Coordinate the activities of the scientific networks	
	Organise a forum at regular intervals to recognise excellence in ROS	
	Organise regular calls for funding for ROS projects	
3.3. Develop mechanisms to improve the initial and continuing training of health workforce professionals in ROS	Develop and validate harmonised competency-based curricula for the training of health workers in ROS	The curriculum for the initial and continuing training of health workforce personnel in ROS is adopted and validated by the Ministry of Health (MINSANTE) and the Ministry of Higher Education and Scientific Research (MINESUP)
	Advocate to the MINESUP for the integration of a ROS curriculum into the training of health workforce (RHS)	
	Organise advocacy with the Ministry of Health (MINSANTE) in favour of integrating a ROS curriculum into the training of health workforce personnel	
	Develop training modules for HRH in the field of ROS	
	Develop online learning materials and self-study tools (e-learning) in the field of ROS	
	Monitor and evaluate initial and continuing training programmes in medicine, dentistry, pharmacy and nursing	
3.4. By 2030, at least 80 per cent of target organisations in the ten regions ( ) will have the operational capacity to plan, conduct, utilise and	Draft, validate and adopt the legislation establishing the Regional Research Coordination Committees (CRCRs) in the 10 regions	Percentage of regions with a functional mechanism for the governance and
	Appoint, train and equip two ROS focal points per RDPH and one focal point per health district, then ensure their coordination and supervision	

capitalise on operational research in decision-making processes	Integrate operational health research into the Regional Health Development Plans (PRDS) and the Health District Development Plans (PDDS)	production of operational health research
	Fund and conduct at least one operational health research study per region each year, with the results disseminated	
	Organise Regional Health Research Days to showcase research findings	
	Develop, roll out and maintain the national and regional ROS monitoring dashboard	
Outcome 4: By 2030, at least 80 per cent of PSNRS interventions will secure the necessary funding for their implementation		
Outputs	**Interventions/Key Activities**	**Indicator**
4.1 By 2030, at least 2 per cent of national health expenditure will be allocated to operational health research in accordance with the Algiers Declaration	Conduct a study to assess the contribution of PTFs and national stakeholders to the funding of operational health research in Cameroon	Percentage of the MINSANTE budget allocated to operational health research
	Organise advocacy with MINSANTE decision-makers to allocate a specific budget for the implementation of operational health research studies	
	, Prepare the groundwork for the implementation of interventions under the 2026–2030 National Health Research Strategy (PSNRS)	
	Develop guidelines encouraging Category 1 to 3 hospitals to allocate a percentage of their own revenue to action research aimed at improving the quality of care.	
	Promote and disseminate the PNS ROS amongst stakeholders	
4.2 By 2030, the proportion of funding allocated to operational health research by private	Develop a tax incentive or co-funding mechanism to encourage local businesses (insurance companies, pharmaceutical companies) to fund operational health research	Proportion of funding allocated to operational health research by local authorities
	Introduce taxes on products harmful to health and luxury goods to fund ROS	

organisations and local authorities will increase	Organise advocacy efforts with large companies to promote funding for operational health research	
	Strengthen the mechanism for collaboration with Regional Councils to fund ROS at regional level	
	Organise advocacy efforts with companies to secure funding for ROS as part of their CSR initiatives	
4.3 By 2030, the contribution from external funding allocated to operational research in health will be doubled	Establish a strategic monitoring system to respond to international calls for tenders relating to the ROS	The level of external funding allocated to the ROS
	Facilitate and support independent teams working in consortia to respond to international calls for tenders	
	Improve the financial governance of ROS activities to increase donor confidence and encourage direct funding (sectoral budget support).	
	Ensure the regular mobilisation of government counterpart funds within the framework of co-financing schemes (UNITAID, FM, EDCTP, etc.)	
	Establish South-South and North-South research consortia, led by Cameroonian institutions, to apply for major research funding	
	Develop and regularly disseminate a digital portfolio of *"Investment Opportunities in Operational Health Research in* Cameroon" to attract private foundations and philanthropic organisations	

6.5. MECHANISM FOR THE TERRITORIALISATION OF THE PSNRS 2026–2030

The territorialisation of the National Strategic Plan for Operational Health Research (PSNRS) 2026-2030 aims to bring research closer to local health realities, strengthen research capacity at all levels of the health system, and promote the use of evidence-based decision-making at central, regional and operational levels.

It is based on a gradual decentralisation of the governance of operational health research (ROS), coordinated between the central level (DROS/MINSANTE), the regions (RDPH), health districts, health facilities, academic and research institutions, Decentralised Local Authorities (CTD) and communities. This approach falls within the framework set out by Law No. 2019/024 of 24 December 2019 on the General Code of Decentralised Territorial Authorities and Decree No. 2023/132 of 10 February 2023 specifying the health responsibilities transferred to the regions.

Implementation follows a structured ladder approach (from the central level down to the districts), integrating planning, capacity building, knowledge generation and accountability, in line with the PSNRS results chain (inputs, activities, outputs, outcomes and impact). It will be rolled out in four complementary phases over the period 2026–2030.

6.5.1. Phasing of the territorialisation process

Table7 : PSNRS territorialisation process

Phase	Period	Key territorial milestones
Phase 1: **Establishment of institutional mechanisms**	2026	- Establishment and operationalisation of the Regional Research Coordination Committees (CRCRs) in the 10 regions. - Appointment of two ROS focal points in each RDPH, in liaison with the Regional Hospitals. - Initial training for regional and district managers in research methodology, ethics and the use of evidence.
Phase 2: **Roll-out and regional adoption**	2027	- Integration of an ROS component into Regional Health Development Plans and Health District Development Plans. - Activation of regional mechanisms for prioritising research questions, led by the CRCRs. - Formalisation of partnerships between RDPHs, universities, research institutes and hospitals (framework agreements, output 2.2).
Phase 3:	2028–2029	- Competitive funding for research projects at regional and district levels.

Scaling up and knowledge generation		- Annual organisation of Regional Health Research Days. - Regional breakdown of the national ROS dashboard (see monitoring and evaluation framework, Chapter 6).
Phase 4: **Consolidation and sustainability**	2030	- Assessment of the ROS's contribution to improving the performance of the health system. - Capitalising on regional best practices and innovations. - Institutionalisation of regional governance and funding mechanisms. - Integration of the achievements into the next PSNRS.

6.5.2. Regional responsibilities

Table8 : Responsibilities in the territorialisation of the PSNRS

Level	Main responsibilities	Expected deliverables
Central level (DROS/MINSANTE)	Strategic direction, setting national priorities, resource mobilisation, national coordination, standardisation, monitoring and evaluation, and dissemination of results.	Operational National Strategic Research Plan (PSNRS); national guidelines; national research agenda; national scorecard; annual national report on the Research Operational Strategy (ROS).
Regional level (RDPH/CRCR)	Regional coordination, prioritisation of regional themes, supervision of research activities, monitoring, evaluation and dissemination of results.	Functional CRCR; quarterly report and annual regional review; regional research review.
Health District	Identification of priority issues, facilitation of operational studies, improvement of data quality and use of results for local management.	ROS component integrated into the District Development Plan; study protocols and reports; action plans based on the results.
Health centres and hospitals	Implementation of research activities, data collection and analysis, documentation of innovations and good practices.	High-quality data; study reports; publications; scientific presentations.
Universities and research institutes	Methodological and scientific support, mentoring, capacity	Validated protocols; scientific supervision;

	building, dissemination of results.	publications; skills transfer.
Decentralised Local Authorities (DLA)	In accordance with Act No. 2019/024 and Decree No. 2023/132: co-funding of research of local interest, community mobilisation, integration of findings into local health planning.	Contribution to the funding of the ROS; integration of results into local plans.
Communities, CSOs and ASOs	Identification of needs, participation in data collection, social validation of results and citizen monitoring.	Community data; local feedback sessions; participation in prioritisation.

6.5.3. Territorial accountability mechanism

Territorial accountability is a key lever for the governance of the PSNRS. It is based on the national monitoring and evaluation framework described in Chapter 6, of which it is the territorial implementation, rather than a separate mechanism.

As such, the ROS National Dashboard, managed by the DROS, is fed by quarterly reports from regional focal points (consolidating data from Category 1 to 3 HFs, districts, RDPHs and collaborating sectors) in accordance with the procedures and deadlines set by the monitoring and evaluation framework (submission by the 15th of the month following the quarter at the latest; feedback from central level by the 30th at the latest). It presents, on an annual basis and with regional breakdowns, key indicators relating to governance, funding, research capacity, scientific output, the use of results, partnerships and regional performance, in line with territorial indicators IT1 to IT4.

The results are subject to an annual national review, regional performance reviews, feedback to the RDPHs, districts and partners, and a systematic feedback mechanism enabling adjustments to the national agenda. This system embeds the flow of information within a results-based management framework, promoting institutional learning, evidence-based decision-making and the continuous improvement of the ROS's performance in Cameroon.

CHAPITRE 7. TRANSLATION, AND USE OF RESEARCH OUTPUTS

Knowledge transfer and utilisation constitute the fourth fundamental pillar of the National Health Research System. Without explicit transfer mechanisms, research findings have no impact on policies and practices. This chapter describes the integrated knowledge transfer framework adopted by the PSNRS, which goes far beyond the simple dissemination of information.

