



Somalia's Healthcare System: A Baseline Study & Human Capital Development Strategy



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Ali Abdullahi Warsame, Ph.D

List of Acronyms

ANC	Antenatal care	HCs	Health centers
BEmONC	Basic emergency obstetric and neonatal care	HINARI	Health InterNetwork Access to Research Initiative
CDS	Communicable diseases surveillance	HMIS	Health management information system
CPD	Continuous professional development	INGOs	International non-governmental organizations
CT/ART	Computed tomography/antiretroviral therapy	MHCs	Mental health centers
CVD	Cardiovascular disease	MoH	Ministry of Health
COPD	Chronic obstructive pulmonary disease	MOPIED	Ministry of Planning, Investment and Economic Development
DHO	District Health Office	NDP9	National Development Plan 9
DHIS	District health information software	NHPC	National Health Professional Council
EMR	Eastern Mediterranean region	OECD	Organization for Economic Co-operation and Development
ENC	Essential newborn care	PHUs	Primary health units
FGM/C	Female genital mutilation/cutting	RFCs	Referral health centers
FGS	Federal Government of Somalia	RHs	Regional hospitals
FRS	Federal Republic of Somalia	RHO	Regional health offices
FHW	Female health worker	SBA	Skilled birth attendants
CBFHWs	Community-based female health workers	SDGs	Sustainable Development Goals
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Society for International Cooperation)	SARA	Service Availability and Readiness Assessment
HDI	Human Development Index	UHC	Universal health coverage
HIV	Human immunodeficiency virus	UNFPA	United Nations Fund for Population Activities
HRH	Human resource for health	UN	United Nations
HCDM	Human capital development mechanism	UNDP	United Nations Development Program
HHC	Health human capital	WASH	Water, sanitation and hygiene
		WHO	World Health Organization
		YLL	Years of lives lost

Executive Summary

Over the past three decades, Somalia has been an arena for endless armed conflict and natural disasters. The consequences of these events on the health sector in general and the health workforce, in particular, have been devastating, affecting the entire health service delivery. This study, commissioned by the Heritage Institute for Policy Studies (HIPS) and City University of Mogadishu, was conducted to assess the state of healthcare in Somalia as it relates to human capital in the sector. The study also aims to provide an analysis of current challenges but also to put forward remedial solutions for system-wide recovery strategies. Specifically, the study sought to identify health workforce shortages and skills gaps and to explore ways to overcome human capital development-related challenges.

Moreover, the study looked into existing policies, programs and health professional education institutions. Health authorities at the federal and member state level, the private health sector, health professional training institutions, health professional associations and development partners assisted with this study. Qualitative interpretative research was used as well as data collection methods, including key informant interviews, document review and analysis and focus group discussions.

The overall findings of this study show that healthcare services in Somalia are highly inadequate and the health workforce lacks the skills, knowledge, legal instruments and the necessary resources to do their jobs. Other findings include:

- Healthcare services, both public and private, are ill equipped to meet even the primary health service needs of the bulk of the population;
- There is a scarcity of all categories of health workers, particularly mid-level professionals and physicians;
- There are considerable gaps in skills;
- There is an improper allocation of health workforce (urban vs. rural);
- Retention and motivation schemes are weak;
- There is an inadequate enabling environment for the health workforce;
- Training institutions are substandard and unregulated;
- There is an absence of adequate government oversight for the health workforce; and
- There are few health professional training institutions in the face of a rapid population increase.

These systemic inadequacies and challenges require an urgent scale-up of the production, training and skills enhancement of the health workforce. A continuing education program is needed to secure the attainment of universal health coverage (UHC) and health-related sustainable development goals (SDGs) and targets. In-service training activities could increase the knowledge and skills of healthcare workers and systematically and sustainably enable them to attain higher competencies that will help them to produce desired health outcomes. The study presents a strategic direction through which Somalia could overcome the current health workforce shortage and skills gaps through a development process that provides clear objectives and how to achieve them.

1.0: PART ONE

1.1: Setting and background

With a population of 15.44 million in 2019, Somalia is a young and rapidly expanding nation with an annual population growth of three percent. Since the late 1980s, Somalia has experienced armed conflict, violence and a series of natural and man-made disasters which resulted in a long, drawn-out and comprehensive state collapse.

Consequently, Somalia ranks at the bottom among the least developed nations and is one of the poorest countries in the world. In 2017, Somalia ranked the lowest globally in all dimensions of the Human Development Index (HDI) at 0.251 overall (the lowest in the world), of which health is at 0.514. According to the Corruption Perceptions Index released by Transparency International in 2019, Somalia was the most corrupt nation globally (180 out of 180 countries, with a corruption rating of 9/100).¹

It is not a surprise that the country currently has some of the lowest health and well-being indicators globally. Extended periods of conflict and insecurity exacerbated by recurrent extreme droughts and floods and subsequent food insecurity have devastated the health status of the population and severely damaged its fragile health system. Droughts result in displacements, which leads to unprecedented levels of malnutrition, health emergencies and epidemics. A large proportion of the population is prone to a wide range of natural and human-induced disasters due to Somalia's geography and setting.²

The country's overall morbidity and mortality remain very high, particularly women and children. Somalia currently has the world's highest child mortality rate. One out of seven children dies before the age of five. Somali mothers suffer from the sixth highest maternal death risk in the world, with skilled health personnel attending only one in 10 births. The average Somali woman has 6.7 children, the fourth highest fertility rate in the world.³

Despite the immense challenges, the country's health sector is emerging from the crises and is forging a path forward. The country is re-establishing health governance structures, rebuilding health institutions, re-engaging with development partners, and adopting a decentralized health governance system through ministries of health at the federal and member state levels.⁴

1.2: A historical look at Somalia's health sector

1.2.1: Traditional medicine

Historically, traditional medicine was used for curing diseases. Somali traditional medicine could be divided into Islamic medicine, practical treatments and herbalism.

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Somali traditional medicine could be divided into Islamic medicine, practical treatments and herbalism.

¹ <https://www.transparency.org/country/SOM>; scale: 100 (very clean) to 0 (highly corrupt)

² <http://worldpopulationreview.com/countries/somalia-population/>

³ WHO Somalia Country Cooperation Strategy 2019-23.

⁴ WHO Somalia Country Cooperation Strategy 2019-23.

The religion grounded treatments were entirely based on the teaching of Islam and were used for both physical and mental illnesses while the practical and herbal treatments focused on bodily sickness. These traditional forms of treatment, which included cauterization, scarification and bloodletting were the only services available to the vast majority of the Somali people. Even today many Somalis still rely on traditional medicine as their primary source of healthcare.⁵

1.2.2: Healthcare during the colonial era

Modern medical practices in Somalia date back to the arrival of European colonialism in the late 1880s and started with the establishment of some ambulatory⁶ services by the British and Italian colonial administrations. As was the case in other African colonies, medical services were at the center of the colonial imperative and had two core functions:

- To offer medical treatment to the colonial soldiers, missionaries, colonial officials and their families and, to a lesser extent, treat native Somalis who collaborated with the colonial administrations; and
- To use medical treatment to help spread their religion, i.e. Christianity.⁷

In the 1930s, the Italian colonial administrations built some district-level facilities, mostly in the south of the country, to provide basic curative, preventive medical and maternity services. De Martino Hospital⁸ in Mogadishu was one of these facilities. It was only after World War II that things started to improve, and more district-level hospitals were functioning in some towns. However, due to the distrust that existed between Somalis and the successive colonial administrators, healthcare development was minimal.⁹ Some of the most common diseases included waterborne diseases, infectious diseases and tropical diseases such as malaria, tuberculosis and leprosy.¹⁰

1.2.3: Healthcare from 1960-1991

Before the collapse of the state institutions in early 1991, Somalia had a rudimentary public health system, which was reasonable by African standards. Civilian and military administrations had painstakingly built this system over the previous 30 years. The ministry of health supervised the organizational and administrative structure of the sector, though regional medical officials enjoyed some authority. In 1972, healthcare services were largely centralized by the then military government and much of the national budget was devoted to the military, leaving little money for healthcare.

From 1973 to 1978, there was a substantial increase in the number of physicians, and a far greater proportion of them were Somalis. Of 198 physicians in 1978, a total of 118 were Somalis, compared with 37 out of 96 in 1973. In the 1970s, an effort was made to increase the number of other health personnel and to foster the construction of health facilities. To that end, two nursing schools opened and several other health-related educational programs were instituted. Of equal importance was the countrywide distribution of medical personnel and facilities. In the early 1970s, most personnel and facilities were concentrated in Mogadishu and a few other major towns. The situation had improved somewhat by the late 1970s, but the distribution of healthcare remained unsatisfactory.

⁵ Elmi, A.S (1978). Research into medicinal plants: The Somali experience: Department of Pharmacology, Somali National University, Mogadishu-Somalia.

⁶ Ambulatory medical service is a medical care provided on an outpatient basis, including diagnosis, observation, consultation, treatment, intervention and rehabilitation services.

⁷ Nakityo: The Early History of Scientific Medicine in Africa (1968). W.D Foster, East African Literature Bureau, Nairobi, Kenya.

⁸ Herbert L. Bodman, et.al, (1998), Women in Muslim Societies: Diversity Within Unity, Lynne Rienner Publishers.

⁹ WHO Somalia Country Cooperation Strategy 2019-23 Somalia.

¹⁰ Thomas Lothar Weiss (2009), Migration for Development in the Horn of Africa: Health expertise from the Somali Diaspora in Finland, International Organization for Migration (IOM).

In 1972, healthcare services were largely centralized by the then military government and much of the national budget was devoted to the military, leaving little money for healthcare.

The Somali health system was already in disarray at the time of the Siad Barre government, with wide inequalities in access to health services between Mogadishu and the rest of the country. However, according to the policy adopted at the time, health and education were free. The capacity of transforming policies into action was limited, and so were the resources, largely provided by international assistance (94 percent of the health budget in 1989). As a result, an indigenous, coherent health system never took off and no sector-wide adoption of the primary healthcare approach took place in those years.

Government spending for health progressively declined, from four to five percent of total spending in the 1970s and beginning of the 1980s to only two percent by the second half of the 1980s. Access to healthcare further diminished, with only Mogadishu and areas supported by the international community providing some health services. The overall impact on the health system has been profound, affecting all its components: human resources, infrastructure, management, service delivery and support systems.¹⁰

In the late 1980s, with instability increasing and the economy in shambles, health professionals began leaving Somalia to seek better opportunities abroad, creating large vacancies at all levels. By 1990 most medical specialists had left the country, leaving only a few general practitioners. This brain drain has severely affected the health sector, and most basic health services are often made impossible by the absence of qualified medical doctors, midwives, nurses and other health personnel.¹¹

1.2.4: Healthcare during the civil war

Somalia's already modest health infrastructure was destroyed or seriously damaged during the devastating civil war. Most health premises were looted, vandalized or taken over by squatters, internally displaced people and armed clan militias. A significant number of medical doctors, qualified nurses, midwives and skilled health technicians were either killed or migrated overseas.¹² Virtually all health-training institutions were either looted or destroyed, creating a large and acute shortage of qualified health workers. By the 1991-1993, an estimated 90 percent of the population had no access to basic healthcare. Non-governmental organizations, emergency aid organizations and the private sector stepped in to haphazardly fill the vacuum left by the collapse of the state sponsored healthcare system.

1.2.5: Slow recovery and current outlook

The vanishing of the state system has given way to alternative and non-governmental healthcare initiatives that have sprung up in all states and regions. Initiatives by private entrepreneurs, local authorities, international development partners and international non-governmental organizations have resulted in the establishment of healthcare providers of varying quality throughout the country. Even though these initiatives have considerably expanded the availability and accessibility of basic healthcare services, the bulk of the Somali population, particularly in rural and nomadic settings, do not have access to any healthcare services.

A significant number of medical doctors, qualified nurses, midwives and skilled health technicians were either killed or migrated overseas.

¹⁰ Health system profile Somalia (2006): Regional health systems observatory, WHO.

¹¹ WHO Somalia Country Cooperation Strategy 2019-23 Somalia.

¹² Weiss, Thomas, Lothar (2009). International Organization for Migration (IOM). Migration for Development in the Horn of Africa. Health expertise from the Somali Diaspora.

1.3: Situation analysis, issues and trends

Since the collapse of the central government, the Somali health sector has experienced severe challenges, among them:

- Severe shortages of skilled workers;
- Inadequate financing;
- Unequal access to quality services;
- Lack of integrated health information systems;
- Inadequate balancing between humanitarian and development/recovery response;
- Weak managerial and governance systems;
- Limited institutional capacity;
- Lack of regulation;
- Limited leadership experience;
- Donor dependency; and
- Unaffordable and substandard private sector dominated services.

1.3.1: Healthcare infrastructure

The current Somali public healthcare system comprises four levels, namely:

- Primary Health Units (PHUs) in rural areas
- Health Centers (HCs) at the sub-district level
- Referral Health Centers (RHCs) in districts
- Regional Hospitals (RHs) located in the regional capitals; and
- Tuberculosis Centers (TBCs), Computed Tomography/Antiretroviral Therapy (CT/ART) facilities and Mental Health Centers (MHCs).

The 2016 Service Availability and Readiness Assessment (SARA) survey¹³ assessed the healthcare infrastructure and its responsiveness in providing key services. The SARA report found a total of 1,074 health facilities in the country, of which only 799 were operational and accessible, indicating an acute shortage, including private health facilities. The cumulative score of the density of public health facilities, in terms of inpatient and maternal beds, was 28.3 percent, reflecting a 72 percent deficit in the health infrastructure. At the same time, the core health workforce density was 18.6 percent, and service utilization level 6.3 percent, which collectively provide a total general service availability rate of 17.7 percent.

Furthermore, the availability and implementation of infection control guidelines at the facility level were critical. On average, the infection control readiness score of all the facilities was 62 percent, and only 20 percent of facilities had all infection control prevention standards and precautions. The overall availability of routine laboratory tests at health facilities was only 19 percent.

¹³ The Service Availability and Readiness Assessment (SARA). WHO report 2016.

Only four percent of the facilities performed all the diagnostic tests on-site, and blood glucose testing was available in only seven percent of the facilities, suggesting that the majority of pregnant women turn to the private sector for most laboratory investigations, posing affordability problems.

The survey illustrated that 66 percent of the facilities provided antenatal care (ANC) services, although not comprehensively, with 43 percent of facilities providing less than half of the service components. ANC is essential for the detection and treatment of any emerging health problems during pregnancy.

The mean availability of Basic Emergency Obstetric and Neonatal Care (BEmONC) services was 45 percent in urban facilities and 20 percent in rural areas. Essential Newborn Care (ENC) was offered in 29 percent of urban and 12 percent of rural facilities. The assessment revealed that less than half (49 percent) of the health facilities provided routine childhood immunization, while outreach services were offered by only 13 percent of the facilities.

According to the survey finding, 89 percent of referral health centers, 87 percent of health centers, and 50 percent of hospitals offered child immunization, while only six percent of health posts/primary health units did so. The critical child preventive and curative care services were provided by 526 (66 percent) of the functioning facilities.

The survey findings clearly show inadequate availability of basic sanitation, consultation rooms, improved water sources and power supply, communications equipment and emergency transport. Only 46 percent of health facilities had access to an improved water source; 41 percent had no consultation rooms; 72 percent lacked any power source and 84 percent were without emergency transport to facilitate the urgent referral of high-risk pregnancies. Moreover, only one percent of the health facilities in the country had all the necessary health system amenities. The density of key health facilities¹⁴ necessary to serve the population was also a major problem. This leads to fewer patients seeking treatment as they must travel long distances to get to inadequately staffed and under resourced health centers.

Table 1 - Somalia - Health Facility Inpatient & Maternity Bed Density Indicators (2016)¹⁵

SOMALIA - Health Facility Inpatient and Maternity Bed Density	Present status	Target	Density Score (%)*
Health facility density per 10,000 population	0.76	2	38
Inpatient bed density per 10,000 population	5.34	25	21
Maternity bed density per 10,000 population	2.55	10	25
Infrastructure density (average score of facility density, inpatient bed density and maternity bed density)	N/A	100	28
Outpatient visits per person per year	0.23	5	5
Hospital discharges per 100 per year	0.81	10	8
Physicians, nurses, and midwives per 10,000 population	4.28	44.5	19
*The country's accomplished rate (2016) towards the density target indicator to be achieved for the development of each of the three priority health infrastructures			

¹⁴ The number of health facilities per population of 10,000 in a designated area. Health facilities include all public, private, non-governmental and community-based health facilities defined as a static facility (i.e., has a designated building) in which general health services are offered.

