NATIONAL HEALTH SECTOR RECOVERY AND REFORM STRATEGIC PLAN
NHRR-SP

2022-2024

SUDAN

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Contents

FORWARD

It is an honor to me to forward the National Health Recovery and Reform Strategic Plan 2022-2024. This is a result of a strenuous effort exerted by the development committees that continued for almost a year. The decision to develop this strategic plan came in response to the need for a roadmap to implement the National Health Recovery and Reform Policy 2021-2024. Multiple challenges were encountered during the development process which occurred in a very complex context. Globally, the world is fighting the COVID19 pandemic. Concurrently, Sudan is undergoing political, economic and social distress. Conjointly, Sudan's health system suffers from protracted multiple emergencies added to scarce resources, high turnover of workforce, weak infrastructure and poor service delivery; all with others leading to unsatisfactory health outcomes.

This strategic plan is providing a health system framework that re-orients available resources and capacities towards improving health services provided to people of Sudan through enhancing Primary Health Care (PHC) service package coverage, emergency care, and emergency preparedness and response. In addition to that, it aims to mobilize more resources for health and build the capacities of the health system.

I am looking forward to working with different health stakeholders to attain the aspired outcomes of this strategic plan, especially at the implementation level, since strengthening of the health system at both subnational and local levels is a prerequisite for implementing this strategic plan and achieving its goal of Universal Health Coverage (UHC).

The health sector can not realize its strategic vision without effective partnership and community engagement. Thus, the Federal Ministry of Health (FMOH) emphasizes on the important collaboration with different government partners especially the National Health Insurance Fund (NHIF), and humanitarian and development partners including UNs agencies, donors, and development banks, national and international Non-Governmental Organizations (NGOs), and Civil Society Organizations (CSOs) among others.

I greatly appreciate and thank all those who participated in the development of the strategic plan and invite you all to use this strategic plan to synchronize your efforts for the sake of better health for the people of Sudan.

Dr. Haitham Awadallah,
Acting Federal Minister of Health

ACKNOWLEDGMENT

The formulation of the National Health Recovery and Reform Strategic Plan 2022-2024 was a challenging process, given the instability in the whole country in general and the Ministries of Health at all levels specifically. This could not be possible without the dedication commitment, and patience of the technical task force and the drafting committee members. I acknowledge their efforts and valuable input.

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This strategic plan has gone through many consultation workshops, with different partners. We acknowledge all the comments and feedback received. We also appreciate the comments we received from the States.

Finally, I thank Dr. Haitham Awadallah, the current acting minister of health, and Dr. Omer Elnajib former minister of health, for their profound support and distinguished leadership, which helped the achievement of this important document.

Dr. Abda Hakim
DG Health Policy and Planning
Federal Ministry of Health

EXECUTIVE SUMMARY

The National Health Sector Recovery and Reform Strategic Plan (NHRR-SP) 2022-2024 is based on the newly developed National Policy for the same period (National Health Sector Recovery and Reform Policy (2022-2024) (NHRR-P 2022-2024) and it is the first health strategic document since the December revolution and the fourth since the release of 25-year Sudan's Strategic Plan. This four-year plan articulates a future direction for health during the transitional period for the Government of Sudan. Therefore, it offers an overarching framework and roadmap for different stakeholders and players in the health sector in the country.

The NHRR-SP has been progressed and built upon a participatory and extensive consultation process started concurrently with policy development and continued through 2021. It had identified the national priorities of the government for the transitional period as one of its references. It also assembles around the sub-strategies that are already in place.

The strategy introduces a new Model of Care, which revolves around "health service delivery" as the main instrument to drive the health system's efforts toward its goals. The tool for prioritizing the health services to be provided at different levels is the identification of a Health services Benefits Package (HBP). HBP identification and prioritization is a dynamic process that is heavily influenced by the local health needs and the available resources for its execution. Thus, its updates will continue throughout the strategic period.

This novel arrangement of thinking and the design of this document are expected not only to facilitate its implementation but also facilitate funneling the existing resources and measuring its effectiveness.

ACRONYMS

AFDB	African Development Bank
AHS	Academy of Health Science
BP	Benefit Package
BTS	Blood Transfusion Services
CHD	Community Health Dialogue
CHE	Current Health Expenditure
COVID-19	Corona Virus Disease of 2019
CPD	Continuing Professional Development
CRRTs	Complete Rapid Response Teams
CRVS	Civil Registration and Vital Statistics
CSOs	Civil Society Organizations
CSS	Community Systems Strengthening
CT	Computed Tomography
DALY	Disability Adjusted Life Years
DCP3	Disease Control Priorities Third edition
DG	Directorate General
DGOFA	Directorate General of Financial affairs
DGOCM	Directorate General of Curative Medicine
FMOH-DGOGH	Directorate General of Global Health
DGOHEEC	Directorate General of Health Emergencies and Epidemics Control
DGOHRD	Directorate General of Human Resources for health Development
DGOP	Directorate General of Pharmacy
FMOH-DGOPHC	Directorate General of Primary Health Care
FMOH-DGOPP	Directorate General of Planning and Policy
FMOH-DGOQ&A	Directorate General of Quality and Accreditation
DHIS2	District Health Information System2
EDC	Education Development Centre
EDC	Effective Development Cooperation
EHBP	Essential Health Benefit Package
EML	Essential Medicines List
EMRO	Eastern Mediterranean Regional Office (WHO)
EOC	Emergency Operation Centers
EU	European Union
FAO	Food and Agriculture Organization
FFS	Fee For Services
FH	Family Health
FMOH	Federal Ministry of Health
GFATM	The Global Fund to Fight AIDS, Tuberculosis and Malaria
GHE	Governmental Health Expenditure
GPs	General Practitioners

HBP	Health Benefits package
HBP	Health services Benefits Package
HDPN	Humanitarian Development and Peace Nexus
HF	Health Facilities
HiAPs	Health in All Policies
HIS	Health Information System
HRD	Human Resource Development
HRH	Human Resource for Health
HRHIS	Human Resource for Health Information System
HTM	Health Technology Management
IDPs	Internally Displaced Populations
IHP	International Health Partnership
IHR	International Health Regulations
IHR-NFP	International Health Regulation National Focal Points
INGOs	International Non- Governmental Organizations
IPC	Infection Preventing Control
JEE	Joint External Evaluation
M&E	Monitor & Evaluation
MCH	Mother &Child Health
MOH	Ministry of Health
MRI	Magnetic Resonance Imaging
NAPHS	National Action Plan for Health Security
NEOC	National Emergency Operation Center
NGOs	Non- Governmental Organizations
NHIF	National Health Insurance Fund
NHRR-P	National Health Recovery and Reform policy
NHRR-SP	National Health Recovery and Reform Strategic Plan
NHSCC	National Health Sector Coordination Council
NHWA	National Health Workforce Accounts
NMPB	National Medicines &Poisons Board
NMSF	National Medical Supplies Fund
NPHL	National Public Health Laboratory
OIE	World Organization of Animal Health
PHC	Primary Health Care
PHI	Public Health Institute
PHP	Partial Hospitalization Program
PPM	Provider Payment Mechanisms
PPP	Public Private Partnership
RRT	Rapid Response Teams
S3M	Sudan National Survey
SDGs	Sustainable Development Goals
SDH	Social Determinants of Health
SMOH	State Ministry of Health
SOPs	Stander Operating Procedure
TGE	Total Government Expenditure
THE	Total Health Expenditure

TWG	Technical Working Group
UHC	Universal Health Coverage
UMDN	Universal Medical Device Nomenclature System
UN	United Nation
UNICEF	United Nations Children's Fund
VPD	Vaccines of Preventable Diseases
WASH	Water, Sanitation and Hygiene
WCO	World Customs Organization
WHO	World Health Organization
WONCA	World Organization of Family Doctors

1 Situation Analysis:

This section presents a summarized analysis of critical issues facing health system in Sudan that was conducted during the development of the NHRR-P 2021-2024, in addition to further information from different sources to complement information from the policy document. Further details are available in the full situation analysis section of the policy document.

Strengths
Attribute1: Governance and leadership • The Federal Ministry of Health has a stewardship role for the entire health sector, including coordination with other stakeholders in the line ministries. The Federal Ministry is responsible for health policy development, strategic planning for health and international relations in addition to financial and technical support to the states, as well as monitoring and evaluation of the overall health status and leading interventions on national health emergencies. • Proper legal ground: The Constitution of 2005, Local Governance Act (2020), Juba Peace agreement of 2020, and the ongoing revision of the Public Health Law (2008); provide opportunities for health system reformation in Sudan. Moreover, legal review processes were and are also being conducted with relevant legislation identified, awaiting legislative discussions, approval and enactment. • A proposed health policy system in 2016 to build a robust policy system and provide guidance to the policy development process. • The ongoing process of developing an accountability framework. • Having national health coordination mechanisms, such as the National Public Health Council, responsible for endorsing developed policies and promoting inter-sectorial coordination. • Sudan has signed numerous global agreements including the International Health Partnership (IHP+ later named UHC2030) in 2011 with frequent assessments showing progress in Education development Center, and Sudan Local Health Compact signed in 2014 with commitments of all partners (UN, INGOs, donors, civil society, and private sector) to respect the government ownership, align and harmonize their plans, and ensure accountability and management for results. **Attribute 2: Health financing** • Good population coverage (above 80%) with governmental commitment to cover vulnerable groups by national health insurance. • Multiple financing sources such as Zakat, federal and state ministries of finance, charities and NGOs. • National Health Insurance has a good opportunity to become the single purchasing agency, hence creating a single market for health care services. • Piloting mixed Provider Payment Mechanisms (PPMs'), for example, the capitation for PHC services and budget lines for hospitals, would serve to improve financing efficiency and improve health system performance. **Attribute 3: Human Resource**

- Significantly increased production of health workforce over the past few years with the establishment of health professional education institutions at all levels, such as the Academy of Health Sciences. This contributed to rapid scale-up in the production of health professionals as well as improved access to health professional education.
- Having Human Resources for Health Observatory contributes significantly to strengthening health workforce information.
- Establishing Human resources for health (HRH) Forum improves coordination and synergies between HRH stakeholders.
- HRH functions are largely decentralized, particularly for PHC and the frontline workforce.

Attribute 4: Medicine and Technology

- Having a well-written governance document including laws (such as National Medicines and Poisons Act and the National Medical Supplies Fund 2015), and pharmaceutical and medical technology policies and guidelines.
- Having appropriate structures with clear roles and responsibilities.
- Having a national supply management system.
- Having a national pharmaceutical coordination council.
- Strong support to the national medicines manufacturing.
- The general perception - at different levels of management - is that the overall health technology management (HTM) system (in particular medical devices) must be improved to provide a more effective and efficient healthcare service to the Sudanese population.

Attribute 5: Health information

- Having health information policy and strategic plans.
- The development of an integrated health facility report system for hospitals and PHC.
- Using District Health Information System 2 (DHIS2) as an electronic platform for data collection and analysis at the locality level.
- Inclusion of vertical programs in the integrated health facility report is under process to eventually reduce verticality and streamline data flow to the HIS.

Attribute 6: Service Delivery:

- Consensus and clear understanding of PHC as a strategic priority.
- The Existence of multiple updated national policies and strategies on specific service delivery areas.
- Wide coverage by health facilities buildings, in addition to the expansion in training of midwives, medical assistants and community health workers, mostly through public funding.
- Active coordination mechanisms covering steering functions at high level, National Emergency Operation Centre (NEOC), and health cluster at national and states level. [1]
- Active collaboration with ministry of animal resources on zoonotic diseases.[1]
- Existence of coordination mechanisms such as humanitarian multi-sectoral nutrition-centered response.[1]
- Updated national plans for health emergencies.

[1] National COVID19 preparedness and response pal, Dec 2021 and National Multi-hazard Health Emergency Preparedness and Response Plan for Sudan, March 2022.

- Good coverage by sentinel sites for health emergencies.[1]
- Having Rapid Response Teams (RRTs) at the level of the locality.[1]
- Establishment of Public and Private Laboratories network and the establishment of national certification / accreditation body for laboratory operations.[10]

Weaknesses

Attribute1: Governance and leadership

- Fragmentation of health system functions, with recognized weaknesses in health system management and organizational structures, subsequently provided health services.
- Fragmented health policy system with multiple actors developing separate health policies with minimal engagement of stakeholders.
- The weak capacity of leadership in policy implementation and coherence at all levels, due to lack of accountability frameworks, weak advocacy and irregular policy dialogue among others.[2]
- The legal framework of health and the health sector is not responsive to current health challenges.
- The transfer of some functions to lower levels was not preceded with proper preparations in terms of capacity and resources. The Health authorities were obliged to cope with drawbacks which affected the performance of the health system.
- Limited power and resources were given to the local health system while it was responsible for planning, implementation and supervision of key health and public health interventions, and detection and response to health emergencies which directly affected the population's health.
- The complication of context under in current context.
- Weak implementation of Effective Development Cooperation (EDC) commitments and fragmented multiple coordination mechanisms with frequent dis-functionality and lack of linkages.
- The private sector remains weakly regulated due to the absence of a specific framework for public-private partnership (PPP) in the health sector.

Attribute 2: Health financing

- High Out of Pocket Expenditure (66.95%)[3] causing 7.8% of household to face catastrophic expenditure on health.
- Health insurance premiums do not match the calculated actuarial premiums.
- Limited informal sector enrollment in the national health insurance despite it's a wide sector in Sudan.[4]
- Weak application of strategic purchasing methods such as Fee For Service (FFS) is still considered as the predominant modalities for PPMs.
- Despite the provision of a law that mandates a single pool, multiple pools exist.