7.1. STRATEGIC APPROACH TO COMMUNICATION

The communication strategy is rooted in the 'Communication and Public Relations' initiative within the Governance and Strategic Management of the Health System programme, the aim of which is to increase the visibility of the work carried out by MINSANTE and to mobilise stakeholders in support of health. It is based on a multi-level framework tailored to the diversity of the target audiences. Each segment (policy-makers, researchers, the general public and institutional partners) is addressed through a tailored approach, combining formats, channels and timelines specific to their expectations and the ways in which they consume information.
The entire framework is centred on a central digital platform serving as the single point of entry to the knowledge ecosystem: a project register, publications, an events calendar, training resources, a directory of researchers and monitoring dashboards. This digital infrastructure ensures the consistency, traceability and permanent accessibility of the information produced.
In addition, a media engagement strategy structured around three to five partner journalists, science communicators and public ambassadors helps to extend the reach of the research beyond academic and institutional circles. These intermediaries ensure that scientific results are translated into accessible content, thereby helping to embed the research in public debate and strengthen its social legitimacy.

The communication and dissemination of operational research findings constitute an essential strategic link in the knowledge cycle. Without explicit mechanisms for knowledge transfer and utilisation, research findings — however rigorous they may be — have no impact on policies and practices. The PSNRS 2026–2030 therefore adopts an Integrated Knowledge Transfer approach [44,45], which involves decision-makers and stakeholders from the very outset of research design, thereby ensuring the relevance and ownership of the results produced.

7.1.1.

The PSNRS adopts an Integrated Knowledge Transfer approach, based on the work of Graham et al. [44] and Straus et al. [45]. This approach involves decision-makers and stakeholders from the very outset of research design, ensuring the relevance and ownership of the results produced.
A National Pool of Experts in Operational Research (PNERO), described in the chapter's strategic

box, serves as the institutional mechanism for translating evidence into decisions. The ONSP plays a vital complementary role by centralising syntheses, producing analytical bulletins and feeding data into decision-making dashboards.

7.1.2. Audience segmentation and tailored outputs

The communication strategy targets four main segments, each with specific outputs: (i) national and regional policy-makers (policy briefs, deliberative policy dialogues, strategic dashboards, Cabinet briefings); (ii) programme managers and technical staff (quarterly feedback workshops, methodological seminars, operational summary sheets); (iii) frontline health practitioners and researchers (publications in peer-reviewed journals, the ROS quarterly newsletter, regional and international scientific conferences, national study database); (iv) communities and civil society (accessible infographics, community feedback meetings, local radio stations and digital social media).

7.1.3. "Data-to-Policy" mechanisms

Beyond simply disseminating information, the plan prioritises active mechanisms for using evidence in the decision-making cycle. In practical terms, this will involve: (a) systematically integrating the ROS's findings into annual sectoral reviews and operational planning processes; (b) organising deliberative policy dialogues with decision-makers at least twice a year, on jointly identified priority themes; (c) drafting and disseminating policy briefs in a standardised format (maximum two pages, with an explicit operational conclusion) for the technical directorates and senior management of the MINSANTE; (d) use the EVIPNet-Afrique platforms and the Cameroon Health Data Collaborative (CHDC) network as channels for cross-sectoral knowledge sharing; (e) develop a public portal for visualising data from the ROS, accessible as open data to national and international stakeholders.

7.2. INSTITUTIONALISATION OF THE PRODUCTION AND USE OF RESEARCH OUTPUTS AT MINSANTE

STRATEGIC FRAMEWORK: Establishment of a national pool of experts for the production and use of research outputs at MINSANTE
Strategic rationale: An analysis of institutional practices at MINSANTE reveals that health research findings struggle to be translated into policy decisions, not due to a lack of data, but because of a lack of formal mechanisms for processing, synthesising and presenting the evidence to decision-makers. In accordance with the principles of the results-based management cycle and the recommendations of international frameworks (EVIPNet, Lavis et al. 2006 [46]; Lewin et al. 2008 [47]), the institutionalisation of a mechanism for the regular

production of knowledge outputs is an essential prerequisite for operational research to fulfil its strategic function.

Governance mechanism: The DROS will oversee the establishment of a National Pool of Operational Research Experts (PNERO), comprising specialist researchers, health economists, epidemiologists and public policy experts, recruited from within the technical directorates of the MINSANTE and who may be assisted by experts identified in universities or research centres. This pool will be under the functional authority of the Head of the DROS and will operate within a formalised framework. Its work will be validated by a Review Committee comprising independent peers, ensuring scientific rigour and analytical neutrality.

Operating procedures and outputs: The PNERO will produce the following deliverables at least twice a year:

- strategic policy briefs on the thematic priorities set out in the PSNRS;
- economic modelling and cost-effectiveness, cost-benefit and cost-utility analyses to support budgetary decisions;
- systematic reviews of the national literature on key operational issues;
- dashboards on the state of health research in Cameroon, updated annually.

These outputs will be presented at formal feedback sessions to the technical directorates and, depending on their significance, directly to the Minister's Office or to technical and financial partners. A production schedule, approved annually by the DROS, will ensure the regularity and relevance of the deliverables.

Institutional anchoring and sustainability: The PNERO will be formalised through an organisational document signed by MINSANTE, guaranteeing its integration into the Ministry's functional organisational chart. Its activities will benefit from a dedicated budget line within MINSANTE's programme-, to ensure their continuity regardless of external aid. Members of the pool will receive formal institutional recognition (certificates, mentions in annual reports), thereby encouraging their long-term commitment. The ultimate aim is to make the PNERO a leading body for the development of tools to support public decision-making in health, recognised both nationally and by technical and financial partners.

Added value for public decision-making: By putting this mechanism into practice, MINSANTE will develop an in-house capacity for strategic analysis, a function currently largely outsourced to consultants and technical partners. It will thereby strengthen its epistemic autonomy, improve the quality of its programme and budgetary decisions, and position Cameroon as a leading player in the global movement towards evidence-based decision-making in public health.

7.3. OPERATIONAL COMMUNICATION PLAN 2026-2030

The operational implementation of the communication strategy will be structured around four key areas: (i) the annual production of a national report on the state of ROS in Cameroon, endorsed by all stakeholders; (ii) the development and maintenance of a central digital portal (Digital Documentation Centre for the Health Sector – CDNSS) bringing together publications, approved protocols, the calendar of scientific events and monitoring dashboards; (iii) the biennial organisation of a National Forum on Research for Action, bringing together researchers, decision-makers, civil society and technical and financial partners to discuss the results of the ROS; (iv) the development of a network of journalists and communicators specialising in public health, trained in science communication, to ensure regular media coverage of the ROS's activities and results; (v) the organisation of intra-hospital communication meetings to raise awareness among healthcare professionals of the results of operational research and encourage their adoption in clinical practice.

Although this is primarily a technical communication initiative, it will be carried out in close collaboration with the communication and public relations unit of the programme on governance and strategic management of the health system, whose objective is to increase the visibility of the work carried out by the MINSANTE and to mobilise new entities in support of health.

CHAPITRE 8. MONITORING AND EVALUATION FRAMEWORK

8.1. PRESENTATION AND DESCRIPTION OF THE NATIONAL MONITORING AND EVALUATION SYSTEM

There was not, strictly speaking, a national monitoring and evaluation system for ROS. However, the baseline assessment carried out revealed that, at the DROS level, there are staff with the necessary expertise to carry out this essential function effectively. ROS monitoring and evaluation activities are virtually non-existent at the decentralised levels of the health system, as well as in sectoral bodies that carry out ROS, such as universities or the MINRESI. All MINSANTE programmes and projects have a monitoring and evaluation (M&E) framework that incorporates ROS activities. Some medical faculties and research institutes maintain a record of the research carried out. During the period 2026-2030, the ROS monitoring and evaluation framework will be as shown in Figure 3.

