March 2024

Somalia

Health care services in Mogadishu

Centre for Documentation
and Counter Extremism

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This report is not, and does not purport to be, a detailed or comprehensive survey of all aspects of the issues addressed. It should thus be weighed against other country of origin information available on the topic.

The report at hand does not include any policy recommendations. The information does not necessarily reflect the opinion of the Danish Immigration Service.

Furthermore, this report is not conclusive as to the determination or merit of any particular claim to refugee status or asylum. Terminology used should not be regarded as indicative of a particular legal position.

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Executive summary

The present report offers a description of availability and accessibility of specific medicines and specialised treatments in Mogadishu.

The health care landscape in Somalia is fragmented. The majority of hospitals and clinics in the country is located in the Banadir region and therefore Mogadishu has more hospitals and clinics than any other of the federal member states. The private health sector is the most important provider of curative health services in Somalia. There has been an increase of private for-profit health clinics in Mogadishu, most of these facilities have been established by members of the diaspora and foreigners who are willing to invest in building new infrastructure. However, the mechanisms to control the quality of health care services is limited in Somalia. The quality of care is ascribed to be better in private hospitals, but the cost of services is high and the poor parts of the population are unable to pay for services provided by private hospitals.

The availability of medicines in Somalia is limited; however, most of the medicines, which were included in the survey, were available in the three researched pharmacies in Mogadishu. Regulation of medicines by the national authorities is limited and private pharmacies operate without a license.

There was no cancer treatment available at the two researched hospitals and only very limited access to chemotherapy. Patients who suffer from cardiac complications and hypertension may be treated by a medical doctor with specialisation in internal medicine or by a cardiologist at the two hospitals included in this study. Patients who suffer from chronic obstructive lung disease may be treated by a pulmonologist at the Erdogan Hospital. People living with diabetes may be seen by a resident doctor or an internal medicine specialist at one of the researched hospitals. For patients with kidney diseases, there are dialysis centres in Mogadishu and consultations as well as follow-up appointments by a nephrologist are available at one of the hospitals in the survey. Mental health remains a highly stigmatised topic in the population and to some extent also among health workers and there are few specialists in psychiatry and psychology in Mogadishu. The two researched hospitals offer consultations by a psychiatrist, but only one of these hospitals admits women at the hospital for inpatient treatment. Only severe conditions such as schizophrenia and bipolar disorder are recognised as mental disorders. Persons suffering from conditions such as anxiety or depression are at risk of not being correctly diagnosed and treated. Pain relief medicines are available in pharmacies in Mogadishu; however, the market is unregulated and there is no awareness among health workers on palliative care.

The Covid-19 pandemic outbreak constituted a systemic challenge for Somalia, in particular with a low capacity of intensive care units. However, the epidemic also brought additional external resources into the country; medical capacity, training of health workers, diagnostic systems and epidemic surveillance have improved.

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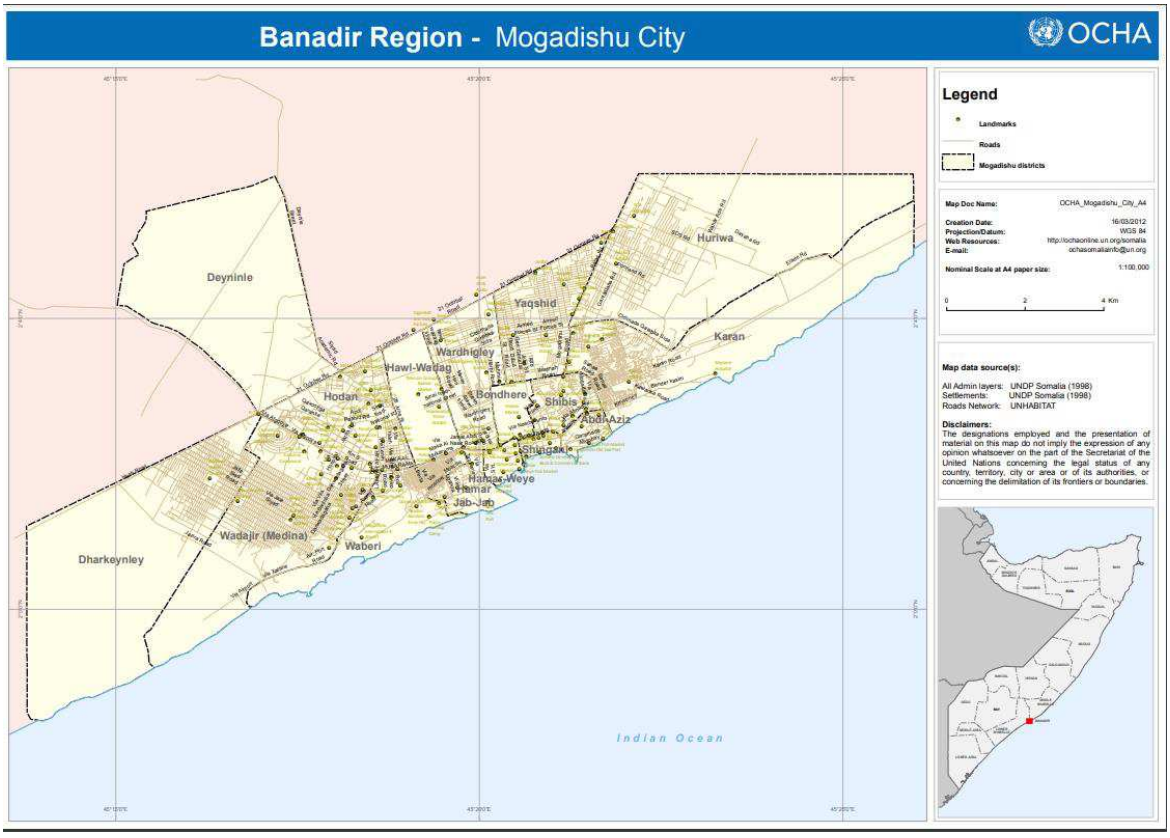
Abbreviations

BRA	Banadir Regional Administration
COI	Country of Origin Information
DIS	Danish Immigration Service
EPHS	Somali Essential Package of Health Services
EML	Essential Medicines List
EUAA	European Union Agency for Asylum
FMoH	Federal Ministry of Health
ICU	Intensive Care Unit
IDSR	Integrated Disease Surveillance and Response
IP	Inpatient
KAP	Knowledge, Attitude, and Practice
MedCOI	Medical Country of Origin Information
N/A	Not available
NGO	Non-governmental organisation
NCD	Non-communicable diseases
OP	Outpatient
SDG	Sustainable Development Goal
UN	United Nations
UNICEF	United Nations Children's Fund
UNSOM	United Nations Assistance Mission in Somalia
VOA	Voice of America
WHO	World Health Organization

Map of Mogadishu, Banadir region

The map below shows Mogadishu, Banadir Region.



Source: OCHA[1]

[1] OCHA, *Administrative Map Banadir Region,* 16 March 2012, url

1. Introduction and methodology

1.1 Purpose of the report and terms of reference

The present report is written with the purpose of presenting updated and reliable information about the availability and accessibility of medicines and specialised treatments in Mogadishu. The report is based on data collected from selected health facilities in the capital of South/Central Somalia, online interviews with key health sector actors, as well as reports and articles about the health system in Somalia.

Since 2018, MedCOI[2] – the first instance European provider of medical information for the use of processing asylum cases and cases concerning humanitarian residence permits – has not had a reliable, qualified local contact in Somalia.[3] To address this gap, the Country of Origin Information (COI) Unit of the Danish Immigration Service (DIS) decided in 2020 to gather information about access to medicines and specialised treatments in four locations in South/Central Somalia.[4] Data for this report was gathered during the Covid-19 epidemic, however, and information about prices for medicines and treatments must be regularly updated to remain valid. Therefore, DIS decided to update the 2020 report with new information about access to specialised health care in Mogadishu after Covid-19.

The terms of reference (ToR) for the report have been developed with inputs from several asylum relevant actors including the Secretariat of the Danish Refugee Appeals Board, the Danish Return Agency and the Return Division of the Ministry of Immigration and Integration. These different partners have identified the seven medical conditions for which information was needed. All of their inputs are reflected in the ToR. The medical conditions covered by this report are:

- Cancer (chemotherapy)
- Cardiac complications and hypertension
- Chronic obstructive lung disease
- Diabetes (type I and II)
- Kidney diseases, including dialysis
- Psychotic disorders, depression and PTSD
- Pain relief

The ToR is included in the report in Annex 1.

[2] EUAA MedCOI collects medical information from countries and regions where asylum applicants come from. You can read more about EUAA MedCOI here: url
[3] Project MedCOI, *BMA 12688*, 17 July 2020; EUAA MedCOI, *AVA 17238*, 22 August 2023
[4] DIS, *Somalia - Health System*, November 2020, url

1.2 Methodology

The collection of primary data for this report has been guided by EUAA MedCOI's quality standards for COI; in particular, MedCOI's guidelines for availability and accessibility research for the use of case specific MedCOI.[5] DIS contacted EUAA's MedCOI office early in the process in the preparation of three similar reports[6] and the MedCOI specialists offered valuable advice. These pieces of advice have been followed for the preparation and drafting of this report. The report is written in accordance with the EUAA COI report methodology.[7]

Data about availability and accessibility of specialised treatments and medicines has been collected through different sources: 1) interviews with pharmacists and health facility managers in Mogadishu conducted by an external consultancy company; 2) interviews with health sector actors conducted by DIS; and 3) written material. Because of the volatile security situation in Somalia, direct access to the different locations in Mogadishu turned out to be a logistic challenge. Therefore, an international consultancy company, Tana Copenhagen, was hired to carry out data collection on the ground, including observations and interviews. This company has a small team of researchers in Somalia and the company was chosen among other candidates based on their track record of recent assignments in Somalia,[8] familiarity with the security situation inside the country as well as the company's experience with remote access data collection.[9]

The consultants used a mix of qualitative and quantitative methods to collect primary data from health facilities. The team began by mapping public and private hospitals (including laboratories) and pharmacies (including their storage facilities) in Mogadishu. After an analysis of this mapping, a sample of health facilities was selected according to the following criteria:

- At least one public or government-run hospital (including those that are co-managed with donors) that provides at least a majority of specialised treatments for diabetes, kidney diseases, including dialysis, cardiac complications and hypertension, cancer-chemotherapy, and chronic obstructive lung diseases.
- At least one relevant hospital that specialises in outpatient and/or inpatient treatment of psychiatric and non-psychiatric care.
- At least three pharmacies, including private/stand-alone pharmacies or pharmacies positioned within either private or public hospitals, providing at least a majority of medications related to diabetes, kidney diseases, including dialysis, cardiac complications

[5] EUAA MedCOI, *MedCOI guide for users*, February 2023, url
[6] DIS, *Somalia - Health System*, November 2020, url; DIS, *Syria: Health care services availability and accessibility in Damascus, Rural Damascus, Tartous and Latakia*, March 2022, url; DIS, *Lebanon; Access to Health Care Services for Palestinian Refugees*, February 2023, url
[7] EUAA, *EUAA Country of Origin Information (COI) Report Methodology*, February 2023, url
[8] In particular this report: Tana, *Understanding Systems in Mogadishu City*, 9 March 2023, url
[9] In particular this methodology: Tana, *Experiences with Remote Working in a Time of Restricted Movement and Social Distancing*, April 2020, url

and hypertension, cancer-chemotherapy, psychotic disorders, and chronic obstructive lung diseases.

The consultants identified six well-known hospitals and pharmacies in Mogadishu that met the above criteria. These facilities were included in the study because they represent what is available to the population according to the assessment of the consultants. At each facility, a team member interviewed a health professional using a pre-defined survey design. The primary data collection commenced on 29 October 2023 and concluded on 10 November 2023. The consultants faced some challenges in gaining access to the different health facilities. One challenge was the strict protocol requirements by the Federal Ministry of Health (FMoH), which meant that several different authorities had to grant permission for the team members to visit public facilities. Another challenge was the heavy rains during the study period (October to November 2023) that made physical access difficult.

The team obtained consent from all the included health facilities. The findings from this primary data collection are found in the Tana report, which is available in Annex 3 of this report.

Within the framework of this report, availability refers to whether a given medicine or treatment is objectively obtainable in the country of origin without taking into consideration the individual circumstances of the applicant. In the present report, it is also noted whether a medicine, which is available, is also registered in Somalia[10] or not.

The assessment of the availability of medicines was based on whether the specific medicines were present in the included facilities as advised by the manager of the facility according to the following three MedCOI-categories:[11]

- Medicine is available: the requested medicine is in principle registered in the country and available at a health facility in the selected town. At the time of investigation, there are no supply problems.

- Medicine is partly available ('current supply problems'): 'supply problems' means that even though the medicine might be licensed in a country and used to be available, there are currently interruptions in supply. If there is a time horizon for re-supply, this should be noted as precisely as possible.

- Medicine is not available: the medicine is neither registered nor available in any of the surveyed health facilities.

[10] Regarding the registration of medicines, the consultants note that as of November 2023, registration of medication in Somalia is still considered provisional, and health facilities still use an interim Essential Medicine List (EML), which is a register of medicines that are perceived to be minimum medicine needs in the country, Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, p. 9

[11] EUAA MedCOI, *MedCOI guide for users*, February 2023, url, pp. 8-10

Accessibility, by contrast, refers to whether a given medicine or treatment would in reality be accessible to a specific individual. It may include financial factors (price), geographical factors (in terms of accessibility via air or road and in relation to day/night security) or social issues (possibly discrimination in terms of access to health facilities based on clan and/or ethnic affiliation). Accessibility is always based on the fact that a given medicine or treatment is available in the country of research.[12] In the present report, accessibility is only researched in terms of the price of medicines and the price of treatments.

1.3 Selection and validation of sources

Three online interviews with key health sector actors were conducted. The interlocutors were selected based on the role of their organisation in health sector policy in Somalia. The organisations are the Federal Ministry of Health (FMoH), UNICEF's Country office in Somalia and WHO's Country Office. Several representatives of each organisation participated in each interview; one organisation was interviewed twice.

The sources were informed about the purpose of the interview and the fact that their statements would be included in a public report.

1.4 Quality control

Quality control of the reliability and validity of the information in this report was conducted in several ways. Firstly, the consultancy company used their own quality assurance staff member – who was not a part of the team on the ground in Mogadishu – to carry out an independent spot-checking exercise for the sole purpose of verifying consistency. This follow-up took place between 13 and 21 November 2023 where the data checker visited five of the facilities from the main study sites. The data checker aimed at collecting responses from different persons other than those who had participated in the primary data collection. This process helped complement the main data set by providing extra details on medicines and to clarify any confusions or errors that had occurred at the first visit. Additionally, the internal quality assurance system of Tana was used to ensure that the study met the required expectations and objectives.

Secondly, the Belgian COI-unit has peer reviewed the full report. As a founding member of the original MedCOI project, the Belgian COI-unit has extensive experience in MedCOI assessments, and Belgium has access to its own medical doctors capable of checking the accuracy of the medical information included in this report.

Finally, the report has been peer reviewed in form and content by DIS.

[12] EUAA MedCOI, *MedCOI guide for users*, February 2023, url

1.5 Limitations

The regulatory and policy context of the health sector in Somalia is undergoing restructuring with the establishment of new offices and procedures, according to observations from the consultant team. The information presented in this report regarding the administrative framework should thus be viewed in this context.

Furthermore, prices for medicines are volatile and the list of medicine prices in this report should be read as indicative.

This report does not address contextual factors such as the security situation. Information about security incidents in Mogadishu must be found in other COI reports. The report does also not purport to cover the implications of the climate change and natural disasters that are affecting the delivery of basic social services, including health services, in Somalia.

1.6 Writing of the report

The report has been drafted by DIS. Immediately after each interview, a summary was written. It is not a full transcript of what was said but rather a detailed summary with a focus on the elements of relevance for the ToR. All meeting notes were forwarded to the interlocutors for their approval and amendment. In the report, care has been taken to present the views of the interlocutors as accurately and transparently as possible and reference is made to the specific paragraphs of the meeting notes in the footnotes. All sources approved the meeting notes, which are included in their full extent in Annex 2.

The report is a synthesis of the sources' statements, primary data collected on the ground as well as relevant health system reports and academic articles.

1.7 Structure of report

The report begins with an introduction to the administrative context of health service delivery in Mogadishu and to the regulatory framework. This is followed by background information about the division between public and private health facilities in Mogadishu, general observations about the quality of services in these facilities as well as a section with findings about the effects of Covid-19 on the health sector. Finally, the findings about availability and price of medicines and treatments are reported by disease category at the end of the report. Details about whether a medication is registered or not at the EML, dosages, different kinds of fees, etc., can be found in a detailed matrix in the Tana Report at the end of this report.

The annexes comprise the ToR, the interview notes as well as the full report of the consultancy company.

The report was initiated in June 2023 and finalised in February 2024.
It is available on the website of Udlændingestyrelsen (us.dk).

