Sudan's National Health Policy

2017-2030

Working Document

Federal Ministry of Health

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LIST OF ABBREVIATION

GDP	Gross Domestic Product
IMF	
IDP	Internally Displaced Person
NCD	Non-Communicable Diseases
TB	Tuberculosis
FMOH	Federal Ministry of Health
PHC	Primary Health Care
NHSCC	National Health Sector Coordination Council
NHIF	National Health Insurance Fund
HRH	Human Resources for Health
EMRO	Eastern Mediterranean Office
MDGs	Millennium Development Goals
HIS	Health Information System
NGOs	Non-Governmental Organizations
IRS	
MIC	
THE	Total Health Expenditure
NMPB	National Medicine Poisons Board
MD	Medical Doctorate
MOF	Ministry of Health
MOH	Ministry of Finance

ACKNOWLEDGMENT

INTRODUCTION

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SITUATIONAL ANALYSIS

Demography and socioeconomic situation

The republic of the Sudan is third largest country in Africa, with 1.882 million square Kilometers. It shares borders with seven countries and has a costal line on the red sea. Sudan is characterized as multiracial and multicultural nation distributed in 18 states and more than 180 localities. The total population accounts to 38 million, out of this 67.3% live in rural areas, 8% are nomads, IDPs toll amounts to 2.2millions, and refugees from neighboring countries reached 2 million. Currently Sudan is witnessing growing transformation towards urbanization. The population's growth rate is 2.8%, total fertility rate 5.2 and family size ranges form 5-6 members. Children less than 5 years represent 16.4% of total population, while population less than 15 years represents 45.6%. About 46% of the population lives below the poverty line. Sudan is a low middle-income country with a per capita gross domestic product (GDP) of $1,940 in 2014. It has an annual economic growth rate of 2.3 percent (2014). After production of oils, Sudan achieved very fast economic growth rates especially in period 2005 and 2007 (7 to 12%). The country faced significant economic shocks between 2010 and 2012, due to the separation of South Sudan and the loss of oil revenue, with GDP growth rates falling to -1.2% in (2010) and -3.5% in (2012), respectively. Sudan, however, recovered relatively quickly. Moreover, the projections of the International Monetary Fund (IMF) indicate that GDP growth rates are expected to rise to 3.9 percent in 2016, with expected annual GDP growth rate of roughly 5 percent until 2020. As part of general negative impact of economic sanctions imposed on Sudan, health sector affected seriously especially in importation of medicines and medical equipment. The adult literacy rate in Sudan is 69%, and 45.2% among women age 15-24 years. The primary education enrolment is 46%, and 82.2% of the cohort entering primary school completed primary school education.

Health status

The life expectancy is 59 years with slight difference between males and females. In general, Sudan didn't reach MDGs target for the under-5 mortality. The maternal mortality rate declined in Sudan but also didn't reach it MDGs target. The maternal mortality ratio was 322 per 100,000 live birth in 2015 compared to 527 per 100,000 live birth in 1990. This indicates

61% reduction in maternal mortality while the MDGs target was 75% reduction. Likewise, the under-5 mortality rate was 72 per 1000 live birth in 2015 and 128 per 1000 live birth in 1990, meaning that the reduction is 56% which is less than 66%(target of MDGs). It is worth mentioning here is the static situation in the infant mortality between 1990 and 2015, which necessitates especial efforts in this area.

Morbidity and mortality of infants caused mainly by persistent infections and parasitic diseases, malnutrition in addition to a number of socio-economic, geographic, demographic and individual predisposing factors. The under-five mortality caused mostly by malaria (17%), pneumonia (14%), malnutrition (13%) and diarrhea (9%). Protein energy malnutrition and micronutrient deficiencies remain a major problem among children under 5. Multiple indicator survey 2014 showed that 16.3% of children suffer from malnutrition and 38% are stunted. The most common micronutrient deficiencies are iodine, iron and vitamin A. iron deficiency anemia affected 23% of pregnant women and 38% of pre-school children. Very low access to essential services impedes any drastic decline in disease burden and premature deaths from these diseases.

Main causes of maternal mortality include bleeding, pregnancy induced hypertension, infections, anemia and septicemia.

Burden of disease in Sudan

Generally, the epidemiological trend of Sudan is dominated by communicable diseases that are frequently exacerbated by natural disasters. However, with changes in socio-economic and lifestyle conditions, non-communicable diseases (NCDs) are now emerging and Sudan is being faced by a double burden of communicable and non-communicable diseases. According to annual statistical report 2015, malaria is leading cause of top ten outpatient visits with 9% followed by pneumonia and other respiratory infections, and then diabetes and hypertension representing 5% of overall outpatient visits for each disease. The same picture prevails for the top ten causes of hospital deaths. Pneumonia takes 5.7%, heart diseases 5.5, malnutrition 4.5%, malaria 4,3% and neoplasm 3,7%.

Communicable diseases:

The country is considered a high burden and high-risk country for malaria. As a result of malaria control efforts, total confirmed malaria cases decreased by 72% between 2000 - 2014, and mortality decreased by 62% during the same period. However, recent reports indicate that malaria cases are in increase compared to previous years, with high frequency of severe malaria. HIV remained in low prevalence in the last years. The prevalence rate survey of TB in 2014 revealed that mortality rate 21 per 100,000 population, a prevalence of 151 per 100,000 population and an incidence rate of 94 per 100,000 population. Out of the 17 globally-listed neglected tropical diseases, nine are a recognized public health problem in the country. These include: leishmaniasis, schistosomiasis, lymphatic filariasis, onchocerciasis, trachoma, guinea worm, mycetoma, soil transmitted helminths and leprosy.

Non-communicable diseases:

The burden of non-communicable diseases causes 33.9% of all deaths. Cardiovascular diseases account for 11.6%, cancers 5.2%, respiratory diseases 2.4% and diabetes mellitus 1.8% of all deaths. As a result, 17.0% of adults aged 30–70 have a probability of dying from the four main non-communicable diseases. The percentage of deaths caused by injuries in 2012 was 13.4%; of this, unintentional injuries accounted for 72.6% (of which 32.3%were due to road traffic injuries and 16.0% were a result of fire, heat and hot substances)

HEALTH SYSTEM GOALS

Financial risk protection

Sudan spends almost 6.5% of its GDP on health. Therefore, most of the expenditure on health comes from the private sector accounting to 73.14% of the total health expenditure (THE), out of which 70% is out-of-pocket. This is in addition to presence of insurance schemes financing about 7% of THE with low coverage of population (37.3%) shaped a system of finance that is stumbling in providing protection to the population from financial risk due to ill health in which 4.1% households face catastrophic expenditure and 2.2% households become impoverished due to health expenses.

Health equity

By looking at all aspects of the health system and health indicators, there are remarkable discrepancies between the states. The lack of equity is apparent even within the states, between rural and urban areas and between different localities. Inequity also manifests in distribution of inputs of health system including human resources, health facilities and health expenditure.

The utilization of the ambulatory care and private health providers also reflects inequity, whereby those belonging to the richest quintile utilized health services nearly four-fold greater than those from poorest quintile. Greater use of inpatient services by the richer populations suggests that they tend to benefit more from public subsidy.

Efficiency

Efficiency as one on the goals of the health system will be better accomplished if it tackled all aspect of the health system. Inefficiency of health system in Sudan is apparent when comparing health outcomes with health expenditure between Sudan and other similar countries. In Sudan, inefficiency caused mainly by fragmentation in health system, inefficient financing system, irrational use of medicine and technology, mismanagement of human resources and lack of quality indicators.

Satisfaction

Client satisfaction with quality of care received is considered worse at the primary health care level than at the hospital level. Evidence indicates that the perception of the general public regarding quality of care is more to the side of private institutions.

HEALTH SYSTEM FUNCTIONS

Governance

The health system in Sudan is decentralized, in which the Federal Ministry of Health (FMOH) is responsible for the policy making, strategic planning, and international relations in addition to financial and technical support to the state as well as monitoring and evaluation of the overall health status. The states ministries of health are taking responsibility of planning, provision of secondary and tertiary services in addition to financial and technical support to the localities. Lastly, the localities are responsible for

provision and management of PHC services, environmental and community services. However, this division of roles and responsibilities remain theoretical. In practice, the federal level is overwhelmed by implementation, while the state level in most of the cases is taking over the responsibility of service provision with minor involvement of localities. The most significant hindrance to leadership functions especially at the states and locality levels are the limited budget for management and development, lack of control over financial resources and their fragmentation, and weak capacity in management, planning and monitoring especially at locality level.

Fragmentation is the salient feature of health policy system, with multiple actors developing health policies with minimal coordination with other actors. Structures to ensure wide stakeholders participation, and improve coordination of health policies development and implementation are lacking or ineffective. Coordination of policy development process between federal and state level is another major flaw in the current policy system. Dissemination, implementation and monitoring of health policies are weak. In response to this situation, federal ministry of health exerted huge efforts in the last couple of years. A Health? policy system document was developed to address the above challenges, build robust policy system and provide guidance to the policy development process. Major polices to reorient the health system were developed, including health finance, family health, global health strategy and health in all policies roadmap. At a highest level, the national health sector coordination council (NHSCC) was set up, with the President of the republic as its Head and the FMOH as Secretariat to govern the health sector and promote intersectoral coordination. Network of civil society organizations working in health sector was developed to harmonize their efforts with health sector priorities and improve effectiveness of their participation and maximize the outcomes. Regulation, coordination and involvement of private sector is one of the challenges facing the health system. In the last years federal ministry of health led strong endeavor to strengthen planning system, promote the role of federal ministry of health in leading the strategic planning for health and improve harmonization of donors' plans with country priorities. Accountability is another challenge, although availability of some regulatory structures at federal level, but most of them have no branches at states, and they lack sufficient financial and human resources.

Finance

Health is generally underfinanced in which only 6% of GDP is spend on health which is less than Abuja target (15%). Sudan Public expenditure as a percentage of total health spending is 22% which is the lowest amongst countries in the region and led to low financial protection. The revenue collection through taxation system is weak and capacity of states to generate local revenues is very weak due to weak decentralization system. Also, allocation from Ministry of Finance (MOF) to subsystems is inefficient and not based on pre-set priorities and skewed to curative services. The structure of MOH expenditures by health function shows that only 15% of the MOH expenditures were on Public health programs against 48% on Curative care (Inpatient and Outpatient).

The health insurance coverage is limited to 37% of the population. Mostly all formal sector employees, are covered through insurance schemes, and about 40% of poor are covered by health insurance through subsidies form ZAKAT and federal ministry of finance. Inefficiency also resulted from fragmented pools specially that of FMOH and NHIF with weak coordination and inadequate leadership. Free treatment of under5 and pregnant women is an example of contradicting policies, although now there is consensus to shift this program to NHIF. Within NHIF the fragmentation is manifested also at states level wherein every state has its own isolated pool, but the new health insurance law stipulated health insurance as national fund with branches at states, which will contribute to overcoming the current fragmentation. Moreover, the purchasing system is by line item budget which is not strategic and the separation of the provider and purchaser is not applied causing great drawback in the quality of services. Low services quality is also amplified by the practiced provider payment system in which it doesn't consider the performance of the care providers and mostly based on fee-for-service.