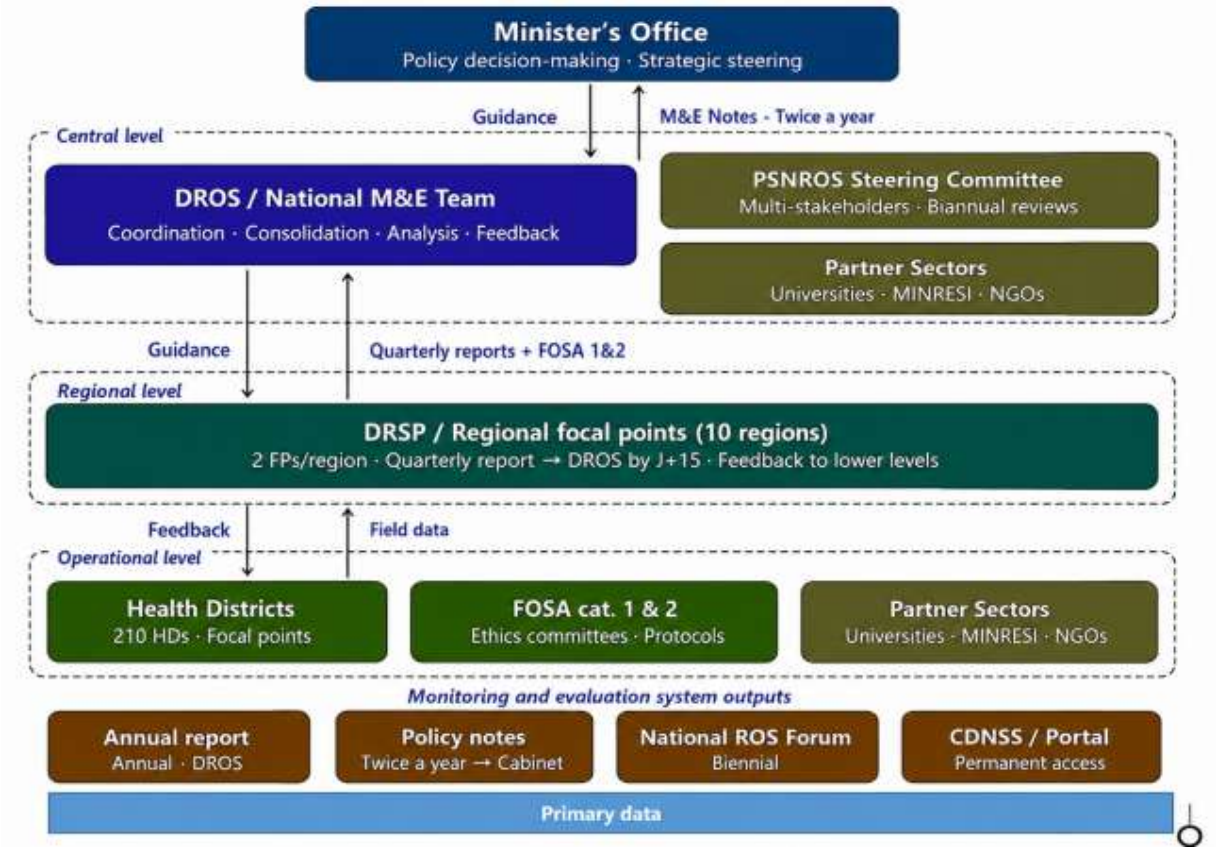

Figure5 : Monitoring and evaluation framework for the PSNRS 2026–2030

The primary functions of the monitoring and evaluation of the 2026–2030 National Strategic Plan for Operational Research in Health will be to provide regular updates to stakeholders and decision-makers on the overall performance of the PSNRS 2026–2030's implementation, and to identify any necessary adjustments to ensure the achievement of the agreed-upon outcomes. The main M&E stakeholders at central and decentralised levels are shown in Figure 1 below.

8.2. REPORTING AND MANAGEMENT STRATEGY

8.2.1. Levels and departments concerned

8.2.1.1. Central level

The DROS is responsible for monitoring and evaluating the implementation of the National Strategic Plan for Operational Research in Health. Its role is to ensure that all activities are integrated into *a single* national M&E system, in order to produce information that can guide the effective implementation of the PSNRS and enable it to progressively achieve the expected outcomes by 2030.

Within the DROS, a monitoring and evaluation (M&E) team will be set up to liaise with other stakeholders at central level, notably focal points from technical and programme directorates, specialised units within the MINSANTE, Category 1 and 2 health facilities, research institutes in related sectors, private research institutes, universities and partner sectors involved in operational research in health.

The team's main remit is to regularly review progress, identify any challenges and assess the impact throughout the implementation of the interventions selected under the PSNRS. It will meet at least once every six months, and as required.

8.2.1.2. Regional level

At regional level, two focal points will be appointed. They will monitor operational health research activities within healthcare facilities and within the community. They will also liaise with the regional ethics committee.

8.2.2. Key M&E management strategies

The focus will be on:

- Strengthening the organisational capacity for monitoring and evaluation within the DROS and across all bodies involved in operational health research:
    - Identifying focal points at all levels of the national M&E system;
    - Developing and implementing a multisectoral M&E training programme to strengthen technical and organisational capacity;
    - Designing and producing harmonised and simplified reporting tools;
    - Ensure data collection and feedback to stakeholders in operational health research;

- Strengthen the monitoring and evaluation of the activities of ethics committees;
- Integrate a dedicated section for monitoring research projects into the CDNSS virtual library;
-

- Strengthen partnership and coordination for the management of ROS activities by setting up a technical sub-group focusing on the monitoring and evaluation system;
- Carry out a baseline, mid-term and final evaluation of the 2026–2030 National Strategic Plan.

8.2.2.1. M&E governance mechanisms

The M&E monitoring of the PSNDROS follows a process that runs from the operational level through the regional level to the central level. The final stage will be the communication of validated information to stakeholders. The principle is to ensure that each stakeholder has the information necessary for the operational management of the PSNRS at their respective level.

At district and regional levels: Data collection will be carried out by formally designated focal points. These focal points will be required to populate the monitoring tools made available to them, carry out local analyses and share the results of their monitoring activities with the DROS monitoring and evaluation team. Electronic channels will be strongly favoured to ensure the exchange of documents between the central level and the lower levels of the health system. This will speed up the flow of data, its archiving and the feedback, which must be systematic.
It should be noted that the monitoring activities at regional and district levels, which will be carried out by the regional focal point, will extend to the collaborating sectors within the region involved in the implementation of the PSNRS. In other words, in addition to information from the HFs (categories 6 to 3), the DSs and the RDPH, the regional focal point will also need to collect information from the ROS from the relevant collaborating sectors in the region. They must produce a quarterly report on the ROS for their region and submit it to the central-level M&E team electronically by the 15th of the month following the quarter in question. The central-level M&E team, in turn, must acknowledge receipt of the report and provide feedback by the 30th of the month following the quarter in question.

At central level: Monitoring of the ROS will be carried out by a team responsible for consolidating the reports received from the various regional focal points. This team will be responsible for collecting ROS-related data from the various MINSANTE structures. Data will also be collected from collaborating sectors and private research institutes. The team is also responsible for consolidating ROS data sent directly to them by Category 1 and 2 HFs.
Indeed, data from the institutional ethics committees of Category 1 and 2 HFs will be sent directly to the central-level SE team. This data transmission must be carried out electronically by the 15th of the month following the quarter in question at the latest. The central-level M&E team, in turn, must acknowledge receipt of the data submitted and provide feedback by the 30th of the month following the relevant quarter at the latest.

The reports generated by the central-level monitoring and evaluation team will be submitted every six months to the Minister of Health in the form of a strategic or situational briefing note to aid decision-making.

8.2.2.2. Dissemination of information

The DROS will produce an annual report on the ROS in Cameroon, which aims to provide an account of the status of implementation of the National Health Programme (NHP) by sector of intervention, as well as the main findings of the ROS carried out. It is drawn up by the DROS and validated by the main stakeholders. This report is primarily intended for all those involved in the prevention, management, promotion and control of the disease in Cameroon for their consideration.

The virtual library's website will make strategic information available to stakeholders, technical and financial partners, and the general public, enabling them to improve public health initiatives.

8.3. PERFORMANCE INDICATORS FOR MONITORING AND EVALUATION OF THE NATIONAL STRATEGY FOR THE PREVENTION AND CONTROL OF HIV/AIDS (PSNRS)

8.3.1. Performance Framework

Table9 : Performance Framework for Strategic Indicators

Impact	Indicator	Operational definition	Baseline	2030 Target
<u>Impact</u>: Operational Research in Health contributes 10 per cent to the development of a healthy, productive workforce capable of driving strong, inclusive and sustainable growth				
Percentage of major policy decisions by the Ministry of Health (circulars, guidelines, protocol revisions) documented as incorporating health research findings		Number of major decisions explicitly citing research findings / Total number of major decisions issued. **Source:** annual audit of MINSANTE circulars and guidelines.	To be determined by a baseline survey in 2026 (Activity 2.3.4)	At least 10 per cent of major decisions documented as being evidence-based
Outcome 1	Composite governance quality score (5 dimensions, 20 equally weighted indicators)	Score out of 100 calculated using the framework in the Annex (strategy, transparency, participation, ethics, use of results)	To be determined by a baseline survey in 2026 (Activity 2.3.4)	50 per cent improvement on the baseline score
Outcome 2	Proportion of ROS results that have been the subject of an approved policy recommendation	Numerator: number of research findings that have led to a decision. Denominator: total number of research projects carried out		90%
Outcome 3	Percentage of RDPHs and HFs (categories 1–3) with at least one member of staff trained in ROS	Numerator: number of organisations with at least one member of staff who has completed the ROS mentoring programme. Denominator: total number of target organisations.	0%	RDPHs: 100%; HF categories 1–3: 90%
Outcome 4	Percentage of PSNRS interventions that have received funding (partial or full)	Numerator: number of PNRS interventions that received at least 50 per cent of the planned funding. Denominator: total number of interventions planned under the PNRS.	To be determined by a baseline survey in 2026 (Activity 2.3.4)	80%

8.3.2. Monitoring framework

Outputs	Indicator	Baseline data	Targets				
			2026	2027	2028	2029	2030
1.1. By 2030, 100 per cent of the regulatory documents governing research and ethics will be made available to all stakeholders	% of regulatory documents governing research and ethics made available to all identified stakeholders	0%	100%	100%	100%	100%	100%
1.2 By 2030, 100 per cent of stakeholders mapped by level will participate in the ROS's coordination and monitoring activities	% of research stakeholders mapped by level who have participated in research activity coordination meetings	0%	50%	70%	80%	90%	100%
1.3. Regulations implementing laws relating to human health research involving human subjects in Cameroon are drawn up and forwarded	Number of implementing regulations submitted to the SPMs	0	1	1	1	1	1
1.4. By 2030, 100 per cent of regions and Category 1 and 2 hospitals will have a functioning ethics committee (holding 2 to 4 sessions per year)	% of Category 1 and 2 hospitals with a functioning ethics committee (having held 2 to 4 sessions per year)	0%	50%	70%	80%	90%	100%
1.5 By 2030, a bioethics monitoring and regulatory system will be operational in Cameroon.	Percentage of reported bioethical incidents that have been investigated	0%	100%	100%	100%	100%	100%
1.6 By 2030, evaluation studies will be carried out to measure the actual contribution of the implementation of the reference documents to the country's development objectives	% of policy documents that have been the subject of a study to measure the achievement of the country's development objectives	0%	10%	50%	70%	90%	100%
2.1., , By 2030, 90 per cent of the indicators from the reference documents requiring operational research data will be regularly updated	% of indicators from reference documents requiring operational research data that are regularly updated	AD	50%	60%	70%	90%	100%
2.2. By 2030, 50 per cent of ROS works will be focused on national priorities	% of ROS work focused on national priorities	AD	10%	20%	30%	40%	50%
2.3., , , , , By 2030, 90 per cent of research findings will be transformed into knowledge products	% of research results transformed into knowledge products	AD	50%	60%	70%	80%	90%
2.4. By 2030, research into the national pharmacopoeia will have been developed	Number of research projects carried out on traditional medicines	0	1	1	1	1	1