2. Contextual factors of health care service delivery in Mogadishu

2.1 Administrative framework

The administrative framework for health service delivery in Mogadishu is the Benadir Regional Administration (BRA). BRA contains 17 district governments and is led by a Governor (also referred to as the Mayor of Mogadishu).[13] Mogadishu is the capital of South/Central Somalia and at the same time a direct federal territory. Each of the 17 districts is governed by its own district government, led by a district commissioner, as shown in the overview of Somalia's state structure in Table 1.[14]

The federal government has the key responsibility to set policies and strategies and to regulate as stipulated in the Somali Constitution. The federal member states, on the other hand, mirror the federal government. However, the critical role of the federal government and the member states' ministries is not well defined.[15] The political status of Mogadishu remains contested; the authority of the Somali state is described as weak and therefore customary institutions in the cities have broad legitimacy.[16]

Table 1: Overview of state structure in Somalia

Nation-State	Federal Republic of Somalia						
Sphere of government	Federal	Federal Member States					
Government	FGS	Jubbaland		South West	Galmudug	Puntland	Somaliland
Regional administrations	Benadir Regional Administration (BRA)	Gedo Lower Jubba Middle Jubba	Hiran Middle Shabelle	Bay Bakool Lower Shabelle	Mudug* Galgaduud	Sanaag* Sool* Bari Nugal	Togdheer* Awdal Woqooyi Galbeed
Local governments	17 district governments	13	7	16	5 - 10	9 - 14	7 - 11

* = contested (assigned to the region covering the largest area) [214]

Source: World Bank, 2021[17]

[13] Tana, *Understanding Systems in Mogadishu City*, 2023, url, p. 1
[14] World Bank, *Somalia Urbanization Review: Fostering Cities as Anchors of Development*, 2021, url, p. 91; Tana, *Understanding Systems in Mogadishu City*, 2023, url, p. 1
[15] UNICEF: 6
[16] World Bank, *Somalia Urbanization Review: Fostering Cities as Anchors of Development*, 2021, url, pp. 90-91; Tana, *Understanding Systems in Mogadishu City*, 2023, url, p. 1
[17] World Bank, *Somalia Urbanization Review: Fostering Cities as Anchors of Development*, 2021, url, p. 92

2.1.1 Regulatory framework

The Federal Ministry of Health and Human Services (most often referred to as the FMoH), in its capacity of principal national authority, is responsible for policymaking, strategic planning, regulation, protocols and standards, as well as public financial management in the health sector. This responsibility is carried out in collaboration with the BRA and the member states' ministries of health.[18] However, there are still power struggles at all levels of government authorities regarding the division of roles and responsibilities between the federal and state levels of administration for all sectors, not only health.[19] According to UNICEF, the governance of health in South/Central Somalia has undergone good progress over the past years because a structural framework for the FMoH has been established.[20]

Hospitals in Mogadishu suffer from the fact that there are no protocols or standards in accordance with international standards, which could offer guidance to the staff.[21] There are many pharmacies, laboratories and clinics in Mogadishu that function without any form of accreditation.[22]

2.1.2 Public and private health infrastructure in Mogadishu

Organisation of health sector

In Somalia, the delivery of health care services is centered around the Essential Package of Health Services (EPHS): Somalia 2020.[23]

The pyramid of health care services can be summarised as follows:

1. Regional/National Hospital
2. District Hospital
3. Health Centre
4. Primary Health Unit
5. Community Centre

These services are complemented with mobile clinics, which are designed to reach nomadic people and people in hard to reach areas.[24]

Quality of infrastructure

According to a 2023 study conducted by Tana, all public hospitals in Mogadishu have been constructed or rehabilitated since 2008, with the exception of the Banadir, Medina, SOS and

[18] WHO: 4
[19] WHO: 5
[20] UNICEF: 5
[21] WHO: 14
[22] WHO: 9
[23] Ministry of Health and Human Services, *Essential Package of Health Services (EPHS) Somalia, 2020*, June 2021, url, pp. 59-76
[24] FMoH: 1-2

Keysaney hospitals. It should also be noted that because of the rapid urbanisation in Mogadishu, poor waste management and poor sanitation facilitate the transmission of communicable diseases inside and outside of health facilities.[25]

All of the pharmacies, which have been included in the survey conducted for the purpose of this report, had refrigerators where the medicines could be stored in cold temperatures.[26]

Public and private sector

Health care services can be accessed from public and private providers. According to information from 2022, there are more private than public health facilities in Banadir region.[27] The private sector remains the most important provider of health care services in the cities of Somalia.[28] It has been estimated that 80 % of all curative health care services are provided by private facilities.[29]

Private facilities may be organised as private for-profit hospitals and clinics or private not-for-profit NGOs and community-based organisations. The latter are often counted as public sector, as they provide free services in collaboration with the government.[30]

The public health sector is suffering from the fact that many civil servants have not been paid regularly for extended periods. Therefore, those that are well-qualified are likely to seek employment in the private sector.[31]

The high number of health facilities in Banadir region may be a result of increasing private investments by the Somali diaspora who have chosen to invest in private health facilities in Mogadishu and other large cities.[32] Investments in health facilities in Mogadishu have been described as 'big business' and people from inside and outside of Somalia are willing to invest in private-for-profit clinics.[33] The sustainability of these investments in infrastructure have, however, sometimes been challenged when it comes to running the facility and to connecting it to national plans and priorities in the absence of an efficient national regulation framework.[34]

[25] Tana, *Understanding Systems in Mogadishu City*, 2023, url, p. 27
[26] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, p. 27
[27] Tana, *Understanding Systems in Mogadishu City*, 2023, url, p. 24
[28] World Bank, *Somalia Urbanization Review: Fostering Cities as Anchors of Development*, 2021, url, pp. 12, 14
[29] Heritage Institute for Policy Studies, City University of Mogadishu, *Somalia's Healthcare System: A Baseline Study & Human Capital Development Strategy*, 2020, url, p. 14
[30] WHO: 15
[31] WHO: 13
[32] UNICEF: 10; WHO: 23; Tana, *Understanding Systems in Mogadishu City*, 2023, url, p. 26
[33] EUAA, *Somalia; Key socio-economic indicators*, September 2021, url, p. 39
[34] UNICEF: 10

2.1.3 Quality of services

Because of the weak national regulatory framework for health care services, the landscape of private health care providers is unclear, and the quality of care may vary significantly in the absence of control mechanisms.[35] The quality of services offered in private hospitals are estimated to be of higher quality than in public hospitals.[36] According to the 2023 Tana study, the quality of care and the availability of medicines and equipment are perceived to be of relatively higher standards of practice at private health facilities. This includes facilities managed by a foreign donor and/or facilities in a public/private partnership.[37] In the present report, the Erdogan Hospital was included as an example of a hospital funded by a foreign donor and managed in partnership with the Somali FMoH. According to FMoH, it is a public hospital.[38]

Public facilities are underfunded compared to hospitals funded by external donors. This underfunding affects the quality of care at public hospitals negatively, according to a 2023 study, whereas donor-funded hospitals are more likely to meet international standards.[39]

2.1.4 Cost of services and medicines

Services

In Somalia, all public health care services are free of charge, starting at the community centre and across services.[40] However, there may be 'informal fees' and other costs, which may hinder poor people from accessing health care.[41]

In Mogadishu, there are two 'fully public hospitals' (meaning that they are managed by the FMoH and not co-run by another country or organisation), which are described as free of charge to the patients, including the poor and displaced populations. These are Banadir Hospital and De Marino General Hospital.[42] These hospitals have not been included in the survey for this report because they do not offer specialised services for the medical conditions included in the ToR. In addition, public hospitals refer their patients to private hospitals for advanced treatment when the public hospitals lack the required medical equipment, medicines or specialists.[43]

As mentioned earlier, the private health sector in Somalia is unregulated. [44] The high prices of services in the private-for-profit hospitals constitute a barrier for the vast majority of Somalis,

[35] UNICEF: 8
[36] WHO: 16
[37] Tana, *Understanding Systems in Mogadishu City*, 2023, url, p. 26
[38] FMoH: 6
[39] Tana, *Understanding Systems in Mogadishu City*, 2023, url, p. 26
[40] FMoH: 7
[41] WHO: 11; FMoH: 7
[42] WHO: 10
[43] EUAA, *Somalia; Key socio-economic indicators*, September 2021, url, p. 38
[44] UNICEF: 8

who are unable to pay for these services.[45] The Erdogan Hospital provides some services at a subsidised cost or free of charge so that it may also serve people who are unable to pay.[46]

Medicines

At public hospitals, basic medicines (such as vitamins for nutrition-deprived patients or medication against fever) are offered free of charge as long as they are in stock.[47] At other places, medicines are sold to patients at unregulated prices since there is no regulation of medical products in Somalia and because many pharmacies in Mogadishu operate without any form of accreditation.[48]

2.1.5 Health insurance

There is no health insurance available in Somalia.[49]

2.1.6 Systemic effects of Covid-19 epidemic

During Covid-19, the health sector in Somalia faced a number of challenges; e.g. the main hospitals lacked capacity of intensive care units (ICUs) to treat patients in need of medical oxygen.[50] UNICEF stated, however, that Somalia had demonstrated resilience during the Covid-19 response,[51] and the FMoH noted that collectively, the sector had learned a lot about preparedness during the epidemic.[52]

The epidemic brought in external resources to the country.[53] According to the FMoH, UNICEF and WHO, the capacity of the health sector in Somalia has improved as a result of the learnings from Covid-19 in several areas. Firstly, the treatment capacity has improved because of the fact that there has been placed 200 oxygen plants and oxygen concentrators in 40 referral and district level hospitals across the country.[54] These oxygen plants will also improve the treatment of childhood pneumonia and acute respiratory disease.[55] Secondly, health workers across the country have been trained in mass casualty management and trauma care, which will benefit hospital preparedness beyond Covid-19.[56] Thirdly, the diagnostic systems have been strengthened with three new, big public health laboratories with PCR capacity and genome sequencing capacity, a technical capacity, which also can be used for the testing of other infectious diseases

[45] WHO: 16
[46] WHO: 40
[47] WHO: 17
[48] WHO: 7, 9
[49] WHO: 24; UNICEF: 12
[50] FMoH: 8
[51] UNICEF: 13
[52] FMoH: 8
[53] UNICEF: 13
[54] FMoH: 8; UNICEF: 13; WHO: 25; WHO, *Capitalizing on the Covid-19 response*, 2022, url, p. 13
[55] UNICEF: 13; WHO: 26
[56] WHO, *Capitalizing on the Covid-19 response*, 2022, url, p. 9

than Covid-19.[57] Finally, the surveillance capacity has been strengthened with an Integrated Disease Surveillance and Response (IDSR) system.[58]

2.1.7 Non-health sector factors impacting on health service delivery

Somalia has experienced severe conflict for the past decades. In addition to the consequences of prolonged instability due to conflict, the country has been prone to cyclical environmental shocks. In 2022, there was a huge drought, which led to an estimated excess of 43 000 deaths of children under the age of five. Somalia has also experienced flooding.[59] These emergencies add a burden on the health care system by slowing down processes or even backsliding on previous achievements. Universal health coverage, including the right to health, is far from being achieved in Somalia, according to WHO.[60]

[57] WHO: 25
[58] WHO: 26
[59] UNICEF: 3; WHO: 22
[60] WHO: 21-22

3. Service delivery for specific diseases and health conditions

This section presents tables with information about treatments and medicines as they have been documented by the research team in Mogadishu. These tables are complemented with inputs from the FMoH, UNICEF and WHO where relevant.

For descriptions of the included hospitals and pharmacies, see Tana's report pages 6-8.

3.1 Cancer

There was no cancer treatment at the two hospitals that are included in the survey and only very limited access to chemotherapy.[61]

Patients with cancer diagnoses who have the financial means are likely to travel to other countries for treatment because of the lack of specialised oncology units and specialised oncologists in Mogadishu.[62] The FMoH elaborated that Somalia lacks the necessary infrastructure, medical facilities and expertise to provide comprehensive cancer treatment within the country. As a result, individuals diagnosed with cancer in Somalia face the need to seek medical care outside the country.[63]

The Tana survey showed that only two chemotherapy molecules (Capegard and Sorsnib) are available in one private pharmacy, but the pharmacy reported that there is currently supply interruptions. The interviewed sources had contradictory knowledge and information about the availability of cancer treatment.[64]

About Table 3

The following data about the availability of treatments and medicines was collected from two hospitals in the period from 29 October to 10 November 2023.

Table 3: Availability of cancer treatment and chemotherapy

Cancer		
Treatment	**Availability**	**Facility**
Inpatient treatment by a cancer specialist (an oncologist)	N/A	
Outpatient treatment and follow-up by a cancer specialist (an oncologist)	N/A	
Immunotherapy	N/A	

[61] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, pp. 14, 26
[62] FMoH: 16; UNICEF: 20; WHO: 41
[63] FMoH: 16
[64] FMoH 17; WHO: 41-42

Chemotherapy medications (Capegard tablet and Sorsnib tablet)[65]	Partly available; supply has been interrupted for two months	Ramadan Pharmacy
Laboratory research / monitoring of full blood count; e.g. Hb, WBC & platelets	N/A	

For detailed information about prices for medicines and treatments, see Annex 3, the Tana report (page 14 for treatment and page 26 for medicine).

3.2 Cardiac complications

Patients who suffer from cardiac complications and hypertension may be treated by a medical doctor with specialisation in internal medicine or by a cardiologist at the two included hospitals. All of the medicines included in the survey were available.[66]

The FMoH found that there is very little treatment available for cardiac complications and hypertension.[67] There is no specialised centre in Mogadishu offering advanced services for patients suffering from cardiac complications and hypertension; however, major hospitals offer services within their internal medicine units.[68]

WHO noted that patients are treated by medical officers and junior professionals rather than by specialists. If there is a demand for cardiovascular services, the private-for-profit sector will try to provide a service. The services are, however, limited to the rich segments of the population.[69]

In public facilities, there is an increased use of blood pressure monitoring for women for early detection of eclampsia, and blood sugar checks are done on pregnant women. As such, basic supplies are available in those facilities.[70]

About Table 4 and 5

The following data about the availability of treatments was collected from two hospitals in the period from 29 October to 10 November 2023. Please note that prices are listed in US dollars, as transactional monetary payments made through cash or mobile money in Somalia have accommodated the US dollars, making it more accessible to individuals and institutions alike.[71]

For detailed information about treatment prices, see Annex 3, the Tana report, pages 13-14. In this matrix, prices are broken down into different categories.

[65] The consultants in Mogadishu asked which chemotherapy medicines, of any kind, were available in the three visited pharmacies and were informed that Capegard and Sorsnib were partly available.
[66] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, pp. 13, 23-25
[67] FMoH: 14
[68] WHO: 37
[69] WHO: 37
[70] WHO: 38
[71] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, p. 8

Table 4: Availability of treatments

Cardiac complications and hypertension		
Treatment	**Availability**	**Facility**
Inpatient treatment by an internal specialist (internist)	Available	Erdogan Hospital
		Shaafi Hospital
Outpatient treatment by an internal specialist (internist)	Available	Erdogan Hospital
		Shaafi Hospital
Inpatient treatment by a heart specialist (a cardiologist)	Available	Erdogan Hospital
		Shaafi Hospital
Outpatient treatment by a heart specialist (a cardiologist)	Available	Erdogan Hospital
		Shaafi Hospital
Diagnostic imaging by means of ECG (electrocardiogram; cardiology)	Available	Erdogan Hospital
		Shaafi Hospital
Diagnostic imaging by means of ultrasound of the heart	Available	Erdogan Hospital

For detailed information about medicine prices, see Annex 3, the Tana report, pages 23-25.

Table 5: Cost of medicines

Cardiac complications and hypertension						
Name of medicine (generic name)	**Availability**	**Dosage**	**Form**	**Number of units in the container**	**Price per box in USD**	**Pharmacy**
Simvastatin	Available	20 mg	Tablet	28	3 - 9	Ramadan Pharmacy Shaafi Pharmacy
Clopidrogrel	Available	75 mg	Tablet	28	4.5 -7	Ramadan Pharmacy Shaafi Pharmacy

Acetylsalicylic acid	Available	74 - 81 mg	Tablet	28 - 56	3 - 5	All
Losartan	Available	50 mg	Tablet	28	3 - 7	Ramadan Pharmacy Shaafi Pharmacy
Bisoprolol	Available	2.5 - 10 mg	Tablet	28 - 30	5 - 7	Ramadan Pharmacy Shaafi Pharmacy
Enalapril	Available	5 mg	Tablet	20 - 100	4 - 10	Ramadan Pharmacy Shaafi Pharmacy
Digoxin	Available	0.25 - 250 mg	Tablet	28 - 40	4 - 14	Ramadan Pharmacy Shaafi Parmacy
Amlodipine	Available	5 mg	Tablet	20 - 30	2.8 - 6	All
Furosemide	Available	20 - 40 mg	Tablet	28 - 50	1.5 - 12	All
Warfarin	Available	3 mg	Tablet	28	5 / 7	Ramadan Pharmacy
Spironolactone	Available	25 - 100 mg	Tablet	16 - 28	2.6 - 10	All

3.3 Chronic obstructive lung disease

According to findings from the consultancy company, patients who suffer from chronic obstructive lung disease may be treated by a pulmonologist at the Erdogan Hospital. All of the medicines included in the survey were available.[72]

WHO opined that these patients would most likely be treated by an internist.[73] UNICEF found that many patients would travel to other countries for treatment.[74]

About Table 6 and 7

The following data about the availability of treatments and medicines was collected from two hospitals in the period from 29 October to 10 November 2023. Please note that prices are listed in US dollars, as transactional monetary payments made through cash or mobile money in Somalia have accommodated the US dollars, making it more accessible to individuals and institutions alike.[75]

[72] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, pp. 14, 26-27
[73] WHO: 43
[74] UNICEF: 21
[75] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, p. 8

For detailed information about treatment prices, see Annex 3, the Tana report, pages 14-15. Treatment prices are separated into four different categories depending on the services provided.

Table 6: Availability of treatments

Chronic obstructive lung disease		
Treatment	**Availability**	**Facility**
Outpatient treatment by a lung specialist (a pulmonologist)	Available	Erdogan Hospital
Inpatient treatment by a lung specialist (a pulmonologist)	Available	Erdogan Hospital
Medical devices pulmonology: nebulizer / equipment that turns liquid medicine into a mist	Available	Erdogan Hospital
		Shaafi Hospital
Medical devices pulmonology: spacer (with mask) for inhaler with asthma / KOL medication	Available	Erdogan Hospital
		Shaafi Hospital

For detailed information about medicine prices, see Annex 3, the Tana report, pages 26-27.