Human resource

The Human resources for health (HRH) is governed mainly by the FMOH under the Directorate General of Human Resources Development. The administration and the management is fully decentralized to the states, however the localities have limited autonomy over recruitment and transfer of personnel. The issues facing the management of HRH in Sudan are numerous and interrelated. The total spending on HRH is estimated

at 49% of the general government health expenditure which is comparable to EMRO average of 50.8%. However, baseline wages of health workers in Sudan appear evidently poor compared with countries in the region and African continent. Regarding the education, more than 4,000 doctors per annum are graduated but absorption in the health system is low. The number and the type of health institutes besides the number of graduates from different specialties creates an imbalance in the skill mix which is typically apparent in the states. However, this was evidently improved, in 2006, there were 5 doctors for every nurse; in 2011, this ratio had changed to 0.61 doctors per nurse. Local students from the states are recruited to increase the probability that they will stay in the state after graduation. Establishment of academies of health sciences at federal and states, beside contribution of other higher education institutes is believed to play a big role in improving skill mix. Sudan medical specialization board graduates annually about 200 MD holders form different medical specialties. This is beside contribution of other universities in graduating master and diploma holders especially in the discipline of public health. In this regard, federal ministry of health established public health institute to build the capacities of health managers at different level of decentralized health system by delivering post graduate degrees in public health, health system management and other related disciplines.

The distribution of the health workers is uneven, although the biggest section of the population lives in the rural areas, 70% of them working in the urban areas with 38% in Khartoum state. Moreover, 67% of the staff is working at the secondary and tertiary care. The great majority works in the public sector and 9.3% work exclusively in the private sector. However, dual practice is quite common among public sector employees.

The migration or the brain drain is also one of the major issues facing the HRH in Sudan, most of the migrated professionals are physicians and some other specific categories such as pharmacists and dentists (60% of physicians and 25% of pharmacists). reasons for migration to other countries are to search of better job opportunities, education, and salaries and incentive packages. Although until now there is no unified policy adopted by the country to address the challenge of migration, recently federal ministry of health with

support of federal ministry of finance adopted a retention policy to reduce the rate of migration and improve distribution of health workers in all states.

Medical products and technology

The regulation of the pharmaceutical sector is functional at different levels (federal and state) with well-developed drug registration system. However, challenges are facing all the aspects of its management. Recently supreme council for coordination of pharmaceutical services was formulated and the governance framework was developed to improve regulation, coordination and transparency in the sector.

The expenditure on medicine is 16% of the total health expenditure out of which 72% is out of pocket, while 28% from public sources. To reduce the burden of expenditure on medicines and medical supplies, there are several initiatives of free treatment programs supported by government and donors. These include the following:

1. Free medicines to under five-year-old children and pregnant women supported by the government
2. the government also provides free medicines for treating emergency cases for the first 24 hours, blood transfusions, renal dialyses and anti-cancer medicines.
3. free treatment to patients suffering from malaria, tuberculosis, sexually transmitted disease and HIV/AIDS supported by global fund.
4. The National Health Insurance Fund (NIHF) also operates about 400 pharmacies that provide medicines to patients enrolled in NHIF with 25%copayment

prices in the private sector regulated by the NMPB. The medicines price monitoring is inactive. A drug registration system exists, but quality of medical products in the market is not fully assured due to the weak inspection at all levels in addition to the lack of control and regulation for the herbal and contemporary medicine. About 30% - 35%of medicines sold in Sudan (by value) are locally manufactured. Due to importance of local manufacturing of medicines in improving availability and affordability; Federal ministry of health developed the national plan for development of national manufacturing of medicines.

On the other hand, selection of medicines does not focus on high priority medicines.

Generic prescribing is mandatory in the public sector. But still irrational prescription practices exist due to absence of systematic monitoring of prescribing practices in the public or private sector. To promote rational prescription, federal ministry of health developed national strategy for promotion of rational utilization of medicines and the national essential drug list.

The failure to quantify demand as a consequence of poor forecasting and deficient supply chain management resulted in frequent stock-outs of essential medicines whilst drugs in peripheral warehouses expire. Monitoring system of availability and quality of medicines at health facilities is ineffective. Recent studies showed that availability of essential medicines at public and private health facilities reached 73% and 90% respectively. In the last years There were great efforts to integrate the previously existing vertical supply systems under the national medicines and supplies fund. Beside this the fund is responsible for procurement and distribution of supplies for all public facilities.

Procurement of medical devices in public sector is done through the national fund for medical supplies. Management of health technologies is poor, more than 50% of health facilities have less than the minimally required equipment, which is additionally ill-maintained due to weakness of the system for repair and maintenance, rendering services offered at health facilities inefficient and of poor quality. To address these problems health technology assessment unit has been recently established in the FMOH.

Information system

The Sudan Health Information System (HIS) follows a bottom-up approach where information is collected at the locality level and conveyed to the SMOHs to be consolidated and then handed to the FMOH. The health information system (HIS) is generally weak with low budget and inadequate human resources distribution among the states. The main challenges in HIS include fragmentation, low reporting rates especially at PHC facilities (85% of the hospitals submit monthly reports and only 30% PHC do so). Health information is primarily based on health facility reporting supplemented by surveys. Moreover, data quality assurance is limited and systems for data management and analysis are largely manual. The system focuses on public sector and the data of private sector rarely reflected. Currently there is ongoing reform to integrate health

information systems and unify reporting channels. But there is a lot to do especially in integrating surveillance systems. Health related information from another sector is seldom captured and reported. birth registration is still low, although there are efforts of coordination between ministry of health and civil registration in this regard.

Service delivery

The health services are mainly provided by the ministry of health however there are other multiple services providers (NHIF, military, policy, NGOs, universities and private sectors). Therefore, the delivery of services is fragmented with presence of vertical programs. This fragmentation besides other factors led to low quality and safety of care. The private sector is weakly regulated with lack of coordination among the different partners. The services are not provided according to the need of the population with inequitable distribution and financial and physical barriers.

The focus is on the curative rather than the preventive care, and skewed toward the secondary and tertiary care rather than the primary care. The coverage of population by health facilities reached 86% with great discrepancy between states, and coverage by PHC minimum package was only 24% in 2011. In response to this situation and as part of the strategic plan of the FMOH 2012-2016, expansion project by PHC services was adopted since 2012. Through this project 354 facilities were constructed. This is beside procurement of equipment and basic and in-service training of care providers.

Maternal and child health

The proportion of women receiving antenatal care (at least one visit) is 74.3%, coverage by 4 visits 57%and coverage by family planning is only 9%while unmet need for family planning is 29.0%. roadmap for reduction of maternal and child mortalities was developed and costed. Coverage by vaccination services witnessed remarkable improvement, and in 2015 Sudan was declared as polio free and awarded the certificate. New vaccines were introduced in the last years including Rota pneumococcal and IPV. Free treatment program run by federal ministry of health for under 5 years old children is important project to improve access of children to essential drugs. Government also provides annual support for management of malnutrition. Exclusive breastfeeding increased from 41% in 2006 to 61% in 2014, coverage by vitamin A and management of

malnutrition also witnessed remarkable improvement. Salt iodization law was ratified and enforced in 10 states.

The main strategies currently being implemented to reduce maternal mortality include, Improved access to quality family planning information and services, ensured skilled birth attendance during pregnancy, labor/delivery and post-natal period and availability of accessible functional Emergency Obstetric and neonatal Care services. As more than 70% of deliveries take place at home, the ministry of health put great efforts on production of community midwives, beside provision of in-service training to existing midwives.

Control of communicable and non-communicable diseases

Malaria is a main public health problem in Sudan. Approximately all of the Sudan population are considered to be at risk of malaria, with wide variation between states in transmission rates. Health facilities providing malaria diagnostic and treatment services reached 90% and 87% respectively. Coverage by bed nets increased to 87.4% in the target states, while Implementation of indoor residual spraying (IRS) varies between target states due to weak financial committeemen in some states.

Performance indicators of HIV are far below the targets. Detection rate of new HIV cases is low and represents only 54% of the target, and people living with HIV and receiving treatment 8,2%. Voluntary testing among most at risk population reached 59,8%, and testing of pregnant women only 39,6%.

With regard to TB, case notification is 82% and success of treatment 82%. Free treatment availed in all TB centers (327). Main challenges include low detection of new case and of cases resistant to treatment, poor integration of TB within health system and with HIV services.

Sudan is preparing for certification as free of dracunculiasis, while other NTDs witnessing also significant improvement in control and elimination.

Schistosomiasis receives regular support from government in addition to Korean support. It managed to advance its targets in conducting surveys and administering mass treatment for

targeted localities. Recently the country succeeded in putting mycetoma in the list of NTDs, which will facilitate mobilization of donors' fund to control the disease.

Although the increasing burden of NCDs as seen in the annual statistical reports, still efforts to address this challenge are lagging behind, and the support to this area is very modest. A STEPwise survey is currently being implemented to assess the burden of NCDs and their risk factors. Multisectoral action plan was developed for control of NCDs. Integration of cost-effective NCDs intervention of priority diseases with PHC services had been piloted. Mental health is neglected area. The importance of occupational health became prominent after the spread of public gold mining, but still there is no clear strategy to address this area.

Emergencies and epidemics

Expansion plan of surveillance system was developed and implementation started and community based surveillance was established. Emergency information system was well established. Health emergency and epidemic control department is leading and coordinating body through Humanitarian Aid Commission (HAC) all non-governmental aid to health emergency. There is lack of clarity about division of roles and responsibilities between the levels of decentralized system with regard to preparedness and response to epidemics and emergencies. Sudan is a States Party to the International Health Regulations (IHR 2005), however national legislation and policy does not yet incorporate all its requirements.

Environmental health services

According to the local governance act, environmental services is the responsibility of localities. This situation resulted in negligence of environmental health at federal level, under financing and in some times interference in roles and responsibilities. According to MICs 2014, about 31% of population is covered by environmental health services, and 68%have access to safe drinking water. Coverage by latrines reached 33% with big difference between urban and rural settings. National strategic plan of environmental services was developed and it focuses on surveillance of water sources and entomological surveillance, occupational safety beside increasing coverage by integrated vector control interventions.

Secondary and tertiary services

Inequity is the prominent feature in distribution of secondary and tertiary services. About 60% of these services are in Khartoum state, 14% in Gezera state, and 26% only left for the

rest of Sudan. In addition to that, the distribution of hospitals, hospital beds, and specialists indicates wide range of disparities between different states. On average, Sudan has around 1.2 hospitals per 100,000 populations, and this rate has remained static for the last five years. Similarly, the average number of hospital beds per 100,000 populations has been fluctuating around 80 beds per 100,000 populations for the last five years. On the other hand, the average number of specialists per 100,000 populations has decreased from 4.9 in 2010 to 4.1 in 2015 with extreme inter-state disparities (Table 1 shows more details on these statistics).

Table 1: Basic indicators

Indicator	Value					
	2010	**2011**	**2012**	**2013**	**2014**	**2015**
No. of hospitals per 100,000 population	1.1 (0.4-3.6)	1.2 (0.4-3.9)	1.2 (0.3-3.8)	1.2 (0.1-3.7)	1.2 (0.5-3.6)	1.2 (0-3.6)
No. of hospital beds per 100,000 population	73.8 (23.4-206.5)	82 (24.6-236.8)	82.5 (21.9-227.1)	78.8 (12.2-219.9)	80.1 (31.4-218.4)	78.2 (0-210.8)
No. of specialists per 100,000 population	4.9 (0.7-24.3)	4.1 (0.5-19.2)	4.4 (0.5-18.5)	4.2 (0-11.8)	4.3 (0-11.6)	4.1 (0-6.5)
No. of doctors per 100,000 population	16.6 (3.1-56.5)	13.8 (3-54.6)	16.2 (2.3-52.5)	31.6 (0-36.7)	25.1 (0-35.7)	21.8 (0-29.7)

Furthermore, beds utilization rates indicate huge inter-state varieties indicating inefficiency in the distribution and utilization (Figure 1 shows beds utilization rates in Sudan). These striking facts triggered the efforts of the ministry of health to adopt a national project to transfer and settle these services at all states through distribution of medical specialists, availing equipment, training of care providers, rehabilitation of infrastructure and distribution of ambulances to strengthen the referral system. To improve access and reduce financial barriers, free treatment of emergencies in the first 24 hours was initiated and receiving support from ministry of finance. Since the establishment of the project in 2014, 1026 specialists have been distributed to different states, which in turn resulted in increasing the availability of specialized health services for the first time in rural areas of different states, and many sub-specialties have been settled in some cities other than the capital. Under financing is the main challenge facing sustainability of this imitative. In addition to that,

other factors affect the implementation of such initiatives include: shortages in specialized health workers; high cost of specialized equipment; and the decentralized system which requires each state to establish, fund, and manage these facilities (figure 2 shows comparison in the availability of specialties in states between 2012 and 2016). Moreover, free treatment program for selected tertiary services with high risk to cause impoverishment is also running and funded from ministry of finance. Rigid budgetary rules with no flexibility and lack of autonomy of hospitals beside weak management capacities and lack of quality system resulted in inefficient utilization of hospital resources to produce the maximum possible quality services.