2.5. By 2030, 90 per cent of the documentation produced in relation to the health sector will be available in the Digital Documentation Centre for the Health Sector (CDNSS)	% of documentation produced in connection with the health sector available in the Digital Documentation Centre for the Health Sector (CDNSS)	AD	50%	60%	70%	80%	90%
3.1. By 2030, all RDPHs and 90 per cent of Category 1 to 3 health facilities will have at least one staff member with skills in operational health research	Percentage of RDPHs and Category 1–3 HFs with at least one staff member trained in operational health research		0	25	50	75	90
3.2. By 2030, Cameroon will have a mechanism in place to recognise and motivate researchers in the field of human health	Number of operational networks	N/A	0	1	2	3	4
3.3. Develop mechanisms to improve the initial and continuing training of health workforce professionals in ROS	The curriculum for the initial and continuing training of health workforce professionals in ROS has been adopted and approved by the Ministry of Health (MINSANTE) and the Ministry of Higher Education (MINESUP)				1	1	1
3.4. By 2030, at least 80 per cent of target facilities across the ten regions will have the operational capacity to plan, conduct, use and capitalise on operational research in decision-making processes	Percentage of regions with a functional mechanism for the governance and conduct of operational health research	20%	40%	60%	80%	100%	100%
4.1 By 2030, at least 2 per cent of national health expenditure is allocated to operational health research in accordance with the Algiers Declaration	Percentage of the MINSANTE budget allocated to operational health research		1	1	1	1	1
4.2 By 2030, the proportion of funding allocated to operational health research by private organisations and regional health authorities will increase	Proportion of funding allocated to operational health research by regional development councils		0.5%	0.5%	0.5%	0.5%	0.5%
4.3 By 2030, the contribution from external funding allocated to the ROS will have doubled	The level of external funding allocated to the ROS,	AD					

CHAPITRE 9. FINANCIAL FRAMEWORK

9.1. OVERALL COST OF IMPLEMENTATION

9.1.1. Strategic interpretation of the financial framework

The overall budget for the PSNRS 2026–2030, including the territorialisation mechanism (Output 3.4, 511 million FCFA), is estimated at 3.044 billion FCFA (approximately 4.68 million USD), representing a reasonable investment given the public health challenges identified. The average annual cost (608.7 million CFA francs per year), when calculated per capita for the target population (approximately 30 million people), amounts to an estimated 20 CFA francs per person per year. This level remains significantly below the standards recommended by the Algiers Declaration: if Cameroon were to meet the target of allocating 2 per cent of national health expenditure to research, the annual investment would need to be in the region of 17.5 billion CFA francs, or nearly 29 times the average annual budget provided for in the PSNRS. This comparison highlights that this plan constitutes a minimum framework for coordination and organisation, and not the entirety of the national investment required for health research.

Table10 : Analysis of the cost structure

Impact	Amount (FCFA)	% of total	Comment
Outcome 1: Governance and ethics	978,237,951	32%	Foundational pillar
Outcome 2: Production and use	607 152 045	20%	Core of the system
Outcome 3: Capacities	816,939,760	27%	Investment in people
Outcome 4: Sustainable financing	641,404,535	21%	Leverage for sustainability
TOTAL	**3,043,734,291**	**100%**	

9.1.2. Cost structure analysis

Analysis of the breakdown by effect reveals a rebalanced structure following the integration of territorialisation. Effect 1 (Governance and Ethics of the ROS) remains the largest item of expenditure, accounting for 32 per cent of the total budget (978 million CFA francs), now followed by Effect 3 (Capacities, 27 per cent, 817 million CFA francs), which includes the roll-out of the CRCRs across the 10 regions. This predominance of Effect 1 is mainly due to the significant operating costs of the ethics committees (outputs 1.4 and 1.5: approximately 711 million CFA francs, or 23 per cent of the total budget) and the establishment of coordination systems. This concentration calls for a sensitivity analysis: alternative organisational models (pooling of sessions, digital tools) could reduce these costs without compromising the quality of the ethical review.

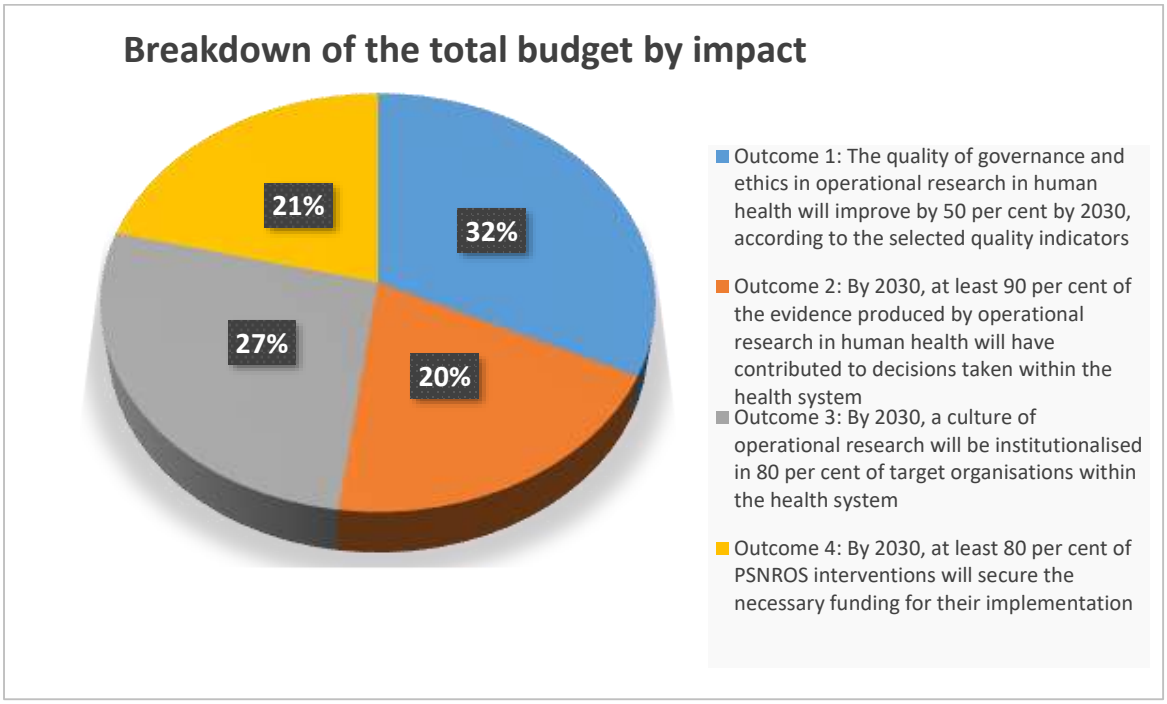

Figure6 : Overall budget by priority area

9.1.3. Temporal analysis and sustainability

The temporal profile of expenditure, recalculated following the integration of territorialisation, no longer follows a strictly progressive ramp-up but rather a bimodal profile: an initial peak in 2028 (732.9 million CFA francs, 24 per cent of the total budget), driven by the intensive roll-out of ethics committees and research activities, followed by a relative decline in 2029 (551.9 million CFA francs, 18 per cent), then a second peak – now the highest of the period – in 2030 (747.9 million CFA francs, 25 per cent), associated with the ramp-up of regional studies and the consolidation of the monitoring and evaluation framework. This trend calls for several precautions:

- The years 2026 and 2027 must be used to consolidate the institutional framework and secure funding ahead of the two expenditure peaks in 2028 and 2030;
- The relative trough in 2029 must be factored into the multi-year budget planning to avoid a cash flow shortfall between the two peaks;
- Dependence on external funding poses a major sustainability risk, given the shifting priorities of donors;
- The gradual increase in the State's contribution (targeting 2 per cent of the DNS) remains an ambitious objective requiring sustained advocacy with the Ministry of Finance.