[2] Joint Assessment of National Health Strategies (JANS), 2013.
[3] Sudan, System of Health Accounts Report 2018
[4] Health Finance Policy Options for Sudan, 2016.

- In spite of the good pooling of funds at the National Health Insurance Fund, there is no clear risk equalization formula across states.
- Fragmented pools, with contradicting financing policies exist e-g free treatment programs, jeopardize health financing reforms.
- Weak Public Financial Management (PFM), which does not support good health financing governance that can control fraud and corruption, and support transparent systems for better resource prioritization, utilization and control.

Attribute3: Human Resource

- Inadequate capacities for health workforce governance, financing, and regulation of practice and education, in addition to inefficient inter-sectorial collaboration between health workforce and stakeholders.
- Lack of a comprehensive health workforce information system, in addition to the weak information dissemination and use.
- Lack of systematic linkage between production and health system needs; leading to skill mix imbalances. Thus, there is a need to improve production capacities with a special attention to allied professionals.
- Absences of staffing and deployment policies,[5] poor working condition, poor living condition in remote areas, in addition to economic crisis that led to increased mal-distribution (70% of the population resides in rural areas yet 70% of health workers work in the urban areas) and poor retention across states and localities.
- High turnover and immigration of health workers resulting from inadequate retention mechanisms, low remuneration, lack of structured career progression, and professional growth.
- Predominance of secondary and tertiary care with dual practice being quite common among health professionals.

Attribute 4: Medicine and Technology

- Poor enforcement of existing policies.
- Lack of adherence to defined roles and responsibilities. In addition to weak coordination among actors on different levels and across sectors.
- Inadequate financial and human resources availability and management.
- The supply system suffers from poor quantification, mal-distribution, resource re-allocation, and high turnover at lower levels.[6]
- Absence of updated essential medical device list.
- Absence of medical technology management system including standards, procedures, and maintenance.
- Poor asset management system, with the absence of a database for medical devices to support decision-makers in regards to planning and management.

Attribute 5: Health information[7]

[5] HRH strategic plan – Sudan 2030, page 25.
[6] Factors contributing to shortage of Medicine in Sudan: An explorative qualitative study, 2020.
[7] Assessment of Sudan's Health Information System 2020.

- Poor governance resulting in weak vertical and horizontal information sharing and reporting, including the private sector.
- Fragmented monitoring and evaluation system with absence of joint planning of assessments and evaluations.
- DHIS2 suffers from inadequate administrative capacities, weak server infrastructure capacity, and the absence of trouble shooting documents.
- Research priorities have not been identified. Yet, conducted research is managed by different actors with weak coordination.
- Limited dissemination and use of evidence and information in decision-making.

Attribute 6: Service Delivery

- Lack of multi-sectoral approach and limited coordination throughout health services, community interventions, education institutions, and other line ministries.
- High fragmentation in programs' policies, strategies, and service provision as well as limited synergy and sharing of resources especially at the PHC level PHC level.[8]
- While population coverage by NHIF reached more than 80%, the effective coverage is weak for example; only 25-62% of PHC functional facilities are covered by NHIF in states.
- Weak quality system for health services with inactive accreditation systems and poor advocacy.
- The percentage of facilities with operational costs ranges between 17-40% in 10 states, while it is 75% in Khartoum.[8]
- There is a gap in coverage by health facilities; with the non-functionality of PHC public facilities being around one fifth due to HRH shortage and mal-distribution mainly. Yet, functioning facilities are not able to provide the full-service package previously adopted. Moreover, there are clear disparities between states.
- The Hospital sector suffers from weak governance including gaps in legislation and weak collaboration; poor hospital management; unclear service package definition, lack of quality standards and infection preventing control (IPC) measures, in addition to poor infrastructure.[9]
- Public health labs and blood banks suffer from the absence of a network, lack of updated regulations including the private sector, low financing, low services coverage, outdated technologies, frequent supplies, stock-outs, and poor infrastructure and maintenance.[10]
- The Family Health Approach is being weakly rolled out nationally.
- Multiple frequent health emergencies and emergency events such as floods and armed conflicts.[1]
- Weak implementation and harmonization with frequent duplication and mismatching approach for a health emergency.
- Lack of stable emergency workforce reserve, weak risk communication, inadequate emergency stock and supply management capacities, inadequate systems, Incomplete, fragmented and untimely information.[1]
- Weak risk communication infrastructure and channels.[11]

[8] Health Facility Survey Draft report 2021 (annual planning meeting 2022 presentation).

[9] Sudan Hospital Sector Strategy 2020-2024, pages 12-48.

[10] Opportunities and challenges of diagnostic laboratory services in Sudan and Challenges for the blood transfusion services: past and present, Papers presented at the First Health Forum March 2022.

[11] Enhance Health Emergency Preparedness and Response through multi-sectorial and multi-level approach, paper presented at the First Health Forum March 2022

- Lack of clear guidelines and protocols to ensure continuity of essential health services during emergencies. [11]

2 Development process

The federal government during the transitional period has identified its priorities. Accordingly, The NHRR-SP was developed through a comprehensive strategic planning process preceded and guided by the National Health Sector Recovery and Reform Policy 2021 -2024. To inform the NHRR-SP gaps were drawn from the situation analysis and priorities were identified. The process started in March 2021 when different committees and technical working groups were organized to facilitate the development of this plan:

- A steering Committee under the chairmanship of the FMOH Undersecretary was constituted from the directors of General Directorates of the FMOH. The main responsibility was to provide supervision and direction.
- The Technical committee was formed of technical representatives' of the General Directors of FMOH and representatives of relevant institutions and partners. This committee was responsible for key technical areas such as articulation with situation analysis, development of strategic objectives, and proposing different interventions under each thematic priority area.
- The Drafting Committee is responsible for drafting the strategic plan document and compilation of different inputs.

The methodology of plan formulation brought onboard wide-scale participation of key stakeholders through a series of consultation workshops and meetings led and guided by the Directorate of Planning and policy at FMOH such as:

- **Meeting with State Ministries:** In early 2021, the National Health policy and strategic directives had been discussed thoroughly; consultations, as well as recommendations were made at senior management and technical levels'.
- **FMOH Bilateral Meetings:** Extensive bilateral discussions were held with different directorates at the FMOH, to assure alignment of interventions under each strategic project for better harmonization and consistency of plans.
- **FMOH deliberation workshop:** The task forces around each thematic area discussed the draft, and provided inputs. The design of the workshop demonstrated the integration approach to facilitate the comprehensive delivery of health services.
- **Governmental partners' consultation meeting:** in this meeting, the document of the NHRR-SP was discussed with different governmental entities.
- **Partners' forum:** At this forum, the FMOH and the development partners and NGOs innovated ways to promote better collaboration, and coordination with NHRR-SP to enhance wise allocation and efficient use of resources.
- **Health forum:** The forum discussed some issues of operationalization of the strategic plan. The forum provided recommendations on priorities for phases of the NHRR-SP.

3 Guiding principles (Guiding principles and values)

- ***Health is a human right.***
- ***Partnership.***
- ***Equity.***
- ***Quality.***
- ***Accessibility.***
- ***Efficiency.***
- ***System responsiveness.***
- ***Accountability.***
- ***Transparency.***
- ***Evidence-informed planning.***
- ***Community engagement and empowerment.***
- ***Gender sensitivity.***
- ***Continuum of care.***

4 Vision

All people in Sudan enjoy high quality, equitable Access to Essential Health Services and are protected from Emergencies towards a Healthier, Fairer and Safer future[12].

5 Mission

To organize and strengthen the health system to be able to provide equitable, affordable quality health services, aiming to achieve Universal Health Coverage and related Sustainable Development Goals & targets; tackling health challenges and working in collaboration with all actors through the implementation of health in all policies to ensure optimal health for all & contributing to the overall social, environmental & economic development, and peace keeping12.

[12] National Health Recovery and Reform Policy

6 Conceptual framework:

The provision of basic social services for sustainable development and peace has been defined as a priority to attain democratic transition in Sudan. Moreover, in less mature and fragile health systems WHO recommends a focus on filling critical gaps in service delivery and building health institutions. Therefore, a framework that puts the service delivery in the center of focus - as an outcome of the interaction of the different elements of the health systems, with emergencies, determinants of health and burden of disease as defining elements of the overall context on which the health system operates - had been adopted in the development of this NHRR-SP [figure 1]. This service-delivery orientation provides an opportunity to bridge the silos in programmatic delivery toward an integrated, people-centered approach; ensure improvement of access to services, and promote equity and financial protection. Sudan has recently re-engaged in the development of a Health service Benefits Package (HBP) which provides an opportunity to ensure that limited resources will be directed towards the most cost-effective interventions. This is also in line with Sudan's commitment to universal health coverage (UHC).

Adopting this conceptual framework, two types of projects were realized, which are service delivery and foundational projects. The service delivery projects are in line with the HBP ensuring that conditions with the highest priority are addressed even during emergencies, maximization of population health impact and improvement of the quality of life. Thus, proposed service delivery projects are reorienting the health system towards priority services for greater effectiveness and efficiency. In these projects, other health system elements are embedded as enablers for the delivery of services.

Figure 1: Conceptual Framework

The foundational projects embrace interventions that aim to support the implementation of the service delivery projects and enhance health system's capacity to achieve long term goals.

7 Strategic Priorities:

1. Enhancing the system’s resilience and capacities to prepare timely detect and respond to health emergencies (starting with COVID-19).
2. Improving access to integrated PHC essential health service package based on a family health approach.
3. Reform of hospital sector, with focus on emergency and critical care units.
4. Improving equitable distribution and retention of health workforce of an appropriate mix of skills, with emphasis on improving working conditions.
5. Improving the availability, affordability, safety and quality of essential medicines and health technologies.

6. Strengthening the health financing system and reconfiguring the prepayment architecture to improve financial risk protection.
7. Improving the health information system, evidence use, knowledge sharing, and health intelligence with more digitalization.
8. Enhancing management capacities at all levels, leadership, coordination, multi-sectorial collaboration, accountability and community engagement.
9. Coordination to address social determinants of health.

8 Strategic Projects

8.1 List of Projects:

Strategic project 1: Primary health care and essential health care services for all.
Strategic project 2: Rehabilitation and reform of hospital sector with focus on critical and emergency care.
Strategic project 3: Health security, preparedness, response and resilience against all hazards with focus on COVID-19.
Strategic project 4: Good governance and policy.
Strategic project 5: Health System capacities & resources.
Strategic project 6: Essential medicines and health technologies availability and Financing.

8.2 Strategic Framework:

Strategic project 1: Primary health care and essential health interventions for all

Strategic project 1. Primary health care and essential health interventions for all.		
Project goal: Universal coverage by equitable integrated, people centered primary health care services guaranteed through adoption of Health Benefit Package, ensuring financial risk protection.		
Strategic Intervention	**Expected Outcomes**	**Indicators**
1.A. Revise, adopt, institutionalize and roll-out an updated **Health Benefits Package** (HBP) including assessment of the functionality of facilities to deliver the HBP **at PHC level.**	1.A.1. Institutional arrangements for HBP to be established and functional.	1.A.1.1. Percentage of institutional structure established at national level. 1.A.1.2. Percentage of implementation of decisions and recommendations.
	1.A.2. Capacities of primary health facilities are identified.	1.A.2.1. Number of mapping reports of PHC facilities delivered.
	1.A.3. Coverage with functioning PHC facilities with good quality assured service packages increased.	1.A.3.1. Percentage of functioning PHC facilities. 1.A.3.2. Percentages of states are covered by benefit packages. 1.A.3.3. Coverage by PHC benefits packages (disaggregated). 1.A.3.4. Access rate to PHC health services.

		1.A.3.5. Equity in Pentavalent 3 coverage.
1.B. Ensure the availability of **functional basic infrastructure, essential supplies and supportive management systems.**	1.B.1. Enhancement of the availability and affordability of essential medicines and public health commodities at the PHC level.	1.B.1.1. Percentage of PHC facilities with medicine outlets. 1.B.1.2. Percentage of medicines available at PHC facilities. 1.B.1.3. Percent of health facilities with functioning labs.
	1.B.2. Improvement of the Infrastructure and health technology of primary health facilities.	1.B.2.1. Percentage of PHC health facilities covered by functional essential medical devices. 1.B.2.2. Proportion of health facilities with standard design.
1.C. Strengthen an **integrated digitalized health information system** and use of information and technology at the PHC level including Tele-health services.	1.C.1. Expansion and improvement in Utilization of integrated DHIS2 through PHC.	1.C.1.1. The Proportion of PHC related modules integrated with DHIS2. 1.C.1.2. Reporting rate at PHC level. 1.C.1.3. Proportion of localities' capitals with a stable internet service.
	1.C.2. Establishment of Tele-health services for MCH providers.	1.C.2.1. The number of Tele-health services established.

		1.C.2.2. The number of benefits of established services.
1.D. Ensure **equitable distribution and availability of PHC cadre (skill mix)** to deliver HBP, building to apply the family health approach.	1.D.1. Enhancement of the availability of qualified health workforce personnel at the PHC level.	1.D.1.1. Coverage of PHC facilities and communities by health cadres and community health cadres.
1.E. Ensure **adequate and sustainable financing** to deliver the Essential Health Benefit Package (EHBP) through integration of different strategic payment models in order to provide equitable, effective coverage of PHC services and ensure social and financial protection.	1.E.1. Expanded and maintained financing of PHC through effective PPMs.	1.E.1.1. Percentage of PHC facilities financed by effective PPMs.
	1.E.2. Improvement of access to PHC services through Health Insurance card.	1.E.2.1. Percent of PHC facilities providing NHIF services.