Table 7: Cost of medicines

Chronic obstructive lung disease						
Name of medicine (generic name)	**Availability**	**Dosage**	**Form**	**Number of units in the container**	**Price per box in USD**	**Pharmacy**
Formoterol	Available		three different forms		8 - 16	All
Budesonide	Available		two different forms		8 - 15	Shifaa Pharmacy Ramadan Pharmacy
Fluticasone propionate	Available	50 mg	Inhaler	1	10 - 12	Ramadan Pharmacy
		50 mg / 10 mg	Dalman nasal spray	120	7	Shaafi Pharmacy
Prednisolone	Available	5 mg	Tablet syrup	20	1.4	Shifaa Pharmacy

		5 mg	Tablet	20 - 28	4 - 6	Ramadan Pharmacy Shaafi Pharmacy

3.4 Diabetes

Patients who suffer from diabetes may be treated by a resident doctor or an internal medicine specialist at one of the included hospitals. All medicines in the survey were available at pharmacies in Mogadishu, except for intermediate-acting insulin.[76]

In Somalia, general practitioners or internal medicine units diagnose patients with endocrine disorders (such as diabetes), and follow-ups can take place at low-level facilities.[77] The FMoH stated, however, that it is not common to treat diabetes in public hospitals and that it is not possible to have continued treatment at facility level. Instead, most persons suffering from chronic conditions seek treatment in the private sector or abroad.[78]

The incidence of diabetes in Somalia is increasing. According to UNICEF, the government has articulated that treatment of non-communicable diseases must be a part of the essential package of health services. However, because of underfunding and weak health delivery infrastructure, most services are only available at referral or district level.[79] According to WHO, additional services such as food care, dietary advice and counselling for lifestyle changes are scarce or non-existent in routine services, despite being among the essential interventions set in the EPHS.[80]

According to findings from a Knowledge, Attitude, and Practice (KAP) study about type 2 diabetes and lifestyle modifications, the Somali population perceives obesity to be a sign of health, prosperity and wealth. The population does not perceive obesity as an illness in itself or as a condition that may lead to any kind of disease.[81]

According to a recent hospital-based study presented in 2022 at a national research conference in Somalia, 75 % of all amputations of limbs, which were carried out in three hospitals in Mogadishu, were caused by untreated diabetes-related complications.[82]

[76] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, pp. 11, 18-19
[77] WHO: 34
[78] FMoH: 11-13
[79] UNICEF: 17
[80] WHO: 34
[81] Mohamud, M. F. Y. and Jeele, M. O. O., *Knowledge, attitude, and practice regarding lifestyle modification among type 2 diabetes patients with cardiovascular disease at a Tertiary Hospital in Somalia*, 2022, url, p. 4
[82] WHO: 35

About Table 8, 9 and 10

The following data about the availability of treatments, devices and medicines was collected from two hospitals in the period from 29 October to 10 November 2023. Please note that prices are listed in US dollars, as transactional monetary payments made through cash or mobile money in Somalia have accommodated the US dollars, making it more accessible to individuals and institutions alike.[83]

For detailed information about treatment prices, see Annex 3, the Tana report, pages 10–11. Treatment prices are separated into four different categories depending on the services provided.

Table 8: Availability of treatments

Diabetes type I and II		
Treatment	**Availability**	**Facility**
Outpatient treatment and follow-up by a general practitioner	Available	Erdogan Hospital
		Shaafi Hospital
Inpatient treatment by a specialist in diabetes (an endocrinologist)	Partially available There is no endocrinologist available in Erdogan Hospital. Diabetes patients are treated by either a resident doctor or an internal medicine specialist. There are also rare cases referred to endocrinologists who are available through telemedicine, and these do not attract additional fees.	Erdogan Hospital
Outpatient treatment and follow-up by a specialist in diabetes (an endocrinologist)	Partially available There is no endocrinologist available in Erdogan Hospital. Diabetes patients are treated by either a resident doctor or an internal medicine specialist. There are also rare cases referred to endocrinologists who are available through telemedicine, and these do not attract additional fees.	Erdogan Hospital

[83] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, p. 8

Laboratory research of blood glucose (incl. HbA1C/ glyc.Hb)	Available	Erdogan Hospital
		Shaafi Hospital
Laboratory research of renal/ kidney function (creatinin, ureum, sodium, potassium levels)	Available	Erdogan Hospital
		Shaafi Hospital
Inpatient treatment by an internal specialist (internist)	Available	Erdogan Hospital
		Shaafi Hospital
Outpatient treatment by an internal specialist (internist)	Available	Erdogan Hospital
		Shaafi Hospital

For detailed information about medicine prices, see Annex 3, the Tana report, pages 18-19.

Table 9: Cost of medicines

Diabetes type I and II						
Name of medicine (generic name)	**Availability**	**Dosage**	**Form**	**Number of units in container**	**Price per box in USD**	**Pharmacy**
Fast-acting insulin: Insulin aspart, Insulin glulisine, Insulin lispro, Insulin human	Available	3 ml	Injection in dosage form	100	6	Shifaa Pharmacy
		10 ml			7 - 10	Shaafi Hospital
Intermediate-acting insulin: Insulin isophane	N/A			100		

Long-acting insulin: Insulin detemir, Insulin glargine, Insulin degludec	Available	3 ml	Available in one dosage form	28	6	Shifaa Pharmacy
Metformin	Available	500 mg	Tablet	30	3/6	Ramadan Pharmacy
				50 - 60	6	Shaafi Pharmacy
Gliclazide	Available	30 - 80 mg	Tablet		3.6 - 12	All

Table 10: Availability of devices

Devices for diabetes type I and II		
Name of device	**Availability**	**Pharmacy**
Insulin pump	N/A	

3.5 Kidney diseases

Sources informed DIS about the presence of dialysis centres in Mogadishu,[84] and at both of the surveyed hospitals, it was possible to get hemodialysis. Patients may be seen by a nephrologist at one of the included hospitals or by an internal medicine specialist at the other researched hospital.[85]

However, intraperitoneal dialysis solution was not available at any of the pharmacies included in the survey.[86]

Dialysis is provided in the private sector, but there is also one public hospital offering dialysis free of charge. The capacity in that hospital is limited, however.[87] Somalis with financial means tend to seek treatment possibilities abroad.[88]

About Table 11 and 12

The following data about the availability of treatments and medicines was collected from two hospitals in the period from 29 October to 10 November 2023. Please note that prices are listed

[84] FMoH: 15; UNICEF: 19; WHO: 39
[85] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, p. 12
[86] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, p. 25
[87] FMoH: 15
[88] FMoH: 15; UNICEF: 19; WHO: 39

in US dollars, as transactional monetary payments made through cash or mobile money in Somalia have accommodated the US dollars, making it more accessible to individuals and institutions alike.[89]

For detailed information about treatment prices, see Annex 3, the Tana report, pages 12-13. Treatment prices are separated into four different categories depending on the services provided.

[89] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, p. 8

Table 11: Availability of treatments

Kidney diseases, including dialysis		
Treatment	**Availability**	**Facility**
Outpatient treatment and follow-up by a kidney specialist (a nephrologist)	Available	Shaafi Hospital
Inpatient treatment by a kidney specialist (a nephrologist)	Available	Shaafi Hospital
Laboratory research of renal/ kidney function (creatinin, ureum, proteinuria, sodium, potassium levels)	Available	Erdogan Hospital
		Shaafi Hospital
Laboratory research of PTH, calcium, phosphate	Available	Erdogan Hospital
Nephrology: chronic haemodialysis (three times a week)	Available	Erdogan Hospital
		Shaafi Hospital
Nephrology: peritoneal dialysis/dialysis through the peritoneum	N/A	
Surgical placement of an arterial shunt for hemodialysis	Available	Erdogan Hospital

For detailed information about medicine prices, see Annex 3, the Tana report, page 25.

Table 12: Availability of medicines

Kidney diseases, dialysis		
Name of medicine (generic name)	**Availability**	**Facility**
Intraperitoneal dialysis solution	N/A	

3.6 Mental health

Mental health is a significant issue in Somalia, in particular due to war, violent conflicts and social disruption.[90] Mental health issues are particularly widespread among the youth.[91] According to studies, one third of the population has or has previously experienced a mental health illness condition.[92]

Only severe conditions such as schizophrenia and bipolar disorder are recognised as mental disorders. Persons suffering from conditions such as anxiety or depression are at risk of not being correctly diagnosed and treated.[93] There are few qualified psychiatrists and only some psychologists in Somalia.[94] According to UNICEF, access to mental health services is low across the country. The EPHS includes standards for mental health services, but the plan is underfunded.[95]

In Mogadishu, patients who suffer from psychiatric diseases may consult a psychiatrist at three different hospitals in Mogadishu. Two of these hospitals also offer in-patient treatment by a psychiatrist, but only one of these two admits female patients at their wards for inpatient treatment. People who need to consult a psychologist may find this service at one of the hospitals included in the survey. None of these hospitals offered special housing or assisted living for people suffering from long-term mental disease.[96]

All the medicines included in the survey were available at pharmacies in Mogadishu, except for two medicines.[97]

FMoH stated that most patients suffering from mental health problems prefer private hospitals; however, accessibility of treatments is challenging due to high costs and insufficient knowledge about patients' symptoms among health workers.[98] Patients with financial means tend to seek treatment abroad. Poor people with mental health conditions often seek help from traditional healers because of the reduced costs.[99]

WHO noted that female patients are likely to suffer more than male patients.[100] The source did not elaborate further on this. However, as mentioned above, only one private mental health facility in Mogadishu, Habeeb Hospital,[101] admits female patients suffering from psychiatric disorders. The Forlanini Hospital in Mogadishu also offers psychiatric treatment, including inpatient

[90] UNICEF: 14; WHO: 27; Malik, M. et al., *Investing in mental health in Somalia: harnessing community mental health services through task shifting*, 22 February 2022, url, p. 95
[91] VOA, *Study: Somali People 'Highly Traumatized' After Years of Conflict*, 18 January 2023, url
[92] WHO: 27; Ibrahim, M. et al., *Investing in mental health in Somalia: harnessing community mental health services through task shifting*, 22 February 2022, url, p. 95
[93] WHO: 27
[94] WHO: 29
[95] UNICEF: 15
[96] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, pp. 15-17
[97] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, pp. 19-23
[98] FMoH: 9
[99] WHO: 32
[100] WHO: 32
[101] UNSOM, *Dr. Habeeb: Raising the Standard for Mental Health Care in Somalia*, 7 April 2018, url

treatment, but female patients are not accepted for inpatient treatment due to the lack of a female inpatient wing.[102]

UNICEF noted that the quality of mental health services is poor, and the number of trained health workers is insufficient; health professionals often have no or little relevant training to diagnose a problem and manage a mental health patient.[103] There is no formal training in psychiatry or psychology in Somalia as a part of university. Qualified health workers in Somalia have received their training abroad. Frontline workers may have received short courses or training and can provide basic services but not advanced treatment.[104]

3.6.1 Substance abuse

Consumption of substances have increased, leading to substance abuse disorders. Drug users, persons chewing *khat*, and persons sniffing glue or consuming off-label medications constitute an important portion of mental health patients in Somalia. Fentanyl (a potent synthetic opioid drug), for example, is available in all markets in Somalia at a low cost. Furthermore, there is a spread of psychotropic drugs sold without prescription and without any form of quality assurance. More recently, injectable drugs have been detected in Mogadishu, especially in secondary school environments.[105]

A doctor who owns a mental health clinic in Somalia listed lack of awareness as well as lack of educated mental health professionals and services as a reason that Somalis turn to substance abuse or suicidal thoughts.[106]

Some charities offer help for persons suffering from substance abuse disorder and for drug addicted young people.[107]

3.6.2 Stigma

Stigma related to mental health is pervasive in Somalia, including in the health sector[108] and at community level.[109] If a person shows a highly abnormal behaviour, Somalis often refer to this as *waala*. Patients who suffer from mental health problems allegedly try to hide to avoid further stigmatisation. In Somalia, people do not believe in mental health as a continuum. Therefore, persons suffering from any kind of mental health problem are considered either fully ill, or not ill at all; [110] either normal or mad, with little distinction between mild to moderate to severe illness.[111]

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[102] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, p. 16
[103] UNICEF: 15
[104] WHO: 30-31
[105] WHO: 28
[106] VOA, *Study: Somali People 'Highly Traumatized' After Years of Conflict*, 18 January 2023, url
[107] WHO: 29
[108] FMoH: 10; WHO: 32
[109] FMoH: 10; UNICEF: 16
[110] WHO: 32; Ibrahim, M. et al., *Mental health crisis in Somalia: a review and a way forward*, 2022, url, p. 8
[111] Ibrahim, M. et al., *Mental health crisis in Somalia: a review and a way forward*, 2022, url, p. 4

Another impact of stigma is that people with financial means tend to seek treatment for mental health problems from neurologists rather than from psychiatrists or psychologists. Additionally, because of stigmatisation related to mental health problems, only few health workers are willing to build a career in psychiatry.[112]

About Table 13 and 14

The following data about the availability of treatments and medicines was collected from four hospitals in the period from 29 October to 10 November 2023. Please note that prices are listed in US dollars, as transactional monetary payments made through cash or mobile money in Somalia have accommodated the US dollars, making it more accessible to individuals and institutions alike.[113]

For detailed information about treatment prices, see Annex 3, the Tana report, pages 15-17. Treatment prices are separated into four different categories depending on the services provided.

[112] WHO: 29-30

[113] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, p. 8

Table 13: Availability of treatments

Mental health		
Treatment	**Availability**	**Facility**
Outpatient treatment possibilities by psychiatrist	Available	Erdogan Hospital
		Shaafi Hospital
		Forlanini Hospital
		Habeeb Hospital
Inpatient treatment possibilities by psychiatrist	Available	Habeeb Hospital
		Forlanini Hospital (limited to male patients only due to the absence of a female inpatient wing)
Inpatient treatment for women suffering from psychiatric disorders	Available	Habeeb Hospital
Inpatient treatment possibilities by a psychologist	Available	Forlanini Hospital
Outpatient treatment possibilities by a psychologist	Available	Forlanini Hospital
Inpatient treatment, including compulsory or confined admission	Available	Habeeb Hospital
Special housing like protected apartments for chronic psychotic patients with outpatient care	N/A	
Psychiatric treatment: Assisted living / care at home by psychiatric nurse	N/A	
Psychiatric long term clinical treatment (e.g. for chronic psychotic patients) by a psychiatrist	Available	Forlanini Hospital
		Habeeb Hospital

For detailed information about medicine prices, see Annex 3, the Tana report, pages 19-23.

Table 14: Cost of medicines

Mental health (Psychotic Disorders and non-Psychotic Disorders)						
Name of medicine (generic name)	**Availability**	**Dosage**	**Form**	**Number of units in the container**	**Price per box in USD**	**Pharmacy**
Olanzapine	Available	5 - 10 mg	Tablet	28	3 - 6	All
Chlorpromazine	Available	100 mg	Tablet	10	10	Ramadan Pharmacy
Haloperidol	Available	5 - 10 mg	Tablet	50	3.5 - 15	Shifaa Pharmacy Ramadan Pharmacy
		5 mg	Injection	5	10	Shaafi Pharmacy
Risperidone	Available	1 - 2 mg	Tablet	20	3 - 4	Shifaa Pharmacy Ramadan Pharmacy
Clozapine	Available	25 mg	Tablet	50	12	Ramadan Pharmacy Shaafi Pharmacy
Aripiprazole depot injection	N/A					
Chlorprothixene	N/A					
Quetiapine	Available	10 - 100 mg	Tablet	30	4 - 5	All
Sertraline	Available	50 mg	Tablet	28	5 - 6	Ramadan Pharmacy Shaafi Pharmacy
Diazepam	Available	5 mg	Tablet	100	10	Ramadan Pharmacy
		10 mg / 2 ml	Injection	5	1	Shaafi Pharmacy
Lorazepam	Available	1 - 2 mg	Tablet	50	7.5 - 10	Ramadan Pharmacy Shaafi Pharmacy
Amitriptyline	Available	10 - 25 mg	Tablet	28–50	3 - 4	All

Gabapentin	Available	300 mg	Capsule	10 - 50	5 - 9	All
Pregabalin	Available	75 mg	Capsule	5 - 65	4 - 6	All

3.7 Pain relief

All the pain medicines included in the survey were available at pharmacies in Mogadishu.[114]

According to UNICEF, access to pain medicines is quite limited in the public sector; access is better in private facilities. However, since the private sector is largely unregulated, the quality and authenticity of the medicines are not checked.[115] WHO noted that pain relief medicines are available in Mogadishu; however, there is no national protocol or awareness among health workers when it comes to palliative care.[116]

The FMoH stated that access to pain relief is relatively easy, as pharmacies sell pain relief drugs without requiring a prescription. The source elaborated that the importation of narcotics is restricted, although illegal methods exist. Some resort to purchasing medications through illicit means, leading to issues of addiction. Notably, obtaining strong painkillers intended for relieving cancer pain presents a significant challenge.[117]

About Table 15 and 16

The following data about the availability of medicines and treatments was collected from three pharmacies and two hospitals in the period from 29 October to 10 November 2023. Please note that prices are listed in US dollars, as transactional monetary payments made through cash or mobile money in Somalia have accommodated the US dollars, making it more accessible to individuals and institutions alike.[118]

For further information, see Annex 3, the Tana report, pages 15 and 22-23.