¹⁵ The Service Availability and Readiness Assessment (SARA). WHO report 2016.

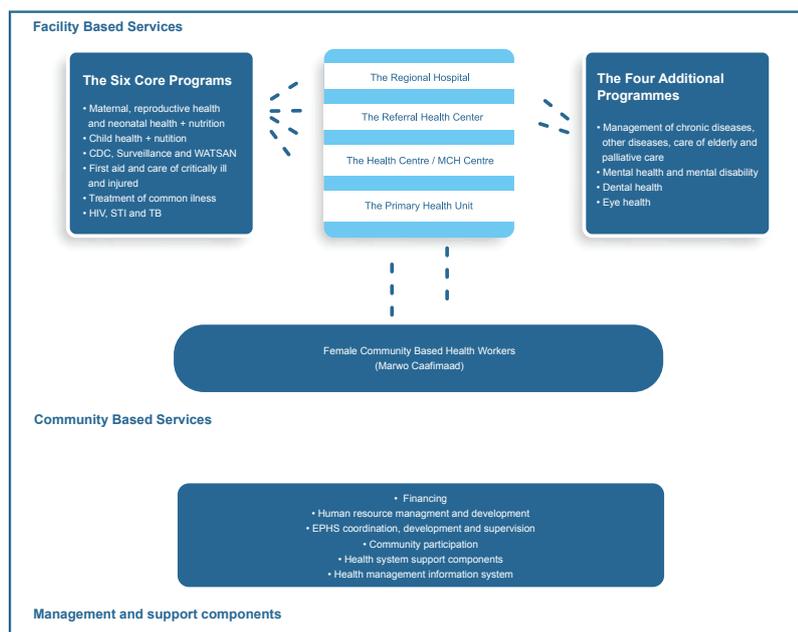
1.3.2: Public Health facilities

Public health facilities are distributed around the regions, districts and sub-district level rural areas. The sparse population density, lack of roads and poor health-seeking behaviors by the communities are significant factors in the low utilization of high-value reproductive health services both at the primary healthcare level and at the essential referral support level.

Table 1.2: Somalia - Functional Public & Private Health Facilities by Zone/Region (2016)¹⁶

SOMALIA - Health FacilityType	Central and South Somalia	Puntland	Somaliland	Total
PHU	244	129	123	496
HC/MCH Centers	169	84	104	357
RHC/District Hospital	87	5	21	113
Regional/Tertiary Hospital	11	8	16	35
Total	511	226	264	1001

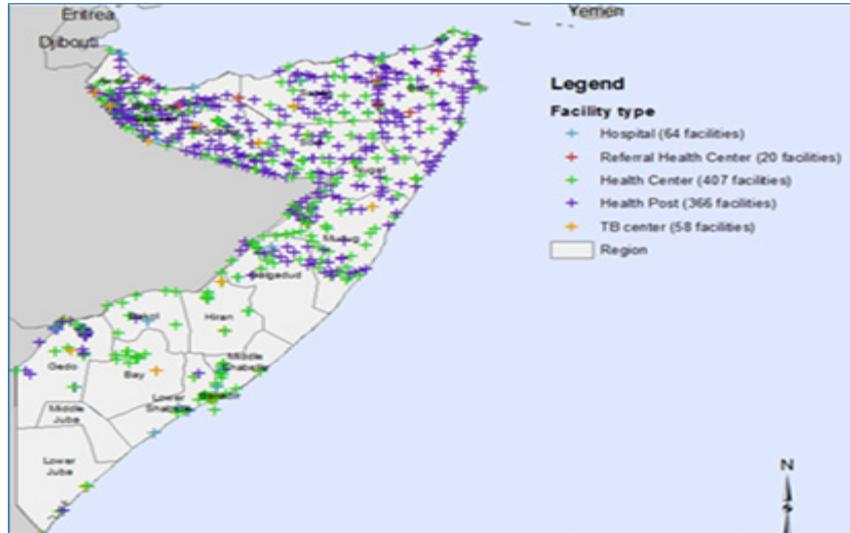
Figure 1.1 - SOMALIA - Public Healthcare Delivery System Diagram¹⁷



¹⁶ The Service Availability and Readiness Assessment (SARA). WHO report 2016.

¹⁷ Country Cooperation Strategy WHO and Somalia (2019-23), 1 July 2019.

Figure 1.2 - Somalia - Healthcare Center Density Map (2016)¹⁸



1.3.3: Private healthcare system

During the past two decades, the Somali private healthcare sector has shown significant growth and now includes private for-profit institutions, private non-profit facilities (including training institutions, small-scale clinics and diagnostic facilities) and large hospitals providing specialized care. The sector currently provides around 80 percent of all curative care services.¹⁹ Public health services are insufficient or even nonexistent in many parts of the country, particularly in the southern and central regions, and demand for health services is met mostly by the private sector.²⁰ According to SARA, in 2016 there were approximately 3,289 private health facilities in Somalia. Overall, 79 percent of private facilities are in urban areas and 20 percent in rural areas. Puntland has a significantly higher proportion of facilities in rural areas than elsewhere in the country.

Private provision of health services in the country is unregulated and can sometimes pose a risk rather than a solution to the country's health problems.

The majority (58 percent) of facilities are pharmacies or dispensaries, while four percent health facilities, with the exception of hospitals, are owned by individuals. Private provision of health services in the country is unregulated and can sometimes pose a risk rather than a solution to the country's health problems. The lack of external support and development partners and a shortage of qualified personnel further complicates the situation. Nonetheless, the private sector is a crucial healthcare player and could be platform for providing public health services at affordable prices, as happens in many developing countries. However, reliable data on the size of the private health sector in Somalia is not available.²¹

¹⁸ WHO Health Facility Assessment Somalia 2016.

¹⁹ Country Cooperation Strategy WHO Somalia (2019-23).

²⁰ Strategic review of the Somali health sector: challenges and prioritized actions: Report of the WHO mission to Somalia, 11–17 September 2015.

²¹ Strategic review of the Somali health sector: challenges and prioritized actions: Report of the WHO mission to Somalia, 11–17 September 2015.

Table: 1.3: Private healthcare system delivery in Somalia (2018)

Existing private health care facilities but could not be visited due to insecurity	1,036
Confirmed private facilities in Puntland	228
Confirmed private facilities in Somaliland	746
Confirmed private health care facilities in south central Somalia	1,279
Total private health care facilities in Somalia	3,289
Type of private facilities	%
Hospitals	6 percent
Clinics	32 percent
Diagnostic centers	4 percent
Pharmacies	58 percent
Total	100 percent
Density of private health care facilities (excluding pharmacies) per 10,000 population	0.93

Source: OPM/ UNICEF (2018): Assessing the capacity of the private health system in Somalia.

Somali government spending on citizens' healthcare amounted to less than five percent of the total health sector expenditure.

1.3.4: Healthcare financing

Donors and development partners fund Somalia's public health sector. This assistance is mostly managed and distributed according to donor priorities and does not necessarily match the needs of the Somali health authorities. According to the federal Ministry of Planning and International Development (MOPIED) and the World Bank (2019), in 2017, 2018 and 2019 the public health sector received external aid respectively totaling \$109.3 million, \$108.6 million and \$137 million. Meanwhile, Somali government spending on health amounted to less than five percent of the total health sector expenditure.²² Figure 1.3 shows how much (dollars per person) was spent from 2015-17 on health and what is expected to be spent by 2040.

²² WHO 2018 SDG Monitoring Health for SDGs 2018, Aid Flows in Somalia 2018.

Figure 1.3: Spending on Healthcare 2015-2017

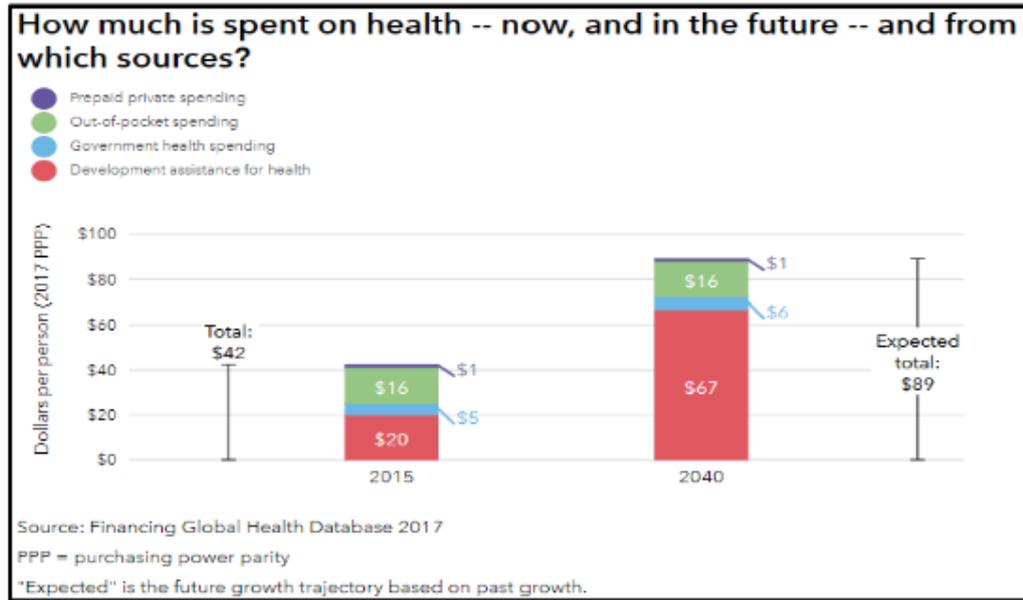


Table 1.4: External Health Aid to Somalia 2015-2017 (US\$ millions)

Year	2015	2016	2017
Health Sector External Aid	105.3	128.9	109.3

Source: Ministry of Planning, Investment and Economic Development (MOPIED) (2018): Aid flows in Somalia, March 2018.

1.3.5: Health governance

The health system in Somalia currently follows a devolved model of governance with three levels: the federal government, the FMS governments and regional health authorities. Each level has its own mandates, unique opportunities and challenges.

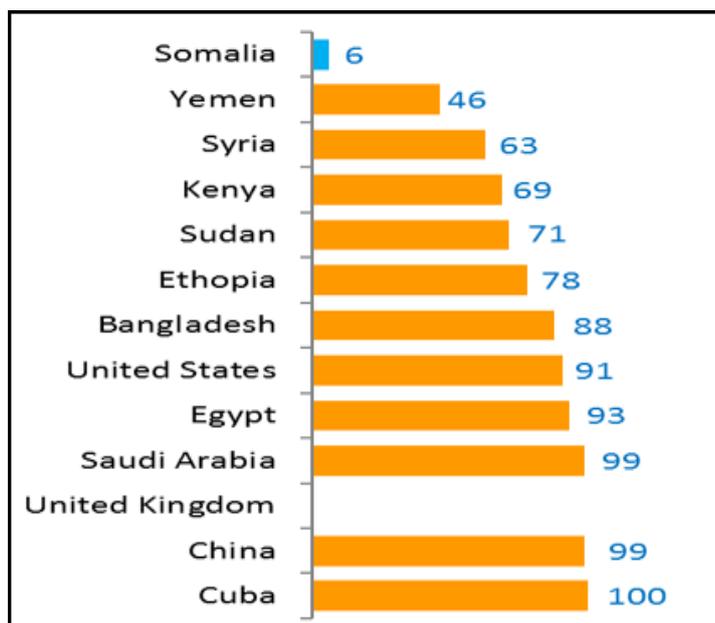
The FGS Ministry of Health (MoH), in close collaboration with FMS ministries of health, has the principal responsibility for developing an overall policy and regulatory framework to guide the health sector.

The FGS Ministry of Health (MoH), in close collaboration with FMS ministries of health, has the principal responsibility for developing an overall policy and regulatory framework to guide the health sector. However, the federal ministry has not adequately established its mandate throughout the country, partially due to limited capacity and confusion over the federal system. For almost two decades, the health sector has been administratively divided by donors and development partners into three zones: Somaliland, Puntland and South Central. In Puntland and Somaliland, the ministries of health have developed their capacities in service delivery and have decentralized health governance structures to the regions and districts. In these two zones, the situation for primary healthcare has dramatically improved over the past decade. There has also been notable progress in the newly created member states within the South Central zone. In general, however, more human capital and financial resources are needed so that service delivery to the needy population can be improved.²³

1.3.6: Health regulations capacity

The health sector has a minimal capacity in almost all technical areas of health regulatory capacity. The country is at the bottom in terms of 13 core health regulation capacities and emergency preparedness indexes, including preventing, detecting and responding, among others.²⁴

Figure 1.4: Somalia - International Health Regulations (IHR) Capacities Score (2016) vs Regional and Global Peers²⁵



²³ Strategic review of the Somali health sector: challenges and prioritized actions: Report of the WHO mission to Somalia 11–17 September 2015.

²⁴ OPM/ UNICEF, 2018. Assessing the capacity of the private health system in Somalia.

²⁵ WHO, 2016. World Health Statistics, 2016 – Monitoring Health for SDG.

1.3.7: Health sector policy and plans

Pages 258-60 of the National Development Plan (NDP9) cover the health sector with almost nothing having changed from the previous plan.²⁶ Health authorities such as Puntland have also developed health sector plans.²⁶ In 2019, the FGS MoH reported having established the National Health Professional Council (NHPC).²⁷ However, there have been complaints from some of the federal member states health authorities that the process of creating the NHPC was not inclusive enough. The FGS also was successful in developing the first Somali Human Resources for Health Development Policy (2016-2021) and the second Health Sector Strategic Plans (2013–2016). It was the first time since the collapse of the central government that such comprehensive medium-term national plans with strategic objectives, benchmarks and indicators were put in place. The second phase of the health sector strategic plan for 2017-2021 was developed in line with the Somali Health Policy (2014) and the National Development Plan (2017-2019). Furthermore, in 2016, the FGS endorsed the National Medicines Policy. However, limited or non-existent resources have partially hindered the full implementation of these plans and policies.

1.3.8: Health information system

The Somali health sector does not have a nationwide health information system. However, some members of the public health sector gather patient-based statistical data using District Health Information Software (DHIS2).²⁸ This electronic recording application helps health management teams gather data on patients for the sound management of service delivery systems. Communicable diseases surveillance (CDS) is being carried out through a unified data collection process for 12 nationally notifiable diseases. This study found that the health management information system (HMIS) faces enormous challenges concerning performance and capacity as well as mechanisms to support information used for decision making. For instance, HMIS units are nonexistent in most districts, and the current platform uses an Excel spreadsheet.

1.3.9: Recent health indicators

Somalia has some of the lowest health and well-being indicators in the world, with women and children most affected. Notable indicators include the following:

- In 2018 life expectancy at birth was 55.7 years old (54.4 for males and 57 for females) compared to the rest of the East Africa region where life expectancy is 68;²⁹
- In 2017 the crude death rate was 8.6 deaths per 1,000 population and 56.2 percent of all deaths in Somalia were attributable to communicable diseases, maternal, neonatal, nutrition and injuries;
- In 2017 the fertility rate was 6.7 children per woman, the fourth highest in the world after Burundi, Mali, Angola and Niger;³⁰

The Somali health sector does not have a nationwide health information system. However, some members of the public health sector gather patient-based statistical data using District Health Information Software (DHIS2).

²⁶ <http://mop.gov.so/index.php/2019/01/19/ndp9-consultation-with-the-federal-ministries/>

²⁷ <http://moh.gov.so/en/Pages.php?type=Health%20Workforce%20Development&Id=20>

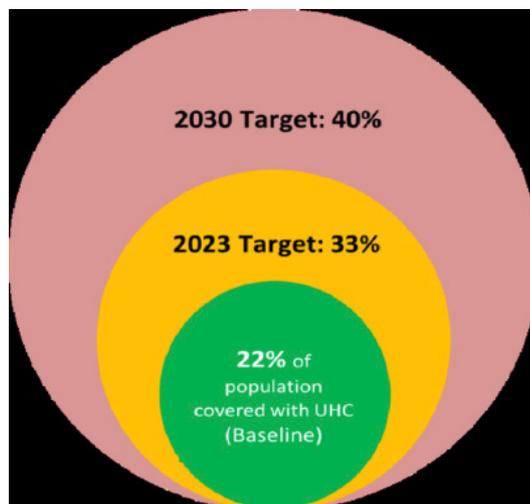
²⁸ DHIS2 is a tool for the collection, validation, analysis and presentation of aggregate and patient-based statistical data, tailored (but not limited) to integrated health information management activities, developed by the Health Information Systems Program (HISP).

²⁹ UN System in Somalia, 2019; Population Estimates for Somalia, 2013-2018.