	1.E.3. Effective resource mobilization.	1.E.3.1. Share of expenditure on PHC from total health expenditure.
1.F. Update, review and ensure adherence to management protocols, clinical practice guidelines, and **patient safety and Infection Prevention Control** methods and standards.	1.F.1. Quality of health care services and IPC measures improvement.	1.F.1.1. Level of Patient satisfaction. 1.F.1.2. The Number of PHC facilities accredited. 1.F.1.3. Percentage of health care centers implementing clinical guidelines.

Strategic project 2: Hospital Sector reform with focus on critical and emergency care

Strategic project 2.Hospital Sector reform with focus on emergency and critical care.
Project goal: For Hospital services, including emergency and critical care to be available, accessible, affordable, and of good quality, including thorough implementation of an appropriate referral and ambulance system, implementation of infection prevention control, and the rehabilitation of infrastructure.

Strategic Intervention	Expected Outcomes	Indicators
2.A. Update, revise and implement **secondary and tertiary service benefit packages including essential medicines and commodities**.	2.A.1. Increased coverage of secondary and tertiary facilities with good quality benefit packages.	2.A.1.1. Coverage by secondary and tertiary service benefits packages.
	2.A.2. Enhancement of the availability of essential medicines and functional technology at secondary and tertiary levels.	2.A.2.1. Percentage of available essential medicines in secondary and tertiary facilities. 2.A.2.2. Percentage of secondary and tertiary health facilities covered by functional essential medical devices.
2.B. Reform hospitals' **financing systems** to ensure financial protection through **adopting PPM**.	2.B.1. Improvement of hospitals' capacities and capabilities through effective PPMs.	2.B.1.1. Percent of hospitals financed by effective PPMs.

2.C. Implement **nationwide infrastructure rehabilitation of hospitals including critical and emergency care units** and ensure the provision of equipment and supplies.	2.C.1. Improvement of infrastructure, technologies and supplies of emergency and critical care units in hospitals.	2.C.1.1. Percent of rehabilitated hospitals 2.C.1.2. Percent of rehabilitated emergency-care units.
2.D. Implement **hospitals' workforce capacity enhancement, and retention plans including emergency and critical care**	2.D.1. Enhancement of the availability of qualified health workforce personnel at secondary and tertiary levels.	2.D.1.1. Coverage of secondary and tertiary facilities by health cadres based on reference to international HRH indicators.
2.E. Review, update and implement **standard treatment guidelines and protocols, and credential procedures** in public and private sectors.	2.E.1. Implementation of standard treatment guidelines and protocols and credential procedures.	2.E.1.1. Percentage of standard treatment guidelines, credential procedures and protocols adopted and implemented.
	2.E.2. Improvement of quality of health care services and IPC measures in public and private hospitals.	2.E.2.1. The Number of accredited hospitals. 2.E.2.2. Healthcare-associated infection rate.

2.F. Expand access to **quality-assured diagnostic, laboratory and blood bank** services in line with international standards, including by ensuring functional standard-essential equipment's and consumables.	2.F.1. Expansion and improvement of access to quality-assured and safe diagnostics, laboratory and blood services.	2.F.1.1. Percentage of collected blood from estimated country need. 2.F.1.2. Percentage of Blood Transfusion Services (BTS) facilities with 100% quality-assured and uninterrupted testing of donated blood (all tests). 2.F.1.3. The Utilization rate of diagnostic and laboratory services.
2.G. Develop effective **patient care pathways** based on clinical guidelines and protocols applied to both public and private care providers and facilities.	2.G.1. Improvement of emergency care units' outcomes through implementation of the effective patient care pathway.	2.G.1.1. Patient satisfaction rates with emergency services. 2.G.1.2. The Proportion of hospitals implementing triage system.
2.H. Review and implement a **national referral and ambulance system**, including effective gate-keeping arrangements and electronic patient registration.	2.H.1. Implementation and maintenance of a national referral system and ambulance system.	2.H.1.1. The Proportion of states with a central referral system in place. 2.H.1.2. Percentage of trauma patients arriving by ambulance to a secondary and tertiary hospital.
	2.H.2. Establishment of an electronic patient registration system at the hospital level.	2.H.2.1. The Number of hospitals running an electronic patient registration system.

2.I. Initiate the rollout of **reporting on DHIS2** at the hospitals level	2.I.1. Implementation of reporting on DHIS2 at selected hospitals.	2.I.1.1. The Proportion of hospitals using DHIS2 from selected hospitals. 2.I.1.2. Reporting rate through DHIS2 at hospital level.

Strategic project 3: Health security, preparedness, response and resilience against all hazards with focus on COVID-19.

Strategic project 3. Health security, preparedness, response and resilience against all hazards with focus on COVID-19.		
Project goal: A prepared and resilient health system to prevent and respond to health emergencies and disasters risks at all levels; with adherence to the International Health Regulations (IHR).		
Strategic Intervention	**Expected Outcomes**	**Indicators**
3.A. Operationalize and ensure the effectiveness of **national and sub-national Emergency Operation Centers** (EOCs) and other emergency coordination mechanisms and entities, to facilitate multi-level, multi-sectorial, and whole-of-society coordination; ensuring joint planning and monitoring.	3.A.1. Effective Coordination mechanisms for health emergencies are in place.	3.A.1.1. Number of active EOCs.
	3.A.2. Development, implementation and joint monitoring of Health emergencies' preparedness and response plan.	3.A.2.1. Presence of jointly developed, updated and implemented multi-hazard preparedness and response plan. 3.A.2.2. The Number of emergency review meetings conducted.
3.B. Build the capacity of the **health emergency workforce,** according to training needs assessment, and secure health	3.B.1. Improvement of effectiveness and efficiency	3.B.1.1. The Number of Complete Rapid Response Teams (CRRTs)

emergency workforce reserves for effective community- based and event-based surveillance & response.	of the health emergency workforce.	(desegregated by states and localities). 3.B.1.2. The percentage of active sentinel sites and active points of entry. 3.B.1.3. The proportion of emergency events and epidemics responded to within 72 hours from detection (response by federal level). 3.B.1.4. The proportion of health emergency events and epidemics responded to without national intervention within 72 hours of detection. 3.B.1.5. The percentage of attributes of core capacities of IHR that have been attained at a specific point in time.
3.C. Support **case management operations for emergencies and epidemics**, with a focus on COVID-19, including the provision of supplies.	3.C.1. Improvement of case-management capacities for emergencies and epidemics.	3.C.1.1. The number of revised or updated protocols and guidelines for case definition and management. 3.C.1.2. The number of functional isolation and management centers (desegregated by institutional capacity).

3.D. Develop an **integrated digitalized information management system** for incidence reporting and response following an all-hazard approach.	3.D.1. Expansion and improvement of utilizing integrated DHIS2 for early detection of outbreaks.	3.D.1.1. The number of states that implemented DHIS2 tracker module (List A -notifiable diseases). 3.D.1.2. The percentage of active sentinel sites with regular reporting. 3.D.1.3. Utilization of DHIS2 to report epidemics and pandemics.
3.E. Build the capacity of **central and regional public health laboratories and laboratory surveillance**, for accurate timely detection and identification of all types of hazards.	3.E.1. Ensuring accurate timely detection of epidemics and outbreaks.	3.E.1.1. The number of test results during epidemics and outbreaks.
	3.E.2. Integration of laboratory supplies in public health logistics management, and Improvement of supplies.	3.E.2.1. The number of functioning public health labs. 3.E.2.2. The number of logistic supply stores available within health emergency needs.
3.F. Enhance **risk communication and community engagement,** including the development of the risk communication center's core documents.	3.F.1. Enhancement of the risk communication center.	3.F.1.1. The number of developed risk communication and community engagement center's core documents. 3.F.1.2. The number of community dialogues conducted.
3.G. Ensure the **delivery of a minimum package of essential services** during emergencies and at affected areas through critical delivery platforms.	3.G.1. The Provision of a minimum package of essential services during emergencies and to	3.G.1.1. Coverage by minimum essential service package during emergencies and in affected areas (desegregated by Internally

	vulnerable groups in affected areas.	Displaced People (IDPs) & refugees). 3.G.1.2. Availability of health emergency supplies.
3.H. Expand **implementation of protocols, guidelines and Standard Operating Procedures** (SOPs) during emergencies.	3.H.1. Improvement of the quality of emergency health interventions.	3.H.1.1. The number of emergency response guidelines endorsed and adopted.
3.I. Support **Vaccines deployment and operations** for COVID-19, and any other Vaccines of preventable diseases (VPD).	3.I.1. Expansion of timely Immunization coverage for COVID19 and other VPD.	3.I.1.1. Pentavalent 3 coverage at the national level (Pentavalent 3) (National Immunization Coverage).

Strategic project 4: Good health governance and policy

Strategic project 4. Good health governance and policy		
Project goal: Health governance, planning, policy, and partnerships are strengthened by carrying strategic evaluations, assessments and reviews, with a focus on the decentralized health system and health sector coordination mechanisms and accountability frameworks.		
Strategic Intervention	**Expected Outcomes**	**Indicators**
4..A. Review, update and implement priority **health and health-related laws, legislation, and policies** ensuring consistency with international agreements and conventions and assisting proper participatory decision making and governance.	4.A.1. Reviewed, updated, and approved health and health-related laws, legislations, policies and strategies.	4.A.1.1. The number of health and health-related laws and legislations reviewed and updated. 4.A.1.2. The number of developed and approved Key public health policies, and strategies.
4..B. Assess, evaluate and support the **capacity of the decentralized health system**, including institutional arrangement, roles, responsibilities and structures of the different levels.	4.B.1.Revision and adoption of roles, responsibilities, and structures of the decentralized health system.	4.B.1.1. Adoption of new structures including roles and responsibilities.
	4.B.2.Enhancement of decentralized health system.	4.B.2.1. The proportion of states meeting standards for functioning structures.

		4.B.2.2. The proportion of localities meeting standards for functional management teams. 4.B.2.3. Percentage of localities that received at least 50% of allocated budget.
4..C. Review & activate **health sector coordination mechanisms** at the different levels, including the provision of services and emergency response, multi-sectoral collaboration and partner platforms.	4.C.1. Activation and revamp of coordination mechanisms at all levels.	4.C.1.1. Presence of active coordination mechanisms at all levels.
4..D. Enhance **partnership effectiveness** through reviewing and adopting Sudan Health Compact and global agreements, tracking partners' programs, managing external relations and organizing public-private partnerships.	4.D.1. Public private partnership frameworks implemented with active engagement of private sector.	4.D.1.1. Public private partnership framework developed and adopted.
	4.D.2. Reviewed, revised, and ratified Partnership agreements.	4.D.2.1. The Number of bi-lateral and multi-lateral agreements reviewed and ratified. 4.D.2.2. Sudan health compact revised and updated. 4.D.2.3. The Proportion of partners who signed up for the local compact. 4.D.2.4. Partners mapping and tracking conducted.

	4.D.3. Elevation of partner's commitment to EDC.	4.D.3.1. EDC assessment conducted.
4..E. Develop and enhance implementation of **accountability, monitoring and evaluation frameworks;** clarifying the roles and responsibilities of health sector actors and stakeholders according to gabs Identified by situation analysis and assessment of existing Monitoring and Evaluation (M& E) system.	4.E.1. Improvement of M&E system.	4.E.1.1. Joint annual review conducted.
	4.E.2. Established and functional accountability framework for the health system.	4.E.2.1. Presence of functional accountability framework.
4..F. Strengthen **community systems to support community-level services and engagement** in needs assessment and priority setting to ensure health system responsiveness & resilience.	4.F.1. Enhancement of community role in health services provision, policy-system and accountability.	4.F.1.1. Presence of active community structures (local health committees).

Strategic project 5: Health System resources and Capacities

Strategic project 5. Health System resources and capacities		
Project goal: Health system capacities and resources are strengthened to support the delivery of NHSSP strategic projects		
Strategic Intervention	**Expected Outcomes**	**Indicators**

5.A. Ensure **sustainable, equitable and efficient financing of the health system**, including the alignment with a public financial management system.	5.A.1. Improvement of NHIF Coverage for vulnerable groups.	5.A.1.1.National health financing roadmap adopted. 5.A.1.2.Percentage of the population effectively covered by health insurance services. 5.A.1.3.Percentage of facilities contracted by NHIF. 5.A.1.4.Percentage of reduction in out of pocket expenditure on health. 5.A.1.5.Percentage of Government Health Expenditure (GHE) from Current Health Expenditure (CHE). 5.A.1.6.Percentage of GHE from Total Government Expenditure (TGE). 5.A.1.7.Percentage of NHIF expenditure from TGE on health. 5.A.1.8.Percentage of external health expenditure from Total Health Expenditure (THE).

	5.A.2. Improvement of Health pooling.	5.A.2.1.The number of states with under five (U5) funds integrated with NHIF pool.
	5.A.3. Enhancement of public health financial management system.	5.A.3.1.Aggregate expenditure out-turns compared to the original approved budget. 5.A.3.2.Frequency of sharing financial information between public entities (federal and state level). 5.A.3.3.Public access to key fiscal information. 5.A.3.4.Quality and timeliness of in-year budget reports.