[114] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, pp. 15, 22-23
[115] UNICEF: 22
[116] WHO: 44-45
[117] FMoH: 18
[118] Tana, *Medical Country of Origin Information (MedCOI) from Mogadishu, Somalia*, 18 January 2024, p. 8

Table 15: Cost of medicines

Pain relief medicine						
Name of medicine (generic name)	**Availability**	**Dosage**	**Form**	**Number of units in the container**	**Price in USD**	**Pharmacy**
Paracetamol	Available	250 - 500 mg	Tablet	30 - 100	1.5 - 4	All
Ibuprofen	Available	400 mg / 200 mg / 5 ml	Tablet and syrup	10 - 30	1.5 - 3	All
Morphine	Available	100 mg/ml	Injection	10	30 - 40	Ramadan Pharmacy Shaafi Pharmacy
Non-steroidal anti-inflammatory drugs (NSAIDs)	Available					Erdogan Hospital
Opioids	Available					Erdogan Hospital
Tramadol	Available					Erdogan Hospital

Table 16: Availability of treatments

Pain relief		
Treatment	**Availability**	**Facility**
Options for administration, e.g. injection, tabs, patches, epidural	Available	Erdogan Hospital Shaafi Hospital

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Annex 1 Terms of Reference

Medical Country of Origin information (MedCOI) from Mogadishu, Somalia

Medicines

1. Availability, including storage facilities, of medicines for patients suffering from diseases or conditions:
   1.1. Diabetes (type I & II)
   1.2. Psychotic disorders, depression and PTSD
   1.3. Cardiac complications and hypertension
   1.4. Kidney diseases, including dialysis
   1.5. Cancer (chemotherapy)
   1.6. Chronic obstructive lung disease
   1.7. Pain relief

2. The supply of these medicines will be assessed in Mogadishu
   2.1. The supply will be assessed for generic names of medicines which are either registered as legal in the country or which is legally available through licensed pharmacies
   2.2. Extent of interruption in supply of the above mentioned medicines

3. Treatment

Availability of relevant treatment for patients suffering from the above-mentioned conditions from public or private health facilities located in Mogadishu

4. Accessibility

Accessibility of medicines and treatment for the above mentioned conditions in terms of price

Annex 2 Meeting notes

Federal Ministry of Health (FMoH)

Online interview, 19 December 2023

Administrative framework of health care service delivery in Mogadishu

1. In Somalia, the delivery of health care services are centered around the Essential Package of Health Services (EPHS) 2020,[119] which has been developed in consultation between the Ministry of Health and development partners. The package is intended to be delivered through different levels beginning at the lowest level where community health workers offer basic services to the population. That is the first point of entry for patients in Somalia, and the package defines that there should be a community health worker per 600-1000 population. If the case is more complex, then there are the Primary Health Unit (PHU), covering 1000 – 10,000 population. The third level is the Health Centre for patients who require more specialised treatment, and finally the patient may be referred to a District Hospital or to a Regional or a National Hospital.

2. The pyramid of health care services can be summarised as follows:
   - Community centre
   - Primary Health Unit
   - Health Centre
   - District Hospital
   - Regional/National Hospital

   These services are complemented with mobile clinics, which are designed to reach nomadic people and people in hard to reach areas.

The regulative framework

3. The Ministry of Health is in charge of assessing and approving all forms of health care activities, which the UN and other development partners wish to carry out across the country. NGOs are required to develop a Memorandum of Understanding, and to seek approval from the Government before they initiate any activities. In order to obtain approval from the Government, their activities must be in alignment with the government's policies and guidelines as described in the EPHS.

4. Any health actor operating in Somalia has to adhere to the Essential Medicines List.

[119] Essential Package of Health Services (EPHS) Somalia, 2020, June 2021, url, p. 59

5. A newly established unit in the Federal Ministry of Health, Public-Private Partnership, shall be in charge of strengthening regulation of the health care sector.

6. It is a challenge to regulate the private sector as the reporting rate of private health service providers in Somalia is rather low, which makes it difficult for the MoH to monitor their services. A substantial amount of efforts is made to steer coordination. One example of a public private partnership is the Somalia - Türkiye Training and Research Hospital (also referred to as the Erdogan Hospital), which is a public hospital but in close collaboration with the Turkish Government based on a protocol of agreement between the two governments.

The Public Health Care Sector in Mogadishu

7. All public health care services in Somalia are free of charge, starting at the community centre and across services. Basic medicines are offered free-of-charge at public hospitals as long as medicines are in stock. Services such as surgery is also offered free of charge at public facilities.

Long term effects of Covid-19 on the health care sector

8. Collectively, the health care sector in Somalia has learned about preparation a lot from the Covid-19 pandemic. The system was confronted with a number of challenges, including insufficient capacity of intensive care units (ICUs) in the main hospitals. It was a challenge to cover the oxygen needs of patients with severe acute respiratory syndrome and other forms of medical supplies were also pushed to the limit. After Covid-19, the capacity of the health system has improved as there has been training of staff, installed a better system of emergency preparedness to respond to other emerging epidemics. The diagnostic system has been improved and the laboratory capacity has been improved.

Mental health

9. Most patients suffering from schizophrenia or other mental health problems avoid public hospitals; they prefer to go to private hospitals instead. The private facilities offer some treatment options for mental health problems, however, the accessibility of treatments is rather challenging. Sometimes the understanding of these patients and their symptoms is insufficient and the patients risk undertreatment. The cost of treatments at private hospitals may also be high and many patients may not be able to pay for treatments there.

10. Mental health issues are stigmatised in the health facilities and in the Somali communities. Due to stigma at the health facilities, people may avoid to talk about their problems, or they prefer to go to religious leaders who may pray for them. As a result, some

people with mental health problems have been chained. There are no support mechanisms in place for these persons.

Diabetes

11. The prevalence of diabetes in Somalia is very high. However, with regard to public health facilities, it is not common to treat diabetes. It is not possible to have continued treatment at facility level, especially in the public health facilities. Therefore, patients have to turn to the private sector.

12. Most persons suffering from chronic conditions (such as diabetes or hypertension) seek treatment in the private sector because treatments are unavailable in the public sector. Poor people have difficulty in accessing treatment options in the private sector because they cannot afford the treatment costs.

13. Many people with the financial capacity choose to travel abroad to seek treatment options, for example in Türkiye or India, because of the lack of access to treatment services in Somalia. Some sell their properties so they can afford to travel abroad, or in some cases, the Somali communities provide support.

Cardicac complications and hypertension

14. There is very little adequate treatment available for chronic conditions including for cardiac complications and hypertension. Limited capacity poses a challenge for private hospitals offering cardiac treatments, including surgeries.

Kidney diseases

15. It is possible to access dialysis in Mogadishu, especially via services offered from the private sector. There is also a public hospital, which offers dialysis free of charge at that particular public hospital, however, the capacity at that hospital is limited and people have to wait. Many patients try to seek treatment abroad, e.g. in India or Türkiye.

Cancer

16. If the cancer treatment is not available in Somalia, patients tend to travel abroad for treatment. The statement implies that Somalia lacks the necessary infrastructure, medical facilities, or expertise to provide comprehensive cancer treatment within the country. As a result, individuals diagnosed with cancer in Somalia face the need to seek medical care outside the country. They choose to travel abroad, likely to nations with better-equipped healthcare systems and specialised facilities capable of offering the required cancer treatments. This reflects the challenge of limited healthcare resources and the pursuit of suitable and effective medical solutions by patients who are willing and able to travel for better treatment options.

17. Chemotherapy is not available in Mogadishu.

Pain relief

18. Access to pain relief is relatively easy, as pharmacies sell pain relief drugs without requiring a prescription. However, the importation of narcotics is restricted, although illegal methods exist. Some individuals resort to purchasing medications through illicit means, leading to issues of addiction. Notably, obtaining strong painkillers intended for relieving cancer pain presents a significant challenge.

UNICEF Somalia Country Office

Online meeting, 23 November 2023

UNICEF's activities in Somalia

1. UNICEF's work at country level is focused on ensuring an enabling environment and access of vital child friendly services for the wellbeing of Children in Somalia. The work includes programmes covering health, nutrition, education, access to clean water, as well as child protection and social protection. All of UNICEF's interventions are carried out in collaboration with the Government of Somalia and its development partners. UNICEF has a dual focus on humanitarian response as well as long term sustainable development programme and systems building.

2. In 2018, UNICEF moved to Somalia with its office, now located in Mogadishu, and only a few support staff remain in Nairobi. There are satellite UNICEF offices across Somalia and these offices engage with the member states' governments. Somalia is a security compromised country, so UN staff have challenges with access to certain security constrained parts of the country when they wish to verify the state of their interventions and rely on partners and third party monitors.

General conditions for health service delivery in Somalia

3. The country has experienced severe conflict for the past decades. In addition to the consequences of prolonged instability due to conflict, the country has been prone to cyclical environmental shocks. In 2022, there was a huge drought, which led to an estimated excess of 43,000 deaths of children under the age of 5. Currently the country is experiencing flooding.

4. There is wide disparity of the capacity of the health system in the country. In central and southern regions of the country that were worst affected by the conflict, these are areas with the weakest health system in place.
   According to the health index in Somalia, only 27 % of the population can access health services without a significant financial impact on themselves and their families.

Governmental structures with responsibility for the health sector

5. The governance of health in Somalia has undergone good progress over the past years in terms of setting up the structures of the Federal Ministry of Health and Human Services and public health.

6. According to the Somali Constitution, the federal government has the key responsibility to set policies and strategies and to regulate. The federal member states, on the other hand, mirror the federal government. However, at certain times the critical role of the federal government and the member states' ministries is not well defined. Somalia has several policies and strategies in place - the government has passed an Essential Package of Health Services Implementation Strategic Plan. As health service delivery is reliant on donor funding, funding constraints significant impact the effective implementation of strategies and plans in place.

7. This is particularly the case regarding the regulation of the private health sector, which is quite weak. No bill of regulation of the private health sector has been passed.

Quality of private health care facilities

8. The existing private health care facilities – ranging from proper hospitals to small clinics that sell medicines over the counter – may be placed on a spectrum ranging from good to not good regarding the quality of the services. Because of the lack of regulatory framework, the landscape of the private health sector is unclear and mechanisms to regulate the private health sector are not available. Currently, a provider from the private health sector does not need licensing; there is no regulation of human work force that is recruited and the quality of care that is delivered, according set standards. That does not exclude that fact that there are private health care facilities in Somalia, which have received significant financial injections from international donors, and that are very well regulated and offer very good quality services.

9. The World Bank has supported strengthening of the health system through a 100 million USD grant. Parts of it is for the private sector and for the contracting of NGOs that shall deliver comprehensive health services. However, it does not cover the whole country.

10. Members of the Somali diaspora have invested in private health facilities in a number of ways, and those investments have expanded access to health care for the population. A lot of diaspora are coming back to Somalia and looking to invest financially to fill a gap. Their investments in health care facilities have not, however, been well-documented. Often, diaspora members choose to support the building of infrastructure in a certain area to help the local community; however, the challenge is to run the facility after it has been built, and to make the decision of whether to hand it over to the government to run it or to another partner. That uncertainty compromises the sustainability of the diaspora initiated health clinics. Furthermore, the private investment in health infrastructure does not necessarily address the needs of the most vulnerable or most remote population groups.

11. Around 60 % of the population is estimated to access health care services from the private sector rather than from the public sector.

Health insurance

12. There is no health insurance system in Somalia.

Long-term effects of Covid-19

13. Somalia was hit hard by the Covid-19 epidemic because of the lack of access to health service so the response was not optimal. There were significant interruptions in service delivery in many hospitals. However, Somalia was fairly resilient to the Covid-19 pandemic and even some signs of interesting positive outcomes may be noted: it was possible to expand access to immunisation services at community level while carrying out anti-Covid-19 vaccination campaigns. Furthermore, the Covid-19 response also brought resources to the country that were leveraged to improve the health infrastructure, for example Covid-19 resources were used to improve the oxygen ecosystem and oxygen plants were put in place in referral and district hospitals, which also improves the ability to treat pneumonia and support capacity of hospitals to conduct surgical procedures. The country has also been strategic in its efforts to improve surveillance and laboratory facilities during and after Covid-19 so that stepwise critical care units have been established, which to some extent have strengthened secondary and tertiary care beyond Covid-19.

Mental health

14. Mental health is a significant issue in Somalia; a recent study demonstrated a very high prevalence of mental health troubles in Somalia. The population group, which is most affected by mental health problems, is the youth. The diseases include PTSD as a result of war, which is maintained in the current environment of conflict. Unfortunately, the vast majority of donor funding is channeled to communicable diseases and maternal and child health.

15. Access to mental health services in Somalia is low and there is a huge unmet gap for those services. The government has passed an Essential Package of Health Services Implementation Strategic Plan, which included standards for mental health services but the plan is underfunded. Therefore, the overall national focus remains on maternal and child health. For those who manage to access mental health services the quality is poor. The number of trained health workers is insufficient, thus a patient with mental health issues will most likely meet a health professional with no or little relevant training to diagnose the problem and manage a mental health patient.

16. At community level and in the families there is little or no awareness of how to access mental health services; thus, patients are unlikely to even be taken to the right facility. There may also be various levels of stigma at community level.

Diabetes type 1 and 2

17. The incidence of diabetes and hypertension in Somalia is going up, and the government has articulated that treatment of these non-communicable diseases must be a part of the essential package of health services. However, because of underfunding and weak health delivery infrastructure, most of these services would only be available at referral level or at district level. It would also most likely be only basic laboratory testing which would be available.

Cardiac complications and hypertension

18. There is little treatment for cardiac complications and hypertension available in the public sector; here the bigger private hospitals may offer some basic cardiac care but it is a challenge to attract specialised doctors to Somalia.

Kidney diseases

19. There may be one or two facilities in Mogadishu offering dialysis. Most Somalis who can afford to travel would seek that kind of treatment abroad.

Cancer

20. Patients with a cancer diagnosis would have to travel to other countries.

Chronic obstructive lung disease

21. Patients with a lung disease diagnosis would have to travel to other countries.

Pain relief

22. The access to pain medicines in the public sector is quite limited; it may be better in private facilities. However, since the private sector is largely unregulated, the quality and the authenticity of these medicines remain unchecked.

WHO

Online meeting with WHO Country Office, Somalia 20 November and 7 December 2023

WHO's activities in Somalia

1. The World Health Organization (WHO) in Somalia executes its institutional mandate of international organization governed by its Member States (Somalia among them) and health specialised agency of the United Nations. This implies support to the government in developing and sustaining the health sector, systems and activities, according to the WHO General Programme of Work 13 (GPW13 2019-2025) with focus on universal health coverage, health security, and healthy life. In a country in protracted crisis, frequently affected by emergencies, and with weak national institutions, this also means engagement in operations, from actual delivery of services to the continuous work to build and strengthen health sector systems. For example, to support the country in the response to the Covid-19 pandemic, WHO has worked on defined emergency response pillars including case management, surveillance, coordination, emergency, trauma and acute care, capacity building programmes with training of health professionals, environmental health (water, sanitation and hygiene).

2. All the WHO supported activities are implemented in a collaborative way with the Federal Ministry of Health (FMoH), the Ministries of Health of Somalia's Federal Members States and lower level authorities, and often in collaboration with health partners (UN, NGOs, national actors). Most activities are funded by institutional donors with earmarked resources, some by own WHO resources (flexible funds from Member States in the organization's budget).

3. In recent years WHO has carried out several assessments of the state of service delivery in the health care sector in Somalia. Within the pandemic response, a Rapid Hospital Assessment of 142 hospitals in Somalia informed on the needs to strengthen clinical management and related the systems (to be published, a manuscript is available). An important countrywide exercise is the Harmonized Health Facility Assessment recently completed in close collaboration with the health authorities, a census-based assessment of all public and part of private health facilities in the country on a large set of indicators of service availability, readiness, quality and financial management.

Governmental structures with responsibility for the health sector

4. The Federal Ministry of Health, in its capacity of principal national authority, is responsible for policy making, strategic planning, regulation, protocols and standards, public

financial management in the health sector, and for leading the relationship with international partners (the latter together with the Ministry of Planning). Some responsibilities and especially operational tasks are shared with the Ministries of Health of the five Federal Member States, and with the Benadir Regional Administration (not a state by definition but is a very important entity because of Mogadishu's high population intensity. Benadir Regional Administration is led by a governor).

5. The division of roles and responsibilities between the federal and the state levels of administration, for all sectors, is not well defined in the Somalia Constitution (2012) that established the federal structure. This often results in power struggles on processes critical to the country's development and challenges for partners, relevant for WHO as we work with government authorities at all levels, implying additional efforts in policy dialogue.

6. The FMoH is responsible for the updating of treatment guidelines and for the management of the human resources of the health work force through the national Civil Service Commission. A majority of health workers are recruited by partners (mainly NGOs) and the private sector. The health sector in Somalia is very much donor dependent. Therefore the ministry functions in a project-based manner meaning that things happen when there is a donor interest and funding for a certain topic. Somalia has been in crisis for the past 30 years with frequent spikes of emergency, and donor interest is very much directed towards the emergency response approach, which leaves other system components such as capacity building relatively underfunded.

The regulatory framework

7. There is no efficient regulation of health professionals, facilities or training institutions in place in Somalia. Furthermore, there is no regulation of medical products. According to the Constitution, which was adopted in 2012, these regulations should be put in place, and currently a law for the establishment of the National Health Professional Council has been approved in 2020, during Covid-19, and it is only now that it is being operationalised: the Council and Secretariat are is in place, started registrations, and the system is expected to be fully functional by end 2024. Regarding medical supplies and drugs, the law for the National Medicine Regulatory Authority is currently with the Parliament for final approval. On the technical side, since a few years Somalia has the Standard Treatment Guidelines (2016) and the national Essential Medicine List (2019), now both due for update.

8. Somalia has a well-defined Essential Package of Health Services (Somalia EPHS 2020), developed from a complete revision of the previous package, based on disease burden and evidence of effective interventions. It defines sets of interventions and specific activities to be implemented at each of the five levels of the service delivery platform

(community based services, primary health unit, health centre, district hospital, and referral hospital (regional to national). It is an evidence based and comprehensive package. One of the planned activities is to update the Essential Medicines List and the Standard Treatment Guidelines in line with the EPHS 2020.