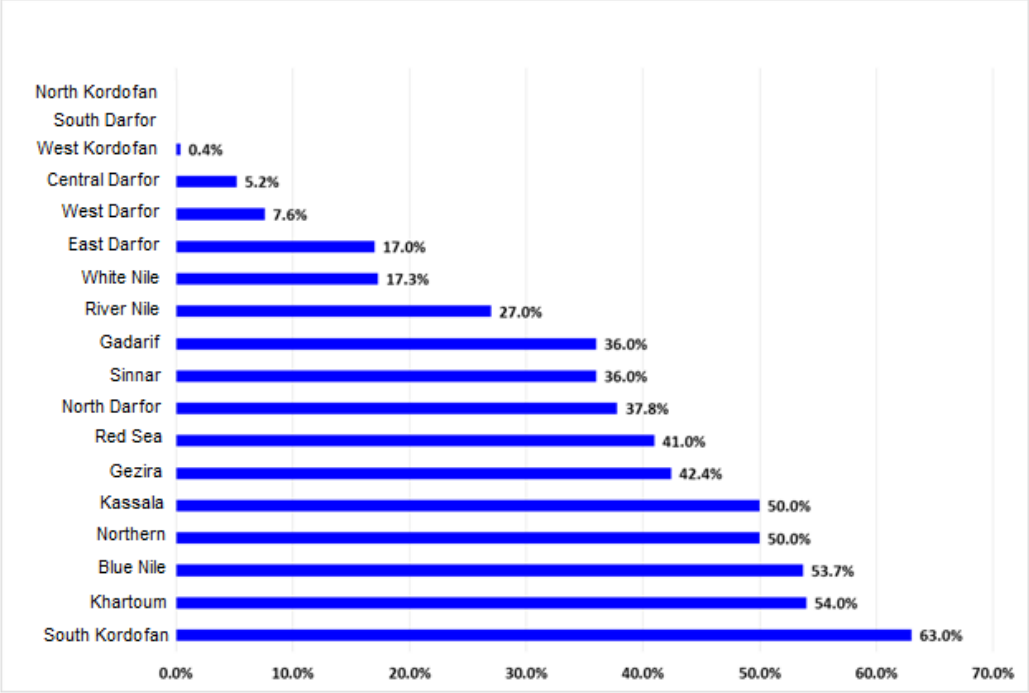
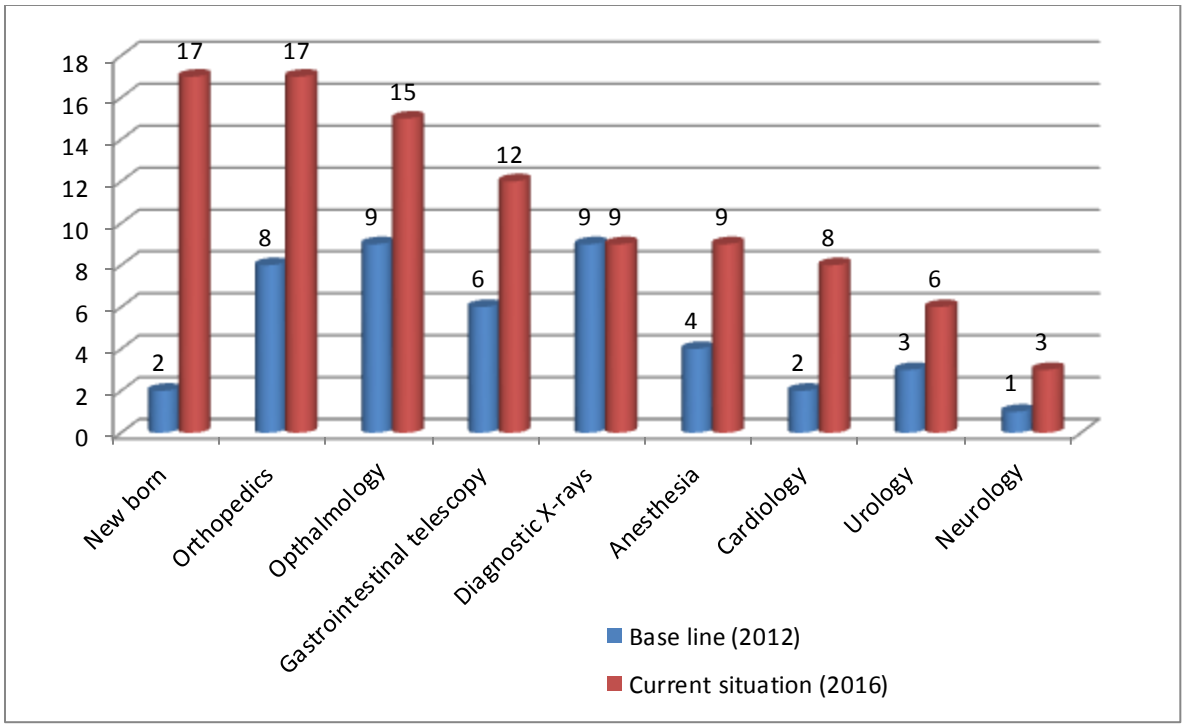