5.B. Establishing a **national health workforce account** (NHWA) to support evidence-based interventions and policy, including informing the development of a 2030 health workforce projection plan.	5.B.1. Improved evidence-based strategic intelligence and understanding of labour market dynamics.	5.B.1.1. Density of active health workers per 10.000 populations at subnational level disaggregated by occupation. 5.B.1.2. HRH Information System for tracking the number of active stocks on the labour market.
5.C. Develop and endorse multi-sectorial national **human resources for health (HRH) policies** with supportive implementation frameworks, including a national retention policy to implement a designed retention package based on a robust labor market analysis.	5.C.1. The improvement of HRH production, distribution, employment, retention and motivation in an appropriate and timely phased manner.	5.C.1.1. Skill mix (Distribution of HRH by occupation, specialization, or another skill-related characteristic) 5.C.1.2. Workforce loss ratio.
5.D. Develop and implement **competency-based capacity building programs for health leaders, managers, and cadre** from different levels, including mandatory and optional training programs delivered by reformed and strengthened Academy of Health Science (AHS) and Continuing Professional Development (CPD) and Public Health Institute (PHI).	5.D.1. Revision, update and implementation of capacity building programs for health leaders and managers from different levels.	5.D.1.1. The number of health leaders and managers from different levels that received mandatory and optional training. 5.D.1.2. The number of competency-based capacity-building programs developed for health leaders, managers, and cadre.

5.E. Enhance, roll-out and support an **integrated, digitalized health information system** with prioritization of conducting essential surveys, collecting vital statistics, and strengthening the **national M&E system**.	5.E.1. Reporting through DHIS2.	5.E.1.1. DHIS2 reporting rate.
	5.E.2. Established base-line data for health outcomes and health system performance	5.E.2.1. The number of essential surveys conducted.
	5.E.3. Improvement of coordination for Births & deaths registration.	5.E.3.1. Birth registration rates. 5.E.3.2. Death registration rates.
5.F. Strengthen **knowledge generation and research capacities**; enabling documentation of experiences and dissemination of best practices.	5.F.1. Research priorities identified and supported.	5.F.1.1. Percentage of priority research conducted or published. 5.F.1.2. Percentage of funds allocated to research (local and external).
	5.F.2. Research Ethical Review Committees accredited.	5.F.2.1. Percentage of Research Ethical Review Committees accredited.
	5.F.3. Health-research database updated and promoted.	5.F.3.1. Frequency of update of Health-research database.
5.G. Improve **institutional arrangements and working environment** to ensure appropriate execution of health interventions.	5.G.1. Improvement of Institutional arrangements and working environment.	5.G.1.1. The number of directorates with SOPs (Federal and state level). 5.G.1.2. Percentage of directorates with complete necessary assets (federal, states and locality level's).

Strategic project 6: Universal access to essential medicines, health products and technologies.

Strategic project 6. Universal access to essential medicines, health products and technologies		
Project goal: Improved access to safe, effective, quality and affordable essential medicines, health products and health technologies, including sustainable public financing.		
Strategic Intervention	Expected Outcomes	Indicators
6.A. Asses and reform the **effectiveness of current financing mechanisms** for medicines and health products.	6.A.1. Enhancement of essential medicines' availability and affordability.	6.A.1.1. Availability of essential medicines'. 6.A.1.2. Affordability of treatment for adults Pneumonia. 6.A.1.3. Affordability of treatment for hypertension.
6.B. Secure sustainable timely **governmental funding** to ensure availability of essential medicines and health products.	6.B.1. Improvement and sustainability of medicines' public financing.	6.B.1.1. Percentage of allocated funds from estimated need for essential medicines. 6.B.1.2. Percentage of allocated fund from estimated need for essential medical device.
6.C. Improve **pharmacy practice**.	6.C.1. Improvement of pharmacy practice.	6.C.1.1. Percentage of patients prescribed antibiotics by type of pharmacy. 6.C.1.2. Percentage of patients that know how to take dispensed medicines by type of pharmacy.

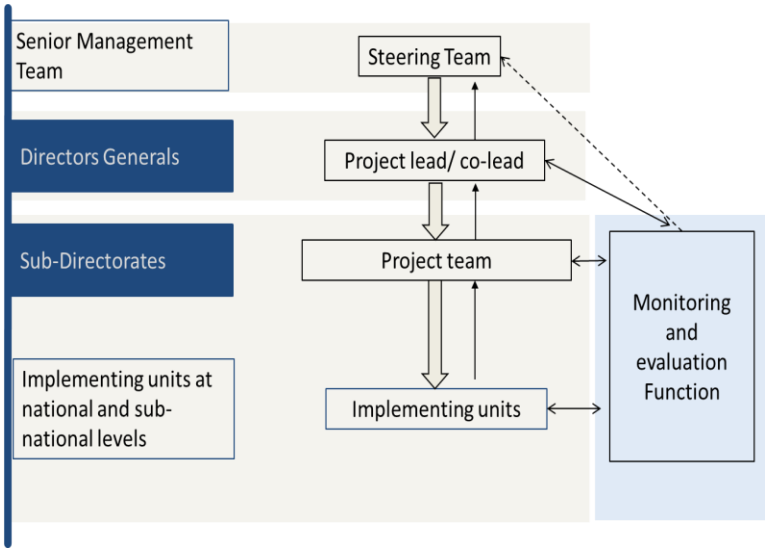
6.D. Support **national pharmaceutical manufacturing** of essential medicines.	6.D.1. Enhanced Contribution of national pharmaceutical manufacturing in the essential medicines market.	6.D.1.1. Percentage of essential medicines manufactured nationally in the market.
6.E. Strengthen and standardize an **integrated, non-interrupted national supply system** for medicines, health products and health technologies to the last mile.	6.E.1. Ensured supply of medicines, health products and health technologies to the last mile.	6.E.1.1. Percentage of public health facilities covered by the National Medical Supplies Fund (NMSF) services.
6.F. Strengthen the **national regulatory authority**.	6.F.1. Ensured safety, efficiency and quality of medicines, health products and health technologies.	6.F.1.1. Percentage of facilities (public and private) with counterfeit products. 6.F.1.2. Percentage of sample-products that comply with standards. 6.F.1.3. Percentage of facilities that comply with regulations from inspected facilities.
6.G. Strengthen a **unified health technology management system**.	6.G.1. Availability of well-functioning and well managed health-technologies	6.G.1.1. Percentage of functioning medical equipment according to the essential list.
	6.G.2. Establishment and implementation of medical-devices management system.	6.G.2.1. Number of states that implement medical-devices management system.

The NHRR-SP will be operationalized through three sets of implementation arrangements which are governance and coordination framework, operational planning, and Demonstration Reform.

9 Governance and coordination framework

9.1 Management structure:

The management structure for the implementation of this strategy is suggested to have three levels.



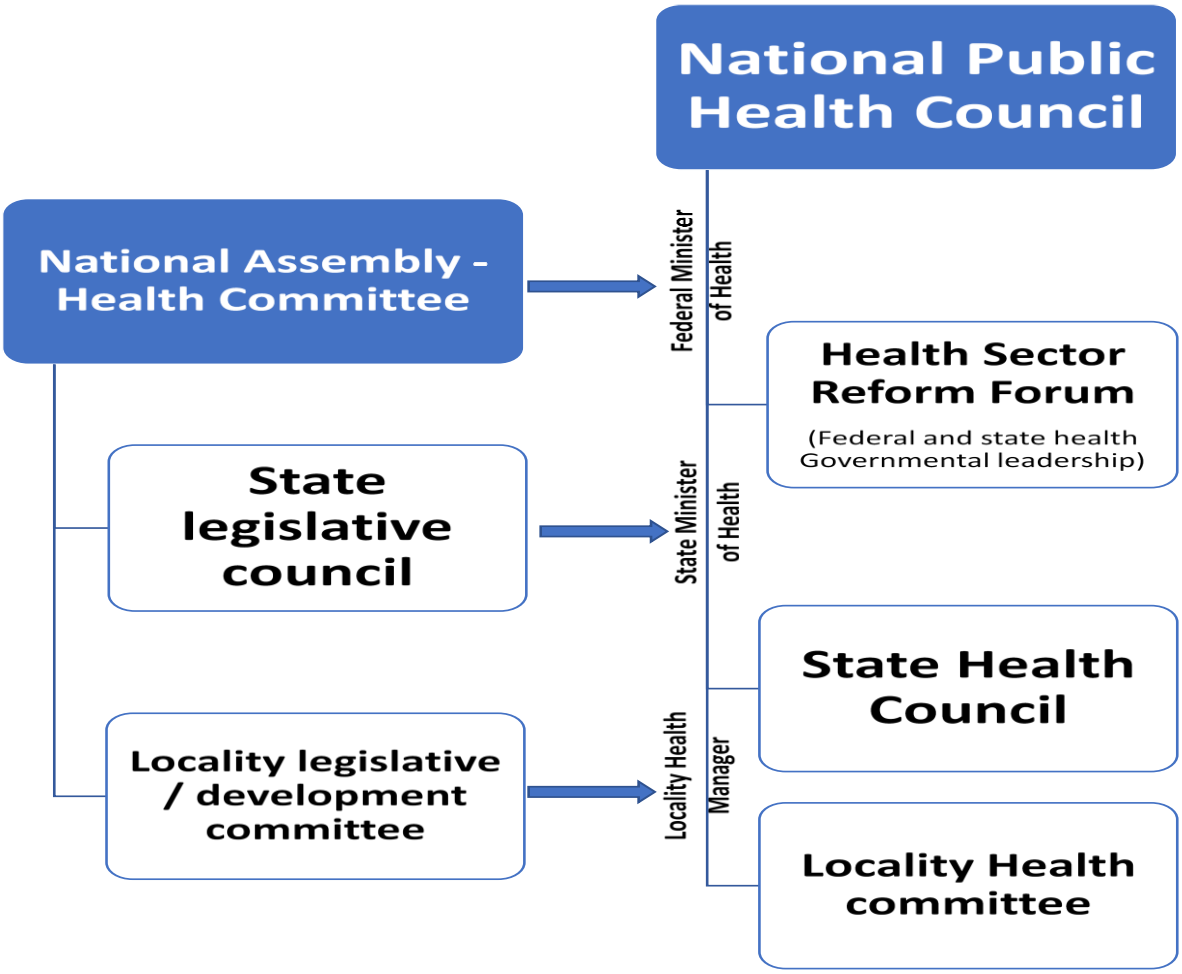
The highest level is the steering level in which the cabinet will act as a steering body responsible for high level-coordination, follow-up, and accountability. Thus, the head of the steering team is set to be the Minister of Health.

The second level is the management level in which there will be a project team responsible for ensuring proper planning and coordination of the implementation of different projects. The project lead is the Director General (DG) of most relevance, while the co-lead is the DG of the second most relevance. The members of the team consist of directors of sub-directorates of relevance in addition to a secretariat.

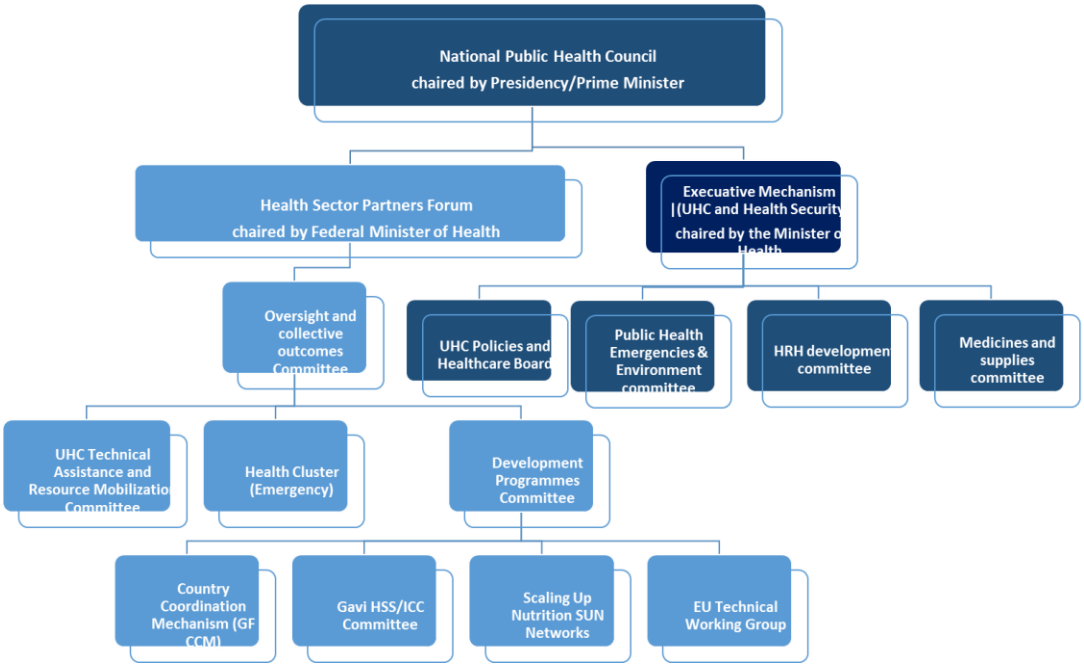
The third level is the implementation level, in which the different implementing bodies are responsible for project implementation in manners of coordination.

The follow-up meetings are proposed to be on a bi-annual basis at the steering level. The project leads are expected to meet quarterly, while the project management teams are expected to meet monthly.