³⁰ The 20 Countries with the Highest Fertility Rates in 2017, Statista website, <https://www.statista.com/statistics/262884/countries-with-the-highest-fertility-rates/>, last accessed on 21 April 2020.

- Over the past decade, a demographic transition has been taking place, with a decline in the overall death rate and a high birth rate of 37-40 per 1,000 population, leading to population growth of three percent;³¹
 - In 2017 health facility density per 10,000 population was 1.69 (0.76 public and 0.93 private);
 - Hospital bed density per 10,000 population was 8.7 and the essential health workforce³² per 1,000 population was 0.4;³³
 - In 2017 only 30 percent of Somalis had access to safe water supplies or sanitation and half the population did not have access to toilets. In rural areas, the figure was 83 percent;³⁴
 - In 2017 diarrheal diseases and respiratory infections accounted for most deaths among children under five years old. One in seven children died before their fifth birthday, and one in 18 women risk death during pregnancy;³⁵
 - The Universal Health Coverage index for Somalia (2017) was only 22 percent – one of the lowest in the world. Somalia has only 0.1 surgeons per 100,000 population;³⁶
 - Mental disorders are also on the rise due to the longstanding conflict, unemployment, sedentary lifestyles, socioeconomic stress, high khat consumption and inadequate mental health screening systems at the primary level;
 - In 2017, Somalia had 0.05 psychiatrists per 100,000 population;³⁷
- Health expenditure per capita by the government in 2017 (including official development assistance) was \$9.8–\$12, whereas per capita health expenditure in 2016-2017 was \$15.8-\$19.4;³⁸ and
- In 2017, Somali government health expenditure was less than one percent of total health expenditures, whereas per capita out-of-pocket health expenditure was US\$6-\$7.4.³⁹

Figure 1.5: Universal Health Coverage performance for Somalia (2017)



Source: Country Cooperation Strategy WHO Somalia (2019-23).

³¹ Country Cooperation Strategy WHO and Somalia (2019-23) Situational Analysis.

³² Essential health workforce: medical doctors, nurses and midwives.

³³ Country Cooperation Strategy WHO and Somalia (2019-23) Situation Analysis.

³⁴ <https://apps.who.int/gho/data/?theme=main>: accessed July 2019

³⁵ <https://www.who.int/news-room/fact-sheets/detail/maternal-mortality>

³⁶ Country Cooperation Strategy WHO and Somalia (2019-23) Situation Analysis.

³⁷ Country Cooperation Strategy WHO and Somalia (2019-23) Situation Analysis.

³⁸ Country Cooperation Strategy for WHO and Somalia (2019-23) Situation Analysis.

³⁹ Country Cooperation Strategy WHO and Somalia (2019-23) Situational Analysis.

Table 1:5: Health burdens by disease groups and risks (2017)

Cause of Death	
1	Resp. infections & TB
2	Other infections
3	Cardiovascular diseases
4	Maternal & neonatal
5	Enteric infections
6	Neoplasms
7	Self-harm & violence
8	Transport injuries
9	HIV&AIDS and STIs
10	Digestive diseases

Premature Death (YLL)	
1	Resp. infections & TB
2	Other infections
3	Maternal & neonatal
4	Enteric infections
5	Self-harm & violence
6	Cardiovascular diseases
7	HIV&AIDS and STIs
8	Neoplasms
9	Other non-communicable
10	Transport injuries

Years lived with Disability	
1	Nutritional deficiencies
2	Mental disorders
3	Musculoskeletal disorders
4	Neurological disorders
5	Skin diseases
6	Other non-communicable
7	Sense organ diseases
8	Un-intentional injuries
9	Maternal & neonatal
10	Diabetes and CKD

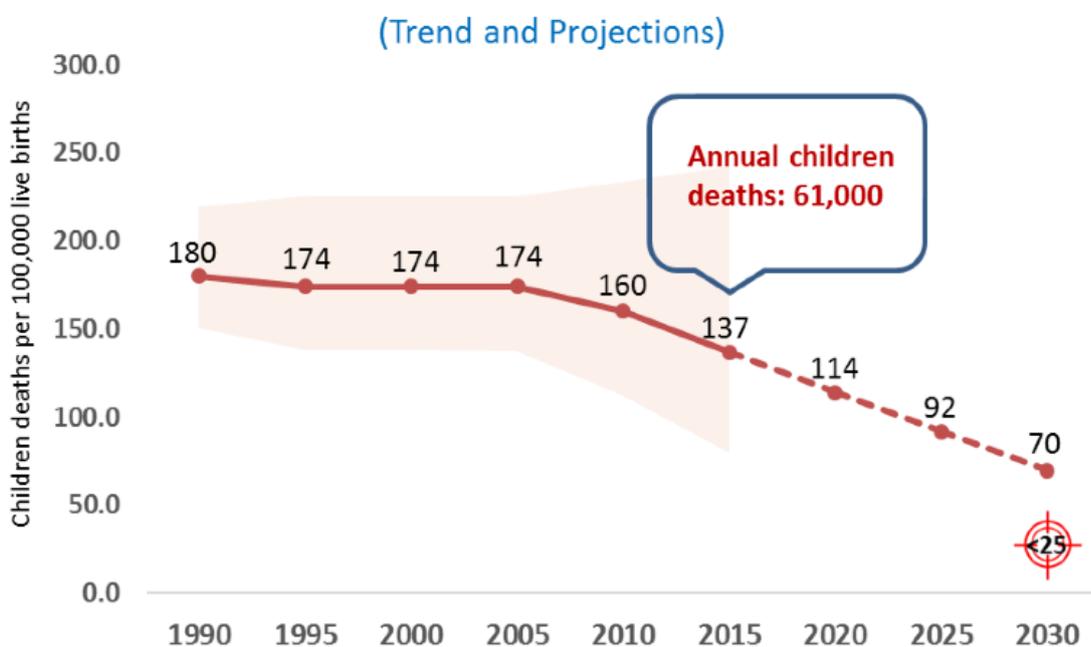
Risks	
1	Malnutrition (child & mat)
2	Unsafe water & sanitation
3	Air pollution
4	Dietary risks
5	High systolic BP
6	High fasting plasma glucose
7	Tobacco
8	Occupational risks
9	Unsafe sex
10	High body mass index

Source: IHME Burden of Diseases Data for Somalia 2017

1.3.10: Under-five, infant and neonatal mortality

In Somalia, the under-five, infant, and neonatal mortality rates are among the highest in the world. One in seven Somali children dies before seeing their fifth birthday. In 2017, the rates stood at 123 (under-five), 80 (infant) and 39 (neonatal) deaths per 1,000 live births,⁴⁰ the highest under-five mortality in the Eastern Mediterranean Region (EMR).⁴¹

Figure 1.6: Somalia - Under Five Mortality Rates, Trends and Projections, 1990 – 2030⁴²

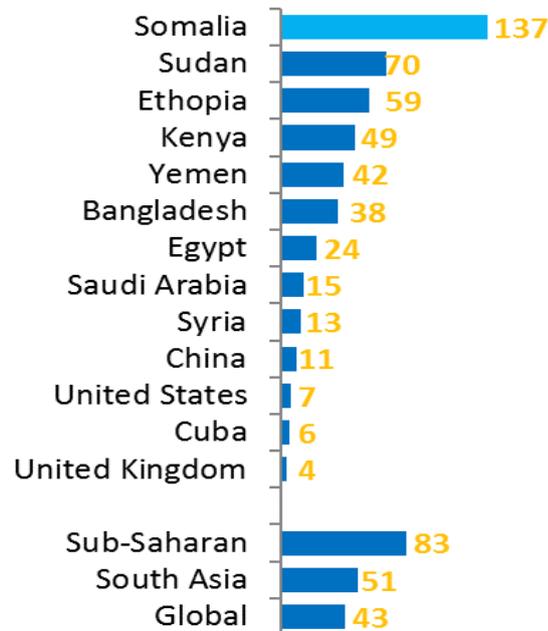


⁴⁰ IGME, 2017.

⁴¹ <https://somalia.unfpa.org/en/news/midwives-frontlines-fighting-maternal-death-somalia>

⁴² UN Interagency estimates for Somalia: In the Country Cooperation Strategy for WHO Somalia 2019-23.

Figure 1.7: Somalia – Under Five Mortality Rank vs Selected Regional and Global Peers⁴³



1.3.11: Maternal mortality

Somalia has the highest number of pregnancy and childbirth-related deaths in the world and one in 22 women have a high chance of dying during childbirth.

The maternal mortality rate in Somalia is among the highest in the world as women’s health has not received sufficient resources and attention. In 2016, the maternal mortality ratio was 726 deaths per 100,000 live births.⁴⁴ Lack of skilled and trained health staff and midwives, low levels of literacy, poor socioeconomic status, high fertility rate, low access to birth spacing services and harmful traditional practices including Female Genital Mutilation/ Cutting (FGM/C) have also had severe adverse effects on reproductive and maternal health.⁴⁵ As a result, the country has the highest number of pregnancy and childbirth-related deaths in the world. In Somalia, only 22 percent of the need for skilled birth attendants is met nationally and one in 22 women have a high chance of dying during childbirth.⁴⁶

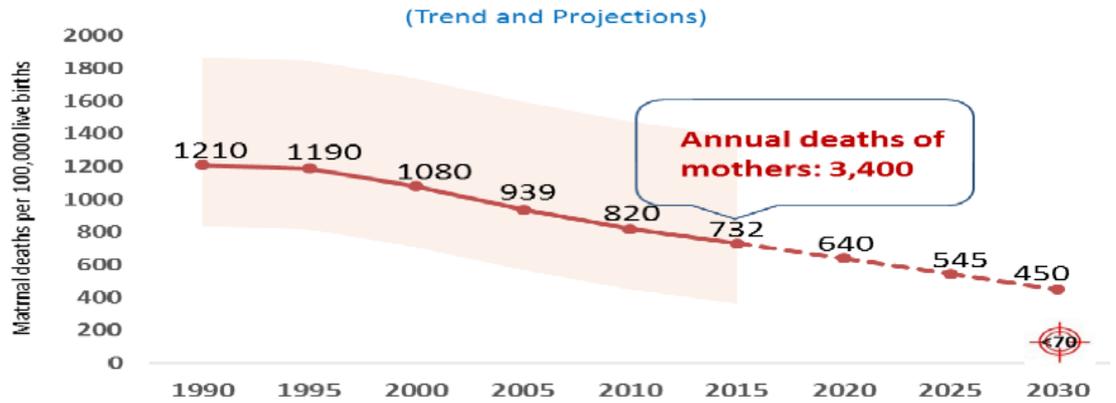
⁴³ UN Interagency estimates for Somalia: In the Country Cooperation Strategy for WHO Somalia 2019-23.

⁴⁴ <https://reliefweb.int/report/somalia/maternal-mortality-somalia-what-arc-doing-combat-crisis>

⁴⁵ Save the Children (2014). State of the World’s Mothers 2014: Saving Mothers and Children in Humanitarian Crises. See: http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/SOWM_2014.PDF

⁴⁶ WHO SDG Monitoring Health for SDGs 2016.

Figure 1.8: Somalia - Maternal Deaths per 100,000 live births, Trend and Projections, 1990 - 2030⁴⁷



Source: Country Cooperation Strategy WHO and Somalia (2019-23).

1.3.12: Sanitation

Hygiene and sanitation in Somalia are generally poor and are considered significant contributors to the high rates of disease. The population's health and wellbeing are strongly linked to proper sanitation and hygiene and their access to safe water. Less than 45 percent of the Somali population has access to improved water sources, and only one-fourth of the population has access to water with improved sanitation facilities. As a result, waterborne diseases are the primary cause of nearly one in five deaths (23 percent) of children under five.⁴⁸ Figure 1.7 illustrates Somalia's mortality rate attributed to exposure to unsafe water sanitation and hygiene (WASH) services (per 100,000 population).⁴⁹

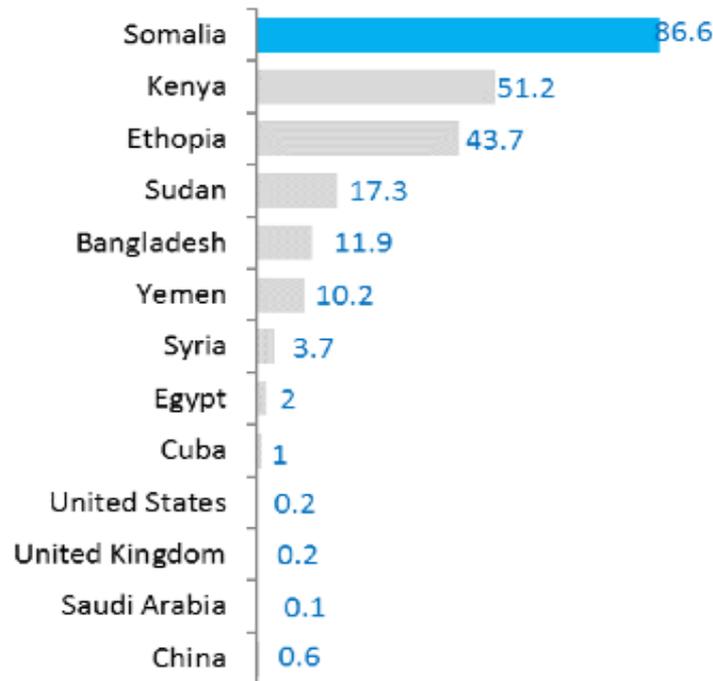
⁴⁷ Country Cooperation Strategy WHO and Somalia (2019-23).

⁴⁸ <https://www.unicef.org/somalia/wes.html>

⁴⁹ WHO Global Health Observatory (GHO) data 2016.

⁵⁰ UN Interagency Estimates for Somalia: In the Country Cooperation Strategy for WHO Somalia 2019-23.

Figure 1.9: Somalia - Mortality Rate Attributed to Exposure to Unsafe WASH Services (per 100,000 population)⁵⁰



1.3.13: Communicable diseases

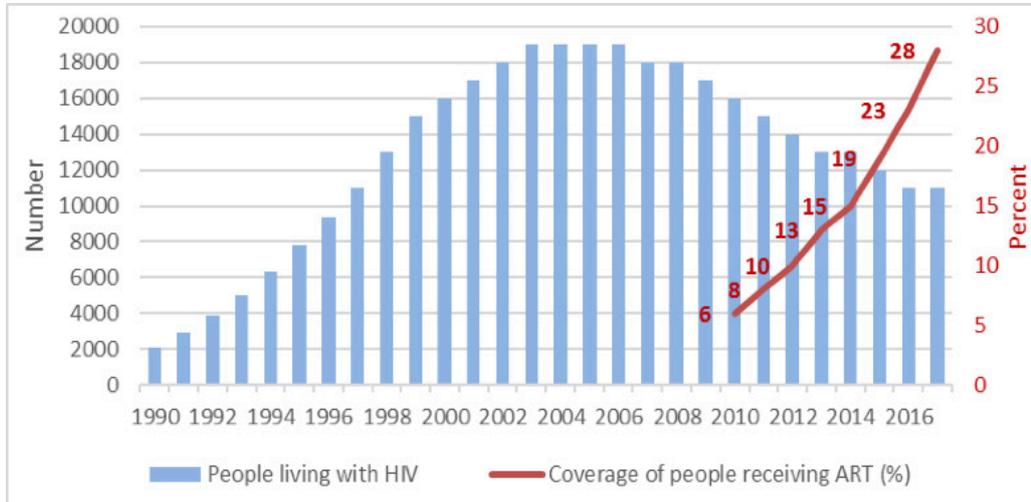
1.3.13.1: HIV

HIV infection among the general population remained at about one percent or lower, but was higher among high-risk groups and tuberculosis (TB) patients. The estimated HIV prevalence among TB cases is 6.8 percent, necessitating that pregnant women get unimpeded access to routine HIV testing.⁵¹

⁵⁰ UN Interagency Estimates for Somalia: In the Country Cooperation Strategy for WHO Somalia 2019-23.

⁵¹ Somali federal Ministry of Health. Second phase of health sector strategic plan 2017-2021.