Figure 1: Beds utilization rates (%)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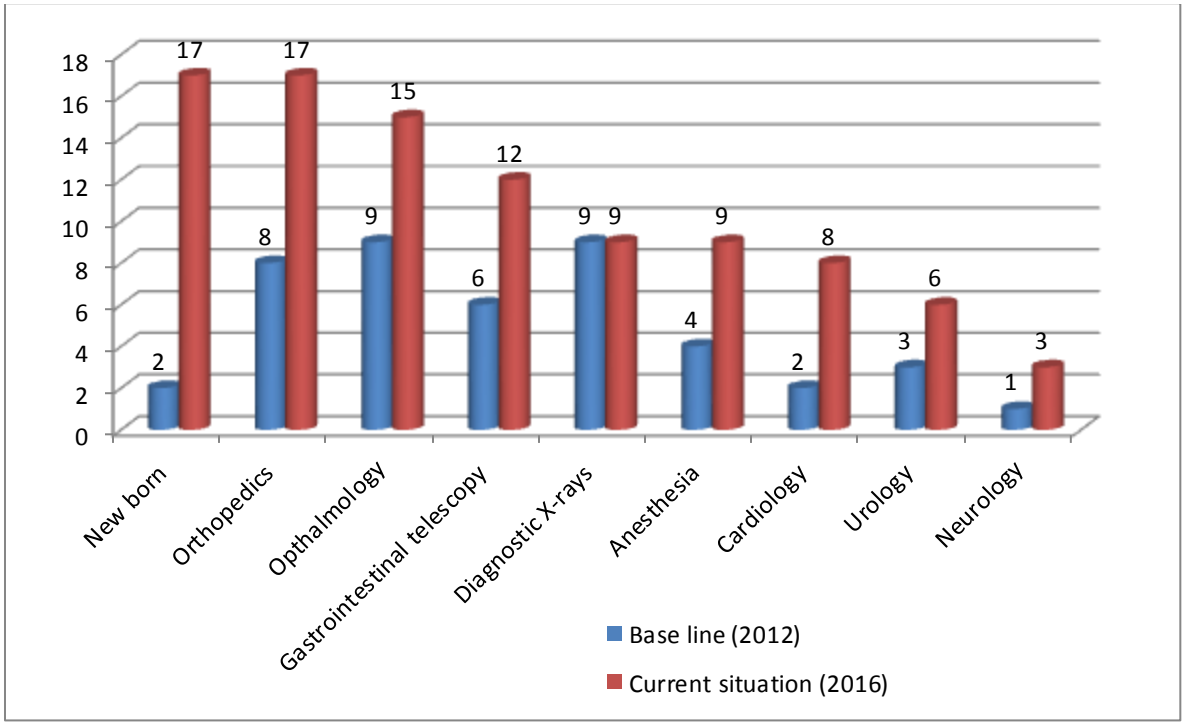
Base line (2012)
Current situation (2016)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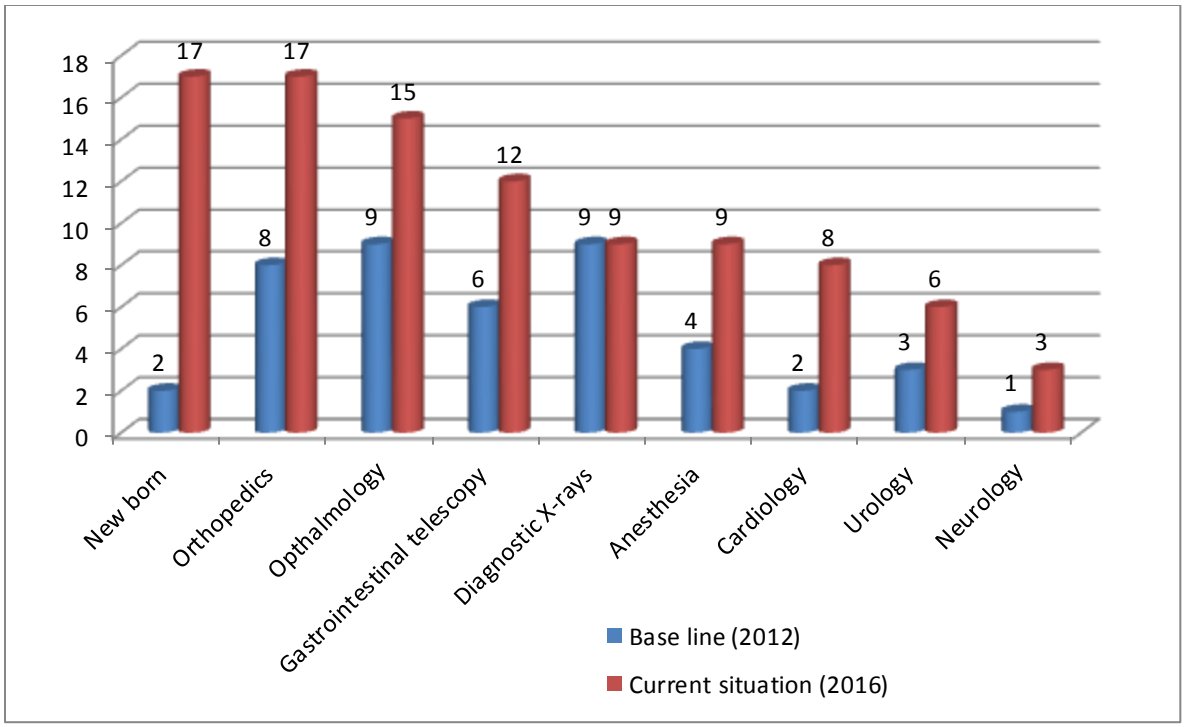
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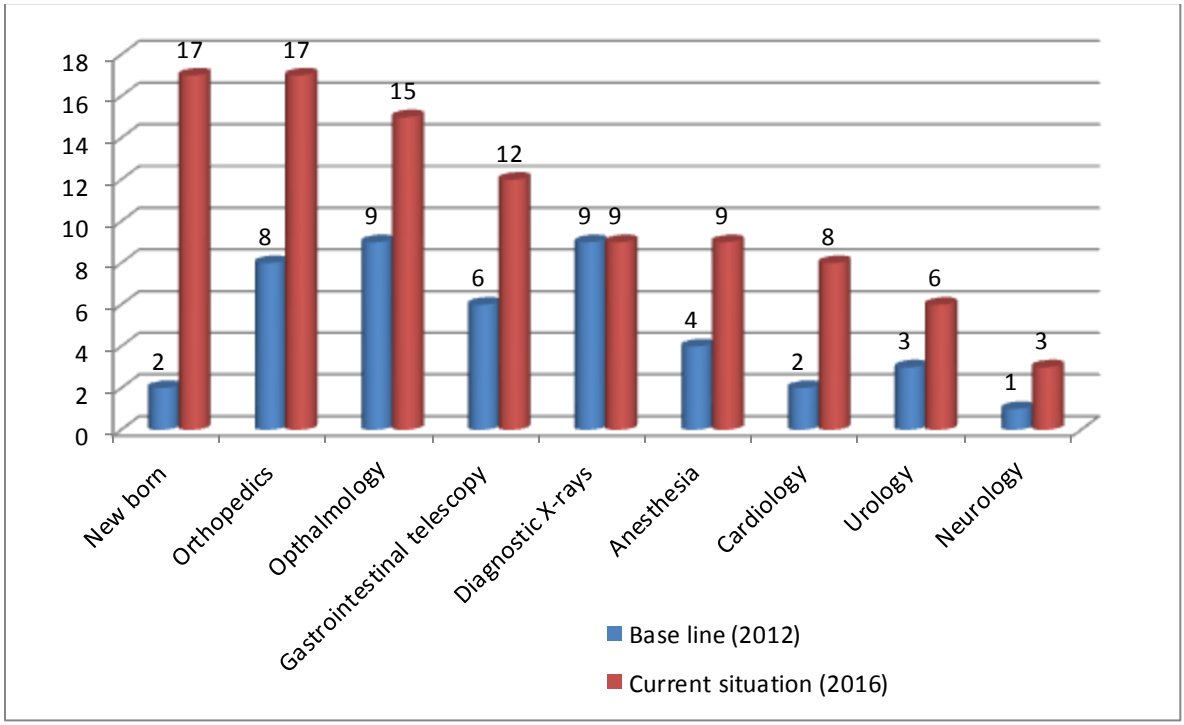
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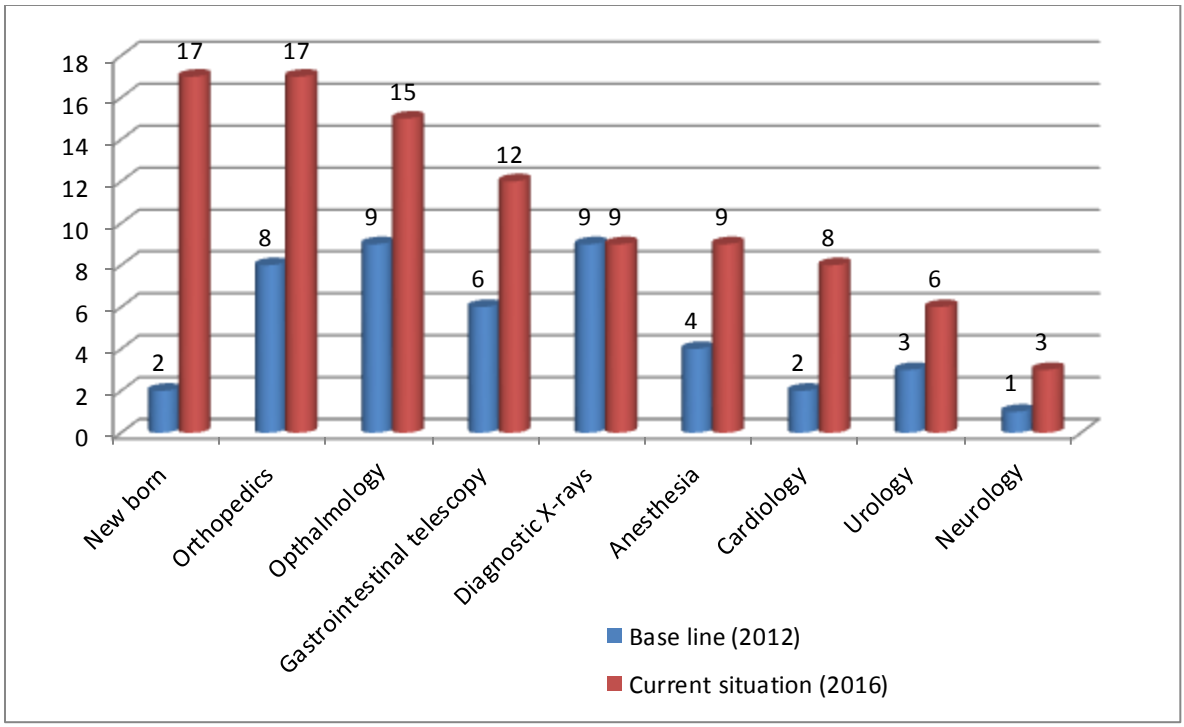
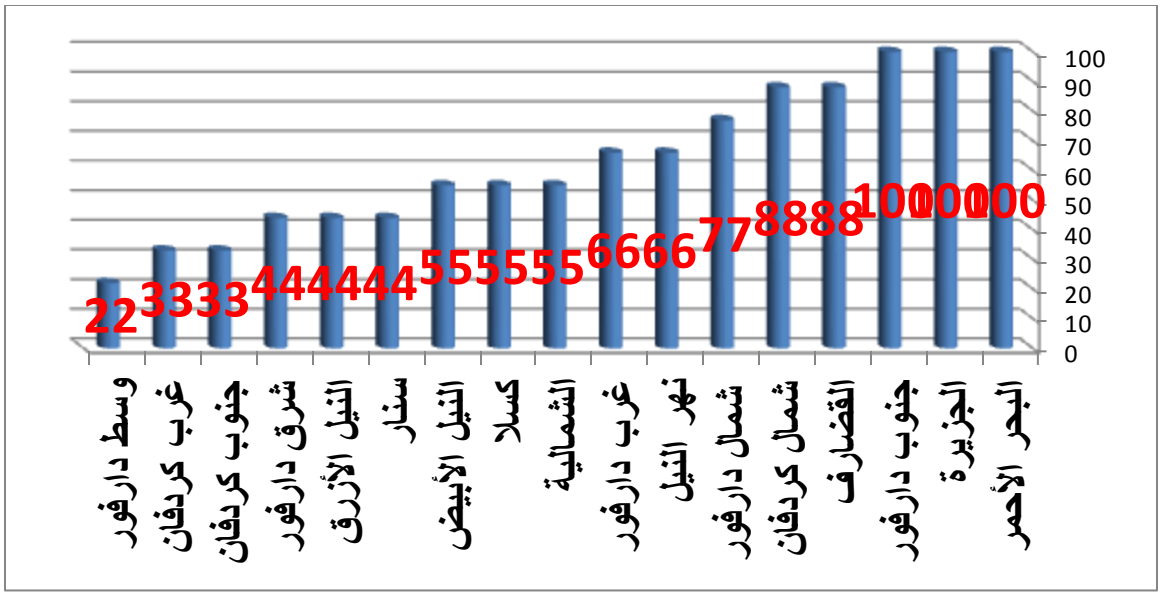