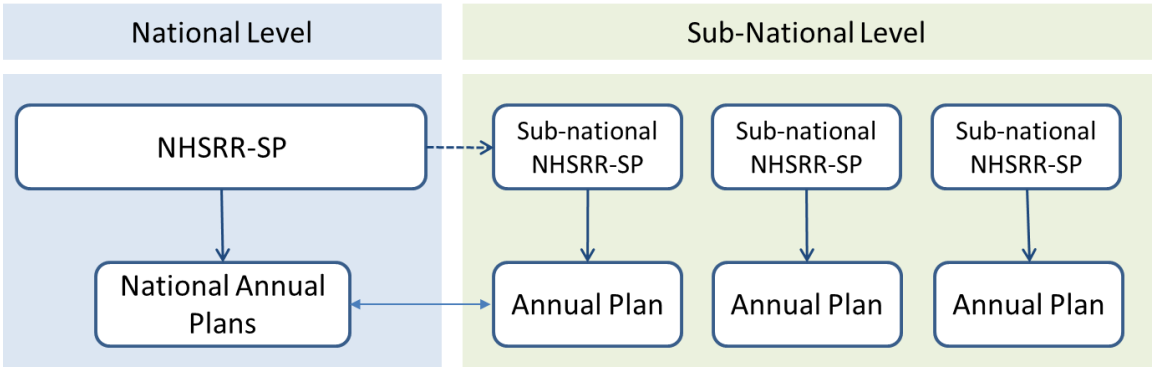
9.2 Governance Structures:



9.3 Coordination Structures:



10 Operational planning



The Strategic Plan document does not list activities required to achieve the project's objectives. Thus, the operationalization of the strategic plan will be through the development of the National annual-plan, subnational contextualized strategic plans and subnational annual-plans. Therefore, each level should've only two sets of plans.
The Cascade of the strategic plan into annual operational plans will be led by the projects' leads through communication and coordination with relevant entities at national and sub-national levels. This process will be facilitated by the planning directorate striving toward "One Plan, One Budget and One Report" concept.

11 Demonstration Reforms:

Sudan's health-system faces challenges in policies and strategies implementation due to several factors. Inadequate capacities at national and sub-national levels; weak coordination among different actors; and a lack of systemic approaches to address inter-programmatic inefficiencies and advance integration are among these factors. Therefore, the Demonstration Reforms approach was introduced to address these challenges.
This approach aims to implement comprehensive integrated interventions (contextualized sub-national strategic plans) in a phase-based manner; thus, providing a chance for efficient utilization of resources, capacity-building, enhancement of joint implementation, knowledge sharing and learning.

12 NHRR-SP costing and Funding:

The main purpose of the strategic plan costing exercise is to provide cost estimates for NHRR-SP 2022 – 2024 implementation; provide evidence and feasibility aspects of the strategy, and enable better advocacy. The costing process will provide detailed costs per project and individual interventions throughout the strategy years.
The NHRR-SP costing exercise will lead to key broad questions: what resources are required? And how would it be mobilized and allocated for the health sector to meet the priority health needs of the population? The keyword here is priority, which is identified in the NHRR-SP and within the HBP. Moreover, the cost projections also consider anticipated changes in the supply and demand for health services, which are subject to economic, political and other contextual factors.
The costing process will start with a thorough review of the strategic plan and consultations with relevant stakeholders to detail sub-related activities and estimate their costs using One Health Tool.
After the completion of the costing exercise, the available resources will be estimated and then a comprehensive resource mobilization strategy will be developed to fill the gaps.

13 Risk analysis and risk mitigation measures:

Any strategic planning process will have to deal with uncertainties related to developments that are beyond the control of the health sector. It is therefore crucial that a deliberate effort be made to forecast risks and identify mitigation measures early enough to ensure smooth implementation continuity.

Risk	Likelihood	Impact	Mitigation measure/s
Macroeconomic: The economic downturn may continue (at least for some time). The impact of the political instability has been detrimental for Sudan, aggravating an already weak pre-revolution economic performance, which was further exacerbated by the COVID-19 epidemic. Rocketing inflation and rapid devaluation of the currency, and increasing prices of basic goods put pressure on struggling poor families.	High	High	- Prioritize poor, vulnerable, and hard to reach populations and adopt pro-poor policies and strategies. - Ensure the enrollment of poor families in national health insurance programs and support the use of safety net assistance programs.
Cut off/freezing of funds by several partners: Some partners may continue to freeze funds; this will compromise the ability to implement strategic interventions.	Moderate	High	- Mobilize domestic resources and look for alternate modalities for funding. - Maintain dialogue with all sector partners to advocate for unfreezing of funds, especially for emergency activities.

			- Strengthen financial management systems to guarantee efficient use of financial and other resources, parallel to promoting transparency and accountability. - Strengthen the capacities and enhance the engagement of non-state actors and implementers (non-governmental implementers such as NGOs, CSOs and the private sector)
COVID-19 pandemic and other outbreaks and health emergencies: The pandemic continues to have its toll on all sectors including health. Other outbreaks may continue to occur.	High	High	- Prioritize vaccination programs and advocate for funding. - Support community engagement programs to raise awareness and promote public health and protective measures. - Focus on emergency preparedness and early planning; applying an all-hazards approach.
Political: The current transitional government provides an unpredictable and fluid environment with an incomplete formulation of legislative councils and sub-optimal decision-making forums. This leads to a waning of buy-in and commitment of the government to health and health priorities - especially on financial and other resources. Also, this may result in continuity of staff turnover and brain drain at all levels.	High	High	- Continuously and persistently advocate for health and health priorities and uninterrupted engagement with higher-level government officials. - Focus on health priorities while implementing, efficient, and effective interventions owing to the limitation of resources. - Advocate for health at all governmental levels to keep health at the top of the political agenda. - Conduct annual reviews of the funding gaps to track progress and inform resource mobilization strategies. - Develop and introduce resource mapping and tracking at the national level and states levels
Security: Deterioration of security status, especially in conflict and	Moderate	High	- Through the emergency preparedness and response measures and strategic repositioning, ensure

post-conflict areas with the possibility of eruption of violence, especially communal clashes, which may cause disruption of continuity of health services provision.			maintaining adequate supplies, commodities, and equipment to cater for large numbers of casualties and ensure the continuity of service provision. - Adopt "Health for Peace" approaches
Health security: Increased global health emergencies and cross-border health risks, highlighting the important interface between health and foreign policies and regulations. Insecurities of neighbouring countries: The Increased influx of refugees from neighbouring and other countries is accompanied by health and special health-related needs for those vulnerable groups.	Moderate	High	- Work with states', other ministries' and neighbouring counties to prevent and control any possible cross-border health and health-related issues. - Effectively implement and follow-up IHR and strengthen the Global Health Diplomacy. - Thorough coordination and regulations with relevant governmental bodies, the international community and related organizations and partners to ensure proper health services provision, safe housing and WASH services.
Other health-related sector policies and strategies: A whole-of-government approach may be difficult to implement because of political instability and limited political commitment, resulting in a lack of policy coherence and clarity as well as overall country strategic directions.	Moderate	Moderate	- Adoption of a "Health in All Policies" approach, whereby the health sector involves all other relevant ministries and stakeholders in the achievement of its goals.
Compromised institutional capacities and high turnover and attrition of all government staff including senior officials at FMOH and state ministry of health SMOH: Abrupt changes	High	High	- Provision of high-quality training to upgrade managerial skills and upgrading working facilities to improve working conditions to encourage retention of the workforce.

and turnover of leadership disrupt the implementation of strategic plans due to continuous changes in power dynamics and shortage of competent and critical staff. This also leads to poor alignment, coordination, and harmonization between different levels of government and across departments and programs. The Continuous migration of health care providers: Increasing pull factors for health care providers widen the gap of inadequacy and reduce the availability of the services.			- Develop an institutional system for documentation and effective mechanisms for effective management. - Develop and implement appropriate HRH retention mechanisms and increase the investments in mid-level managers at all levels. - Increase investment in HRH development and retention. - Improve the HRH management system. - Develop strategies to focus on the delivery of HBP and skill mix.
Natural disasters including non-seasonal floods and earthquakes	Low	High	- Collaborate with ministries' and responsible entities concerned with emergency preparedness; ensuring that collaborative plans are updated and ensuring readiness for implementation.
Absence of Data and Evidence: information for decision making is needed to address any challenges to implementing the strategic plan at different levels.	Medium	High	- Develop and implement information sharing and quality assurance mechanisms.

14 Monitoring and Evaluation framework:

The National Monitoring and Evaluation system serves as a managerial tool for promoting efficiency, effectiveness, accountability, and transparency toward achieving goals and objectives. It outlines various roles and responsibilities regarding the M& E and draws plans for data collection, data quality, data analysis, and information-use – as per the existing national health information management system. M&E mechanisms will ensure and facilitate systematic tracking of progress against outlined interventions as well as performance assessment. Policy and decision-makers will have crucial information on how well the implemented strategies are working, and therefore have the ability to revise or scale-up efforts where progress is slow.

Evaluation of this NHRR-SP will facilitate consolidation of intelligence on how well-implemented interventions have worked both at mid-term and end-term. This will inform (at mid-term) any need to revise both targets and interventions if they were found inappropriate. The end-term evaluation will facilitate taking stock of the overall achievements of this strategy against its intended objectives and inform planning for the consecutive strategic plan.

A comprehensive and costed M& E plan will be developed as an integral part of this strategy. It will define the mechanisms that will be used to monitor progress continuously, and to evaluate achievements. The responsibilities of each actor to enhance information-use across various levels will also be outlined. The M&E plan will provide the basis for a multi-year costing and investment for M&E. In other words, it will provide a framework that the government and development partners at all levels can commit to funding, to support the monitoring, evaluation and review the national health strategy. Through a common investment framework, the government and its partners can identify shortfalls in funding, as well as avoid duplication of investment.

14.1 Core indicators

The M&E framework relies on the WHO global reference list of 100 core health indicators as well as pre-existing strategic health indicators.

14.2 Logic frame

A framework is being developed that outlays all strategic indicators, their frequency, baseline, annual targets, sources of information, and responsible entities. Further details will be availed in the National M&E Plan.

14.3 Data sources

Data sources include national and sub-national levels, mainly Health information systems (HIS), including routine health information systems, and population-based surveys (the last census was conducted in 2008 while the last MICS was in 2014. However, both are planned to be conducted within the strategic plan period), facility surveys, disease and public health surveillance, civil registration and vital statistics (CRVS) systems, and research as well as administrative reports and data such as annual-performance reports and National Health Accounts. Other non-health sector sources will be used when needed.

14.4 Data collection and analysis

The Planning department is responsible for collecting, and compiling all data from different data sources. Data will be analyzed for reviews, planning and evaluation. It also performs analysis and synthesis of data from multiple sources, and data quality assessment to provide information on equity, efficiency and contextual changes. It should present performance nationally and sub-nationally against the core strategic plan indicators.

14.5 Data quality

Transparent, and regular, and systematic data quality assurance processes that are in line with international standards will be implemented. An Independent institute could periodically asses. Data quality assessment and adjustment will be implemented to enhance credibility through regular checks for data to investigate inaccuracies, incomplete reporting and non-representativeness.

Regular training of staff and provision of routine feedback to staff at all levels on the completeness, reliability and validity of data is essential.

14.6 Data reporting

Reporting will be "bottom to top" from health facilities to localities, state and federal levels. Reports will be shared with all partners and stakeholders. Feedback will be provided from higher-level downward "top to bottom".

Each component of the NHRR-SP including each project and expected result (Outcomes) will have a detailed operational plan and indicators for monitoring progress against planned activities and outputs. Programs, departments, and state MOHs will collaborate in the monitoring process.

Monitoring of the strategy will be carried out through quarterly monitoring of the progress of implementation of annual operational plans and annual reviews, at the state and national levels through the management structure outlined above. Reporting will be done on a mid-annual basis at the steering level, while the project leads are expected to receive reports on quarterly basis. Quarterly meetings will continue to monitor progress against operational plans while biannual meetings will do for the strategic objectives.

14.7 Dissemination, communication, and use of information for action

Appropriate communication platforms will be used to connect the various strands and tiers of the health-system including public and private sector and multi-sectoral collaborations. This requires proper packaging of statistics regarding format and language to facilitate the use of information at all levels for decision making.

Performance review

A Joint Annual Review (JAR) meeting will be held once a year. The review will be "Joint" in terms of including various stakeholders in the sector at national and sub-national levels. A midterm review will be conducted halfway through implementation. It will cover all targets mentioned in the strategy including outcomes and impact indicators and will also take into account contextual changes. The results will be used to adjust national priorities and objectives. The final review will involve a comprehensive analysis of progress and performance for the whole period of the pla n. It will build upon the annual and mid-term reviews. After evaluation of the strategic plan, renewal or extension of the strategy, amending approaches and directions, or the initiation of a new strategy development process will be considered.

15 Annexes:

Annex .1. Health Approaches:

Annex 1.a. Health Benefits Package:

HBP is a set of evidence-informed, prioritized health interventions, services, and programs, including inter-sectorial actions and fiscal policies, defined through a deliberative process that accounts for economic realities and social preferences.

Sudan's' HBP was designed to cover the entire health-system of Sudan and encompassed primary health care, secondary care, and specialist tertiary services. Some interventions are already available to citizens (for example; access to malaria nets and parental advice and support through the essential mother and child health program). Some would require modest expansion (for example; access to infants' vaccine "meningitis") and could be achieved relatively quickly. Others would require significant development in the workforce and/or infrastructure (for example; comprehensive ante-natal care services). The new HBP is built on the previous Ministry of Health Benefits Packages [Treatment of common diseases,,Expanded Program of Immunization, Nutrition, Reproductive Health and Essential Medicines][13], which lacked clarity on selection criteria and specificity].

Analysis to inform criteria scores

The starting point for selecting candidate interventions was a list of 553 evidence-based interventions relevant to the region, compiled by the World Health Organization EMRO and informed by DCP3 and other guidance. This list was shared with 13 clinical expert teams covering 13 programs.

In the absence of comprehensive needs assessments and projections for the population of Sudan, the team used data from the Global Health Data Exchange to estimate levels of need and population impact. Specifically, data were extracted to show the percentage of total DALYs attributed to different disease areas, for Sudan in 2017. The percentage of DALYs for each disease area was transformed into a quintile distribution of DALYs which could be used to measure need and population impact. Each disease area was mapped into one of 5 categories based on the percentage of total DALYs accounted for by that disease area. Interventions were then mapped for each disease and assigned a score of 1-5 depending on which disease area they were related to. There are risk hazards and public health interventions that do not map directly to a specific disease area. These include, for example, COVID-19 and other emerging, re-emerging diseases and all-hazards risks (such as floods). For these interventions, an attempt was made to match the intervention to the expected health impact of the hazard.