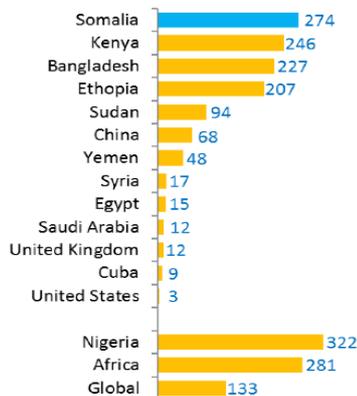
Figure 1.10: Somalia - HIV in Adults 15-49 (per 1,000 uninfected) 2016⁵²



1.3.13.2: Tuberculosis (TB)

WHO estimates that the incidence of multi-drug resistant tuberculosis in Somalia is one of the highest in Africa.⁵³ Over eight percent of new cases are multi-drug resistant TB types. Moreover, as many as 47 percent of patients coming to treatment centers are there for a second time, indicating a drug-resistant strain of the disease.⁵⁴

Figure 1.11: - Somalia - TB Incidence per 100,000 Population per Year⁵⁵



⁵² WHO SDG Monitoring Health for SDGs 2016 and UNAID & WB HIV data for Somalia 2015-2016 HIV Sentinel Surveillance.

⁵³ WHO SDG Monitoring Health for SDGs 2016 and UNAID & WB HIV data for Somalia 2015-2016 HIV Sentinel Surveillance.

⁵⁴ <http://www.tbonline.info/posts/2018/2/11/resistance-tb-drugs-growing-somalia/>

⁵⁵ Country Cooperation Strategy WHO and Somalia (2019-23).

1.3.14: Non-communicable diseases (NCD)

The disease burden in Somalia is heavily dominated by non-communicable diseases which are on the rise and contributed to 31.9 percent of the total deaths in 2017.

Figure 1.12: Somalia– NCD Contributions to Mortality (2017)⁵⁶

Non-communicable diseases (NCD) contributed to 31.9% of total deaths in 2017	
NCD Type	Cases
Mental Health Disorders	1.9 million
Diabetes	537k
Neoplasm/Cancer	42k
Chronic Liver Disease	2.7 million
Ischemic Heart Diseases	103k

⁵⁶ WHO SDG Monitoring Health for SDGs 2017.

2.0: PART TWO

2.1: Human resources for health (HRH)

Modern health systems are often pluralistic and transnational, making contemporary human resources for health a rich and complex system composed of public, private and informal operators.⁵⁷

WHO inclusively defines health systems as “all the activities whose primary purpose is to promote, restore or maintain health”⁵⁸ and in doing so explicitly recognizes that the health system extends beyond the public health realm. The common understandings of the health system covers all categories of the health workforce, encompassing the clinical professionals, managers, administrative staff, non-professional healthcare providers such as community health workers and vaccinators but also those working in the private and not-for profit sub-sectors.⁵⁹

The civil war and the massive population displacement have weakened the entire health workforce. During the extended conflict, over 600 medical doctors, qualified nurses, midwives and skilled health technicians migrated overseas. The skilled Somali health workforce in the post-conflict era has continuously migrated from the less secure rural areas to urban localities and from the public to the private sector in search of better financial and professional development opportunities. These imbalances have worsened the existing shortage of health workers⁶⁰

During the extended conflict, over 600 medical doctors, qualified nurses, midwives and skilled health technicians migrated overseas.

An assessment carried out by WHO estimates that in 2014 the total number of healthcare professionals operating in Somalia was 9,566. (physicians, nurses and midwives). In other words, the ratio was only 0.34 essential health workforce per 1,000 people and this was far short of the WHO minimum requirement of 4.5 per 10,000 people. In 2016, the country had one doctor per 20,000 people. There were four nurses and one midwife per 20,000 people. This falls way short of the WHO-set minimum threshold of 2.3 nurses and midwives per 1,000 people.⁶¹ Mid-level and technical staff, including pharmacists, laboratory technicians and x-ray/imaging technicians were also scarce (0.1 percent, 0.6 percent, 0.4 percent, respectively). Somalia needs to recruit 97,700 physicians, nurses and midwives, or 24,350 doctors and 73,350 nurses and midwives, by 2030 to achieve Universal HealthCare (UHC), a key priority set out by both WHO and the United Nations General Assembly.

⁵⁷ The World Health Report 2006: working together for health. Geneva: World Health Organization 2006.

⁵⁸ Dodd, R., Hill PS., Shuey D., Antunes AF., Paris on the Mekong: using the aid effectiveness agenda to support HRH in the Lao People's Democratic Republic. Human Resources Health 2009, 7(16).

⁵⁹ Bangdiwala, S., Fonn, S., Okoye, O., Tollman's. Workforce resources for health in developing countries. Public Health Rev. 2010;32(1):296–318.

⁶⁰ The Somali Human Resources for Health Development Policy 2016-2021.

⁶¹ Ibid.

The workforce has always been the weakest element of the Somali health system. There has been a severe shortage of qualified health professionals, particularly in the rural, nomadic and hard to reach geographical areas. An assessment carried out by WHO estimates that in 2014 the total number of healthcare professionals operating in Somalia was 9,566.

The assessment also revealed that women made up about 42 percent of the country's doctors, qualified nurses, qualified midwives and skilled technicians. The study also found that and their active engagement is indispensable as they effectively bridge cultural and religious barriers. Whether women will take their children to male doctors is mainly determined by the presence, or absence, of female health workers.⁶²

Table 2.1: Somali Healthcare Workforce in 2014⁶³

	Human resources categories	South-Central Somalia	Putland	Somaliland	Total
1	Physicians	339	120	179	638
2	Dentists	00	2	0	2
3	Pharmacists	20	6	4	30
4	Registered nurses	817	664	1,256	2,737
5	Registered and community midwives	82	321	344	747
6	Health allied professionals	508	512	388	1,408
7	Auxiliary nurses/ auxiliary midwives	1,838	706	1,016	3,560
8	FCHW	75	65	39	179
9	Hospital administrators	34	44	187	265
	Total	3,694	2,440	3,413	9,566

⁶² The Somali Human Resources for Health Development Policy 2016-2021.

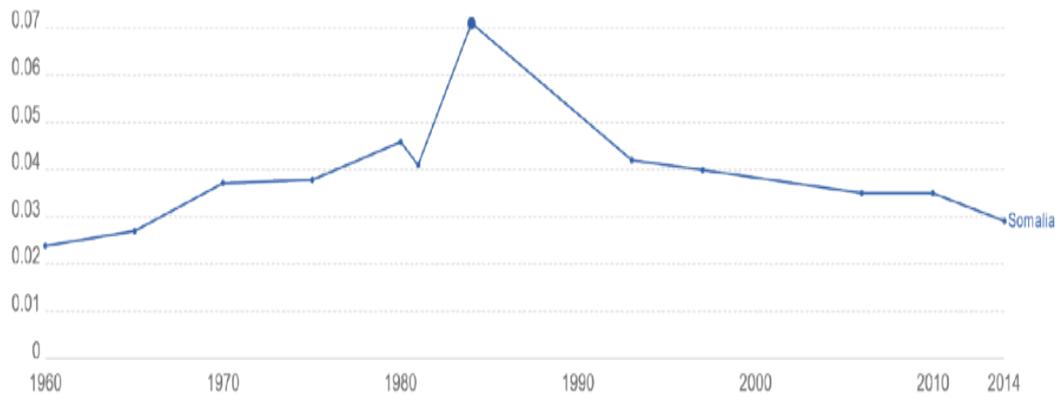
⁶³ Ibid.

⁶⁴ Ibid.

Table 2.2: Somali Doctors, Qualified Nurses, Qualified Midwives and Skilled Medical Technicians by Gender 2014⁶⁴

Categories	South-Central Somalia			Putland		Somaliland			Total by Gender & Grand Total			
	M	F	Total	M	F	Total	M	F	Total	M	F	Grand Total
Doctors	357	74	431	93	27	120	159	38	197	609	139	748
Qualified nurses	437	380	817	267	397	664	726	530	1256	1,430	1,307	2,737
Qualified midwives	0	65	65	0	281	281	0	344	344	0	690	690
Skilled technicians	334	106	440	467	52	519	329	101	430	1130	259	1,389
Total	1,128	625	1,753	827	757	1,584	1,214	1,013	2,227	3,167	2,395	5,564

Figure 2.1: Somalia - Medical Doctors* Per 1,000 population - 1960 - 2014⁶⁵



Medical doctors include generalist physicians and specialist medical practitioners

⁶⁵ Oxford University, Oxford Martin School Program on Global Development: Our World in Data - Somalia Website <https://ourworldindata.org/search?q=somalia>

2.3: Human capital development: a brief literature review

Human capital is the term economists often use for education, health and other human capacities that can raise productivity when the number of skilled people working in these sectors increases. The concept of human capital also refers to the skills the labor force possesses.

It includes the investments made in people (health, education and training), which increase an individual's productivity. The theory of human capital was first developed by Adam Smith in 1776 when he argued that the workforce determines the wealth of nations with different levels of education and training.⁶⁶

In human capital theory, education and health are essential. It is the human resources of any nation, rather than its physical capital and material resources, that ultimately determine the character and pace of its economic and social development. Human capital can, therefore, be considered as the skills and expertise acquired through training to improve and increase production capacities of the economy. In terms of health, it is the energy that enhances labor productivity. Skills affect individual and national economic and social development in many ways. Skills improve labor market outcomes both in terms of employment rates and earnings and are vital in tackling inequality and promoting social mobility. The Organization for Economic Co-operation and Development (OECD) notes that investing in human capital is the single most effective way of promoting growth and distributing its benefits more equitably.⁶⁷

⁶⁶ Blundell et al., (1999) and Todaro and Smith, (2003).

⁶⁷ OECD: Taylor, Katie. Why is Human Capital Important for Development? April 2012, <https://community.oecd.org/docs/DOC-41754>

Human capital is one of the five core capitals. The others are:⁶⁸

- Natural capital: the quality and quantity of natural resources, ranging from fisheries to air quality;
- Financial capital: savings and regular inflows of money;
- Physical capital: the infrastructure, tools and equipment used for increasing productivity; and
- Social capital: social resources, including networks for cooperation, mutual trust and support.

2.4: Human capital and health: a critical link

Health Human Capital (HHC), also known as Human Resources for Health (HRH) or Health workforce (HW), is defined by WHO as all people engaged in actions whose primary intent is to enhance health. These comprise physicians, nurses, midwives, dentist-allied health professions, community health workers, social health workers and health management and support personnel.⁶⁹ The HRH domain also incorporates the skills and expertise that health workers apply when performing promotive, preventive, curative and rehabilitative services. A properly trained, competent health workforce is essential to any successful healthcare system.

Furthermore, the number of health workers in a country and their distribution and composition is a crucial indicator of the effectiveness of the workforce. WHO recognizes the health workforce as the backbone and one of the core building blocks of health systems. Therefore, any meaningful improvement in the health status of a population depends on the availability of human resources with the proper skills mix.

⁶⁸ DFID Sustainable Livelihoods Approach and its Framework http://www.glopp.ch/B7/en/multimedia/B7_1_pdf2.pdf

⁶⁹ Becker, Gary (1964). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. Cambridge, MA: Harvard University Press.

2.5: Setting the context

WHO recognizes the health workforce as the backbone and one of the core building blocks of health systems. Therefore, any meaningful improvement in the health status of a population depends on the availability of human resources with the proper skills mix.

As Somalia moves from conflict to development, human capital development should be a critical priority. However, in the absence of information on capacity gaps as well as issues/ deficiencies that directly affect human capital development in Somalia, ongoing development initiatives could be reversed. The enormity of the reconstruction challenge and the exceedingly high public expectations impose a considerable burden on the government. The pervasive and systemic capacity deprivation brought about by years of conflict and the deficiency of governance further complicate the equation. The Ninth National Development Plan (NDP9 2020-2024) is the first policy framework to sufficiently address the human capital development issue.⁷⁰ The plan provides a path to national economic growth and poverty reduction within the next five years. It builds upon progress made through the Eighth NDP with regard to reducing poverty and inequality through inclusive economic growth and employment, improving security and the rule of law and strengthening political stability.

2.6: Theoretical framework

The Human Resources for Health Action Framework (see Figure 2.2) that guides this study is designed to assist governments and health managers in developing and implementing strategies to achieve a productive and sustainable health workforce. Through a comprehensive approach, the framework helps to address shortages, skills gaps, uneven distribution, low retention and reduced motivation in the health workforce.

⁷⁰The NDP9 states: “The Ministry of Planning in close consultation with the Ministries of Labor and Education commissioned in 2018 a research consortium [consisting of the Heritage Institute for Policy Studies and the City University of Mogadishu funded by the Somalia Stability Fund (SSF)] on the creation of an inclusive, indigenous and sustainable Human Capital Development Mechanism (HCDM). The overarching objectives of the HCDM are first to establish partnership with leading human capital development stakeholders from the public sector, private sector, civil society and academia in line with NDP-9. The HCDM research consortium was specifically tasked to: conduct a comprehensive countrywide baseline study with special emphasis on the productive sector (agriculture, fisheries and livestock), to develop a human capital development strategy and to propose a mechanism that facilitates synchronization of the efforts by the human capital development stakeholders. The baseline study and the national strategy will be released in early 2020 and will guide developing the human capital of the Somali citizens.”

The HRH Action Framework applies to all countries and it includes five actions:

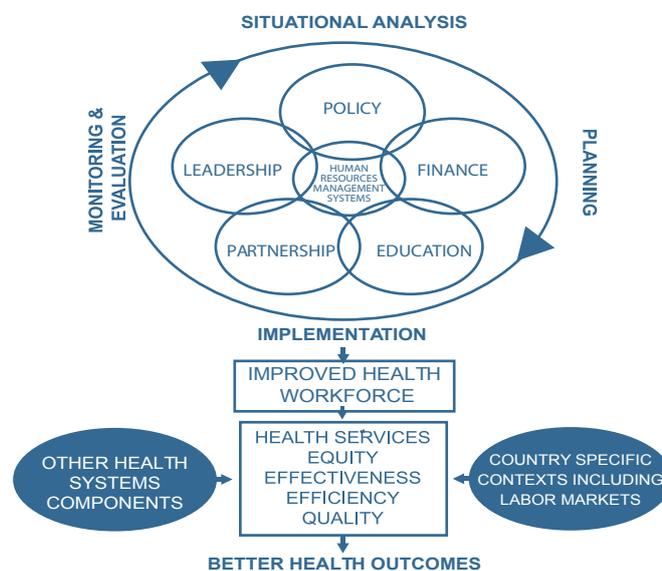
- HR management systems;
- Leadership;
- Partnership;
- Finance; and
- Education and policy.

The framework has four phases:

- Situational analysis;
- Planning;
- Implementation; and
- Monitoring and evaluation.

These elements in the application of the framework are influenced by specific countries' economic and political contexts, labor markets and health workforce capacities, as well as particular health systems' technological levels, availability of drugs and equipment and the number and condition of health facilities.

Figure 2.2: The Human Resource for Health Action Framework



Source: HRH Action Framework (<https://www.capacityproject.org/framework/>)

2.7: Introduction to the study

There has been minimal research on the state of healthcare and human capital for health in Somalia in the past 30 years. The main objective of this study was to examine the state of healthcare in Somalia as it relates to human capital for health, providing analysis on the current situation, the realities and challenges that need to be addressed and the solutions. The study sought to identify health workforce skills shortages and gaps and to explore possible ways to overcome these challenges. Moreover, it aimed at reviewing existing policies, programs, health professional education institutions as well as skills-enhancing efforts by all levels of government, the private sector and external partners.

2.8: Specific objectives

The objectives of the study included mapping health and service provision issues/ deficiencies that are directly affecting human capital development in Somalia. Issues examined included:

- Determining the critical assets and resources for developing and improving the health of Somalis, the provision of services and infrastructure;
- Analyzing the key stakeholders and partners and their influence in mitigating the effects of ill health on human capital development in Somalia;
- Identifying knowledge gaps in society and opportunities available to address chronic diseases, disabilities, malnutrition, public health, health financing and health systems development; and
- Producing a comprehensive report about the state of the health sector in Somalia specifically relating to existing skills development efforts, identifying the strengths, weaknesses and skills needed for the sector to reach its potential both today and in the future. This report will feed into a more comprehensive baseline study, which will inform a national human capital development strategy and also the NDP9 that is being produced by the ministries of planning at the federal and member state levels.