Figure 2: Comparison between the availability of specialties in states between 2012 and 2016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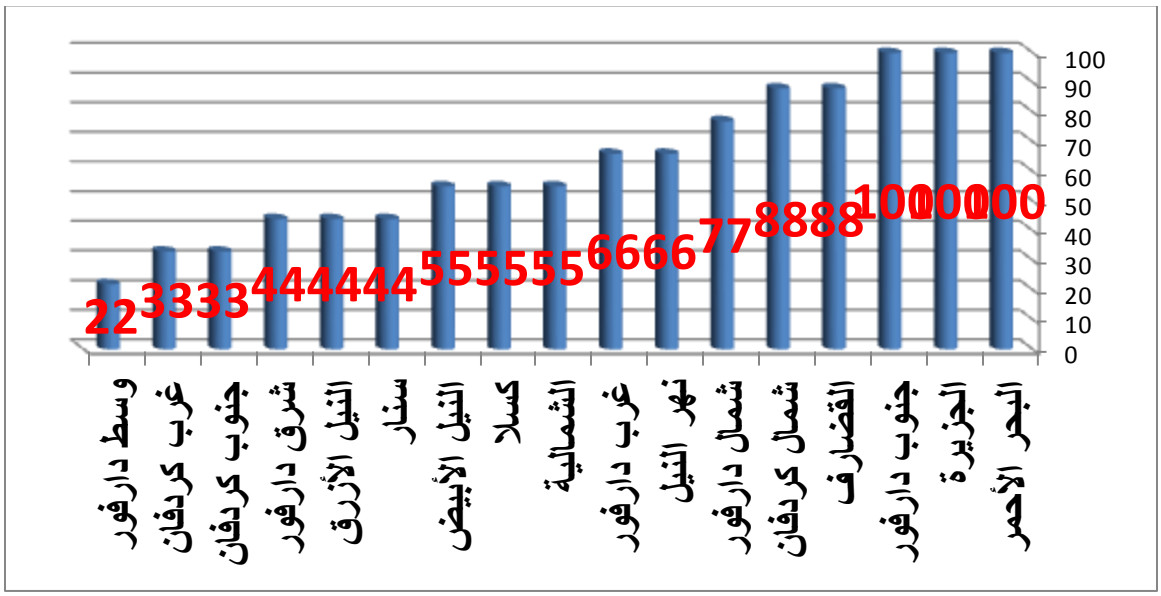
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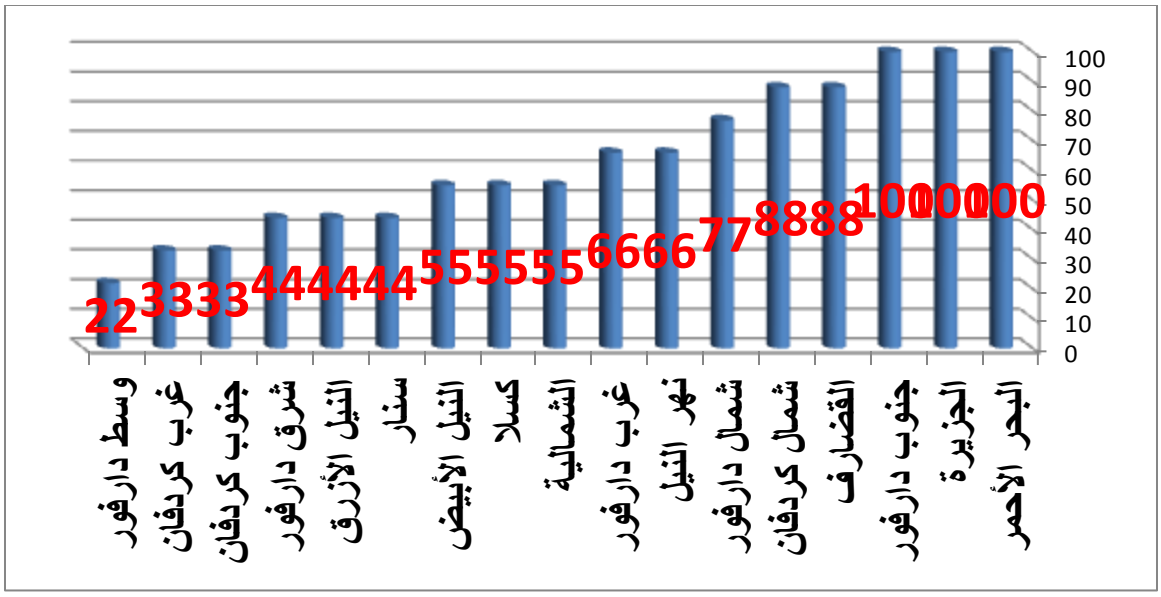
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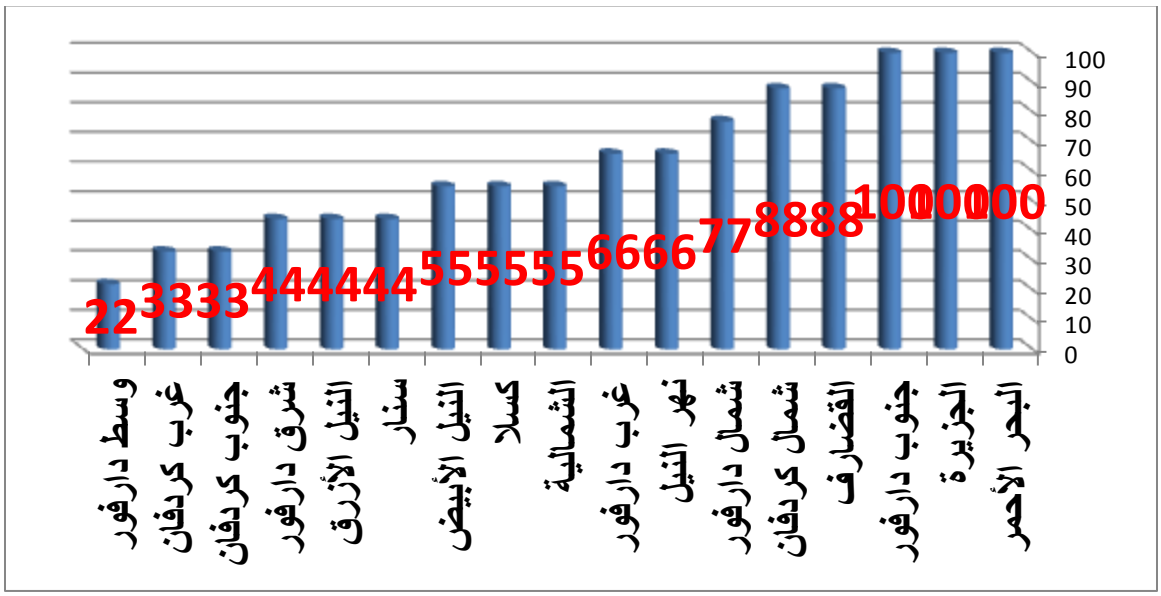
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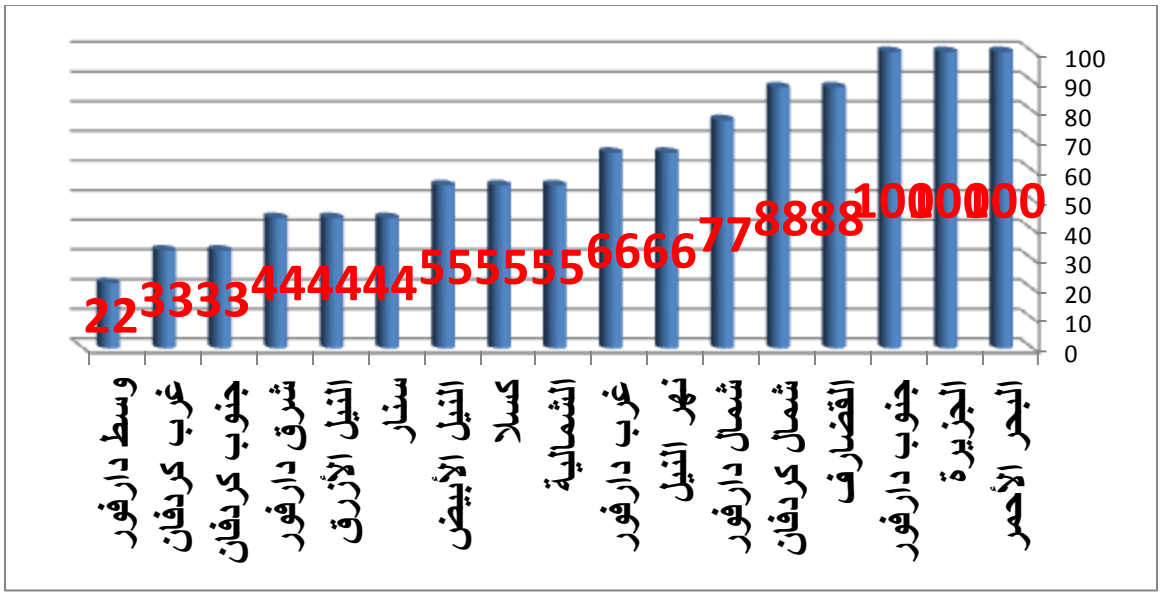


Figure 3: Completion of specialties in states

On the other hand, 37% of the total health expenditure is allocated to curative services, including inpatient and out-patient services, which reflects a skewed health care delivery system towards curative services rather than preventive and primitive services. In addition to that, Health expenditure on hospitals, including federal and state hospitals, accounts for 44.81% of the total health expenditure (figure 4 shows health expenditure in Sudan).

At the secondary levels, health services users are required to pay for consultation charges as well as for diagnostic tests. However, some subsidies and exemption mechanisms are present for the emergency cases and the poor. While at the tertiary level, consultations are free at the emergency department for all patients until recently when a triage system was established and piloted in 3 federal hospitals in order to filter emergency from cold cases through expert committees. This system is planned to be implemented in 15 state hospitals. Emergency cases at tertiary level facilities are provided free consultations, lifesaving drugs, intravenous fluids, injections, and blood transfusion for the first 24 hours. After that, patients have to pay user fees for services. Subsidies for emergency tertiary care, in addition to other exempted categories of illnesses such as renal failure dialysis, immunosuppressive drugs for renal implantation individuals, chemotherapy, radiotherapy, and treatment of hemophilia, are

financed by the federal government through the FMOH. Nevertheless, majority of those who benefit from these subsidies are the better-off and urban populations.

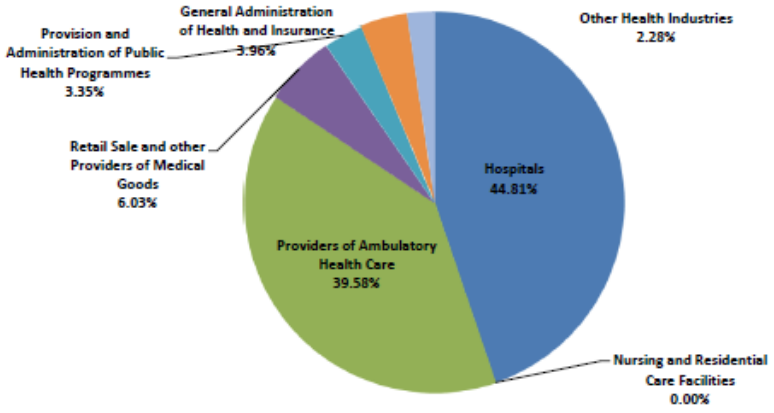


Figure 4: Health expenditure in Sudan

Quality of care, patient safety and healthcarehealthcare accreditation

Quality suffered from long lasting lack of support. The quality of healthcare services and the safety of patients and providers are compromised but progress is possible. Policy, planning and actions are needed to address critical factors such as the absence of guiding policy for healthcare quality, inadequate capacity of the decentralized levels, financial constraints, and human resource issues such as availability and competency. The health system has failed to achieve some of its main goals such as protecting patients through reducing avoidable adverse events or reducing maternal and childhood mortality to meet MDG targets. There is widespread agreement that efforts are needed to improve delivery of health services and systematically advance clinical practice.

Patient safety represents an important challenge that faces the health system in Sudan as shown by the EMR multicenter study conducted in 2008. Healthcare Acquired Infections,

therapeutic and diaqgnostic errors are the main priorities for patient safety that call for a comprehensive national programme that promotes a better leadership commitment for safer care promoting a safety culture, the compliance with evidence based interventions, building the capacities of healthcare professionals on patient safety and quality of care as well as the implementation of reporting systems for medical errors.

A healthcare accreditation program is being established in Sudan under the umbrella of the FMOH. Some steps have been achieved such as the development of a set of accreditation national standards for both hospitals and primary care centers as well as the publication of a national guideline for Infection Prevention and Control. Other actions include Building Coalition and partnership with several health partners and the development of a national safe surgery program.

Recently serious steps were taken to push the agenda of quality up. The finalization of the national quality policy and strategy, The formulation of a national accreditation system through the development of governing documents and building the systems necessary for accreditation together with strengthening human resource capacities.

Health promotion and addressing social determinants of health

Intersectoral collaboration was emphasized in the previous national health policy (2007). However, it does not provide a strategic direction on how this will happen, what would be the role of the ministry of health, what other sectors are critical and how the ministry would assume the leadership roles in promoting intersectoral coordination. Public health institute conducted an assessment for status of implementation of intersectoral collaboration. The study showed that there are many intersectoral groups (committees, task forces, steering groups etc.) already in place. But these cover limited issues, do not work always as effectively as possible, sometimes there is a lack of strategic vision of what these groups try to accomplish and community is rarely involved. There is a lack of horizontal mechanisms that would allow sectors better and early enough to know other sectors' policies and law proposals and assess their possible impacts on health, beside lack of monitoring systems and enough human and financial resources to enable implementation of health in all policies approach.

Health promotion departments at federal and states ministries of health are the leading bodies in addressing social determinants of health in collaboration with other sectors. In 2013 the PHC department integrated all the health promotion units in one directorate. This aimed at enabling comprehensive vision and integrated response. However, the department until now didn't manage to function under this new direction and its efforts are confined to trying to pilot healthy cities and running school health activities in the traditional way. Roadmap for fostering implementation of HiAP approach was developed and now preparations for implementation are taking place.

THE NATIONAL HEALTH POLICY FRAMEWORK

Why this policy?

The last national health policy in Sudan was developed in 2007. Since then major changes in political and socio-economic situation have happened. These include separation of South Sudan with huge negative implications on macroeconomic situation and epidemiological profile. Such changes impact the health system and necessitates major changes in policy directions and strategies to deal with new context. MDGs came to an end in 2015 and 2030 Agenda for Sustainable Development has taken over as the global framework. SDGs are transformative, comprehensive and integrative in approaching developmental goals, which requires well-coordinated whole government response, with full engagement of communities. It also necessitates more focus on equity and achievement of universal health coverage by 2030, and calls also for a sustainable funding from courtiers' own resources rather than too much reliance of external donors.