9. There are many pharmacies, laboratories and clinics in Mogadishu functioning without any form of accreditation. To some extent, the private institutions, in particularly the old well-established hospitals, also suffer from the fact that there is no verification of the qualifications of the health workers, which increases the risk of malpractice. Therefore, there is now a push from some private hospitals for the establishment of regulations, which would also provide a framework for their operations and certification of quality of care.

About the state of hospitals in Mogadishu

10. The supply of health services is highest in Mogadishu, as it is the capital of Somalia. Most health facilities are run by NGOs and most mid to high level hospitals are run by private professionals or companies. Even those public hospitals that are managed by the government depend on funds provided through NGOs or UN agencies. One hospital in Mogadishu stands out in terms of range and quality of services, and that is the Somalia -Türkiye Training and Research Hospital (also referred to as the Erdogan Hospital) where the clinicians are trained in Türkiye and / or supported by Turkish professionals and a share of essential services are provided free of charge thanks to a partnership with the Somali government; specialised or costly services are provided for a fee as in other private hospitals. The two fully public hospitals providing free services to the population – including poor and displaced people – are Banadir Hospital for maternal and child health and De Martino General Hospital, both under the responsibility of the FMoH that pays part of the salaries (civil servant) and supported by donors' contributions.

11. The public hospitals in Somalia are offering a variety of basic services across the country, mostly free of charge, although informal fees and other costs may limit accessibility for the poor (transport, often medicines). These hospitals lack well-trained human resources. In Mogadishu, some public hospitals offer general surgery, orthopedic surgery at an acceptable level. Private hospitals offer specialised care such as cardiology, neurology, orthopedics, ophthalmology, otorhinolaryngology and more, often from Somali physicians from the Diaspora returning to the country. Pre-hospital care is poorly developed; there is no Emergency Medical Service (EMS) responders; and only one ambulance service with trained drivers and paramedics, although some private hospitals are establishing their own ambulance services. The public sector works quite well when there is sufficient and continuous support from NGOs.

12. WHO has donated biomedical equipment such as oxygen delivery devices, consumables, pulse oximeters, multiparameter patient monitors, suction devices; autoclaves/sterilizers to Somalia. WHO has contributed to the establishment of a biomedical equipment unit in Somalia, which may facilitate better use of the equipment that are in the country but that was not being fully used before the establishment of this unit. Now Somalia has six biomedical technicians. With funding from the World Bank, WHO is also supporting the establishment of critical care units in eight regional hospitals, including equipment, transfusion centre, staff capacities.

13. The labour market in the health sector, despite increasing production of some profiles such as midwives, is affected by the weakness of public funding and management, twisted by donors' priorities and ultimately dominated by private interest – additional reason for the urgent need for regulation and better public management. Many civil servants have been asking for their salaries for months, including health professionals. Those who are well-qualified are likely to seek employment in the private sector.

14. The hospitals suffer from the fact that there are no protocols or standards in place to offer guidance to the staff according to international standards.

The private health sector

15. In urban areas, the private sector (for-profit) is estimated to cover about 60 % of all needs for health care services; in rural areas, it is about 40 %, considering also the small pharmacies and drug-sellers. The private not-for-profit (NGOs and community based organisations) is often counted as public sector as providing free services in collaboration with the government.

16. The private health facilities are relatively better than the public hospitals in Mogadishu (although not as good as in Somaliland). The cost of these services limit accessibility to the people able to pay for it, leaving out the vast majority of Somalis.

Access to medicines

17. Regarding access to medicines, basic medicines are offered free-of-charge to patients at public hospitals. The medicines offered are very basic medicines for the most common diseases (such as fevers, vitamin deficiency, etc.), whereas medicines for more complex chronic diseases are not distributed free-of-charge. Regarding interruptions in medical supply, there are some stock outs in the public facilities.

18. One of the major channels for import of medicines to public facilities is through the international community; here UNICEF is a key actor together with UNFPA seeking to ensure the provision of basic medicines across the country. This works under a push sys-

tem, which means that medicine packages are delivered to the facilities without detailed requests, with quantification based on consumption. However, data on this topic is rather fragmented.

19. In the private sector, there is a lot of influx of medicines, also from uncertified sources. There is a lot of traffic of good as well as of bad medicines on the markets, including chemotherapy.

Access to health care services

20. In Somalia, out-of-pocket payment for health services is very high, which means that people who are financially well off are more likely to receive adequate care. People without sufficient financial resources may rely on services provided free-of-charge by public facilities and charities or at very low cost and may only get some care. Therefore, access to health care is very fragmented.

21. In addition to financial barriers, access to health care may also be broken over time. Some services may be available and well functioning for a certain period, and then disappear after six months or two years when donor funding expire. Universal health coverage, including the right to health, is far from being achieved in Somalia.

22. The spikes of emergencies in Somalia, including conflicts, natural disasters and droughts as well as floods, have led to an increase in the number of internally displaced persons. These emergencies add a burden on the health care system and hamper developments, by slowing down processes or even backsliding on previous achievements.

Expanded access to health care through diaspora funded health facilities

23. There is a rather big influx of the Somali diaspora as well as of foreigners who wish to open health facilities in Somalia. Members of the diaspora have increasingly chosen to invest in private health clinics in Mogadishu and other cities, and their investments have widened the access to health care services for the Somali population. The diaspora plays a critical role through community based support. Members of the diaspora may also be able to raise a considerable amount of money (up to US dollars 5,000) to support one patient's need for a surgery within a very short notice.

Health insurance

24. There is no health insurance system in Somalia.

Long-term effects of Covid-19 on the health care sector

25. Covid-19 did cause a disruption of delivery of health care services across the country because all attention and resources were directed towards prevention and management of Covid-19 infection, regardless of the fact that for the majority of people, Covid-19 in itself was not a big health problem. However, the resources for Covid-19 interventions, which were granted to Somalia, helped the country to build up technical capacity. For example, Somalia has been able to establish a network of public health laboratories that was not in place before with a contribution from Covid-19 resources. There are now three big public health laboratories with PCR capacity and genome sequencing capacity. These labs are serving many other needs in the country health sector and there is a struggle to keep these facilities fully functional – including their high level diagnostic capacities – for other epidemic prone diseases.

26. Somalia has put in place an Integrated Disease Surveillance and Response (IDSR) system, in line with the already existing Health Management Information System, using the same digital platform, DHIS2. Thus, from a system point of view it was possible to use some of the Covid-19 resources to strengthen certain health system components. From a clinical point of view, there was a promotion of the use of medical oxygen as a result of Covid-19 case management effort, a critical improvement in the treatment of pneumonia (a major cause of child mortality in Somalia) and other respiratory diseases. Medical oxygen is now available and used in many facilities, from oxygen concentrators or full oxygen plants able to provide a continuous supply of oxygen cylinders to other facilities, where there was not any before Covid-19.

Mental health

27. Mental health has been a severely neglected policy area in Somalia for years and mental health patients have been grossly invisible in the health care sector. However, awareness about mental health as an issue has been rising over the past few years in Somalia. According to WHO findings, the burden of mental health disorders is particularly high in Somalia as the country has gone through three decades of violent conflicts and social disruption. According to studies, one third of the population has or has previously experienced a mental health illness condition. Only conditions such as schizophrenia and bipolar disorder are effectively recognised as mental disorders, and those conditions are likely to be diagnosed by health professionals. Persons suffering from lighter conditions, such anxiety or depression, may prefer to talk about physical symptoms rather than mental illness and suffer for years without being correctly diagnosed and treated by a health professional.

28. The burden of disease has also grown as to the traditional consumption of khat (already a problem) other substances are increasingly being used, leading to substance abuse disorders. Drug users, either those chewing khat or those sniffing glue or those

assuming off-label medications, constitute an important portion of mental health patients in Somalia. Fentanyl, for example, is now available in all markets in Somalia, at a low cost. There is a spread of many of psychotropic drugs, sold without prescription and any form of quality assurance. Recently, injectable drugs have been detected in Mogadishu as well, especially in secondary school environments.

29. The response to mental health disease has remained fragmented in Somalia. Mental health is included in the essential package of health services, and some facilities offer psychiatric services such as the Turkish Hospital, the Forlanini Hospital and the Shaafi Hospital. Some charities offer help for persons suffering from substance abuse disorder and for drug addicted young people. There are few qualified psychiatrists, and only some psychologist in Somalia. Some specialists may come from abroad to offer their services, but they are struggling to find enough patients as people suffering from mental health conditions do not want to label themselves as mentally ill because of pervasive stigma. Consequently, rich people rather prefer to seek treatment for mental health problems from neurologists than from psychiatrists or psychologists, and poor people go untreated.

30. There is no formal training in psychiatry or psychology in Somalia as a part of university. Those health workers in Somalia, who are qualified in the medical specialities, have received their training abroad. Because of stigmatisation towards mental health problems, only few health workers have been willing to build a career in psychiatry.

31. Frontline workers may have received short courses or training and can provide basic services, but not to offer advanced treatment.

32. Stigma related to mental health is pervasive in Somalia, including in the health sector. When a person shows a highly abnormal behaviour, Somalis will refer to this behaviour as *waala* and patients who suffer from mental health problems will try to hide to avoid further stigmatisation. People do not believe in mental health as a continuum from good to worse, therefore persons suffering from any kind of mental health problems are considered to be either fully ill, or not at all ill. People, suffering from mental health problems, and who have the financial means, tend to seek treatment in other countries (Kenya, Ethiopia, Turkey or even India). Poor people with mental health conditions are likely to seek help from traditional healers, as these healers are cheaper than modern medicine. Female patients are likely to suffer more than male patients.

33. Until a few years ago, it was not uncommon that people with mental health problems were put in chains and even confined in prisons. It seems that these harmful practices do not occur anymore.

Diabetes type 1 and 2

34. In Somalia, patients with endocrine disorders are diagnosed by general practitioners or internal medicine units (it is not known whether endocrinologists are now available, the diaspora influx may have brought some). For diabetes, when treatment is established and prescribed, the follow up can be done at low level facilities. Fourth generation medicines, insulin, are available but at the patient's own cost. Other services, including food care, dietary advice and counselling of relevance for lifestyle changes, are scarce or non-existing in routine services, despite being among the essential interventions set in the EPHS. Some NGOs offer these kinds of support.

35. According to a recent hospital based-study, presented in 2022 at a national research conference in Somalia, 75 % of all amputations of limbs, which were carried out at three hospitals in Mogadishu, were caused by untreated diabetes related complications, not by conflict and arms related trauma as one could have expected. This was a case management review not based on a significant sample; however, it gives an idea of the possible burden of disease, still undocumented.

36. At a general level, non-communicable diseases (NCDs) such as diabetes, hypertension and cardiovascular diseases, are not ranked highly in the interest of donors. Therefore, it is difficult to raised funds for NCDs.

Cardiac complications and hypertension

37. There is no specialised center in Mogadishu offering advanced services for patients suffering from cardiac complications and hypertension; however, major hospitals offer these services within their internal medicine units. There are very few treatment options in the public hospitals and some in the private sector. Patients with these diagnoses are treated by medical officers and junior professionals rather than by specialists. If there is a demand for cardiovascular services, the private-for-profit sector will try to provide a service. The services are, however, limited to the rich segment.

38. In public facilities, there is an increased use of blood pressure monitoring for women for early detection of eclampsia, for example compared to a few years ago. Blood sugar checks are also done on pregnant women. This means that the basic supplies are available in these facilities.

Kidney diseases

39. There is a dialysis centre in one of the private hospitals in Mogadishu, which should be functional and providing services. However, people with financial means seek treatment possibilities abroad, especially in Türkiye.

40. The Turkish Erdogan Hospital is a private hospital, which has an agreement with the Somali government. It provides some services at subsidised cost or free of charge so that it may also serve people who are unable to pay. This hospital is used as a teaching hospital by the Turkish government.

Cancer

41. Patients with a cancer diagnosis and who can afford it are likely to travel to other countries, e.g. to Kenya, for treatment. There is no specialised oncology unit and probably no specialised oncologists in Mogadishu; however, some private hospitals offer diagnosis and treatment – mainly surgical and chemotherapy – for some cancers. Early diagnosis is hardly available.

42. Chemotherapy treatment is available in Mogadishu. Radiotherapy is not available.

Chronic obstructive lung disease

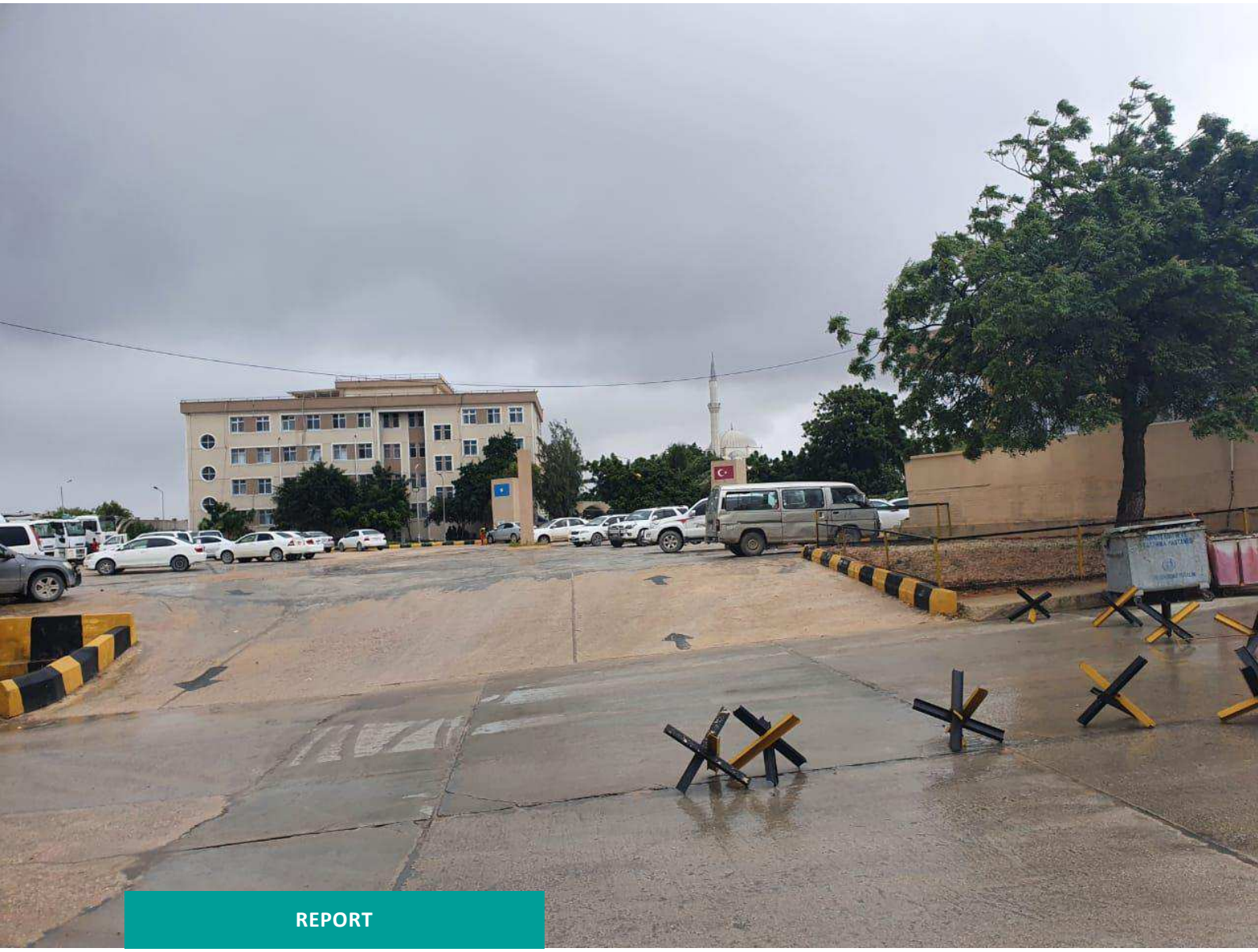
43. There is no specialised center for patients suffering from chronic obstructive lung disease. Those patients are mostly treated by an internist. Medicines are available.

Pain relief

44. Pain relief medicines are available in Mogadishu but there is no protocol in place, which ensures that the medical staff is guided on how to live up to standards.

45. It is a major public health problem that none or very little palliative care is available in Somalia. Pain relief, as such, may be available, but there is no national protocol or awareness when it comes to palliative care.

Annex 3 TANA Report



REPORT

Photo: Erdogan Hospital in Mogadishu, Somalia

REPORT

MEDICAL COUNTRY OF ORIGIN INFORMATION (MEDCOI) FROM MOGADISHU, SOMALIA

Client: Danish Immigration Service (DIS)

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1 INTRODUCTION

1.1 The Assignment

This report provides an overview of findings for the Medical Country of Origin (MedCOI) study in Mogadishu, Somalia, as commissioned by the Danish Immigration Service (DIS), and implemented by Tana Copenhagen. The purpose of the study is to provide an updated status on the availability and accessibility of medications and treatment services related to a range of diseases. It is anticipated that this information will be useful in the processing of asylum and humanitarian cases in Denmark and the European Union, where the health conditions of asylum seekers are an important consideration in migration processes, as determinants to the return to the country of origin (in this case Somalia) and in the application for humanitarian residence or family reunification purposes.

Tana has been engaged in Somalia since 2008 and has so far been involved in over 40 development projects of varying scope and size. Our portfolio spreads out across diverse sectors including technical expertise in thematic areas closely related to urban development, displacement, informal settlement, human rights, and gender. In relation to this assignment, Tana has collaborated with DIS and other partners over the years to gain insights into the health system in Somalia as well as with health system analysis from a MedCOI perspective. Our specific projects include:

> Wilson Solicitors LLP, *Availability and accessibility of Psychotic Illness Care in Mogadishu,* September 2023
>
> The Danish Immigration Service, *Medical Country of Origin Information (MEDCOI) – Somalia, Health System,* November 2020

A team of five in-house experts was engaged in the production of this report, which includes a combination of national consultants from Mogadishu, Somalia, and international consultants based in Copenhagen, Denmark.