2.9: Methodology

The methodology used for this study is qualitative interpretative.⁷¹ The researcher embarked on the study without the predetermined precise hypothesis that is frequently associated with positivist social science. However, the literature review provided necessary insights, which helped in constructing questionnaires and interviews. The study used the following approaches to collecting information:

- Literature review: the study reviewed available documents relevant to the health workforce, including Somali health policy, health sector strategic plans, human resource development policy and other available programmatic documentation. The desk review also aimed at generating the necessary knowledge and experience on the subject, including reviewing the most recent public data available, particularly on numbers of health facilities and the human workforce.
- Key informant interviews:⁷² interviews were conducted with health authorities in Mogadishu, Jowhar, Dhusamareeb, Kismayo, Baidoa and Garowe. The study participants were selected based on their experience and expertise. In Puntland, the researcher visited Garowe, Galkacyo, Qardho and Bosaso, far exceeding the initial plan to only visit Garowe, the capital. The overall security situation permitted the researcher to move freely, traveling over 1,200 kilometers without encountering any difficulties. All institutions and stakeholders visited/interviewed were enthusiastic about the study objectives and showed collaboration to the highest level. There were more female participants in the study in Puntland than other regions visited.
- Major hospitals: visits were made to 10 private hospitals in Mogadishu, Kismayo, Baidoa, Galkacyo, Garowe, Bosaso and Qardho.
- Health professional education institutions: visits were also made to 11 health education institutions and four professional associations in Mogadishu, Kismayo, Baidoa, Galkacyo, Garowe and Bosaso.

⁷¹ The qualitative research method seeks the use of detailed close-up observation of the natural world by the investigator.

⁷² The key informant interviews were collected from stakeholders that have taken part in the health planning, implementation, management and financing of activities conducted in support of the various programmatic interventions of the health system.

- Group discussions: the researcher conducted 10 group discussions with students, academics, health policy-makers and subject specialists from the ministries of health at both the federal and state levels in Mogadishu, Kismayo, Bosaso and Garowe.
- Interviews with international organizations: the researcher also visited two UN agencies (WHO and UNFPA) based in Nairobi to collect additional data on the most recent health indicators for Somalia.

The study assessed the profile of the health workforce in five regional states (Puntland, Jubbaland, Southwest, Hirshabelle and Galmudug) and the Benadir region.

The study assessed the profile of the health workforce in five regional states (Puntland, Jubbaland, Southwest, Hirshabelle and Galmudug) and the Benadir region. Questions for the key informant interviews were open-ended, closed-ended and scaled response items. The open-ended questions aimed at evaluating the perception of the key informants, whereas the closed-ended questions were to generate figures and numbers. The total number of interviews for each state/region was primarily determined by participants identified in the field as knowledgeable about the healthcare sector. Two secondary mapping forms containing a list of questions to assessing operational public health facilities in the federal member states and the Banadir region and 20 different categories of the public health workforce were developed. Overall, a total of 117 participants (26 percent of them female) from ministries of health, public hospitals, private hospitals/clinics, health training institutions, health professional associations and UN agencies were interviewed during this study.

2.10: Data analysis and reporting

Data was first organized, transcribed and coded following qualitative content analysis techniques. In the data analysis process, only those views considered essential and relevant to the central issues of this study were taken into consideration and presented. The researcher had, to a certain extent, cross-checked the findings of this study with previous work done by researchers in the Somali healthcare. Drafts of the report were shared with researchers and subject matter experts for feedback and comments.

2.11: Limitations

During the data collection period for this study, Somalia went through security and economic problems which affected access to some states. The relationship between the federal government and federal member states significantly deteriorated and the situation in Galmudug state was exceptionally complex due to the turbulent political situation and security uncertainty. Consequently, the researcher could not visit Galmudug and Hirshabelle states for fieldwork. Data was collected during phone calls and through questionnaires to ministry of health participants in Dhusamareb and Jowhar. This study focuses on only those parts of Somalia that accepted the 2012 provisional constitution. Somaliland has not been included in this study and neither have territories under Al-Shabaab control.

3.0: PART THREE: KEY FINDINGS

3.1: Introduction

The findings of the study are mainly drawn from the perceptions of interviewees, data from the literature review and insights of the researchers. The presentation of the findings starts with an overview of the condition of the public health infrastructure, the state of the health workforce, the priority areas for training needs of the health workforce, key constraints and opportunities of health professional training institutions, existing challenges concerning health workforce deployment and retention and management. The study also outlines recommendations in the form of strategic directions and possible interventions to improve the state of the health workforce.

The situation in Somalia remains complex – politically, socially and economically – with political insecurity and environmental challenges that continue to negatively impact on the state of healthcare. This is especially true in the South and Central states/regions where insecurity remains a major constraint to every aspect of progress.

The situation in Somalia remains complex politically, socially and economically – with political insecurity and environmental challenges that continue to negatively impact on the state of healthcare.

The study found that healthcare services are unacceptably substandard at all levels. Likewise, the health infrastructure (both public and private) is small, concentrated in secure areas, mainly in major cities and towns, and ill-equipped to meet the basic health service needs of the bulk of the population. Challenges range from lack of funding, weak management, weak human resource base, weak retention and motivation schemes, inadequate and broken referral systems and diagnostic services to a poor enabling environmental, weak and unregulated health professional education institutions, lack of health regulatory frameworks and ineffective professional boards and councils to monitor codes of conduct and professional ethics. The study findings also show a general frustration among the top leadership of the ministries of health about the lack of funding and technical support to develop the health workforce.

3.2: The state of public health facilities

This study examined the public health facilities in five federal member states and the Banadir region. We found that the structure of the current public health system comprises seven tiers: PHCUs, HCs/MCHCs, RHCs/DHs, RHs, TB Centers, CT/ART facilities and MHCs. The state of public health facilities is generally appalling with few human capital, financial and technological means, long neglected by both the government and the development partners. Public health facilities are distributed over the regional, district and sub-district rural areas, and are run by both the Somali health authorities and INGOs.

Health centers are providing some preventive and curative services, and the main focus is on women and children, together with essential health services for the general population, particularly in rural settings. Primary health units (also called health posts) provide limited curative, promotive and preventive services at the community level. The majority of hospitals do not provide the full range of either secondary or higher-level care, and many of these hospitals are functional for limited services only.

Most of the primary healthcare facilities in Puntland are fully managed by the ministry of health.

In contrast, facilities in the rest of the states and the Banadir region are mainly run by INGOs with donor financing. In 2019, there were 661 operational public health facilities in the five federal member states and the Banadir region (305 in Puntland; 29 in Southwest; 92 in Galmudug; 93 in Jubbaland; 81 in Hirshabelle; 61 in Banadir). Patients often travel long distances to seek medical care in urban centers through private hospitals, clinics and pharmacies.

There is an urgent need to improve the public health infrastructure as this would contribute to accessibility but also improve the quality and standard of services. International partners, donors and the UN system have given much support to primary healthcare facilities across the country. However, it was not sufficient, and more assistance is needed, such as the construction of new facilities, renovation and expansion of existing ones including laboratory and blood bank facilities, the establishment of a central oxygen supply system and the refurbishment of offices.

Table 3.1: Public Health Facilities Puntland 2019⁷³

Public Health Facilities - Puntland State (2019)	
Facility Type	Number
Primary Health Care Units (PHCUs)	151
Health Center /MCH Centers	110
Referral Health Center/District Hospital	15
Regional/ Tertiary Hospital	5
TB Centers	15 + 1 multi-drug resistance center
VCT/ART Facilities	6
Mental health	2
Total	305

⁷³ Puntland Ministry of Health.

Table 3.2: Public Health Facilities Southwest 2019⁷⁴

Public Health Facilities - Southwest State (2019)	
Facility Type	Number
Primary Health Care Units (PHCUs)	N/A
Health Center /MCH Centers	20
Referral Health Center/District Hospital	2
Regional/ Tertiary Hospital	1
TB Centers	4
VCT/ART Facilities	1
Mental health	1
Total	29

Table 3.3: Public Health Facilities Galmudug 2019⁷⁵

Public Health Facilities - Galmudug State (2019)	
Facility Type	Number
Primary Health Care Units (PHCUs)	38
Health Center /MCH Centers	36
Referral Health Center/District Hospital	5
Regional/ Tertiary Hospital	2 (partially functional)
TB Centers	6
VCT/ART Facilities	4
Mental health	1
Total	92

⁷⁴ Southwest Ministry of Health.

⁷⁵ Galmudug Ministry of Health.

Table 3.4: Public Health Facilities Jubbaland 2019⁷⁶

Public Health Facilities - Jubaland State (2019)	
Facility Type	Number
Primary Health Care Units (PHCUs)	18
Health Center /MCH Centers	56
Referral Health Center/District Hospital	6
Regional/ Tertiary Hospital	1
TB Centers	10
VCT/ART Facilities	1
Mental health	1
Total	93

Table 3.5: Public Health Facilities by State / Region 2019⁷⁷

Public Health Facilities by State / Region 2019							
	Banadir	Hirshabelle	Jubaland	Galmudug	Southwest	Puntland	Grand Total
Total	61	81	93	92	29	305	661

3.3: State of health workforce

The backbone of the health system is the availability and quality of the health workforce. However, a workforce without drugs and supplies, functioning equipment and adequate supervision is also ineffective. Given the multitude of factors to consider, it can be challenging to determine where to start and which approaches to take in developing the health workforce.

⁷⁶ Jubbaland Ministry of Health.

⁷⁷ HCDM Assessment (2019): HIPS & City University. Mogadishu, Somalia.

This study assessed the state of the public health workforce in five federal member states and the Banadir region to establish a baseline and road map to inform national health workforce strategic development efforts. The assessment included identifying areas of workforce shortages, skill shortages and circumstances under which the gaps and shortages exist and possible solutions.

The overall findings of the study indicate a critical shortage in all categories of the health workforce. In many parts of the country, the shortage of national health workers is partially addressed through the recruitment of expensive expatriates. The number of these foreign health experts is unknown. Shortages are particularly acute among mental health doctors, health equipment maintenance technicians and fully-trained anesthetists. The biggest shortage, however, exists in the essential health workforce, especially physicians and those in reproductive, maternal, newborn and child health. Minimal financial resources and weak governance functions are major contributing factors to the overall scarcity of health workers. There remains a lack of clarity and consistency of the mandates and roles of the ministries, agencies, and institutions at the federal, state, district and local levels. This has restricted the progress in reducing maternal, newborn and child mortality and left the health system unable to provide the necessary care to Somalis, particularly those in hard to reach geographical areas. The problems are further compounded by poor terms of reference and conditions of service, a lack of standardized remuneration and salary systems and a lack of human resource databases and records in both the public and private sectors.⁷⁸

The study found that one-third of the entire essential workforce (physicians, nurses and midwives) in the country are working in public facilities and they are predominantly supported through humanitarian and formal subcontracting arrangements by health partners.

The findings reveal that some of those working in healthcare do not always possess formal qualifications, putting the lives of patients at high risk. The study found that one-third of the entire essential workforce (physicians, nurses and midwives) in the country are working in public facilities and they are predominantly supported through humanitarian and formal subcontracting arrangements by health partners.

The study found that both federal and state-level governments do not allocate budget for the production and training of health workers. Likewise, donors and development partners are often reluctant to invest in training the health workforce properly.

⁷⁸The Somali Human Resources for Health Development Policy 2016-2021.

Hirshabelle and Southwest have the biggest shortages of health workers and as a result, patients have to either wait a long time or travel long distances to get medical services.

Top health decision-makers have the perception that the type of training opportunities provided by the development partners are not relevant to the needs and priorities of the government. They noted that workshops, short modular training sessions and seminars cannot improve the state of the health workforce in a country like Somalia. The key government interviewees highlighted the need for policy shift when it comes to the type of training provided to the health workforce. They indicated their readiness to review and reshape the existing plans for better capacity enhancement of the health workforce. One key informant explained the situation as follows:

“Partners are more focused on emergencies and service improvements, and thus they find it less of a priority to invest in human resources. They believe if they invest in them, they may not be absorbed in the service and leave the country or join the private sector.”

As the official data is limited, and in most cases covers only salaried staff in the public sector, the exact size of the workforce is unknown. Nevertheless, according to data from ministries of health, the total population of health workers in the public sector was 6,918 in 2019.⁷⁹ Hirshabelle and Southwest have the biggest shortages of health workers and as a result, patients have to either wait a long time or travel long distances to get medical services. The findings further indicate a slight increase in Somalia’s health workforce, particularly physicians, nurses and midwives.

⁷⁹Data for Hirshabelle and Banadir is still being gathered.

Table 3.6: Public Health Sector Workforce - Puntland 2019⁸⁰

Public Health Sector Workforce - Puntland(2019)	
Category	Total
Physicians registered by Puntland Medical Association	356
Pharmacists (MOH + Puntland Pharmacy Association)	104
Lab techs (from public and private sectors)	454
X-ray technicians (from public and private sectors)	37
Registered midwives	450
Auxiliary midwives	250
Qualified nurses	682
Auxiliary nurses	330
Volunteer health professionals	300
Technical and non-technical support staff	1317
Total	4280

Table 3.7: Public Health Sector Workforce - Galmudug 2019⁸¹

Public Health Sector Workforce - Galmudug (2019)			
Category	Total	F	M
Physicians	21	7	14
Assistant physicians (clinical officers)	5	3	2
Surgeons	4	1	3
Qualified nurses	227	123	104
Auxiliary nurses	147	80	67
Qualified midwives	164	164	0
CBFHWs	227	174	53
Auxiliary midwives	74	72	2
Pharmacists	26	11	15
Laboratory technicians (including assistants)	28	13	15
Nutritionists	63	32	31
Anesthetist technicians	9	1	8
Public health officers	3	1	2
Ambulance workers	8	0	8
Hospital administrators	3	1	2
Mental health	1		1
Total	1,010	683	327

⁸⁰ Puntland Ministry of Health.

⁸¹ Galmudug Ministry of Health.

Table 3.8: Public Health Sector Workforce - Southwest 2019⁸²

Public Health Sector Workforce - Southwest (2019)			
Category	Total	F	M
Physicians	21	3	18
Assistant physicians (clinical officers)	4	2	2
Surgeons	4	0	4
Qualified nurses	59	20	39
Auxiliary nurses	32	10	22
Qualified midwives	35	0	35
CBFHWs	30	10	20
Auxiliary midwives	17	0	17
Pharmacists	12	1	11
Laboratory technicians (including assistants)	11	0	11
Nutritionists	21	n/a	n/a
Anesthetist technicians	5	0	5
Public health officers	1	0	1
Ambulance workers	5	0	5
Hospital administrators	4	0	4
Mental health	15	1	14
X-ray technicians ⁴		0	4
Total	272	47	225

⁸² Southwest Ministry of Health.

Table 3.9: Public Health Sector Workforce - Jubbaland 2019⁸³

PublicHealthSectorWorkforce -Jubaland(2019)Public Health Sector			
Category	Total	F	M
Physicians	40	9	31
Assistant physicians (clinical officers)	3	0	3
Surgeons	12	1	11
Qualified nurses	346	128	218
Auxiliary nurses	204	109	95
Qualified midwives	141	141	0
CBFHWs	120	120	0
Auxiliary midwives	63	63	0
Pharmacists	70	20	55
Laboratory technicians (including assistants)	65	15	50
Nutritionists	118	62	56
Anesthetist technicians	10	0	15
Ambulance workers	30	0	30
Hospital administrators	20	5	15
Mental health	3	0	3
X-ray technicians	14	0	14
Dentist Doctors2		0	2
Total	1,261	673	589

Table 3.10: Total Public Sector Health Workforce by State / Region 2019⁸⁴

	Public Health Facilities by State / Region 2019						
	Banadir	Hirshabelle	Jubaland	Galmudug	Southwest	Puntland	Total
Public health sector workforce	N/A	N/A	1,266	1,010	262	4,280	6,918

⁸³ Jubbaland Ministry of Health.

⁸⁴ HCDM Assessment (2019): HIPS & City University. Mogadishu, Somalia.

3.4: Enabling environment

An enabling environment for health is a range of interlinked factors that influence both the functioning and sustainability of health services. Among these are socio-cultural, economic, policy and infrastructure factors. Enabling should not be limited to the general physical conditions but also sound policies and legal frameworks that can set minimum standards, leadership, accountability and transparency. An enabling environment plays a vital role in ensuring the safeguarding and wellbeing of the health workforce.

The findings of this study demonstrate that the enabling environment for the health sector in Somalia, in general, and the health workforce, in particular, is either poor or non-existent. In terms of infrastructure, most of the health facilities need urgent attention to improve the working environment. Most managers and other essential officials in newly-created states do not have offices, and if they do have offices, there is no proper equipment and supplies and no means of transportation available for supervision.

3.5: Health professional training institutions

The collapse of the central government, the disappearance of public health training institutions and the rapid increase in population have created a critical shortage of health workers. The country, therefore, urgently needs to train new cadres of health workers. The state collapse necessitated the privatization of educational institutions in Somalia. Against this backdrop, in all major urban centers, initiatives by local communities supported by diaspora and private entrepreneurs have resulted in the establishment of privately-owned and managed health training institutions.

The study found that in 2019, there were about 63 courses and programs offered by about 20 health educational institutions across the country. Most of these institutions were established without proper planning and even sometimes without the essential elements of educational infrastructure or academic and administrative human resources.