A comprehensive review of the last national health policy has been undertaken in terms of analyzing its strengths and weaknesses before embarking on developing the new policy. The current policy has made use of this review and has drawn lessons and keeping in view the changed context following policy directions have been set for the future:

KEY POLICY TRANSFORMATIONAL SHIFTS/ DIRECTIONS

- From *narrow* policy **TO** *comprehensive* policy
- From *Ministry of health* policy **TO** National *health policy*
- From *multiple and isolated policy foci* **TO** *coordinated and integrated* health policy making
- From HS skewed to *curative* **TO** comprehensive integrated and responsive health care *based on PHC with functional referral system*
- From *Disease oriented* focus **TO** *health prevention, promotion* and well-being
- *From out of pocket financed health care **TO** prepaid financed health system with protection of marginalized and vulnerable population.*
- *From narrow medical education **TO** comprehensive public health (including community and family practice) oriented under and post medical education*
- *From skill mix towards curative **TO** skill mix towards PHC cadre*

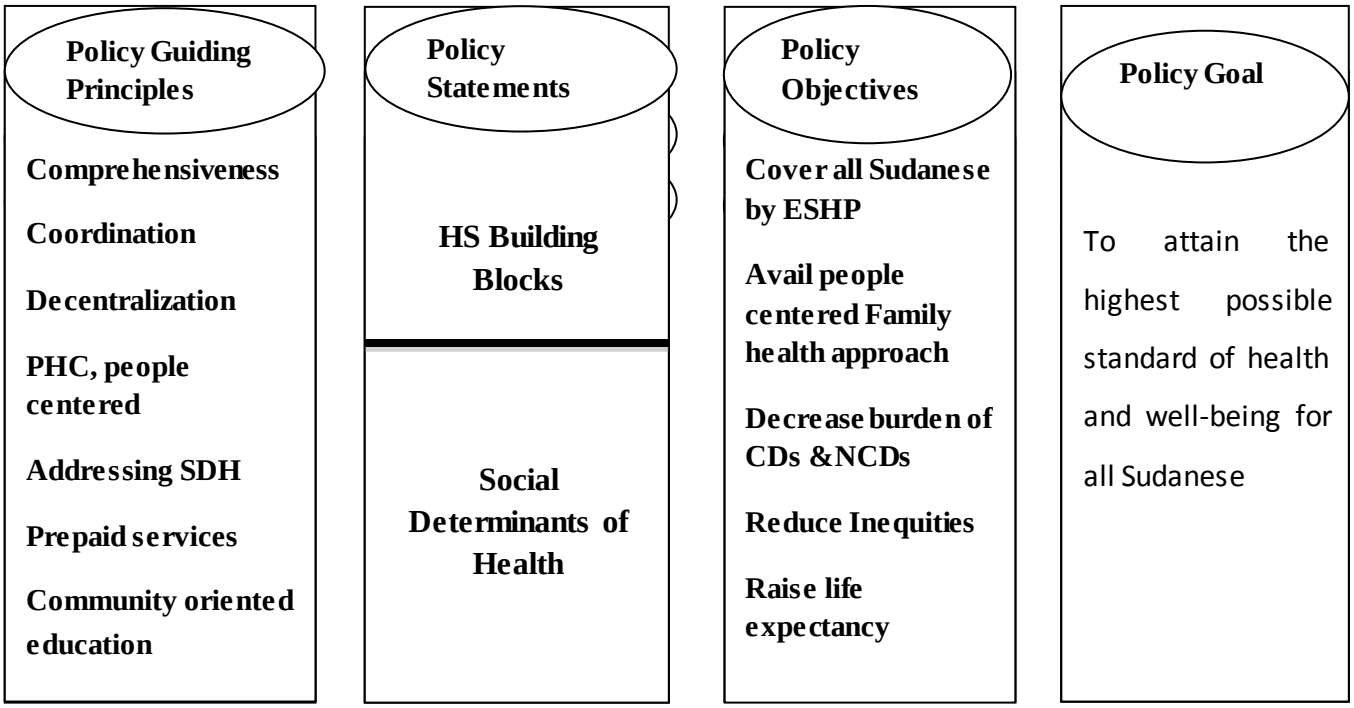
POLICY GOAL

To attain the highest possible standard of health and well-being for all Sudanese

CONCEPTUAL FRAMEWORK

The policy aims to respond effectively to current health challenges, and realize its vision and achieve its objectives by adopting major directions which will make the reorientation of the whole health system. To realize this new orientation interventions will be made in 2 areas; addressing social determinants of health through adopting multisectoral approach and investing in the health system to achieve Universal Health Converge. These principles will work as levers to transform the health system from current situation to the desired one. The policy will focus on key areas of interventions to make the levers work effectively and create the change and shifts described above. Policy values will guide the whole process of policy development.

Figure 5: Conceptual Framework of Sudan National Health Policy 2017-2025



POLICY VISION

A nation with healthy individuals, families and communities, where the health needs of the poor, underserved, disadvantaged and vulnerable populations are duly addressed and that health is in all policies of the state.

POLICY VALUES

Equity: in accessing to health and in health outcomes. Healthcare system will be shaped to reach and respond to health needs of all population. In addition, social determinants as an important source of health inequities by influencing the underlying conditions to an individual's life situation will be addressed through healthy public policies. Intergenerational equity and transmission of poverty through generations will be addressed through integrated multi-sectoral interventions targeting all vulnerable people especially pregnant women and children.

Solidarity: health system will provide healthcare and respond to needs of all population regardless their ability to pay. This will be done through progressive financing by pooling of risks and resources between rich and poor, in addition to governmental subsidization for vulnerable groups.

Sustainability: health achievements will be sustained through creating sustainable financing, policy coherence and consistence and partnership with communities

Transparency: the policy underscores transparency through reforming policy development system by developing clear guidelines and ensuring wide participation of all actors including communities. Service delivery system will be transparent by adopting patient rights, openness and sharing of information

Efficiency: both allocative and technical efficiency are considered by reforming financing mechanisms and service delivery system.

Participation: health is responsibility of all sectors, therefore participation of wide range of sectors in development and implementation of this policy is a core value of this policy.

Accountability: all actors will be responsible for their contribution in implementation of this policy. Monitoring systems will be developed and regular reports will be submitted to governing structures.

Resilience:

Right to health:

Universality:

Sustainability:

POLICY GUIDING PRINCIPLES

- Comprehensive approach
- Shared responsibility
- Partnership
- Strengthening Decentralization
- Policy coherence
- Evidence based approach
- System thinking

POLICY OBJECTIVES

1. To cover all Sudanese by essential health package through prepayment arrangements to be financially and socially protected (Universal Health Coverage)

2. To avail people centered family health services to all the population across all states and localities.

3. Reduce inequities in health and promote right to health

4. Decrease the burden of Communicable and non- communicable diseases

5. Raise life expectancy

6. Decrease mortality and morbidity

7. Strengthen the stewardship role of MoH to advance towards UHC and achieve SDGs

8. Strengthen resilience of health systems to adapt, absorb and transform to different types of emergencies

POLICY STATEMENTS

Statements related to social determinants of health

Address Social and environmental determinants of health and develop health in all policies	Commitment to support healthy living throughout life course in a comprehensive way giving priority to promotion and prevention
Work on reducing health inequities	Work on developing resilient systems and communities
Adopting a comprehensive approach to address the burden of communicable and non communicable diseases	

Statements related to Health System blocks

Attain UHC by providing of essential health services which is comprehensive, affordable, equitable, accessible and quality that is responsive to clients' needs	Strengthening people-centered health systems and PHC, public health capacity and heath security, emergency preparedness, surveillance and response
Adopt a comprehensive approach to address the burden of communicable and non communicable diseases	Strengthening governance of health along the agreed frame
Strengthening the health decentralized system	Establishing a unified integrated, comprehensive, accurate national health information system that based on modern technologies and facilitates evidence based decision-making at all levels.
Strengthening the functions of health financing system to enable and facilitate the move towards universal health coverage (UHC)	Building a comprehensive, effective human resource development system to **enable** advancement in universal health coverage and improving health status of all population.
Working to ensure availability, accessibility and affordability to essential medical products and technologies of good quality, safety and efficacy.	

AREAS OF ACTION:

The policy addresses several areas but there will be focus on 2 subsets or areas of action namely; social determinants and health system functions.

A. Areas of action addressing Social Determinants of Health Policy Statements

B. Areas of Action addressing Health system Building Blocks Policy Statements

A- Areas of action addressing Social Determinants of Health Policy Statements

Address Social and environmental determinants of health and develop health in all policies	Commitment to support healthy living throughout life course in a comprehensive way giving priority to promotion and prevention
Work on reducing health inequities	Work on developing resilient systems and communities
Adopting a comprehensive approach to address the burden of communicable and non communicable diseases	

Promoting healthy lifestyles and healthy environments

Lifestyle is simply the way people live. Promotion of healthy life style implies development and implementation of strategies and activities to empower people to get the optimum health. Healthy environment encompasses physical, chemical, and biological factors external to a person. The objective is to promote healthy lifestyles and reduce exposure to risk factors to prevent diseases due to environmental hazards.

Policy measures:

1- Development of healthy public policies:

It is evident that health is determined greatly by social determinants which lie beyond the boundaries of the healthcare delivery system. This necessitates development of public policies to address these determinants across all sectors. Health-in-all-Policies is an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergy and avoids harmful health impacts, in order to improve population health and health equity (Helsinki statement on health in all policies).

Key interventions:

Strengthen horizontal mechanisms that would allow sectors better and early enough to know other sectors' policies and law proposals and assess their possible impacts on health sector. Ministry of health will act with other sectors to introduce integrated impact assessment into legislation process.	Strengthen structures of for intersectoral action. To achieve this, existing intersectoral structures at federal and state level need to be reviewed and restructured accordingly to improve coordination and effectiveness of these structures. In this the role of community and models of community participation will be studied, and detailed policy for community participation in planning, funding, implementation and oversight of health activities will be developed.

2. Develop a Health-in-All Policies approach for specific priority programs:

In this regard priority health problems will be identified, and bi-lateral plans to be developed with concerned sectors, with well-established mechanisms for implementation and monitoring.

3. Healthy settings with focus on schools and healthy cities:

Health settings program will be expanded and robust plans to achieve this will be developed. States and localities will be strengthened to lead this program. School health will undergo major reform through adopting healthy settings and health promoting schools approach to become a comprehensive program.

4. Monitoring of social determinants:

The current monitoring system of ministry of health is operational in general, and focused on healthcare system. Ministry of health will lead development of monitoring system for social determinants of health. Other sectors will be involved in development of this system, and structures, mechanisms and capacities for ensuring functionality of this system will be developed.