Many of the interventions had been proposed as a response to existing evidence review processes. For these reasons, a more pragmatic approach was adopted to assess the quality of evidence, based on the likely reliability of the source of evidence included in the database. A scoring schema was developed which allowed evidence to be scored on a scale of 1-5.

13 National Health Sector Strategic Plan 2012-2016.

Interventions that had been included in WHO official guidance attracted the highest score (5) while local anecdotal evidence attracted the lowest score (1).

For monetary value, the project team considered using standard databases of cost-effectiveness to inform the scoring of interventions. However, standard databases of cost-effectiveness were not considered suitable at this stage of the development of the methodology. The diversity of study designs, comparators, and challenges with translating results to a Sudan context necessitated a more pragmatic approach. As an alternative, the project team developed a simple scoring schema that assigned a score of 1-5 based on the potential monetary value of interventions based on care settings, disease/risk prevention capability, and stage in the care pathway.

Annex 1.b. Family Health

Family health is a strategy proposed to re-orient the healthcare model by setting up multi-professional teams at the PHC center. Thus, family health approach is "a healthcare services provided by a family health team characterized by comprehensive, continuous, coordinated, collaborative, personal, family- and community-oriented services; comprehensive medical care with a particular emphasis on the family unit; known as general practice in some countries".[14]
FMOH conducted an assessment of Family Medicine practice in 2015. The assessment revealed several gaps and opportunities for improvement in governance, resources and capacity building, financing and organization of family medicine and family practice.[15]
Improving access to high-quality and equitably distributed health care services is one of the key priorities of this strategic plan. Experiences from across the world had shown that family practice approach can increase households' access to a defined package of services at an affordable cost, through trained and motivated family practice teams who can ensure high-quality, continuous and comprehensive primary care services for the individual and family across all ages and both sexes[16].

- ❖ Suggested key approaches to scaling up implementation of Family Practice in Sudan:

b) Strengthening governance of Family Practice at all levels.

c) Update or Development of Family Health Policy, strategies, guidelines and procedures.
d) Establishment of Sudan Family Health Council.
e) To update laws and legislations.
f) Update and endorse the scope of practice, roles, responsibilities and career pathway of family physicians and family health team members.
g) Establishment of an accreditation and licensing system for training institutions and health facilities.

14 Strengthening Primary Healthcare in Sudan through a Family Health Approach/Policy Options, 2016.

15 Family Medicine in Sudan: A Situation Analysis Report, FMOH 2015

16 Conceptual and strategic approach to family practice, WHO EMR 2014

h) Development and implementation of a national plan for upgrading and improvement of primary health care services at community and facility level (construction and/or rehabilitation of PHC facilities, training, equipment and furniture, etc.).
i) Scaling up the production of family physicians.
j) Development and implementation of pre-service and in-service (bridging course) training programs for medical assistants, nurses, midwifes and Community Health Workers in family practice.
k) Development and implementation of attractive retention packages for family practitioners at all levels (Family physicians and family health team).
l) Ensuring adequate financing of PHC including family practice focusing on implementing the newly developed PPMs.
m) Establishment of effective referral system at all levels.
n) Strengthening the integrated information system.
o) Establishment of registration systems for regular update of population data base in the catchment areas.
p) Establishment of a Family Folder system assigning families to the Family Health Centre or Unit in their respective catchment areas.

1.c. Health in all policies:

Health in All Policies (HiAPs) is "an approach to public policies across sectors that systematically takes into account the health implication of decisions and seeks synergies between all sectors and avoid harmful health impacts, to improve population health and health equity" (WHO 2014). It improves the accountability of policymakers for health impacts at all levels of policymaking.

HiAPs include an emphasis on the consequences of public policies on health systems, determinants of health and well-being. Health in All Policies is based on the recognition that the greatest health challenges such as; non-communicable diseases, health inequities and inequalities, climate change, and spiraling health care costs are highly complex and often linked through the social determinants of health.

The social determinants of health are the circumstances in which people were born, grew up, lived, worked and aged, and the wider set of forces and systems affected these circumstances.

Sudan is among the first countries in the region to develop a roadmap for the implementation of HiAPs following a Policy dialogue with all sectors. The roadmap aims to ultimately improve health and health outcomes of all the population by:

- Achieving Universal Health Coverage for the entire population across all states.
- Promoting health and health equity to everyone in the country.

❖ Specific objectives include:

a) Building accountability and strengthening the commitment of the National Health Coordination Council and Legislation Councils.
b) Strengthening structures of Health in All Policies.
c) Developing mechanisms of HiAP for better governance and increasing transparency.
d) Building capacity for better planning, effective implementation and close monitoring and evaluation.

WHO endorsed a resolution during the Regional Committee Meeting in Khartoum in 2018 calling for all member states to institutionalize HiAPs.

The Suggested key approaches to enhance the implementation of HiAPs in Sudan were:

a) Develop a comprehensive plan for institutionalization and implementation of the Health in All Policies approach.
b) Activate and/or reformulate the National Health Sector Coordination Councils.
c) Build the capacity of various public sector institutions, non-state actors and civil society organizations to adopt and promote the Health in All Policies approach.
d) Assign focal persons in all ministries/sectors to follow the implementation of HiAPs.
e) Conduct a mapping/assessment to identify Social Determinants of Health relevant to their areas of work and develop improvement plans.
f) Update and sign the declaration of commitments to implement HiAPs by ministers.
g) Scaling up implementation of HiAPs at states and localities levels as part of the local health-system strengthening.
h) Generate pieces of evidences and develop case studies on the experience of implementing the Health in All Policies approach and share experiences through regional platforms.
i) Develop monitoring, evaluation and learning frameworks.
j) Develop the Annual Health Report on the status of health and well-being of the population.

1.d. Humanitarian Development and Peace Nexus

The humanitarian-development-peace nexus (HDPN) is a framework for coherent, joint planning and joint implementation of shared priorities between the various humanitarian, development, and peace-building actors. The practice of these concepts can be traced back to Sudan even before the World Humanitarian Summit of 2016, where HDPN was initially declared the "New Ways of Working". Joint assessments, comprehensive coordination mechanisms, as well as the "one plan, one budget one report" were all well-acknowledged practices in Sudan's' health sector. COVID-19 constituted a wake-up call for health actors globally and locally, where an emergency response cannot take place unless resilient systems are in place and being built to their capacity.

Sudan's recent health policies and legislations continued to bring the nexus as an approach towards achieving Universal Health Coverage, with emphasis on the most vulnerable including refugees and migrants as well as the population in the conflict-affected areas, through multi-sectorial approach. Subsequent policies to ensure health-system resilience also come in line (e.g., financing strategy). As well coordination structures reform took place between 2016-18 where the National Health Sector Coordination Council continued to work actively in ensuring the policy coherence and multi-sectorial interventions, with a newly formulated health sector "partners' forum" getting active. The latter Forum focused on ensuring partner alignment, harmonization, and information sharing, including both health development partners and the humanitarian actors through the health cluster. Sudan Health Compact, signed in 2014, constituted the agreement that paves the way for the partnership that these mechanisms and joint actions are functioning under. Sudan Health Compact is at present being reviewed; to ensure the nexus approach is better reflected within its commitments and M&E framework.

Regrettably, due to recent political instability, most mechanisms are not regularly functional, except the health emergency cluster, and most policies are not properly executed and/or monitored.

The common country analysis of 2015/16 was the core of developing the UN Development Assistance Framework for Sudan. The analysis looked into both development and emergency perspectives. Since then, several similar multi-sectorial assessments took place, such as the Humanitarian Needs Overview 2021, and the S3M (Simple, Spatial Survey Method) 2018. Collective outcomes areas were also developed utilizing the National Coordination Fora. with health under collective outcome 2 of "Basic Social Services" while the rest of Collective Outcomes address SDH. The Multi-Year Humanitarian Strategy 2017-2019 adopted the collective outcomes, as an integral part of the Humanitarian Response Plan and transition to development, enhancing the HDPN thinking. The Sudan Country Refugees Response Plan 2021; Multi-year Protection & Solutions Strategy; Darfur Health & Nutrition Recovery Strategy; Developing Darfur: Recovery and Reconstruction Strategy; and durable solutions for protracted displacement are all examples of other nexus endeavors.

On the implementation front, multiple programs reflect a nexus approach to the system's-resilience building while addressing humanitarian emergencies. The European Union (EU) have funded multiple projects with a nexus approach to enable the health-system's response and services to refugees, returnees and host communities in Eastern Sudan and Darfur, the EU also implemented through both humanitarian NGOs and development partners. Lately, with COVID-19, multiple programs aiming to improve health-system preparedness and response were funded by World Bank, GFATM, AfDB and EU. Sudan also had the experience of developing a health sector One Plan and conducting a comprehensive Joint Annual Review in 2017.

Many challenges and gaps remain in place, including the gap of knowledge and understanding of the importance and value of having an integrated work, uninterrupted coordination mechanisms activity as well as the effects of instability caused by a pause in joint planning and review.

The way forward requires activation of purpose-driven multi-sectorial coordination in addition to strengthening government stewardship and orchestrating capacity. Hence, it is critical to review and formalize coordination and partnership agreements and guiding frameworks, including national frameworks (e.g., Sudan Health Compact) and bilateral memoranda. There is a need to set up collaborative governance mechanisms (e.g., multi-member secretariat, joint monitoring and evaluation committees, partner platforms), including informal and formal coordination and briefing meetings. Building leadership and management capacity in the areas of joint planning, verbal and written communication, negotiation and conflict resolution can also assist the process of HDPN actions. There is a need to generate and communicate evidence to support integration and build trust by documenting best practices & supporting platforms for information sharing and coordination. This can be assisted through designing programs for mutual learning and experience sharing between partners, including study tours and in-country professional exchange programs.

1.e. Decentralization:

As decentralization has continued to be the most appropriate approach for the country, capacity development of health-system decentralization is a key component of the strategic plan that is reflected in the focus of Strengthening the Local Health-system as a means to achieve UHC.

The current ongoing reform in government following Juba Peace agreement has suggested, and -to great extent- implemented, different degrees and levels of decentralization with no clear division of roles and responsibilities.

Throughout the decades, decentralization has been implemented in health, however; disparities in health outcomes have widely varied among states questioning the institutional capacities to implement and run the decentralized health-system.

Strengthening the sub-national levels (Region/States, localities) requires organized and systemic changes such as; better planning and management of services, based on better data and analysis; better coordination of different providers and programs, and increasing the capacity to provide and retain health workers among others.

The need for a decentralization strategy for health is a pressing requirement to guide the efforts. The strategy is expected to be based on an assessment of the current institutional capacities, decision space, and accountability as three pillars for improvement in decentralization (based on several countries' experiences). The strategy will suggest the design and implement horizontal and vertical reform for national and sub-national health institutions (SMOHs' and localities), focusing on redefining roles and responsibilities, structures, and adapting to the broader concept of this strategic plan; empower localities to fulfill their roles and responsibilities in planning and management of health services; and address issues of decentralization through legal provisions or agreements (roles and responsibilities), governance structures, in addition to the policy as a concurrent power, trans-state/regional issues, and accountability.

Building capacities of the local health authorities (lowest level of the decentralized health system) will enable better priority settings, and services provision through direct dialogue with the local communities.

1.f. Community System Strengthening:

A community is a social unit with commonality such as norms, religion, values, customs, or identity. Communities may share a sense of place situated in a given geographical or virtual space through communication platforms. Community system is a broad term that describes the structures, mechanisms, processes and actors that are needed to support community responses. Community systems include different types of formal and informal community groups, organizations and networks, and other civil society organizations. They are an essential part of a country's health-system combining with and complementing the work of other stakeholders and sectors, such as the governmental and private sectors.

Community Systems Strengthening (CSS) refers to interventions that support the development and reinforcement of informed, capable, coordinated and sustainable structures, mechanisms, processes and actors through which community members, organizations and groups interact, coordinate and deliver their responses to the challenges and needs affecting their communities. Community Engagement is a process of developing relationships that enable stakeholders to work together to address health-related issues and promote well-being to achieve positive

health impact and outcomes (WHO). Community engagement principles include trust, accessibility, contextualization, equity, transparency, and autonomy.

Community Health dialogue (CHD) is a forum that draws participants from different sections of a community and creates the opportunity for exchanging information and perspectives, clarifying viewpoints, and developing solutions to issues of interest to the community.

Community dialogue is an interactive participatory communication process of sharing information between people or groups of people aiming to reach a common understanding and applicable solutions. CHD is considered an accountability tool.

Community engagement is an important and integral process for any health-system development effort, especially to improve health equity and achieve universal health coverage (UHC). Community systems are strengthened through legal reforms; development of community structures, building institutional capacities of community organizations, establishing accountability mechanisms, and promoting CHD. In CHD, communities, local authorities, and local health partners, such as; non-government organizations and community-based organizations, come together to discuss health priorities and concerns, in addition to envisaging a way to prioritize and plan for better health outcomes; adopting a bottom-up approach.

Enhancing community engagement is a crucial element for building resilient local health and community systems to respond to the needs of populations, particularly underserved and disadvantaged groups such as IDPs, returnees and rural communities. Sudan's recent experience in institutionalizing the community health dialogues proved that local communities could contribute to addressing health-system bottlenecks. For example; the inequitable distribution of frontline health workforce is being addressed by providing retention packages by local communities in remote and underserved areas.