These institutions all train similar types of health workers and do not pursue public sector authenticated standard curricula, regular teacher training programs or offer accredited educational environments.

Table 3.11: Health Education Graduates 2018^{85/86}

Health Education Graduates 2018			
Faculty	Number of Graduates	Female Graduates	% of Graduates from Health Professional Training Institutes among University Graduates - 2018*
Public Health	1,856	968 (58%)	12.40%
Nursing and Midwifery	1,518	1,197 (79%)	10.14%
Laboratory	886	424 (48%)	5.92%
Clinical Medicine	48	24 (50%)	0.37%
Pharmacology	34	34 (100%)	0.23%
Dentist	14	14 (100%)	0.09%
Medicine and Surgery	673	407 (60%)	4.50%
Nutrition	279	132 (47%)	1.50%
Total	5,308	3,200 (60%)	35.10%

*According to IFTIIN Foundation survey on local higher education graduates in 2018, the total number of students graduated from universities across the country were 14,970

As shown in Table 3.11, the local health education institutions mainly train public health officers and nurses and midwives. A few offer programs in medicine, leading to a general practitioner or medical doctor degree. The number of postgraduate level courses offered is still minimal, despite reports that some of the well-established universities in Mogadishu and Puntland have started offering new postgraduate programs.

⁸⁵ IFTIIN Foundation survey on local higher education graduates in 2018.

⁸⁶ The survey did not cover all local health education institutions in the country and Somaliland figures have not been considered. It also appears that fewer Puntland institutions were included.

The quality of the programs and courses offered by these institutions is often below the required standards. However, some have developed a good reputation within and outside the country for producing highly qualified and well-educated medical professionals.

The study also found that enrolling in health education training institutions has become an attractive option for school leavers, especially students from middle-class backgrounds. High market demand for health professionals and the possibility of finding a job after graduation is motivating students to enroll. However, the quality of education on offer is poor. The study found the following challenges facing almost all health education and training institutions:

- Absence of national qualification authority with regulatory powers;
- Inadequate financial support which undermined the overall institutional capacity;
- Shortage of qualified medical school faculty and specialized senior staff;
- Substandard clinical infrastructure;
- Inadequate curriculum;
- Lack of research output;
- Inadequate teaching and learning facilities (both clinical and non-clinical);
- A mismatch between the training offered and the skills demand in the market; and
- Shortage of hospitals that can accommodate student internships.

Inadequate skills and knowledge, vast corruption, and nepotism are the most significant barriers to fair employment for graduates.

There are no governing regulations or accreditation to ensure quality training for institutions, despite the government's recent initiatives to establish an accreditation system. Their rapid increase in an unregulated manner has raised serious quality problems. According to some of the key informants of this study, entry requirements and admissions in general for the private health training institutions are lax. Historically, admission to medical education in Somalia was an arduous task but also prestigious and free. Fees were introduced only after the collapse of state institutions.

Student tuition fees form the primary source of funding for these institutions and, as a result, competition for students often affects the quality of training on offer and results in an overproduction of under-skilled health workers with substandard or questionable qualifications. Even with high demand, locally-trained graduates, particularly junior doctors, nurses and midwives, are not absorbed in the market in either the private or public sectors. Inadequate skills and knowledge, vast corruption, and nepotism are the most significant barriers to fair employment for graduates. Academics and student participants echoed this sentiment during the focus group discussions.

One key informant working in a private hospital described the quality of locally trained nurses: “The nursing curriculum may be okay, but practically trainees from local health education institutions don’t even know how to make a bed, and they do not know how to insert a catheter, how to administer drugs and injections and things like that.”

Across the country, the curricula taught at the health training institutions, be it medical schools or health science colleges and institutes, do not match the needs of the Somali health sector. As a result, unqualified graduates are negatively impacting on healthcare staff performance and service delivery.

The study has also confirmed an urgent need to standardize the curriculum and educational approaches of these institutions to improve the quality of training and to produce health professionals who are equipped with the skills and knowledge required. The study found that many of those institutions lack essential resources and institutional arrangements necessary in terms of learning aids, clinical practices and qualified faculty. Most of the universities visited did not have adequate medical equipment/instruments that met international medical standards which has made it difficult for the universities to give students the most current knowledge and skills. The majority of universities visited did not even have basic computer labs or adequate internet access, even though Somalia now offers some of the most technologically advanced and competitively priced telecommunications and internet services in the world.

The bulk of teaching is more theoretical than practical, and medical and health sciences students in the various institutions may start practical classes very late or even complete the entire study period without practical classes. Most of the institutions do have relationships with both public and private hospitals in their locations and send students for practical training. However, none of the institutions visited had their hospitals accommodate students’ internships. At some hospitals, students are charged user fees to access facilities for practice purposes.

The findings overwhelmingly show that capacity enhancement of health training institutions is the entryway to strengthening and rebuilding the health sector.

The government should establish at least one public health training institution (government-owned) in all federal member states and the Banadir region.

An institution that adequately accredits private health training institutions must be established and more attention must be given to strengthening the capacity of the state, particularly health ministries at the national and regional levels, to undertake a stewardship role in developing and enforcing licensing and accreditation systems.

These institutions currently serve as the key source for the health workforce across the country, and the crucial role they play in developing the sector has been well recognized. Seven out of 10 essential health workers have received their basic training locally.

Private health training institutions could play a crucial role in overcoming the skills shortages that challenge the sector. With the current trends (waves of emergencies and rapid population growth), the health sector must work out mechanisms of coordination, collaboration, oversight and accountability with the educational institutions.

The government should take a greater role in improving the quality, output and training curricula offered by these institutions, bringing them in line with international standards. It must also strive to equip these institutions and improve their infrastructure. The government should establish at least one public health training institution (government-owned) in all federal member states and the Banadir region. The findings of the study outline the following priority areas to improve and develop the health workforce:

- Scaling up the essential health workforce (physicians, midwives and nurses) and health technicians to ensure improved access to health services in the short term;
- Training and deploying female health workers (Murwo Caafimaad in Somali);
- Improving the quality, output and curricula of health training institutions;
- Enhancing continuing professional development programs for medical professionals;
- Introducing contracting arrangements for public-private partnerships;
- Introducing online or distance learning methods;
- Improving deployment, retention and management of the health workforce;
- Establishing and/or strengthening health workforce regulatory bodies;
- Investing in health workforce financing;
- Engaging with health professionals in the diaspora;
- Investing in health workforce information systems; and
- Building partnerships with different stakeholders.

Table 3.12: Institutions Offering Health Education (2018)*

	Institution	Location
1	Banadir University	Mogadishu
2	East Africa University	Bosaso
3	University of Somalia	Mogadishu
4	Mogadishu University	Mogadishu
5	Jazeera University	Mogadishu
6	University of Health Science	Bosaso
7	Jamhuriya University	Mogadishu
8	Somali International University	Mogadishu
9	Plasma University	Mogadishu
10	Addoun University	Galkacyo
11	Salam University	Mogadishu
12	Somville University	Mogadishu
13	Somali National University	Mogadishu
14	Haji Abdi Institute of Health Sciences	Garowe
15	Kismayo University	Kismayo
16	Simad University	Mogadishu
17	Baidoa International University	Baidoa
18	University of Southern Somalia	Baidoa
19	Baidoa Midwifery School	Baidoa
20	Somali National University (public)	Mogadishu
21	Jubba University of Somalia	Kismayo
22	Bosaso University	Bosaso

Source: HCDM HIPS and City University Assessment (2019)

(*) Some of the universities listed have multiple campuses in different town/cities.

3.6: Essential health workforce and health technicians

The essential health workforce is a key component for the delivery of quality health services, and it must be given a high priority. Our findings reveal huge gaps across the entire health workforce. However, the most significant shortages exist among doctors with specializations and qualified mid-level health professionals such as midwives and nurses. There are also major shortages of health technicians, including anesthetists, laboratory technicians with blood transfusion skills, pharmacists, x-ray/imaging technicians, emergency medical technicians, psychiatric technicians, cardiovascular and electrocardiogram technicians, dental technicians, ophthalmic technicians and health equipment maintenance technicians. The complete absence of equipment maintenance technicians with the necessary skills and knowledge is a particularly great challenge to the entire health sector.

There are also major shortages of health technicians, including anesthetists, laboratory technicians with blood transfusion skills, pharmacists, x-ray/imaging technicians.

The findings of the study also revealed considerable skills gaps in the areas of planning, health service management, communication skills, health financing and HMIS. Almost all staff in these areas need in-service training to improve their skills, as the bulk of the current health workforce was trained under different and difficult circumstances. There is also a great need for mid-level health professionals to address the needs of the underprivileged populations in rural and remote areas. According to key informant interviews, this will help to bridge the rural-urban health workforce imbalance.

Finding a lasting solution requires new ideas and initiatives. Any approach designed to overcome the severe shortage of essential health workers should have a dual purpose: addressing the short-term capacity enhancement needs of the health workforce through inservice training; and a long-term strategy that aims at the overall improvement of the health workforce. All study participants acknowledged the need to design an integrated approach for decentralized training programs, both pre-service and in-service, for physicians and mid-level health professionals that allow local enrolment and future deployment at the regional and state levels. In other words, there must be synergies between ministries of health and ministries of higher education as well as closer coordination at the national level and among adjacent regions to avoid duplication and to encourage intra-regional partnerships.⁸⁷

⁸⁷Two adjacent regions such as Puntland and Galmudug or Southwest and Jubbaland could share investment, facilities and costs.

As a short-term solution to overcome the severe shortage of physicians, the findings of this study support recruiting expatriate specialists with incentives and systems of support to train and oversee clinical work in the major hospitals. Concurrently, Somali medical doctors should be sent for specialization training at overseas universities. The contribution of qualified expatriate Somali professionals, including physicians, medical doctors, health technicians and health financing and management specialists, is vital. The government, with the support of development partners and donors, should facilitate their return home for short periods to share the skills they have gained during their residency and practice abroad.

Midwifery and nursing education programs should be strengthened, and accreditation boards that set the standards and undertake accreditation should be established. Addressing the critical shortage of the health workforce should, however, occur concurrently with the upskilling of existing capacity of the workforce.

3.7: Female health workers

Countries that have experienced shortages of health workers have adopted different strategies to address their shortages. The female health workers (FHW), or *Murwo Caafimaad* in Somali, is one idea that was considered by countries such as Pakistan, Liberia, Ethiopia and Liberia. The FHWs reduce maternal and child mortality through preventive and limited curative health services at the doorstep, bridging the gap between health facilities and communities. When FHWs are used for promotive, preventive and curative services⁸⁸ at the community level, particularly for women and children in poor and underserved areas, human capital is developed and poverty is reduced. The scientific literature concerning the role of FHWs has shown their successful contribution and positive impact on service delivery.⁸⁹ The FHWs initiative has been already piloted in several regions of Somalia where it produced a high rate of return on money spent and was a cost effective way to link rural and remote communities to healthcare services. FHWs reduced rural-urban discrepancies and improved maternal, reproductive, newborn and child health and nutrition services.

Countries that have experienced shortages of health workers have adopted different strategies to address their shortages.

⁸⁸Preventive healthcare (or prophylaxis) consists of measures taken for disease prevention. Disease prevention relies on anticipatory actions that can be categorized as primal, primary, secondary and tertiary prevention. Promotive healthcare refers to the process of enabling people to increase control over, and to improve, their health. It moves beyond a focus on individual behavior towards a wide range of social and environmental interventions. Curative healthcare refers to healthcare practices that treat patients with the intent of curing them, not just reducing their pain or stress.

⁸⁹Velema, JP, Alihonou, EM., Gandaho, T., Hounye, FH. Childhood mortality among users and non-users of primary healthcare in a rural west African community. *Int J Epidemiol* 1991; 20: 474-9.

The FHWs perform regular home visits delivering promotive, preventive and essential curative home healthcare services. The focus of their work is on maternal-child health services; antenatal care; common diseases encountered among the under-five population such as diarrhea, respiratory tract infections and fever; managing anemia; early initiation of breastfeeding and childhood feeding; immunization; and confidential counselling to married women on reproductive health. Additional roles carried out by FHWs include conducting community mobilization; raising awareness and changing behaviors; promoting and monitoring the use of skilled birth attendants (SBAs); and encouraging families and communities to access available referral EmONC services.⁹⁰

The FHWs submit a monthly progress report to health authorities at the regional and state level providing information on all activities carried out, including home visits, patients and clients and the stock position of medicines and supplies.

Community participation and leadership are paramount for the implementation of community based health interventions, particularly related to the selection, training and deployment of the FHWs. The training of a FHW takes 12 months and includes nine months of on the job training on a standardized curriculum. Topics covered include interpersonal communication skills, health education, community organization, reproductive and maternal health, neonatal, child and adolescent health, nutrition, treatment of common ailments and water, sanitation and hygiene.

The FHWs receive regular supervision from a dedicated full-time supervisor using standardized checklists and tools as they carry with them essential medicines, supplies, health education material and recording and reporting tools. They cover a rural catchment population of 600-1,000 (150-200 households) in their own communities and visit five to seven households per day. They register all the households and population in their catchment area with separate lists of children under five, women of reproductive age and pregnant women for targeted interventions, referral and follow up. They also record and report all births, deaths and migration in their catchment population. The FHWs are linked to the existing healthsystem, and the health authorities manage them at national, regional and district levels with technical assistance provided by the health development partners.

⁹⁰ Journal of the Pakistan Medical Association; Hafeez, Assad; Mohamud, Bile Khalif; Shah, Syed Ayyaz Imran; and Jooma, Rashid: Lady health workirs programme in Pakistan: challenges, achievements and the way forward: March 2011, volume 61, Issue 3. https://jpma.org.pk/article-details/2633?article_id=2633

The fact that the majority of patients seek help from the private sector for healthcare is an indication of poor access to public health facilities, particularly for rural and nomadic populations. The nomadic population has the highest multi-dimensional poverty index and access to essential services is extremely low. Based on the findings of this study, training of a large number of FHWs could be a short-term solution to the overwhelming health service needs of the population living in rural and nomadic settings. However, the effectiveness of this initiative lies in its community-based approach, taking services to the population through high-quality integrated approach focused on health, nutrition, water, sanitation and hygiene.

3.8: Contracting arrangements of public-private partnerships

The country has a small number of healthcare professionals compared to the population and there is an urgent need to train as many as 90,000 people.

The findings strongly support introducing public-private partnerships, whereby the government contracts out the training of priority health professionals to an accredited private health training institution while offering the necessary technical and financial assistance. This approach would increase the pool of available physicians, reduce the deficit of the health workforce and ensure a qualitative and quantitative improvement of human resources in health services. It could also increase post-graduate programs in-country and abroad and further strengthen the establishment of educational institutions and facilities with postgraduate training capacity.

The findings of this study further suggest the need for the government to work in partnership with the private sector, development partners and donor communities to establish a “Human Resource for Health Fund” to pay for human capital building for the health workforce. The fund would be used for training and retaining essential health workers through scholarships, particularly in rural and hard to reach areas. The main argument here is that the country has a small number of healthcare professionals compared to the population and there is an urgent need to train as many as 90,000 people.

3.9: Continued professional development programs

The findings of the study suggest that, except for putland, there are no in-country continuous professional development (CPD) programs. Continuing professional development programs, short courses and hands-on training and supervision are necessary to keep health workers updated. The training of physicians and mid-level health professionals should be made an urgent priority. Despite challenges in human resources for health, Puntland seems to have made encouraging progress in several areas of CPD, including establishing and operationalizing a MoH human resources department, developing a human resource for health policy along with an in-service training strategic action plan. It also opened an in-service training center for health which was built in 2015 at Puntland ministry of health headquarters in Garowe. This center has received substantial support from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and has excellent facilities for short training courses.

3.10: Computer-based distance learning methods

Several key informants noted the important role of technology in improving the skills of the health workforce. They recommended introducing online distance learning opportunities in partnership with local academic institutions and health sector partner organizations – using health science information websites such as Global Health e-Learning Center which offers a large number of courses and programs for free; Health Internetwork Access to Research Initiative (HINARI); UpToDate (evidence-based clinical decision support resource from live Online Learning); and synchronous e-learning platforms for medical education such as Medicine Africa and OXPAL Medlink (web-based tutorials designed to address specific challenges facing medical education).

Adopting and implementing e-health health learning methods is conducive to the Somali context and the needs of the health workforce. As it is a cost-effective, adaptable approach and the country has a reasonably well developed telecommunications and internet infrastructures, e-learning seems to offer the potential for those working and living in remote and hard to reach areas.