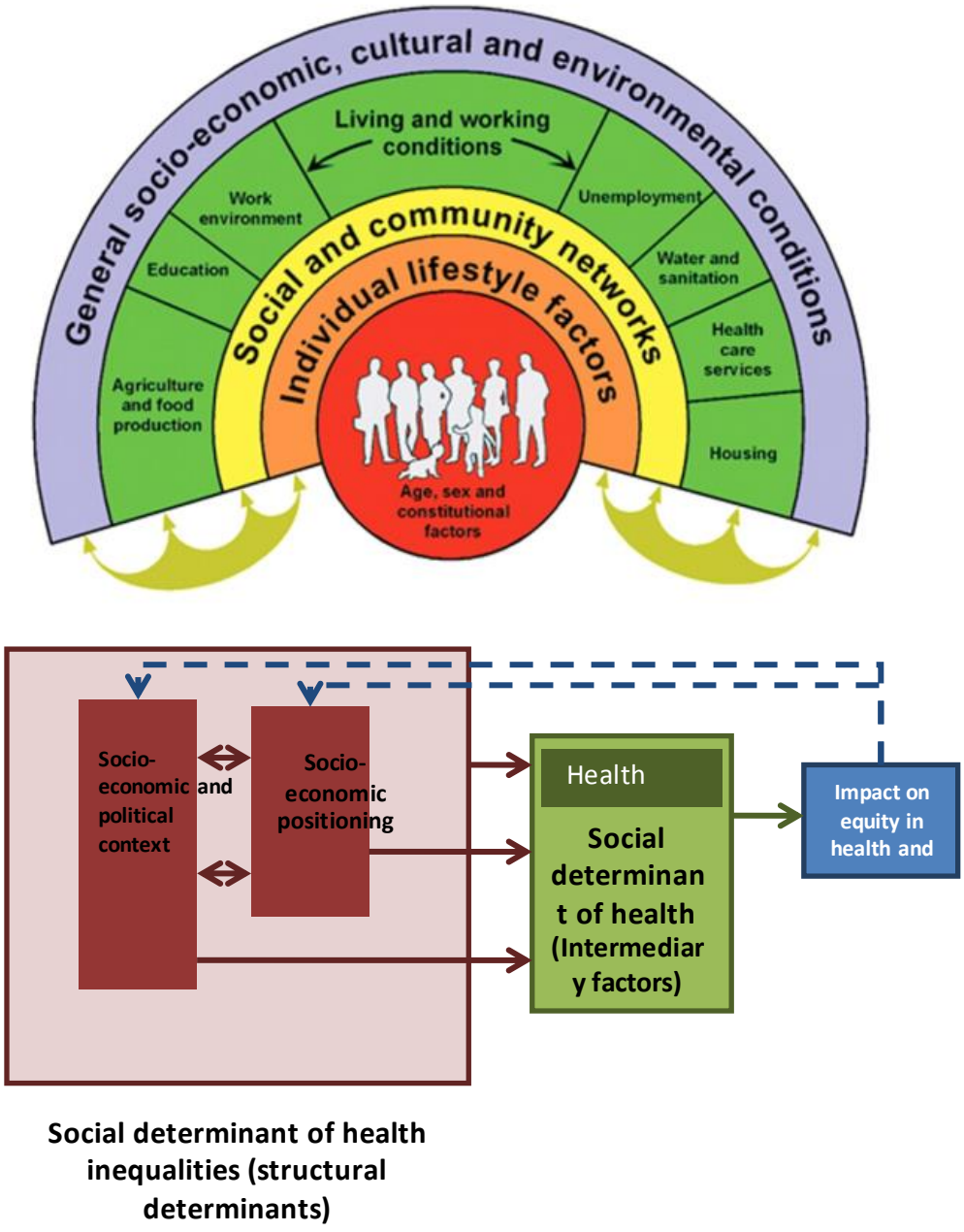


Figure 6: Social Determinants of Health Framework (Adapted from WHO)

B- Areas of Action addressing Health system Building Blocks Policy Statements

Attain UHC by providing of essential health services which is comprehensive, affordable,	Strengthening people-centered health systems and PHC, public health capacity and heath

equitable, accessible and quality that is responsive to clients' needs	security, emergency preparedness, surveillance and response
Adopt a comprehensive approach to address the burden of communicable and non communicable diseases	Strengthening governance of health along the agreed frame
Strengthening the health decentralized system	Establishing a unified integrated, comprehensive, accurate national health information system that based on modern technologies and facilitates evidence based decision-making at all levels.
Strengthening the functions of health financing system to enable and facilitate the move towards universal health coverage (UHC)	Building a comprehensive, effective human resource development system to **enable** advancement in universal health coverage and improving health status of all population.
Working to ensure availability, accessibility and affordability to essential medical products and technologies of good quality, safety and efficacy.	

In this section, the focus will be on policies to strengthen the health system functions.

1- Promoting the use of Information for planning and management of the health sector

The objective is establishment of a integrated national health information system including inequality monitoring that is based on modern technologies and facilitates to guide evidence based policies and decision-making at all levels.

Policy measures

a. Build an integrated health information and surveillance system

Health information system has to undergo further reform to become more comprehensive to promote health systems accountability, monitor quality of service, support performance based provider payment mechanism, include facility as well as community information and collect healthcare and health determinants information.

i. Revise indicators of health facility information records to reflect comprehensively the performance of the system and quality of service provided.

ii. Introduce family files as part of implementation of family health approach

iii. Develop mechanism for identification and reporting on both health systems core indicators , inequalities, and Sustainable Development Goals in coordination with all related sectors

b. Integration of health information systems

i. This policy will ensure that, there is one uniform standardized Health information through integration of the various sub-systems of the HIS and surveillance systems of different vertical programs at ministry of health and Formation of stakeholders' forum to foster partnership in HIS activities. The partnership between information users and collectors helps to minimize errors and greatly reduces external criticism of the HIS. Making information users partners in the design and implementation of an HIS has the opportunity to unify its goals with users' goals. Partners of health information system should not be confined to ministry of health departments. Instead it should include other ministries within the health sector, and beyond that to other health related sectors to support the shift towards adopting health in all policies approach.

c. Reporting, accuracy and timeliness

Enforcement of mandatory reporting by all health care providers; Putting in place administrative guidelines for mandatory standard reporting of health and health related data and information to a central authority

d. Introduction of technology

This Policy seeks to define a robust system for the use of information technology at service delivery facilities as well as at all management levels. This will help to capture, store and exchange health information and facilitate the delivery of health-related information to and from isolated areas within the sector.

e. Quality and utilization of information

   i. Data quality assurance will be guaranteed through developing and implementing guidelines on data management, supervision and data quality audits.
   ii. Guided by the principle of decentralization this policy draws attention to improved use of information for local action that responds to local needs as well as the needs of program monitoring and management improvement.
   iii. Create demand and promote use of HIS through timely supply of accurate and easily understandable information

f. Building institutional capacity in management and conduct of researches.

   i. Strengthen and develop governing bodies for health research at ministry of health and research institutes. Federal ministry of health through research council will work with stakeholders to set research priorities and coordinate research efforts.

   ii. The policy stresses the importance of Promoting research culture and assessment of capacities in health research and development of training package in health research. Beside known health cadres, capacity building programs in health research should extend to non-medical cadres in different health related sectors and disciplines e.g. social sciences.

   iii. Establish strong linkages between research and policies to enhance utilization of research products in informing policy making process. To realize this, stakeholders and policy makers should be

engaged in research development process, and strategies to link research questions with genuine problems of health system. In this regard, operational researches aiming at evaluating health projects and programs and surveys for monitoring and assessing health status and health system performance is important area that require special consideration and need to be institutionalized in the ministry of health.

2- Ensuring sustainable and equitable Financing

The objectives of the policy are strengthening the functions of health financing system to enable and facilitate the move towards universal health coverage. The policy for giving priority to vulnerable and marginalized population including poor and near poor. Equitable financing of decentralized health system is of paramount importance to rectify the discrepancies in health outcomes between states.

Policy measures

a. Strengthen governance and coordination to overcome fragmentation in health care finance. To achieve this, the following are the key areas for intervention

iv. Strengthening role of national health coordination council in coordination and holding all actors accountable

v. Develop universal health coverage technical committee at national and states levels. The main purpose of this committee is to improve policy coherence and foster coordination between the different actors by leading development of policies and technical guidelines needed for universal health coverage

i. Generate sufficient public resources to advance UHC

i. Increase public finance for health from general budget and improve allocative efficiency by giving priority to essential health package. Beside this mechanism to ensure effective

premium collection for ensured people and adjustment of premiums to inflation will be developed.

ii. Improve public expenditure at state level. This will be achieved by earmarking part of federal transfer to states to health services. Besides, state contribution will be increased by adopting conditional transfer to states in funding health projects at states.

iii. Ensure equitable financing at state level by enforcing need base resource allocation formula from federal to states. This should be considered in block grants and earmarked grants from federal ministry of finance, funding health projects and programs from federal ministry of health as well as when allocating from national health insurance to its branches at states.

ii. Improve pooling of resources and risks

i. Shift public resources to demand side. Currently public financing is severely fragmented between different agents who include ministry of health, health insurance fund and other ministries like ministry of interior and defense. The public financing coming to ministry of health will be shifted gradually to demand side represented by health insurance fund. These funds include under-55 free treatment and emergency treatment.

ii. Align funds from other public sources like ZAKAT and donors fund with UHC priorities and goals

iii. Improve level of pooling within national health insurance fund through central collection of premiums and development of risk equalization mechanism

iii. Expand coverage by service packages and reform purchasing system

i. Provide free essential health service package to all population and comprehensive package to priority groups. The essential package includes PHC services, maternal health services and emergency services, while the comprehensive package includes the current package of service purchase by health insurance fund. Beside this specialized tertiary services like renal dialysis and transplants will guaranteed for all needy patients form general budget through ministry of health.

ii. Shift form input based to Strategic purchasing which focuses on amount and quality of services provided by the care providers. This necessitates reform in management of public health facilities and introduction of autonomy of facilities and contractual arrangements.

iii. Split purchaser form provider to improve efficiency, quality and accountability. Accordingly, national health insurance fund will quit from service provision and move to become single purchaser of health services, and strategies to support this transformation will be developed. Beside ministry of health, private sector will have a considerable role in service provision and measure to incentivize it to play this role will be developed.

iv. Reform provider payment mechanisms to promote equity, quality and efficiency of service provision.

3- Governance and decentralized health system

Governance is a function of state, embodying the 'sum of many ways' to ensure various sub systems of the health system perform for achieving its overall goals and protecting the interests of the communities.

Policy objective: promoting the role of ministry of health in leading health sector by building robust policy system and strengthening management, coordination and accountability across the decentralized health system.

Policy measures

a. **improving policy coherence and consistency and overcoming fragmentation**

i. All health policies should be aligned with and built on the overarching macro public polices and health polices to ensure consistency and coherence of health policies. To facilitate this process of alignment, agreement on policy definition for the whole governmental system and model of development by responsible constituencies in the government is essential.

ii. Health policies should embrace the wide and comprehensive approach of health, which is beyond healthcare. This should be clear in the policies vision and translated in policy development process.

iii. Governing structures for health policies to be developed and strengthened.

   a. NHCC is the main and supreme governing body. Its role includes endorse health polices, facilitate coordination between federal and states, provide platform for intersectoral collaboration, and hold all sector committed accountable to health agenda. Criteria of policies which will be discussed at this highest level should be detailed.

   b. Policy council is the highest governing body within FMOH. This body is responsible for final approval of policy agenda, endorsement of developed policies and deciding on the need of different developed policies to be endorsed at NHCC and other governmental structures at federal and state levels

   c. Revitalize the health policy forum as standing structure, with clear vision about role and structure to address the problem of narrow base

and non-systematic participation of stakeholders in health policy development process.

iv. State ministries of health will be strengthened to exercise their role as policymaking level as stated in the constitution and local governance act. The policies developed by state level should be aligned with federal policies and the ambiguity in definition of concurrent policy should be clarified

v. Define policy process and develop detailed guidelines for each level including agenda setting, formulating, implementation and monitoring and evaluation

b. Strengthen decentralized health system

i. Federal ministry of health will undergo major reform to quit from currently dominating implementation role to be devoted for policy, regulation, guiding implementation through strategic planning and capacity building, oversight and monitoring system. Likewise, role of state ministry of health should engage in similar reform and its role in implementation will lessen.

ii. Empower localities to take their roles and responsibilities in planning and management of health services. Traffic light approach (green, yellow and red) will be followed to classify localities with regard to their capacity to take over their full authorities and responsibilities. Accordingly, capacities of localities will be developed and authority, responsibility and resources will be devolved from state to localities according to the level of readiness

c. Improving Accountability at all levels of decentralized health system

Accountability is one of the weakest areas within the decentralized health system. Different approaches to strengthen accountability including regulation, incentives and intelligence will be used as in the following:

i. Federal level should be accountable to its role as described above. This need to be reflected in its organizational structure, with clear roles and responsibilities and functions across health systems actors i.e. public, private

and civil society, strategic and operational plans at both levels based on local priority settings, staff competencies and monitoring systems. Guided by the constitution and local governance act, decision space available for all levels in governance, regulation, financial human resource management and organization of health services should be clearly defined, delegated and accordingly they will be held accountable.

ii. Ensure guidance from higher levels to lower ones in the decentralized system to achieve the national goals and objectives. This will be achieved by:

   a. Shaping different incentives to lower levels to ensure commitment. Earmarked grants for achieving specific health objectives, matching grants in which financial contribution of higher level requires contribution of lower level and linking finance with performance are financial incentives which will be used to improve accountability at lower levels.

   b. Developing tools for implementation and defining major accountability lines, structure, processes, besides *providing oversight* to govern the health system in a way that is consistent with prevailing values and health system goals.

   c. Maximize the role of NHCC in enforcing implementation and commitment of concerned actors at all levels and all sectors and strengthening the stewardship role of MoH in health system response . Accountability of all sectors to health will be improved also by developing regular reports of health and wellbeing which will be discussed at NHCC and other governmental structures.

   d. Strengthen social accountability and inclusion in policy development and implementation, monitoring and evaluation, and develop mechanisms and structures to strengthen role of community in oversight and holding health system managers and service providers accountable.

e. Conduct review and health legislations review in support of national and provincial policies and delegated authorities.

f. Empower patient rights and develop regulatory and coordination mechanisms e.g. patient charter which delineates rights of patients and responsibilities of service providers in this regard will be developed.

g. Fostering generation, compilation, dissemination of information is of paramount importance to promote transparency and overcome asymmetry of information between different levels. Information technology will be used extensively in this regard.