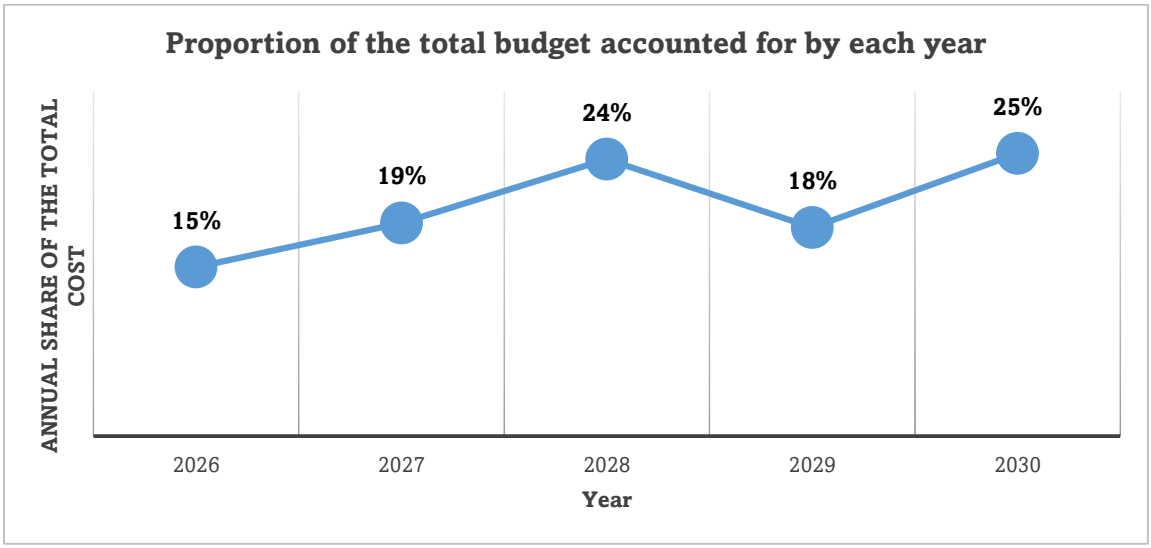

Figure7 : Weighting of years in the overall budget

9.1.4. Financial risks and mitigation strategies

Two main financial risks could jeopardise the implementation of the plan:

- The risk of health research funding being 'deprioritised' by external aid (reduction in development aid, changes in donor priorities): to mitigate this, the plan provides for the diversification of funding sources (private companies, technical cooperation projects, taxes collected, philanthropic foundations);
- The risk of the State failing to execute the budget (low absorption rate, reallocation of funds): this will be mitigated by strengthening the financial governance of the DROS and by using performance-based funding instruments;
- Human factors and conflicts of jurisdiction with priority programmes.

9.1.5. Resource mobilisation strategy

The proposed funding architecture is structured around three concentric circles:

- the inner circle (government funding: advocacy for a dedicated budget line and a gradual increase in health expenditure to 2 per cent),
- the middle circle (diversified domestic funding: hospitals' own revenue, CTD, the private sector, taxes on harmful products),
- the outer circle (international funding: PTF, competitive research funds, South-South and North-South consortia).

Progress must be made from the inside out, in order to reduce structural dependence on external funding.

9.2. BREAKDOWN OF COSTS BY S AND OUTCOMES

Table11 : Breakdown of costs by outcomes

Expected outcomes (Priority areas)	Total annual cost in CFA francs and annual percentage of the priority area											
	2026		2027		2028		2029		2030		TOTAL COST	(% of total budget)
	Cost	%	Cost	%	Cost	%	Cost	%	Cost	%		
Outcome 1: The quality of governance and research ethics in human health operations will improve by 50 per cent by 2030, according to the selected quality indicators	174,200,000	39%	209,640,000	37%	200,250,528	27%	181,636,685	33%	212,510,738	28%	978,237,951.0	32%
Outcome 2: By 2030, at least 90 per cent of the evidence produced by the ROS will have contributed to decisions taken within the healthcare system	50,781,600	11%	68,341,760	12%	217,048,064	30%	72,206,067	13%	198,774,554	27%	607,152,044.8	20%
Outcome 3: By 2030, a culture of operational research will be institutionalised in 80% of the target organisations within the healthcare system	94,336,000	21%	149,314,317	26%	195,232,000	27%	170,106,560	31%	207,950,883	28%	816,939,759.6	27%
Outcome 4: By 2030, at least 80 per cent of PSNRS initiatives will secure the necessary funding for their implementation PSNRS	127,962,000	29%	136,462,317	24%	120,402,560	16%	127,916,499	23%	128,661,159	17%	641,404,535.2	21%
Annual total	**447,279,600**	**100%**	**563,758,394**	**100%**	**732,933,152**	**100%**	**551,865,811**	**100%**	**747 897 334**	**100%**	**3,043,734,290.6**	**100%**

9.3. COSTS BY OUTPUT

Table12 : Annual costs per output

Outputs	Total cost per year (in FCFA)					TOTAL COST (FCFA)
	2026	2027	2028	2029	2030	
Outcome 1: The quality of governance and research ethics in human health operations will improve by 50 per cent by 2030, as measured by the selected quality indicators						
1.1. By 2030, 100 per cent of the regulatory documents governing research and ethics will be made available to all stakeholders	30,000,000	1,248,000	10,383,360	16,821,274	11,230,642	69,683,276
1.2 By 2030, 100 per cent of stakeholders mapped by level will participate in ROS coordination and monitoring activities	16,000,000	26,880,000	16,489,600	16,749,184	17,019,151	93,137,935
1.3. The implementing regulations for laws relating to human health research involving human subjects in Cameroon are drawn up and submitted	6,200,000	6,240,000	14,718,080	6,324,864	6,369,859	39,852,803
1.4. By 2030, 100 per cent of regions and Category 1 and 2 hospitals will have a functioning ethics committee (2 to 4 meetings per year)	82,000,000	87,824,000	101,896,608	101,741,363	95,396,015	468,857,986
1.5 By 2030, a bioethics monitoring and regulatory system will be operational in Cameroon	40,000,000	72,472,000	48,895,680	40,000,000	40,935,887	242,303,567
1.6 By 2030, evaluation studies will be carried out to measure the actual contribution of the implementation of the reference documents to the country's development objectives	0	14,976,000	7,867,200	0	41,559,184	64,402,384
TOTAL 1	**174,200,000**	**209,640,000**	**200,250,528**	**181,636,685**	**212,510,738**	**978,237,951**
Outcome 2: By 2030, at least 90 per cent of the evidence produced by the ROS will have contributed to decisions taken within the health system						
2.1., , By 2030, 90 per cent of the indicators derived from reference documents requiring operational research data will be regularly updated	4,081,600	0	53,474,304	0	53,474,304	111,030,208
2.2. By 2030, 50 per cent of ROS projects will be focused on national priorities	3,000,000	6,973,760	7,056,960	7,299,238	7,389,228	31,719,186
2.3. By 2030, 90 per cent of research results will be transformed into knowledge products	27,900,000	9,320,000	129,668,480	31,258,842	121,212,436	319,359,758
2.4. By 2030, research into the national pharmacopoeia will be expanded	3,000,000	38,816,000	18,358,720	19,499,456	7,679,434	87,353,610

2.5. By 2030, 90 per cent of the documentation produced in relation to the health sector will be available in the Digital Documentation Centre for the Health Sector (CDNSS)	12,800,000	13,232,000	8,489,600	14,148,531	9,019,151	57,689,283
TOTAL 2	**50,781,600**	**68,341,760**	**217,048,064**	**72,206,067**	**198,774,554**	**607,152,045**
Outcome 3: By 2030, a culture of operational research will be institutionalised in 80 per cent of target facilities within the health system						
3.1. By 2030, all Regional Health Directorates (RDPHs) and 90 per cent of healthcare facilities in categories 1 to 3 will have at least one staff member with skills related to operational research in health	0	26,520,000	12,438,400	25,309,440	13,453,373	77,721,213
3.2. By 2030, Cameroon will have a mechanism in place to recognise and motivate researchers in the field of human health	8,736,000	10,152,000	63,165,440	10,898,803	68,319,740	161,271,983
3.3. Develop mechanisms to improve the initial and continuing training of health workforce professionals in ROS	3,600,000	21,642,317	13,628,160	17,898,317	10,177,769	66,946,563
3.4. By 2030, at least 80 per cent of the target organisations in the ten regions will have the operational capacity to plan, conduct, utilise and capitalise on operational research in decision-making processes	82,000,000	91,000,000	106,000,000	116,000,000	116,000,000	511,000,000
TOTAL 3	**94,336,000**	**149,314,317**	**195,232,000**	**170,106,560**	**207,950,883**	**816,939,760**
Outcome 4: By 2030, at least 2 per cent of national health expenditure will be allocated to operational health research in accordance with the Algiers Declaration						
4.1. By 2030, at least 2 per cent of national health expenditure will be allocated to operational health research in accordance with the Algiers Declaration	5,162,000	13,398,317	3,664,000	12,192,397	12,640,093	47,056,806
4.2. By 2030, the proportion of funding allocated to operational health research by private organisations and regional councils will increase	10,900,000	11,020,000	4,544,800	3,374,592	3,509,576	33,348,968
4.3 By 2030, external funding allocated to the ROS will have doubled	111,900,000	112,044,000	112,193,760	112,349,510	112,511,491	560,998,761
TOTAL 4	**127,962,000**	**136,462,317**	**120,402,560**	**127,916,499**	**128,661,159**	**641,404,535**
Annual grand total	**447,279,600**	**563,758,394**	**732,933,152**	**551,865,811**	**747,897,334**	**3,043,734,291**