E-health education could also be used as a platform for providing in-service training to a large number of the local health workforce. This includes using the web for general searches on medical and health science information websites and e-learning platforms for medical education. Students at local health education institutions could also participate in live case tutorials led by overseas-based experts, supplementing local medical education. Telemedicine, mobile health and open-source software are also methods for increasing the number of health workers via remote training, online modules and other outreach mechanisms.

3.11: Deployment, retention and management of the health workforce

The majority of the Somali population (about 60 percent) still live in rural and nomadic settings. The bulk of the skilled health workforce, however, lives in the urban centers, leaving a significant portion of the population without services. There is, therefore, a crucial need to bridge the gap.

The findings of this study show that there are considerable challenges concerning the equitable distribution of health workers in the right numbers with the right skills at the right time, particularly in rural and remote areas. Across the country, there are no transparent rules and regulations for recruitment planning with transparent selection, hiring and equitable deployment and distribution. Moreover, salaries are too low to attract health professionals to rural and remote areas and also to reduce outflow to the private sector. In general, low salaries in the public sector, particularly compared to the private sector, make retaining health workers with the right skills challenging, particularly in rural and remote areas.

The findings of this study reveal that the essential health workforce, particularly physicians and midwives, leave the public sector and join private healthcare institutions, mostly in the urban centers. It is therefore important that retention of the workforce in the public sector is a top priority for health policymakers and political actors as well as professional organizations.

To improve the retention of professionals, the Somali health authorities should introduce standardized salaries and special hardship allowances targeted at staff deployed in remote and hard to reach areas, as well as non-monetary incentives such as housing and security.

3.12: Health workforce regulations

The findings of the study reveal that there is no commonly agreed nationwide health professional regulatory body. It is worth noting that in 2019, the federal ministry of health developed the NHPC, a council that is supposed to be an autonomous professional regulatory body to protect society from abuse of medical practice and promote ethical standards among health professionals.

The study recommends the federal government play a greater role in ensuring the NHPC has representation from the federal member states. The NHPC should, in close cooperation with the ministries of higher education, play an active role in monitoring the performance of educational institutions and the certification, registration, accreditation and licensing of different professional categories. Moreover, fully aligning with the ethical codes of practice, revising and standardization of curricula for health education institutions both pre-service and in-service training/production and addressing health professionals' occupational health and patient safety by protecting/promoting the well-being of health professionals. The federal government should also liaise with all health ministries and other relevant authorities in regulating certification, credentials, registration, accreditation and licensing of health professionals and establish by-laws, acts and codes of practice. It should also work with the various health professional associations across the country. These associations do not get the support they deserve from authorities and therefore their role is limited to an advisory one to the ministries when needed.

3.13: Health workforce financing

Health workforce financing and sustainability is a neglected area that should be recognized as one of the key areas of importance in the post-war recovery period. Currently, the bulk of health services are delivered through development partner funding or are paid for by patients themselves. The government resource envelope for the health sector is negligible, making it impossible for it to meet even the most basic health needs of its population. According to several key health leadership interviewees, the health ministry's budget across the country is mainly allocated for basic salaries which are far from adequate and are often released only after long delays. Donors provide salary top-ups for specific staff, creating imbalances among health personnel even within the same facility.

The findings of the study identify the scarcity of financial resources as a primary obstacle to recruiting and retaining a qualified workforce. Federal and regional ministries of health need to find different ways and means of securing funds to address the resource gap. Adoption of various health financing options that are fair and sustainable, particularly to the health workforce, might be needed. The health ministries and healthcare sector actors also must convince parliament and the government financial institutions to recognize the importance of a skilled and competent health workforce. The ministry should seek budget support through the ministry of finance and parliament to earmark a proportion of the taxation on products that can cause immediate damage to health such as cigarettes or Khat to finance health workforce capacity development.

The health ministry should seek budget support through the ministry of finance and parliament to earmark a proportion of the taxation on products that can cause immediate damage to health such as cigarettes or Khat to finance health workforce capacity development.

The findings of the study also support the creation of multi-source funding for the health workforce through the relevant government authorities and development partners. The government should also encourage both international and local partners to mobilize the necessary technical and financial resources to support and make health workforce development a priority, particularly in the areas of training, planning, coordination, leadership development, production, equitable deployment, management and retention.

3.14: Health workforce information systems (HIMS)

Having an effective and efficient health workforce information system is vital. Improving information systems provides comprehensive patient, disease and facility information; a complete and orderly picture of the healthcare sector and its workforce; and helps stakeholders make evidence-based decision making.

Currently, there is no nationwide, functioning HIMS. However, some regions collect data using DHIS-2. The study recommends that the health authorities establish a nationwide health workforce database that collects information on gender, qualifications, training institution, experience, deployment, location and retention. The findings of the study reveal the serious and urgent need for a national health workforce observatory platform at each health authority level that will regularly update the health workforce information system, following a pre-set standard operating procedure for data channeling and ensuring wide circulation to health stakeholder partners for sound planning and management.

The findings also suggest the need to create a health workforce research initiative that produces evidence-based knowledge for health workforce needs, priority areas for action, accreditation of training institutions, licensing of health professionals and a system for health workforce remuneration and retention. Coordination mechanisms for the health workforce should be developed mainly at the ministries of health level, emphasizing essential aspects within the framework of training, financing, retention and management performance.

Furthermore, a health workforce monitoring and evaluation system should be established at the ministries of health to track the health workforce development process and assess whether the planned interventions are being pursued and are effectively contributing to equitable and quality service delivery. A set of indicators for close monitoring and periodic evaluation of the health workforce, both in rural and urban areas, should also be developed.

3.15: Building partnerships with stakeholders

A wide range of institutions have a direct role and influence on the health workforce production, planning, resource mobilization, training, performance monitoring, coordination, managerial support and overall career development. These are all critical to the delivery of healthcare services. Strengthening synergies and building partnerships among the different stakeholders, at both the national and international levels, is vital. All relevant government institutions, regional and local government entities and the broader spectrum of development partners (UN agencies, INGOs, donors, the private sector and civil society organizations) must consolidate efforts to ensure active support for the health workforce.

Ministries responsible for health and higher education should play an important role in promoting educational policy interventions for health professionals. They could take the lead on all issues related to the regulation and accreditation of health training institutions. The federal ministry of health has a wide range of governance and leadership responsibilities to fulfill. Among them are policy formulation, legislation, standard setting, resource mobilization, inter-sectoral collaboration, donor coordination and performance monitoring. The ministry should give utmost priority to building a strong leadership team with a shared vision for workforce development. Appointments should be based on experience, academic qualifications, competence and achievement rather than political affiliations.

The ministry must lead the process of standardizing health education curricula and ensuring their quality. Further, the ministries of health should closely liaise with the finance ministries to earmark the budgetary outlays necessary to develop the health workforce. The finance ministries at federal and state levels should also take responsibility for the facilitation of multi-stakeholder meetings and conferences in support of health workforce financial matters.

3.16: Public-private partnerships

The private sector is an important contributor to the Somalia health sector, and during the past two decades it has seen significant growth.

The findings of this study contribute to the larger body of evidence suggesting that public-private health sector partnership is an effective way to address problems that neither could tackle adequately by themselves. The public sector cannot successfully develop a nation's health workforce alone. The private sector is a necessary partner without which Somalia cannot hope to improve the healthcare system and its human capital. Private sector involvement is especially important in terms of philanthropic activities such as scholarships to qualified students. The private sector may also support educational institutions through donations of cash, equipment or materials to train the health workforce.

The findings of this research show a prevailing atmosphere of understanding and willingness to collaborate, particularly on the public sector side. There has already been growing collaboration in the sharing of information, training, cross-referrals, technology (x-rays, labs and blood banks) and personnel. The common goal of health service delivery is now replacing the old thinking that the public sector is socially minded and the private sector is only profit-oriented.

Public-private partnerships can help to improve the health of the population by combining the different skills and resources in innovative ways. The public sector benefits from working in collaboration with the private sector in areas where it lacks expertise and experience. However, areas such as public health policymaking and regulatory approval should remain in the public sphere as government leadership is crucial.

3.17: Engaging the Somali diaspora

The importance of engaging the diaspora to strengthen local services cannot be overemphasized. In 2010, the UNDP reported that at least 15 percent of the country's population lived outside the country.⁹¹ Few countries in the world possess diasporas with as much development, economic and political importance to their homeland.⁹²

⁹¹ UNDP (2010). Somalia's missing million: the Somali diaspora and its role in the development.

⁹² Menkhaus, Ken (2008). The role and impact of Somalia Diaspora in peace building, governance and development, in Africa's Finances: the contribution of the Diaspora.

Somali diaspora health professionals could be a powerful game-changer. They will not only bring in higher levels of experience, innovation, skills and knowledge to rehabilitate the broken system but could also enhance the performance of the entire sector.

In almost all countries where there is a Somali diaspora, there are highly qualified health professionals, both women and men, including medical doctors, with a variety of specializations, including nurses, midwives, laboratory technicians and pharmacists. They represent a community of skills and knowledge that Somalia needs at home.

Many of these professionals have already shown interest in returning to Somalia on voluntary, short-term assignments to teach, train and treat, to inject their professional expertise into state institutions. With all the limitations inherent to such initiatives, the Somali diaspora health professionals could be a powerful game-changer. They will not only bring in higher levels of experience, innovation, skills and knowledge to rehabilitate the broken system but could also enhance the performance of the entire sector. The diaspora health professionals have already proved to be a great asset. They supported the transfer of knowledge and skills by establishing educational institutions in various parts of the country. They also contributed their rare skills and expertise to both the public and the private health sectors. The MIDA FINNSOM⁹³ health project in Puntland and Somaliland is an excellent example of how healthcare professionals from the diaspora in Finland, with the support of the government of Finland, have contributed to the Somali health sector. Other examples include the QUESTS project of UNDP Somalia, an initiative intended to encourage the diaspora to serve their country in the development and governance sectors to accelerate the recovery process. QUESTS-MIDA built on the QUESTS project.

4.0: PART FOUR

4.1: COVID-19: pandemic implications for the Somali health workforce

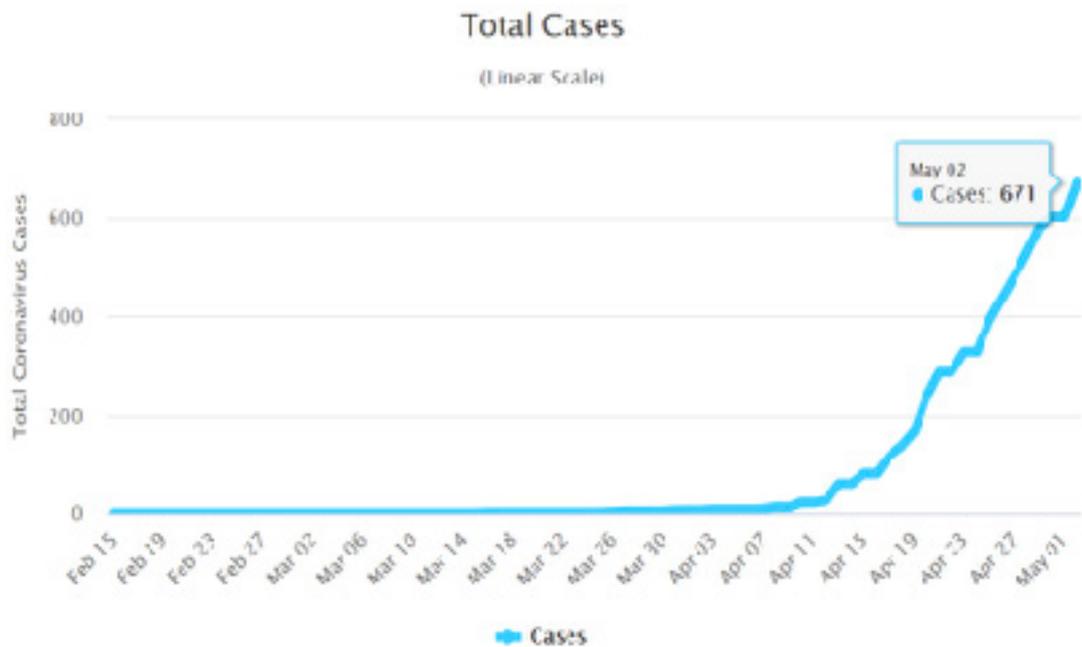
The world is currently witnessing the worst pandemic in recent memory, COVID-19. According to the World Health Organization (WHO), as of 28 May, over 5.5 million people are confirmed to have been infected and nearly 350,000 people have died worldwide.⁹⁴

⁹³ The aim of MIDA FINNSOM projects was to support Somalia in developing its health and education sectors. This is done by diaspora experts of Somali origin returning to Somalia for months, or even years, with the support of IOM, in order to transfer their knowledge to local staff and institutions. The MIDA FINNSOM health project started in 2008 in Somaliland and aims at the development of a well-functioning health system in Somaliland. Hargeisa Group Hospital has been one of the main beneficiaries of the project. Project participants have been vital, for example, in starting the hemodialysis and neonatal units at the hospital.

⁹⁴ <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

Somalia confirmed the first case of COVID-19 on 16 March. Since then, more cases have been appearing, including cases with no travel history, suggesting human-to-human transmission. From March to 28 May, confirmed cases rose from 1828, with 72 deaths and 310 recoveries. It is believed thousands of cases are going undetected simply because the country cannot mass test for the virus. On 23 April, WHO warned that if the virus transmission is not slowed down rapidly, the patient surge and increasing demand for healthcare will overwhelm the country's fragile health system.⁹⁵ The overall situation is worrisome, especially in the capital, Mogadishu, which has the most confirmed cases of COVID 19. Many people are not seeking treatment, either because they think the virus is a mere common cold, they cannot afford medical services or they are afraid hospitals are a breeding ground for the disease.

Figure 4.1: Exponential Rise in the Number of Confirmed COVID-19 cases in Somalia from 26 April to 3 May 2020



Source: The United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA): Somalia COVID-19 Impact Update No.4 As of May 4 2020.

⁹⁵ WHO statement, 23 April 2020.

4.2: Government efforts to contain COVID-19

Despite huge economic and security challenges, the federal government of Somalia and member states are continuing to take necessary measures to mitigate the spread and impact of COVID-19. Since 16 March, a total of 48 COVID-19 related directives/statements have been issued, either in writing or verbally, to mitigate the spread and impact of the virus. The measures range from closing schools and academic institutions and restricting population movement to banning domestic and international flights, screening people at all points of entry, community awareness activities, training health workers and enhanced disease surveillance. However, the disease prevention and control strategies pursued by Somalia are soft compared to the lockdowns implemented in other countries.

4.3: COVID-19 prevention and control

Somalia is gravely understaffed and ill-equipped to deal with the outbreak. The country has only 46 intensive care unit (ICUs) beds and 15 ventilators for 16 million people.⁹⁶ There is no proper oxygen generating plant; there are few laboratory machines; there is a shortage of testing equipment and medical supplies; and a severe shortage of personal protective equipment (PPE) across all hospitals. There are ongoing efforts by the federal government to procure diagnostic kits, ventilators and other medical supplies. Meanwhile, donations of medical equipment and supplies have arrived from the WHO, China, the UAE, Turkey and Italy.

4.4: Human capital: a critical factor in fighting the pandemic

Having skilled and adequate numbers of healthcare workers is critical to winning the battle against COVID-19. The pandemic has revealed, among other things, the critical shortage of essential healthcare professionals, as in Somalia very few health workers are trained in critical care situations.

⁹⁶ <https://www.globalhealthnow.org/2020-05/covid-19-and-critical-shortage-critical-care>

Advanced medical equipment that is critical to keeping patients alive is of no help when there is no skilled workforce to operate it and manage patients. Critical care medicine is unique, challenging and dynamic, and it requires attentive, qualified doctors, nurses, respiratory therapists and intensivists to adequately treat patients in the ICU.

Also needed for the fight against the pandemic is proper leadership and political commitment, sufficient medical equipment, functional quarantine centers and a continuous flow of laboratory reagents, emergency medical supply kits, nutrition for patients and a mass communication campaign.