4- Human resource development

Human resource is critical component and precious resource for development of the health system. It includes all people involved directly in developing, managing and providing health services and supporting health improvement within health sector and other related sectors.

Policy objective: building effective human resource development system to enable advancement in universal health coverage and improving health status of all population.

Policy measures

a. Supporting workforce in other sectors to strengthen intersectoral action.

Health workforce conventionally confined to healthcare providers. However, with adoption of multisectoral approach, this definition should go beyond the borders of healthcare system to include all those workers in all sectors who can contribute to improvement of health and wellbeing of the community. To reach this goal, the following are key interventions:

i. priority sectors and areas of action will be identified,
ii. Required competencies and concerned staff will be determined
iii. Capacity gaps will be addressed through different capacity building activities in coordination with other sectors.

b. Skill mix towards PHC and **more roles to paramedics**.

The shortage and skill mix imbalance in the allied health professions should be tackled through:

i. Federal ministry of health will work to establish a proper planning system that links production of health workers with the real needs of health system. Strengthening HRH observatory and information system is pivotal for informing the planning process.

ii. Strengthening decentralized health professional education. Training of medical assistants, community health workers and non-formal care providers to improve access of rural population to health services. To achieve this, continuing support for academies of health sciences will be provided.

iii. Gradual increase in production of family physicians and training of medical assistants and community health workers is critical for realization of the shift towards integrated people centered services. CPD centers at federal and states will play great role in in-service training of care providers on integrated people centered health services, and its institutional capacities will be developed to take this role effectively. Post graduate training institute will be encouraged and supported to provide post graduate degrees in family medicine under the leadership of Sudan medical specialization board.

iv. Care providers who take leadership and management positions need to be trained in management, communication and negotiation skills.

v. Beside production measures to increase employment and retention should be put in place.

vi. At the level of ministries of health, beside public health, planning and management, there is a real need to integrate and make use of social sciences and other related disciplines in health sector.

c. **Reform under graduate education**.

The current undergraduate medical education is still adopting the biomedical model of health and is not tackling health in its totality and comprehensive view. Moreover, and to

large extent it is detached from community needs and problems. The ministry of health with ministry of higher education and other related sectors should take these key actions

i. Conduct comprehensive review of curricula
ii. Development of structures and mechanisms capable of triggering the intended reform at universities.

d. Regulation of HRH practice and development of robust HRH management system.

i. Introducing and operating robust HRH management systems including job descriptions, supervision, performance appraisal, practices and personnel administration should be maintained.
ii. Roles of federal, states and localities with regard to these functions within the overall framework of decentralization need to be clarified and agreed on
iii. Extensive investment in building the institutional and human capacities at all levels and according to the defined roles and responsibilities.

5- Access to medicine and health technology

The objective of the policy is to guarantees availability, accessibility and affordability to essential medical products and technologies of good quality, safety and efficacy.

Policy measures:

a) **Improving availability of medicines**.
   i. The selection of medicines must focus on high priority medicines included in the national list of essential medicines.
   ii. Encouragement of local industry of medicines through different incentives and advantages is highly needed in improving availability of medicines.

b) **Increasing access to essential medicines**
   i. Integrating and strengthening the supply system at federal and state levels to ensure effective distribution and avoid stock outs.

c) **Control of medicines prices**

i. Promotion of generic medicines and changing prescription behavior
ii. Ensuring functioning regulation authority to enforce pricing mechanism of medicines and guarantee compliance of drug sellers.
iii. Pooled procurement is a successful strategy to control prices and will be supported and enhanced.

d) **Ensuring safety, efficacy and quality of medicines**. Federal ministry of health through its concerned structures together with drug companies will,
   i. Enforce regulations,
   ii. Conduct training programs,
   iii. Ensure marketing of safe effective quality medicines and combat counterfeit substandard or non-registered medicines.

e) **Effective management of medical devices.**

Federal ministry of health will undertake the following actions:
   i. develop and enforce a national list of medical and laboratory devices and diagnostics to ensure appropriate technologies are introduced into the country's health system,
   ii. Work to institutionalize health technology assessment at all states.

6- Integrated and lab based Surveillance and response to epidemics and emergencies

As mentioned above, Sudan is affected by continuing emergencies, whether natural or man-made. In this section, all issues related to preparedness and response to all types of emergencies and epidemics will be addressed.

Policy objective: strengthen leadership and coordination of efforts to reduce the expected damage and mitigate the effects of health emergencies and disasters through strengthening the health system

Policy measures

a) Leadership and coordination:

Role of federal ministry of health in leading and coordinating efforts of different actors concerned with emergencies will be promoted and strengthened.

b) Health System resilience capacities strengthened to adapt, absorb and transform in response to different types of emergencies. Support to establish comprehensive emergency information system which includes information needed for prevention, preparedness, response and rehabilitation phases, with full involvement of states and communities.

C) Strengthen the preparedness and response capacities at federal and states level to respond effectively to emergencies.

i. Develop transparent and efficient financing of emergency interventions to ensure efficient utilization of available resources through effective coordination between different actors, and to serve the agreed priorities of the country.
ii. Strengthening emergency supply system and logistic processes in coordination with national and international actors.
iii. Regulation and monitoring of emergency supplies is critical and need to be strengthened. Ensuring availability of well-prepared service delivery points and qualified human resources during emergencies through good planning, training programs and information systems.

7 - Improving coverage and access to health services

1. Establish people-centered service delivery system

The current health system as mentioned above is skewed to curative services and focuses on addressing selective health problems through vertical programs. The policy aims to shift to comprehensive, integrated health services that are centered on people needs with primary healthcare in the driver seat of the health system.

Policy objective:

Strengthen and expand individual and population-based health services through development of an essential package of quality services and ensure better coordination between health programs and three levels of health care - all as a part of advancing towards universal health coverage.

Policy measures:

a) **Expand the network of PHC facilities and rehabilitate and equip the existing ones.**

Service delivery points of PHC services include community health workers, family health units and family health centers. Besides, locality hospitals are the first referral facilities for primary care level. Equity will be considered while progressing to achieve universal coverage by health facilities.

i. Endeavors of ministry of health at federal and state levels to cover all population by health facilities through construction, rehabilitation and equipping will continue

ii. Arrangements for ensuring functionality of the constructed facilities in a sustainable way will be in place.

b) Implementation of family health approach

Family Health Approach denotes health care 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. The policy underscores provision of family health services to all population in Sudan through the following:

i. Strengthening service delivery system by developing and implementing guidelines for integration, continuity, coordination and referral mechanisms

ii. Producing adequate numbers of family health providers (in this policy it is not restricted to family physicians and extends to include other care providers like medical assistants and community health workers) and taking appropriate measures to improve attraction and recognition of family healthcare providers.

iii. Strengthen coordination between different actors involved in family health approach implementation, family health council at national level will be established.

iv. Structures to develop detailed technical guidelines and follow implementation will be developed at national and decentralized levels.

c) Improving quality of healthcare services

The provision of quality health services is important goal of healthcare system. The policy addresses the issue of quality systematically and from different perspectives that include reorganization of service delivery system through adoption of family health approach, improving management of public hospitals through adoption of hospital autonomy, splitting purchase from provision of services and adoption of pay for performance to influence the behavior of healthcare providers.

Beside the above, the following actions will be taken:

i. The establishment of a healthcare quality and accreditation council as an autonomous body under the federal ministry of health to develop and ensure implementation of standards and guidelines.

d) The development and implementation of a short and mid-term quality action plan aligned with the identified quality national priorities and supported by a set of quality performance indicators for monitoring and evaluation **Access to hospital services**

Hospital level is the complimentary and referral level for the primary and secondary healthcare levels. Health facilities include locality general hospitals, state hospitals and specialized hospitals and centers.

i. Management reform through introduction of hospital autonomy and building capacities in hospital management (professionalization of hospital management at hospital and ministerial levels)
ii. Introduction of policies for hospital development and expansion over the country according to the population needs
iii. Redefining the role of the hospitals (particular first level hospitals) in linking with family health initiative (hospitals as part of District Health System) to move towards integrated patient centered Health Services (IPCHS)
iv. Current endeavors in expanding specialized tertiary services to states will continue through establishment, equipping and staffing of tertiary facilities.
v. Defining basic hospital service package at district and state levels

vi. Establishing a Hospital Information Management system at the hospitals, state and federal levels
vii. Introduction of state and national hospital performance management system
viii. Building the capacity (establishment, equipping and staffing) of Accident and Emergency Departments of hospitals and linking them to pre-hospital system
ix. Introduction of International Classification Diseases (ICD) in hospitals

2. Access to public health interventions targeting priority population groups and diseases.

While working to improve access of all population to integrated health services; the vulnerable population groups especially mothers and children will be given the priority. Beside this, health problems having high impact on health status, will be targeted by facility and community based interventions.

Policy objective: addressing unfinished agenda of MDGs and continuing efforts to reach the identified targets with regard to maternal and child health and combating of communicable diseases, besides addressing the rising challenge of NCDs as one of the agenda of SDGs.

Policy measures:

a. **Ensuring healthier mothers and children through the scaling-up implementation of high impact and rapid delivery health interventions.** Within the model of family health which was described above, especial emphasis will be given for provision of key cost-effective interventions targeting mothers and children as part of essential health service package which will be provided free of charge to all citizens in Sudan. Key interventions include:

    i. Provide universal access to vaccination and curative services to address major infectious diseases which cause of morbidity and mortality in children.

ii. Malnutrition is representing high burden on health system and in addition to role of healthcare system in providing access to nutrition services, multisectoral approach will be adopted in Promoting good nutrition across the life span.

iii. Access to priority maternal health services. Free access to maternal health services which include prenatal, delivery and postnatal services will be guaranteed to all mothers in Sudan as part of essential package.

b. Combating communicable diseases especially malaria, HIV/AIDS, tuberculosis, leishmaniasis, schistosomiasis and other endemic diseases.

i. Support ongoing efforts to implement integration of the vertical disease programs in health system, especially functional integration at service delivery level, and as part of integrated family health package

ii. Build the capacity of health system to provide diagnostic and treatment services and meet the national and international targets

iii. Strengthen integrated vector control, and improve access to population based preventive interventions

c. Addressing growing burden of NCDs on health system in Sudan.

Special emphasis in this policy will be given to prevention of communicable diseases. This will be through the following:

i. multisectoral life style interventions as discussed above.

ii. Moreover, PHC level will play great role in awareness raising and early detection of NCDs which will contribute to prevention of NCDs incidence and complications.

iii. Integrated package of NCDs services will be provided at PHC facilities through family health services provides.

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