9.4. COSTS BY ACTIVITY

Table13 : Annual costs by activity

Expected outputs by impact	Corresponding activities	Total cost per year (in FCFA)					TOTAL (FCFA)
		2026	2027	2028	2029	2030	
1.1. By 2030, 100 per cent of the regulatory documents governing research and ethics will be made available to all stakeholders	Circulate the document on ROS's priorities on a regular basis	0	0	0	0	0	**0**
	Conduct a periodic survey of institutional stakeholders to identify research priorities	2,000,000	0	2,163,200	0	2,339,717	**6,502,917**
	Update the map regularly	0	0	0	15,471,437	0	**15,471,437**
	Update the directory of normative documents periodically	0	0	0	0	0	**0**
	Mapping the ROS stakeholders	20,400,000	0	0	0	0	**20,400,000**
	Strengthen the mechanism for disseminating normative documents to stakeholders	1,200,000	1,248,000	1,297,920	1,349,837	1,403,830	**6,499,587**
	Hold regular sessions to validate priorities in the ROS	6,400,000	0	6,922,240	0	7,487,095	**20,809,335**
	Total output 1.1.	**30,000,000**	**1,248,000**	**10,383,360**	**16,821,274**	**11,230,642**	**69,683,276**
1.2 By 2030, 100 per cent of stakeholders mapped by level will participate in ROS coordination and monitoring activities	Develop a digital platform to ensure real-time monitoring of approved research protocols	0	10,640,000	0	0	0	**10,640,000**
	Establish a monitoring and evaluation system for ROS activities at all levels	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	**50,000,000**
	Hold an annual multi-sectoral coordination meeting for research stakeholders	3,000,000	3,120,000	3,244,800	3,374,592	3,509,576	**16,248,968**
	Hold a regular coordination meeting for stakeholders at regional level	2,000,000	2,080,000	2,163,200	2,249,728	2,339,717	**10,832,645**
	Hold a regular coordination meeting for research stakeholders at central level	1,000,000	1,040,000	1,081,600	1,124,864	1,169,859	**5,416,323**
	Total output 1.2.	**16,000,000**	**26,880,000**	**16,489,600**	**16,749,184**	**17,019,151**	**93,137,935**
1.3. Regulations implementing the	Establish ethics committees in first- and second-category HFs, , ,	0	0	8,436,480	0	0	**8,436,480**

laws relating to human health research involving human subjects in Cameroon are drawn up and circulated	Organise the finalisation of the implementing regulations	1,000,000	1,040,000	1,081,600	1,124,864	1,169,859	**5,416,323**
	Organise the approval of implementing regulations	5,200,000	5,200,000	5,200,000	5,200,000	5,200,000	**26,000,000**
	Forward the implementing regulations to the Prime Minister's Office (SPM)	0	0	0	0	0	**0**
	Total output 1.3.	**6,200,000**	**6,240,000**	**14,718,080**	**6,324,864**	**6,369,859**	**39,852,803**
1.4. By 2030, 100 per cent of regions and Category 1 and 2 hospitals will have a functioning ethics committee (2 to 4 meetings per year)	Develop standardised tools for the operation of ethics committees (activity report template, procedures manual, annual work plan, etc.)	0	5,824,000	0	0	1,935,887	**7,759,887**
	Set up ethics committees in the ten regions	0	0	0	19,741,363	0	**19,741,363**
	Organise training for members of regional ethics committees and HF committees of the first and second categories	0	0	8,436,480	0	0	**8,436,480**
	Oversee the ethics committees of Category 1 and 2 HFs	0	0	5,538,368	0	5,538,368	**11,076,736**
	Oversee national and regional ethics committees	0	0	5,921,760	0	5,921,760	**11,843,520**
	Hold four protocol review sessions within the ethics committees of Category 1 and Category 2 HF centres	40,000,000	40,000,000	40,000,000	40,000,000	40,000,000	**200,000,000**
	Hold four protocol review sessions at regional ethics committees	42,000,000	42,000,000	42,000,000	42,000,000	42,000,000	**210,000,000**
	Total output 1.4.	**82,000,000**	**87,824,000**	**101,896,608**	**101,741,363**	**95,396,015**	**468,857,986**
1.5 By 2030, a bioethics monitoring and regulatory system will be operational in Cameroon	Support healthcare organisations (HF) through the accreditation process in line with international bioethics standards	0	0	1,865,280	0	0	**1,865,280**
	Develop standardised tools (activity report template, procedures manual, annual work plan, etc.) for the operation of the national committee responsible for bioethics in human health	0	5,824,000	0	0	935,887	**6,759,887**
	Develop a mechanism for monitoring bioethical incidents (identifying points of contact, developing tools, etc.)	0	19,536,000	0	0	0	**19,536,000**
	Establish the national committee responsible for bioethics in human health	0	1,624,000	0	0	0	**1,624,000**

	Organise the certification of staff at accredited HF centres in accordance with international bioethics standards	0	0	7,030,400	0	0	**7,030,400**
	Organise training for members of the national committee responsible for bioethics in human health	0	5,488,000	0	0	0	**5,488,000**
	To oversee the activities of the national committee responsible for bioethics in human health	0	0	0	0	0	**0**
	Hold meetings of the national committee responsible for bioethics in human health	40,000,000	40,000,000	40,000,000	40,000,000	40,000,000	**200,000,000**
	Total output 1.5.	**40,000,000**	**72,472,000**	**48,895,680**	**40,000,000**	**40,935,887**	**242,303,567**
1.6 By 2030, evaluation studies will be carried out to measure the actual contribution of the implementation of policy documents to the country's development objectives	Conduct studies to assess the contribution of health interventions to the achievement of the country's development objectives	0	0	0	0	22 110 327	**22 110 327**
	Conduct a rapid baseline assessment of the status of national strategic indicators	0	14,976,000	0	0	0	**14,976,000**
	Carry out a mid-term review of the health sector reference documents covering the 2026–2030 cycle	0	0	7,867,200	0	0	**7,867,200**
	Carry out a final evaluation of the reference documents for the health sector for the 2026–2030 cycle	0	0	0	0	19,448,858	**19,448,858**
	Total output 1.6.	**0**	**14,976,000**	**7,867,200**	**0**	**41,559,184**	**64,402,384**
2.1., , By 2030, 90 per cent of the indicators derived from reference documents requiring operational research data will be regularly updated	Draw up a list of indicators from the reference documents requiring operational research data	1,000,000	0	0	0	0	**1,000,000**
	Establish a quality assurance framework for indicators requiring operational research data	3,081,600	0	0	0	0	**3,081,600**
	Organise the periodic collection of indicators requiring operational research data	0	0	40,538,368	0	40,538,368	**81,076,736**
	Produce a thematic report on indicators requiring operational research data	0	0	12,935,936	0	12,935,936	**25,871,872**
	Total output 2.1.	**4,081,600**	**0**	**53,474,304**	**0**	**53,474,304**	**111,030,208**
2.2. By 2030, 50 per cent of ROS	Develop a register of ROS projects carried out in Cameroon	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	**5,000,000**

projects will be aligned with national priorities	Establish a 'Health-Research' consultation framework with donors to align their funding with the national ROS priority list.	0	0	3,893,760	0	4,049,510	**7,943,270**
	To formalise a framework agreement between MINSANTE and the institutions of the National Research and Innovation System (SNRI)	0	3,893,760	0	4,049,510	0	**7,943,270**
	Raise awareness of ROS amongst institutions within the National Research and Innovation System (SNRI)	2,000,000	2,080,000	2,163,200	2,249,728	2,339,717	**10,832,645**
	Total output 2.2.	**3,000,000**	**6,973,760**	**7,056,960**	**7,299,238**	**7,389,228**	**31,719,186**
2.3. By 2030, 90 per cent of research findings will be transformed into knowledge products	Develop policy briefs on national priorities	8,000,000	8,320,000	8,652,800	8,998,912	9,358,868	**43,330,580**
	Develop a public portal for visualising research data	0	0	15,575,040	0	0	**15,575,040**
	Develop a national database to centralise primary ROS data	0	0	0	21,259,930	0	**21,259,930**
	Conduct a baseline study on the use of evidence in decision-making at MINSANTE (audit of recent circulars and policies).	1,900,000	0	1,973,440	0	2,973,440	**6,846,880**
	Organise a 'National Forum on Research for Action' (held every two years)	0	0	84,080,000	0	88,492,928	**172,572,928**
	Capacity building for stakeholders to translate the results of the ROS into knowledge products.	17,000,000	0	18,387,200	0	19,387,200	**54,774,400**
	Disseminating knowledge products at all levels	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	**5,000,000**
	Total output 2.3.	**27,900,000**	**9,320,000**	**129,668,480**	**31,258,842**	**121,212,436**	**319,359,758**
2.4. By 2030, research into the national pharmacopoeia will be developed	Support pharmacovigilance relating to traditional medicines	0	2,080,000	2,163,200	2,249,728	2,339,717	**8,832,645**
	To support the process of authorisation and marketing of Improved Traditional Medicines (ITMs).	0	2,080,000	2,163,200	2,249,728	2,339,717	**8,832,645**
	To develop and disseminate good practice guides on clinical trials for MTA.	0	0	11,032,320	0	0	**11,032,320**
	To oversee clinical trials within the framework of the National Pharmaceutical Regulatory Authority (ANRP)	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	**15,000,000**

	Establish a platform for collaboration between researchers (universities/IMPM) and traditional practitioners	0	2,000,000	0	2,000,000	0	**4,000,000**
	Conduct a situational analysis of MTAs and the associated research protocols	0	19,656,000	0	0	0	**19,656,000**
	Set up a fund to support clinical research into priority MTA (e.g. antimalarials, antihypertensives, sickle cell disease)	0	10,000,000	0	10,000,000	0	**20,000,000**
	Total output 2.4.	**3,000,000**	**38,816,000**	**18,358,720**	**19,499,456**	**7,679,434**	**87,353,610**
2.5. By 2030, 90 per cent of the documentation produced in relation to the health sector will be available in the Digital Documentation Centre for the Health Sector (CDNSS)	Ensure the ongoing maintenance of the CDNSS website	3,000,000	3,120,000	3,244,800	3,374,592	3,509,576	**16,248,968**
	Actively collect documents (research findings, regulatory documents, strategic plans, activity reports, etc.)	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	**10,000,000**
	Train users and focal points at all levels of the health care system in the operation of the CDNSS	4,800,000	4,992,000	0	5,399,347	0	**15,191,347**
	Upload documents relating to the healthcare sector to the CDNSS	0	0	0	0	0	**0**
	Promote the CDNSS at all levels of the healthcare system and across all other collaborating sectors (notably through the Cameroon Health Data Collaborative (CHDC))	3,000,000	3,120,000	3,244,800	3,374,592	3,509,576	**16,248,968**
	Total output 2.5.	**12,800,000**	**13,232,000**	**8,489,600**	**14,148,531**	**9,019,151**	**57,689,283**
3.1. By 2030, all RDPHs and 90 per cent of health facilities in categories 1 to 3 will have at least one staff member with d skills in operational health research	Establish a pool of focal points drawn from all RDPHs and 90 per cent of Category 1 and 2 HFs for the implementation of ROS	0	0	0	0	0	**0**
	Provide training and support in drafting and submitting research proposals in response to calls for funding proposals	0	11,440,000	0	12,373,504	0	**23,813,504**
	Implement a mentoring programme for focal points from all RDPHs and 90 per cent of Category 1 and 2 HFs in ROS	0	15,080,000	12,438,400	12,935,936	13,453,373	**53,907,709**
	Total output 3.1.	**0**	**26,520,000**	**12,438,400**	**25,309,440**	**13,453,373**	**77,721,213**
3.2. By 2030, Cameroon will have a	Coordinate the activities of scientific networks	2,080,000	2,080,000	2,163,200	2,249,728	2,339,717	**10,912,645**
	Establish 04 scientific networks of researchers	6,656,000	6,656,000	6,922,240	7,199,130	7,487,095	**34,920,464**