- ❖ Suggested key approaches to building and strengthening the community systems in Sudan are:

1. Strengthen governance arrangements for CSS and Community Engagement in health focusing on development and update of legislation, and addressing legal barriers.
2. Strengthen capacities of the local health-system to institutionalize Community-Engagement.
3. Establishment of community structures and Health Committees such as a board of trustees for health facilities at all levels (localities, neighbourhoods, villages, etc.).
4. Strengthen the capacities of MOH staff, communities, CSOs and partners in CSS.
5. Strengthen communities' accountability mechanisms such as Period Health Assembly.
6. Document best practices and success stories in CSS and Community Engagement.

Annex .2. M&E Framework:

Project 1:

Indicator	Base line (years)			Target			Frequency	Data source	Responsible
	value	year	Source	Y1	Y2	Y3			
1.A.1.1. Percentage of institutional structure established at national level.	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoPP
1.A.1.2. Percentage of implementation of decisions and recommendations.	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoPP
1.A.2.1. Number of mapping reports of PHC facilities delivered.	2021 survey	2021	FMoH annual report	-	-	1	Each 3 years	FMoH annual report	FMoH-DGoPHC
1.A.3.1. Percentage of functioning PHC facilities.	81%	2021	Health Mapping Survey 2021 report	91%%	100%	100%	monthly	FMoH annual report	FMoH-DGoPHC
1.A.3.2. Percentages of states are covered by benefit packages.	65%	2017	Health Facility Mapping Survey 2017	75%	90%	100%	Annually	HF survey 2017	FMOH

1.A.3.3. Coverage by PHC benefits packages (disaggregated).	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoPHC
1.A.3.4. Access rate to PHC health services.	69%	2018	S3M2	10%	10%.	11%	3 Years	S3M2	FMoH-DGoPHC
1.A.3.5. Equity in Pentavalent 3 coverage.	69%	2021	EPI annual report	75%	85%	90%	Annually	EPI annual report	FMoH-DGoPHC
1.B.1.1. Percentage of PHC facilities with medicine outlets.	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoPP
1.B.1.2. Percentage of medicines available at PHC facilities.	26.11	2021	Availability, Affordability and Price components of selected medicines in Sudan, Sep 2021	45%	60%	75%	Mid- Annually	Facility based survey	FMoH-DGoP
1.B.1.3. Percent of health facilities with functioning labs.	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoPP
1.B.2.1. Percentage of PHC health facilities covered by functional essential medical devices.	NA	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	Annually	CMMS	FMoH-DGoPP

1.B.2.2. Proportion of health facilities with standard design.	86%%	2021	FMoH annual report	100%	100%	100%	Annually	FMoH annual report	FMoH-DGoPHC
1.C.1.1. The Proportion of PHC related modules integrated with DHIS2.	7	2021	DHIS2	10	-	-	Annually	DHIS2	FMoH- HIS
1.C.1.2. Reporting rate at PHC level.	46.90 %	2021	DHIS2	60%	65%	70%	Mid- Annually	DHIS2	FMoH- HIS
1.C.1.3. Proportion of localities' capitals with a stable internet service.	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH- IT unit
1.C.2.1. The number of Tele-health services established.	1	2021	FMoH annual report	2	4	6	Annually	FMoH annual report	FMoH- IT unit
1.C.2.2. The number of beneficiaries of established services.	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH- IT unit
1.D.1.1. Coverage of PHC facilities and communities by health cadres and community health cadres.	85%	2018	FMoH annual report	90%	100%	100%	Annually	FMoH annual report	FMoH-DGoPHC
1.E.1.1. Percentage of PHC facilities financed by effective PPMs.	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoPP

1.E.2.1. Percent of PHC facilities providing NHIF services.	66%	2021	NHIF statistical reports	10%	10%	10%	Annually	NHIF annual statistical reports	NHIF
1.E.3.1. Share of expenditure on PHC from total health expenditure.	23.50 %	2018	Systems of Health Account 2018	40%	20%	15%	Annually	Systems of Health Account	NHIF
1.F.1.1. Level of Patient satisfaction.	NA	-	-	0	50%	75%	Annually	Facility based survey	FMoH-DGoCM
1.F.1.2. The Number of PHC facilities accredited.	0	2021	Initial assessment for PHC centers using accreditation standards	30%	60%	100%	Annually	Facility based survey	FMoH-DGoQ&A
1.F.1. Percentage of health care centers implementing clinical guidelines.	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-PHC

Project 2:

Indicator	Base line (years)			Target			Frequency	Data source	Responsible
	value	year	source	Y1	Y2	Y3			
2.A.1.1. Coverage by secondary	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoCM

and tertiary service benefits packages.									
2.A.2.1. Percentage of available essential medicines in secondary and tertiary facilities.	37.85% (Seconday), 31.39% (Tertiary)	2021	Availability, Affordability and Price components of selected medicines in Sudan, Sep 2021	45%	60%	75%	Mid- Annually	Facility based survey	FMoH-DGoP
2.A.2.2. Percentage of secondary and tertiary health facilities covered by functional essential medical devices.	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	Annually	CMMS	FMoH-DGoPP
2.B.1.1. Percent of hospitals financed by effective PPMs.	N/A	-	-	20%	20%	20%	Annually	NHIF annual statistical reports	NHIF
2.C.1.1. Percent of rehabilitated hospitals.	0	2022	Supervision reports	20%	20%	20%	Annually	FMoH annual report	FMoH-DGoCM
2.C.1.2. Percent of rehabilitated emergency-care units.	0	2022	Supervision reports	50%%	30%	20%	Annually	FMoH annual report	FMoH-DGoCM
2.D.1.1. Coverage of secondary and tertiary facilities by health cadres based on reference to	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoHRD

international HRH indicators.									
2.E.1.1. Percentage of standard treatment guidelines, credential procedures and protocols adopted and implemented.	10%	2022%	FMoH annual report	40%	65%	90%	Annually	FMOH / DG.CM, survey report	FMoH-DGoCM
2.E.2.1. The Number of accredited hospitals.	0	2021	Initial assessment for hospitals using accreditation	30%	60%	100%	Annually	FMOH – FMoH-DGoQ&A assessment report	FMoH-DGoQ&A
2.E.2.2. Healthcare-associated infection rate.	N/A	-	-	-	To determine the baseline	TO BE DETERMINED	Annually	Healthcare associated infection surveillance	FMoH-DGoQ&A
2.F.1.1. Percentage of collected blood from estimated country need.	79%	2021	FMoH annual report	100%	100%	100%	Annually	FMoH annual report	BTS
2.F.1.2. Percentage of BTS facilities with 100% quality-assured and uninterrupted testing of donated blood (all tests).	0	2021	FMoH annual report	100%	100%	100%	Annually	FMoH annual report	BTS
2.F.1.3. The utilization rate of diagnostic and laboratory services.	N/A	-	-	To Be Determined	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoQ&A

2.G.1.1. Patient satisfaction rates with emergency services.	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoQ&A
2.G.1.2. The Proportion of hospitals implementing triage system.	3	2021	FMoH annual report	30	20	20	Annually	FMoH annual report	FMoH-DGoCM
2.H.1.1. The Proportion of states with a central referral system in place.	1	2021	FMoH annual report	5	6	6	Annually	FMoH-DGoCM	FMoH-DGoCM
2.H.1.2. Percentage of trauma patients arriving by ambulance to a secondary and tertiary hospital.	1%	2021	FMoH annual report	5%	20%	25%	Annually	FMoH-DGoCM	FMoH-DGoCM
2.H.2.1. The Number of hospitals running an electronic patient registration system.	0	2022	HIS	0	5	30	Annually	FMoH annual statistical reports	FMoH- HIS
2.I.1.1. The Proportion of hospitals using DHIS2 from selected hospitals.	86.40%	2021	DHIS2	30%	70%	100%	Annually	DHIS2	FMoH- HIS

2.I.1.2. Reporting rate through DHIS2 at hospital level.	72.40%	2021	DHIS2	77%	82%	85%	Annually	FMoH annual statistical reports	FMoH- HIS

Project 3:

Indicator	Baseline			Target			Frequency	Data source	Responsible
	value	**year**	**Source**	Y1	Y2	Y3			
3.A.1.1. Number of active EOCs.	1	2021	FMoH annual report	9	14	19	Annually	FMoH annual report	FMoH - DGoHEEC
3.A.2.1. Presence of jointly developed and updated and implemented multi-hazard preparedness and response plan.	Not jointly with partners	2021	FMoH annual report	1	1	1	Annually	FMoH annual report	FMoH - DGoHEEC
3.A.2.2. The Number of emergency review meetings conducted.	2	2021	FMoH annual report	3	3	3	Annually	Annual report	FMoH - DGoHEEC
3.B.1.1. The Number of Complete Rapid Response Teams	280	2021	FMoH annual report	305	305	305	Annually	Annual report	FMoH - DGoHEEC
3.B.1.1.a The number of states with Complete Rapid Response Teams (CRRTs)	16	2021	FMoH annual report	18	18	18	Annually	Annual report	FMoH - DGoHEEC

3.B.1.1.b The number of localities with Complete Rapid Response Teams (CRRTs)	264	2021	FMoH annual report	287	287	287	Annually	FMoH annual report	FMoH - DGoHEEC
3.B.1.2. The percentage of active sentinel sites and active points of entry.	1789 (84.8%)	2021	FMoH annual report	86%	90%	95%	Annually	FMoH annual report	FMoH - DGoHEEC
3.B.1.3. The Proportion of emergency events and epidemics responded to within 72 hours from detection (response by federal level).	88%	2021	FMoH annual report	90%	100%	100%	Annually	FMoH annual report	FMoH - DGoHEEC
3.B.1.4. The proportion of health emergency events and epidemics responded to without national intervention within 72 hours of detection.	N/A	-	-	80%	85%	90%	Annually	FMoH annual report	FMoH - DGoHEEC
3.B.1.5. The percentage of attributes of core capacities of IHR that have been attained at a specific point in time.	53%	2016	Joint external evaluation (JEE)	65%	NA	NA	Every 5 years	Joint external evaluation (JEE) report	FMoH - DGoHEEC
3.C.1.1. The number of revised or updated protocols and guidelines for case definition and management.	2	2021	FMoH annual report	5	5	5	Annually	FMoH annual report	FMoH - DGoHEEC

3.C.1.2. The number of functional isolation and management centers (desegregated by institutional capacity).	44	2021	FMoH annual report	44	44	44	Annually	FMoH annual report	FMoH - DGoHEEC
3.C.1.2.a Number of functional isolation and management centers by availability ICU specialist.	34	2021	FMoH annual report	37	40	43	Annually	FMoH annual report	FMoH - DGoHEEC
3.C.1.2.b Number of functional isolation and management centers by availability of essential equipment.	43	2021	FMoH annual report	44	44	44	Annually	FMoH annual report	FMoH – DGoHEEC
3.C.1.2.c Number of functional isolation and management centers by availability of service providers trained on case management.	27	2021	FMoH annual report	37	44	44	Annually	FMoH annual report	FMoH – DGoHEEC
3.D.1.1. The number of states that implemented DHIS2 tracker module (List A -notifiable diseases).	0	2021	FMoH annual report	Development of the models	4	4	Annually	FMoH annual report	FMoH – DGoHEEC
3.D.1.2. The percentage of active sentinel sites with regular reporting.	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH – DGoHEEC

3.D.1.3. Utilization of DHIS2 to report epidemics and pandemics.	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH- HIS
3.E.1.1 The number of test results during epidemics and outbreaks.	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	NPHL
3.E.2.1. The number of functioning public health labs.	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	NPHL
3.E.2.2. The number of logistic supply stores available within health emergency needs.	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	NPHL
3.F.1.1. The number of developed risk communication and community engagement center core documents.	None	2021	Annual report	80%	100%	N/Applicable	Annually	Annual report	FMoH – DGoHEEC
3.F.1.2. The number of community dialogues conducted.	1	2020	Annual report	0	2	2	Annually	Annual report	FMoH – DGoHEEC
3.G.1.1. Coverage by minimum essential service package during emergencies and in affected areas (desegregated by	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoPP

Internally Displaced People (IDPs) & refugees).									
3.G.1.2. Availability of health emergency supplies.	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH – DGoHEEC
3.H.1.1. The number of emergency response guidelines endorsed and adopted.	0	2021	FMoH annual report	3	1	1	Annually	FMoH annual report	FMoH – DGoHEEC
3.H.1.1.a. Pentavalent 3 coverage at the national level (penta 3).	84%	2021	EPI Annual report	93%	95%	95%	Annually	EPI Annual report	FMoH-DGoPHC
3.H.1.1.b. Bacille Calmette-Guérin vaccine (BCG) coverage at the national level.	80%	2021	EPI Annual report	93%	95%	95%	Annually	EPI Annual report	FMoH-DGoPHC
3.H.1.1.c. Oral poliovirus vaccines (third dose) coverage at the national level (OPV-3).	85	2021	EPI Annual report	90	95	95	Annually	EPI Annual report	FMoH-DGoPHC
3.H.1.1.d. Inactivated polio vaccine coverage at the national level (IPV-1).	94	2021	EPI Annual report	95	95	95	Annually	EPI Annual report	FMoH-DGoPHC
3.H.1.1.e. Pneumococcal Conjugate Vaccine	85	2021	EPI Annual report	93	95	95	Annually	EPI Annual report	FMoH-DGoPHC