1.2 Scope

This section sketches an outline of the key aspects that framed the scope of this assignment as agreed early on during the beginning of the study. This assignment aimed to update information about the availability of treatment services and medication supply in Mogadishu's health facilities, creating a useful database for individuals working with migration and asylum-seeking processes. At the inception phase, DIS provided a list of seven relevant areas that were to be investigated:

1. Diabetes (type I & II)
2. Psychotic disorders, depression, and Post-Traumatic Stress Disorder
3. Cardiac complications and hypertension
4. Kidney diseases, including dialysis
5. Cancer (chemotherapy)
6. Chronic obstructive lung disease

7. Pain relief

The study is designed to focus on two primary areas: medical treatments and medication.

Focus Area 1: Medical treatment, including laboratory controls

For the above-mentioned conditions, this study sought to understand the status of available services at outpatient and inpatient levels in health facilities such as the availability of disease specialists, laboratory controls, and medical devices, that would at a minimum be required for patients suffering from these illnesses. The table below provides a full overview of the services that were explored:

Table 1: List of treatment services

1. Diabetes type I and II	1.1 Outpatient treatment and follow up by a general practitioner 1.2 Outpatient treatment and follow up by a specialist in diabetes (an endocrinologist) 1.3 Inpatient treatment by a specialist in diabetes (an endocrinologist) 1.4 Medical devices internal medicine: insulin pump 1.5 Laboratory research of blood glucose (incl.: HbA1C/ glyc.Hb) 1.6 Laboratory research of renal/ kidney function (creatinin, ureum, sodium, potassium levels)
2. Psychotic disorders **Non-psychotic disorders (depression and PTSD)**	2.1 Outpatient treatment possibilities by psychiatrist 2.2 Inpatient treatment possibilities by psychiatrist 2.3 Outpatient treatment possibilities by psychologist 2.4 Inpatient treatment possibilities by psychologist 2.5 Inpatient treatment for women suffering from psychiatric disorders 2.6 Inpatient treatment, including compulsory or confined admission 2.7 Is there special housing (like protected apartments) for chronic psychotic patients with outpatient care? 2.8 Psychiatric treatment: assisted living / care at home by psychiatric nurse 2.9 Psychiatric long term clinical treatment (e.g. for chronic psychotic patients) by a psychiatrist
3. Kidney diseases, including dialysis	3.1 Outpatient treatment and follow up by a kidney specialist (a nephrologist) 3.2 Inpatient treatment by a kidney specialist (a nephrologist) 3.3 Laboratory research of renal/kidney function (creatinin, ureum, proteinuria, sodium, potassium levels) 3.4 Laboratory research of PTH, calcium, phosphate 3.5 Nephrology: chronic haemodialysis (3 times a week) 3.6 Nephrology: peritoneal dialysis/dialysis through the peritoneum 3.7 Surgical placement of an arterial shunt for hemodialysis
4. Cardiac complications and hypertension	4.1 Outpatient treatment by an internal specialist (internist) 4.2 Inpatient treatment by an internal specialist (internist) 4.3 Outpatient treatment by a heart specialist (a cardiologist) 4.4 Inpatient treatment by a heart specialist (a cardiologist) 4.5 Diagnostic imaging by means of ECG (electro cardio gram; cardiology) 4.6 Diagnostic imaging by means of ultrasound of the heart
5. Cancer (chemotherapy)	5.1 Outpatient treatment and follow up by a cancer specialist (an oncologist) 5.2 Inpatient treatment by a cancer specialist (an oncologist) 5.3 Laboratory research / monitoring of full blood count; e.g. Hb, WBC &

	platelets
6. Chronic obstructive lung disease	6.1 Outpatient treatment by a lung specialist (a pulmonologist) 6.2 Inpatient treatment by a lung specialist (a pulmonologist) 6.3 Medical devices pulmonology: spacer (with mask) for inhaler with asthma/KOL medication 6.4 Medical devices pulmonology: nebulizer/equipment that turns liquid medicine into a mist
7. Pain relief	7.1 Types of medication 7.2 Options for administration (e.g., Injection, tabs, patches, epidural)

This study also sought to understand the extent of i) **availability** and ii) **accessibility** of these services. In the case of availability, the study defined it to describe whether a certain treatment is offered either fully or in part, in either a public or private medical facility somewhere in Mogadishu city. For accessibility, this study looked into the pricing of fees such as consultation, registration, testing and the treatment itself. The following table illustrates the questions that framed the scope of our study:

Table 2 Description of availability and accessibility

Availability Questions

1. Are the following treatments available in Mogadishu (in at least a certain public or private medical facility at a certain time somewhere in Mogadishu, Somalia
   Indicators:
   - Available: the requested treatment is available in at least 1 health facility in Mogadishu, Somalia at the time of research.
   - Not available: the selected treatment is entirely not available at the health facility in any capacity.
   - Partly available: a part of the requested treatment is available and another part not.
2. If the treatment (including laboratory controls) is available, mention at least one facility where the availability information was obtained.
3. If the treatment (including laboratory controls) is not available, mention at least two facilities where the availability information was obtained.

Accessibility Questions

1. What is the price for treatment (including laboratory test) and what is included in the consultation price?
   Indicators:
   - Public outpatient treatment price
   - Public inpatient treatment price
   - Private outpatient treatment price
   - Private inpatient treatment price

Focus Area 2: Medication, including storage facilities

Under medication, the following medications were included in the study.

Table 3 List of medications

1. Diabetes type I and II	**1.1 Insulin injections**	• Fast acting: Insulin aspart, Insulin glulisine, Insulin lispro, Insulin human • Intermediate-acting: Insulin isophane • Long-acting: Insulin detemir, Insulin glargine,

		Insulin degludec
	1.2 Oral hypoglycaemic agents/blood glucose lowering medication	• Metformin • Gliclazide
2. Psychotic disorders **Non-psychotic disorders (depression and PTSD)**	**2.1 Anti-psychotic medication**	• Olanzapine • Chlorpromazine • Haloperidol • Risperidone • Clozapine • Aripiprazole depot injection • Chlorprothixene • Quetiapin • Pregabalin • Gabapentin
	2.2 Antidepressant medication	• Amitriptyline • Sertraline
	2.3 Post-traumatic stress disorder (PTSD)/sedative medication	• Diazepam • Lorazepam
	2.4 Medicines for pain management	• Ibuprofen • Paracetamol • Morphine
3 Cardiac complications/heart failure and hypertension/high blood pressure	**3.1 Cardiac complications/heart failure**	• Digoxin • Furosemide • Spironolactone
	3.2 Antithrombotic medicines/blood thinning medicine	• Acetylsalicylic acid • Clopidogrel • Warfarin
	3.3 3.3Anti-hypertensive medication/medication for lowering high blood pressure	• Amlodipine • Bisoprolol • Enalapril • Losartan
	3.4 Lipid-lowering medicine/cholesterol lowering medicine	• Simvastatin
4 Kidney diseases, including dialysis	**4.1 Medicine for dialysis**	• Intraperitoneal dialysis solution
5 Cancer	**5.1 Cancer**	• Chemotherapy medications • Immunotherapy
6 Chronic obstructive lung disease	**6.1 Medicine for inhalation**	• Formoterol • Budesonide • Fluticasone propionate
	6.2 Tablets	• Prednisolone

In understanding the availability of the above-listed medications, the study defined this to describe whether a certain medication is registered in Mogadishu, is offered either in either a public or private

medical facility somewhere in Mogadishu city, and is in stable or unstable supply. For accessibility, the study looked into the pricing of drugs based on the available brands and dosage forms. The following table illustrates the questions that framed this scope:

Table 4 Scope of availability and accessibility of medication

Availability Questions

1. Is the following medication registered and available in Somalia?
   Indicators:
   - Yes
   - No
   - Although medication is registered; there is no supply at all.
2. If the medication is available, mention at least one facility/pharmacy where the availability information was obtained.
   Indicators:
   - Yes: in stock and stable supply at the pharmacy
   - Available: the requested medicine is currently experiencing supply problems (at least in the last 4 weeks). Even though the requested medicine has been licensed and used to be available, supply has been interrupted.
   - Not available: ordering from abroad or from another pharmacy is not possible
3. If the medication is not available, mention at least two facilities/pharmacies where the availability information was obtained.

Accessibility Questions

1. What is the price of the requested medication (public or private facilities) per package or selling unit (with mention of dosage and number of pills per package)?
Indicators:

- Generic name
- Brand name
- Dosage
- Form
- Number of units in the container/number of pills per packaging
- Price per box

1.3 Selection of health facilities

The study aimed to investigate the conditions of health facilities in Mogadishu, focusing solely on this geographical area. To identify the facilities that met the criteria of suitable requirements, a set of standards was designed at the beginning of the study. The criteria were as follows:

- At least one public or government-run hospital (also includes those co-managed with donors) that provides at least a majority of specialized treatments for diabetes, kidney diseases including dialysis, cardiac complications and hypertension, cancer-chemotherapy, and chronic obstructive lung diseases.
- At least one relevant hospital that specializes in outpatient and/or inpatient treatment of psychiatric and non-psychiatric care.
- At least three pharmacies, including private/stand-alone pharmacies or pharmacies positioned within either private or public hospitals, and providing at least a majority of medications related

to diabetes, kidney diseases including dialysis, cardiac complications and hypertension, cancer-chemotherapy, psychotic disorders, and chronic obstructive lung diseases.

The study identified six well-known health facilities in Mogadishu, both hospitals and pharmacies, that met the above criteria. It is important to note that the healthcare system in this area is underdeveloped, and many facilities operate under difficult conditions to meet societal demands. For example, public hospitals may operate cost-recovery mechanisms to accommodate vulnerable populations, while private facilities may have different operating procedures. However, the facilities chosen provide a clear illustration of where services and costs are available across private and public facilities, and what is realistically available to the public. These six facilities also provide a wide range of the services under investigation thus allowing the study to document the required information. The table below provides a brief overview of the participating facilities.

Table 5 List of health facilities surveyed in Mogadishu

Mogadishu Somali Recep Tayyip Erdogan Training and Research Hospital	The Mogadishu Somali Recep Tayyip Erdogan Training and Research Hospital, a joint venture between Somali and Turkish authorities, operates as a semi-public institution where patients cover treatment costs. Completed in September 2013, the hospital, with 205 beds, offering patient care across various services, including polyclinics, inpatient care, operating rooms, delivery rooms, intensive care units, MR, tomography, stone crushing units, dialysis, bone densitometry, and physical therapy.[1] Officially inaugurated in 2015, the hospital originated from an agreement to modernize Digfeer Hospital, subsequently renamed Erdogan Hospital.[2] Financed by the Turkish International Cooperation and Development Agency (TIKA) with a $135.7 million budget, including $85.6 million from Turkish authorities over five years, the hospital stands out as the only facility offering residency programs to young doctors.[3]
Shaafi Hospital and Pharmacy	Shaafi Hospital, inaugurated in April 2016, is described as one of the leading healthcare institutions in Somalia. Established by the Doctors Health Care Union (DHU), a consortium of Somali physicians and healthcare professionals, the hospital seeks to bridge the gap between high-cost medical facilities and more economically accessible healthcare services. [4] Situated in the Hodan district, the hospital provides a spectrum of clinical services, including Anesthesiology, Cardiology, Dentistry, Gynecology, Internal Medicine, Obstetrics, Pediatrics, and Urology. Diagnostic services such as CT Scanner, Dopler, ECG, MRI Scanner, Radiology, Ultrasound, USG, and X-ray are also available. Auxiliary services encompass Ambulance, Emergency, and Pharmacy facilities. Moreover, Shaafi Hospital delivers various surgical services,

[1] Linkedin Profile. About. Mogadishu Somali Turkey, Recep Tayyip Erdogan Training and Research Hospital n.d. https://www.linkedin.com/company/mogadishu-somali-turkey-recep-tayyip-erdogan-training-and-research-hospital/?originalSubdomain=so

[2] The Turkey's president formally opens Digfeer Hospital. Goobjoog 2015. https://en.goobjoog.com/the-turkeys-president-formally-opens-digfeer-hospital/

[3] Only Hospital That Provides Residency Programs. Somali Turkey Training & Research n.d. https://strh.edu.so/about/; Turkish president inaugurates hospital in Somalia. World Bulletin 2015.

[4] Shaafi Hospital. Kulmie n.d. https://www.kulmie.com/listing/shaafi-hospital.html

	including both General and Specialized Surgery.[5]
Forlanini Mental Health Hospital	The Forlanini Hospital is a public hospital under the Ministry of Health and Human Services. It was built by the Italian government in February 1924 and started its origins as a referral hospital for tropical disease, diarrhoea, hepatitis, leprosy, TB, mother and child and mental illnesses. It is one of the largest hospitals in Mogadishu, Somalia and is located in the Banadir region of Abdul-Aziz District. It has a capacity to serve 1.5 million people.[6] Currently, its main departments include a Mental Health Department, TB MDR Department, Nutrition Department and a section for COVID-19. The outpatient service caters to both men and women patients. The hospital currently accommodates 100 beds in its inpatient ward, which caters exclusively to male patients suffering only from psychotic and non-psychotic disorders. Female patients are currently not admitted as inpatients as an exclusive female ward is yet to be constructed, though there are plans in place to accomplish this.
Habeeb Mental Health Hospital	The Habeeb Mental Health Hospital in Mogadishu was established by Dr. Abdirahman Ali Awale, also known as Dr. 'Habeeb,' in 2005. Initially admitting 30 patients, the hospital became one of Somalia's first mental health establishments since the civil war began in 1991. Over time, Dr. 'Habeeb' expanded his efforts, establishing ten additional psychiatric centers in various locations across Somalia, including Buhoodle, Caabudwaaq, Gaalkayo, Cadaado, Belet Weyne, Marka, Beled Hawo, and Kismaayo. The hospital currently operates two locations in Mogadishu: one with a capacity of 30 beds and another with 230 beds. The facilities offer outpatient consultations, addressing conditions such as bipolar disorders, schizophrenia, anxiety, depression, dementia, epilepsy, psychosis, and substance abuse-related issues. Additionally, Dr. 'Habeeb' extends his services beyond the centers by making house calls, providing treatment to patients at home and in their communities.[7]
Shifaa Pharmacy	Established in late 2011, a team of skilled pharmacy professionals and private investors came together to establish Shifaa Pharmacy. Since its inception, Shifaa Pharmacy has established 17 outlets across various locations in Mogadishu, including four branches in other cities. It is worth noting that the pharmacy has previously closed down two of its branches outside Mogadishu. Additionally, Shifaa operates a wholesale and retail outlet in Mogadishu. Their strategic presence can be found in major shopping malls and departmental stores, such as Hayat Supermarket and Juba Hypermarket, as well as some outlets in close proximity to major hospitals in the city. Shifaa Pharmacy positions itself as a distributor of high-quality over-the-counter and prescription medications.
Ramadan Pharmacy	Established in 2014 by private business investors, Ramadan Pharmacy is a private retail pharmacy. It currently operates three branches in Mogadishu and maintains direct imports of medications, primarily from Turkey and India. The main outlet

[5] Shaafi Hospital. Manje Health n.d. https://manjehealth.com/hospitals/shaafi-hospital/
[6] Forlanini Hospital. Ministry of Health, Federal Government of Somalia. n.d. https://moh.gov.so/en/forlanini-hospital/
[7] Dr. Habeeb: Raising The Standard for Mental Health Care in Somalia. UNSOM 2018. https://unsom.unmissions.org/dr-habeeb-raising-standard-mental-health-care-somalia

of Ramadan Pharmacy is inside a shopping centre opposite Kalkaal Hospital and approximately 1 KM away from Erdogan Hospital. The second outlet is near the Egyptian Hospital, while the third branch serves an area near Banadir Hospital.

Focusing primarily on prescription-only medications, Ramadan Pharmacy also offers a diverse range of over-the-counter medications. Notably, the pharmacy has gained a reputation for its uninterrupted supply of drugs. Consequently, doctors from major hospitals in the city often refer their patients to Ramadan Pharmacy as a last resort for medications that may be scarce in their hospital pharmacies or other pharmacies in Mogadishu.

1.4 Data collection methods

The data collection period commenced on 29 October 2023 and concluded on 10 November, This was after conducting some preparatory work of mapping the sample facilities and respondents and providing requests for approval from the relevant authorities.

The main data collection method encompassed a structured survey. The questionnaire was pre-developed and administered through the Kobo data collection tool, which allowed for easy data entry using a mobile phone while in the field. The form included specific questions related to the availability and pricing of the required treatments and medications. The primary currency utilized for pricing is the United States Dollar ($), as it is more widely used in comparison to the local currency. Transactional monetary payments made through cash or mobile money have accommodated the US Dollar, making it more accessible to individuals and institutions alike. The survey was administered to mainly clinical staff and management, where focal persons working at the outpatient and inpatient departments, specialist units and pharmacies were identified. Despite facing challenges in obtaining consent from some of the facilities, the study managed to secure the required number of facilities. This is further elaborated in section 1.5 below. At the end of the period, one private clinic and one public pharmacy had declined our requests to participate.

1.5 Quality Assurance

The study conducted quality assurance of data gathered through an independent spot-checking exercise for the sole purpose of verifying consistency. This follow-up was conducted between 13th and 21st November 2023 where the data checker visited five of the facilities from the main study sites, and aimed at collecting responses from different persons other than those who had participated in the main data collection. This was not always possible, especially in cases where there was only one person designated to that respective health desk. The process also involved exploring the same set of question areas related to treatments and medications. Overall, the process helped to complement the main data set in several ways: by providing additional information such as extra detail on drugs that might have not been previously recorded, verification with the respondents to clarify any confusion or errors, and finally, to confirm that the original data set was correctly recorded.