mechanism in place to recognise and motivate researchers in the field of human health	Organise regular calls for funding for ROS projects	0	1,416,000	0	1,449,946	0	**2,865,946**
	Organise a forum on a regular basis to recognise excellence in ROS	0	0	54,080,000	0	58,492,928	**112,572,928**
	Total output 3.2.	**8,736,000**	**10,152,000**	**63,165,440**	**10,898,803**	**68,319,740**	**161,271,983**
3.3. Develop mechanisms to improve the initial and continuing training of health workforce professionals in regional health organisations	Monitor and evaluate initial and continuing training programmes in medicine, dentistry, pharmacy and nursing	0	9,786,317	0	9,786,317	10,177,769	**29,750,403**
	Develop online tutorials and self-study tools (e-learning) in the field of ROS	0	0	11,681,280	0	0	**11,681,280**
	Develop and validate harmonised curricula and skills modules for the training of healthcare staff in ROS	0	8,112,000	0	8,112,000	0	**16,224,000**
	Organise advocacy with the Ministry of Higher Education and Scientific Research (MINESUP) to promote the integration of a curriculum on ROS into the training of Health Workforce (RHS)	1,800,000	1,872,000	1,946,880	0	0	**5,618,880**
	Organise advocacy with the Ministry of Health (MINSANTE) to promote the inclusion of a curriculum on ROS in the training of health workforce professionals	1,800,000	1,872,000	0	0	0	**3,672,000**
	Total output 3.3.	**3,600,000**	**21,642,317**	**13,628,160**	**17,898,317**	**10,177,769**	**66,946,563**
3.4. By 2030, at least 80 per cent of the target organisations in the ten regions will have functional capabilities to plan, conduct, utilise and capitalise on operational research in	Draft, validate and adopt the legislation establishing the Regional Research Coordination Committees (CRCRs) in the 10 regions	15,000,000	0	0	0	0	**15,000,000**
	Appoint, train and equip two ROS focal points per RDPH and one focal point per health district, then coordinate and supervise their work	35,000,000	12,000,000	12,000,000	12,000,000	12,000,000	**83,000,000**
	Incorporate the ROS into the Regional Health Development Plans (PRDS) and the Health District Development Plans (PDDS)	10,000,000	5,000,000	5,000,000	5,000,000	5,000,000	**30,000,000**
	Fund and carry out at least one operational research study per region each year, with the results disseminated	0	50,000,000	60,000,000	70,000,000	70,000,000	**250,000,000**
	Organise Regional Health Research Days and events to showcase research findings	10,000,000	20,000,000	25,000,000	25,000,000	25,000,000	**105,000,000**

decision-making processes	Develop, roll out and maintain the national and regional ROS monitoring dashboard	12,000,000	4,000,000	4,000,000	4,000,000	4,000,000	**28,000,000**
	Total output 3.4.	**82,000,000**	**91,000,000**	**106,000,000**	**116,000,000**	**116,000,000**	**511,000,000**
4.1. By 2030, at least 2 per cent of national health expenditure will be allocated to operational health research in accordance with the Algiers Declaration	Prepare the groundwork for the implementation of the PSN ROS 2026–2030 interventions	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	**5,000,000**
	Develop guidelines encouraging Category 1 to 3 hospitals to allocate a percentage of their own revenue to action research aimed at improving the quality of care., ,	1,600,000	0	0	0	0	**1,600,000**
	Conduct a study to assess the contribution of PTFs and national stakeholders to the financing of the ROS in Cameroon	0	9,786,317	0	9,786,317	10,177,769	**29,750,403**
	To organise advocacy with decision-makers at the Ministry of Health (MINSANTE) to secure a specific budget for the implementation of operational health research studies	1,250,000	1,300,000	1,352,000	1,406,080	1,462,323	**6,770,403**
	Promote and disseminate the PNS ROS to stakeholders	1,312,000	1,312,000	1,312,000	0	0	**3,936,000**
	Total output 4.1.	**5,162,000**	**13,398,317**	**3,664,000**	**12,192,397**	**12,640,093**	**47,056,806**
4.2. By 2030, the proportion of funding allocated to operational health research by private organisations s and CTDs will increase	Introduce taxes on products harmful to health and luxury goods to fund operational health research	0	0	0	0	0	**0**
	Develop a tax incentive or co-funding mechanism to encourage local businesses (insurance companies, pharmaceutical companies) to fund the ROS	6,600,000	6,600,000	0	0	0	**13,200,000**
	Organise advocacy efforts with major companies to secure funding for the ROS	1,300,000	1,300,000	1,300,000	0	0	**2,600,000**
	Strengthen the mechanism for collaboration with the Regional Councils to fund the ROS at regional level	3,000,000	3,120,000	3,244,800	3,374,592	3,509,576	**16,248,968**
	Total output 4.2.	**10,900,000**	**11,020,000**	**4,544,800**	**3,374,592**	**3,509,576**	**33,348,968**
4.3 By 2030, the contribution of external funding allocated to the	Improve the financial governance of ROS activities to increase donor confidence and encourage direct funding (sectoral budget support).	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	**250,000,000**

ROS will have doubled	Ensure the regular mobilisation of government counterpart funds within the framework of co-financing schemes (UNITAID, FM, EDCTP, etc.)	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	**250,000,000**
	Establish South-South and North-South research consortia, led by Cameroonian institutions, to apply for major research grants	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	**5,000,000**
	Develop and regularly publish a digital portfolio of 'Investment Opportunities in Operational Research in Health in Cameroon' to attract private foundations and philanthropic organisations	3,600,000	3,744,000	3,893,760	4,049,510	4,211,491	**19,498,761**
	Facilitate and support independent teams working in consortia to respond to international calls for proposals	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	**5,000,000**
	Set up a strategic monitoring system to respond to international tenders for ROS	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	**25,000,000**
	Organise advocacy efforts with businesses to secure funding for ROS as part of CSR initiatives	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	**6,500,000**
	Total output 4.3.	**111,900,000**	**112,044,000**	**112,193,760**	**112,349,510**	**112,511,491**	**560,998,761**
Annual total		**447,279,600**	**563,758,394**	**732,933,152**	**551,865,811**	**747,897,334**	**3,043,734,291**

CHAPITRE 10. RISK ANALYSIS AND MANAGEMENT

10.1. RISK ANALYSIS

The implementation of the 2026–2027 National Health Programme (PSN) will take place against a backdrop of a clear international economic and financial crisis, which has led to a reduction in international resources allocated to health. Furthermore, domestic funding for health in Cameroon remains generally very low.

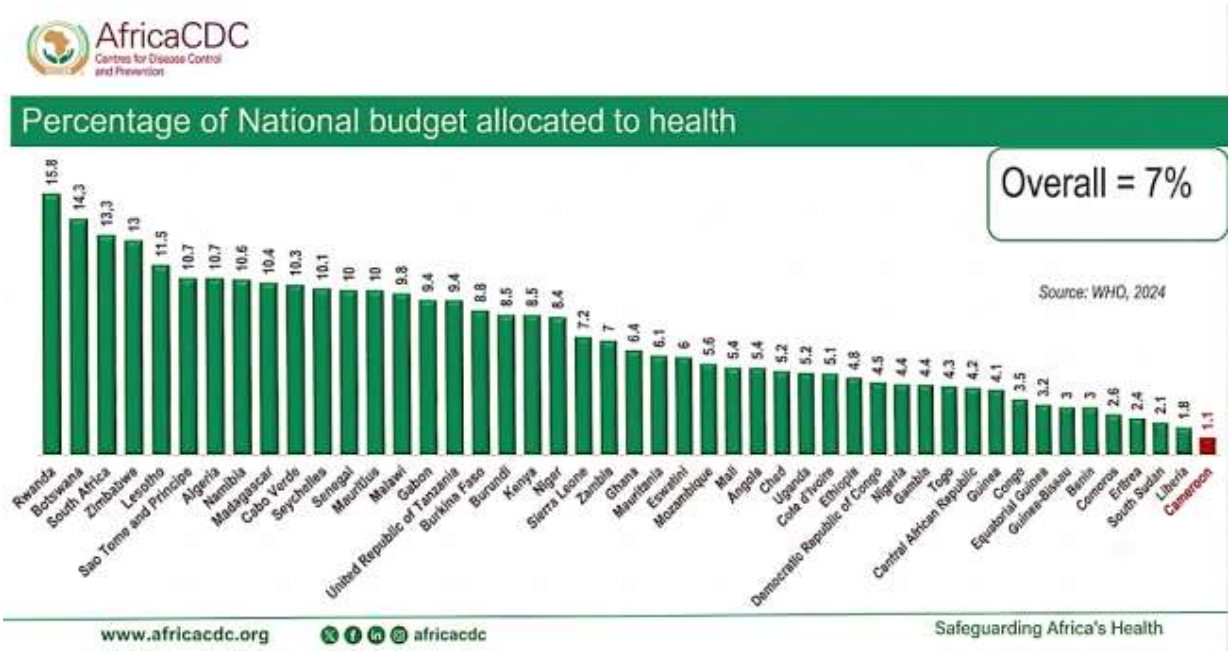

Figure8 : Overview of the proportion of national budgets allocated to health in Africa