(PCV) 3 coverage at the national level.									
3.H.1.1.f. Roravirus containing vaccine coverage at the national level (ROTA first dose).	90	2021	EPI Annual report	95	95	95	Annually	EPI Annual report	FMoH-DGoPHC
3.H.1.1.g. Roravirus containing vaccine coverage at the national level (ROTA last).	84	2021	EPI Annual report	90	95	95	Annually	EPI Annual report	FMoH-DGoPHC
3.H.1.1.h. Measles containing vaccine (first dose) coverage at the national level (MCV1).	81	2021	EPI Annual report	87	90	90	Annually	EPI Annual report	FMoH-DGoPHC
3.H.1.1.i. Measles containing vaccine (second dose) coverage at the national level (MCV2).	63	2021	EPI Annual report	75	80	85	Annually	EPI Annual report	FMoH-DGoPHC
3.H.1.1.j. Meningitis A containing vaccine coverage at the national level (Men A).	80	2021	EPI Annual report	80	90	90	Annually	EPI Annual report	FMoH-DGoPHC
3.H.1.1.k. Yellow fever containing vaccine coverage at the national level (YF).	78	2021	EPI Annual report	90	90	90	Annually	EPI Annual report	FMoH-DGoPHC
3.G.1.1. Covid-19 Vaccine coverage.	10%	2021	EPI Annual report	50%	TO BE DETERMINED	TO BE DETERMINED	Annually	EPI Annual report	FMoH-DGoPHC

Project 4:

Indicator	Baseline			Target			Frequency	Data source	Responsible
	value	year	source	Y1	Y2	Y3			
4.A.1.1. The number of health and health-related laws and legislations reviewed and updated.	3	2022	FMoH annual report	1	1	1	Annually	FMoH annual report	FMoH-DGoPP
4.A.1.2. The number of developed and approved Key public health policies, and strategies.	33	2022	FMoH annual report	3 (1 developed & 2 updated)	3(1 developed & 2 updated)	3(1 developed & 2 updated)	Annually	FMoH annual report	FMoH-DGoPP
4.B.1.1. Adoption of new structures including roles and responsibilities.	1	2022	FMoH annual report	1	N/A	N/A	Once	FMoH annual report	FMoH-DGoPP
4.B.2.1. The proportion of states meeting standards for functioning structures.	62%	2021	Supervision reports	70%	80%	92%	Annually	Supervision report	FMoH-DGoPP
4.B.2.2. The proportion of localities meeting standards for functional management teams.	40%	2021	Supervision report	45%	50%	60%	Annually	Supervision report	FMoH-DGoPP
4.B.2.3. Percentage of localities that received	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoPP

at least 50% of allocated budget.									
4.C.1.1. Presence of active coordination mechanisms at all levels.	Only 3 Committees are fully active	2022	Health Sector Partners Forum Committees Meetings Report	All 5 comittees are active	All 5 comittees are active	All 5 comittees are active	Quarterly	FMoH annual report	FMoH-DGoGH
4.D.1.1. Public private partnership framework developed and adopted.	No framework	2022	FMoH annual report	Development of the Framework	Develop PPP Strategy	Implementation of the PPP strategy	Annually	FMoH annual report	FMoH-DGoPP
4.D.2.1. The Number of bi-lateral and multi-lateral agreements reviewed and ratified.	5	2021	FMoH annual report	10	10	10	Annually	FMoH annual report	FMoH-DGoGH
4.D.2.2. Sudan health compact revised and updated.	Old Compact Revised and Amended	2021	Annual report, TWG Report	Drafting New Comapct	Consultation of Comapct Among Partners	Signing Compact	Once	Annual Report, Signed Compact document	FMoH-DGoGH
4.D.2.3. The Proportion of partners who signed up for the local compact.	Compact Signed	2014	Compact Document	Drafting New Comapct	Consultations of Comapct Among Partners	Signing Compact	Once	Annual Report, Signed Compact document	FMoH-DGoGH
4.D.2.4. Partners mapping and tracking conducted.	Mapping Tool Developed, Mapping Data Collected, No	2022	FMoH annual report	Mapping Report Issued. Establishment of Tracking System	Operationalization of the Tracking System	Development of Online Dashboard	Annually	FMoH annual report	FMoH-DGoGH

	tracking System								
4.D.3.1. EDC assessment conducted.	EDC assessed	2016	FMoH annual report	Preparation for EDC Assessment	Data Collection, Result Dissemination, Results consultation	follow up on Recommendation	Once	FMoH annual report	FMoH-DGoGH
4.E.1.1. Joint annual review conducted.	JAR	2018	Annual report	Joint Review for 2021	Joint Review for 2022	Joint Review for 2023			
4.E.2.1. Presence of functional accountability framework.	Draft Accountability Framework developed	2018	FMoH annual report	Approve the framework and develop road map for implementation	Implementation of accountability framework at federal level	Implementation of accountability framework at states level according to the road map	Annually	FMoH annual report	FMoH-DGoPP
4.F.1.1. Presence of active community structures (local health committees).	N/A	-	-	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoPP

Project 5:

Indicator				Target			Frequency	Data source	Responsible
	value	year	source	Y1	Y2	Y3			
5.A.1.1. National health financing roadmap adopted.	Health financing policy exists	2015	FMoH annual report	Roadmap developed	-	-	Annually	FMoH annual report	FMoH-DGoPP
5.A.1.2. Percentage of the population effectively covered by health insurance services.	89.10%	2021	NHIF statistical report 2021	3%	3%	3%	Annually	NHIF annual statistical reports	NHIF

5.A.1.3. Percentage of facilities contracted by NHIF.	54%	2021	NHIF statistical report 2021	10%	10%	10%	Annually	NHIF annual statistical reports	NHIF
5.A.1.4. Percentage of reduction in out-of-pocket expenditure on health.	66.95%	2018	System of Health Accounts 2018	65%	60%	55%	Annually	System of Health Accounts or Households Utilization and Expenditure Survey	FMoH-DGoPP
5.A.1.5. Percentage of Government Health Expenditure (GHE) from Current Health Expenditure (CHE).	23.28%	2018	System of Health Accounts 2018	2%	6%	9%	Annually	System of Health Accounts	FMoH-DGoPP
5.A.1.6. Percentage of GHE from Total Government Expenditure (TGE).	9.90%	2018	System of Health Accounts 2018	9.90%	2%	3%	Annually	System of Health Accounts	FMoH-DGoPP
5.A.1.7. Percentage of NHIF expenditure from TGE on health.	27.62%	2018	System of Health Accounts 2018	40%	70%	100%	Annually	System of Health Accounts	FMoH-DGoPP
5.A.1.8. Percentage of external health expenditure from Total Health Expenditure (THE).	6.42%	2018	System of Health Accounts 2018	6.4	6.4	6.4	Annually	Global health directorate	FMoH-DGoPP
5.A.2.1. The number of states with under five (U5) funds integrated with NHIF pool.	0.00%	2021	NHIF annual statistical report 2021	27%	27%	46%	Annually	NHIF annual statistical reports	NHIF
5.A.3.1. Aggregate expenditure out-	Annual	-	-	Annual	Annual	Annual	Annually	FMoH annual report	FMoH - DGoFA

turns compared to the original approved budget.									
5.A.3.2. Frequency of sharing financial information between public entities (federal and state level).	Annual	2018	System of Health Accounts 2018	Annual	Annual	Annual	Annually	System of Health Accounts	FMoH-DGoPP
5.A.3.3. Public access to key fiscal information.	Annual	2018	-	Annual	Annual	Annual	Annually	FMoH annual report	FMoH - DGoFFA
5.A.3.4. Quality and timeliness of in-year budget reports.	Existence of Report of 2021	2021	FMoH annual report	Annual	Annual	Annual	Annually	FMoH annual report	FMoH - DGoFA
5.B.1.1.a. Density of active health workers per 10.000 populations at subnational level by doctors.	3.6	2021	FMoH annual statistical reports	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoHRD
5.B.1.1.b. Density of active health workers per 10.000 populations at subnational level by midwives	14	2021	FMoH annual statistical reports	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoHRD
5.B.1.2. HRH Information System for tracking the	N/A	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoHRD

number of active stocks on the labour market.									
5.C.1.1. Skill mix (Distribution of HRH by occupation, specialization, or other skill-related characteristic).	N/A	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoHRD
5.C.1.2. Workforce loss ratio.	N/A	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoHRD
5.D.1.1. The number of health leaders and managers from different levels that received mandatory and optional training.	0	2021	FMoH annual report	5%	10%	25%	Annually	FMoH annual report	FMoH-DGoHRD
5.D.1.2. The number of competency-based capacity-building programs developed for health leaders, managers, and cadre.	0	2021	FMoH annual report	1	1	1	Annually	FMoH annual report	FMoH-DGoHRD
5.E.1.1. DHIS2 reporting rate.	46.90%	2021	DHIS2			64			

5.E.2.1. The number of essential surveys conducted.	N/A	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH - FMoH-DGoPP
5.E.3.1. Birth registration rate	67.3	2014	MICS 2014	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	HIS
5.E.3.2. Death registration rate	N/A	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	HIS
5.F.1.1. Percentage of priority research conducted or published.	N/A	-	-	15	45	75	Annually	FMoH annual report	FMoH-DGoPP
5.F.1.2. Percentage of funds allocated to research (local and external).	1%	2016	National Health Research Policy 2016	2%	3%	5%	Annually	FMoH annual report	FMoH-DGoPP
5.F.2.1. Percentage of Research Ethical Review Committees accredited.	0	2020	FMoH annual report	33.30%	66.60%	100%	Quarterly	FMoH annual report	FMoH-DGoPP
5.F.3.1. Frequency of update of Health-research database.	Not updated	2021	FMoH annual report	Mid-annually	Mid-annually	Mid-annually	Mid-Annually	FMoH annual report	FMoH-DGoPP
5.G.1.1.a. The number of directorates with SOPs at Federal level	15	2021	FMoH annual report	17	21	25	Annually	FMoH annual report	FMoH-DGoQ&A
5.G.1.1.b. The number of directorates with SOPs at state level	N/A	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH-DGoQ&A
5.G.1.2.a. Percentage of directorates with complete necessary assets at federal level	N/A	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH - DGoFA

5.G.1.2.b. Percentage of directorates with complete necessary assets at state level	N/A	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH - DGoFA
5.G.1.2.c. Percentage of directorates with complete necessary assets at locality level	N/A	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	FMoH - DGoFA

Project 6:

Indicator	0			Target			Frequency	Data source	Responsible
	value	year	source	Y1	Y2	Y3			
6.A.1.1. Availability of essential medicines'.	30.94%	2021	Availability, Affordability and Price components of selected medicines in Sudan, Sep 2021	45%	60%	75%	Mid-Annually	Facility based survey	FMoH-DGoP
6.A.1.2. Affordability of treatment for adults Pneumonia.	18	2021	Availability, Affordability and Price components of selected medicines in Sudan, Sep 2021	16	14	12	Mid-Annually	Facility based survey	FMoH-DGoP

6.A.1.3. Affordability of treatment for hypertension.	2.9	2021	Measuring September 2021 Availability, Affordability and Price components of selected medicines in Sudan, Sep 2021	2	1.5	1	Mid-Annually	Facility based survey	FMoH-DGoP
6.B.1.1. Percentage of allocated funds from estimated need for essential medicines.	34%	2021	NMSF Annual report	60%	70%	80%	Annually	NMSF performance reports	NMSF
6.B.1.2. Percentage of allocated fund from estimated need for essential medical device	N/A	-	-	-	20%	80%	Annually	FMoH annual report	FMoH-DGoPP
6.C.1.1.a. Percentage of patients prescribed antibiotics in public pharmacies.	51.80%	2018	Assessment of the National Pharmaceutical Sector Level II health facilities indicators	68%	84%	100%	Annually	Facility based survey	FMoH-DGoP

6.C.1.1.b. Percentage of patients prescribed antibiotics in private pharmacies.	44.70%	2018	Assessment of the National Pharmaceutical Sector Level II health facilities indicators	65%	85%	100%	Annually	Facility based survey	FMoH-DGoP
6.C.1.2..a. Percentage of patients that know how to take dispensed medicines in public pharmacies.	77.40%	2018	Assessment of the National Pharmaceutical Sector Level II health facilities indicators	80%	90%,	100%	Annually	Facility based survey	FMoH-DGoP
6.C.1.2..b. Percentage of patients that know how to take dispensed medicines in private pharmacies.	84.60%	2018	Assessment of the National Pharmaceutical Sector Level II health facilities indicators	90%	100%	100%	Annually	Facility based survey	FMoH-DGoP
6.D.1.1. Percentage of essential medicines manufactured nationally in the market.	N/A	-	-	40%	50%	60%	Annually	NMPB annual report	FMoH-DGoP
6.E.1.1. Percentage of public health facilities covered by the National Medical Supplies Fund (NMSF) services.	61%	2021	NMSF Annual report	70%	75%	80%	Annually	NMSF annual report	NMSF FMoH-DGoPP
6.F.1.1. Percentage of facilities (public and private) with counterfeit products.	N/A	-	-	10% decline	10% decline	10% decline	Annually	Facility based surveys	FMoH-DGoP

6.F.1.2. Percentage of sample-products that comply with standards.	N/A	-	-	10% increase	10% increase	10% increase	Annually	NMPB annual report	NMPB
6.F.1.3. Percentage of facilities that comply with regulations from inspected facilities.	N/A	-	-	10% increase	10% increase	10% increase	Annually	NMPB annual report	NMPB
6.G.1.1. Percentage of functioning medical equipment according to the essential list.	N/A	-	-	0	20%	80%	Annually	Computerized Maintenance Management System Report	FMoH-DGoPP
6.G.2.1. Number of states that implement medical-devices management system.	N/A	-	-	0	20%	80%	Annually	FMoH annual report	FMoH-DGoPP