Additionally, the internal quality assurance system was used to ensure that the study met the required expectations and objectives. This review was done at different stages including the development of the inception note, the development of the data collection plan and the review of the draft report of findings. Feedback from the quality assurer was carefully considered and appropriate adjustments made.

1.6 Limitations of findings and challenges

Regulatory limitations: The regulatory and policy context regarding healthcare in the country is undergoing a period of restructuring with the establishment of new offices and procedures still taking place. This also means that standardization of requirements across the health sector is in most cases provisional with varying degrees of interpretation of requirements. It is important to understand that the information presented in this report should be viewed in this context and may vary depending on the circumstances at the time of the study, as well as the institutional setup.

As of November 2023, the regulation of medication is still considered provisional, and facilities are using an interim Essential Medicine List (2019) from the Federal Ministry of Health and Human Services in their operations. It is important to note that this list has not been made public yet. Thus, responses related to registration in section 2.2. should be understood as provisional rather than relating to a fully finalized and approved government registration process.

However, there have been some recent developments in the status of medication registration. An interim National Medicine Regulatory Authority (NMRA) has recently been established, and at the time of this report, it had received cabinet approval and was awaiting parliamentary review. This authority will oversee the inspection of medicines, manufacturers, regulation of expirations and medicine import licensing. The office has plans to undertake another round of medicine registration where an updated Essential Medicine List will be made available to partners and the wider public. However, it is unknown when this list will be finalized.

Data collection challenges: During our data collection process, the study faced various challenges in gaining access to the facilities. We had to seek permission from the relevant management authorities and, in some cases, the Ministry of Health. Access to government facilities posed a particular challenge due to strict protocol requirements and slow communication channels between the Ministry and the facilities. Additionally, staffing issues delayed the data collection process as it was difficult to find the right personnel to participate. Furthermore, heavy rains during the study period (October-November 2023) made it challenging to move around Mogadishu and restricted our access to certain areas. Nonetheless, the study managed to get on board the participation of the desired facilities with only two declining as mentioned earlier.

2 PRESENTATION OF FINDINGS

2.1 Availability and Accessibility of Medical Treatments

This section presents an overview of a range of treatment services across selected health facilities in Mogadishu. The main areas of enquiries were grouped into the following categories:

- ***Availability:*** Describes the extent of services offered; either i) full availability where all services are offered, ii) partial availability where only part of the service is offered at any given time and iii) no availability where the service is not offered at all.
- ***Outpatient (OP) and/or Inpatient (IP) Consultation Fees*:** Payments made towards a doctor's medical services (general practitioner or specialist), at either outpatient or inpatient treatment stages. All prices are listed in US Dollars ($).
- ***Treatment Fees:*** Refers to all other charges, aside from doctor fees, that are required during the treatment of a disease.
- ***Laboratory Test Fees:*** Payments made towards laboratory services.
- ***Registration and/or Admission Fees:*** Administrative charges required for one to be seen at outpatient departments and the latter goes towards bed charges when a patient has been admitted to an inpatient ward.

a) General diseases

Facility Name	Erdogan Hospital - Public Facility					Shaafi Hospital – Private Facility				
Type of Treatment	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration/Admission fees	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration/Admission fees
1. DIABETES TYPE I AND II										
1.1 Outpatient treatment and follow up by a general practitioner	Available	$7 - 10.3 (there are additional charges of $3.3 for patients requiring interdepartmental consultations)	$8-12 (Monotherapy treatment $8-$12 (Dual therapy)	$25 - $28 (creatinin, ureum, sodium, potassium levels, HbA1C, Urine analysis, Biochemistry panel)	No registration fees are charged at outpatient level	Available	$10	$15	$15	No registration fee for the outpatient services.

Facility Name	Erdogan Hospital - Public Facility					Shaafi Hospital – Private Facility				
Type of Treatment	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration/Admission fees	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration/Admission fees
1.2 Outpatient treatment and follow up by a specialist in diabetes (an endocrinologist)	Partially available (There is no endocrinologist available in Erdogan Hospital. Diabetes patients are treated by either a resident doctors or internal medicine specialists. There are also rare cases referred to endocrinologists who are available through telemedicine and these do not attract additional fees).	Same as above	Same as above	Same as above	No registration fees are charged at outpatient level	Not available	-	-	-	-
1.3 Inpatient treatment by a specialist in diabetes (an endocrinologist)	Partially available (There is no endocrinologist available in Erdogan Hospital. Diabetes patients are treated by either a resident doctors or internal medicine specialists. There are also rare cases referred to endocrinologists who are available through telemedicine and these do not attract additional fees).	The inpatient fee is $44 per night, which includes: a minimum of two daily visits from an internal medicine doctor, all lab tests as well as basic accessories such as cannula, urinary catheter, NG tube, and minor dressings. The ICU price is $11 per night and patients only pay for the medications.	Depends on the length of stay and complications associated with each case and price of medication which adds to the inpatient fee. It usually ranges between $400 to $500 per week above of inpatient fees.	If required, same as above	Admission price inclusive of the inpatient cost at $44 per night.	Not available	-	-	-	-
1.4 Medical devices internal medicine: insulin pump	Not available	-	-	-	-	Not available	-	-	-	-
1.5 Laboratory research of blood glucose (incl.: HbA1C/ glyc.Hb)	Available	-	-	$5	-	Available	$10	$15	$15	$20
1.6 Laboratory research of renal/ kidney function (creatinin, ureum, sodium, potassium levels)	Available	-	-	Between $0.5 - $1 all biochemistry analysis	-	Available	$10	$15	$15	$20
2. KIDNEY DISEASES, INCLUDING DIALYSIS										

Facility Name	Erdogan Hospital - Public Facility					Shaafi Hospital – Private Facility				
Type of Treatment	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration/Admission fees	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration/Admission fees
2.1 Outpatient treatment and follow up by a kidney specialist (a nephrologist)	Partially available (There is no nephrologist available in Erdogan Hospital. Other internal medicine specialists handle kidney disease patients. There are also few cases referred to endocrinologists available through telemedicine and these cases do not attract additional fees)	$7 - 10.3 (there is additional charges of $3.3 for patients requiring interdepartmental consultations)	$8 - $16 (depending on the patient comorbidities)	$25 - $28 (creatinin, ureum, sodium, potassium levels, HbA1C, Urine analysis, Biochemistry panel)	No fees are charged at outpatient level except for those admitted to the inpatient ward by the Doctor.	Available	$10	$35	$25	$45
2.2 Inpatient treatment by a kidney specialist (a nephrologist)	Partially available (There is no nephrologist available in Erdogan Hospital, either a resident doctor or other internal medicine specialist handle kidney patients. There are also rare cases referred to a nephrologist available through telemedicine and attracts no additional fees)	The inpatient cost is $44 per night, which includes a minimum of two daily visits from an internal medicine doctor, all lab tests as well as basic accessories such as cannula, urinary catheter, NG tube, and minor dressings. The ICU price is $110 and patients only pay for the medications.	Depends on the length of stay and complications associated with each case and price of medication which adds to the inpatient fee. It usually ranges between $400 to $500 per week inclusive of inpatient fees without counting dialysis fees.	_	$44 per night for patients admitted to the inpatient ward	Available	$10	$35	$25	$45
2.3 Laboratory research of renal/kidney function (creatinin, ureum, proteinuria, sodium, potassium levels)	Available	-	-	Between $0.5 - $1 all biochemistry analysis	-	Available	-	-	$25	-
2.4 Laboratory research of PTH, calcium, phosphate	Available	-	-	$5 PTH, same as electrolytes	-	Not available	-	-	-	-
2.5 Nephrology: chronic haemodialysis (3 times a week)	Available	$7 (only applicable if the last visit to the hospital was before 10 days)	$38.5 per session + haemodialysis catheter insertion $24 once only when patients are admitted first or upon replacement	Free once a month	$44 per night for patients admitted to the inpatient ward - none to the regular (OPD) dialysis visitors.	Available	-	$35 (per session)	-	$45 (first time patients pay this amount)
2.6 Nephrology: peritoneal dialysis/dialysis through the peritoneum	Not available	-	-	-	-	Not available	-	-	-	-

Facility Name	Erdogan Hospital - Public Facility					Shaafi Hospital – Private Facility				
Type of Treatment	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration/Admission fees	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration/Admission fees
2.7 Surgical placement of an arterial shunt for hemodialysis	Available	$120	It involves three days of inpatient recovery and attracts same fee of $44 per day.	-	The inpatient fee of $44 per night and $120 ICU cost for patients who have undergone an arterial shunt replacement.	Not available	-	-	-	-
3. CARDIAC COMPLICATIONS AND HYPERTENSION										
3.1 Outpatient treatment by an internal specialist (internist)	Available - only when patients are suffering from cardiac and non-cardiac diseases	$7 - 10.3 (there are additional charges of $3.3 for patients requiring interdepartmental consultations)	$3 - $37 (depending on type of imaging required - $3 ECG, $30 ECHO, $4 Chest Xray)	$28 - $35 (depending on comorbidities)	No registration fees are charged at outpatient level	Available	$10	$42	$28	$25
3.2 Inpatient treatment by an internal specialist (internist)	Available - only when patients are suffering from cardiac and non-cardiac diseases too.	The inpatient cost is $44 per night, which includes a minimum of two daily visits from an internal medicine doctor, all lab tests as well as basic accessories such as cannula, urinary catheter, NG tube, and minor dressings. The ICU price is $110 and patients only pay for the medications.	Depends on the length of stay and complications associated with each case and price of medication which adds to the inpatient fee. It usually ranges between $400 to $500 per week inclusive of inpatient fees.	-	$44 per night for patients admitted to the inpatient ward.	Available	$10	$71	$35	$25
3.3 Outpatient treatment by a heart specialist (a cardiologist)	Available	$7 - 10.3 (there are additional charges of $3.3 for patients requiring interdepartmental consultations . Charged mostly if the patient/case is more inclined to be treated by a cardiologist).	$3 - $37 (depending on type of imaging required - $3 ECG, $30 ECHO, $4 Chest Xray)	$28 - $35 (depending on comorbidities)	No registration fees are charged at outpatient level	Available	$10	$73	$37	$25
3.4 Inpatient treatment by a heart specialist (a cardiologist)	Available	The inpatient fee is $44 per night, which includes a minimum of two daily visits from a cardiologist,, all lab tests as well as basic accessories such as cannula, urinary catheter, NG tube, and minor dressings. The ICU price is	Depends on the length of stay and complications associated with each case and price of medication which adds to the inpatient fee. It usually ranges between $400 to $500 per week inclusive of inpatient fees.	-	The inpatient fee is $44 per night, which includes a minimum of two daily visits from an internal medicine doctor, all lab tests as well as basic accessories such as cannula, urinary catheter, NG tube, and minor dressings. The ICU price is	Available	$10	$120	$43	$25

Facility Name	Erdogan Hospital - Public Facility					Shaafi Hospital – Private Facility				
Type of Treatment	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration/Admission fees	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration/Admission fees
		$110 and patients only pay for the medications.			$110 and patients only pay for the medications.					
3.5 Diagnostic imaging by means of ECG (electro cardio gram; cardiology)	Available	-	$3	-	-	Available	$10	$5	-	-
3.6 Diagnostic imaging by means of ultrasound of the heart	Available (ECHO cardiography)	-	$30	-	-	Not available	-	-	-	-
4. CANCER (CHEMOTHERAPY)										
4.1 Outpatient treatment and follow up by a cancer specialist (an oncologist)	Not available	-	-	-	-	Not available	-	-	-	-
4.2 Inpatient treatment by a cancer specialist (an oncologist)	Not available	-	-	-	-	Not available	-	-	-	-
4.3 Laboratory research / monitoring of full blood count; e.g. Hb, WBC & platelets	Not available	-	-	$3 CBC (when available)	-	Not available	-	-	-	-
5. CHRONIC OBSTRUCTIVE LUNG DISEASE										
5.1 Outpatient treatment by a lung specialist (a pulmonologist)	Available	$7 - 10.3 (there are additional charges of $3.3 for patients requiring interdepartmental consultations)	$75 Bronchoscopy for biopsy & $50 if washout	-	No registration fees are charged at outpatient level	Not available	-	-	-	-
5.2 Inpatient treatment by a lung specialist (a pulmonologist)	Available	There are 3 pulomonogists at Erdogan. The inpatient cost is $44 per night, which includes a minimum of two daily visits from a pulmonologist, all lab tests as well as basic accessories such as cannula, urinary catheter, NG tube, and minor dressings. The ICU price is $110 and patients only pay for the medications.	Depends on the length of stay and complications associated with each case and price of medication which adds to the inpatient fee. It usually ranges between $400 to $500 per week inclusive of inpatient fees.	-	$44 per night for patients admitted to the inpatient ward.	Not available	-	-	-	-

Facility Name	Erdogan Hospital - Public Facility					Shaafi Hospital – Private Facility				
Type of Treatment	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration/Admission fees	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration/Admission fees
5.3 Medical devices pulmonology: spacer (with mask) for inhaler with asthma/KOL medication	Available	-	Free	Depends on initial investigation	-	Available	-	Patients buys the spacer for infants and children which costs $12	Depends on initial investigation	-
5.4 Medical devices pulmonology: nebulizer/equipment that turns liquid medicine into a mist	Available	-	Free	Depends on initial investigation	-	Available	-	Free and patient only buys the medication which costs $4	Depends on initial investigation	-
6. Pain relief										
6.1 Types of medication	Available (Examples: Paracetamol, NSAIDs, Tramadol, Morphine & Opiods)	-	-	-	-	Available	-	-	-	-
6.2 Options for administration (e.g., Injection, tabs, patches, epidural)	All available	-	-	-	-	Available	-	-	-	-

B) Psychotic and Non-Psychotic Disorders (Depression and PTSD)

Facility name	Erdogan Hospital - Public Facility					Shaafi Hospital – Private Facility					Forlanini Hospital – Public Mental Health Facility					Habeeb Hospital – Private Mental Health Facility				
Type of Treatment	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration /Admission fees	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration /Admission fees	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration/Admission fees	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration /Admission fees
1.1 Outpatient treatment possibilities by psychiatrist	Available (both specialist and resident Psychiatrist doctors are available)	$12	Depends whether the patient requires medicine or not.	Usually not required for psychotic and non-psychotic disorders, unless linked with	No registration fees are charged to outpatient	Available	$10	$15	$150	Outpatient	Available	None	None	$2	None	Available	$10	$20	$20-30	$10

Facility name	Erdogan Hospital - Public Facility					Shaafi Hospital – Private Facility					Forlanini Hospital – Public Mental Health Facility					Habeeb Hospital – Private Mental Health Facility				
Type of Treatment	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration /Admission fees	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration /Admission fees	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration/Admission fees	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration /Admission fees
				investigations for other diseases																
1.2 Inpatient treatment possibilities by psychiatrist	Not available (Erdogan Hospital does not provide inpatient psychiatrist treatment)	–	–	–	–	Not available	-	-	-	-	Available (but limited to male patients only due to the absence of a female inpatient wing)	-	-	-	-	Available	$10	$20	$20-30	$300-350
1.3 Outpatient treatment possibilities by psychologist	Partially available (Psychiatrist Doctors play the role of psychologist and counselling for patients)	$12	Depends whether the patient requires medicine or not	Usually not required	No registration fees are charged to outpatient	Not available	-	-	-	-	Available	None	None	None	None	Not available	-	-	-	-
1.4 Inpatient treatment possibilities by psychologist	Not available	–	–	–	–	Not available	-	-	-	-	Available	None	None	None	None	Not available	-	-	-	-
1.5 Inpatient treatment for women suffering from psychiatric disorders	Not available	–	–	–	–	Not available	-	-	-	-	Not Available	-	-	-	-	Available	$10	$20	$20-30	$200-350
1.6 Inpatient treatment, including compulsory or confined admission	Not available	–	–	–	–	Not available	-	-	-	-	Not Available	-	-	-	-	Available	$10	$20	$20-35	$300-350

Facility name	Erdogan Hospital - Public Facility					Shaafi Hospital – Private Facility					Forlanini Hospital – Public Mental Health Facility					Habeeb Hospital – Private Mental Health Facility				
Type of Treatment	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration /Admission fees	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration /Admission fees	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration/Admission fees	Availability	OP/IP consultation fees	Treatment fees	Lab test fees	Registration /Admission fees
1.7 Is there special housing (like protected apartments) for chronic psychotic patients with outpatient care?	Not available	–	–	–	–	Not available	-	-	-	-	Not Available	-	-	-	-	Not available	-	-	-	-
1.8 Psychiatric treatment: assisted living / care at home by psychiatric nurse	Not available	–	–	–	–	Not available	-	-	-	-	Not Available	-	-	-	-	Not available	-	-	-	-
1.9 Psychiatric long term clinical treatment (e.g. for chronic psychotic patients) by a psychiatrist	Not available (Erdogan Hospital does not provide inpatient psychiatrist treatment and refer such cases to other facilities if they require long term inpatient clinical treatment)	–	–	–	–	Not available	-	-	-	-	Available	None	None	$2	None	Available	$5	$20	$20-30	$300-350

2.2 Availability and Accessibility of Medications

This section presents an overview of the range of medications available across selected pharmacies. The main areas of enquiries have been grouped into the following categories:

- ***Registration:*** Whether the medication is licensed by government authorities or not, formally listed under an approved list of essential medicines. Currently, this list is interim (2019).
- ***Availability:*** Describes the extent of a drug's stock and supply either i) full availability of the medication, ii) partial availability where supply has been temporarily interrupted

and iii) no availability where supply has been interrupted for lengthy periods.