It may also be subject to unforeseen circumstances or contingencies that could reduce it even further. In this context, public health research is relegated to the bottom of the list of priorities, viewed as a burden rather than an investment. Furthermore, certain areas of the country are experiencing socio-political crises, making it difficult to carry out research activities in the field. A summary of these risks and the measures to mitigate them is presented in the table below:

Table14 : Risks and mitigation measures

Category	Risk	Mitigation strategy
Financial	Research funding by the state and donors is being deprioritised	Diversification of funding sources (CTD, private sector, earmarked taxes). Sustained advocacy with the MINFI. Strengthened financial governance.
Financial	Budget under-execution (low absorption rate)	Performance-based funding mechanisms. Annual work plans with quarterly milestones.

Institutional	Persistent fragmentation of coordination between DROS, programmes and universities	MINSANTE-MINRESI-MINESUP framework agreement. Functional multisectoral platform. Formal appointment of focal points.
Institutional	Resistance to change in the decision-making culture	Commitment from the Minister's Office. Demonstration of added value through "quick wins". Integration into formal planning processes.
Human	High turnover of trained staff	Training of large cohorts. Online self-learning tools. Incentive and recognition schemes.
Scientific	Insufficient quality of the studies produced	Rigorous ethical approval. Peer review. Adherence to international guidelines (CONSORT, STROBE, PRISMA).
Security	Sociopolitical instability limiting roll-out in certain regions	Contingency plans. Adaptation of protocols. Agile studies. Prioritisation of accessible areas with gradual expansion.
Environmental	Epidemics and natural disasters disrupting implementation	Systematisation of research within contingency plans. Contingency funds. Rapid research protocols.

10.2. CONDITIONS FOR THE SUCCESSFUL IMPLEMENTATION OF THE NATIONAL STRATEGY ON RESOURCE MANAGEMENT (PSNRS)

In addition to risk management, the successful implementation of the 2026–2030 National Strategy will depend largely on the capacity of the DROS and other stakeholders in the ROS in Cameroon to:

- effective budget allocations and visible leadership.
- Effective coordination between the DROS, the ONSP, technical directorates, health programmes, universities and the MINRESI.
- The gradual mobilisation of domestic resources, reducing dependence on external funding.
- The integration of research into the formal planning and decision-making processes of the health system, rather than keeping it on the periphery.
- The development of an institutional culture of accountability and continuous learning, based on the systematic use of evidence.
- A minimum level of socio-political stability to enable the roll-out of activities across the whole country.
- Developing a culture of health research amongst all categories of stakeholders in the health sector

10.2.1. Scientific quality standards

Beyond the ethical framework already described, the scientific quality of operational research rests on compliance with international standards of governance, interoperability, quality, access

to and use of data. The PSNRS incorporates the following commitments as guiding principles for knowledge generation:

(i) The systematic public registration of research protocols in recognised registries (PACTR, ClinicalTrials.gov) prior to the commencement of any study;
(ii) Adherence to international reporting guidelines according to the type of study (CONSORT for randomised controlled trials [50], STROBE for observational studies [51], PRISMA for systematic reviews [52], SQUIRE for quality improvement studies);
(iii) The gradual implementation of the FAIR principles (Findable, Accessible, Interoperable, Reusable) [48] for the management of research data;
(iv) The promotion of open access to the results of publicly funded research, in accordance with the Berlin Declaration (2003) [49] and WHO guidelines on data sharing;
(v) The establishment of mechanisms for the long-term archiving of raw data and validated protocols;
(vi) The development of quality standards for knowledge products (policy briefs, summaries, reports) to ensure their scientific rigour and their usefulness for decision-making.

These standards will be progressively implemented through capacity-building activities (Impact 3) and normative governance (Impact 1).

10.2.2. Artificial intelligence and the digitalisation of research

In line with the guidelines of the World Health Summit 2025 [39], which positioned health research as a strategic tool for scientific sovereignty, the PSNRS recognises the growing role of artificial intelligence and digitalisation in strengthening the research value chain. The gradual integration of these technologies into operational research activities (big data analysis, predictive modelling, automation of routine data processing) provides a means of improving the efficiency and speed of knowledge production. However, this integration will be carried out in a realistic manner, tailored to the Cameroonian context, with a focus on building human capacity in data science and ensuring compliance with ethical principles and personal data protection.

CONCLUSION

The National Strategic Plan for Operational Health Research 2026-2030 represents a fundamental strategic step in the process of modernising and strengthening Cameroon's health system. By coherently linking governance, capacity-building, knowledge generation, the use of findings and financial sustainability, it lays the foundations for an operational research ecosystem that is truly integrated into the Ministry of Public Health's decision-making cycle.

However, implementing this plan is no mere administrative formality. It requires a profound transformation of institutional culture, shifting from a focus on report production to one of using evidence to drive action. This transformation demands leadership, perseverance and shared accountability amongst all stakeholders in the system: the State, universities, technical and financial partners, civil society and communities. The experience of the 2014-2018 National HIV/AIDS Response Plan (PSNRS) has shown that strategic intentions, however well-articulated they may be, struggle to materialise in the absence of robust implementation mechanisms, sustainable funding and rigorous monitoring and evaluation. It is precisely to address these shortcomings that this plan has been designed.

Immediate implementation priorities

During the first year of implementation (2026), the priority actions to be undertaken without delay are:

(i) The establishment of the National Pool of Experts (PNERO) and the production of its first policy paper;
(ii) The formal establishment of the PSNRS Steering Committee and the adoption of its rules of procedure;
(iii) The drafting and submission of the implementing regulations for the Medical Research Act to the Prime Minister's Office;
(iv) The comprehensive mapping of ROS stakeholders at all levels of the healthcare system;
(v) The negotiation of a dedicated budget line for ROS in the MINSANTE's 2027 programme budget;
(vi) The creation and operationalisation of the Regional Research Coordination Committees (CRCRs) in the 10 regions, and the appointment of ROS focal points in each Regional Public Health Delegation (RDPH), in accordance with the phased territorialisation set out in Chapter 6.5.

Prospects and challenges

Beyond 2030, the challenges facing operational research (OR) in Cameroon will unfold against a backdrop of accelerated transformation. The digital revolution and artificial intelligence are opening up unprecedented opportunities for the analysis of health data and the personalisation of interventions. Climate change will place new pressures on health systems and will require specific operational research into the adaptation of the health system. African regional

integration (African Union, CEMAC) will offer opportunities to pool research resources and share knowledge across the continent. Finally, the growing influence of civil society and communities as full partners in the production and use of knowledge will call for the development of participatory and community-based research approaches.

Ultimately, the success of the PSNRS 2026-2030 will not be measured solely against the performance indicators set out therein. It will be measured by the actual impact on the health of Cameroonians: fewer preventable deaths, better quality of care, and more equitable access to health services for all, including the most vulnerable. It is this ambition that must guide the actions of every stakeholder involved in implementing this plan, and it is to this collective responsibility that the Ministry of Public Health calls upon all stakeholders. The PSNRS 2026–2030 is not just another document; it reflects a firm political commitment to placing scientific evidence at the heart of Cameroon's health policy. Its success will depend on our collective ability to turn commitments into action, action into results, and results into better health for all Cameroonians.

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APPENDICES

ELEMENTS FOR CALCULATING THE GOVERNANCE QUALITY INDICATOR

This is a composite score combining five dimensions: strategy, transparency, participation, ethics and use of results.

Dimension 1: Strategic governance indicators

The quality of governance will aim to assess how decisions are made, managed and evaluated, not just the scientific results. Each indicator will be weighted equally (1 point) and a summary indicator will be produced. A radar chart will be produced to assess progress on each of the components.

- Existence of a formalised R&D strategy (aligned with health priorities)
- Proportion of RO projects aligned with public policies / the needs of the health system
- Frequency of updates to research priorities
- Existence of a governing body (scientific committee, steering committee)

Dimension 2: Transparency and accountability indicators

- Percentage of projects with documented and accessible protocols
- Average time taken for ethical and institutional approval
- Existence of regular reports (technical, financial)
- Publication or dissemination of results (including negative results)

Dimension 3: Indicators of participation and inclusivity

- Involvement of key stakeholders (clinicians, decision-makers, patients, communities)
- Number/type of stakeholders involved from the project's conception
- Existence of consultation or co-creation mechanisms
- Stakeholder satisfaction rate

Dimension 4: Indicators of scientific and ethical integrity

- Proportion of projects with ethical approval
- Existence of policies for managing conflicts of interest
- Compliance with methodological standards (internal reviews, audits)
- Training of teams in ethics and governance

Dimension 5: Indicators of the use of results

- Traceability of decisions (minutes, explicit criteria)
- Formal use of RO results in decision-making
- Time lag between results produced and operational decisions
- Availability of decision-support tools (models, scenarios, dashboards)

NATIONAL STRATEGIC PLAN FOR HEALTH RESEARCH

Vital Strategies