4.5: Formidable challenges

Persistent challenges facing the Somali health sector during the COVID-19 pandemic include:

- Severe shortage of skilled health workers and health professionals in disease control and prevention at the federal, state, regional and district levels;
- Lack of hospitals to treat COVID-19 cases. De Martino Hospital in Mogadishu is the only medical facility dedicated to treating COVID-19 patients.
- Inadequate public health awareness concerning COVID-19 prevention and control measures;
- Huge financial challenges faced by both federal government and member states in allocating resources to fight the disease;
- Weak public health institutions and the challenge of complying with infection prevention and control practices pose governance challenges in enforcing compliance;

- Inadequate coordination at the federal and member state levels, as well as with development partners, donors and local communities;
- Huge shortage of COVID-19 clinical diagnosis tools/equipment and PPE;
- Poor critical management care of all those in quarantine and cases admitted to hospitals;
- The presence of conditions conducive to disease transmission including low literacy rates, crowded living conditions and limited hygienic facilities in public places, including dirty toilets and hand washing basins with no clean water and soap;
- Lack of community support for disease surveillance, case detection, tracing and selfisolation;
- Inadequate advocacy and social mobilization and communication activities about hygiene promotion, social distancing and support for self-isolation or quarantining;
- The existence of large and densely-populated settlements for internally displaced persons (IDPs) without access to soap or clean water;
- Impracticality of staying home for most informal workers who need to put food on the table; and
- Widespread misinformation, rumors and conspiracy theories about COVID-19 spreading among the population.

4.6: The way forward

Somalia comes top of the Inform Global Index with a vulnerability score of 9.1 out of 10.⁹⁷ This makes Somalia the country with the weakest capacity to cope with the added stress of the COVID-19 pandemic. With a health system already in a precarious situation. Millions of Somalis who already require essential lifesaving healthcare and nutrition services are facing an uncertain future if the spread of the pandemic is not stopped in its early stages.

⁹⁷ Inform 2019 Global Risk Index; Risk of humanitarian crises and disasters; <https://drmkc.jrc.ec.europa.eu/inform-index/Results/Global>

With a health system already in a poor shape, lack of proper cooperation and coordination among the health authorities, lack of adequate testing equipment, lack of personal protective equipment for health staff and no tracking system, Somalia could suffer the effects of the pandemic more severely than any other country in the world.

For the country to slow COVID-19 transmission and avert a situation whereby its health systems are overwhelmed with critical care-seeking patients, it must take all necessary prevention and control measures at every administrative tier (federal, state, regional, district and local).

This study suggests that there is an urgent need to strengthen COVID-19 pandemic prevention and control by taking following measures:

- Seek national and international support through the already existing channels and partnerships at both the national and international levels including the Somali diaspora. International development partners, donors and UN agencies should also consolidate efforts to continue supporting Somalia's fight against this pandemic. The valuable solidarity that has existed for the past three decades must be further strengthened to win the fight against COVID-19.
- Establish COVID-19 testing capacity at the state level to enable early case detection, diagnosis, isolation and contact tracing.
- In the absence of tested medicines and vaccines, nonpharmaceutical interventions of public health measures should be the way forward in mitigating the impact of the disease, where the health systems and the self-responsibility of the communities at every level is of paramount importance.
- Provide capacity enhancement to frontline health workers through short course training but also recruit a pool of essential health professionals to deal with the pandemic.

5.0: PART FIVE: CONCLUSION

Somalia is recovering slowly but surely from prolonged conflicts and destruction and is making efforts to re-establish health governance structures and rebuild health institutions. It has also embraced universal health coverage as a goal for the health sector. The health workforce is the cornerstone of quality healthcare and the only route to achieving better health outcomes. A well-trained and motivated health workforce is critical for rebuilding efforts and a key to the attainment of the minimum standards of universal health coverage.

The overall objective of the study was to examine the state of healthcare in Somalia as it relates to the workforce, skills shortages and gaps and how these shortages could be overcome. The study reviewed existing education and skills-building efforts by all levels of government, the private sector and external partners, providing an analysis of the current status and challenges for all involved.

The overall findings suggest the health workforce is slowly recovering from the effects of the civil war and subsequent state collapse. However, despite signs of hope, the state of the workforce remains critically inadequate due to complex socio-economic, security, coordination, planning and political obstacles. And this was before COVID-19 threatened to overwhelm the already failing health system.

Given the multitude of factors to consider, there are no shortcuts or quick fixes, especially in light of the pandemic. The magnitude of the challenges the sector is facing include: COVID-19, poor health indicators, severe shortage of all health workers, skills gaps, especially in categories where the health needs are greatest and limited production and modest pre-service training qualities. This is further exacerbated by high demand for quality servicedelivery and rapid population increase.

The entire Somali health sector is currently operating with fewer than one-seventh of the number of workers needed to deliver basic health services, seven times short of the recommended WHO threshold. The existing workforce is not only inadequate in numbers but also poorly trained. Many health workers have received little in-service training or supervision. The situation is further exacerbated by the absence of comprehensive health workforce information offering credible data on planning, training and production, deployment, leadership development, utilization and management, financing and retention.

Only a tiny percentage of resources are allocated to the health sector, and the health workforce training institutions do not have the essential resources, learning aids, clinical practices or qualified, experienced faculty.

The crisis in Somalia's healthcare sector is as perilous as the country's security nightmare, if not worse. The infighting among the political elites, misuse of public office and mismanagement of public resources must come to an end, particularly if Somalia is to emerge from the threat posed by COVID-19. The ongoing power struggles between the leaderships of the federal government and member states have weakened the capacity of the state institutions and diminished the trust of the public in these institutions. Without a lasting agreement among the political elites, the country's future is uncertain, particularly when it comes to the delivery of basic services such as healthcare.

This study presents in depth analysis and a pragmatic short- and medium-term strategy to arrest and overcome the systemic deficiencies and staff shortages. It also details the steps necessary to meet health-related sustainable development goals and universal healthcare. The strategy offers support to health authorities and other key institutions and development partners to guide them in delivering consistent and coordinated support to the development of a human workforce for health.

The findings suggest that the Somali health workforce is facing an uncertain future unless change is urgently adopted.

The findings suggest that the Somali health workforce is facing an uncertain future unless change is urgently adopted. There is need for a major shift in the way we think about the importance of the health workforce and this primary responsibility lies with the Somali government but also all stakeholders and development partners.

6.0: PART SIX: STRATEGY FOR IMPROVING THE STATE OF HEALTHCARE IN SOMALIA

6.1: Rationale

The following strategy aims at overcoming unacceptable health workforce shortages and skills gaps. It includes priority areas for government and development partners to focus on such as training, production, deployment, enabling environments, equitable distribution, policy, leadership, finance and partnerships. It also covers necessary strategic interventions, measurable indicators, outcomes and timelines prioritizing the most urgent issues.

6.2: Vision

The Somali population, regardless of their geographical location or social status, will have access to adequate healthcare services, through systems that are effectively delivered by a workforce that is adequate in number, educationally qualified, equitably distributed and motivated to provide essential services.

6.3: Mission

Somalia's federal and regional governments, with support from development partners and donors, will vigorously promote, support and launch a wide-ranging action plan that will effectively address the deficiencies of the health workforce, both in quantity and quality, and develop this vital component of the health system. This is the optimal approach for achieving universal health coverage by 2030, ensuring healthy lives and promoting wellbeing for all Somali people.

6.4: Goals

- To train, produce, deploy, manage and retain the right number of health workers with the right skills, positioned in the right place, at the right time who are motivated and supported to provide healthcare services to the needy population;
- To create an environment where the health workforce is treated as the most valuable asset and investment of the health system, taking full advantage skills and managerial capabilities to produce the best possible health outcomes.

6.5: Objectives

- To define the key priority areas and related activities and expected outcomes, measurable indicators and timelines;
- To develop the relevant legislative and regulatory norms that can improve health workforce management and ensure safe working conditions;
- To affirm that governments and partners must invest in the development of the health workforce as a way to address the current skills shortage;
- To strengthen partnerships between key stakeholders and ensure the mainstreaming of health workforce issues in all aspects of national health sector rebuilding; and
- To establish a network of coordination mechanisms for health workforce development and create the structural and organizational arrangements necessary for its implementation.

6.6: Strategy

Strategy	Activity	Targets	Outcomes	Timelines	Responsible
Strategic Objective 1					
Find an urgent and sustained solution for the unacceptable health workforce shortages and skills gaps	Activity 1.1: Train mid-level professionals, prioritizing midwives, nurses, sanitarians and allied health technicians in the fields of laboratory technology, pharmacy, X-ray and anaesthesia, emergency medical technicians, psychiatric technicians, cardiovascular and electrocardiogram technicians, dental technicians, ophthalmic technicians, health equipment maintenance technicians, clinical officers	-2,000 new mid-level professionals are trained (pre-service) -3,000 mid-level professionals provided in-service training per year	Shortage of health workforce reduced; skills gaps improved	Short-term	MOH, MoEHE, MoF, MoPIC, development partners
	Activity 1.2: Training junior doctors through a scholarship scheme for specialization at selected local universities and in the region	-300 junior doctors provided scholarships, trained	The number of specialist physicians increased	Short-term	
	Activity 1.3: Develop public-private partnerships to contract out the training of junior doctors at accredited local universities while offering them necessary technical and financial assistance	-Ten local health education institutions trained junior doctors	The number of doctors increased, and quality improved	Short-term	MOH, MoEHE, MoF, MoPIC, development partners
	Activity 1.4: Recruitment of expatriate physicians (salaries paid by externally funded projects) to provide on-the-job training to Somali junior doctors	-100 expatriate physicians recruited (Somali and non-Somali)	On-the-job training provided to local doctors. Skills and knowledge of local doctors enhanced	Medium-term	
	Activity 1.5: Training of FHWs (Murwo Cadfaamad)	-2,500 FHWs trained	Maternal child mortality reduced and primary health services improved through non-formal care providers	Short-term	MoH, MoF, development partners
	Activity 1.6: Allocate adequate funds for training, deployment and retaining of FHWs and fully integrate them into the health system	-FHWs made a priority and fully integrated into the health system	States/regions train/produce and maintain the required number of FHWs	Short-term	MoH, development partners
	Activity 1.7: MoHs to liaise with local health education institutions in all states and regions to train FHWs and to provide necessary technical support	-A working relationship between MoHs and local health training institutions reached	Local health education institutions able to train FHWs	Short-term	MoH, MoEHE, development partners
	Activity 1.8: Training of health workers on water, sanitation and hygiene (WASH) promotion, emergency and trauma care, capacity enhancement on primary and secondary prevention and management of chronic NCDs including mental health, primary eye care, dental care and oral health	-In-service training plans are put in place and the health workforce trained	Skill gaps improved Availability of health workers on WASH increased	Short-term	MoH, development partners
	Activity 1.9: Build MOH's capacity in designing and implementing CPD programs on maternal, neonatal and child health and nutrition.	-CPD programs planned and implemented correctly by states/regions	-Maternal, neonatal and child health and nutrition service improved -The pool of skilled health workers expanded	Short-term	MoHs, development partners
	Activity 1.10: Create a conducive and sufficiently equipped environment for continuing education by establishing a fully functional Human Resource Development Centre at the federal government's MOH premises and smaller adequately equipped training centers in all member state capitals	-Human Resource Development Centre built and functioning at the federal level and smaller centers built and functioning in member states	Health worker get in-service training at their locations/in their states Skills gaps reduced	Medium-term	MoHs, MoF, development partners
	Activity 1.11: Introduce national service for health workers whose training is fully or partially sponsored by the government. Workers must agree to serve the public health sector in their own communities for a period at least equivalent to the length of their training program	-More workers in the health sector in numerous locations, particularly during emergencies and serving the vulnerable in communities	Shortage of qualified health workers improved Service delivery to the needy population	Medium-term	MoHs, MoEHE, health training institutions
	Activity 1.12: Establish at least one public health education institution (government-owned) in every federal member state and the Banaadir region	-Government-owned health training institution re-established at the state/region level	Health training decentralized, quality enhanced and quantity increased	Long-term	
	Activity 1.13: Engaging health professionals of Somali origin in the diaspora to strengthen local healthcare services and health education sector.	-200 health professionals engaged	- Knowledge and skills transferred to the local staff and institutions	Short term	MoHs, MoF, Development Partners
	Activity: 1.14: Allocate time and resources to influence the perception of the impact of HRH investments				

Strategic Objective 2					
Put in place sound health policy	Activity 2.1: Pre-service education tied to health sector needs	<ul style="list-style-type: none"> -The ratio of graduates of pre-service training programs to projected on demand by type of health worker -Attrition of students in pre-service training programs -Pre-service curricula and educational approaches updated periodically (e.g. every three years) to produce health workforce equipped with necessary skills and knowledge -In-service training coordination and evaluation mechanisms in place -Master trainers and tutors for the different in-service training programs developed 	Availability of different health workers in various specialties increased	Short- term	MoEHE, MOH, HPC, health training institutions
	Activity 2.2: In-service training (focus on e-health and blended continuing education)	<ul style="list-style-type: none"> -Required technology, training curriculum, operational and clinical guidelines and other instructional materials provided -E-health distance learning introduced -National qualification and accreditation authority with a regulatory body established and functional -Health authorities encourage and support the planning and implementation of e-learning and on-line distance learning in a manner that is conducive to the context and needs of the sector as these opportunities will provide access to quality learning for health workers living in remote and hard to reach areas through the use of IT technologies 			
	Activity 2.3: Capacity of training institutions	<ul style="list-style-type: none"> -The capacity of training institutions enhanced through investment in the infrastructure of educational institutions. -Offer necessary technical assistance with a focus on courses, standardization, accreditation of teaching environments including clinical training settings, and curricula development, teachers training and the provision of the required learning tools -Existing facilities and equipment for health worker training in hospitals improved -Necessary in-service training spaces, learning aids and equipment put in place/upgraded 			

Strategic Objective 3					
Put in place sound health policy	Activity 3.1: Develop nation-wide professional standards, licensing and accreditation	-Inclusive National Health Professional Council representing the whole country established - Scopes of work practice for health professionals developed.	Legislation and regulations and guidelines for conditions of employment, work standards, and development of the health workforce established and made operational	Short-term	MoHs, HPCs, HPA, development partners
	Activity 3.2: Develop authorized scopes of practice for health cadres	-HW issues are mainstreamed and well-taken care through established partnerships between the ministries of health, the education sector and the health professional associations and NHPC achieved			
	Activity 3.3: Enhance political, social and financial decisions and choices that impact HW	-Employment law and rules for civil service and other employers established/enhance			
Activity 3.4: Develop employment law and rules for civil service and other employers					
Strategic Objective 4					
Enhance the retention and management of the health workforce	Activity 4.1: --Improve retention of health workers particularly in rural and remote areas through increasing salary scales	-Salary scales increased, particularly in remote rural areas	- Quality of HW taken care - Equal employment opportunity upholds	Medium-term	MoHs, MoF, development partners
	-Provide incentive packages to attract workers to rural and remote areas	- Incentive packages provided			
	Activity 4.2: Establish nation-wide transparent rules and regulations for recruitment	-Fair selection, hiring process put in place			
	Activity 4.3: Ensure gender equality at the workplace and better working conditions.	-HW gender mainstreaming achieved			
Strategic Objective 5					
Improving the overall financing of the health sector	Activity 5.1: Improve HW salaries and allowances	-Salaries and allowances competitive in the local labor market	Adequate funding for health workers is allocated and disbursed	Medium-term	MoF, Development partners
	Activity 5.2: Carry out budgeting and projections for HRH intervention resource requirements, including education and incentive packages	-Salaries and allowances equitable between different categories of health workers			
	Activity 5.3: Increase fiscal space through mobilizing financial resources by the government, private sector, development partners and donors	-National health counts routinely collect data on health worker expenditure			
Strategic Objective 6					
Establish partnerships	Activity 6.1: Establish multi-stakeholder cooperation (inter-ministerial committees, health worker advisory groups, and donor coordination groups)	-Mechanisms put in place for coordination including key ministries, donors, service providers including private sector providers and professional associations	Formal and informal partnerships between the key stakeholders in support of health workers achieved	Medium-term	MoHs, development partners, Private Sector
	Activity 6.2: Develop public-private sector agreements/arrangements	-Agreements put in place between MoH and other health providers			
	Activity 6.3: Develop community involvement in care, treatment and governance of health services	-Mechanisms put in place to involve communities in health services			
	Activity 6.4: Establish HW multi-stakeholder forum (inaugural then meeting bi-annually) through which partnerships are strengthened, funds raised, collaborations made and progress monitored				
Strategic Objective 7					
Enhance the leadership and management of the health workforce	Activity 7.1: Develop the capacity for leadership and management.	-The capacity development program for top leaderships and managers developed	-The capacity of the leadership to provide direction, mobilize resources and plan, organize and guide the health workforce achieved -Health professional associations are well capacitated	Long-term	MoH, MoF, Dev. Partners
	Activity 7.3: Strengthen the health professional associations to guide their constituencies	-Health professional associations' capacity in guidance of constituencies enhanced.			



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