- ***Generic and Brand Names:*** Variations of available drugs as marketed by manufacturers. Generic drugs are in most cases cheaper than brand names.
- ***Dosage:*** Required average quantities per prescription.
- ***Form:*** Options available for the drug's administration.
- ***Number of units per container:*** Numeric quantities enclosed within a singular packaging.
- ***Price per container:*** Purchasing cost for each singular packaging.

Facility Name		Shifaa Pharmacy								Ramadan Pharmacy								Shaafi Pharmacy							
Type of Medication		Reg	Availability	Generic name	Brand name	Dosage	Form	# of units /container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of units / container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of unit/ container	Price /container
1. DIABETES TYPE I AND II																									
1.1 Insulin injections	Fast acting: Insulin aspart, Insulin glulisine, Insulin lispro, Insulin human	Yes	Available in one dosage form	Insulin aspart	Novorapid flexPen	3ml	Available in one dosage form	100	$6	Yes	Partly available; supply has been interrupted for 2 days	Insulin aspart/ Actrabid/Novo Rapid	NovoRapid flex pen	3ml	Injection	100	$6-7.5	Yes	Available	Insulin human / Insulin aspart/ Actrabid/Novo Rapid	Actorapid /Flexpen	10 ml	Injection in one dosage form	100	$7-10
	Intermediate-acting: Insulin isophane	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-

Facility Name		Shifaa Pharmacy								Ramadan Pharmacy								Shaafi Pharmacy							
Type of Medication		Reg	Availability	Generic name	Brand name	Dosage	Form	# of units /container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of units / container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of unit/ container	Price /container
	Long-acting: Insulin detemir, Insulin glargine, Insulin degludec	Yes	Available - stock is in stable supply	Insulin glarjin	Lantus solostar	3ml	Available in one dosage form	100	$6	Yes	Partly available; supply has been interrupted for 3-4 days	Insulin glargine is available	Lantus solostar	3ml/500mg	Injection/tablet	100/28	$8/$6	Yes	Partialy available - it is currently out of the market	Insulin	Mixtard	10 ml	Injection	100	$7
1.1 Oral hypoglycaemic agents/blood glucose lowering medication	Metformin	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	Yes	Available; stock in stable supply	Metformin	Metformin Hydrochloride/Pacific Pharma UK	500mg	Tablet	28	$3/$6	Yes	Available; stock in stable supply	Metformin	Metformin/Juformin	500 mg	Tablet	30	$6
	Gliclazide	Yes	Available - stock is in stable supply	Gliclizide	Gliclizide	60mg	Tablet	60	$3.6	Yes	Available; stock in stable supply	Gliclazide	Gliclazide	80mg/60mg/30mg	Tablet	50/60	$5/$12	Yes	Available; stock in stable supply	Gliclazide	Betanorm	60 mg	Tablet	60	$8
2. PSYCHOTIC DISORDERS AND NON-PSYCHOTIC DISORDERS (DEPRESSION AND PTSD)																									
2.1 Anti-psychotic medication	Olanzapine	Yes	Available - stock is in stable supply -	Olanzapine	Olaxinn	10mg/5mg	tablet only in two dosage forms	28	$4	Yes	Available; stock in stable supply	Olanzapine	olanzcon 5	10mg/5mg	Tablet	28	$3	Yes	Available; stock in stable supply	Olanzapine	Olanzcon 5	5mg	Tablet	28	$6
	Chlorpromazine	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	Yes	Available; stock in stable supply	Chlorpromazine	Chlorpromazine	100mg	Tablet in one dosage form	10	$10	No	Not available.	-	-	-	-	-	-
	Haloperidol	Yes	Available - stock is in	Haloperidol	Haloperidol	10mg/2ml 5 Amul.	Tablet only in two	50	$3.5	Yes	Available; stock in	Haloperidol	Norodol	5mg	Tablet in one	50	$15	Yes	Available; stock in	Haloperidol	Norodol	5mg	Injection	5	$10

Facility Name		Shifaa Pharmacy								Ramadan Pharmacy								Shaafi Pharmacy							
Type of Medication		Reg	Availability	Generic name	Brand name	Dosage	Form	# of units /container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of units / container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of unit/ container	Price /container
			stable supply -			5mg/50 ta	dosage forms				stable supply				dosage form				stable supply						
	Risperidone	Yes	Available - stock is in stable supply -	Risperidon	Ricus	2mg	Tablet only in one dosage forms	20	$3	Yes	Available; stock in stable supply	Risperidone	Ricus	1mg	Tablet in one dosage form	20	$4	No	Not available.	-	-	-	-	-	-
	Clozapine	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	Yes	Available; stock in stable supply	Klozapin	Clonex	25mg	Tablet in one dosage form	50	$12	Yes	Available ; stock in stable supply	Klozapin	Clonex	25 mg	Tablet in one dosage form	50	$12
	Aripiprazole depot injection	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	No	Not available.	-	-	-	-	-	-
	Chlorprothixene	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	No	Not available.	-	-	-	-	-	-

Facility Name		Shifaa Pharmacy								Ramadan Pharmacy								Shaafi Pharmacy							
Type of Medication		Reg	Availability	Generic name	Brand name	Dosage	Form	# of units /container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of units / container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of unit/ container	Price /container
	Quetiapin	Yes	Available - stock is in stable supply -	Quetiapine	Quetiapine	100mg/30 tab. 10mg/28	Tablet only in two dosage forms	30	$4	Yes	Available; stock in stable supply	Quetiapin	Gyrex	100mg/25mg/50mg	Tablet	30	$5	Yes	Available; stock in stable supply	Quetiapin	Ketiapin	25 mg	Tablet	30	$4.5
	Pregabalin	Yes	Available - stock is in stable supply -	Pregabalin	Neurega	75mg	Capsule only in two dosage forms	65	$6	Yes	Available; stock in stable supply	Pregabalin	Gaba-p	75mg	Capsule	10	$4	Yes	Available; stock in stable supply	Pregabalin	Neurega 75	75 mg	Capsule	5	$4
	Gabapentin	Yes	Available - stock is in stable supply -	Gabapentin	Gabaset	300mg/50 capsule	Capsule only in one dosage forms	50	$7	Yes	Available; stock in stable supply	Gabapentin	Sanigab	300mg	Capsule	10	$5	Yes	Available; stock in stable supply	Gabapentin	Sangbatin	300 mg	Tablet	30	$9
2.2 Antidepressant medication	Amitriptyline	Yes	Available - stock is in stable supply -	Amitriptyline	Laroxyl	10mg/30 TAB. 25mg/50	Tablet only in two dosage forms	50	$3.5	Yes	Available; stock in stable supply	Amitriptyline	Amitriptyline	10mg/25mg	Tablet	28	$3	Yes	Available; stock in stable supply	Amitriptyline	Amitriptyline	10 mg	Tablet	28	$4
	Sertraline	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	Yes	Available; stock in stable supply	Sertraline	Sertraline	50mg	Tablet	28	$5	Yes	Available; stock in stable supply	Sertraline	Misol	50 mg	Tablet	28	$6
2.3 Post-traumatic stress disorder (PTSD)/sedative medication	Diazepam	No	Not available. Ordering from abroad or from another pharmacy is	-	-	-	-	-	-	Yes	Available; stock in stable supply	Diazepam	Cozepam	5mg	Tablet in one dosage form	100	$10	Yes	Available; stock in stable supply	Diazepam	Neuril	10 mg/2ml	Injection	5	$1

Facility Name		Shifaa Pharmacy								Ramadan Pharmacy								Shaafi Pharmacy							
Type of Medication		Reg	Availability	Generic name	Brand name	Dosage	Form	# of units /container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of units / container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of unit/ container	Price /container
			completely not possible																						
	Lorazepam	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	Yes	Available; stock in stable supply	Lorazepam	Lorans	2mg	Tablet in one dosage form	50	$7.5	Yes	Available; stock in stable supply	Lorazepam	Lorans	1mg	Tablet in one dosage form	50	$10
2.4 Medicines for pain management	Ibuprofen	Yes	Available - stock is in stable supply -	Ibuprofen	Profinal/ Suprafen /Apireks	600mg/400 mg/400mg/100mg bottles	3 dosage tablets and 1 syrup	24	$1.5	Yes	Available; stock in stable supply	Ibuprofen	Ibucron-400/	400mg for tablet and 200mg/5ml syrup	Tablet and syrup	10 tablets	$2	Yes	Available; stock in stable supply	Ibuprofen	Pedifen	400 mg for tablet and 200 mg/ 5ml syrup	Tablet and syrup	30 tablets	$3
	Paracetamol	yes	Available - stock is in stable supply -	Paracetamol	Adol suppositories /paroltablets/minamolplus syrup/adol suspension /adol infant drops	250mg for suppositories. 500mg for tablets 100ml for inantii drops. /100ml for suspension	Different dosage forms	30	$1.6	Yes	Available; stock in stable supply	Paracetamol	Paracetamol	500mg BP and	Tablet and syrup	100 tablets	$4	Yes	Available; stock in stable supply	Paracetamol	Parol	500 mg	Tablet and syrup	30 tablets	$1.5

Facility Name		Shifaa Pharmacy								Ramadan Pharmacy								Shaafi Pharmacy							
Type of Medication		Reg	Availability	Generic name	Brand name	Dosage	Form	# of units /container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of units / container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of unit/ container	Price /container
	Morphine	No	-	-	-	-	-	-	-	yes	Available; stock in stable supply	Morphine Sulfate	Morphine Sulfas	100mg/ml	Injection	10	$40	yes	Available; stock in stable supply	Morphine Sulfate	Morphine Sulfas	100 mg/ml	Injection	10	$30
3. CARDIAC COMPLICATIONS/HEART FAILURE AND HYPERTENSION/HIGH BLOOD PRESSURE																									
3.1 Cardiac complications/heart failure	Digoxin	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	Yes	Available; stock in stable supply	Digoxin	Cardixin/ Alexander	0.25mg/6.25 mg	Tablet in one dosage form	40	$5/ $4	Yes	Available; stock in stable supply	Digoxin	Digoxin	250 mg	Tablet in one dosage form	28	$14
	Furosemide	Yes	Available - stock is in stable supply	Furosemide	Desal	40mg	Tablet only in one dosage forms	50	$1.5	Yes	Available; stock in stable supply	Furosemide	Furosemide/Crescent	20mg/ 40mg	Tablet in two dosage forms	28	$3/ $3.5	Yes	Available; stock in stable supply	Furosemide	Furosemide/Desal	20 mg/ 40 mg	Tablet	28/50	$3/ 12
	Spironolactone	Yes	Available - stock is in stable supply	Spironolactone	Aldactone	100mg	Tablet only in one dosage forms	16	$2.6	Yes	Available; stock in stable supply	Spironolactone	Spironolactone/Aris Ali	50mg/ 100mg	Tablet in two dosage forms	28/20	$4.5/$6	Yes	Available; stock in stable supply	Spironolactone	Aldactone	25 mg	Tablet in one dosage form	20	$10
3.2 Antithrombotic medicines/ blood thinning medicine	Acetylsalicylic acid	Yes	Available - stock is in stable supply	Acetylsalicylic acid	Aspirin	74mg	Tablet only in one dosage forms	56	$5	Yes	Available; stock in stable supply	Acetylsalicylic acid	Aspirin/Accord	75mg/ 81mg	Tablet in one dosage form	28	$3	Yes	Available; stock in stable supply	Acetylsalicylic acid	Aspirin	75 mg	Tablet in one dosage form	56	$5
	Clopidogrel	No	Not available. Ordering from abroad or from another pharmacy is	-	-	-	-	-	-	Yes	Available; stock in stable supply	Clopidogrel	Clopidogrel/Torrent Pharma	75mg	Tablet in one dosage form	28	$4.5/$4	Yes	Available; stock in stable supply	Clopidogrel	Aurobindo	75 mg	Tablet in one dosage form	28	$7

Facility Name		Shifaa Pharmacy								Ramadan Pharmacy								Shaafi Pharmacy							
Type of Medication		Reg	Availability	Generic name	Brand name	Dosage	Form	# of units /container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of units / container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of unit/ container	Price /container
			completely not possible																						
	Warfarin	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	2	$3	Yes	Available; stock in stable supply	Warfarin	Warfarin/ Sanofi	3mg	Tablet in one dosage form	28	$5/ $7	No	Not available.	-	-	-	-	-	-
3.3 Anti-hypertensive medication /medication for lowering high blood pressure	Amlodipine	Yes	Available - stock is in stable supply	Amlodipine	Norvasc	5mg	Tablet only in one dosage forms	30	$2.8	yes	Available; stock in stable supply	Amlodipine	Amlodipine/Calendar Park	5mg	Tablet in one dosage form	20/30	$3	yes	Available; stock in stable supply	Amlodipine	Amlodipine/Amitriptyline	5mg	Tablet in one dosage form	28	$5/ $6
	Bisoprolol	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	Yes	Available; stock in stable supply	Bisoprolol	Bisoprolol/Daiichi Saknyo	10mg	Tablet in one dosage form	30	$5/ $6	Yes	Available; stock in stable supply	Bisoprolol Fumarate	Bisoprolol/Novartis Company	2.5 mg	Tablet in one dosage form	28	$7
	Enalapril	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	Yes	Available; stock in stable supply	Enalapril	Enalapril/ Medopharma	5mg	Tablet in one dosage form	20/100	$5/ $10	Yes	Available; stock in stable supply	Enalapril Maleate	Enalapril/ Rudhipharm	5mg	Tablet in one dosage form	28	$7/ $4

Facility Name		Shifaa Pharmacy								Ramadan Pharmacy								Shaafi Pharmacy							
Type of Medication		Reg	Availability	Generic name	Brand name	Dosage	Form	# of units /container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of units / container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of unit/ container	Price /container
	Losartan	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	Yes	Available; stock in stable supply	Losartan	Losartan/ Relon Chem	50mg	Tablet in one dosage form	28	$3/ $4	Yes	Available; stock in stable supply	Losartan	Losartan/ Glenmark	50 mg	Tablet in one dosage form	28	$7
3.4 Lipid-lowering medicine/cholesterol lowering medicine	Simvastatin	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	Yes	Available; stock in stable supply	Simvastatin	Simvastatin/Sandoz	20mg	Tablet in one dosage form	28	$3	Yes	Available; stock in stable supply	Simvastatin	Coasting L	20 mg	Tablet in one dosage form	28	$9
4. KIDNEY DISEASES, INCLUDING DIALYSIS																									
4.1 Medicine for dialysis	Intraperitoneal dialysis solution	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-
5. CANCER																									

Facility Name		Shifaa Pharmacy								Ramadan Pharmacy								Shaafi Pharmacy							
Type of Medication		Reg	Availability	Generic name	Brand name	Dosage	Form	# of units /container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of units / container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of unit/ container	Price /container
Cancer	Chemotherapy medications	No	Not available. Ordering from abroad or from another pharmacy is completely not possible	-	-	-	-	-	-	Yes	Partly available; supply has been interrupted for 2 months	Two forms available; capecitabine and sorafenib	Capegard tablet and Sorsnib tablet	500mg/200mg	Tablet	30	$35.25	No	Not available.	-	-	-	-	-	-
	Immunotherapy	-	Not available.	-	-	-	-	-	-	-	Not available.	-	-	-	-	-	-	-	Not available.	-	-	-	-	-	-
6. CHRONIC OBSTRUCTIVE LUNG DISEASE																									
Medicine for inhalation	Formoterol	Yes	Available - stock is in stable supply; available as a combination with budesonide	Formoterol	Formoterol	160/4.5mg	Other	1	$8	Yes	Available; stock in stable supply	Available in mixed form formetrol and budesonide	Budased inhaler	40mg/200mg	Capsule/inhaler	60/1	$12/$15	Yes	Available; stock in stable supply	Formetrol	Foster	100 mg	Tablet	28	$16
	Budesonide	Yes	Available - stock is in stable supply - available as combination with formetrol fumarate	Budesonide	Budesonide	12/400mg	Other	1	$8	Yes	Available; stock in stable supply	Available in mixed form formetrol and budesonide	Budased inhaler	40mg/200mg	Capsule/inhaler	60/1	$12/$15	No	Not available.	-	-	-	-	-	-
	Fluticasone propionate	Yes	Available - stock is in stable supply	Flutikazon propiyonat	Seretide	250mcg+50mc	Available as inhaler	60	$15	Yes	Available; stock in stable supply	Available in one form; Propionate	Flixotide/ GSK	50mg	Inhaler	1	$10-12	Yes	Available; stock in stable supply	Available in one form; Propionate	Dalman nasal spray	50 mg/10 mg	Other	120	$7

Facility Name		Shifaa Pharmacy								Ramadan Pharmacy								Shaafi Pharmacy							
Type of Medication		Reg	Availability	Generic name	Brand name	Dosage	Form	# of units /container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of units / container	Price /container	Reg	Availability	Generic name	Brand name	Dosage	Form	# of unit/ container	Price /container
Tablets	Prednisolone	Yes	Available - stock is in stable supply	Prednisolone	GuPisone tablet / Xilone syrup	5mg /5mg	Tablets and syrup	20	$1.4	Yes	Available; stock in stable supply	Prednisolone	Prednisolone/Strides Pharma	5mg	Tablet in one dosage form	20/28	$3	Yes	Available; stock in stable supply	Prednisolone	Gupisone	5mg	Tablet in one dosage form	20	$4-6
Storage facilities																									
How is medication stored?		Refrigerators and shelves								Refrigerators and shelves								Refrigerators and shelves							
Describe the key features (eg. electricity, refrigerators, etc)										Some drugs stored in refrigerators and some other drugs stored in normal room temperature; Electricity, AC, fridge are all available in this pharmacy								Some drugs stored in refrigerators and some other drugs stored in normal room temperature; Electricity, AC, fridge are all available in this pharmacy							